

CROSSING THE DIVIDE:

WHAT WE LEARNED FROM A DISCONNECTED NEIGHBORHOOD



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Published by aSTEAM Village, the Community Affairs Department of the Federal Reserve Bank of Kansas City, and the Wendell Phillips Downtown East Neighborhood Association.

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CROSSING THE DIVIDE: WHAT WE LEARNED FROM A DISCONNECTED NEIGHBORHOOD

It's easy to make assumptions about why people do what they do. Let's look, for example, at neighborhoods where people could subscribe to broadband but don't. They know that access to the internet is essential to survival, and that without it they lack access to health care, jobs, and government services. On the surface, foregoing those benefits makes little sense. It is possible people don't subscribe because it's too expensive. Or it may be, given that Federal Communications Commission (FCC) maps are known to [overstate broadband coverage](#)¹, that they don't have access to broadband at all. We decided to check our assumptions and engage one unsubscribed neighborhood in meaningful conversation.

In 2022, three partners – a neighborhood association, a nonprofit, and a Federal Reserve Bank – conducted an intensive community engagement session with people in just that kind of community, an urban neighborhood in Kansas City, Missouri. We spent an evening getting neighbors' thoughts on key aspects related to their connection to the internet. And we put what we learned into the context of the system that determines whether and where broadband is available.

Our findings will support state broadband and digital equity offices as they craft their plans to reach disconnected communities in their own states. It will also be useful to communities seeking to ensure their populations have affordable, reliable broadband, along with the skills, confidence and devices to utilize it. The findings from this project also will help inform policymakers so broadband infrastructure and digital skills training funds can be spent on the most effective interventions.

OUR RESEARCH IDENTIFIED THREE MAIN THEMES:

- Historical and continuing disinvestment: Being an historically redlined and disinvested neighborhood comes with ongoing challenges.
- Trust: Few residents trust internet service providers (ISPs) to serve their best interests.
- Community empowerment: Residents want to better understand technology.

We provide broad conclusions, based on what we heard from residents themselves, to address each theme.

WHY DID WE CHOOSE TO ENGAGE THE NEIGHBORHOOD NOW?

Over the next several years, states and U.S. territories will receive tens of billions of dollars to expand broadband access. Additional funding will help ensure that broadband is affordable, and that people have the skills and devices needed to utilize it. This once-in-a-lifetime infusion provides an opportunity to connect millions to high-speed, affordable broadband. To get a sense of what that might mean for Missouri, the Federal Reserve Bank of Kansas City used FCC internet service maps and Census data, to [map where in Missouri](#)² broadband is unavailable as well as where broadband is available but where relatively few households have subscribed.

The FCC maps are important as they determine what areas are eligible for federal funding to expand broadband service. Generally speaking, federal funding is prioritized for areas that currently lack at least one ISP offering internet rated as “high speed.” High speed internet, defined as internet download speeds of at least 25 megabits per second (Mbps) and upload speeds of at least 3 Mbps, is called broadband. The intent is to ensure that as many households as possible have at least one broadband provider and to prevent what the ISP industry refers to as “overbuild,” defined as a geographic area where federal funding has supported choice in internet options.

The FCC largely relies on information provided by ISPs to create its maps. By default, if an ISP says they offer broadband-speed internet to at least part of an area, the FCC shows that area as “served” on the broadband maps. This typically means another ISP will be unlikely to receive federal funding to expand broadband service into the area, and an existing ISP offering service in that area is much less likely to face competition for customers. This results in communities that have at least one broadband provider, or possibly lack broadband completely, being unlikely to qualify for federal broadband funding.

Historically speaking, ISPs receiving federal funds to expand broadband access only needed to meet a speed requirement. Affordability and reliability were not considerations.

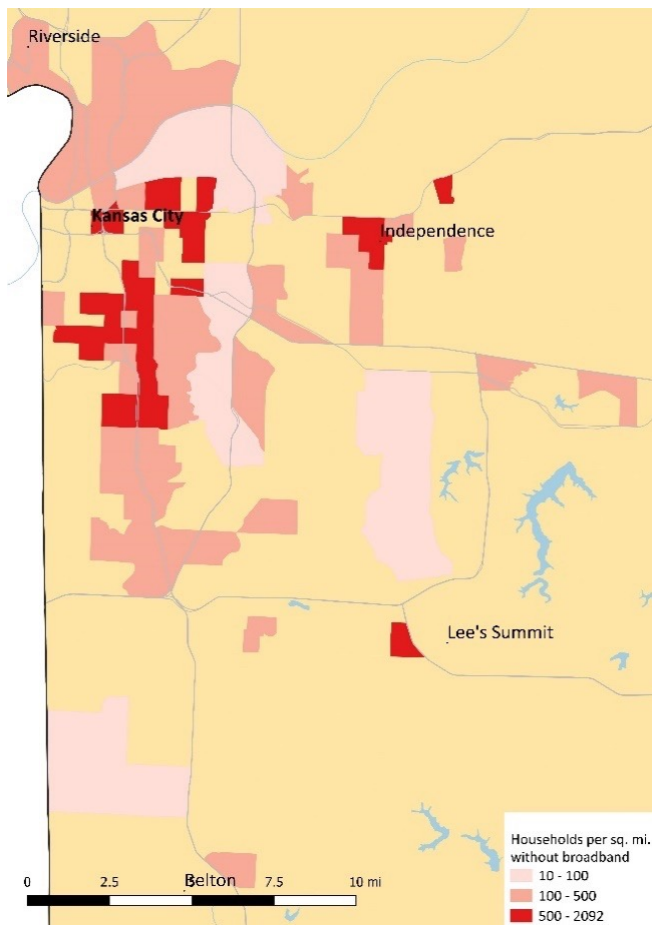
In 2022, aware of the broadband mapping challenges, the FCC launched a [new broadband mapping initiative](#).³ The new maps have fewer inaccuracies, though are still not perfect.

This uncertainty as to where broadband exists complicates efforts to ensure everyone subscribes to it. Do residents who don't subscribe to broadband choose not to because they don't want it, can't afford it, or because it's not actually there? Are there other factors at play? Answering these questions can determine the best course of action.

The Federal Reserve Bank of Kansas City, which has focused on digital inclusion, decided to seek answers by engaging the community directly. The first and most important task was to find an unsubscribed community that was willing to seek those answers with us.

To help identify an area for research, we first combined Census data for Missouri with the FCC maps to identify geographies where, in theory, large numbers of households could subscribe to broadband but chose not to subscribe.

In metro Kansas City, Missouri, we find low broadband subscription rates in some low-income urban areas as well as spots in suburban communities. Red clusters on the map below are areas where FCC maps show large numbers of households who have broadband available to them but do not have broadband subscriptions.

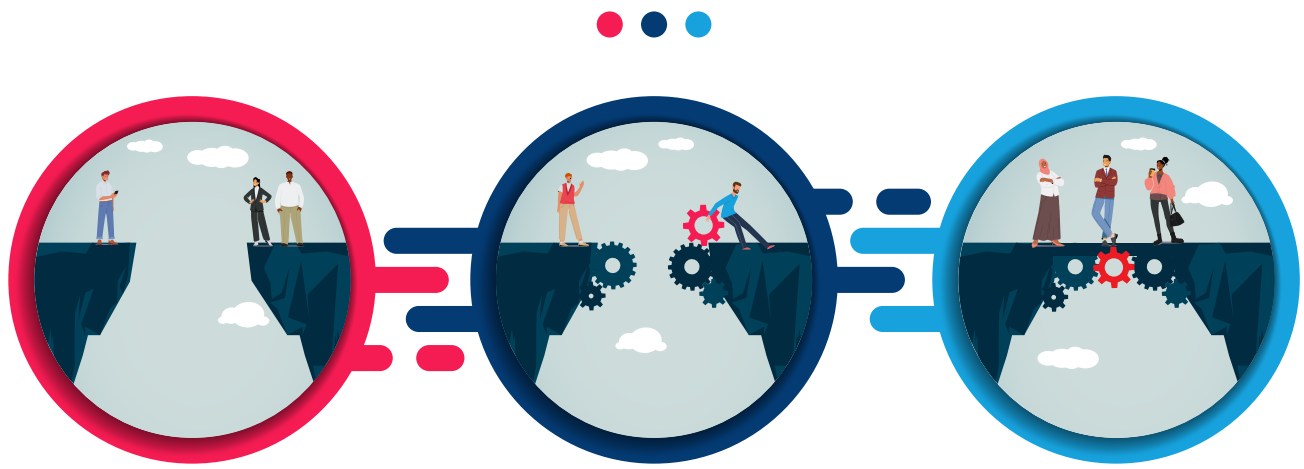


Map of Kansas City, Missouri, and surrounding communities. Most [households without broadband subscriptions](#)⁴ live in the central city, but some suburban areas also have clusters of households without broadband subscriptions.

Jeremy Hegle, assistant vice president and community affairs officer with the Kansas City Fed, reached out to William Wells, executive director of aSTEAM Village, a nonprofit located in a neighborhood with low broadband subscriptions. Wells was interested in a joint research project, and he engaged John James, president of the Wendell Phillips Downtown East Neighborhood Association as another partner. Hegle then reached out to Wendy Pearson, strategic initiatives manager for the Kansas City Public Library, who also joined the planning team.

ALL PLANNING TEAM MEMBERS WERE DEEPLY COMMITTED TO PROMOTING DIGITAL EQUITY:

Digital equity means affordable access to (i) reliable high-speed internet service, (ii) devices well-suited to utilizing such internet service, and (iii) education and training to adopt and make use of such service in order to have what the National Digital Inclusion Alliance has described as a “condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy” and said ‘is necessary for civic and cultural participation, employment, lifelong learning and access to essential services.” Digital equity is also necessary in pursuit of entrepreneurship, economic mobility and healthcare. (University of Missouri-Kansas City Digital Equity Working Group)



DIGITAL DIVIDE

This is the problem to be solved. It's the gap between those who do and do not have high speed home internet that's reliable and affordable, along with the skills and tools to effectively utilize it.

DIGITAL INCLUSION

These are the actions and efforts to bridge the digital divide.

DIGITAL EQUITY

This is the goal, this is where we want to be—where everyone has the technology, access and skills needed to fully participate in our modern economy and society.

HOW DID THE PARTNERS ENGAGE NEIGHBORHOOD RESIDENTS?

Researchers often study historically disinvested communities or others that are lower-income or marginalized as they seek to understand the impacts of redlining or income inequality. Residents of these communities have said it can feel as if researchers parachute in, extract data, and leave the community no better off. [Community-engaged research](#)⁵, also called participatory research, was developed specifically to share power and conduct research with communities as partners.

With community-engaged research, community members are partners in shaping the research, from the questions asked to the event location and process to interpreting the results. Because they have been involved in shaping the research, communities have had the chance to decide what they want to learn and to wrestle with the findings. The process of engagement brings people together in conversation to shape a vision for impact together.

The most common definition of community-engaged research comes from the W.K. Kellogg Foundation's Community Health Scholar's Program, which defines it as "a collaborative process that equitably involves all partners in the research process and recognizes the unique strengths that each brings."⁶ Community-engaged research exists on a continuum ranging from some community involvement to extensive community involvement. It often includes compensation for partners and participants, in recognition of their time and expertise.

Community-engaged research can be structured in many ways. For this project, the partners on the broadband planning team selected a process known as a data walk. The broadband data walk was one of several pilot projects across the Federal Reserve System in 2022 designed to help Reserve Banks incorporate community-engaged research. The project teams worked with the Urban Institute, which provided technical support.

WHAT IS A DATA WALK AND WHAT BENEFITS DOES IT OFFER?

The [Urban Institute](#)⁷ designed the data walk process to be an interactive tool for engaging communities as research partners. The tool allows all parties in the process to jointly review data about the community. The participants rotate through stations, reflect in small groups, and use their individual expertise to inform policies, programs and other drivers of community change.

A [data walk](#)⁸ focuses solely on data sharing as the platform for collaboration. A data walk has these objectives:

- To share key data and findings with community residents and program participants.
- To ensure a more robust analysis and understanding of the data.
- To help inform better programming and policies to address both the strengths and the needs of a particular community or population.
- To inspire individual and collective action among community agents.

WHAT DID THE KANSAS CITY DATA WALK INCLUDE?

Twenty-eight residents showed up at aSTEAM Village the evening of October 27, 2022. All the participants were Black, reflecting the racial make-up of the neighborhood, which is about 85% Black. In terms of age, the planning team had hoped to hear from a mix, recognizing that older residents were least likely to have digital skills. About 10% of participants were 15-25, about 30% were ages 26-55, and the remainder were 56+, with some participants in their 80s.

After a dinner buffet, the group gathered in the outdoor courtyard. Participants heard from the event partners about what to expect, why their work that evening was important, and group norms that would guide the conversation. Because the topic of broadband would have been unfamiliar and overly technical, the partners had billed the evening as a chance to discuss improving the community. It was at this point that participants learned that they would be discussing broadband.

Then the large group divided into small groups of five or six. Each small group had one facilitator and one notetaker who stayed with them throughout the evening. Each small group started in a different room, with a different set of data and discussion questions on the wall. The complete data sets are available in Appendix B. Here is a quick summary of data shared with participants:

- A map showing where in Kansas City, Missouri, broadband subscription rates are low.
- The three main reasons people say they don't subscribe to broadband: lack of availability, affordability and skills.
- Charts showing the retail and discounted pricing levels for internet plans available in their ZIP code, 64108.
- A comparative analysis showing household income, unemployment, education and internet connectivity for the Wendell Phillips neighborhood and two adjacent neighborhoods.
- The three most urgent needs people say drove them to adopt broadband: access to employment, education and government services.



John James, president, Wendell Phillips Downtown East Neighborhood Association, welcomes neighbors to the broadband data walk.



Jared Swinton, student at Belton High School, asks for comments on a map comparing Wendell Phillips with nearby neighborhoods.

Over the course of the evening, the small groups rotated through five rooms, spending about ten minutes in discussion in each room. After each group rotated through all five rooms, everyone gathered together to reflect on the evening. They posted ideas for solutions. Then they listened as facilitators reported the high-level findings from each group.

After the data walk, the planning team reconvened to make sense of the results. The team distilled hundreds of comments into a smaller number of themes that could be grouped into an even smaller number of buckets. After that, each planning team member coded each comment, deciding into which bucket or buckets that comment belonged.

Steven Howland, Kansas City Fed associate economist, analyzed the data walk results using the coded responses. The analysis included throughlines – elements and ideas that showed up as people discussed each data set – as well as supporting research that helped to explain why people said what they did. Planning team members reviewed and revised the analysis.

WHAT MADE THIS PARTNERSHIP EFFECTIVE?

Each member of the planning team was essential to the success of the data walk event, and each brought vital expertise, networks and resources. For example, the neighborhood association crafted the message and recruited participants, the nonprofit provided the venue and young adults to serve as facilitators, and the Kansas City Fed provided project direction and funding, which included compensation for the nonprofit, neighborhood association, recruiters and facilitators, as well as \$75 gift cards for participants.

THE NEIGHBORHOOD: WENDELL PHILLIPS DOWNTOWN EAST NEIGHBORHOOD ASSOCIATION

The Wendell Phillips Downtown East Neighborhood is among the most historic and storied of any neighborhood in Kansas City. Within its boundaries lies the 18th & Vine Historic District, where Kansas City Jazz was born.

During segregation, Jim Crow laws forced Black residents into Black neighborhoods, which were often thriving areas with a mix of incomes and institutions. The Wendell Phillips neighborhood had a hospital, schools, businesses and clubs. According to a [history of the neighborhood](#),⁹ “Changes in economic investment occurred when integration drew business interests and families out of this previously bounded Black economic footprint, and other changes occurred when land and family homes were condemned in the name of progress for transportation infrastructure. Each displacement and demolition caused disinvestment, destabilization, disconnection, and distrust.”

To counter the decades of disinvestment and destabilization in the neighborhood, in 2019 the Wendell Phillips Downtown East Neighborhood Association joined with the [Urban Neighborhood Initiative \(UNI-KC\)](#)¹⁰ and the [Hoxie Collective](#)¹¹ to create a development vision and strategy for the neighborhood. During the comprehensive planning and engagement process, neighborhood residents and stakeholders identified specific strategies to achieve their vision and found common interests with new partners. This process put the residents’ visions up front to regain agency in how development takes place in their neighborhood.

Central to its vision is the idea that “the people of this place must be put first.” The neighborhood vision is that “Wendell Phillips is a community that celebrates and strengthens our culture and heritage, while stimulating an environment of innovation and self-sufficiency. While we teach our history, we are adapting to produce a new model of rebuilding and reconciliation, based in the love of our place and people. We are equipped to support our existing residents and embrace new residents in a safe, intentional, sustainable community.”

The Wendell Phillips neighborhood’s priorities are focused on:

- [Emphasizing history, arts, and culture](#)
- [Growing a mixed-income neighborhood with affordable quality housing in perpetuity](#)
- [Effective, consistent, empowering communication](#)
- [Partnerships with neighbors, businesses, and surrounding neighborhoods.](#)
- [Activating youth](#)
- [Increasing financial literacy](#)

The plan paves the way to informed and empowered relationships between new collaborators and the neighborhood by defining the need, a step-by-step guide to the collaborative process, and the desired outcomes.

THE NONPROFIT: aSTEAM VILLAGE

Located within the Wendell Phillips neighborhood, [aSTEAM Village](#)¹² is a not-for-profit organization that focuses on engaging students, families, and educators in science, technology, engineering, arts, and math (STEAM). The [organization's vision](#)¹³ is that the best way to prepare students for success in the 21st century economy is to use innovative programs and community-based project learning to inspire students to take STEAM pathways to meet their educational and career goals. aSTEAM Village offers supplementary education and training services to students from some of the poorest areas in the Kansas City region.

aSTEAM Village goes beyond educational classes to give students hands-on experience learning how internet networks are built and function. aSTEAM Village has its own fiber-based network that provides ISP services not only to its own educational campus but also to other community organizations in the area. The students participate in building the network and running its day-to-day operation.



William Wells, executive director of aSTEAM Village, explains the topic the group will discuss.

The City of Kansas City, Missouri, recently launched a new digital equity initiative known as Digital KC NOW. aSTEAM Village leads the initiative in collaboration with Lincoln University, the University of Missouri-Kansas City and AT&T. The goal is to bring equitable internet access and technology-focused education to Kansas City neighborhoods that need better internet connectivity and practical guidance on how to make better use of those resources. It is currently in a pilot stage with Kansas City's Third City Council District as the pilot geography.

To achieve this goal, aSTEAM Village hires, trains and mentors a youth workforce from inner-city neighborhoods to put Digital KC NOW into action. Digital KC NOW is expected to directly connect businesses and residents to the internet at broadband speeds to enhance personal, social, and economic development. This network will use a fiber backbone and fixed access wireless service to individual households.

More importantly, however, is that the internet access and support services provided will be community defined and focused. aSTEAM Village plans extensive outreach efforts to identify community-based projects that can connect, train and empower individuals. The emphasis will be on finding ways to not only provide high quality internet services but to do it in a way that keeps resources within the community.

aSTEAM Village offices in Kansas City, Missouri, and Kansas City, Kansas, are two of 100 EnVision Centers operating under the auspices of the U.S. Department of Housing and Urban Development (HUD). HUD created EnVision Centers to empower individuals to become responsible renters and homeowners by providing the tools needed to succeed. The vision is to empower households to self-sufficiency. The mission is to provide communities with centralized hubs for support in the following four pillars:

- [Economic empowerment](#)
- [Educational advancement](#)
- [Health and wellness](#)
- [Character and leadership](#)

EnVision Centers nationwide have adopted Virtual Community Action Planning (VCAP) to organize a whole-community approach to systemic change in census tracts with persistent poverty. VCAP applies advanced technology tools at the neighborhood level. The VCAP curriculum was developed with UCLA's Continuing Professional Development as part of their program in architecture. aSTEAM Village has tested the technology for seven years. Its work is expected to allow national initiatives, such as Justice 40, to be vetted at the community level.

THE FEDERAL RESERVE BANK: THE KANSAS CITY FED

Most people know the Federal Reserve System for its role in conducting monetary policy. But the Federal Reserve System also works directly in communities. At each of the 12 Federal Reserve Banks and the Board of Governors, [community development professionals](#)¹⁴ use applied research, public programs, outreach and technical assistance to help promote economic growth and financial stability in low- and moderate-income (LMI) communities.

Congress passed the [Community Reinvestment Act](#)¹⁵ (CRA) in 1977 in response to redlining, the discriminatory pattern of denying credit based solely on the ethnic or racial composition of certain neighborhoods or communities, despite residents being creditworthy borrowers. The CRA made redlining illegal. But for decades prior to CRA's passage, [redlining was a practice explicitly encouraged by federal policy](#).¹⁶ This led to measurable disparities in economic outcomes for residents of redlined neighborhoods, disparities that persist to this day. Reserve Banks launched their community development programs soon after Congress passed the CRA to help financial institutions fulfill their responsibilities under the Act.

Jeremy Hegle, assistant vice president and community affairs officer for the Kansas City Fed, facilitates a discussion among his small group.



The community development team promotes economic development and public understanding that leads to progress for lower-income individuals and communities. The team consults with a [Community Development Advisory Council](#)¹⁷ composed of business, financial institution, university and nonprofit leaders who serve LMI populations.

Kansas City Fed 2023 community development focus areas include digital inclusion, along with small business, workforce development, and community development investments.

Its [digital inclusion](#)¹⁸ work began with a qualitative research project in 2017, which asked 160-plus community development practitioners these three questions:

1. What does the digital divide look like to the communities you serve?
2. What innovative digital inclusion programs do you admire?
3. What do you wish the broader community knew about the digital divide?

What we learned formed the foundation of a layperson's guide, [Disconnected: Seven lessons on fixing the digital divide](#).¹⁹

Today, the Kansas City Fed's digital inclusion efforts focus on expanding access to affordable devices, informing policymakers and funders about the digital divide, and expanding awareness of existing research and advancing new research on the digital divide.

DATA WALK REVEALED THREE CORE THEMES: HISTORICAL DISINVESTMENT, TRUST, AND COMMUNITY EMPOWERMENT

We identified three core themes to understanding broadband internet access in the Wendell Phillips neighborhood:

- **Historical and continuing disinvestment:** Being an historically redlined and disinvested neighborhood comes with ongoing challenges.
- **Trust:** Few residents trust internet service providers (ISPs) to serve their best interests.
- **Community empowerment:** Residents want to better understand technology.

HISTORICAL AND CONTINUING DISINVESTMENT: DISCRIMINATION, SEGREGATION, AND RESILIENCY

Historically low-income neighborhoods have faced a lack of investment and ongoing difficulties to fully participate in the economy. However, low-income Black neighborhoods have faced additional challenges due to persistent discrimination. When controlling for class, Black populations have had much higher exposure to historic and current discriminatory treatment than white populations or other ethnic minorities.²⁰ As they perceive injustices in treatment, they become more distrustful that outside actors will treat them in the way they feel they deserve.²¹

Wendell Phillips residents widely expressed that experience related to internet service. And their experiences with at least one ISP which offers service in the neighborhood were consistent with a recent study by The Markup/Associated Press. The study found that four national ISPs routinely offered internet speeds at or up to 200 Mbps in majority non-Hispanic white neighborhoods for the same price they charged consumers in historically redlined neighborhoods for 25 Mbps internet, including in Kansas City.²² [Their analysis](#)²³ found that, when it comes to service offered by those ISPs, Kansas City was one of the most inequitable cities in the U.S., with the least-white neighborhoods spending nearly three times as much per megabit as the most-white neighborhoods.²⁴ This is not to say slow or poor quality internet is not a problem in majority White or Hispanic neighborhoods but that the problem is disproportionately bad in Black neighborhoods.

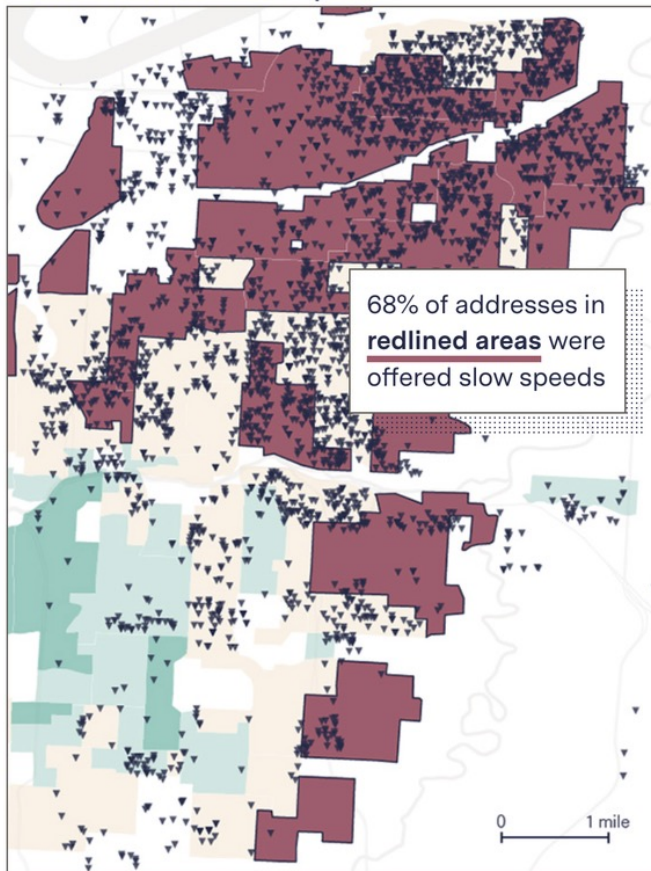
The Markup/Associated Press study analyzed data from four providers nationwide. Two of the four, AT&T and Earthlink, are available in Kansas City. The four providers were chosen for having large customer bases nationwide and for charging the same amount for different speeds of internet, something called “tier flattening.” The Markup did not include Google or Spectrum in their analysis, two of the more prominent providers in the Wendell Phillips neighborhood. Neither Google nor Spectrum do tier flattening.

Historically redlined areas disproportionately received slow internet speeds in Kansas City, Mo.

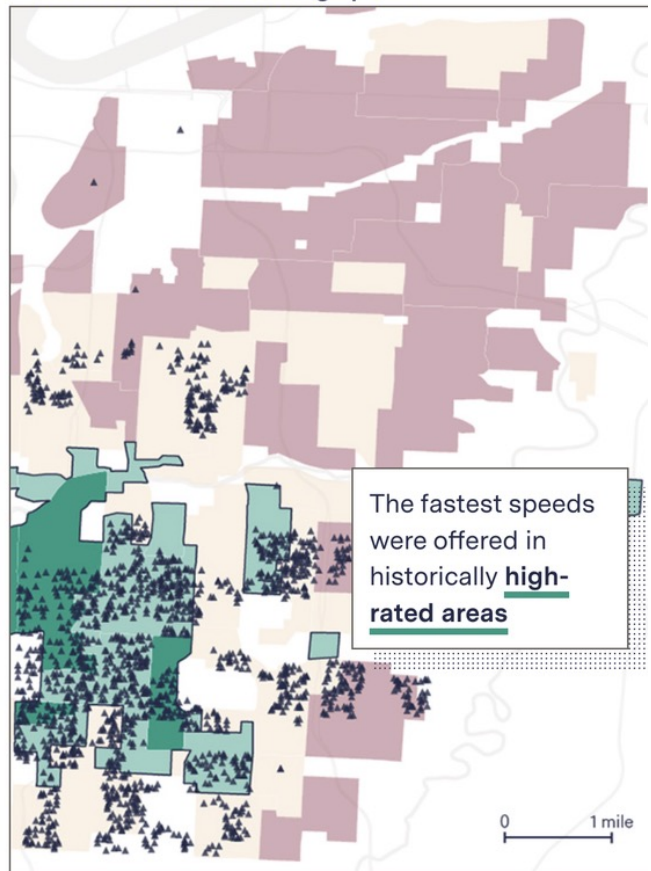
Residential addresses offered different download speeds for the same price

Historical loan grade: ■ Best ■ Desirable ■ Declining ■ Hazardous

Addresses offered slow speed



Addresses offered blazing speed



Map: Joel Eastwood · Source: The Markup analysis of AT&T; Mapping Inequality

Coming from a neighborhood that was historically segregated and has experienced decades of disinvestment, Wendell Phillips residents often expressed feelings that they had been discriminated against, which has put them at a disadvantage. Residents pointed to their neighborhood schools, which they said were far behind the technology curve and put their youth at a technological disadvantage. The decline of their neighborhood has left many vacant homes and lots, leaving a feeling of desolation. The history of discrimination has left them feeling powerless in many ways.

Participants in the data walk shared their own experiences with ISPs serving the neighborhood. They were not asked to comment on ISPs in general. When they talked about their personal experience with ISPs, they pointed to the following challenges:

- ISPs have been hesitant to upgrade their networks from older, slower, less reliable technology.
- ISPs make it hard to understand internet plan pricing, speed, and terms.
- Even when the internet is available, it feels like it is sub-par and unreliable.
- Charging more for internet access in their neighborhood than in higher-income neighborhoods creates an extractive service rather than beneficial one.

But they also said that patterns of discrimination from ISPs followed a pattern exhibited by other businesses and the government.

Residents claimed that treatment by businesses and government as “less than” by providing little to no investment has also actively excluded them from the economic systems that residents of higher income neighborhoods tap into for economic prosperity.

Even though discriminatory treatment was a large concern, residents also wanted to point out their resilience in the face of discrimination.

“We survive. We are fighters and so whatever we gotta do, we’re going to figure it out.”

They have found a way to make life work either without internet access or dealing with sub-par access. But that does not mean it is fair for them to have to fight so hard and to then lack access to the same internet as higher-income neighborhoods. Similarly, they are stuck in a chicken-and-egg situation where they need to earn more income to afford quality internet and accompanying devices, but the economy is shifting to where they can only earn more money if they can access the internet.

TRUST BETWEEN INTERNET SERVICE PROVIDERS AND RESIDENTS

One of the most critical pieces of understanding why the neighborhood lagged in broadband adoption was the relationship between ISPs and neighborhood residents. According to residents, that relationship was in poor shape with most of them not trusting ISPs to provide adequate internet service. Similarly, [Mozilla found](#)²⁵ that 63% of consumers do not trust ISPs to voluntarily look out for their best interests and the [American Consumer Satisfaction Index](#)²⁶ consistently ranks ISPs at the bottom of telecommunications companies. While little research has been done to explore why people do not trust ISPs, it is likely similar to the relationship low-income populations and people of color have with banking. Low-income populations and people of color are the groups most likely to not be banked and typically [cite a lack of trust in banks](#)²⁷ for not wanting a bank account.



A participant in the data walk shares her opinion.

Based on analysis of the comments, we can understand the relationship between ISPs and residents through four components: cost, competition, customers, and communications. In general, residents wanted the following: for ISPs to be fair and transparent with their pricing; to have choices among providers; for providers to not shy away from the neighborhood because of its economic status; and for communications to meet residents where they are in terms of how they understand the technology and how to meet their needs with the least cost.

THE FOUR CS OF ISP-CUSTOMER RELATIONSHIPS

1. **cost** – clarity of costs and usable speeds at affordable prices.
2. **competition** – having multiple ISPs available for comparison shopping and alternatives.
3. **customers** – residents want ISPs to know they are willing to be customers, and their class and race should not keep them from access.
4. **communications** – transparency, honesty, consistency, and understandable information.

COST – USABLE SPEEDS AT AFFORDABLE PRICES

Cost was a consistent impediment among residents interacting with ISPs. Prices were often too high and plans that offered prices they could afford were bare minimum options that did not serve their needs. When residents received a flyer in the mail or viewed a TV commercial or other advertising, they disengaged because they could not afford the advertised prices. Those advertisements did not speak to their needs and capabilities.

“If \$30 is my budget, maybe I’m buying the lowest of broadband speeds.”

Relatedly, residents were unaware of discounted options available to them from various providers or of

the Affordable Connectivity Plan (ACP), which provides low-income customers a \$30 subsidy. Advertisements did not highlight those available discounts. Residents also pointed out that sales staff did not tell them they might qualify for a discount.

“I get flyers in the mail, but they don’t advertise the discount programs.”

Transparency, honesty, and reliability were critical to residents’ perceptions about trusting ISPs to make the cost of internet worthwhile. Residents wanted the advertised costs to be the real cost, meaning no hidden fees, confusing contracts or billing practices that made their monthly costs hard to understand. They also wanted ISPs to be honest and fair with their prices. When residents viewed data showing differing prices among ISPs in the neighborhood, they were confused about why the difference would be so large even when the speeds were comparable.

Residents who currently subscribed to the internet did not trust ISPs to offer them good internet at any service level.

“I am paying \$22/month, but [the service] goes down all the time, sometimes for a whole day or day and a half.”

Their concerns centered around feeling like ISPs treated their neighborhood differently because the neighborhood was low-income and majority Black. This concern was a substantial trust barrier.

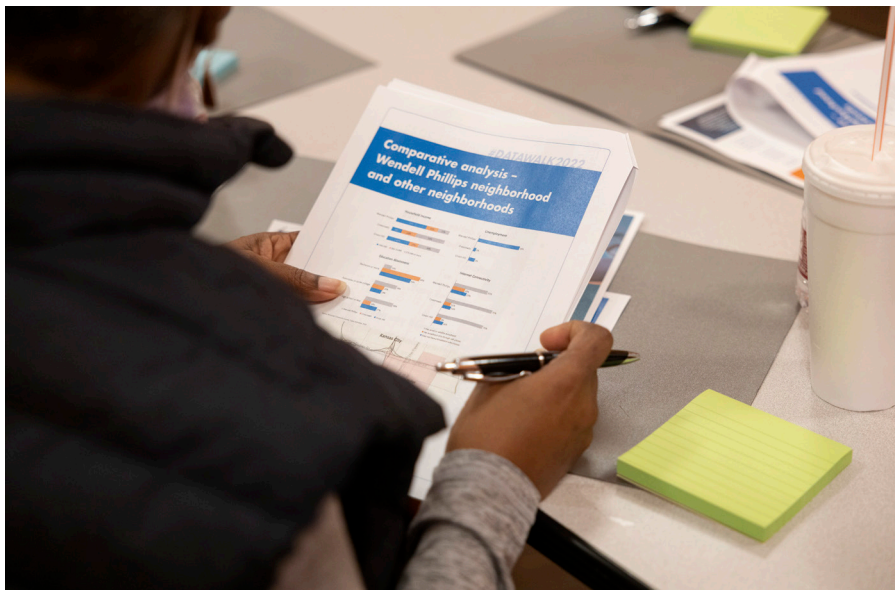
REAL AND PERCEIVED LACK OF COMPETITION

When it came to finding an internet provider, most residents felt they had little choice. Their perceived lack of choice led to them settling for what they said was poor reliability and bad customer service. While they wanted to jump to a competitor with better service, they faced a variety of access issues with other providers that served the neighborhood. Other providers did not offer plans they could afford or didn’t include telephone packages. Some residents described inconsistency in communication about whether they could access another provider’s internet in their home. Others said they also faced difficulties of getting service in their homes because they lived in older buildings not wired for some connections. Those factors led data walk participants to mostly use the same ISP, with which most were unhappy.

There was also a sense among the residents that other providers were not available because their neighborhood had lower income than other parts of the city.

“The ISPs are a business. They’ve done their reconnaissance to see where it falls in terms of economic suitability.”

“It doesn’t feel good that we’re second class and our needs are not worth investing in.”



Each participant received factual information that they discussed in small groups.

The perception that ISPs do not care about them because of their class and race creates a large trust barrier. Competition that leads to improved service quality and pricing in the neighborhood could overcome that. But residents were also skeptical that any new service to their neighborhood would be any better than what they already have. ISPs would need to not just improve service but also communicate that well to residents to encourage their trust.

The FCC maps used to determine areas without broadband service for funding purposes show that Wendell Phillips has access to broadband service. However, some residents reported they experienced substantial downtime with internet services and rarely received the speeds they signed up for. Federal broadband funding is not intended to address areas with poor reliability and there are currently no oversight mechanisms to hold ISPs accountable for internet reliability.

CUSTOMERS EXIST IN WENDELL PHILLIPS

Residents made it well known during the data walk that they recognized the benefits of the internet, and they wanted access to it. The internet has increasingly become integrated into daily life, and residents worried about being left behind if they could not access it. That was especially so during the pandemic when government offices closed and moved applications for benefits online.

“People were suffering because they couldn’t apply for healthcare, EBT cards, unemployment. It added to crime, inflation, poverty. It affected everyone. Children may have known how to navigate (the internet) but the parents didn’t and weren’t able to help their babies.”

Residents talked about how so many services relevant to them are now mostly available online, from benefits applications and monitoring to applying for jobs and education. Accessing opportunities online

allows them to do those activities from home and not need to find a ride, spend hours of their day traveling or waiting or finding childcare. Many participants saw the internet transition from a “want” to a “need” – access to the internet is a path to survival.

Even though many older residents at the meeting expressed the internet as being “something for the younger generation,” they also recognized how the internet would benefit them, too. Accessing health care online rather than having to go to a doctor’s office would help them, especially as their mobility declined with age. With their reduced mobility and with family members spread around the country, older residents also talked of the benefits of internet-enabled video calls allowing them to maintain connections and decrease loneliness and social isolation.

Residents want ISPs to know that they want access to affordable, reliable high-speed internet. But they also want ISPs to recognize the importance of the internet to their survival. As such, their internet access should be adequate and reliable enough to support them participating in the economy.

COMMUNICATION DETERMINES HOW MUCH PEOPLE TRUST ISPS

Overall, residents expressed a deep distrust of ISPs. Much of the communication from ISPs was not understandable for neighborhood residents. Many of the terms and descriptions used in plan sales pitches do not resonate with them as they have little understanding of what is being advertised.

In response to common issues understanding and comparing internet plans, the FCC recently adopted rules requiring ISPs display easy-to-understand labels to make it easier for consumers to comparison shop internet plans. These “Broadband Consumer Labels” are similar to consumer nutrition labels, in that all providers must consistently state variables like internet speed, costs and terms.

According to [Broadband.Money](#)²⁸ however, this “order applies only to plans currently being offered to new customers and any new plans that may be offered by providers going forward.” Customers subscribed to “older plans that have been discontinued, or current plans that are no longer available to purchase by new customers, do not need to have Broadband Nutrition Labels created for them.”

Broadband Facts	
Provider Name	
Service Plan Name and/or Speed Tier	
Fixed or Mobile Broadband Consumer Disclosure	
Monthly Price	[\$]
This Monthly Price [is/is not] an introductory rate. [If introductory rate is applicable, identify length of introductory period and the rate that will apply after introductory period concludes]	
This Monthly Price [does not] require[s] a [x year/x month] contract. [only required if applicable; if so, provide link to terms of contract]	
Additional Charges & Terms	
Provider Monthly Fees [Itemize each fee]	[\$]
One-time Fees at the Time of Purchase [Itemize each fee]	[\$]
Early Termination Fee	[\$]
Government Taxes	Varies by Location
Discounts & Bundles	
Click Here for available billing discounts and pricing options for broadband service bundled with other services like video, phone, and wireless service, and use of your own equipment like modems and routers. [Any links to such discounts and pricing options on the provider's website must be provided in this section.]	
Affordable Connectivity Program (ACP)	
The ACP is a government program to help lower the monthly cost of internet service. To learn more about the ACP, including to find out whether you qualify, visit affordableconnectivity.gov .	
Participates in the ACP	[Yes/No]
Speeds Provided with Plan	
Typical Download Speed	[] Mbps
Typical Upload Speed	[] Mbps
Typical Latency	[] ms
Data Included with Monthly Price	
Charges for Additional Data Usage	[] GB [\$/GB]
Network Management	Read our Policy
Privacy	Read our Policy
Customer Support	
Contact Us: example.com/support / (555) 555-5555	
Learn more about the terms used on this label by visiting the Federal Communications Commission's Consumer Resource Center.	
fcc.gov/consumer	
[Unique Plan Identifier Ex. F0005937974123ABC456EMC789]	

“What classifies broadband speed? What is broadband? An explanation of download speed would be helpful...You lose me with tech-speak and terms.”

Similarly, as residents described their interactions, sales pitches from ISPs pushed them into more costly plans without considering their needs and cost constraints. And residents said the plans were largely not transparent about the final costs with fees and extras. General descriptors of up/download speeds do not help them figure out what they need. Discounts offered for package deals led to a lot of confusion and overpaying for services they did not need or want. Similarly, very few residents said they knew about the ACP, and none had been told of it by an ISP. When we showed them details about the ACP, residents reacted negatively toward ISPs as that is not something that ISPs had advertised. Their concerns tracked with [studies](#)²⁹ showing [low awareness and adoption](#)³⁰ of the ACP.

Justin Adams, a STEAM Village staff member, encourages group members to weigh in.



The high degree of cost consciousness among the low-income consumers in Wendell Phillips interacts with issues of trust and communication among ISPs. Where trust does not exist, residents had a very difficult time justifying spending scarce funds on internet service. While ISPs may have some affordable broadband plans, they failed to communicate about them in widespread, consistent, or clear ways.

TRUST IS FUNDAMENTAL

When determining issues that made Wendell Phillips residents hesitant to sign up for internet service, the typical findings of price, speed, reliability, and access were very high on the list. But in examining the way residents talked about those issues, there was a deeper concern present. They did not trust ISPs to make their expenditure worthwhile. They did not feel the cost was going to be the actual cost of the

service, that the cost was worth the poor customer service and reliability of the service they could afford, that ISPs valued them as customers or that ISPs would tell them the truth and give them the full picture of options and information they needed.

As aSTEAM Village staff members help neighborhood residents sign up for internet, they encounter ongoing trust issues in the customer-ISP relationship. They have found ISP staff consistently misinform customers, attempt to upsell them on services, and don't deliver the speed they promise to the neighborhood. Residents assisted by aSTEAM Village staff members typically rely on discount plans. ISPs often do not adequately inform residents about when their discount period will end, both when signing up or in the months prior to the non-discounted, higher price going into effect. In some cases, residents on plans fully covered by the ACP are required to provide a credit or debit card on file. According to firsthand accounts, in some cases the customer is not told to expect the ISP to start charging their card at the end of the discount period. They have also encountered ISP sales staff trying to get customers to upgrade their service to include cable and phone bundles, but such upgrades do not come with their existing discounted internet service. Internet speed is also a problem. When it worked with neighborhood residents to conduct speed tests, aSTEAM Village found that residents rarely get the level of service they are paying for, often dropping far below minimum internet speed needed to be considered broadband (25 Mbps download, 3 Mbps upload).

aSTEAM Village's experiences are consistent with findings from a [Consumer Reports study](#)³¹ released in November 2022. Consumer Reports analyzed more than 22,000 internet bills from 500 internet service providers from all 50 states. As [Gizmodo reported](#)³², "The study uncovered arbitrary price differences, confusing bills, hidden fees, wildly varying speeds, and an overall lack of transparency that rendered it extremely difficult for anyone to get a clear picture of what it should cost to connect to the internet."

Lack of transparency is one reason the FCC has adopted rules that will require easy-to-understand labels, like nutrition labels on food, for broadband services. [The rules](#)³³, which are in the process of being finalized, "require broadband providers to display, at the point of sale, labels that show prices, including introductory rates, as well as speeds, data allowances, and other critical broadband service information." [A report from the Institute for Local Self-Reliance](#)³⁴ noted that "the Internet access industry is governed neither by regulation nor market pressure in most communities. Because providers don't have to answer to regulation or worry about their customers switching providers if they offer less than satisfactory service, providers are rarely held accountable for information that is missing or hard to find. Were providers held accountable for making accessible disclosures, customers could less easily be exploited."

Using the four "Cs" of the ISP-customer relationship, trust is a fundamental function in each element. Residents need to trust that the cost of the service will be the cost they're charged. Competition can bring a sense of trust by offering residents an alternative should one provider disappoint them. But the competition needs to spur actual improvement rather than providing similarly low-quality service that feels like an extraction on the community. Residents need to feel like ISPs value them as customers through adequate investment in service, providing an equal level of service to higher income areas, and treating their concerns about the service with expediency and compassion.

COMMUNITY EMPOWERMENT: RESIDENTS WANT TO BETTER UNDERSTAND TECHNOLOGY

While residents wanted ISPs to improve how they treated the Wendell Phillips neighborhood, they also recognized their own need to become better informed. Residents at the data walk talked about how they could not rely on ISPs to help them better understand the internet and needed to be better prepared to advocate for themselves. To become more knowledgeable in internet and technology, they pointed to needs including digital skills training and identifying ways to advance their neighborhood collectively.

There was a large range of digital skills present among those in the Wendell Phillips neighborhood. Some residents had no idea how to interpret advertisements on speed while others regularly use the internet. Even if they did not struggle with understanding the internet themselves, all knew someone who did. The broad range of skills and volume of people who need additional help creates a challenge for those seeking to improve digital skills across the population.

Residents discussed a broad need and demand for digital skills training across a multitude of skill levels. They expressed needs in the following five areas:

LEARNING LEVELS:

1. Basic technology and internet terminology
2. Basic skills for using technology (understanding different hardware, connecting to wi-fi, resetting network devices, troubleshooting, etc.)
3. Software training – email, internet browser, and office software
4. Internet skills to improve economic and personal well-being – education, productivity, connectivity and relationships, etc.
5. Digital security and scam prevention

While there was a progression of skills learning in that list, residents also expressed a need for those trainings to be consistent and ongoing. Residents viewed one-time offerings as insufficient for overcoming the needs in the community.

Education on basic technology and internet terminology would help residents understand what they need and how to interpret advertising or sales pitches. By better understanding the basics of internet and technology, they can be better advocates for themselves when seeking internet service or phone or computer options.

Along with basic skills, there was also a need for education at higher skill levels. Particularly, people wanted to know how to better use their digital devices. In part, this would help people understand the limitations of a mobile phone versus a computer. But it could also help people address internet issues in their homes, such as resetting modems and routers.

As people learn to use digital devices, they also wanted to know more about using various programs and services that could help in managing their daily activities. That includes email and internet browsers, as well as programs businesses use. Knowledge in these spaces would better prepare people to maxi-



A participant in the broadband data walk chats with her neighbor.

mize their use of the internet including using it for education and skill development for job advancement. Residents also wanted more understanding of ways to use the internet for connecting with friends, family, and services. This was particularly true among older residents, who valued connectivity more as their mobility declined with age.

Residents also discussed their concerns about risks in using the internet. They wanted to be able to protect themselves and family members. With so many new internet users, the digital landscape comes with many new threats to their personal information. Residents felt unprepared to face those threats. Given the low levels of income, money lost from online scams or damaged credit from identity theft presents threats this population could ill afford.

NEIGHBORHOOD CHAMPIONS AND MENTORS

While many residents at the data walk understood the need to engage with the internet and improve digital skills, they also recognized that many of those who were less knowledgeable were also hesitant to seek education or engagement. And they felt the lack of trust in ISPs meant ISPs could not bridge that gap. As such, they expressed a need for neighborhood champions and mentors. These would be people from the neighborhood who could be engaged to help people meet their digital skills needs.

“We simply do not have enough of our own people championing these issues.”

Some studies have shown that peer influence has a significant effect on improving rates of technology adoption by reducing the perceived risk.³⁵ In particular, studies have shown that peer influence increases mobile phone service adoption and mobile internet.^{36,37} Having someone they know that is familiar with the technology, terminologies, processes, and risks could help residents that are not as familiar both identify resources to help them learn what they need and help them as advocates when signing up for internet service. A [similar program](#)³⁸ in Austin, Texas, helps residents in a low-income neighborhood sign up for housing assistance. This process would help the neighborhood become more empowered and better advocate for their needs.

CONCLUSIONS

AFTEREFFECTS OF HISTORICAL DISINVESTMENT

CONCLUSION ONE: OLD TECHNOLOGY, LACK OF AFFORDABILITY AND UNRELIABILITY PERPETUATE THE DIGITAL DIVIDE

The speed and reliability of the internet depends on the physical infrastructure the ISP uses to deliver it. From slowest to fastest, customers may get internet over telephone lines, through coaxial cable, satellite, or fiber-optic cable. [The national study of 38 metro areas](#)³⁹ conducted by The Markup/Associated Press found, “In cities where the providers offered different speeds in different areas, the residents living in areas that disproportionately received the worst deals were lower income (92 percent of cities) and people of color (66 percent of cities)...” This service typically relies on antiquated, unreliable technology that provides slower speeds, often far slower than the minimum to be considered broadband.

Marie Johnson, senior vice president of industry group USTelecom, [told reporters](#)⁴⁰ that it costs more to maintain antiquated equipment, which increases its price. “Fiber can be hundreds of times faster than legacy broadband—but that doesn’t mean that legacy networks cost hundreds of times less,” Johnson said in an email. “Operating and maintaining legacy technologies can be more expensive, especially as legacy network components are discontinued by equipment manufacturers.”

A [Kansas City Star article](#)⁴¹ followed up on findings that Kansas City ISPs are less likely to invest in fiber service in lower-income or less-white areas. A spokesperson for the City of Kansas City, Missouri, said, “ISPs are hesitant to make the investment because of the lower income community customer base.” She said she was not aware of any city regulations on where or how internet providers need to distribute their service. Internet service is not typically regulated as a utility, such as water, gas and electricity.

To explore what service was offered in the area, Jeremy Hagle, with the Kansas City Fed, entered 15 addresses into three ISP websites to see what plans were available at each address. Offerings on the 2300 block of Michigan Ave. yielded mixed results. (Note: The FCC considers 25 Mbps the minimum speed to be considered broadband and is typically the slowest speed recommended by Zoom for video calls on its service):

- AT&T: 3 Mbps service for \$50 per month
- Google Fiber: 1 Gigabit (1,000 Mbps) service for \$70 per month, or the neighborhood plan, 100 Mbps for \$20 per month to households with incomes less than \$40,000 per year in eligible geographic areas
- Spectrum: 30 Mbps for \$19.99 per month up to 500 Mbps for \$199.97 per month

Google Fiber is [currently offered](#)⁴² in 28 metro areas in 17 states. Its neighborhood plan is available in some markets and neighborhoods, including Wendell Phillips, but not all. Lower income residents in markets or neighborhoods without the neighborhood plan, would likely find Google Fiber’s lowest-priced subscription of \$70 per month unaffordable.

Interestingly, Google Fiber’s website indicated two homes on the block were ineligible for service, while surrounding homes were either eligible for service or existing Google Fiber customers. Hegle contacted Rachel Merlo, Google Fiber’s head of government and community affairs—central region, to inquire why.

This block of Wendell Phillips is experiencing revitalization, with new, affordable homes replacing the empty lots and abandoned homes common in historically disinvested neighborhoods. Google Fiber’s records, Merlo explained, still listed two of the new homes as empty lots, or abandoned homes, and therefore ineligible for service. “When we learn of new construction in a serviceable area, we can update our database so when residents contact us for service, we can get them connected. The challenge is ISPs aren’t automatically notified when homes replace empty lots.” While not insurmountable, this presents another digital equity barrier for historically disinvested neighborhoods. It also presents an opportunity for ISPs to partner with community organizations in redeveloping neighborhoods.

TRUST – THE RELATIONSHIP BETWEEN RESIDENTS AND THE ISPS

CONCLUSION TWO: ISPS HAVE MANY OPPORTUNITIES TO INCREASE TRUST

Like many consumers, neighbors in Wendell Phillips do not trust ISPs to be transparent regarding their pricing and the amount of speed they will get for the dollar. Residents felt that ISPs used tech-speak intentionally to cloud the issue. Residents wanted to be able to contact an ISP, get clear advice on what speed of broadband they needed, and be told exactly what the ISP would charge, without hidden fees or surcharges. ISPs could increase trust by making it easier for customers to compare speeds and pricing across providers.

Some lower-income residents are eligible for discounted plans from ISPs or are eligible for the federal Affordable Connectivity Plan (ACP). Some neighborhood residents who had talked to ISP salespersons said that sales staff had never mentioned the ACP or discounts, which they said made them trust ISPs less. ISPs would seem to have an incentive to let low- and moderate-income customers know about discounts, including the ACP. In 2021, EveryoneOn conducted a [national survey of households](#)⁴³ with annual incomes of \$50,000 or less. The survey found that 18% – nearly one in five – lost connectivity during the pandemic because they couldn’t pay their internet bills. Even more – 49% – lived under the threat of being disconnected. EveryoneOn called this group the “subscription vulnerable,” whose low incomes make paying for internet a constant juggling act. Access to discounts and programs like the ACP can help assure that subscription vulnerable Americans remain connected.

In addition to sharing information, ISPs can increase trust by charging the same per megabit no matter where in the city someone lives. We recognize that ISPs may be unlikely to do this until broadband is

recognized as a vital utility and regulated in the same way utilities such as water, gas or electricity are regulated. When confronted with internet costs that are higher per megabit than other areas and high levels of unreliability, residents struggle to trust that their expense will be worth it.

COMMUNITY EMPOWERMENT – RESIDENTS WANT TO BETTER UNDERSTAND TECHNOLOGY

CONCLUSION THREE: PEOPLE ARE WILLING TO DO THE WORK, WITH A LITTLE ASSISTANCE

Some residents, especially older adults, lack even the most basic language related to the internet or broadband. They are game to try, though, with one-on-one support from people who translate the tech speak for them. Residents wanted someone who could help them choose the right plan for the right price, and to learn the basics on getting online. The result is cost savings, such as more people with access to telehealth and other services, and people better positioned to participate in the economy.

A new job description, “digital navigator,” describes individuals who provide that one-on-one support. Generally speaking, digital navigators address the whole digital inclusion process — home connectivity, devices, and digital skills — with community members through repeated interactions. They can be volunteers or paid. They can work in social service agencies, libraries, health facilities and, after training, become knowledgeable of resources that residents need to use online services. For example, Megan Williams at aSTEAM Village provides digital navigator assistance to residents. They value the service, which can be time intensive. The [National Digital Inclusion Alliance](#)⁴⁴ offers resources, including a toolkit for digital navigators.

EMPOWERMENT IS A CORE ASPECT OF COMMUNITY BUILDING.

IN DETROIT, THE EQUITABLE INTERNET INITIATIVE (EII) IS A COLLABORATIVE EFFORT THAT SEEKS TO:

- Increase internet access in underserved neighborhoods.
- Increase internet adoption through digital skills programming.
- Train and develop residents as Digital Stewards.
- Strengthen neighborhoods through community organizing, participation, collaboration and resiliency.

[Digital Stewards](#)⁴⁵ are community members who complete a 20-week technology training program. According to the EII website, “They demystify technology for their communities through intentional network build-out and design, community workshops and trainings, neighborhood advisory councils, and participatory design sessions with the community.”

Neighborhood residents or peers can be very effective digital navigators and should be paid for their time. They are vital to reaching the hard-to-reach and helping them connect.

In addition, residents with access to the internet wanted ongoing support to survive in the digital world. While some introductory classes already exist, people wanted more, such as hands-on tech support and help with using the internet to accomplish tasks.

CONCLUSION FOUR: RESIDENTS WANT TO HELP SHAPE SOLUTIONS

When neighbors talked about broadband, they were concerned about falling behind or about survival, but that was not nearly all. They also aspired. They wanted themselves, their children and grandchildren to be able to contribute and thrive through the skillful use of broadband. “These kids will do jobs we haven’t even thought of,” one resident said. “I’m interested in the intellectual capacity of our kids to be fully recognized. Driving the electric vehicle is one thing, but imagining it is something else.”

Rather than having someone come in from the outside and develop solutions for them, residents wanted neighborhood leaders to have an active role codeveloping solutions. As another resident said, “Our community needs to move beyond the consumer role and lead and govern in this space.” They viewed the neighborhood as a willing, capable partner with other institutions inside and outside neighborhood boundaries. Business, nonprofit and other organizations can incorporate digital inclusion into their agendas, and partner with groups that are already working to close the digital divide, and which have the community’s trust. For groups like aSTEAM Village already working to narrow the digital divide, more collaborative partners and partnerships with new types of organizations can expand their reach.

SUMMARY

THIS IS A SOLVABLE PROBLEM

The moment people started using the internet, a divide was created between those who could and could not access it. Decades later this divide still exists, and with tens of billions going to fix the digital divide it's important that we understand the causes before the funding is spent. Those causes are not easily understood, and despite decades of funding efforts to connect everyone to broadband, far too many households remain disconnected.

"Real lives are at stake here," William Wells, executive director of aSTEAM Village, said at the planning team's final meeting. "What gets to me is it didn't have to be this way. It's all a man-made system design problem that millions of dollars have been thrown at over the years."

That it is a challenge to even confirm where broadband exists should give us pause. "The money that comes into our neighborhood to fix a problem is given to the people that profit from creating the problem," John James, the president of Wendell Phillips Downtown East Neighborhood Association, said. "When we talk about communities, we talk about them from the top down. The problem will not be solved if we ask the people who caused the problem to validate the solution."

The federal government recognizes the need to hear from residents and community partners so that broadband and digital inclusion funding is deployed effectively. It requires that those developing state BEAD and digital equity plans include community engagement. This report is intended to support state BEAD and Digital Equity Plans by providing policymakers with perspectives on the needs within one community, whose issues, challenges, and interests are echoed in many other communities across the country.

The Wendell Phillips neighborhood is reflective of many historically disinvested communities across the country. It has a rich history, active community champions, and a mix of housing stock including new homes popping up throughout the neighborhood.

A limitation of this report is it is unable to confirm high-speed broadband is available to every resident in Wendell Phillips. It does confirm a variety of barriers to access and full utilization of broadband. It also identifies opportunities for policymakers and philanthropists to engage the community more effectively in creating long-term solutions. From defining the problem, to mapping the need, to developing and testing solutions, community members are valuable resources. Finding a fair path forward requires their voice.

APPENDICES

APPENDIX A: THE PEOPLE

THE PLANNING TEAM

JEREMY HEGLE

ASSISTANT VICE PRESIDENT AND COMMUNITY AFFAIRS OFFICER
FEDERAL RESERVE BANK OF KANSAS CITY

Jeremy Hegle is assistant vice president and Community Affairs Officer (CAO). In this role, Hegle leads the Tenth District's [Community Development department](#) with responsibility for leading and executing the Bank's districtwide community and economic development initiatives, which address challenging issues affecting lower-income individuals, underserved communities and small businesses' access to credit. Prior to being named CAO in 2023, Hegle led the Bank's digital equity efforts. In 2019 Hegle co-authored [Disconnected: Seven lessons on fixing the digital divide](#), a layperson's overview of the digital divide. He led efforts to narrow the digital divide using three strategies:

- Expanding access to affordable home broadband. [Collaborating with state broadband directors, federal agencies, and local government on broadband deployment strategies and increased access through affordable internet programs.](#)
- Increasing the supply of low-cost computers by encouraging employers to [donate their used computers](#) to nonprofit refurbishers, schools and community organizations.
- [Informing banks, foundations, government and policymakers of the complex factors that cause the digital divide, the latest research on the topic, and creative solutions to fix it.](#)

Hegle joined the Kansas City Fed in 2015. Previously, he served in the Army National Guard and later helped launch KCSOURCELINK, a small-business support organization that links thousands of entrepreneurs with resources to start, grow and accelerate their businesses.

STEVEN HOWLAND

ASSOCIATE ECONOMIST, COMMUNITY DEVELOPMENT
FEDERAL RESERVE BANK OF KANSAS CITY

Steven Howland is an associate economist in the community development department of the Federal Reserve Bank of Kansas City.

Howland performs analyses on various surveys, such as the Community Insights Survey, and those at the System level to provide insight on the conditions of LMI communities in the Kansas City District. He also conducts independent research that gives more insight into issues affecting LMI communities.

Howland compiled the Missouri broadband maps as well as the comparative analysis of neighborhoods used in the broadband data walk. He worked with planning team members to code and analyze the comments. He is a co-author of this report.

Howland joined the Kansas City Fed in August 2020 after a career as a college instructor and researcher.

Howland has undergraduate and graduate degrees in urban and environmental planning from Arizona State University and has a doctorate in urban studies from Portland State University.

Highlights of his work include:

- ["I should have moved somewhere else': The impacts of gentrification on transportation and social support for Black working-poor families in Portland, Oregon"](#)
- ["Evictions and the pandemic economy in the Tenth District"](#)
- [Howland researches issues facing disadvantaged populations](#) - Federal Reserve Bank of Kansas City

JOHN PIERRE JAMES

PRESIDENT
WENDELL PHILLIPS DOWNTOWN EAST NEIGHBORHOOD ASSOCIATION

James has served as president of the Wendell Phillips Neighborhood Association since 2012. James is often dubbed a 'collaborator' or 'servant leader' – connecting, encouraging, mentoring and leading others to pursue greater opportunities.

James has extensive experience in the information technology field in the private and public sectors, including 20 years of technology work for the United States Air Force, from which he is retired. James is currently employed by the City of Kansas City, Missouri, as an IT specialist in its Information Technology Division.

John James is also an overseer for the Free Churches working behind the scenes to ensure the smooth operation and management of the organization. John serves as a Bishop and the 1st Administrative Assistant to the Prelate Bishop at Victory Way Most High God Free Church. In his free time, he enjoys Strategic gameplay.

WENDY PEARSON
STRATEGIC INITIATIVES MANAGER
THE KANSAS CITY PUBLIC LIBRARY

Wendy Pearson leads the development and implementation of services for Kansas City Public Library patrons in pursuit of digital life skills, sustainable employment, and lifelong learning. Pearson served as a planning team member and volunteer at the broadband data walk.

Since joining the Library in 2016 as the Digital Inclusion Fellow, a position sponsored by Google Fiber, Pearson cultivated numerous new community partnerships and created Tech Access to expand the Library's impact on Kansas City's digital divide. Tech Access is a collection of resources to support library patrons in pursuit of digital literacy and workforce skills. It includes Tech Coaches, community volunteers who provide digital training at the library, a mobile computer lab to provide training within and beyond library walls, community partnerships to expand impact, and learning pathways that include skills assessments, curriculum, and learner feedback.

Pearson's motivation and professional objective is to serve her community through the promotion of equity and self-efficacy. She has served her community through a variety of nonprofit roles since entering the sector in 2008 including fund development, marketing, volunteer management, and program development.

WILLIAM WELLS
EXECUTIVE DIRECTOR
aSTEAM VILLAGE

William Wells is responsible for running more than 20 innovative STEM programs and adult certification readiness in the I.T. sector. Under his leadership, aSTEAM Village was recognized as the 2019-2020 National Society of Black Engineers (NSBE) Jr. Pre-College Initiative (PCI) National Chapter of the Year. aSTEAM Village robotics and engineering teams have reached national championships with a high level of student impact, as more than 85% of aSTEAM Village students move on directly to college, digital workforce, or the military.

In 2002, Wells gained experience installing a metrowide wireless broadband network. He knew the end-to-end process of designing, building, installing, provisioning and maintaining a 24/7 digital voice, video and data network would empower communities to become SMART communities that leverage digital technology and a community network.

Today, aSTEAM Village is under a two-year contract with the City of Kansas City, Missouri, to deploy a community-driven broadband network as a STEM Education and Digital Workforce Development program for middle school and high school students. This initiative, named Digital KC Now, engages students who call themselves the RedTails Digital Engineering Alliance, who have deployed a network currently providing broadband to residential and commercial customers in Kansas City's Third Council District.

aSTEAM Village and the RedTails have also partnered with STEM City USA to create a digital twin of Kansas City, called STEM City Kansas City. This is where education, healthcare, workforce development, and enterprise merge the physical and virtual worlds to leverage broadband-intensive applications that can live and thrive in the Metaverse.

JENNIFER WILDING

COMMUNITY DEVELOPMENT SPECIALIST
FEDERAL RESERVE BANK OF KANSAS CITY

Jennifer Wilding provides communications and engagement for the community development department. She also is a member of the leadership team working to bring community-engaged research methods to the Federal Reserve System.

Wilding served as project director for the Kansas City broadband data walk and is a co-author of this report.

Highlights of Wilding's work at the Kansas City Fed include:

1. [Getting to 'We Have a Deal.'](#) The series shares stories of partnerships between bankers and nonprofits. The article is on [Fed Communities](#), the national website about the Fed's work in communities.
 2. [Disconnected: Seven lessons on fixing the digital divide.](#) A layperson's guide to putting broadband, devices and training within reach of a community.
 3. [Focus groups with unemployed individuals](#) and with people from nonprofits that serve them, held in Chicago, Detroit, Denver and Kansas City.
-

MEGAN WILLIAMS

OPERATIONS MANAGER/COMMUNITY OUTREACH COORDINATOR
aSTEAM VILLAGE

Megan Williams has an extensive background in entrepreneurship and nonprofit leadership. Williams worked as a business owner for more than 20 years, and for six years as the founder of Smiles and Kuts, a nonprofit youth program that provides hair services, resources and workshops in the Kansas City community.

Williams's current role as operations manager/community outreach coordinator for aSTEAM Village shows her passion for helping youth and communities. She oversees the implementation of outreach strategies, community engagement and operations for aSTEAM Village.

Williams partnered with the Kansas City Fed project director to handle logistics, recruit facilitators, prepare the venue and assure a successful broadband data walk.

THE FACILITATORS

THANKS TO THE YOUNG ADULTS FROM aSTEAM VILLAGE FOR THEIR SERVICE AS FACILITATORS FOR THE BROADBAND DATA WALK:

- Justin Adams, aSTEAM Village staff member
- Johari Primos, student, Lincoln College Preparatory Academy
- Jared Swinton, student, Belton High School

THANKS ALSO TO THE EMPLOYEES FROM THE FEDERAL RESERVE BANK OF KANSAS CITY FOR THEIR SERVICE AS FACILITATORS:

- Jeremy Hagle, assistant vice president and community affairs officer
- Ashton Chapman, manager, diversity, equity & inclusion

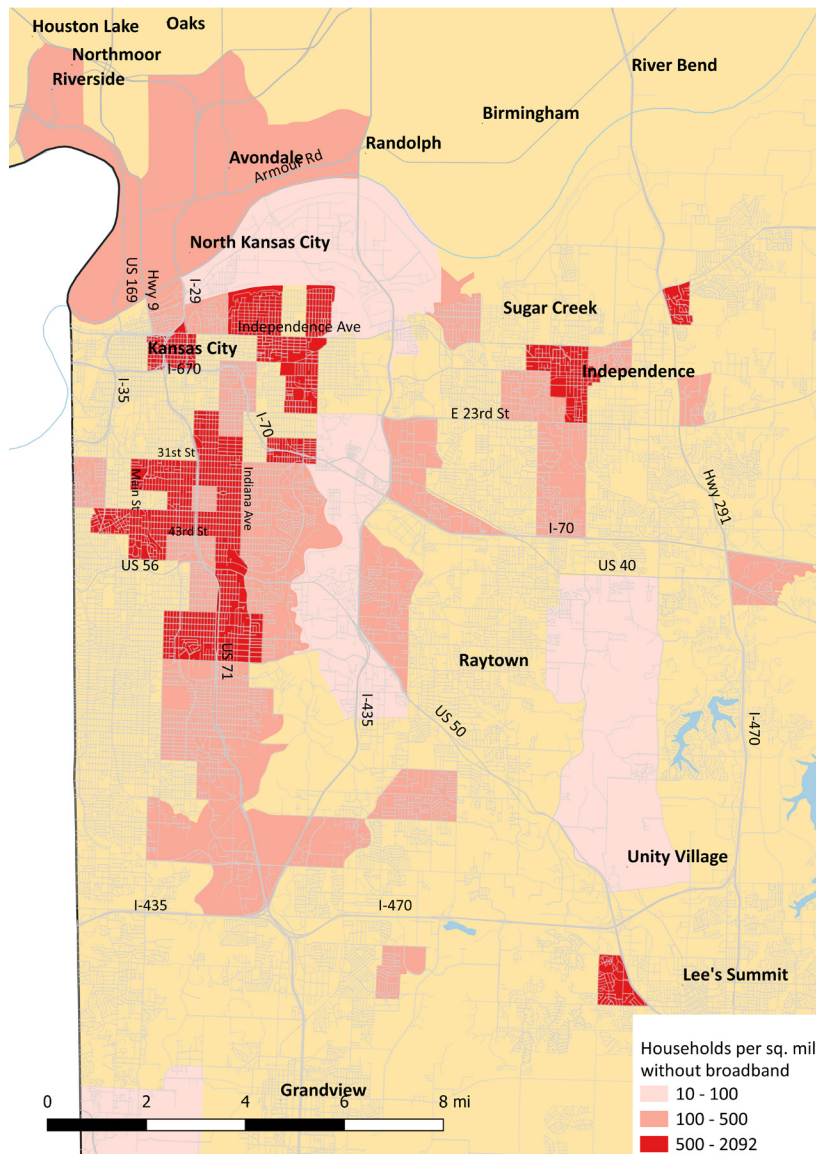
THE NOTETAKERS

- Teesha Miller, vice president and OMWI director, Federal Reserve Bank of Kansas City
- Megan Williams, operations manager/community outreach coordinator, aSTEAM Village
- Kristi Bromagem, analyst, regional, public and community affairs, Federal Reserve Bank of Kansas City
- Ryan Dowis, executive director, Family Focused Treatment Association
- Wendy Pearson, strategic initiatives manager, Kansas City Public Library

APPENDIX B: THE DATA SETS AND DISCUSSION QUESTIONS

#DATAWALK2022

Kansas City area households without a broadband subscription



DISCUSSION QUESTIONS

- What do you notice about the map? What are your observations?
- What surprises you?
- What additional information would help you better understand the issue?

RESEARCH SHOWS THREE MAIN REASONS PEOPLE DON'T SUBSCRIBE

1. Broadband speed internet may not exist in some lower-income neighborhoods.
2. Some can't afford a monthly subscription and/ or computer.
3. Some lack skills needed to use the internet.

DISCUSSION QUESTIONS

- Are any reasons missing?
- How do these reasons affect your neighborhood?
- Which one seems to have the biggest impact?

RETAIL COSTS FOR INTERNET SERVICES IN 64108 —

Most ISPs offer two pricing levels:

1. Retail - no discount. Different cost for different speeds.
2. Discounted - for lower income residents. About \$30 a month.

Also, the Affordable Connectivity Program (ACP) is a federal program that provides a temporary subsidy of \$30 a month. A household with a discounted internet plan that enrolls in the ACP can get their monthly bill almost completely covered.

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Retail costs for internet services in 64108 – a sampling

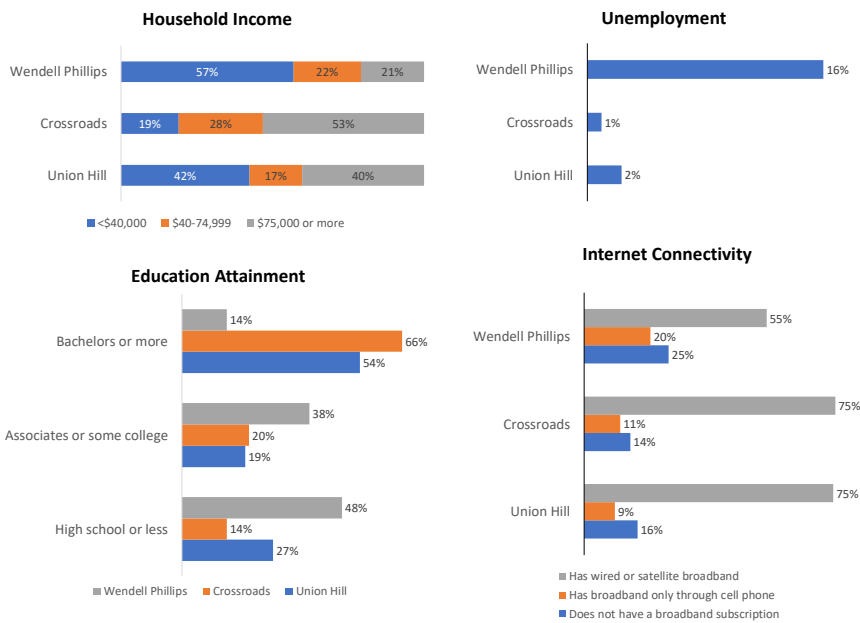
Retail plans for major ISPs	\$ per month	Speed
AT&T	\$55	Up to 300 Mbps
	\$80	Up to 1 Gbps
Google Fiber	\$70	Up to 1 Gbps
Spectrum	\$50	Up to 300 Mbps
	\$90	Up to 1 Gbps

DISCUSSION QUESTIONS

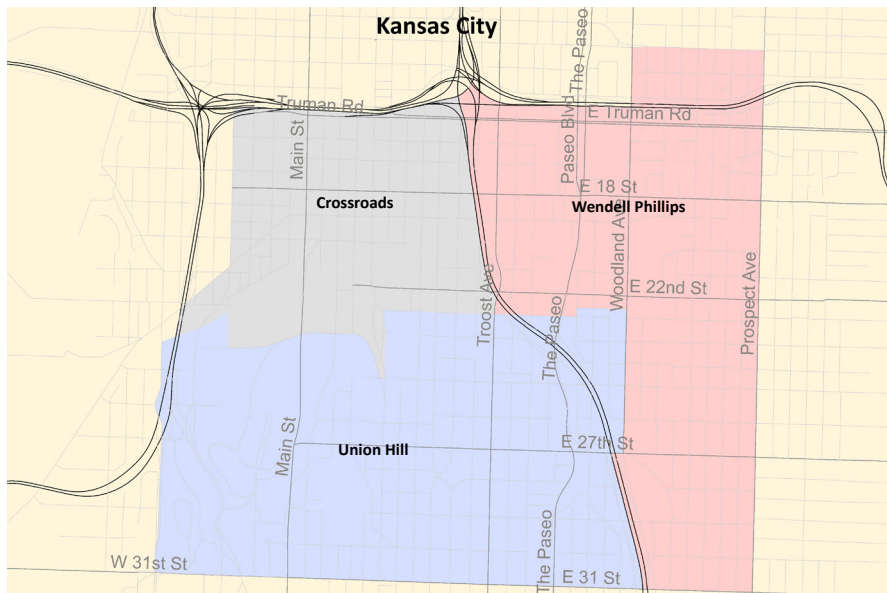
- What do you notice about this information?
What are your observations?
- What surprises you?
- What else would you need to know about these plans to make them more enticing for you?

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Comparative analysis – Wendell Phillips neighborhood and other neighborhoods



Source: American Community Survey, 5-year estimates, 2020.



DISCUSSION QUESTIONS

- What do you notice about the map? What are your observations?
- What surprises or stands out to you?
- What might be some reasons for lower uptake in one neighborhood than the other?

PEOPLE SAID THESE WERE THE MOST URGENT NEEDS DRIVING THEM TO ADOPT BROADBAND

- **Employment**

Apply for a job or learn about job openings online, etc.

- **Education**

Attend online classes or provide fast internet for schoolchildren, etc.

- **Government**

Apply for unemployment, housing, or childcare benefits, etc.

DISCUSSION QUESTIONS

- What do you notice about these reasons? What are your observations?
- Which of these reasons do you respond to the most? Why?
- Are there other reasons that people would need broadband at home?

ENDNOTES

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