# TEXAS HILL COUNTRY: BLANCO, BURNET, AND LLANO COUNTIES

Broadband Plan Summary
September 2021

CONNECTED NATION℠
Texas

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# 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 community adopts technology resources. This includes access to reliable, high–speed networks, the digital literacy of residents, and the use of online resources locally for business, government, and leisure.

| Broadband Quick Facts | | | |
|---|---|---|---|
| | Blanco | Burnet | Llano |
| Population | 11,478 | 46,530 | 21,047 |
| Number of Households | 4,343 | 16,743 | 8,678 |
| Median Household Income | $66,390 | $59,492 | $53,411 |
| Poverty Rate | 9.0% | 10.2% | 10.6% |
| Bachelor's Degree or Higher | 26.5% | 25.4% | 25.3% |
| Homeowner | 78.6% | 77.2% | 78.1% |
| Hispanic or Latino Population | 19.4% | 22.2% | 10.4% |
| Households Served with Broadband[1] | 79.13% | 90.85% | 91.3% |

Source: U.S. Census 2019   https://data.census.gov/cedsci/

The Connected Nation Texas (CN Texas) Connected Program partnered with the Hill Country Broadband Team, comprised of Blanco, Burnet, and Llano Counties, 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.

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[1] The current FCC definition of broadband is a minimum of 25 Mbps download tend 3 Mbps upload. This data is derived from Connected Nation Texas, July 2021. https://cn-maps.hatfield.marketing/US/TX/v4/tx_blanco-county_25x3.pdf
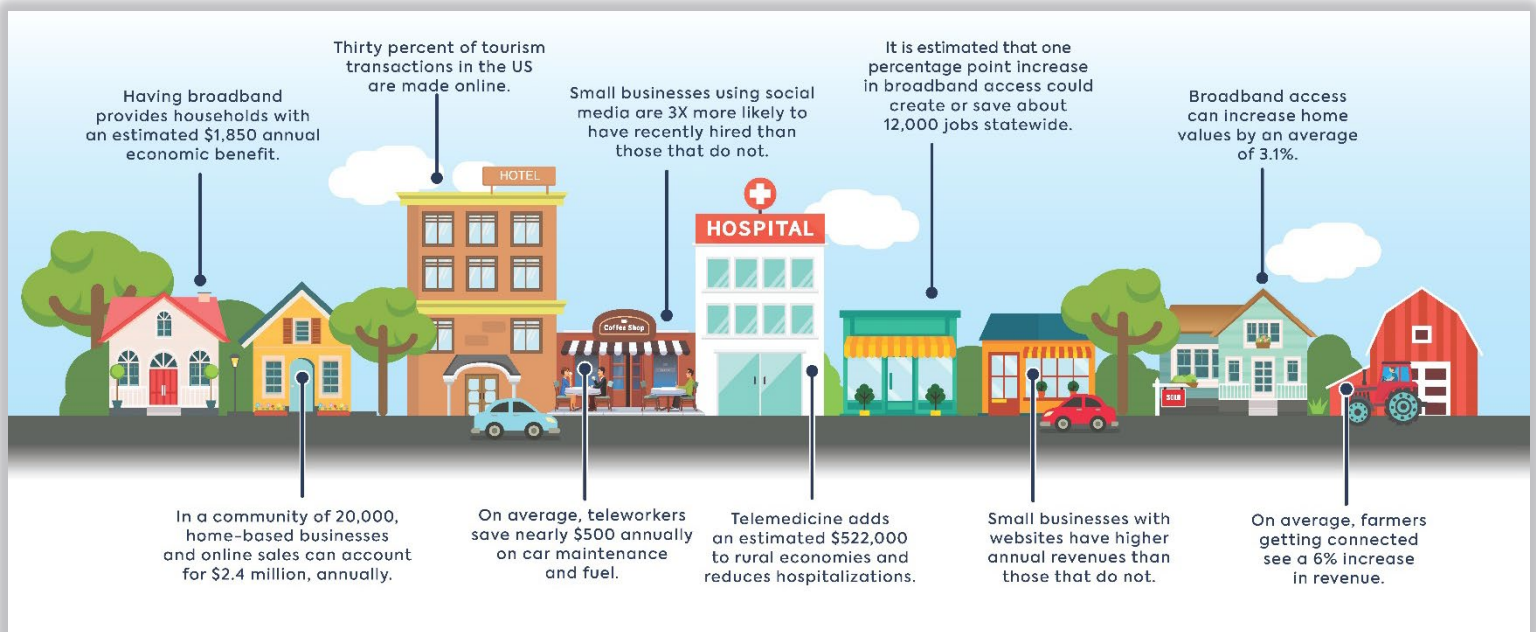
Pursuant of this goal, between January 2020 and February 2021, Blanco, Burnet, and Llano Counties conducted a comprehensive survey of broadband technology access and adoption across the community that collected responses from a combined 1,397 households. CN Texas staff also met with community officials to determine community needs and to gather qualitative data for consideration in the study. Overall, the assessment was designed to identify issues and opportunities to close the local Digital Divide.

All three communities are in a good position to improve broadband access, adoption and use throughout the community. With Rural Digital Opportunity Fund (RDOF) money (once approved) and Coronavirus State and Local Fiscal Recovery Funds flowing into the region, the future looks bright.  Understanding how to partner with local providers and keeping up with grant expenditures is imperative to long-term success. Many recommendations in this action plan are inexpensive or cost nothing at all but will contribute greatly to community development. Increasing broadband adoption and use throughout each county will contribute to greater quality of life.

To highlight key findings, CN Texas created an interactive map for these communities. 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 the technology assessment performed by CN Texas as well as recommendations for improving broadband and technology access, adoption, and use.



Having broadband provides households with an estimated $1,850 annual economic benefit.

Thirty percent of tourism transactions in the US are made online.

Small businesses using social media are 3X more likely to have recently hired than those that do not.

It is estimated that one percentage point increase in broadband access could create or save about 12,000 jobs statewide.

Broadband access can increase home values by an average of 3.1%.

In a community of 20,000, home-based businesses and online sales can account for $2.4 million, annually.

On average, teleworkers save nearly $500 annually on car maintenance and fuel.

Telemedicine adds an estimated $522,000 to rural economies and reduces hospitalizations.

Small businesses with websites have higher annual revenues than those that do not.

On average, farmers getting connected see a 6% increase in revenue.

# KEY FINDINGS

*02*

## BLANCO COUNTY KEY FINDINGS

- More than **one-half** of the residents use fixed internet connections[2] such as DSL, fiber, or fixed wireless, with an additional **one-third** of residents using non-fixed internet connections[3] including dial-up, satellite, and mobile-only services.

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

- The average internet speed reported by households in Blanco County **(19.06 Mbps)** is significantly lower than connections in other Connected communities **(34.66 Mbps)** and is below the current FCC definition of broadband (minimum speed of 25 Mbps download and 3 Mbps upload).

- About **93% of businesses** that participated in the survey reported that they subscribe to fixed or non-fixed broadband service. At the same time, 60% reported that they were dissatisfied with their service with **slow speeds** being the leading reason for their dissatisfaction.

- Nearly one in four businesses **(24%)** indicate they provide public Wi-Fi in Blanco County. More than seven out of ten businesses (71%) indicate having a website, while 100% of government agencies and 80% of K-12 facilities indicate that they offer public Wi-Fi.

- Nearly all responding households **(94%)** said they would like to have improved or additional options for home internet service.

- Only **70.2%** of households in Blanco County have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Statewide, more than **92%** of households have internet access at this speed.

# 79.13%

## of homes in Blanco County have access to broadband

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[2] Fixed internet connections include DSL, fiber, or fixed wireless technology.
[3] Non-fixed internet connections include dial-up, satellite, and mobile-only services. These non-fixed types of internet services, while providing basic access, can often be plagued by connection latency, have costly monthly data plans, or can be impacted by weather, terrain, large expanses of open water, and other environmental factors.

## BURNET COUNTY KEY FINDINGS

- Fewer than **one-half** (44%) of households use fixed internet connections[4] such as DSL, fiber, or fixed wireless, with an additional **one-third** (35%) of residents using non-fixed internet connections[5] including dial-up, satellite, and mobile-only services.

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

- The average internet speed reported by households in Burnet County **(17.92 Mbps)** is significantly lower than connections in other Connected communities **(34.66 Mbps)** and is below the current FCC definition of broadband (minimum speed of 25 Mbps download and 3 Mbps upload).

- About **82% of businesses** that participated in the survey reported that they subscribe to fixed or non-fixed broadband service. At the same time, 69% reported that they were dissatisfied with their service with **slow speeds** being the leading reason for their dissatisfaction.

- **One in five businesses (20%)** indicated that they offer public Wi-Fi, whereas **40%** of government facilities and **36% of K–12** facilities offer public Wi-Fi for community residents.

- Nearly all responding households (**97%**) said they would like to have improved or additional options for home internet service.

- Only **44.58%** of households in Burnet County have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Statewide, more than **92%** of households have internet access at this speed.

# 90.85%

of homes in Burnet County have access to broadband

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4 Fixed internet connections include DSL, fiber, or fixed wireless technology.
5 Non-fixed internet connections include dial-up, satellite, and mobile-only services. These non-fixed types of internet services, while providing basic access, can often be plagued by connection latency, have costly monthly data plans, or can be impacted by weather, terrain, large expanses of open water, and other environmental factors.

## LLANO COUNTY KEY FINDINGS:

- Nearly **two-thirds** of households (62.9%) use fixed internet connections[6] such as DSL, fiber, or fixed wireless, with an additional **one-fifth** of households (20%) using non-fixed internet connections[7] including dial-up, satellite, and mobile-only services.

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

- The average internet speed reported by households in Llano County **(9.88 Mbps**) is significantly lower than connections in other Connected communities **(34.66 Mbps)** and is below the current FCC definition of broadband (minimum speed of 25 Mbps download and 3 Mbps upload).

- About **93% of businesses** that participated in the survey reported that they subscribe to fixed or non-fixed broadband service. At the same time, 87% reported that they were dissatisfied with their service with **slow speeds** being the leading reason for their dissatisfaction.

- One in four businesses (26%) indicate offering public Wi-Fi. A similar percentage **government** and **K-12** facilities (25% each) indicate that they offer public Wi-Fi.

- Only **15.4%** of households in Llano County have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Statewide, more than 92% of households have internet access at this speed.

## 91.31%

## of homes in Llano County have access to broadband

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[6] Fixed internet connections include DSL, fiber, or fixed wireless technology.
[7] Non-fixed internet connections include dial-up, satellite, and mobile-only services. These non-fixed types of internet services, while providing basic access, can often be plagued by connection latency, have costly monthly data plans, or can be impacted by weather, terrain, large expanses of open water, and other environmental factors.

# INFRASTRUCTURE

*03*

## INFRASTRUCTURE

The first step in understanding the state of broadband infrastructure in Blanco, Burnet, and Llano Counties and the rest of Texas is having accurate maps. Accordingly, CN Texas works with providers to develop a variety of broadband maps at the state and county level. Data shown on these

According to CN Texas broadband data collected in July 2021 – with public feedback, field validation, and provider input:

- In Blanco County, there are almost 900 households that do not have access to broadband at 25/3 Mbps, the current definition of broadband as set forth by the Federal Communications Commission (FCC). The data collection process identified 11 internet service providers in Blanco County (see page 12).
- In Burnet County, there are about 1,500 households that do not have access to broadband at 25/3 Mbps, the current definition of broadband as set forth by the Federal Communications Commission (FCC). The data collection process identified 18 internet service providers in Burnet County, see table page 14.
- In Llano County, there about 800 households that do not have access to broadband at 25/3 Mbps, the current definition of broadband as set forth by the Federal Communications Commission (FCC). The data collection process identified 15 internet service providers in Llano County, see table page 16.

### Blanco County Broadband – Quick Facts

| | |
|---|---|
| Number of Unserved Households | 899 |
| Households served (10/1 Mbps) | 93.78% |
| Households served (25/3 Mbps) | 79.13% |
| Households served (50/5 Mbps) | 73.94% |
| Households served (100/10 Mbps) | 70.20% |

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

### Burnet County Broadband – Quick Facts

| | |
|---|---|
| Unserved Households (25/3 Mbps) | 1,510 |
| Households served (10/1 Mbps) | 98.32% |
| Households served (25/3 Mbps) | 90.85% |
| Households served (50/5 Mbps) | 63.45% |
| Households served (100/10 Mbps) | 44.58% |

### Llano County Broadband – Quick Facts

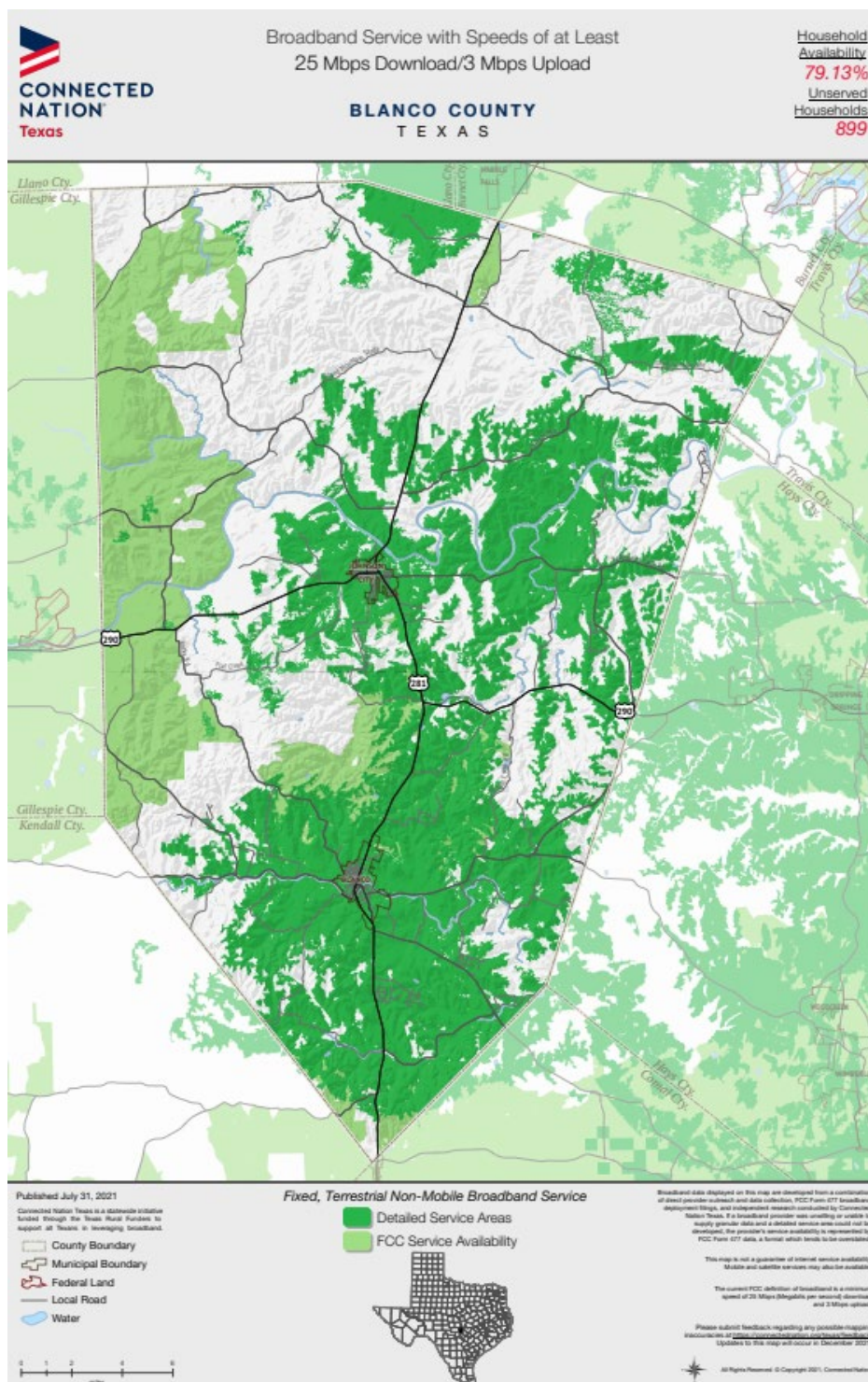| | |
|---|---|
| Number of Unserved Households | 783 |
| Households served (10/1 Mbps) | 96.46% |
| Households served (25/3 Mbps) | 91.31% |
| Households served (50/5 Mbps) | 52.30% |
| Households served (100/10 Mbps) | 15.40% |

Maps 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 were 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.

## Internet Service Providers in Blanco County

| PROVIDER | TECHNOLOGY | MAXIMUM DOWNLOAD SPEED (Mbps) | MAXIMUM UPLOAD SPEED (Mbps) |
|---|---|---|---|
| Bee Creek Communications | Fixed Wireless | 50 | 20 |
| Charter Communications | Cable | 940 | 35 |
| Frontier | DSL | 25 | 3 |
| Guadalupe Valley Communication Systems | Fiber<br>DSL | 1000<br>12 | 250<br>1.5 |
| Hill Country Wireless and Technology | Fixed Wireless | 500 | 500 |
| HomeSmart Internet | Fixed Wireless | 25 | 5 |
| Rise Broadband | Fixed Wireless | 25 | 3 |
| Spry Wireless | Fixed Wireless | 30 | 10 |
| Texas Wireless Internet | Fixed Wireless | 10 | 1 |
| VGI Technology | Fixed Wireless | 50 | 5 |
| Zeecon Wireless | Fixed Wireless | 10 | 1 |

Below is Blanco County's (25/3 Mbps) service area map (access the full map here: https://connectednation.org/texas/county-maps/). Other portions of the county are served by internet service providers (ISPs) offering slower speeds.

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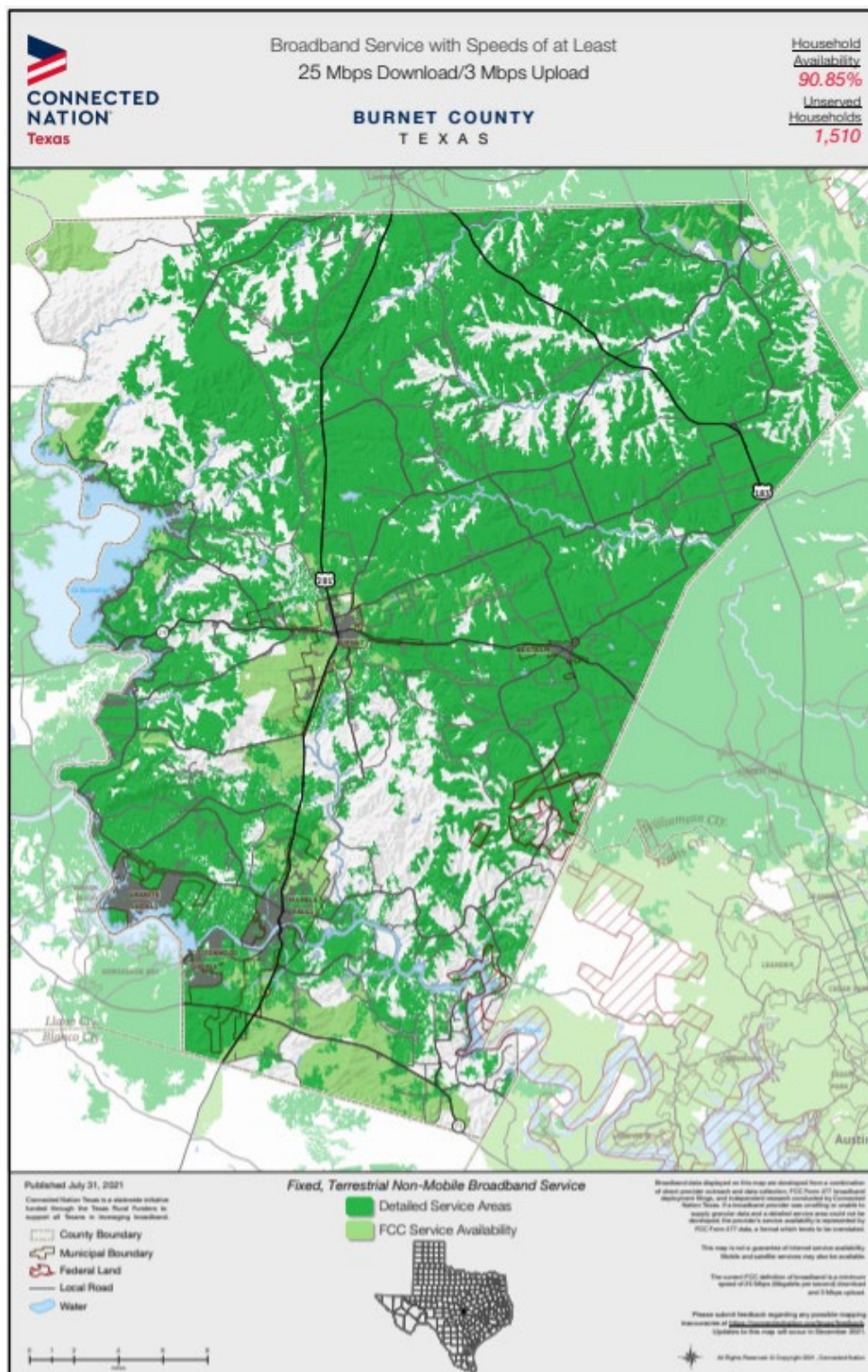## Internet Service Providers in Burnet County

| PROVIDER | TECHNOLOGY | MAXIMUM DOWNLOAD SPEED (Mbps) | MAXIMUM UPLOAD SPEED (Mbps) |
|---|---|---|---|
| Rio Broadband (325 Internet) | Fixed Wireless | 50 | 5 |
| Central Texas Telephone Coop Inc | Fiber | 1000 | 100 |
| CenturyLink, Inc. | DSL<br>Fiber | 10<br>940 | 1<br>940 |
| Charter Communications, Inc. | Cable<br>Fiber | 940<br>1000 | 35<br>1000 |
| Clarus Broadband | Fiber | 1000 | 1000 |
| Gulf Coast Broadband | Fixed Wireless | 15 | 15 |
| ERF Wireless | Fixed Wireless | 10 | 2 |
| Grande Communications Networks, LLC | Cable | 600 | 35 |
| HomeSmart Internet | Fixed Wireless | 25 | 5 |
| Rise Broadband | Fixed Wireless | 25 | 5 |
| Texas Broadband (R5) | Fixed Wireless | 45 | 15 |
| SOS Communications LLC | Fixed Wireless | 25 | 5 |
| AT&T | DSL<br>Fixed Wireless | 12<br>10 | 1<br>1 |
| Nextlink | Fixed Wireless | 100 | 20 |
| VGI Technology | Fixed Wireless | 50 | 5 |
| Western Broadband | Fixed Wireless | 15 | 1.5 |
| Zeecon Wireless Internet, LLC | Fixed Wireless | 10 | 1 |
| Texas Wireless Internet | Fixed Wireless | 10 | 1 |

Below is Burnet County's (25/3 Mbps) service area map, (access the full map here: https://connectednation.org/texas/county-maps/). Other portions of the county are served by internet service providers (ISPs) offering slower speeds.
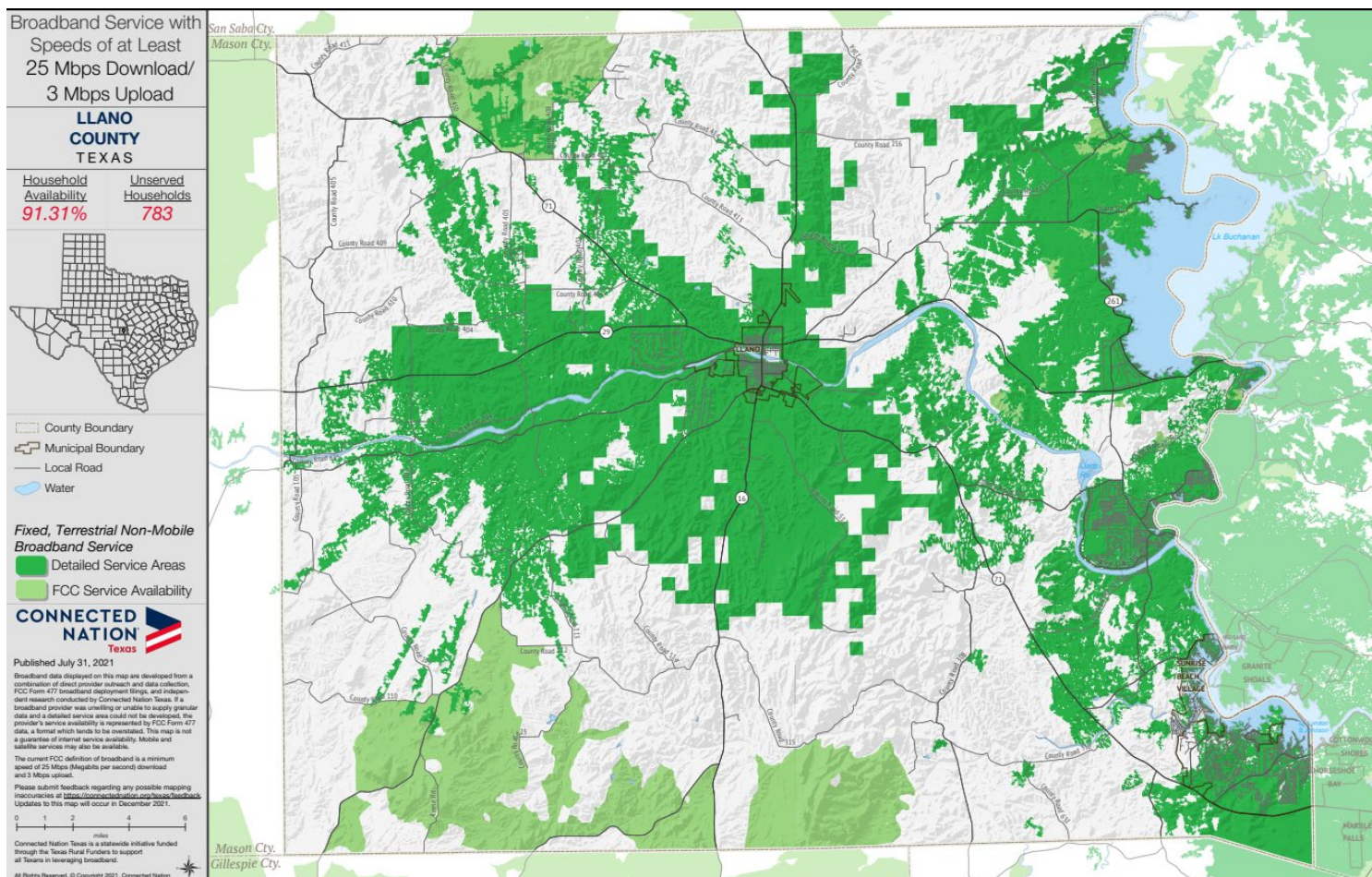
## Internet Service Providers in Llano County

| PROVIDER | TECHNOLOGY | MAXIMUM DOWNLOAD SPEED (Mbps) | MAXIMUM UPLOAD SPEED (Mbps) |
|---|---|---|---|
| Rio Broadband | Fixed Wireless | 50 | 5 |
| Bee Creek Communications | Fixed Wireless | 50 | 20 |
| Gulf Coast Broadband | Fixed Wireless | 15 | 15 |
| Texas Wireless Internet | Fixed Wireless | 10 | 1 |
| Central Texas Telephone Coop. | Fiber | 1000 | 100 |
| Charter | Cable | 940 | 35 |
| Particle Communications | Fiber | 25 | 10 |
| ERF Wireless | Fixed Wireless | 10 | 2 |
| Frontier | DSL | 25 | 3 |
| Hill Country Telephone Coop. | DSL<br>Fiber | 50<br>1000 | 10<br>1000 |
| HomeSmart Internet | Fixed Wireless | 25 | 5 |
| Rise Broadband | Fixed Wireless | 25 | 5 |
| Texas Broadband (R5) | Fiber | 275 | 75 |
| | Fixed Wireless | 45 | 15 |
| VGI Technology | Fixed Wireless | 50 | 5 |
| Zeecon Wireless | Fixed Wireless | 10 | 1 |

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Below is Llano County's (25/3 Mbps) service area map, (access the full map here: https://connectednation.org/texas/county-maps/). Other portions of the county are served by internet service providers (ISPs) offering slower speeds.



Broadband Service with Speeds of at Least 25 Mbps Download/ 3 Mbps Upload

**LLANO COUNTY**
TEXAS

| Household Availability | Unserved Households |
|---|---|
| 91.31% | 783 |

County Boundary
Municipal Boundary
Local Road
Water

*Fixed, Terrestrial Non-Mobile Broadband Service*
Detailed Service Areas
FCC Service Availability

CONNECTED NATION Texas

Published July 31, 2021

Broadband data displayed on this map are developed from a combination of direct provider outreach and data collection, FCC Form 477 broadband deployment filings, and independent research conducted by Connected Nation Texas. If a broadband provider was unwilling or unable to supply granular data and a detailed service area could not be developed, the provider's service availability is represented by FCC Form 477 data, a format which tends to be overstated. This map is not a guarantee of internet service availability. Mobile and satellite services may also be available.

The current FCC definition of broadband is a minimum speed of 25 Mbps (Megabits per second) download and 3 Mbps upload.

Please submit feedback regarding any possible mapping inaccuracies at https://connectednation.org/texas/feedback. Updates to this map will occur in December 2021.

Connected Nation Texas is a statewide initiative funded through the Texas Rural Funders to support all Texans in leveraging broadband.

All Rights Reserved. © Copyright 2021, Connected Nation.

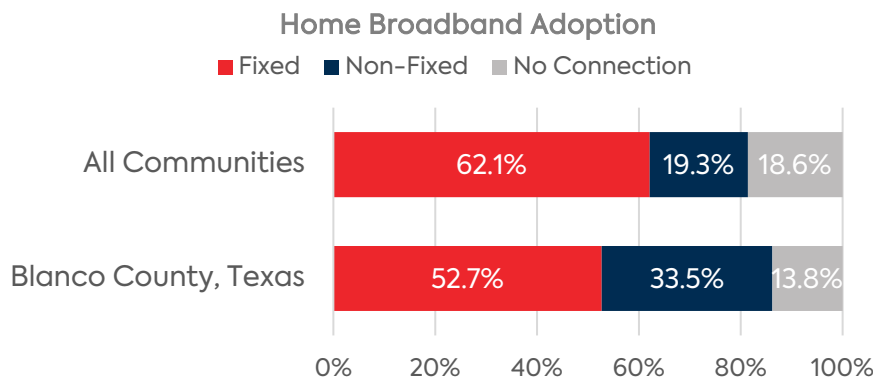# HOUSEHOLDS: DETAILED FINDINGS

*04*

## BLANCO COUNTY

### HOUSEHOLDS – DETAILED FINDINGS

The following provides an overview of results from a broadband survey conducted in Blanco County between January 2020 and February 2021. Altogether, CN Texas received 215 completed surveys from households across the county. Respondents provided insights into their internet connectivity, or lack thereof. Data from Blanco County are compared to data from dozens of rural Connected communities across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

| Households – Quick Facts | |
| --- | --- |
| Fixed Home Broadband Adoption[8] | 52.7% |
| Average Monthly Cost of Internet | $84.81 |
| Average Download Speed | 19.06 Mbps |
| Households Satisfied with Service | 45.0% |

Source: Blanco County Household Survey conducted by CN Texas

### ADOPTION

**Home Broadband Adoption**

Fixed ■ Non-Fixed ■ No Connection

| | Fixed | Non-Fixed | No Connection |
| --- | --- | --- | --- |
| All Communities | 62.1% | 19.3% | 18.6% |
| Blanco County, Texas | 52.7% | 33.5% | 13.8% |

In Blanco County, 52.7% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology; 33.5% of respondents indicate they have non-fixed internet service, delivered via dial-up, satellite, or a mobile wireless service; leaving just under one in seven survey respondents (13.8%) without internet access at home.

**Primary Barrier to Home Broadband Adoption**

| | Too Expensive | Not Available | Other |
| --- | --- | --- | --- |
| All Communities | 26.0% | 54.7% | 19.3% |
| Blanco County, Texas | 34.6% | 42.3% | 23.1% |

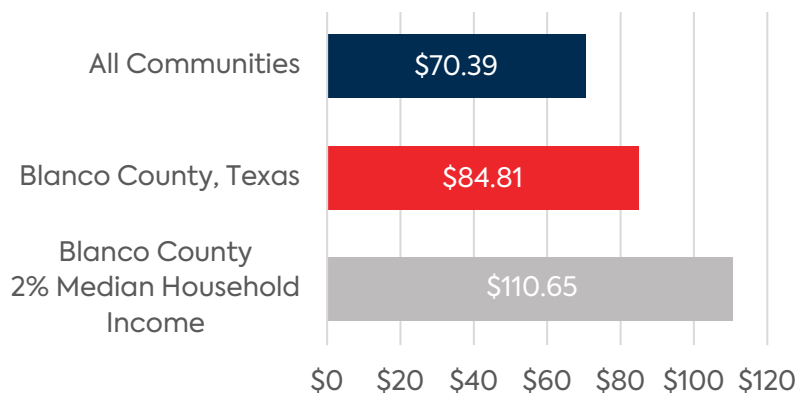■ Too Expensive ■ Not Available ■ Other
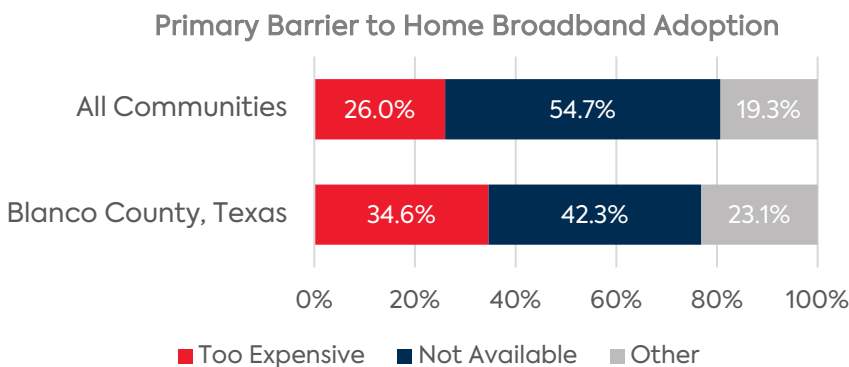
Among those without a home internet connection, 42.3% said they did not have broadband because it was not available to them, while more than one-third (34.6%) indicate that it was too expensive. Like in many communities, cost and availability are the two primary barriers to home broadband adoption.

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[8] Fixed home broadband connections are those provided by cable, DSL, fiber, or fixed wireless technology.

**CONNECTED NATION**
Texas

## CONNECTION DETAILS

### Average Monthly Cost for Home Internet Service

| | |
|---|---|
| All Communities | $70.39 |
| Blanco County, Texas | $84.81 |
| Blanco County 2% Median Household Income | $110.65 |

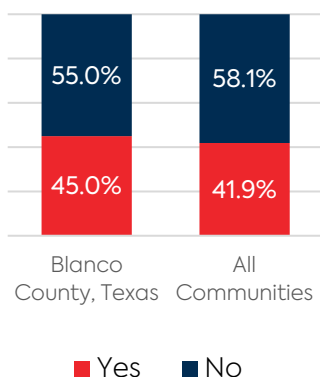$0  $20  $40  $60  $80  $100  $120

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 $84.81 per month. This is higher than monthly costs in other Connected communities ($70.39). Two percent of the median household income in Blanco County is $110.65 per month.

### Average Download Speed (Mbps)
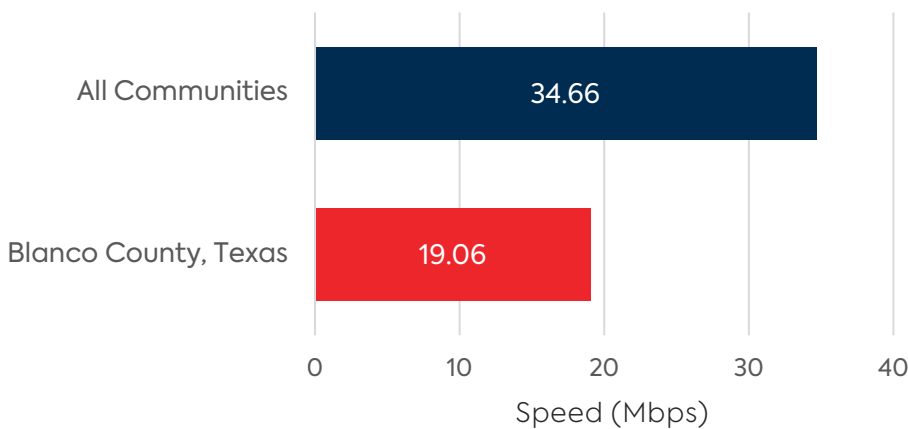
| | |
|---|---|
| All Communities | 34.66 |
| Blanco County, Texas | 19.06 |

0  10  20  30  40

Speed (Mbps)

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 19.06 Mbps, which is much lower than household connections in other Connected communities and well below the defined speed of broadband which is 25 Mbps.
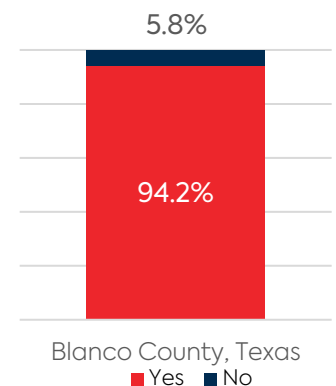
### Does Your Internet Connection Meet Your Needs?

Blanco County, Texas: No 55.0%, Yes 45.0%
All Communities: No 58.1%, Yes 41.9%

■ Yes ■ No

### Why Does Your Connection Not Meet Your Needs?

Speeds are too slow: 86.5%
The price is too high: 53.1%
My connection is unreliable: 64.6%
Customer service is poor: 18.8%
Limited data caps: 32.2%

■ Speeds are too slow
■ The price is too high
■ My connection is unreliable
■ Customer service is poor
■ Limited data caps

### Are You Interested in Additional Internet Choices at Home?

5.8%
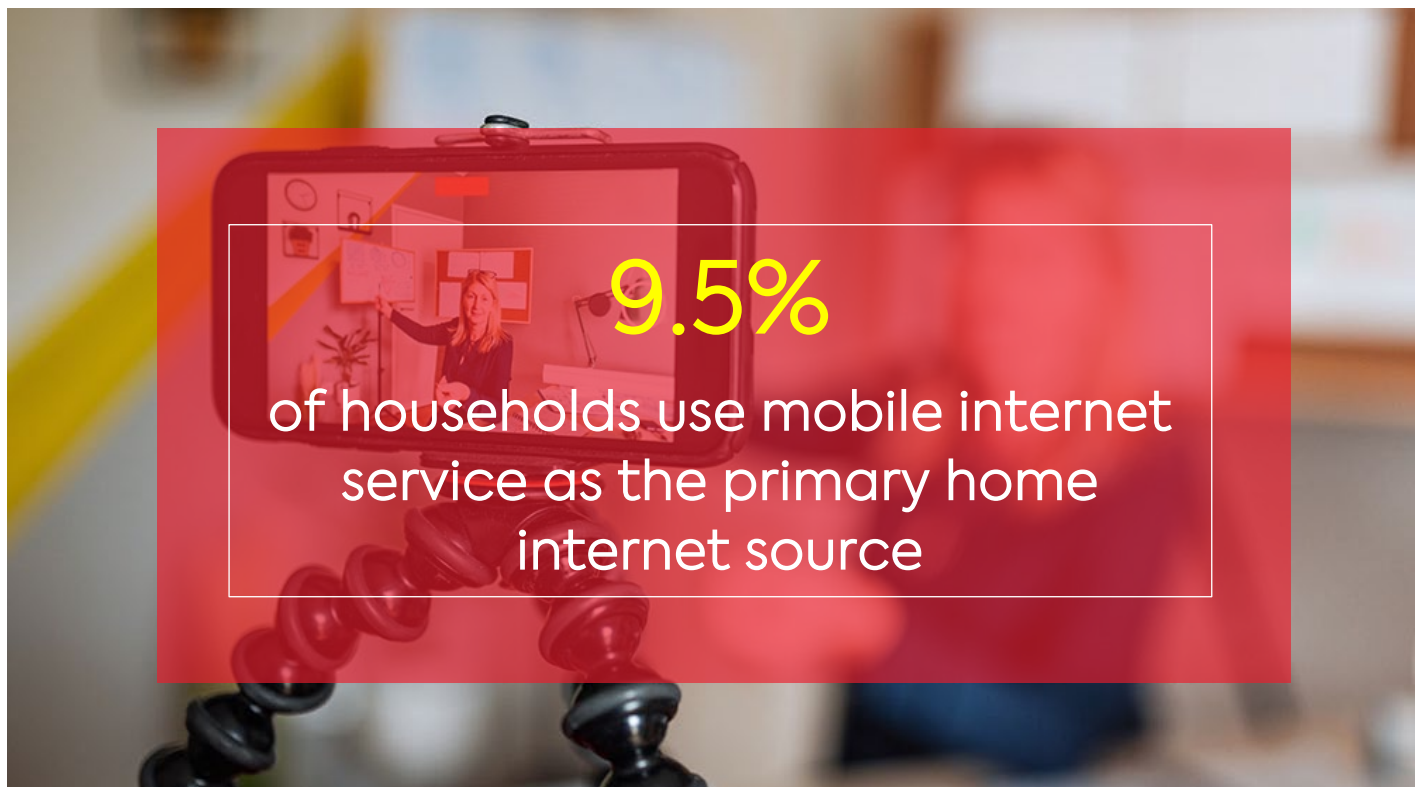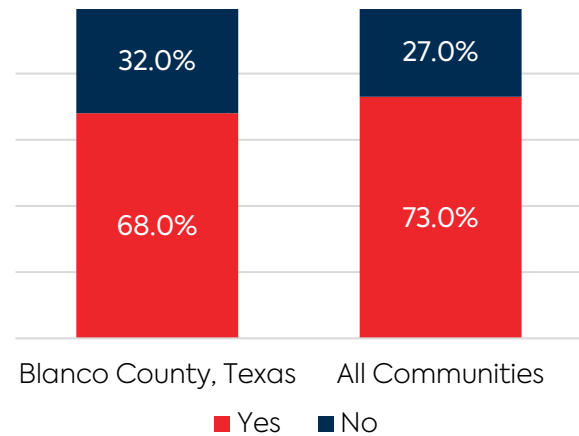94.2%

Blanco County, Texas
■ Yes ■ No
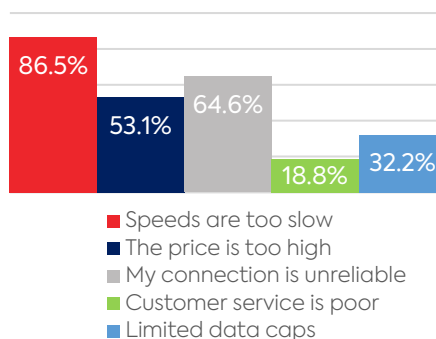
Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. More than one-half of respondents indicate that their internet connection does not meet their needs. This is a comparable rate of dissatisfaction to households in other Connected communities (58%). When asked why their connection does not meet their needs, 86.5% of households indicate that the speed is too slow. About 53% say the price is too high, and nearly 65% indicate that the connection is unreliable (respondents could choose more than one reason). Finally, nearly every respondent (94.2%) indicates that they are interested in additional internet choices for their home.

## MOBILE CONNECTIVITY

More than two-thirds of Blanco County households (68%) report that they subscribe to mobile internet service which they access via a smartphone or similar mobile device. This is on par with other Connected communities (73.0%).

Additionally, about 31.4% of all households reported that they rely on their mobile connection at home as their primary source of internet connectivity or use mobile service to connect other household devices to the internet.
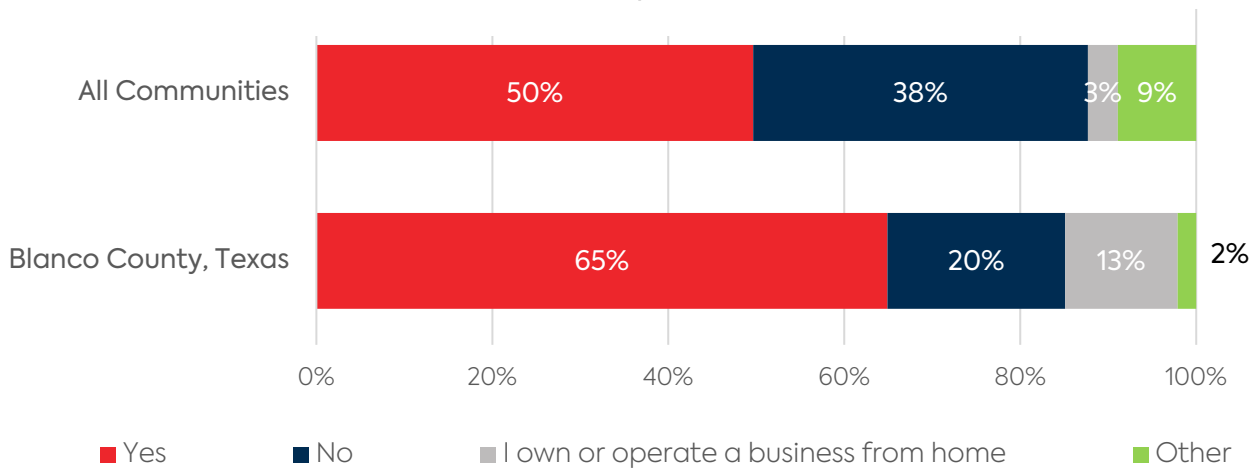
**Households Subscribing to Mobile Internet Service**

| | Blanco County, Texas | All Communities |
|---|---|---|
| No | 32.0% | 27.0% |
| Yes | 68.0% | 73.0% |

■ Yes ■ No

# 9.5%
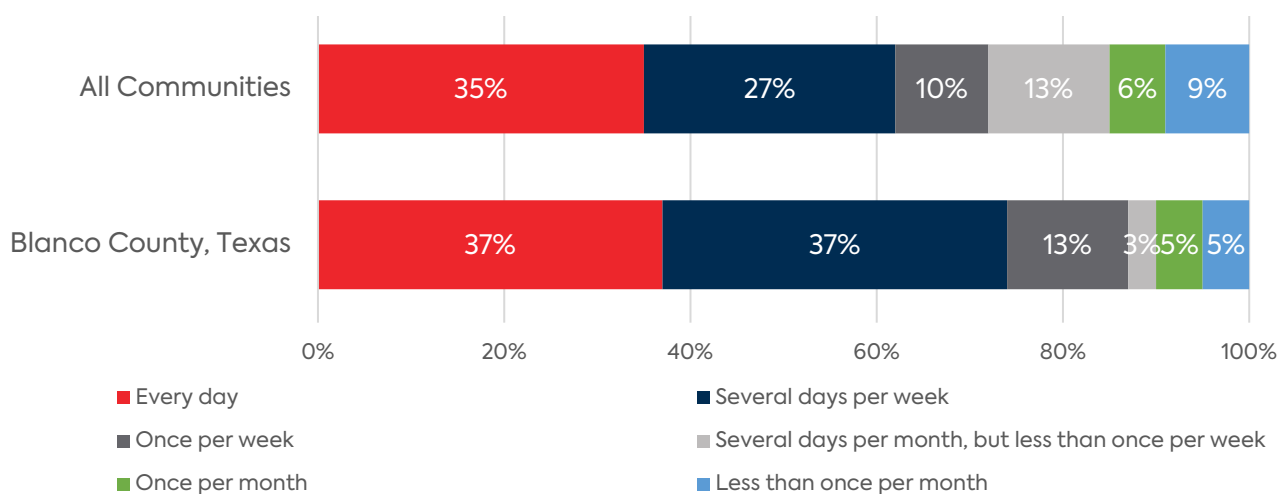## of households use mobile internet service as the primary home internet source

## TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace and communicating with it by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow staff to telework. In Blanco County, the lack of broadband access was a significant barrier to organizations being able to operate virtually if needed. 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 65% of employed residents in Blanco County indicated that they telework at least part of the time. This is more than residents in other Connected communities. It is important to note that most of the data from other communities was collected prior to COVID-19.

**Do You Currently Telework For Your Job?**

| | Yes | No | I own or operate a business from home | Other |
|---|---|---|---|---|
| All Communities | 50% | 38% | 3% | 9% |
| Blanco County, Texas | 65% | 20% | 13% | 2% |

**How Frequently Do You Telework?**

| | Every day | Several days per week | Once per week | Several days per month, but less than once per week | Once per month | Less than once per month |
|---|---|---|---|---|---|---|
| All Communities | 35% | 27% | 10% | 13% | 6% | 9% |
| Blanco County, Texas | 37% | 37% | 13% | 3% | 5% | 5% |

## BURNET COUNTY

## HOUSEHOLDS – DETAILED FINDINGS

The following provides an overview of results from a broadband survey conducted in Burnet County between January 2020 and February 2021. Altogether, CN Texas received 955 completed surveys from households across the county. Respondents provided insights into their internet connectivity, or lack thereof. Data from Burnet County are compared to data from dozens of rural Connected communities across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

| Households – Quick Facts | |
|---|---|
| Fixed Home Broadband Adoption[9] | 44.0% |
| Average Monthly Cost of Internet | $85.85 |
| Average Download Speed | 17.92 Mbps |
| Households Satisfied with Service | 32.0% |

Source: Burnet County Household Survey conducted by CN Texas

## ADOPTION

**Home Broadband Adoption**

■ Fixed ■ Non-Fixed ■ No Connection

| | Fixed | Non-Fixed | No Connection |
|---|---|---|---|
| All Communities | 62.1% | 19.3% | 18.6% |
| Burnet County , Texas | 44.0% | 35.0% | 21.0% |
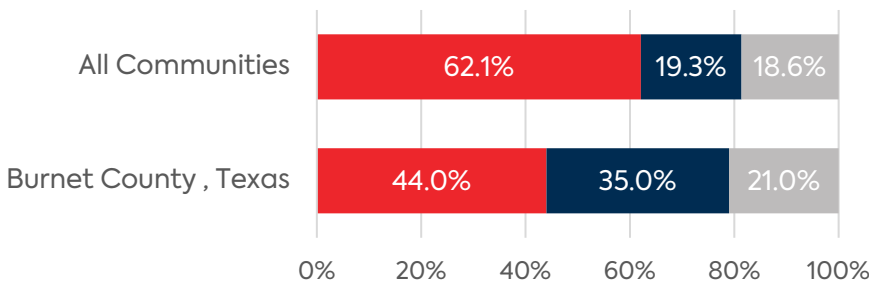
In Burnet County, 44% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology; 35% of respondents indicate they have non-fixed internet service, delivered via dial-up, satellite, or a mobile wireless service; leaving just over one-fifth (21%) of survey respondents without internet access at home.

**Primary Barrier to Home Broadband Adoption**

| | Too Expensive | Not Available | Other |
|---|---|---|---|
| All Communities | 26.0% | 54.7% | 19.3% |
| Burnet County, Texas | 25.4% | 50.3% | 24.3% |

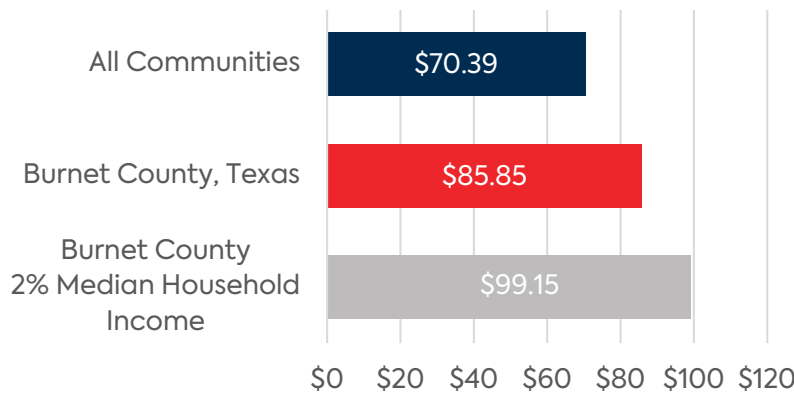■ Too Expensive ■ Not Available ■ Other
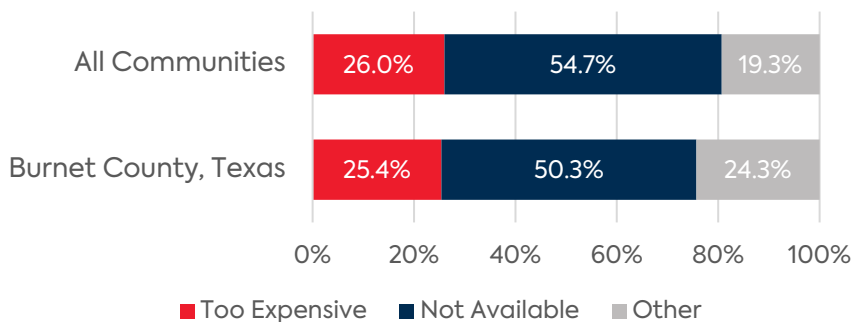
Among those without a home internet connection, 50.3% said they did not have broadband because it was not available to them, while one-quarter (25.4%) indicate that it was too expensive. Like in many communities, cost and availability are the two primary barriers to home broadband adoption.

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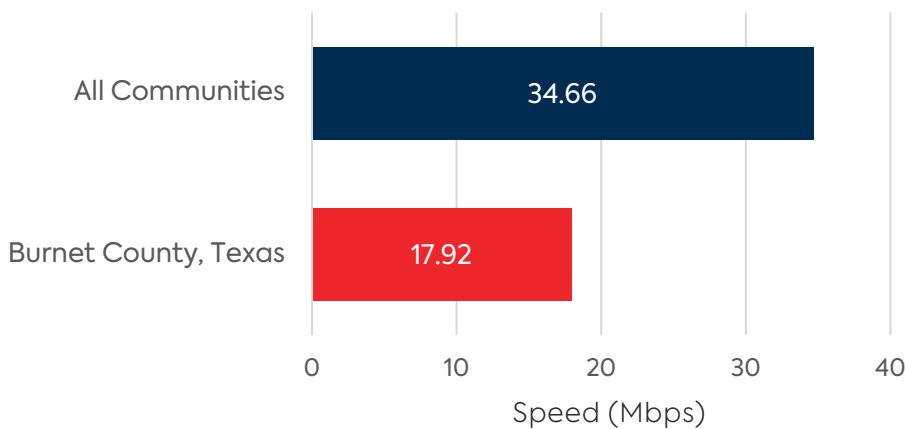[9] Fixed home broadband connections are those provided by cable, DSL, fiber, or fixed wireless technology.

CONNECTED NATION™ Texas

## CONNECTION DETAILS

### Average Monthly Cost for Home Internet Service

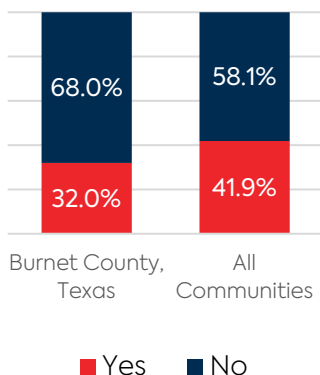| Category | Cost |
|---|---|
| All Communities | $70.39 |
| Burnet County, Texas | $85.85 |
| Burnet County 2% Median Household Income | $99.15 |

(x-axis: $0  $20  $40  $60  $80  $100  $120)

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 $85.85 per month. This is higher than monthly costs in other Connected communities ($70.39). Two percent of the median household income in Burnet County is $99.15 per month.

### Average Download Speed (Mbps)

| Category | Speed |
|---|---|
| All Communities | 34.66 |
| Burnet County, Texas | 17.92 |

(x-axis: 0  10  20  30  40 — Speed (Mbps))

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 17.92 Mbps, which is much lower than household connections in other Connected communities and below the defined speed of broadband which is 25 Mbps.
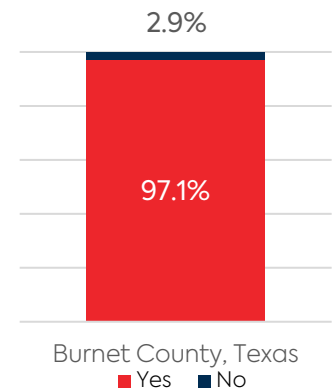
### Does Your Internet Connection Meet Your Needs?

| | Burnet County, Texas | All Communities |
|---|---|---|
| No | 68.0% | 58.1% |
| Yes | 32.0% | 41.9% |

Legend: Yes (red), No (navy)

### Why Does Your Connection Not Meet Your Needs?

- Speeds are too slow: 88.8%
- The price is too high: 58.4%
- My connection is unreliable: 73.6%
- Customer service is poor: 29.8%
- Limited data caps: 40.6%

### Are You Interested in Additional Internet Choices at Home?

Burnet County, Texas
- No: 2.9%
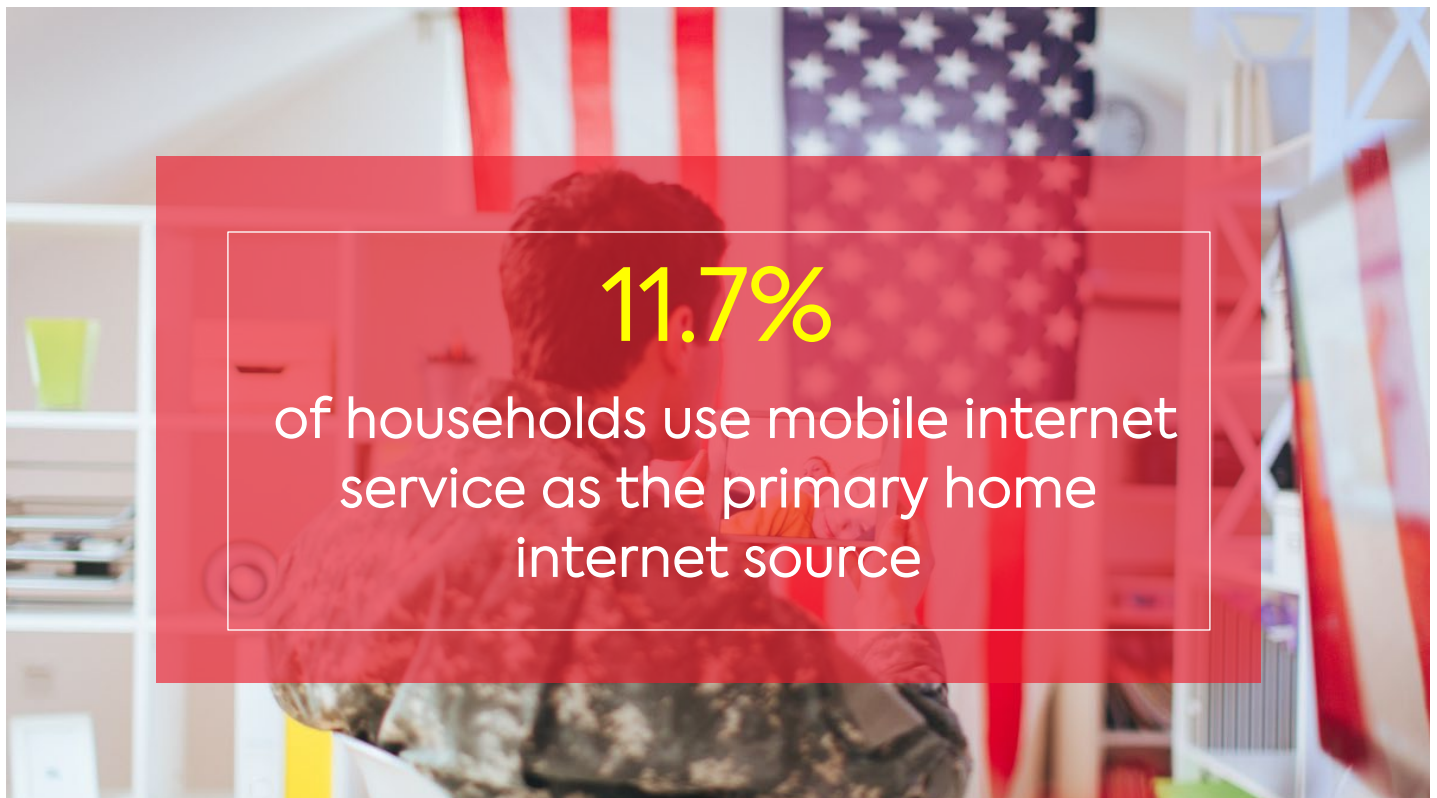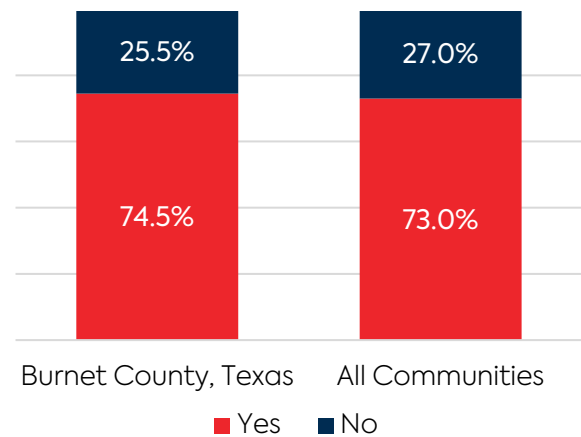- Yes: 97.1%

Legend: Yes (red), No (navy)
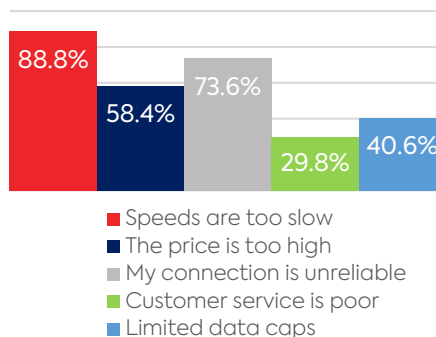
Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. More than two-thirds of respondents indicate that their internet connection does not meet their needs (68%). This is a higher rate of dissatisfaction compared to households in other Connected communities (58%). When asked why their connection does not meet their needs, 88.8% of households indicate that the speed is too slow. About 58% say the price is too high, and nearly 74% indicate that the connection is unreliable (respondents could choose more than one reason). Finally, nearly every respondent (97.1%) indicate that they are interested in additional internet choices for their home.

## MOBILE CONNECTIVITY

About three-quarters of Burnet County households (74.5%) report that they subscribe to mobile internet service which they access via a smartphone or similar mobile device. This is on par with other Connected communities (73.0%).

Additionally, about 35% of all households reported that they rely on their mobile connection at home as their primary source of internet connectivity or use mobile service to connect other household devices to the internet.
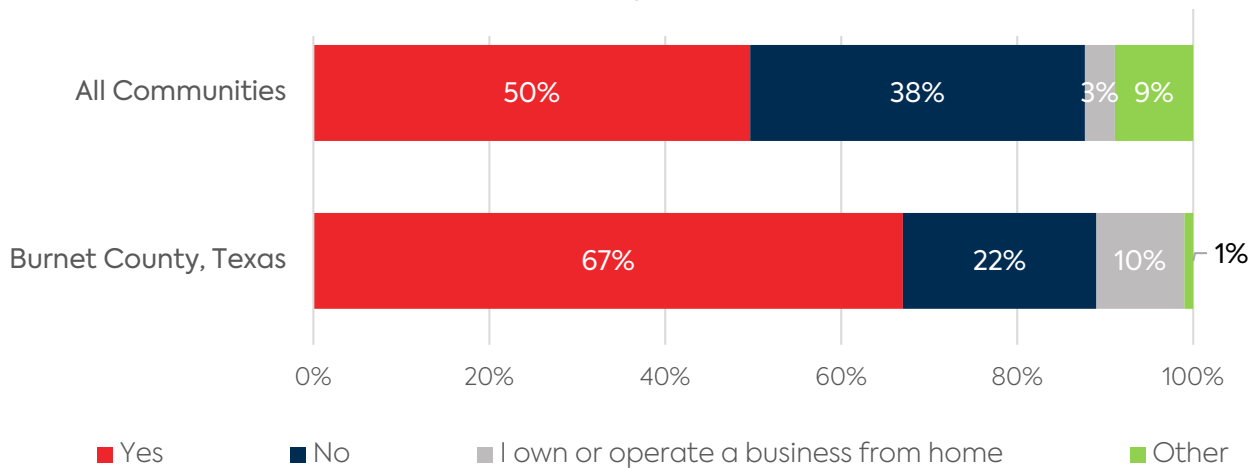
**Households Subscribing to Mobile Internet Service**

| Burnet County, Texas | All Communities |
|---|---|
| 25.5% | 27.0% |
| 74.5% | 73.0% |

■ Yes ■ No

11.7%
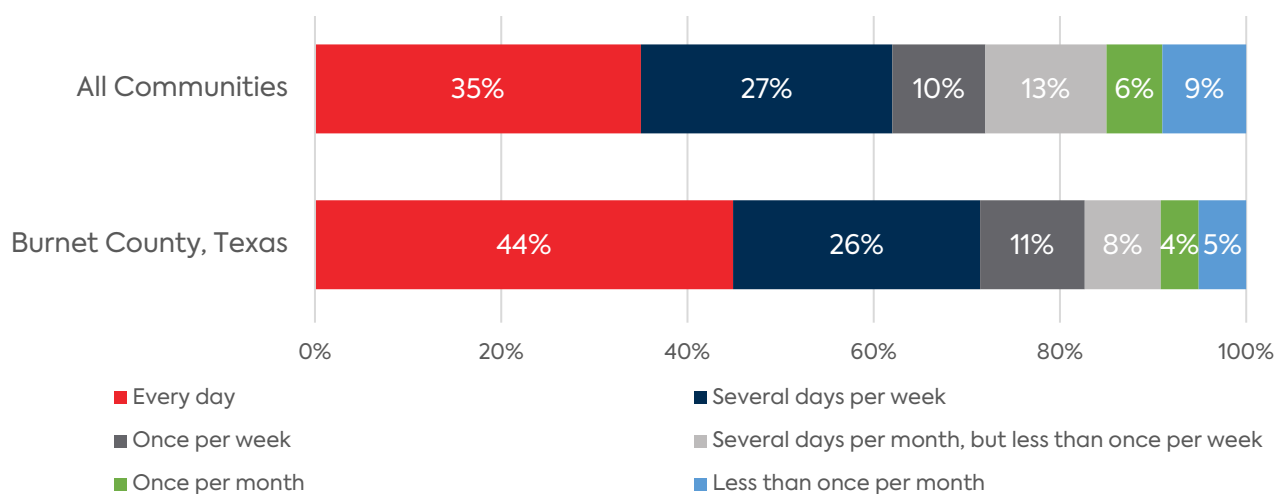of households use mobile internet service as the primary home internet source

## TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace and communicating with it by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow staff to telework. In Burnet County, the lack of broadband access was a significant barrier to organizations being able to operate virtually if needed. 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 67% of employed residents in Burnet County indicate that they telework at least part of the time. This is more than residents in other Connected communities. It is important to note that most of the data from other communities was collected prior to COVID-19.

### Do You Currently Telework For Your Job?

| Community | Yes | No | I own or operate a business from home | Other |
|---|---|---|---|---|
| All Communities | 50% | 38% | 3% | 9% |
| Burnet County, Texas | 67% | 22% | 10% | 1% |

Legend:
- ■ Yes
- ■ No
- ■ I own or operate a business from home
- ■ Other

### How Frequently Do You Telework?

| Community | Every day | Several days per week | Once per week | Several days per month, but less than once per week | Once per month | Less than once per month |
|---|---|---|---|---|---|---|
| All Communities | 35% | 27% | 10% | 13% | 6% | 9% |
| Burnet County, Texas | 44% | 26% | 11% | 8% | 4% | 5% |

Legend:
- ■ Every day
- ■ Several days per week
- ■ Once per week
- ■ Several days per month, but less than once per week
- ■ Once per month
- ■ Less than once per month

**CONNECTED NATION**
**Texas**

## LLANO COUNTY

## HOUSEHOLDS – DETAILED FINDINGS

The following provides an overview of results from a broadband survey conducted in Llano County between January 2020 and February 2021. Altogether, CN Texas received 207 completed surveys from households across the county. Respondents provided insights into their internet connectivity, or lack thereof. Data from Llano County are compared to data from dozens of rural Connected communities across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

| Households - Quick Facts | |
|---|---|
| Fixed Home Broadband Adoption[10] | 62.9% |
| Average Monthly Cost of Internet | $85.85 |
| Average Download Speed | 9.88 Mbps |
| Households Satisfied with Service | 36.0% |

Source: Llano County Household Survey
conducted by CN Texas

### ADOPTION

**Home Broadband Adoption**

■ Fixed  ■ Non-Fixed  ■ No Connection

| | Fixed | Non-Fixed | No Connection |
|---|---|---|---|
| All Communities | 62.1% | 19.3% | 18.6% |
| Llano County, Texas | 62.9% | 19.7% | 17.4% |

0%   20%   40%   60%   80%   100%
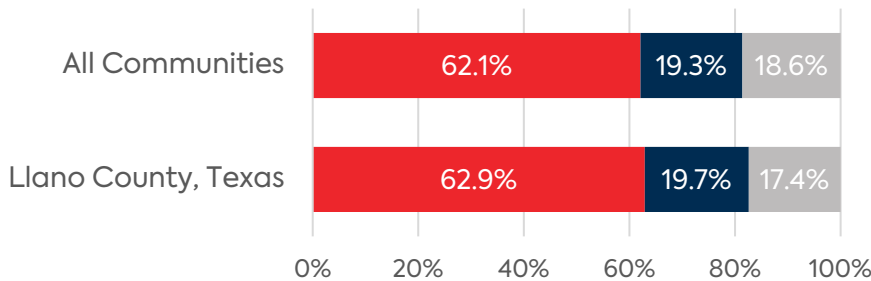
In Blanco County, 62.9% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology; 19.7% of respondents indicate they have non-fixed internet service delivered via dial-up, satellite, or a mobile wireless service; leaving more than one in six survey respondents (17.4%) without internet service at home.

**Primary Barrier to Home Broadband Adoption**

| | Too Expensive | Not Available | Other |
|---|---|---|---|
| All Communities | 26.0% | 54.7% | 19.3% |
| Llano County, Texas | 41.9% | 35.5% | 22.6% |

0%   20%   40%   60%   80%   100%
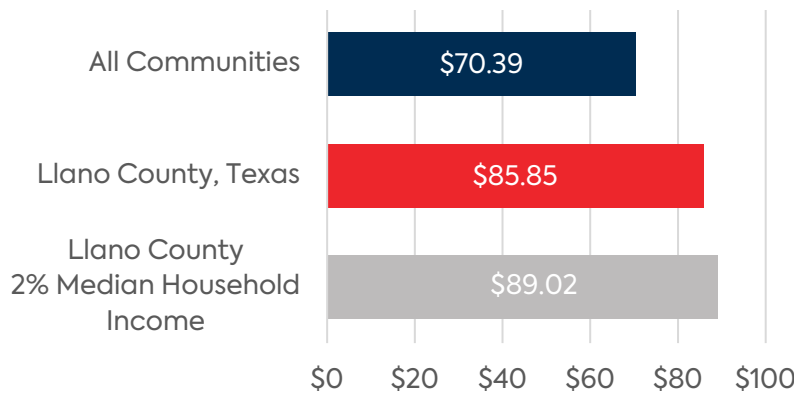
■ Too Expensive  ■ Not Available  ■ Other
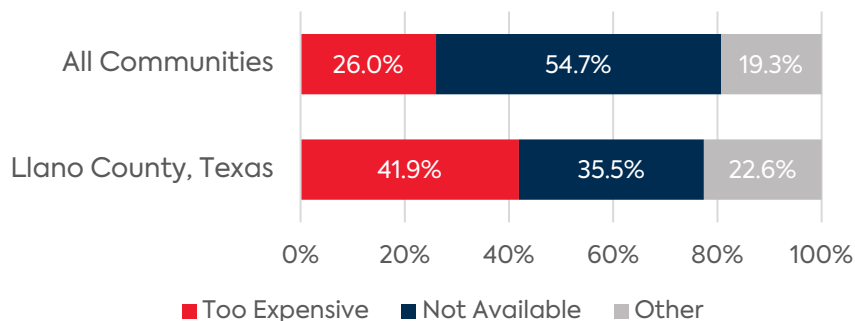
Among those without a home internet connection, 35.5% said they did not have broadband because it was not available to them, while more than two-fifths (42%) indicate that it was too expensive. Like in many communities, cost and availability are the two primary barriers to home broadband adoption.

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[10] Fixed home broadband connections are those provided by cable, DSL, fiber, or fixed wireless technology.

# BLANCO, BURNET, LLANO COUNTIES (TEXAS)
# EXECUTIVE SUMMARY

## CONNECTION DETAILS

### Average Monthly Cost for Home Internet Service

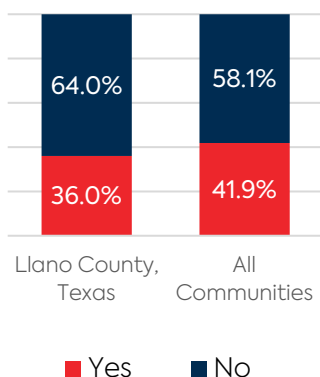| | |
|---|---|
| All Communities | $70.39 |
| Llano County, Texas | $85.85 |
| Llano County 2% Median Household Income | $89.02 |

Scale: $0, $20, $40, $60, $80, $100

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 $85.85 per month. This is higher than monthly costs in other Connected communities ($70.39). Two percent of the median household income in Llano County is $89.02 per month.

### Average Download Speed (Mbps)
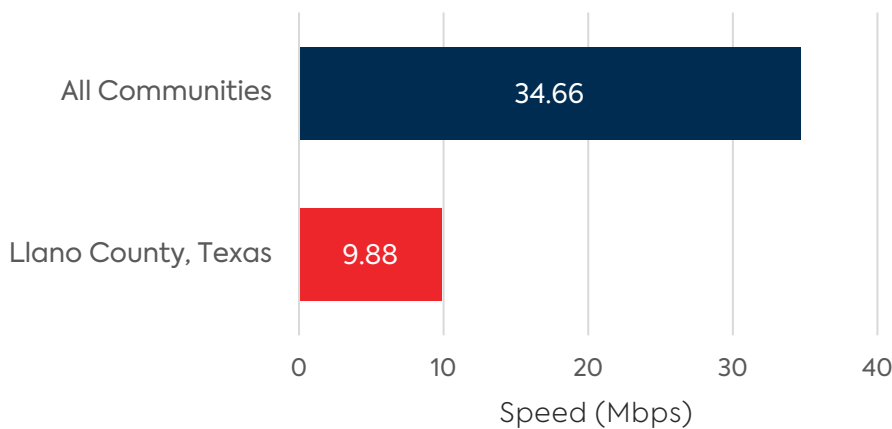
| | |
|---|---|
| All Communities | 34.66 |
| Llano County, Texas | 9.88 |

Speed (Mbps): 0, 10, 20, 30, 40

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 9.88 Mbps, which is much lower than household connections in other Connected communities and well below the defined speed of broadband which is 25 Mbps.
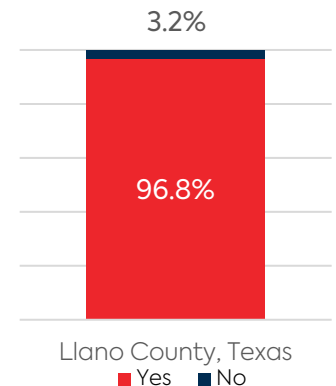
### Does Your Internet Connection Meet Your Needs?

| | Llano County, Texas | All Communities |
|---|---|---|
| No | 64.0% | 58.1% |
| Yes | 36.0% | 41.9% |

Yes (red) / No (navy)

### Why Does Your Connection Not Meet Your Needs?

- Speeds are too slow: 88.9%
- The price is too high: 45.5%
- My connection is unreliable: 61.6%
- Customer service is poor: 20.2%
- Limited data caps: 21.2%

### Are You Interested in Additional Internet Choices at Home?
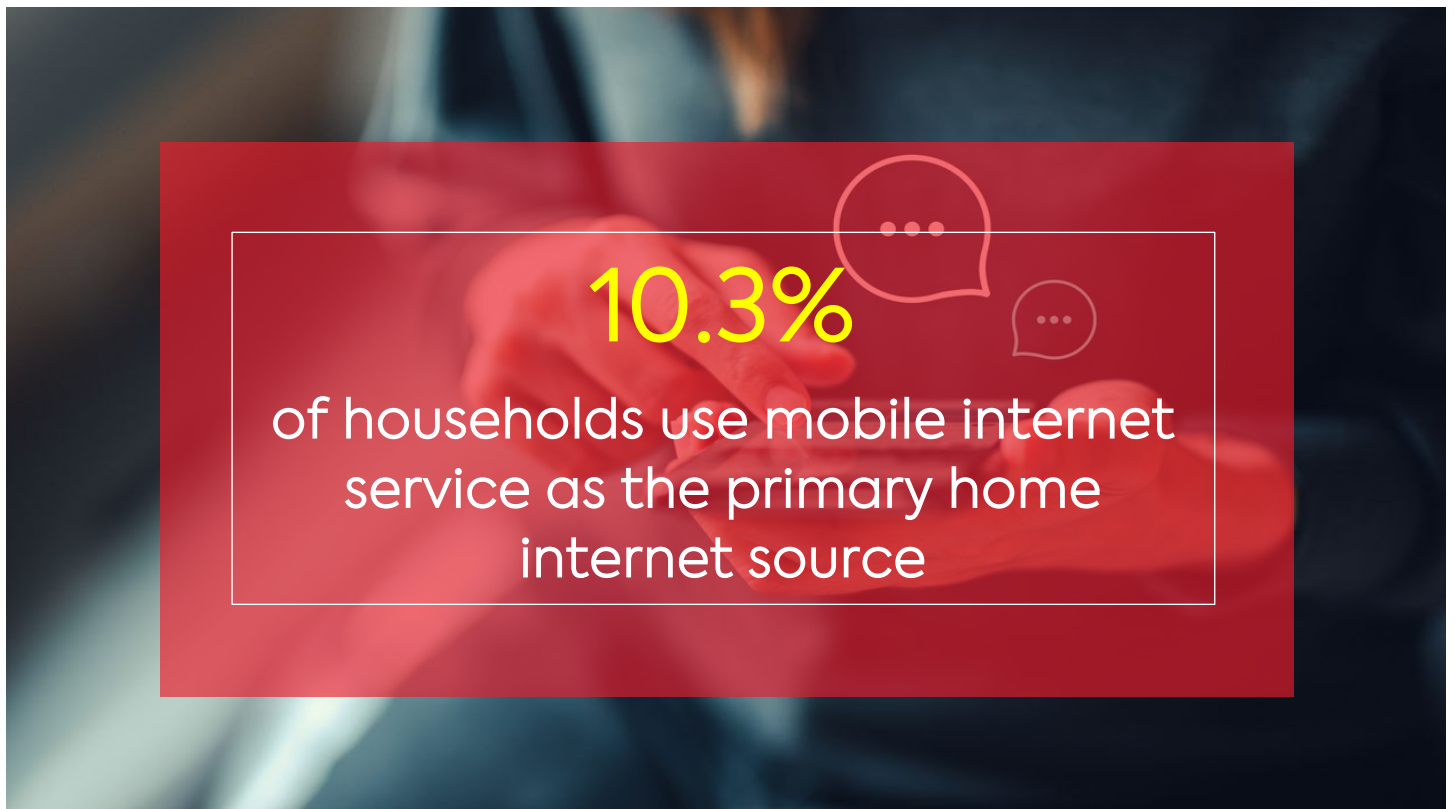
Llano County, Texas

- Yes: 96.8%
- No: 3.2%
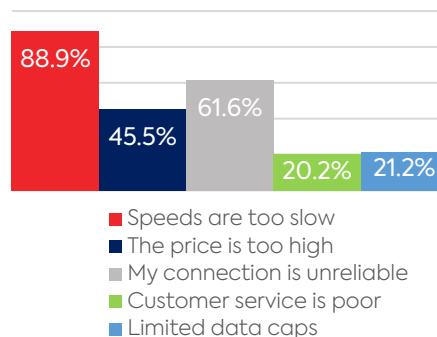
Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. More than half of respondents indicate that their internet connection does not meet their needs. When asked why their connection does not meet their needs, 88.9% of households indicate that the speed is too slow. About 45% say the price is too high, and nearly 62% indicate that the connection is unreliable; (respondents could choose more than one reason). Finally, nearly every respondent (96.8%) indicate that they are interested in additional internet choices for their home.

## MOBILE CONNECTIVITY

Nearly three-quarters of Llano County households (74.3%) report that they subscribe to mobile internet service which they access via a smartphone or similar mobile device. This is on par with other Connected communities (73.0%).

Additionally, about 27.9% of all households reported that they rely on their mobile connection as their primary source of internet connectivity at home or use mobile service to connect other household devices to the internet.

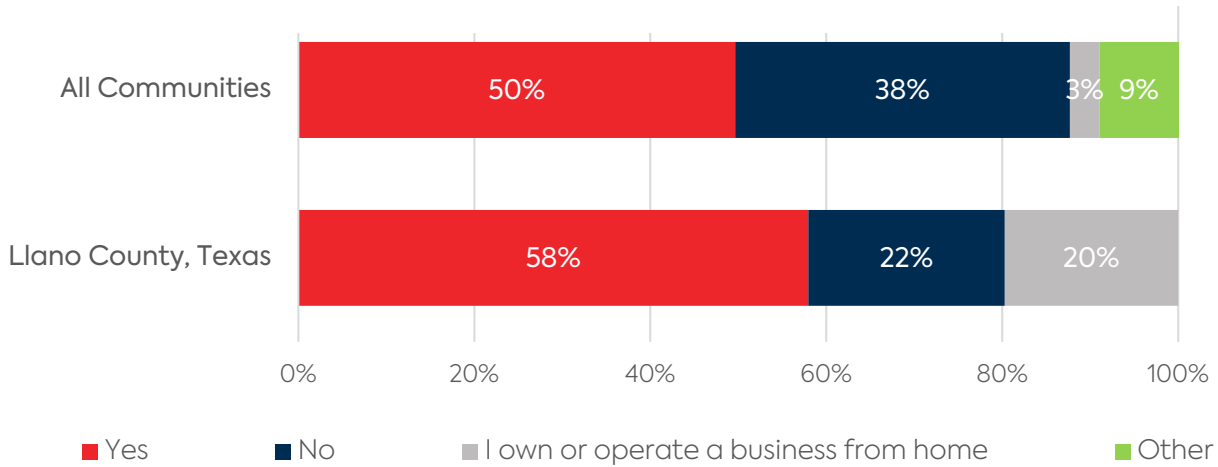### Households Subscribing to Mobile Internet Service

| | Llano County, Texas | All Communities |
|---|---|---|
| No | 25.7% | 27.0% |
| Yes | 74.3% | 73.0% |

■ Yes  ■ No
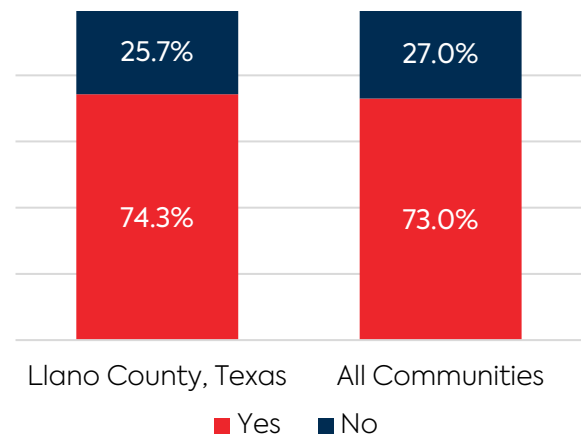
# 10.3%
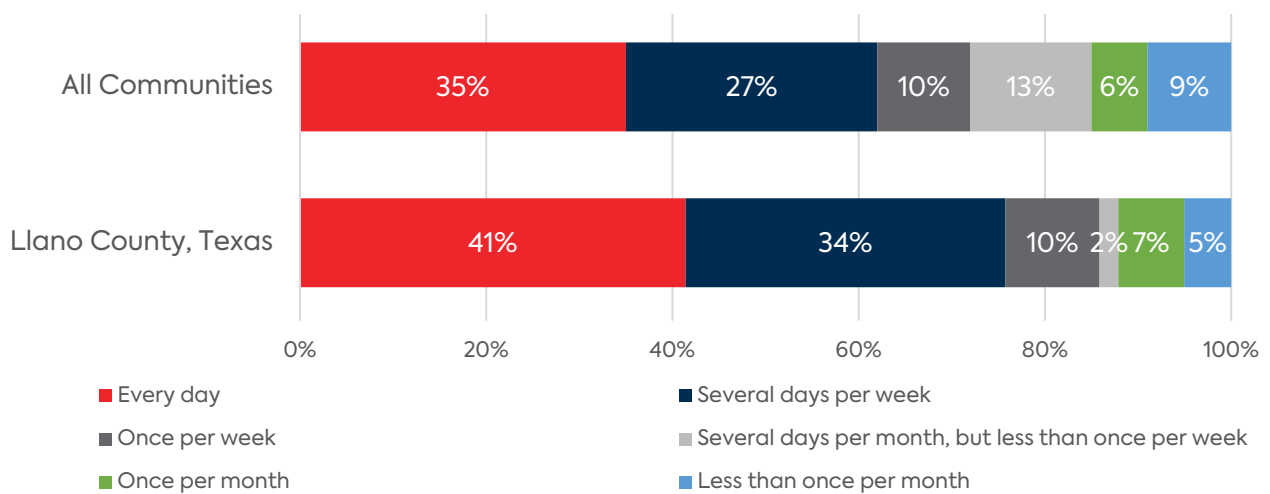## of households use mobile internet service as the primary home internet source

## TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace and communicating with it by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow staff to telework. In Llano County the lack of broadband access was a significant barrier to organizations being able to operate virtually if needed. 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 residents in Llano County indicate that they telework at least part of the time. This is more than residents in other Connected communities. It is important to note that most of the data from other communities was collected prior to COVID-19.

### Do You Currently Telework For Your Job?

| | Yes | No | I own or operate a business from home | Other |
|---|---|---|---|---|
| All Communities | 50% | 38% | 3% | 9% |
| Llano County, Texas | 58% | 22% | 20% | |

### How Frequently Do You Telework?

| | Every day | Several days per week | Once per week | Several days per month, but less than once per week | Once per month | Less than once per month |
|---|---|---|---|---|---|---|
| All Communities | 35% | 27% | 10% | 13% | 6% | 9% |
| Llano County, Texas | 41% | 34% | 10% | 2% | 7% | 5% |

# RECOMMENDED ACTIONS

## 05

## RECOMMENDATIONS

The following recommendations are presented to assist the Hill Country Tri-County area[11] in expanding broadband access and adoption throughout the community.

## Goal 1: Ensure continued broadband improvement through centralized broadband leadership.

### Objective:

The Commissioners Court should appoint liaisons from each community, to oversee and facilitate broadband advancements through regular meetings and coordinated community engagements, within 10 weeks.

### Description:

Establish a standing group of broadband liaisons within the Hill Country Tri-County area to help sustain the implementation of the community action plan and the growth of broadband and technology access, adoption, and use in the community. This group of broadband leaders will be empowered to act, as they deem necessary, to ensure broadband and technology sustainability within their community for years to come. Ideally, this team of liaisons will 1) promote broadband and technology access, adoption, and use; 2) serve as the  go-to resource for broadband and technology for the community; 3) seek ways to educate and empower the community regarding broadband and related technology; 4) take priority action on recommendations from the community technology plan and implement other programs that are necessary and beneficial to the growth of the community; 5) monitor federal grant applications and expenditures.

### Actions:

1. The Commissioners Court in each county should appoint one person to serve as a broadband liaison. This individual can be designated or contracted by the county to serve in this capacity but should ultimately receive appointment from the Commissioners Court.
   a. The local units of government should take ownership in the appointment of this liaison as it will be the leading voice for broadband advancement in the community.
   b. Individually, the liaison should represent his/her distinct county's broadband needs and wants. Collectively, the liaisons should work together to share knowledge of broadband solutions and pursue partnerships and funding to expand broadband access, adoption, and use within the Hill Country area (Blanco, Burnet, and Llano Counties).
   c. The responsibilities of the liaison should include:
      i. Serve as the go-to resource for broadband information within the immediate community.
      ii. Educate county on broadband programs, opportunities, and benefits.
      iii. Monitor grant expenditures within county; report concerns to Commissioners Court.
      iv. Stay up to date on current broadband grant programs at state and federal level.
      v. Represent local community interests when meeting with other appointed liaisons at regional level.

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[11] While the recommendations are for the Hill Country Tri-County, Blanco, Burnet, and Llano Counties, each county received an individual plan summary to show their individual survey results.

2. Broadband liaisons should meet with providers who already have federal commitments to build out infrastructure to determine if additional federal funds are necessary for broadband advancements.
   a. Connect America Funds (CAF) Phase II Auction Winning Bids:
      i. Burnet County: Nextlink
      ii. Blanco County: Nextlink
      iii. Llano County: Plains Interests, LLC
   b. Rural Digital Opportunity Fund (RDOF) Phase I Auction Winning Bids:
      i. Burnet County: Nextlink, NexTier, Resound
      ii. Blanco County: Nextlink, LTD Broadband, NexTier, Resound
      iii. Llano County: Nextlink, NexTier, Resound
   c. Determine if American Rescue Plan funds, or other grant programs, can be used to shoulder the cost of infrastructure expansion and improvement projects.
      i. Determine if partnerships are viable between RDOF and CAF winners and the community.
      ii. Determine if partnerships are viable with existent community providers and the community (see the list of community providers linked below).
3. These liaisons, each representing their distinct communities, should meet regularly (six-week intervals) to discuss broadband priorities. Topics could include:
   a. Infrastructure Needs
   b. Federal Grant Applications (see federal funding guide linked below)
   c. Broadband Deployment Techniques, Successes and Failures.
      i. What worked in your community, or what did not work in your community?
      ii. Stories and case studies can be shared with the group.
   d. Internet Service Provider Partnerships (i.e., Public-Private Partnerships; see partnership guide linked below).
   e. Broadband Deployment Timelines
      i. Meetings between community liaisons should occur routinely, no less than six-week intervals. If the group has set an important benchmark, they should consider holding additional meeting to ensure timely completion.
      ii. Meeting can be held virtually or in-person to facilitate full attendance and participation.
4. Invite county stakeholders, representatives from regional organizations, and broadband providers to serve alongside community liaisons in pursuit of broadband advancements and deployment.
   a. Capitalize on additional areas of expertise provided by Chamber of Commerce Directors, EDC Directors, and Broadband Providers.
   b. Regional Organization to consider:
      i. Chambers of Commerce
         1. Blanco Chamber of Commerce
         2. Burnet Chamber of Commerce
         3. Llano Chamber of Commerce
      ii. Economic Development Corporation
      iii. Capital Area Council of Governments (CAPCOG)
   c. See list of community broadband providers below.

**Responsible Parties:**
Local units of government; Broadband providers; Chambers of Commerce; Economic Development Organizations.

**Timeline:**
Each community should designate and approve its liaison within 10 weeks of this plan; liaisons and additional representatives should meet for the first time to discuss objectives and goals within two months of being appointed.

**Reference:**
Guide to Federal Broadband Funding Opportunities in the U.S.
- BroadbandUSA: Federal Grant Resources
- BroadbandUSA: An introduction to effective public-private partnerships for broadband investments
- Blanco Chamber of Commerce: Contact Us
- Burnet Chamber of Commerce: Contact Us
- Llano Chamber of Commerce: Contact Us
- Connected Nation Texas: Texas Broadband Providers by County

# Goal 2: Promote economic and community growth through broadband offerings.

**Objective:**
Expand and encourage local organizations (and service providers) to deploy or amplify free public Wi-Fi so that residents across the three counties can access high-speed internet service in public and private spaces across the Hill Country.

**Description:**
Public Wi-Fi is commonly found at restaurants, schools, transit stations, libraries, hotels, hospitals, coffee shops, bookstores, fuel stations, department stores, supermarkets, and RV parks/campgrounds. Your community may not have every location on this list, but it has public institutions or comparable substitutes such as a courthouse or event center. Typically, Wi-Fi is free to the public in these locations. Why? Because Wi-Fi is an asset to communities and institutions, financially and practically. Wi-Fi promotes customers staying in a location longer, boosts customer retention rates and can lead to larger sales/purchases.

For institutions that do not provide free Wi-Fi, customers are tasked with finding alternative locations to study online, telework, shop remotely, or engage with e-commerce. It does not serve the financial health or long-term growth of a county or its institutions to exclude public Wi-Fi from frequently accessed locations in the community. Specifically in Blanco, Burnet, and Llano, community institutions are not offering enough public Wi-Fi . In Blanco, only 24% of businesses offer free Wi-Fi, according to survey responses. In Burnet, the number is even lower with only 20% of businesses indicating they provide free Wi-Fi. In Llano, 26% of businesses offer free Wi-Fi. These numbers indicate the stark need for businesses and other community organizations to either adopt or amplify free public Wi-Fi.

Note: For the sake of this action plan, community institutions are defined as organizations, businesses, or buildings frequented often (once a week for pleasure or business) by residents of Blanco, Burnet or Llano counties. Examples include libraries, churches, schools, courthouses, businesses, event centers, etc.

## Actions:

1. Within one month of this plan, each community should document and promote an inventory of public Wi-Fi availability in the community, focusing on institutions that are frequented most often by residents.
   a. Schools in Blanco, Burnet, and Llano County
   i. Superintendents should poll school buildings
   b. Businesses in Blanco, Burnet, and Llano County
      i. Chambers of Commerce can issue a request to all members requesting feedback on public Wi-Fi offerings
      ii. Public input can provide further information
   c. Libraries in Blanco, Burnet, and Llano County
   d. Government buildings in Blanco, Burnet, and Llano County
      i. Courthouses
      ii. City Halls
   e. Other frequently-accessed locations in the community
      i. Parks & Recreation Centers
      ii. Event Centers
2. Analyze results of this inventory and prior surveys to determine community areas and community institutions most in need of public Wi-Fi expansion or creation.
   a. Factors to consider:
      i. Which spaces do students use to learn?
      ii. Do business owners use this space to take part in e-commerce?
      iii. How often do residents frequent a given space? Daily? Weekly? Monthly?
      iv. Would an institution have increased foot traffic if they offered free Wi-Fi ?
      v. Are public  Wi-Fi hubs located in advantageous locations?
   b. Chambers of Commerce should consolidate results of the Wi-Fi inventory on a website.
3. Aforementioned community liaisons should meet with stakeholders  one-on-one to discuss  Wi-Fi expansion options within three months of completing the above.
   a. Explore advantageous partnerships for businesses, broadband providers, and institutions to expand  Wi-Fi throughout the community.
   b. Conduct follow-up meetings as necessary.
4. Meet with providers (RDOF & CAF winners and community providers) to determine if they can assist in public  Wi-Fi expansion efforts.
   a. Can current infrastructure be expanded to meet public Wi-Fi needs?
   b. Is additional infrastructure needed to meet public Wi-Fi needs?
   c. What steps and partnerships with providers are needed to expand public Wi-Fi in the community?
5. Chambers of Commerce, EDCs, community websites and social media should identify and promote community institutions (such as schools, libraries, businesses, event centers, city halls, etc.) that have public Wi-Fi to increase foot traffic. More people frequenting businesses, coffee shops, restaurants, libraries, and other organizations leads to economic success for those businesses and community.

**Responsible Parties:**
Community and business leaders; broadband providers; residents; community anchor institutions; local government; civic leaders and organization members.

**Timeline:**
Public Wi-Fi is the most immediate way to get connectivity within a rural community. Each county should begin its Wi-Fi inventory within one month of receiving this plan by soliciting responses from community institutions.

**References:**
- Internet Society: Guide to Federal Broadband Funding Opportunities in the U.S.
- BroadbandUSA: Federal Grant Resources
- Grants.gov: NTIA Broadband Infrastructure Program
- Connected Nation Texas: Texas Broadband Providers by County
- American Rescue Plan: County Allocation
- American Rescue Plan: City Allocation
- Lifewire: Free Wi-Fi Hotspot Locator Apps
- Spectrio: 5 Reasons Why You Should Offer Free Wi-Fi to Your Customers

# Goal 3: Increase broadband adoption and use among residents through digital inclusion and digital skills workshops

**Objective:**
Implement digital literacy and inclusion workshops in each community (Blanco, Burnet, and Llano County) with an emphasis on social media and website skills/training to ensure all residents and community leaders are equipped to access and use digital devices and services.

**Description:**
Digital literacy is an individual's ability to interact and exchange information via digital platforms. As the name suggests, digital literacy necessitates a level of competency and skill. Digital literacy is an understanding of the digital environment and all the software, social media platforms, and lingo that come along with it. For rural Americans, digital literacy can be affected by many things: lack of infrastructure, devices, and general knowledge.. By providing training workshops focused on digital readiness and inclusion, a community can equip its citizens for digital immersion and advancement for the here and now and into the future. Digital literacy and inclusion focus not just on access to devices and broadband internet, but the skills needed to engage on these platforms. It is important for community residents <u>and</u> leaders to be digitally engaged to stay informed and connected.

**Actions:**

1. Aforementioned broadband liaisons should identify regional and community partners with resources and expertise to assist the region in producing "free" digital literacy and inclusion workshops.

a.  Workshop topics can include:
    i.   Navigating Social Media
    ii.  Website Tutorials
    iii. Online Safety Tips and Tricks
    iv.  How To Teleconference
b.  Community partners can include:
    i.   Institutions and businesses who would directly benefit from greater digital adoption
         1.  Banks, online business owners, online marketers
    ii.  Chambers of Commerce
    iii. EDCs
    iv.  Libraries
         1.  Blanco Library
         2.  Herman Brown Free Public Library
         3.  Llano County Library System
             a.  Utilize and build upon existing curriculum sourced by each county for digital literacy and inclusion workshops
             b.  Use the Llano Library System Academy as an example
    v.   Capital Area Council of Governments (CAPCOG)
    vi.  County IT Directors
    vii. School IT Directors
    viii. Lower Colorado River Authority (LCRA)
    ix.  Pedernales Electric Cooperative (PEC)

2.  Identify or develop curriculum using publicly available programs, such as those designed by AARP and PLA, and county sourced information to facilitate community-wide training courses.
    a.  Utilize and build upon existing curriculum sourced by each county for digital literacy and inclusion workshops.
    b.  Use the Llano Library System Academy as an example.
3.  Schedule training classes at local facilities and promote through local media.
    a.  Workshops can serve the tri-county area all together or occur individually, depending on scheduling needs and resources available.
    b.  Consider use of PEC facilities for workshops/trainings.
    c.  Utilize existing website and social media accounts for each county and the surrounding cities.
    d.  Utilize partnerships at local media outlets to spread the word.
        i.   Blanco County: Blanco County News
        ii.  Burnet County: Burnet Bulletin, Hill Country Media, KBEY-FM, KITY Radio, KVHL 91.7/Texas Public Radio
        iii. Llano County: Hill Country Broad sting Office, JAM Broadcasting, KITY FM 102.9, Lone Star 102.5, The Picayune, The Burnet Bulletin, The Highlander, KVHL 91.7, Sun Radio KTHE 96.3, Llano News, TXPages
4.  Invite internet service providers (ISPs) to sponsor and attend events. ISPs may be willing to sponsor events since community-wide workshops will likely lead to increased broadband adoption and use.
5.  Conduct workshops for community leaders on the importance of engaging with residents online (i.e., website updates, social media posts, emails, etc.). Use survey results to showcase residents' desire to interact and obtain information online showing the need for community institutions such as libraries, schools, police and fire departments, city and county government, to have an up-to-date online presence.

a. Society is increasingly becoming more digital, making it necessary for communities to adapt to meet the changing needs of citizens.
b. Consider hosting joint workshops, inviting all three counties, to target specific community leadership groups. An example could be Digital Literacy for Law Enforcement Leadership.

## Responsible Parties:
Community anchor institutions: schools; libraries; broadband providers; local units of government; media outlets.

## Timeline:
Blanco, Burnet, and Llano counties should implement digital inclusion and literacy programs by the end of 2021. Curriculum building and resource gathering can begin immediately to ensure a timely start to community workshops. Every six months, the community should evaluate the status of available curriculum to determine if updates are needed.

## References:
- Connected Nation: What We Do For You, Digital Inclusion
- National Telecommunications and Information Administration: Five Digital Inclusion Trends in the United States
- AARP: AARP Joins With Nonprofit to Teach Tech to Older Adults
- Public Library Association: Digital Learn Curriculum
- Connected Nation Texas: Texas Broadband Providers by County
- Blanco County News: Contact Us
- Burnet Chamber of Commerce: Member Director, Advertising and Marketing
- Llano Chamber of Commerce: Members, Media
- Website Setup: How to Make a Website
- Llano County Libraries: Llano County Library System Academy