EXECUTIVE SUMMARY
Technology Plan

San Augustine County, Texas

October 2021

CONNECTED NATION
CELEBRATING 20 YEARS OF SERVICE

CONNECTED NATION℠ Texas

TABLE OF CONTENTS

01 OVERVIEW 2

02 INFRASTRUCTURE 5

03 HOUSEHOLDS DETAILED FINDINGS 9

04 RECOMMENDED ACTIONS 14

OVERVIEW 01

OVERVIEW

Today, technology plays a pivotal role in how businesses operate, how institutions provide services, and where consumers choose to live, work, and play. The success of a community has become dependent on how broadly and deeply

The Connected Nation Texas (CN Texas) Connected Program partnered with the San Augustine County Broadband Team to conduct a study designed to determine the availability of broadband infrastructure; how its residents are adopting and using broadband services; and what steps would have the greatest impact toward improving broadband access, adoption, and use across every sector locally.

Pursuant of this goal, between July 2020 and February 2021, San Augustine County conducted a comprehensive survey of broadband technology access and adoption across the community. San Augustine County collected responses from 265 households. CN Texas staff also met with community officials to determine community needs and gather qualitative data for consideration in the study.

To highlight key findings, CN Texas created an interactive map. It provides data on broadband availability in the community overlayed with survey data from the recent broadband assessment. To access the map, click HERE.

The following provides a summary of that assessment, as well as recommendations for improving broadband and technology access, adoption, and use.

SAN AUGUSTINE COUNTY, TEXAS QUICK FACTS

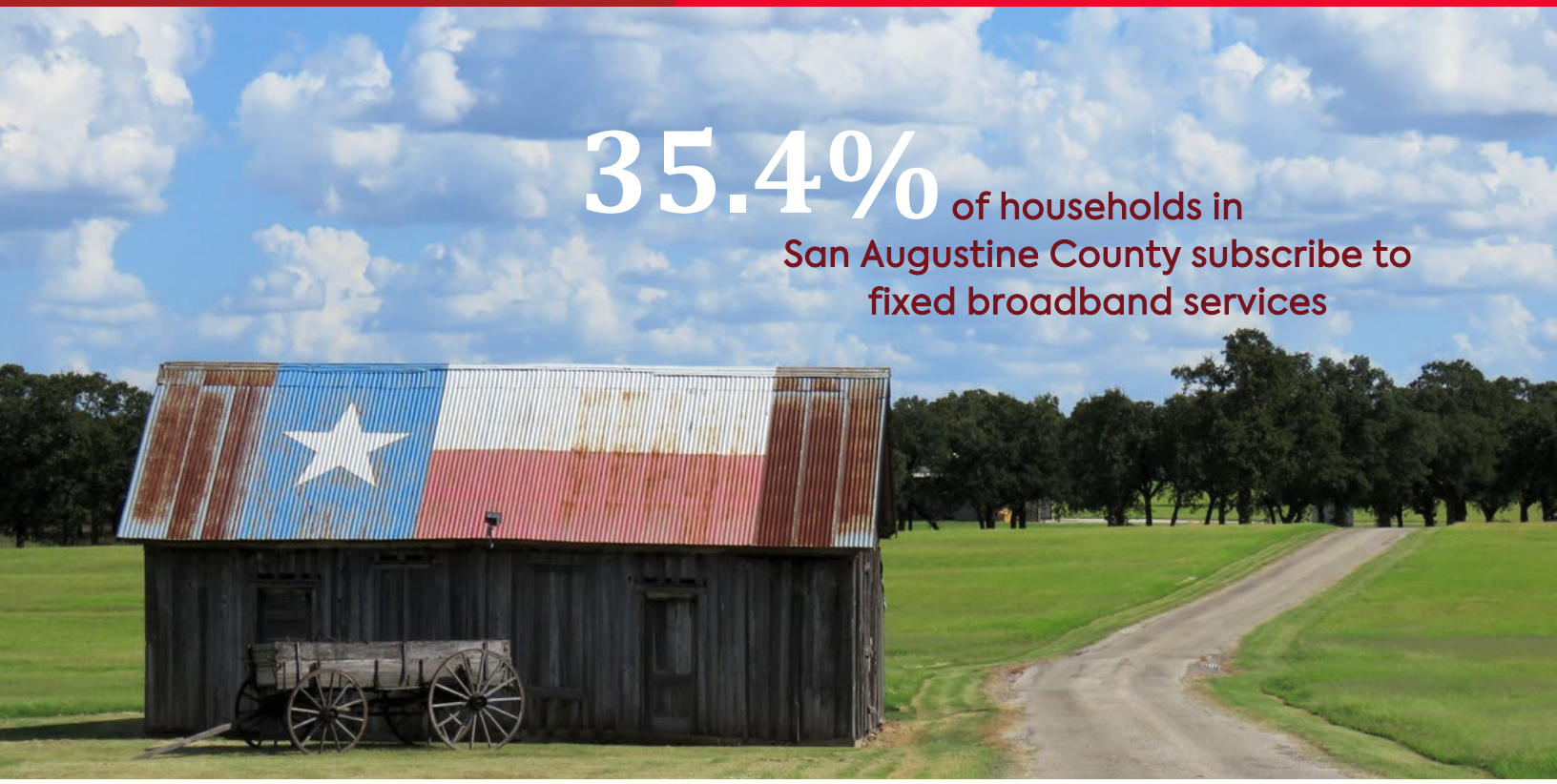
Population	**7,918**
Households	**3,451**
Median Household Income	**$40,353**
Poverty Rate	**18.5%**
Adults with a Bachelor's Degree or Higher	**14%**
Employment Rate	**40.7%**
Disabled Population	**25.2%**
Households with Broadband Access[1]	**37.91%**

Source: https://data.census.gov/cedsci/profile?g=0500000US48405

1. The current FCC definition of broadband is a minimum of 25 Mbps download and 3 Mbps upload. These data are derived from Connected Nation Texas, Dec 2020.

SAN AUGUSTINE COUNTY OVERVIEW

CONNECTED NATION Texas



For households that said they do not subscribe to home internet service, the top barrier is ***the lack of available service*** *followed by* ***the cost of internet service****.*

San Augustine County households ***pay more*** *on average for access to the internet (****$78.19****) than other Connected communities (****$69.99****).*

About ***67% of residents and 64% of businesses*** *reported that they were dissatisfied with their current internet service. The top reasons for dissatisfaction were slow speeds and an unreliable connection.*

---

*More than 9 out of 10 residents (****93.1%****) said they would like to have improved or additional options for home internet service.*

INFRASTRUCTURE RESULTS 02

INFRASTRUCTURE: San Augustine County

CONNECTED NATION Texas

According to CN Texas broadband data initially released in July 2021 – followed by additional public feedback, field validation, and provider input, a little over one-third of households in San Augustine County have access to broadband of at least 25/3 Mbps, the current definition of broadband set forth by the Federal Communications Commission (FCC). Broadband service in San Augustine County is concentrated near the main towns and to the south, with very little coverage in the North and Northwest.

Below is the list of internet service providers (ISPs) in San Augustine County.

BROADBAND INFRASTRUCTURE QUICK FACTS
Unserved Households (25/3 Mbps) **8,887**
Households Served (10/1 Mbps) **93.19%**
Households Served (25/3 Mbps) **37.91%**
Households Served (50/5 Mbps) **21.60%**
Households Served (100/10 Mbps) **19.81%**

Broadband data released by CN Texas in July 2021: https://connectednation.org/texas/mapping-analysis/

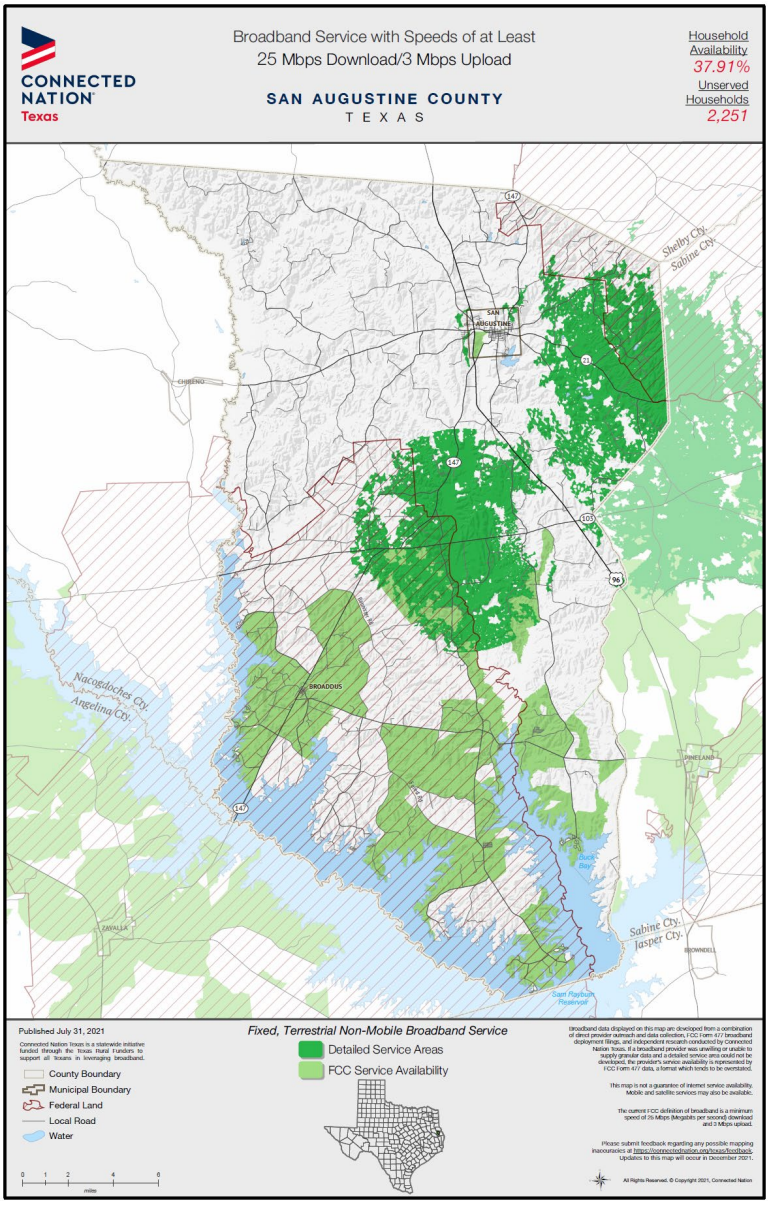
PROVIDER	TECHNOLOGY	MAXIMUM DOWNLOAD SPEED (Mbps)	MAXIMUM UPLOAD SPEED (Mbps)
AT&T Southwest	DSL	25	2
	Fixed Wireless	10	1
Google Fiber Texas, LLC	Fiber	1000	1000
NDemand	Fixed Wireless	10	3
Suddenlink Communications	Cable	25	5
Texas Rural Internet, LLC	Fixed Wireless	25	5
Valor Telecommunications of Texas LP	DSL	200	200
	Fiber	200	200

INFRASTRUCTURE:
San Augustine County

CONNECTED NATION Texas

To access the latest San Augustine broadband map, go to https://connectednation.org/texas/county-maps/ and select San Augustine County from the list. Please note other portions of the county are served by internet service providers (ISPs) offering slower advertised speeds and not shown on this map.

The first step in understanding the state of broadband infrastructure in San Augustine County and the rest of Texas is having accurate maps. Accordingly, CN Texas works with providers to develop a variety of broadband maps at a state and county level. Data shown on this map are derived from a combination of direct provider outreach and data collection, FCC Form 477 broadband deployment filings, and independent research conducted by CN Texas. If a provider was unable or unwilling to supply granular data and a detailed service area could not be developed, the provider's service is represented by Form 477 data, a format that tends to overstate the service territory.



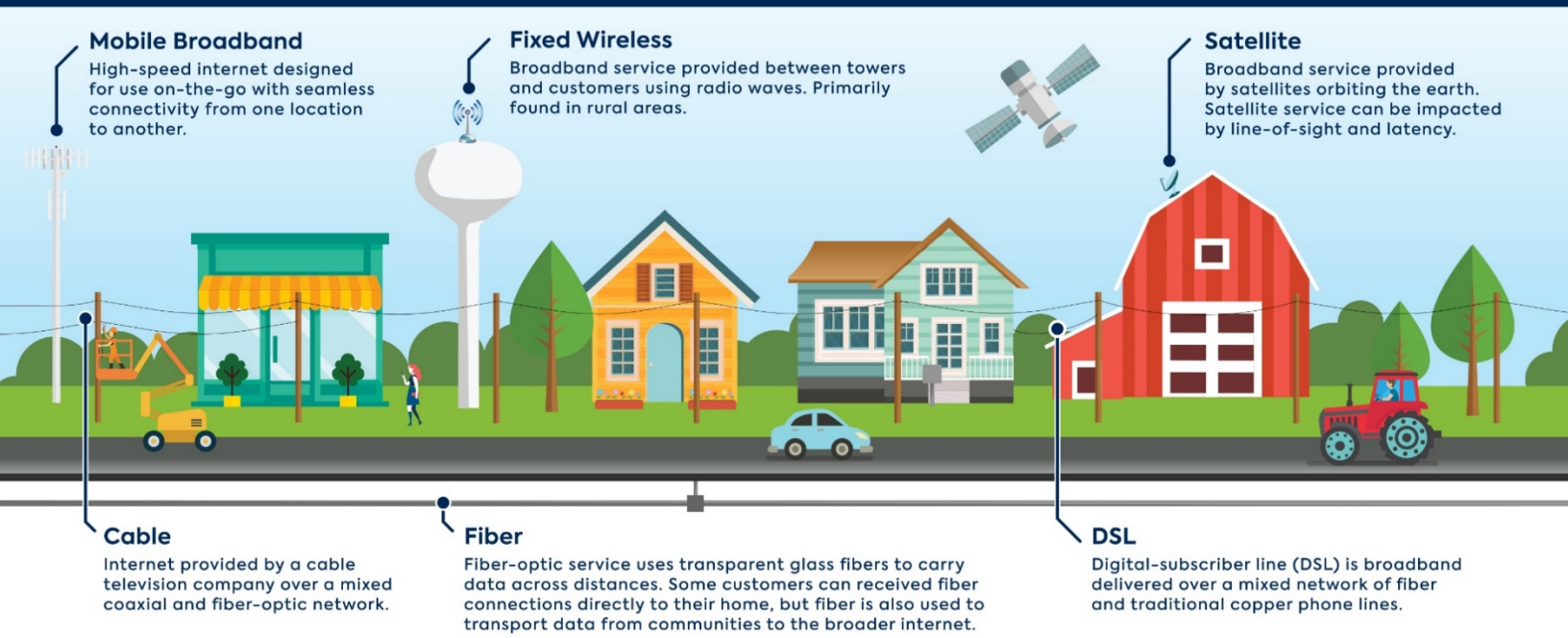
INFRASTRUCTURE

CONNECTED NATION Texas

2,251

San Augustine County households cannot access broadband

What Is Broadband?



HOUSEHOLD SURVEY RESULTS

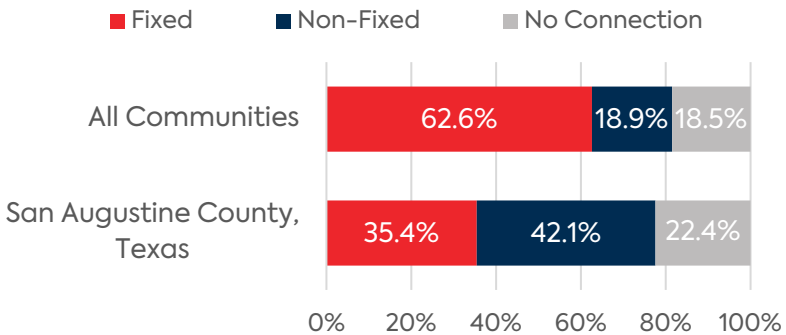
03

CONNECTED NATION Texas

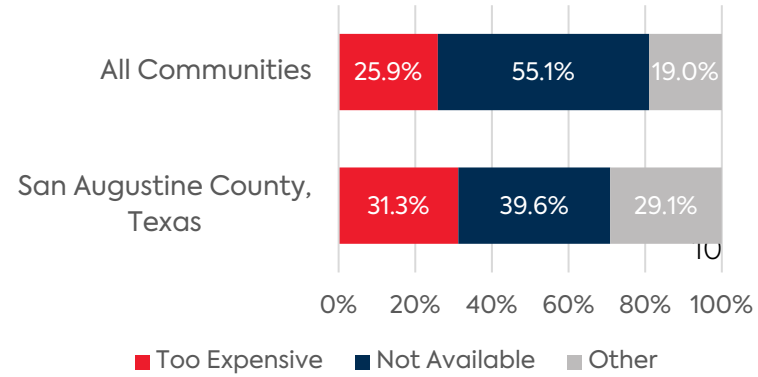
HOUSEHOLD QUICK FACTS

Fixed Home Broadband Adoption	**35.4%**
Average Monthly Internet Cost	**$78.19**
Average Download Speed	**8.7 Mbps**
Households Satisfied with Service	**33%**

Home Broadband Adoption



Primary Barrier



The following provides an overview of results from a broadband survey conducted in San Augustine County between July 2020 and February 2021. Altogether, CN Texas received 265 completed surveys from households across the county, and respondents provided insights into their internet connectivity, or lack thereof. Data from San Augustine County are compared to data from across hundreds of other rural Connected participating communities across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

ADOPTION

In San Augustine County, 35.4% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology. A little over 4 out of 10 respondents (42.1%) indicate they have internet service delivered via dial-up, satellite, or a mobile wireless service. Nearly 1 in 4 (22.4%) survey respondents are without internet access at home.

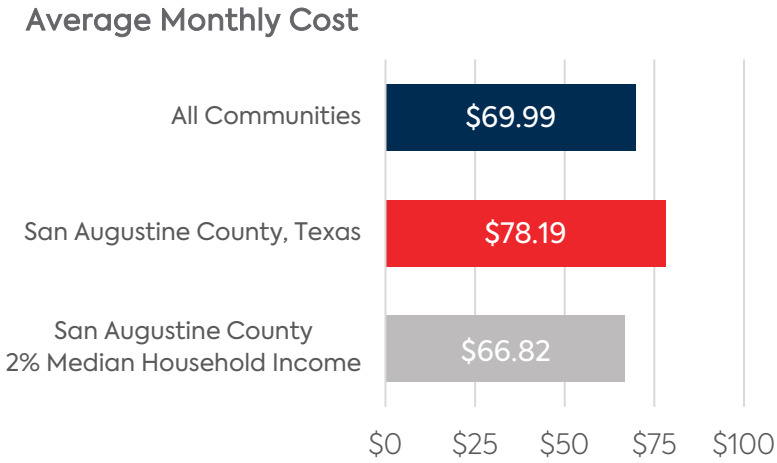
Among those without a home internet connection, 39.6% said they did not have broadband because it was not available to them, while 31.3% indicate that it was too expensive. Other barriers include the lack of a home computer and the ability to access the internet from someplace other than home. Like in many communities, cost and availability are the two most cited barriers to home broadband adoption.

HOUSEHOLD SURVEY RESULTS: San Augustine County

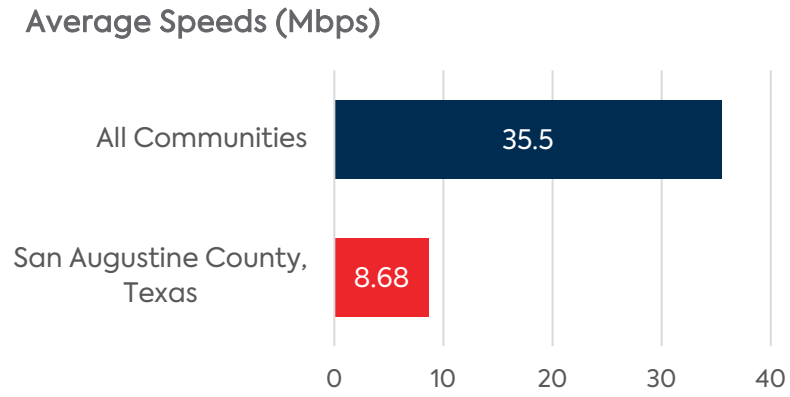
CONNECTED NATION Texas

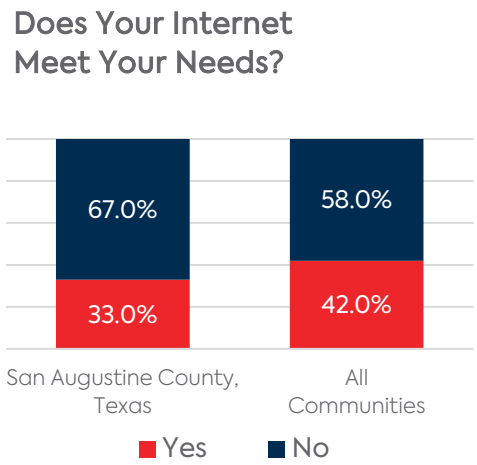
CONNECTION DETAILS

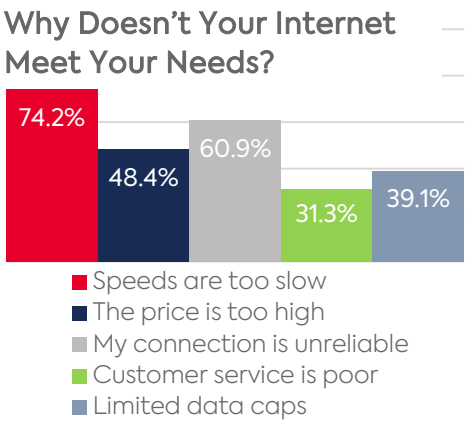
Two percent of monthly income is a recognized standard for measuring the affordability of a home internet connection. Respondents indicate that, on average, their internet connection costs about $78.19 per month. This is higher than monthly cost in other communities ($69.99). Two percent of the median household income in San Augustine County is $66.82 per month.

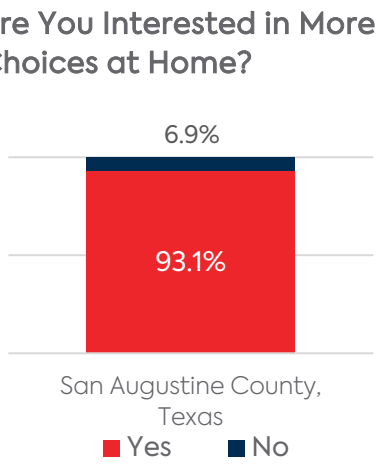


The FCC currently defines broadband as an internet connection with a download speed of at least 25 Mbps and upload speed of at least 3 Mbps. On average, respondents indicate that their connection's download speed is 8.68 Mbps, well below this minimum defined speed.









CONNECTED NATION Texas

Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. Two-thirds (67%) of residents indicate that their internet connection does not meet their needs. This is a higher rate of dissatisfaction than among households in other communities (58%).

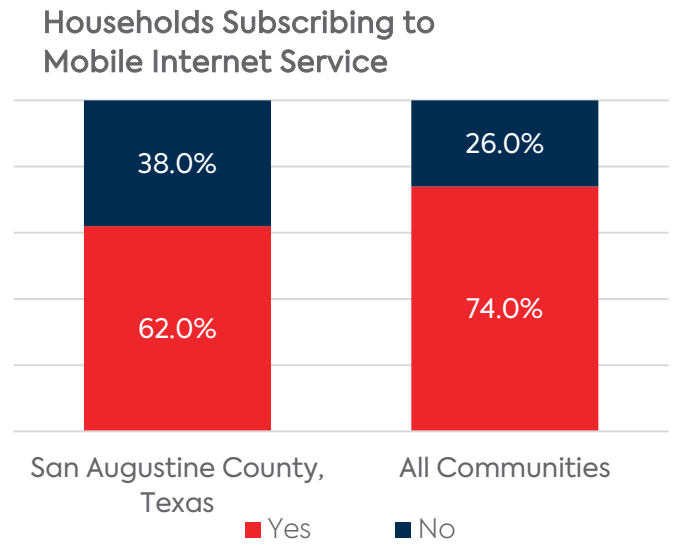
When asked why their connection does not meet their needs, 74.2% of dissatisfied households indicate that their speed is too slow. 48.4% say the price is too high, and over 3 out of 5 (60.9%) indicate that the connection is unreliable. Respondents could choose more than one reason for dissatisfaction.

Finally, 93.1% of all respondents indicate that they are interested in additional internet choices for their home.

MOBILE CONNECTIVITY

Almost two-thirds of respondents (62%) report that they subscribe to mobile internet service which they access via a smartphone or similar mobile device. This is below what is reported in other Connected Communities (74.0%).

Additionally, 36.6% of these mobile-connected households report that they use that mobile connection as their primary source of internet connectivity at home or use their mobile service to connect other household devices to the internet.



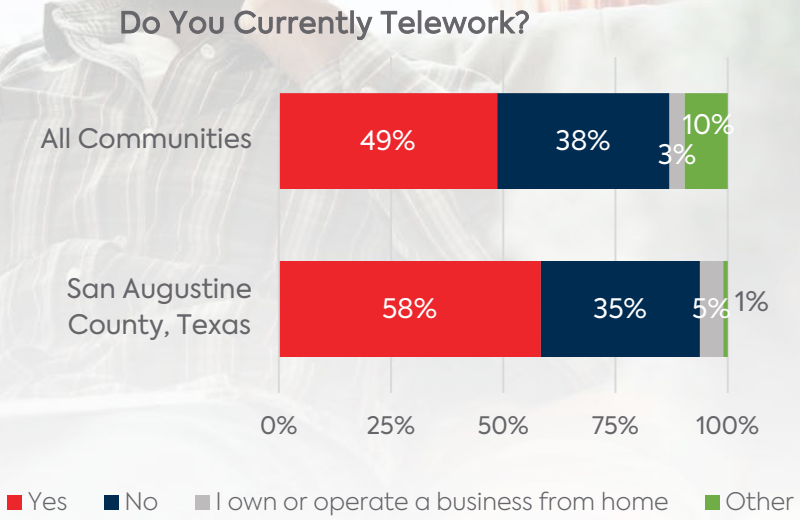
CONNECTED NATION Texas

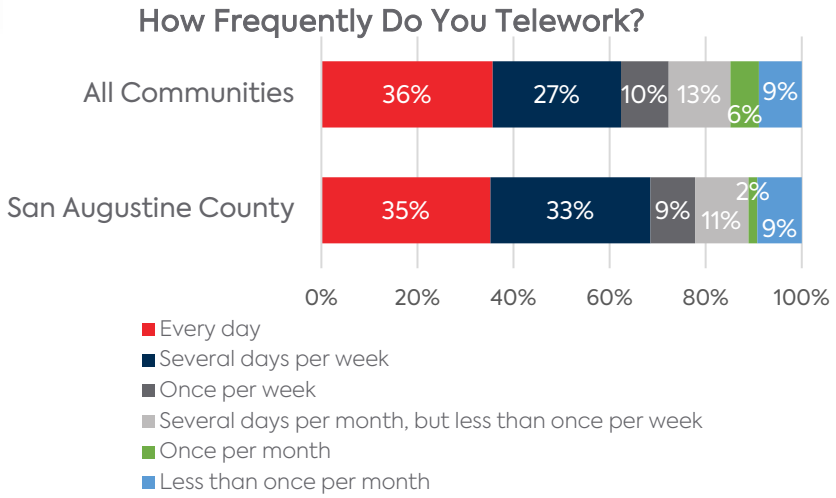
TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow staff to telework.

Teleworking is quickly becoming a critical part of growing a local economy because it represents an opportunity to attract or retain employees even though their employer may not be located within the community. However, this only works if those employees have access to advanced broadband infrastructure.

Approximately 58% of employed respondents in San Augustine County telework one or more days a month. At least 35% of this group telework every day.





RECOMMENDATIONS 04

The following recommendations are presented to assist San Augustine County in expanding broadband access and adoption throughout the community. The county also adopted a resolution that is presented below:

Adopt a Resolution Supporting Broadband Access, Adoption, and Use in San Augustine County

Action

San Augustine County resolved to become a Broadband City. The text below is from that resolution.

RESOLUTION:

VISION

Broadband, or high-speed internet, is essential in today's world and will allow San Augustine County to be competitive in current, as well as future, global markets in economic development, closing the gap of learning between school children, providing a higher quality of life, ushering in telemedicine for residents, and allowing better communication between public safety entities.

History

San Augustine County engaged with Connected Nation Texas to understand the current broadband availability, adoption, and use in San Augustine County. The County surveyed its residents, businesses, agriculture community, library/social organizations, healthcare entities, political subdivisions, and government offices to discover the truth around providing adequate broadband, and how the City and County can serve their citizens better. This survey took place between July 2020 and ended in February 2021.

Whereas San Augustine City and County needs accurate broadband maps providing information of overstated and understand areas of provider services.
Whereas San Augustine City and County needs local planning to stimulate broadband infrastructure investment, including searching out for public and private partnerships and becoming a digital ready community.
Whereas San Augustine City and County needs a dedicated person to identify and pursue federal and state funding and oversee broadband needs, expansion, and projects.
Whereas San Augustine City and County needs all students to have broadband resources.
Whereas San Augustine City and County needs connectivity for businesses to succeed, as well as improved healthcare with telehealth capabilities.
Whereas San Augustine City and County needs focused attention to achieve broadband goals for

the citizens.
Whereas San Augustine City and County needs to streamline policies, clear barriers, and be committed to making broadband infrastructure deployment in the community a priority. The community can more easily work with one another and cuts down on the opportunity for poor communication.
Whereas San Augustine City and County recognizes broadband access is no longer a luxury for the community to thrive, but a necessity and proper plans, a vision, and goals, must be addressed.

Resolved, that our immediate action must be to become a digital ready community. This means appointing one person (Point of Contact - POC) to the task of broadband management. This can be accomplished through a full-time or part-time position, or possibly a stipend arrangement. Their duties would include grant writing, working with providers making San Augustine a desirable government entity to partner, and create a public website which would provide forms, documents, and information for vendors, visitors, residents, and businesses. Other assignments would include budgeting for broadband needs, accounting for any federal or State money coming into San Augustine County and the City for broadband improvement and reporting back to the City and County elected councils.

The benefits include:
1. Provides the community with the opportunity to identify their requirements and make it easier for the community to assist and work with a provider who seeks to expand services.
2. Gives providers a centralized location to identify necessary regulations, and the opportunity to work with a local jurisdiction to address those regulations in an effective manner.
3. Through the Community Broadband POC, a liaison is established through whom providers and the community can more easily work with one another and cuts down on the opportunity for poor communication.

The Governor of Texas made broadband an emergency item in the 87th legislative session and San Augustine County should be ready when new laws become effective.

Without council support and a dedicated broadband position, the work done to date will be lost.

Become a Digital Ready Community

Unfortunately, local community policies and a lack of local coordination are often major hurdles to broadband providers, as they work to expand their networks and advance access to broadband services. This solution seeks to streamline this process, by eliminating unnecessary policies, consolidating information, and appointing a single point of contact that can ensure that the community is working as efficiently as possible with providers and gaining access to the networks and services that are needed. All community stakeholders, local governing bodies, agencies, utilities, etc.

should meet and identify all of the local policies, regulations, and permits required of a telecommunications provider. These disparate elements should be organized into a set of requirements, and a website established with all necessary forms available electronically and capable to be electronically signed. This group will also appoint a single point of contact (SPOC) for all telecommunications infrastructure development projects. This individual be the community liaison with providers and assist both the community and the provider through any necessary communications and working through any necessary issues As a commitment to this process, the local governing body/s should pass language that requires the agreed-upon times for responses to provider outreach, permit approval times, and authorizes the SPOC.

Goals

Provide a framework through which a community can demonstrate that they are a "Digital Ready Community" that has streamlined policies, cleared barriers, and is committed to making broadband infrastructure deployment in the community a priority. Benefits: 1. Provides the community with the opportunity to identify their requirements and make it easier for the community to assist and work with a provider who seeks to expand services. 2. Gives providers a centralized location to identify necessary regulations, and the opportunity to work with a local jurisdiction to address those regulations in an effective manner. 3. Through the Community Broadband POC, a liaison is established through whom providers and the community can more easily work with one another and cuts down on the opportunity for poor communication.

Actions

1. Conduct an initial meeting of involved parties, with a request that any needs/concerns they have related to broadband be brought to this formative meeting.

2. Hold a second meeting of this group and others who were identified during the first meeting to review the local regulations and requirements and to discuss any new requirements that may have been thought of.

3. Hold a 3rd meeting to review the final list of local regulations and ensure that the responsible bodies have the necessary action items to amend those requirements/policies and to identify the Community Broadband POC candidates.

4. Pass the necessary language in the governing bodies to amend any necessary regulations or policies, as well as authorizing the SPOC according to local law.

5. Publish the list of requirements along with the necessary electronic documentation as well as the contact information for the SPOC.

6. Promote the Digital Ready Community site and SPOC, and apply for Certification by completing the application and submitting all necessary documentation

Responsible Parties

Local government, utilities, planning commissions, zoning boards, other right-of-way managers, etc

Resources

Model Ordinances/Resolutions from various states:

MN Telecommuter Forward: https://mn.gov/deed/assets/telecommuter-forward-application-model-resolution-word_tcm1045-413760.docx

Indiana Broadband Ready: https://www.in.gov/indianabroadband/2632.htm

Tennessee Broadband Ready: https://www.tn.gov/content/dam/tn/ecd/documents/broadband/Broadband_Ordinance_SAMPLE.PDF

Georgia Broadband Ready: https://broadband.georgia.gov/media/4/download

Stark County, Indiana Ordinance for a Broadband Ready Community: http://co.starke.in.us/ordinances/2020/Ordinance%20for%20a%20Broadband%20Ready%20Community.pdf

Promote Low-Cost Broadband Service Offerings for Vulnerable Populations

Your community can initiate a computer refurbishment program designed to help recycle computers donated by local businesses, government, schools, and other organizations, and then distribute them to low-income households and other households who face affordability barriers to computer ownership. Community computer refurbishing provides an opportunity for local volunteers and students to gain valuable new skills and training that can be used for career enhancement, and in some cases earn credits for high school or college, while reinvesting in their communities. Communities also have the option of using prison inmates to refurbish computers so that they leave prison with valuable job skills. Alternatively, if the computers are beyond refurbishment, the community can develop a computer recycling program. Recycling and reusing electronic equipment reduces the amount of hazardous materials that may enter the environment. Recycling and reuse programs also reduce the quantities of electronic scrap being landfilled in the state.

Goals

Overcome the cost barrier of using computers to access Internet applications and other resources by initiating a program where residents can purchase low-cost devices. These devices may be refurbished or donated at a discounted cost to the program.

Actions

1) Develop a model for computer refurbishing or recycling. A basic framework might include project planning, determination of minimum computer specifications, acquisition and storage of donated computers, determination and installation of appropriate computer operating system.

2) Calculate the costs needed to carry out such a program.

3) Manage inventory. Examine how equipment and software will be sorted and managed: manage inventory by identifying computers that are ready to be refurbished from those that are non-functioning.

4) Train volunteers. Review established residential refurbishment and recycling programs that the community can take advantage of to build on those successes.

5) Continue to develop local partnerships with businesses or organizations that can help reduce costs, provide volunteer assistance, or advertise the project.

Responsible Parties

Nonprofit organizations, Libraries and schools, Senior centers, Private-sector technology companies, (e.g., web developers, device repair, etc.)

Resources

InterConnection helps communities establish device refurbishment programs and provide devices to those in need: http://www.interconnection.org/

Dell Reconnect: http://dellreconnect.com/

Internet Essentials: https://www.internetessentials.com/low-cost-computer

Host Website and Social Media Training for Local Businesses

For small businesses, an online presence and the use of social media are vital to stay competitive in the twenty-first century. A website and social media are not just for companies that have the experience, staff, or budget - any small business can tap into these resources. Training should be provided to small businesses regarding the use of websites and social media. Topics should range from starting a basic website to more advanced topics such as e-commerce. Social media topics should include a variety of social media outlets including Facebook, Twitter, YouTube, Pinterest, and LinkedIn. Broadband empowers small businesses to achieve operational scale more quickly by lowering start-up costs through faster business registration and improved access to customers, suppliers, and new markets. According to Connected Nation's *2012 Jobs and Broadband Report*, businesses that are using the Internet bring in approximately $300,000 more in median annual revenues than their unconnected.

Goals

Encourage small local businesses to develop websites and to use social media, e-commerce, and other advanced uses of broadband and technology.

Actions

1) Work with the local chamber of commerce and/or libraries to expand existing programs that promote e-commerce, such as free websites and social media development, within the small businesses of the community.

2) Partner with providers to sponsor workshops. (ISPs may be willing to sponsor events since small-business workshops will likely lead to increases broadband adoption and use).

3) Identify regional and community partners with resources and expertise to assist the community in providing "free" website and social media workshops.

4) Schedule workshops and advertise classes via local media.

Responsible Parties

Chamber of commerce/economic development organization; Libraries; Community College; Broadband providers; IT/Technology organizations; Local SCORE representatives

Resources

On-Site Technology Training for Small, Rural Michigan Businesses: https://bit.ly/2Yh4zvL

The Importance of Tech for Small Businesses: https://bit.ly/2zL9Lha

Revenue Trends for Small Businesses: https://bit.ly/35jYBLQ

Google Helps Businesses Get Online with Free Resources: https://bit.ly/2VPbpa0

Boosting Business with an Online Presence: https://bit.ly/3aVxLuF

Building E-Commerce in Wright County, IA: https://bit.ly/2z2jPll