

Nebraska Digital Inclusion Planning Guide & Workbook July 2021



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The Community Council advisory committee of the Nebraska Information Technology Commission. Its members are composed of representatives from rural and community IT development, local governments and libraries, resource providers, and other focus areas as deemed appropriate by the Community Council and the NITC. The mission of the Council is to foster the collaborative, innovative, and effective use of technology through partnerships between public and private sectors to support community and economic development for Nebraska citizens. More information on the NITC and the Community Council is available at https://nitc.nebraska.gov

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Introduction

Digital inclusion is a term to describe the goal of having all members of a community able to access and use online information, resources, and services. The COVID-19 pandemic has highlighted the importance of being able to learn, work and access health care online. Basic digital inclusion efforts focus on helping individuals get access to broadband connectivity, a device and any needed training and technical support.

Some communities may want to broaden their efforts and also address issues such as:

- Growing a workforce with the technical skills needed by area businesses, health care providers, schools and colleges, governments, non-profits and agricultural producers;
- Helping local businesses and agricultural producers utilize technology to compete in the digital, global economy;
- Helping local entrepreneurs utilize technology to start and grow their businesses;
- Providing co-working facilities for remote workers;
- Helping local governments and non-profits to better use technology to serve the community.

This guide will focus on developing a basic digital inclusion plan which addresses broadband connectivity, access to devices, the knowledge and skills needed to perform common online tasks, and technical support.

A digital inclusion plan should generally address the following questions:

- What are the digital inclusion needs in my community, county or region?
 - What percent of residents of my community, county or region have a broadband connection at home?
 - Do most or all residents of my community have access to devices (i.e., computers, tablets or smart phones) which enable them to complete homework and participate in

- online learning, access telehealth services, work at home, apply for jobs, or access other services?
- o Is broadband of at least 25 Mbps down and 3 Mbps up and preferably at least 100 Mbps down and 20 Mbps up available to all areas of my community, county or region?
 - What percent of my county's population has broadband available?
 - If broadband isn't available to all areas of my county or region, where isn't broadband available?
- o Is broadband in my county or region affordable?
- Do most or all residents have the skills and access to technical support to access telehealth services, apply for jobs and access services?
- What resources and existing programs are in my community, county or region?
- What are the gaps?
- What strategies and programs do we need to implement to improve digital inclusion?

Digital inclusion plans will likely vary based on the needs, resources and population size of the community, county, or region.



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Reasons that individuals may not be digitally connected and strategies that may address these issues

1. Broadband service is not affordable or available where they live.

Examples of Digital Inclusion Strategies and Programs:

- Hot spot lending programs
- Low-income broadband assistance programs
- Locations such as libraries which offer access to WiFi and computers
- Locations which offer small conference rooms equipped with a computer capable of videoconferencing for job interviews or telemedicine consultations
- Communities and regions can form committees to meet with telecommunications providers, develop strategies, and identify funding o improve broadband availability.
- 2. They do not have a computer, tablet or smartphone.

Examples of Digital Inclusion Strategies and Programs:

- Programs which refurbish and distribute computers or other devices
- Programs which provide subsidies for devices for low-income individuals and families
- School districts which provide devices for all students.
- Locations such as libraries which have computers or other devices available for use by the public
- 3. They lack the skills, knowledge, and confidence to comfortably use online resources and services.

Examples of Digital Inclusion Strategies and Programs:

- Free or low-cost classes on using the internet and common applications such as e-mail or social media
- Individual support through digital navigators or mentors
- Tech support services through a virtual help desk or weekly sessions
- 4. For many individuals, more than one of the reasons listed above may apply.

A digital inclusion plan should include strategies that address all of these issues.

Who doesn't have a home broadband connection?

Approximately 12% of Nebraskans or 215,000 individuals do not have a broadband subscription at home. This includes:

- 32,000 individuals under 18 years old
- 102,000 individuals between 18 and 64 years old
- 81,000 individuals 65 years old or older

While the plight of K-12 students struggling to participate in online learning received media attention during the pandemic, those under 18 are the most likely to have a home broadband connection. 93% of Nebraskans under 18 have a broadband connection at home compared to 70% of Nebraskans 65 years and older.

Those with lower incomes and lower levels of education as well as minority populations are also less likely to have an internet subscription. (See Table 1 in the appendix for more information.)

The percent of residents with a broadband subscription varies by county from a high of 94.2% in Sarpy County to a low of 67.6% in Garfield County. Here are the 10 Nebraska counties with the highest broadband subscription rates:

County	% Population with Broadband Subscription	Margin of Error
Sarpy County	94.2	0.4
Thomas County	92.9	3.2
Lancaster County	91.5	0.6
Polk County	90.3	2.1
Wayne County	90.1	2.3
Washington County	89.8	1.6
Cass County	89.6	1.5
Hamilton County	89.6	2.3
Seward County	89.1	1.4
Douglas County	88.9	0.4

Here are the ten Nebraska counties with the lowest broadband subscription rates.

County	% Population with Broadband Subscription	Margin of Error
Deuel County	78.1	5.0
Hitchcock County	76.1	4.1
Loup County	75.4	9.2
Cuming County	75.3	3.3
Pawnee County	74.0	4.8
Sioux County	73.9	6.8
McPherson County	72.2	9.4
Thurston County	70.2	2.5
Hooker County	68.7	9.9
Garfield County	67.6	7.7

Getting Started

Most digital inclusion planning efforts go through the following steps:

- Step 1: Develop a broad goal statement
- Step 2: Form a digital inclusion committee
- Step 3: Determine what are the digital inclusion needs in my community, county or region
- Step 4: Catalog your community's digital inclusion assets and identify gaps
- Step 5: Identify strategies to address the barriers to digital inclusion

The order of the steps could vary somewhat. For instance, the organizer could do research on who isn't online (step 3) before forming the digital inclusion committee (step 2).

The companion Digital Inclusion Plan Template and Spreadsheet help take information from this workbook to develop a basic digital inclusion plan. Blue text is used to indicate suggested material to include in your community, county or region's digital inclusion plan.

There is no wrong or right way to develop a digital inclusion plan. Feel free to modify this process to better suit the needs of your community, county or region.

Nebraska Broadband Bridge Program includes digital inclusion plan requirement for underserved areas

Underserved areas with a digital inclusion plan are eligible to apply for funding to deploy broadband scalable to 100 Mbps up and down or greater through the Nebraska Broadband Bridge Program. In its order <u>opening the docket on the program</u>, the Commission proposed the following requirements:

Digital Inclusion Plan. In accordance with LB 388, the Commission requires applications that serve "underserved" areas to include a digital inclusion plan. For the purposes of the application, the Commission proposes to require that a digital inclusion plan provides information about how information and communication technologies provided as a result of the grant will be made available to all individuals and communities within the coverage area, and specifically how the project will include methods for access by those that are disadvantaged within the community. Specifically, the Commission proposes to look at how carriers are going to make broadband service plans affordable to consumers and advertise those services regularly in a way to reach low income consumers. The Commission also seeks to disqualify any digital inclusion plans where the carrier would impose data caps on consumer usage.

While this guide doesn't match exactly with the digital inclusion plan requirements proposed by the Nebraska Public Service Commission for the Nebraska Broadband Bridge Program, this guide can still be a resource for applicants.



Photo credit: Verdigre hills by Anne Byers

Step 1

Develop a broad goal statement

As you begin to recruit committee members and to develop a digital inclusion plan, it may be helpful to develop a broad goal statement describing why you are undertaking this effort.

Examples include:

- To make sure that all individuals in the community who need access to online services can access and use them
- To improve internet access and digital literacy in my community
- To enable all residents to fully participate in the digital economy and society
- To enable all residents to learn online, work from home, access health care via telemedicine, and participate fully in the digital economy and society

You can include your initial goal statement or a revised goal developed by the committee in your plan.

What is broadband? How much do households need?

What is Broadband?

The FCC currently defines broadband as high-speed internet access at 25 Mbps down and 3 Mbps up or greater. As broadband speeds have increased over time, the FCC has periodically revised its definition.

How Much Broadband Do Households Need?

Broadband of 25 Mbps down and 3 Mbps up is generally considered adequate for small families who use the internet for e-mail, web browsing, internet shopping, social media, and webstreaming from a limited number of devices. As more Americans are working, learning and accessing health care from home, many families are finding that they need greater broadband speeds—especially greater upload speeds. Many families are subscribing to plans of 100 Mbps down and 10 Mbps up or greater. The median download speed for fixed broadband in Nebraska was 92.63 Mbps and the median upload speed was 12.72 Mbps in the first quarter of 2021 according to Ookla's global index.





Photo Credits: Geneva Public Library and Wymore Public Library Sparks Grant meeting by Anne Byers

Step 2

Form a digital inclusion committee

Form a committee including representatives of the key organizations and groups in your community, including the local library, K-12 schools, higher education, health care providers, social service agencies, non-profits, community groups, groups representing the aging community, and groups representing the disabilities community, local government, University of Nebraska Extension, economic development, businesses, and other interested stakeholders.

Committee Members:

Local Library Representative(s):

Local K-12 Representatives:

Health Care Provider Representatives(s):

Social Services Agencies Representative(s):

Local Agencies on Aging/Senior Centers Representatives(s):

Representatives of Community Groups (including groups representing the aging disabilities communities):

University of Nebraska Extension Representative:

Community or Economic Development Representative:

Community College, College or University Representatives:

Local Government Representative:

Business Representatives:

Economic Development Representative:

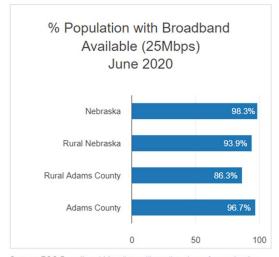
Other Interested Stakeholders:

You can include a list of committee members in your digital inclusion plan.

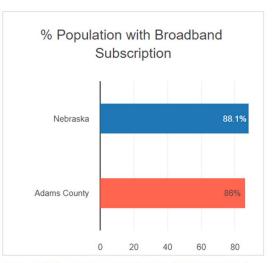
Check out the County Broadband Fact Sheets

The Nebraska Library Commission in partnership with the NITC Community Council has put together broadband fact sheets for Nebraska Counties. The fact sheets include information on the percent population with broadband available to their household and the percent population which subscribes to broadband. The fact sheets also include information on library broadband. The fact sheets are available at: http://nlc.nebraska.gov/stats/broadband/

Here is the information from the fact sheet for Adams County:



Source: FCC Broadband Map (https://broadbandmap.fcc.gov) using June 2020 Form 477 data. These figures do not include broadband availability via mobile broadband or satellite.



Source: U.S. Census Bureau 2019 American Community Survey 5-Year Data, available at https://factfinder.census.gov/ These figures include those who subscribe to cable, fiber optic, or DSL, satellite, fixed wireless subscription, or mobile broadband plans

Do libraries in Adams County have adequate broadband?

Library	Service Area	Maximum Download	Persons Per	Does the Library
	Population	Speed	Megabit Index	Apply for E-Rate?
Hastings Public Library	31,363	100.1 Mbps-1 Gbps	31	Yes

Source: Nebraska Library Commission. Public Library Survey 2019-2020 FY. Note: Not all Nebraska libraries provided data to the Nebraska Library Commission.

Available at: http://nlc.nebraska.gov/stats/statlist.aspx





Photo credits: <u>Atkinson eReader Workshop</u> and <u>Sump Memorial Library QR Code</u> by Michael Sauers Creative Commons License <u>Attribution-NonCommerical 2.0 Generic (CC BY-NC 2.0)</u>

Step 3
Determine what are the digital inclusion needs in my community, county or region

What percent of residents of my county have a broadband subscription at home?

Use Table 2 in the appendix to find the percent population with a broadband subscription at home for your county and Nebraska by age groups. Here is a sample table for Adams County:

Percent Population with Broadband Subscription by Age Group				
Area % Population % Population % Population % Population Under 18 18-64 Years 65 Years and Over				% Population 65 Years and Over
Adams County	86.0%	93.4%	89.2%	65.8%
Nebraska	88.1%	93.1%	90.5%	70.1%

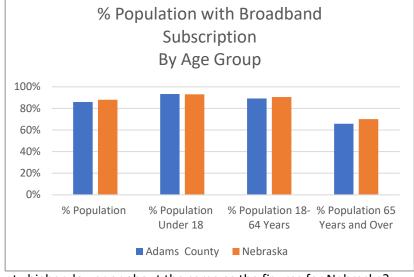
You can use the Digital Inclusion Workbook Spreadsheet for your figures and calculations or do them in the planning guide.

Percent Population with Broadband Subscription by Age Group				
Area % Population % Population % Population % Population Under 18 18-64 Years 65 Years and Over				% Population 65 Years and Over
County Name				
Nebraska	, , , , , , , , , , , , , , , , , , ,			

Please note the margins of error for the measures for your county listed in table 2. The margins of error for counties with smaller populations can be quite large.

You can enter the numbers into the Digital Inclusion Workbook Spreadsheet to generate a chart. Here is a sample for Adams County.

You can include the table and chart showing percent population with a broadband subscription by age group for your county in your digital inclusion plan.



Discussion Questions

Is the percent population with a

broadband subscription in your county higher, lower or about the same as the figures for Nebraska?

Do you agree with these estimates? If not, why do you think these estimates are inaccurate?

If the figures for your county are significantly different than the figures for Nebraska, what factors are contributing to the differences?

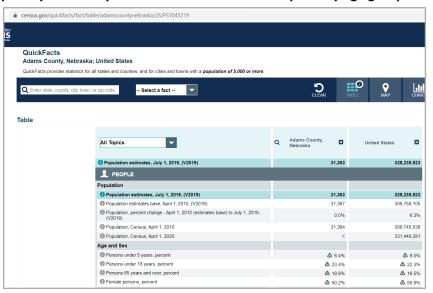
You can include a summary of these points in your digital inclusion plan.

Calculate the number of people in your county without a broadband subscription by age groups. You

can get information on the county population and percentage of population by age groups for your county by going to census.gov/quickfacts.
Enter in your county and select population estimates, July 1, 2019 or the most recent estimate.

Here is a view of the quick facts for Adams County.

Persons under 18 years are 23.4% of the population of Adams County and persons 65 years and older



are 18.9% of the population of Adams County. Together they comprise 42.3% of the population. You will have to calculate the percent of population for persons 18-64 by subtracting 42.3% from 100%. See the table below for the calculations for Adams County. You can use the Digital Inclusion Workbook Spreadsheet for your calculations.

County Population by Age Groups	census.gov/quickfacts	
Adams County Population	31,363	
	(A)	
	Percent Population	Population
Persons under 18 years	23.4	7,339
	(B)	(B/100*A)
Persons 18-64	57.7	18,096
	(100-B-C)=D	(D/100*A)
Persons 65 years and over	18.9	5,928
	(C)	(C/100*A)
TOTAL	100	31,363

You can use the Digital Inclusion Workbook Spreadsheet for your calculations or do them in the following table:

County Population by Age Groups	census.gov/quickfacts	
County Population		
	(A)	
	Percent Population	Population
Persons under 18 years		
	(B)	(B/100*A)
Persons 18-64		
	(100-B-C)=D	(D/100*A)
Persons 65 years and over		
	(C)	(C/100*A)
TOTAL	100	31,363

Now that you know the population of your county by age groups, you can calculate the population without a broadband subscription by age groups. Below is a sample for Adams County.

Population without a Broadband Subscription By Age Group

Age Group	Population	% Population with Broadband Subscription	% Population without Broadband Subscription	Population without Broadband Subscription
Total Population	31,363	86.0%	14.0%	4,391
Under 18	7,339	93.4%	6.6%	484
18-64	18,096	89.2%	10.8%	1,954
65 and over	5,928	65.8%	34.2%	2,027

Date of ACS 5-Year Data: 2019

You can use the Digital Inclusion Workbook Spreadsheet for your calculations or do them in the table below:

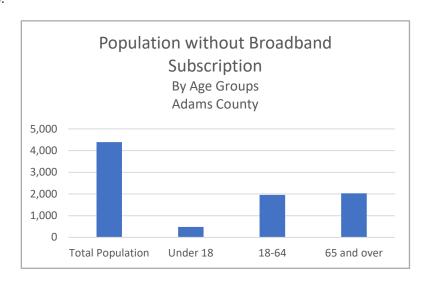
Population without a Broadband Subscription By Age Group

Age Group	Population	% Population with Broadband Subscription	% Population without Broadband Subscription	Population without Broadband Subscription
Total Population				
Under 18				
18-64				
65 and over				

Date of ACS 5-Year Data: 2019

You can include this table in your plan.

You can include a chart of the population and a brief discussion including which age group has the largest population without a broadband subscription in your plan.



Understanding Broadband Subscription Data

The American Community Survey considers any internet connection faster than dial up to be broadband. Mobile cellular subscriptions are also considered to be broadband subscriptions at home.

In contrast, the FCC only considers internet service at 25 Mbps down and 3 Mbps up or greater to be broadband. The FCC Form 477 broadband availability figures from the FCC's broadband map (https://broadbandmap.fcc.gov) do not include mobile broadband.

More information including the questions on computer use and internet access asked in the American Community Survey can be found in the American Community Survey Internet Subscription Data Cheat Sheet in the appendix.

How many households in my community, county or region have only a smartphone or no computer?

Ten percent of Nebraska households do not have a computer, tablet or smartphone and 6.2% of Nebraska households have only a smartphone according to data from the Census Bureau's 2019-5 Year American Community Survey. See the table below.

Households and % Households in Nebraska with Devices, Smartphone Only or No Computer 2019 ACS 5-Year

	# of Households	% Households
With one or more computing devices	683,587	90.0%
With smartphone only	46,747	6.2%
With no computing device	75,589	10.0%

Use Table 4 in the appendix to fill out the table below with data for your county.

Households and % Households in County with Devices, Smartphone Only or No Computer 2019 ACS 5-Year

	# of Households	% Households
With one or more computing devices		
With smartphone only		
With no computing device		

Include this table in your digital inclusion plan.

To make it easier to compare the figures for your county and for Nebraska, fill out the table below in the Digital Inclusion Workbook Spreadsheet.

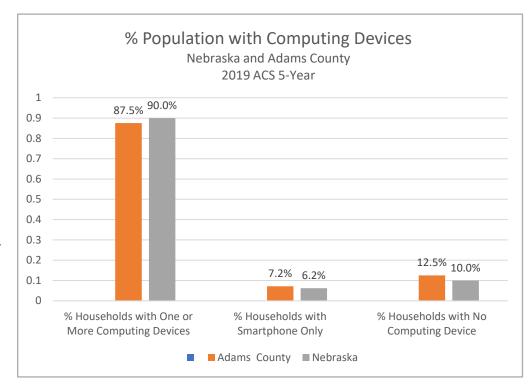
Area	% Households with One or More Computing Devices	% Households with Smartphone Only	% Households with No Computer
Your County			
Nebraska	90.0%	6.2%	10.0%

You can make a chart to include in your digital inclusion plan.

Here is a sample chart for Adams County.

Discussion Questions

Do the figures for your county mirror the figures for Nebraska or are they significantly different? If they differ from the statewide average significantly, what factors are contributing to the difference?



You can include a short summary of this discussion question in your digital inclusion plan.

As services move online, having a device becomes more important

Imagine trying to complete an online homework assignment or fill out a job application using a smartphone or without access to any computing device. Approximately 6% of households in Nebraska have only a smartphone and 10% have no computing device. While a smartphone works well for many uses, a desktop computer, laptop or tablet makes some tasks much easier. Having sites such as a library with computers available for public use, schools which distribute devices to all students, and programs which repair and distribute used computers can help address the need for computers or tablets.

Is broadband of at least 25 Mbps down and 3 Mbps up and preferably at least 100 Mbps down and 20 Mbps up available to all areas of my community, county or region?

Use Tables 5 and 6 in the appendix to find the percent population and percent rural population with 25/3 Mbps and 100/20 Mbps broadband available for your county. Below is a sample for Adams County from June 2020 FCC Form 477 data.

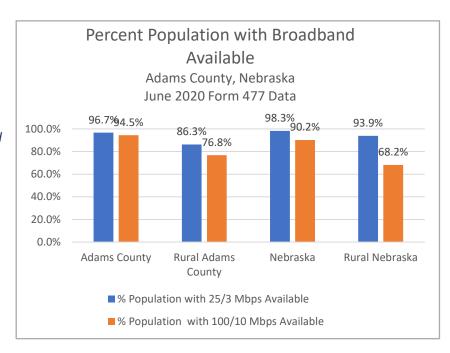
Area	% Population with 25/3 Mbps	% Population with 100/10 Mbps
Adams County	96.7%	94.5%
Rural Adams County	86.3%	76.8%
Nebraska	98.3%	90.2%
Rural Nebraska	93.9%	68.2%

You can use the Digital Inclusion Workbook Spreadsheet for your data or fill in the data in the table below:

Area	% Population with 25/3 Mbps	% Population with 100/10 Mbps
Your County		
Rural Your County		
Nebraska	98.3%	90.2%
Rural Nebraska	93.9%	68.2%

You can generate a chart from the data using Excel. Here is a sample for Adams County.

You can include the table and chart with information on percent population with broadband availability in your plan.



Calculate the number of people in your county without 25/3 Mbps and 100/10 Mbps broadband available. Below is a sample for Adams County.

Speed Tier	Population	% Population with Broadband Available	% without Broadband Available	Population without broadband available
25/3 Mbps	31,363	96.7%	100%-96.7% =3.3%	31,363 X .033 = 1,035
100/10 Mbps	31,363	94.5%	100%-94.5% = 5.5%	31,363 X .055 = 1,725

You can use the Digital Inclusion Workbook Spreadsheet for your data or fill in the data in the table below:

Speed Tier	Population	% Population with Broadband Available	% without Broadband Available	Population without broadband available
25/3 Mbps				
100/10 Mbps				

You can include information on the estimated population without broadband in your plan:

Adams County, Nebraska Estimated Population without Broadband Available

Speed Tier	Population without Broadband Available
25/3 Mbps	1,035
100/10 Mbps	1,725

Discussion Questions

Is the percent population and percent rural population with broadband available in your county higher, lower or about the same as the figures for Nebraska?

Do you agree with these estimates? If the figures for your county are significantly different than the figures for Nebraska, what factors are contributing to the differences?

You can include a brief summary of these discussion points in your plan.

If broadband isn't available to all areas of my county or region, where isn't broadband available?

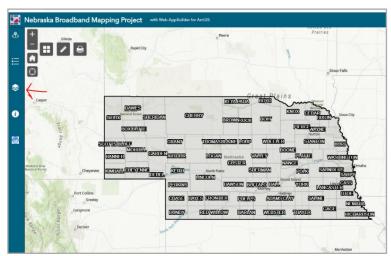
Nebraska Broadband Map

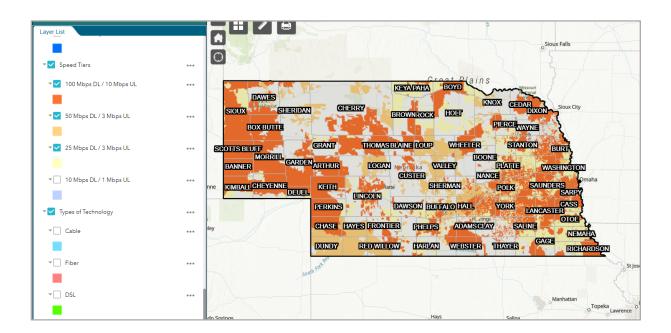
Go to the Nebraska Broadband Map at https://broadbandmap.nebraska.gov

To see where broadband is available in your area, click on the layers icon.



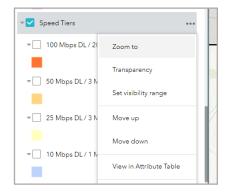
To see where broadband is available by speed tier, select the speed tiers you would like displayed.





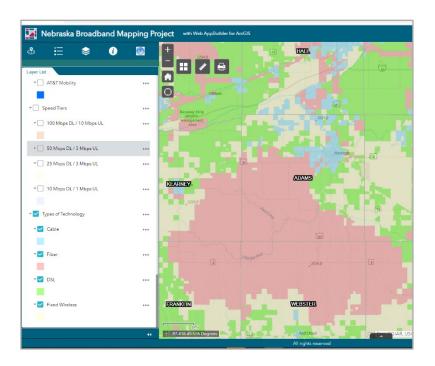
You can zoom in to see where broadband is available in your county or community. To change the transparency of the layers, you can click on the three dots by Speed Tiers in the layers list and select transparency.

You can include a screen shot of the map showing broadband availability in your plan.



You can also view broadband availability by type of technology.

If you click on the "near me" icon and then a point on the map, it will bring up a list of providers and their reported maximum advertised download and upload speeds.



Discussion Questions

Do telecommunications providers report providing broadband to all areas of your community or county? Does the information reported by telecommunications providers seem accurate?

Are there areas where broadband availability is overstated?

Which companies provide broadband in your area?

You can include a summary of these points in your digital inclusion plan.

Understanding Broadband Availability Data

The data on broadband availability comes from information that telecommunications providers report to the FCC twice a year. If a broadband provider provides or can easily provide service to one customer in a census block, the entire census block is reported as having broadband available. This can lead to overstating coverage in large, rural census blocks. Fixed wireless service seems especially prone to over-reporting. BroadbandNow estimated the following error rates by technology:

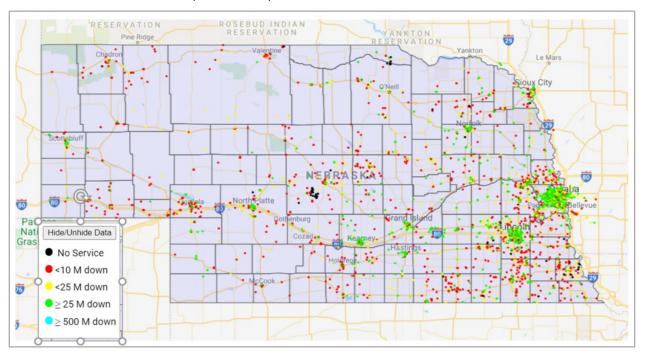
Technology	% Over-reported
DSL	18%
Cable	17%
Fiber	23%
Fixed Wireless	35%

Source: Busby, J.; Tanberk, J.; and Cooper, T. (June 8, 2021) BroadbandNow estimates availability for all 50 states; confirms that more than 42 million Americans do not have access to broadband. Available at https://broadbandnow.com/research/fcc-broadband-overreporting-by-state

Nebraska Speed Test Map

The Nebraska Regional Officials Council and local economic development districts received a grant from the Economic Development Administration to map speed test data and to develop broadband plans. Speed tests show the speeds that consumers are actually experiencing and can be used to verify the information from the Nebraska broadband map. The WiFi router in the home as well as the age and number of devices connected can impact speed test results. The speed test map is at https://www.nebraskaspeedtest.org/.

Here is a screen shot of the map taken on April 25, 2021.



You can include a screen shot of the speed test map of your community, county or region in your plan.

If you are concerned that broadband availability is not accurately reported, you can encourage members of the community to conduct speed tests at https://www.nebraskaspeedtest.org/. The FCC also has a speed test app that can be downloaded from the Google Play or Apple App stores. More information on the FCC speed test app is available at https://www.fcc.gov/BroadbandData/consumers#speed-test

Discussion Questions

Compare how the Nebraska Broadband Map and the Nebraska Speed Test map visualize broadband availability. Which one do you think more accurately shows broadband availability in your county or community?

What areas of your community, county or region do not have broadband available?

A summary of these points can be included in your plan.

Is broadband affordable?

Broadband affordability is relative. What is affordable for one family may not be affordable for another. Broadbandnow.com defines low-priced broadband plans as costing \$60 a month or less.

A new FCC program is helping eligible households afford broadband subscriptions. The Emergency Broadband Benefit will provide a discount of up to \$50 per month towards broadband service for eligible households and up to \$75 per month for households on qualifying Tribal lands. Eligible households can also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than \$10 and less than \$50 toward the purchase price. Information on the program is available at https://www.fcc.gov/broadbandbenefit.

Discussion Questions

How affordable is broadband service?

Do providers offer lower cost service to low-income consumers?

Is information on federal and state programs which provide assistance to low-income consumers easily available to individuals and families that may qualify?

A summary of these points can be included in your plan.

Lack of interest and affordability are top reasons for not having internet at home

Over 50% of Nebraska households without a home internet connection said that the main reason they do not have an internet subscription is because they don't need it or are not interested according to a 2019 Census Bureau survey. Other reasons included affordability (16.7%) and availability (7.8%). See the table below.

The lack of interest in being connected at home has been a difficult barrier to address. The COVID-19 pandemic has demonstrated the value of broadband to many formerly unconnected households and has led to an increase in broadband subscriptions.

Main Reason for Nebraska Households Not Online at Home

Reason	Percent
Don't Need It or Not Interested	52.8%
Too Expensive	16.7%
Not Available in Area	7.8%
No/Inadequate Computer	4.6%
Privacy or Security Concerns	4.1%
Can Use Elsewhere	3.2%

Source: November 2019 Census Computer and Internet Use Survey

https://www.ntia.doc.gov/data/digital-nation-data-explorer#sel=unavailableMainReason&disp=map

Why aren't individuals digitally connected? What are their needs, interests and challenges?

Data, statistics and technical requirements are only half of the equation. Including those who are not digitally connected in community conversations can lead to a better understanding of their needs, interests and challenges.

User Experience (UX) research helps community leaders understand people, focus on technology that complements everyday life, and pinpoint how technology education can flow better in people's lives.

You can use the <u>Teaching Technology in the Library Guidebook</u> to focus on the whole person in your community.

Discussion Questions

What are the main reasons that individuals in my community are not digitally connected? What are their needs, interests, and challenges?

How does technology fit into everyday life? Why learn?

What are the social, emotional and human needs of people who are getting up to speed with broadband, technology and digital skills?

Is technology a threat to identity? How can we maintain community values?

What is the best way to connect people with tools and resources to learn what matters?

A summary of these points can be included in your plan.



Photo credits: Technology and Computers photo 1, photo 2, and photo 3 by Austin Public Library Creative Commons License Attribution-NonCommerical 2.0 Generic (CC BY-NC 2.0





Photo credits: Governor Ricketts at Sparks Grant open house at Verdigre Public Library and Genoa Public Library Spark s Grant meeting by Anne Byers

Step 4

Catalog your community's digital inclusion assets and identify gaps

Use the tables below to help identify digital literacy assets in your community and to identify possible action items for your plan. The digital inclusion committee could go through the list together at a meeting or can assign sections to committee members to complete and share with the committee later.

Public Library Digital Inclusion Assets and Gaps

Does the local public library have adequate broadband?

Libraries are often the center of digital inclusion efforts. Libraries can provide access to computers, WiFi, hot spot lending programs, training and technical support. However, just under half of the libraries in Nebraska have internet service at speeds below 25 Mbps down, and 86% of Nebraska libraries have broadband service below 100 Mbps down. This puts most Nebraska libraries far under the FCC's bandwidth target of at least 100 Mbps down for libraries serving fewer than 50,000 people at least 1 Gbps down for all libraries serving 50,000 or more people.¹

The FCC's E-Rate program provides discounts for telecommunications, internet access, and internal connections to eligible schools and libraries with funding from the federal Universal Service Fund. Sixty Nebraska libraries—approximately 27% of Nebraska libraries—were awarded \$188,115 in discounts on their Internet Access and Internal Connections costs during Funding Year 2020 (July 1, 2020-June 30, 2021). Discounts ranged from 50% to 90% with an average discount of 73%. The Nebraska Public Service Commission also provides matching funds for fiber construction to the library for libraries participating in the E-Rate Special Construction Matching Program.

You can find information on the broadband available at public libraries in your county from the County Broadband Fact sheets available at http://nlc.nebraska.gov/stats/broadband/. The local library director

¹ Federal Communications Commission. July 11, 2014. Summary of the E-Rate Modernization Order. Available at https://www.fcc.gov/general/summary-e-rate-modernization-order

can verify or provide updated information. The Nebraska Library Commission has a list of libraries which have received E-rate funding at http://nlc.nebraska.gov/erate/#recipients.

Public Library	Response
Broadband Asset Identification Questions	•
Download and upload speed of the public library's internet service	
Does the library have a fiber connection for broadband?	
Does the library apply for E-Rate funding?	
If the library does not have a fiber connection, has the library considered applying for the E-Rate Special Construction program and matching funds from the Nebraska Public Service Commission?	

You can include this table in your digital inclusion plan.

Discussion Questions

Is the public library's broadband adequate?

If not, how can it be improved?

Include a brief summary of this discussion point in your plan.

How is the local library supporting digital inclusion?

Public Library Other Asset Identification Questions	Yes	No	N/A	Possible Action Item
Does the public library provide Wi-Fi access to the internet?				
Is the library open during times convenient for students to do homework and for the public to use the internet?				
Does the library have up to date computers that can be used by the public?				
Does the library budget for periodic replacements of public access computers?				
Does the library have a hot spot lending program?				
Does the library offer classes on using technology?				
Are library staff available to answer questions about technology?				
Does the library provide personal support through digital navigators?				
Does the library include a maker space?				
Does the library offer technology programs for youth?				
Does the library offer technology programs for older adults?				

Discussion Questions

Does the local public library have adequate digital inclusion resources and programs?

How could these resources and programs be improved?

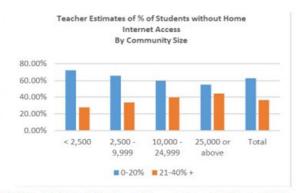
Include a description of the public library's digital inclusion assets and gaps in your plan

Survey gauges impact of homework gap on students, teachers

In order to better gauge the impact of the homework gap on teachers and students in Nebraska, a survey was disseminated via e-mail to 21,443 Nebraska teachers during July 2019.³² Nearly 7,000 (6,919) teachers responded for a response rate of 32%.

The survey found:

- Over three-fourths (77%) of teachers agreed that if all students had broadband internet access at home, it would positively impact student learning/achievement.
- Nearly half of teachers (48%) agreed that the absence of home internet access for some students affects the level or amount of homework assigned.
- Most teachers report using digital resources for a minority of their homework assignments, with 64% of respondents indicating that less than 25% of their homework assignments are dependent on digital or internet-based resources.
- Overall, 37% of teachers estimated that 21% to greater than 40% of students do not have home internet access.
- Teacher estimates of the proportion of students not having home internet access varied by ESU and community size. The percent of teachers estimating that the percent of students lacking home internet access was 21% or greater increased with the size of the community, with 45% of those teaching in communities of 25,000 or larger estimating that at least 21% of students lacked home internet access (See Figure 1). The percent of teachers estimating that at least 21% of students lacked home



internet access by ESU ranged from a low of 23% in ESU 11 (Holdrege) to a high of 65% in ESU 19 (Omaha Public Schools).

Most teachers (90%) reported that accommodations are made to address students' lack of home internet access. The accommodations most often cited included:

- Providing more class time to complete homework assignments (55%);
- Providing some students with printed materials that otherwise would be internet-based (41%);
 and
- Providing before-school and after-school time to complete homework assignments (33%).

See <u>Appendix 10 Nebraska Homework Gap Survey Results</u> of the Rural Broadband Task Force 2019 report for complete survey results

K-12 Schools Digital Inclusion Assets and Gaps

How is K-12 education supporting digital inclusion and addressing the homework gap?

K-12 Schools Asset Identification Questions	Yes	No	N/A	Possible Action Item
Do area schools provide laptops, chrome books or tablets for students to use at home?				
Do area schools have a hot spot lending program for students?				
Do area schools have other programs for ensuring that students can access the internet in order to do homework or participate in online learning?				
Have area schools maximized all the state and federal technology and connectivity funding for which they are eligible?				
Do area schools engage social service agencies in helping reach student households where language and/or poverty may be a challenge?				
Do area schools make other accommodations (e.g. before and after school study time, paper packets, parking lot Wi-Fi, etc) for students who may not have consistent access to adequate internet while away from school?				
Have area schools deployed mobile cellular Wi-Fi on transit and activity buses?				
Do area schools regularly update their digital equity data (e.g. devices & internet) with the Nebraska Department of Education?				
Do area schools follow up with non-responding families so that the digital equity data includes 100% of all student and staff households?				
Other				

Discussion Questions

Do all students have access to adequate broadband and to computers or tablets to complete their homework and to learn remotely if needed?

If not, what could be done to improve student access to broadband and devices?

Do local K-12 schools have adequate digital inclusion resources and programs?

How could these resources and programs be improved?

Include a description of K-12 education's digital inclusion assets and gaps in your plan.

Local Agencies on Aging or Senior Centers Digital Inclusion Assets and Gaps

How are local agencies on aging or senior centers supporting digital inclusion?

Local Agencies on Aging or Senior Centers Asset Identification Questions	Yes	No	N/A	Possible Action Item
Do local agencies on aging or senior centers have programs to help senior citizens use technology?				
Do local agencies on aging or senior centers have computers and/or wi-fi for senior citizens?				
Do local agencies on aging or senior centers provide technical assistance for senior citizens?				
Are there locations available for seniors to use for telehealth consultations?				
Are there other organizations that can provide assistance?				
Other				

Discussion Question

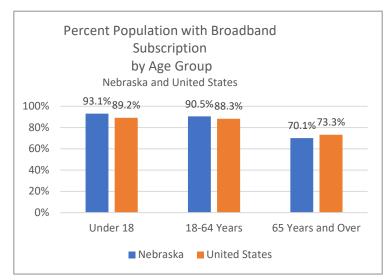
Do individuals 65 and over have adequate broadband and access to devices in order to access health care via telehealth and other services online?

How could access to broadband, devices, training, and technical support for older adults be improved? *Include a description of assets and gaps for programs and resources for senior citizens in your plan.*

Older Nebraskans Lag U.S in Broadband Subscription

Nebraska's broadband subscription rate exceeds the U. S average subscription rate for those under 18 years and those 18-64 years. The percent population 65 years and over subscribing to broadband in Nebraska is lower, however, than the U.S. average. See the chart to the right.

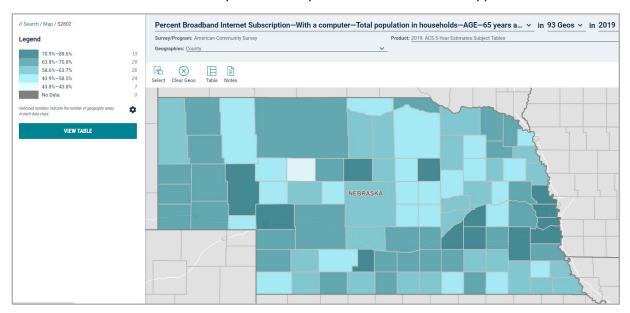
Nebraska has the 4th largest gap in subscription rates between those 18 to 64 years old and those over 65 years old with only North Dakota, West Virginia, and Pennsylvania having a larger gap. See the table below.



State	% Broadband Subscription 18 to 64 years	% Broadband Subscription 65 years and over	Broadband Gap		
North Dakota	87.4%	66.2%	21.2%		
West Virginia	84.5%	63.3%	21.2%		
Pennsylvania	89.3%	68.7%	20.6%		
Nebraska	90.5%	70.1%	20.4%		
Iowa	88.3%	68.3%	20.0%		

Source: 2019 ACS %-Year estimates

Subscription rates for older adults also vary by Nebraska County with a high of 88.6% in Blaine County and a low of 43.8% in Hooker County. See the map below and Table 2 in the appendix.



Other Programs Digital Inclusion Assets and Gaps

How are other programs supporting digital inclusion?

Other Programs	Yes	No	N/A	Possible
Asset Identification Questions				Action
				Item
Are there other locations in the community with Wi-Fi access?				
If so, please list them:				
Are there programs to refurbish and distribute devices?				
Do local broadband providers offer a low-cost option for low-				
income individuals or families?				
If so, please list them:				

Include a description of assets and gaps for other programs and resources in your plan if applicable.

Local Community Colleges, Colleges, and/or Universities Digital Inclusion Assets and Gaps

How are local community colleges, colleges and/or universities supporting digital inclusion?

Local Community Colleges, Colleges and/or Universities (if applicable)	Yes	No	N/A	Possible Action Item
Does the local community college, college or university offer non-credit courses on using technology?				
Does the local community college, college, or university have maker space facilities?				
Does the local community college, college or university offer degrees in technology-related fields?				

Include a description of assets and gaps for community colleges, colleges and universities if applicable in your plan.

Discussion Questions—All Digital Inclusion Assets, Gaps and Possible Strategies and Actions What resources are currently available in our community?
How can we build on or leverage our existing resources to improve digital inclusion efforts?
What resources are missing in our community? How can we provide these resources?
Include a summary of this discussion in your digital inclusion plan.





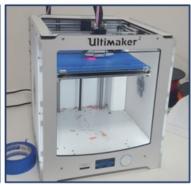


Photo credits: Electric circuit card from Makerspace workshop at University of Nebraska Innovation Campus, tour of Hartington Public Library, 3D printer at University of Nebraska Innovation Campus by Anne Byers

Step 5 Identify strategies to address the barriers to digital inclusion Strategies and Programs that help those who don't have broadband at home Existing Programs and Resources that Can Be Leveraged 1.

New Actions, Strategies and Programs to help those who don't have broadband at home
1.
2.
3.

Strategies and Programs that help those who don't have a computer, tablet or smart phone

Existing Programs and Resources that Can Be Leveraged

1.

2.

3.

- 2.
- 3.

New Actions, Strategies and Programs

- 1.
- 2.
- 3.

Strategies and Programs to help those who lack skills knowledge, confidence and technical support

Existing Programs and Resources that Can Be Leveraged

- 1.
- 2.
- 3.

New Actions, Strategies and Programs

- 1.
- 2.
- 3.

Many plans also include goals for each action or strategy.







Photo credits: Verdigre Public Library Sparks Grant open house and fiber in Lincoln by Anne Byers

Table 1

Nebraska Broadband Subscription Data
2019 American Community Survey 5 Year Estimate

Label (A)	Nebraska population estimate (b)	Nebraska population with a computing device and a broadband subscription (c)	% Nebraska population with a computing device and a broadband subscription (d)	Nebraska population estimate with computing device but without a broadband subscription (e)	% Nebraska population with a computing device but without a broadband subscription (f)	Nebraska population estimate without a computing device (g)	% Nebraska population without a computing device (h)	Total Neb pop. Estimate with a computer and without internet subscription and pop without a computing device (e+g)	Total % Neb pop estimate with a computing device and without internet subscription and pop without a computing device (100%-d)
Total population in households	1,862,842	1,640,691	88.10%	102,751	5.50%	112,138	6.00%	214,889	11.90%
AGE									
Under 18 years	472,032	439,229	93.10%	21,604	4.60%	10,407	2.20%	32,011	6.90%
18 to 64 years	1,109,541	1,004,347	90.50%	59,909	5.40%	41,803	3.80%	101,712	9.50%
65 years and over	281,269	197,115	70.10%	21,238	7.60%	59,928	21.30%	81,166	29.90%
RACE AND HISPANIC OR LATINO ORIGIN									
White alone	1,625,108	1,438,067	88.50%	84,028	5.20%	96,359	5.90%	180,387	11.50%
Black or African American alone	87,490	70,893	81.00%	7,440	8.50%	9,005	10.30%	16,445	19.00%
American Indian and Alaska Native alone	16,897	13,108	77.60%	2,142	12.70%	1,588	9.40%	3,730	22.40%
Asian alone	44,160	39,952	90.50%	2,402	5.40%	1,516	3.40%	3,918	9.50%
Native Hawaiian and Other Pacific Islander alone	1,238	1,051	84.90%	84	6.80%	103	8.30%	187	15.10%
Some other race alone	39,104	33,005	84.40%	4,132	10.60%	1,890	4.80%	6,022	15.60%
Two or more races	48,845	44,615	91.30%	2,523	5.20%	1,677	3.40%	4,200	8.70%
Hispanic or Latino origin (of any race)	204,003	170,868	83.80%	16,336	8.00%	15,981	7.80%	32,317	16.20%
White alone, not Hispanic or Latino	1,473,099	1,311,545	89.00%	72,972	5.00%	82,640	5.60%	155,612	11.00%
EDUCATIONAL ATTAINMENT									
Household population 25 years and over	1,225,790	1,049,698	85.60%	71,866	5.90%	98,275	8.00%	170,141	14.40%
Less than high school graduate or equivalency	101,443	68,743	67.80%	10,436	10.30%	21,605	21.30%	32,041	32.20%
High school graduate (includes equivalency), some college or associate's degree	727,807	606,654	83.40%	49,067	6.70%	67,826	9.30%	116,893	16.60%
Bachelor's degree or higher	396,540	374,301	94.40%	12,363	3.10%	8,844	2.20%	21,207	5.60%
EMPLOYMENT STATUS									
Civilian population 16 years and over	1,435,454	1,243,135	86.60%	83,008	5.80%	102,709	7.20%	185,717	13.40%
In labor force	1,019,858	929,352	91.10%	52,086	5.10%	35,056	3.40%	87,142	8.90%
Employed	987,296	901,392	91.30%	49,232	5.00%	33,384	3.40%	82,616	8.70%
Unemployed	32,562	27,960	85.90%	2,854	8.80%	1,672	5.10%	4,526	14.10%
Not in labor force	415,596	313,783	75.50%	30,922	7.40%	67,653	16.30%	98,575	24.50%

Table 2 Percent Population with Broadband Subscription By Age Groups

Nebraska Counties 2019 ACS 5 year

	% Population with Broadband Subscription		% Populati Broadband Under 18 Y	Subscription	% Population with Broadband Subscription 18 to 64 Years		% Population with Broadband Subscription 65 Years and Over	
Area	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Adams County	86	1.8	93.4	3.2	89.2	1.9	65.8	3.9
Antelope County	83.8	2.3	95.9	3.1	88.8	2.7	59.2	5.6
Arthur County	84.3	4.5	99.2	1.7	90.5	3.8	56.1	12.4
Banner County	81.9	5.8	91.4	5.9	84.2	7.4	65.8	14
Blaine County	88.3	7	90.4	13.4	87.1	8	88.6	6
Boone County	86.3	1.6	96.4	2.2	92.9	2	57.5	5.4
Box Butte County	85.5	4	89.1	6.6	88.4	4.2	69.5	6.7
Boyd County	82.6	3.1	97	3.7	86.9	3	65.1	6.4
Brown County	84.5	3.2	97.5	2.5	91.9	3.8	59.3	9.3
Buffalo County	88.5	1.5	96	1.4	90.5	1.8	66.4	4.1
Burt County	79.9	2.8	89	4.3	83.7	3.5	61.7	4.2
Butler County	85.6	1.9	94.1	2.4	91.5	1.9	57.7	6.8
Cass County	89.6	1.5	94.3	1.7	92.2	1.5	73.6	4
Cedar County	88.2	1.6	96.7	2.1	93	1.6	64.4	4.2
Chase County	87.8	4.7	97.4	4.1	91.2	5.6	67.7	8.7
Cherry County	85.7	2.8	94.6	3.6	89.9	2.9	64.1	7.3
Cheyenne County	85.9	2.6	93.8	3.8	88.4	2.7	67.1	6.6
Clay County	84.1	2	92.6	3.1	86.9	2.4	64.7	5.1
Colfax County	81.9	8.3	86.8	15	84.5	6.8	57	7.9
Cuming County	75.3	3.3	78.4	6.6	82.3	3.3	52.8	5.1
Custer County	81.1	2.6	89.2	4.5	84.6	2.8	63.2	4
Dakota County	81.3	4.1	84.2	7.4	84.9	4.2	58.3	8
Dawes County	88.4	2.8	96.5	3.1	92.8	3.2	66.9	7.7
Dawson County	86.3	2	93.6	3	88.7	2.2	63.7	4.8

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	% Populat Broadband Subscription	d	% Population with Broadband Subscription Under 18 Years		Broadband	% Population with Broadband Subscription 18 to 64 Years		% Population with Broadband Subscription 65 Years and Over	
Area	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	
Deuel County	78.1	5	89.7	5.8	84.7	5.7	51.4	8.5	
Dixon County	79	3.4	81.9	7.2	82.2	3.5	66	5.4	
Dodge County	84.1	1.7	89.6	3.3	87.2	1.8	66.9	3.5	
Douglas County	88.9	0.4	91.7	0.8	90.6	0.5	74.6	1.2	
Dundy County	80.2	4.3	94.3	4.7	82.7	5	57	8.2	
Fillmore County	83	2.1	94.6	3.1	87.9	2.4	59.4	5.7	
Franklin County	79.8	3.2	86.8	6.1	86.3	3.3	60.7	6.4	
Frontier County	81.4	3.1	92.5	5	88.8	3.6	57.9	6.4	
Furnas County	82.2	2.6	89.7	5.6	88.4	2.4	60.7	5.5	
Gage County	86.8	1.2	96.8	1.5	90.7	1.5	63	3.6	
Garden County	80.1	6.2	90.1	9.5	76.7	8.4	79	6.7	
Garfield County	67.6	7.7	75.8	13.9	71.8	9.3	53.2	13.1	
Gosper County	88.3	2.9	98.3	2.3	89.2	4	78.9	6.2	
Grant County	83.8	5.5	100	12.8	87.3	7.4	57.9	11.1	
Greeley County	80.1	3.7	91.3	6.4	87.2	3.6	54.6	6.9	
Hall County	86.8	1.7	91	2.6	89.1	1.7	68.4	3.2	
Hamilton County	89.6	2.3	95	2.7	91.4	2.6	77	5.9	
Harlan County	83.4	2.9	94.1	4	85.6	3.6	67.8	6.6	
Hayes County	80.7	5.9	84.7	12.8	84.9	5.8	62.7	12.5	
Hitchcock County	76.1	4.1	84.5	9.3	80.2	4.1	59.3	8.3	
Holt County	81.6	2.3	90.1	3.2	86.4	2.6	58.3	5.7	
Hooker County	68.7	9.9	73	23.1	83.3	8.5	43.8	17.5	
Howard County	81.9	2.2	94.1	3	86.6	2.9	55.8	6.1	
Jefferson County	80.1	3.1	93.2	4.4	85.4	3.3	54.2	7.1	
Johnson County	80.2	3.4	92.8	4.7	85	4.3	53.5	7.7	
Kearney County	88.6	2.2	97.9	1.6	92.4	2.6	64.1	7.5	
Keith County	86.6	2.2	93.5	3.8	91.3	2.5	71.9	4.3	

	% Population with Broadband Subscription		Broadband	% Population with Broadband Subscription Under 18 Years		% Population with Broadband Subscription 18 to 64 Years		% Population with Broadband Subscription 65 Years and Over	
Area	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	
Keya Paha County	85	5.2	98.5	3.1	90.7	5.9	58.5	13.6	
Kimball County	78.8	5.4	79.6	12.6	83.5	5	67.1	7.9	
Knox County	79.4	2.5	85.2	5.7	84.9	2.1	60.6	4.9	
Lancaster County	91.5	0.6	95.6	0.8	92.7	0.6	78.7	1.4	
Lincoln County	88.2	1.3	96.4	1.3	91.4	1.6	67.4	3.9	
Logan County	85	3.6	97.7	2.5	89.7	4	55.4	12.4	
Loup County	75.4	9.2	76.3	21.7	80.2	9	62.8	14.7	
McPherson County	72.2	9.4	88.5	11.1	73.1	12	61.9	14.6	
Madison County	83.7	1.7	91.6	3.1	87	1.6	56.1	4.5	
Merrick County	80.8	3.2	91.9	4.5	83.7	3.7	60	6.7	
Morrill County	80.6	4.3	83.7	9.9	84.4	4.2	65	7	
Nance County	83.5	3.3	97.1	2.8	85.6	4.3	60.6	7.6	
Nemaha County	82.4	3.2	93.2	3.9	84.7	4	63.7	7.2	
Nuckolls County	80.1	3.7	93.3	3.4	87	5.1	55.1	7.5	
Otoe County	87	1.9	94.7	3.3	90.9	2	64.9	4.5	
Pawnee County	74	4.8	81.6	10.3	76.6	6.2	63.1	6.5	
Perkins County	88.2	3.1	97.9	2.3	93.1	3.1	65.3	7.8	
Phelps County	85.4	2.5	93.4	3.8	88.5	3.1	65.5	5.9	
Pierce County	87.6	1.8	95.2	3.4	93.6	1.7	58.1	5.6	
Platte County	84.8	1.9	91.3	2.9	88.3	1.9	63.2	4.5	
Polk County	90.3	2.1	97.7	2.3	93	2.4	74.5	4.8	
Red Willow County	85.5	3.2	91.9	6.1	89.4	2.8	66.7	6.3	
Richardson County	84.6	2.8	97.8	1.7	90.1	3	59.4	8	
Rock County	78.3	5.3	93.5	6	79.6	6.8	62.5	8.9	
Saline County	83.2	3.4	87.3	4.8	86.5	3.5	62.4	5.8	
Sarpy County	94.2	0.4	97.4	0.5	95.4	0.5	79.1	1.7	

	% Populat Broadband Subscription	d d	Broadband Subscription Broadb		Broadband	% Population with Broadband Subscription 18 to 64 Years		% Population with Broadband Subscription 65 Years and Over	
Area	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	
Saunders County	87.3	1.5	95.2	1.7	90.9	1.6	64.9	4.4	
Scotts Bluff County	84	1.8	90.8	2.6	87.1	1.9	65	3.8	
Seward County	89.1	1.4	96.8	1.7	91.9	1.8	68.7	4.5	
Sheridan County	78.4	3.7	81.5	7.5	86.6	3.4	57.4	6.3	
Sherman County	83	2.5	99	1.2	89.7	2.9	55.5	6.6	
Sioux County	73.9	6.8	76.4	12.4	78.4	7.2	60	10	
Stanton County	87.6	2.7	96.9	2.7	90.6	2.7	62.7	8.5	
Thayer County	82.2	2	92.5	3.5	84.5	2.8	66.8	4.6	
Thomas County	92.9	3.2	100	16.2	98.4	2.3	70.8	11.7	
Thurston County	70.2	2.5	70.3	3.8	72.3	2.4	60.6	4.2	
Valley County	83.1	2.5	97.9	2	89.6	2.6	56.1	7	
Washington County	89.8	1.6	94.7	2	91.6	1.8	76.8	3.7	
Wayne County	90.1	2.3	96.8	1.8	93.4	2.6	69.8	7.2	
Webster County	80	3.5	85.9	7.6	84.9	4.2	60.8	5.3	
Wheeler County	83	5	94.9	6.6	83.1	6.6	72.7	9.4	
York County	87.2	2.1	92.8	4	88.9	2.5	75.6	4.5	
Nebraska	88.1	0.2	93.1	0.4	90.5	0.3	70.1	0.5	

Table 3 Households with Broadband, Mobile Only and Satellite Subscriptions Nebraska Counties

2019 5-Year American Community Survey

Geographic Area	Households	Households with Broadband	% Households with Broadband	Households with Mobile Only	% Households with Mobile Only	Households with Satellite	% Households with Satellite
Adams County	12,712	10,001	78.7%	1,167	9.2%	895	7.0%
Antelope County	2,714	2,064	76.1%	371	13.7%	359	13.2%
Arthur County	197	146	74.1%	10	5.1%	10	5.1%
Banner County	283	220	77.7%	68	24.0%	88	31.1%
Blaine County	213	184	86.4%	9	4.2%	47	22.1%
Boone County	2,311	1,837	79.5%	402	17.4%	239	10.3%
Box Butte County	4,743	3,863	81.4%	409	8.6%	358	7.5%
Boyd County	904	656	72.6%	89	9.8%	31	3.4%
Brown County	1,387	1,092	78.7%	164	11.8%	111	8.0%
Buffalo County	19,062	16,014	84.0%	1,802	9.5%	1,694	8.9%
Burt County	2,856	2,069	72.4%	293	10.3%	377	13.2%
Butler County	3,363	2,656	79.0%	452	13.4%	405	12.0%
Cass County	9,945	8,382	84.3%	808	8.1%	1,360	13.7%
Cedar County	3,506	2,841	81.0%	516	14.7%	329	9.4%
Chase County	1,679	1,387	82.6%	361	21.5%	137	8.2%
Cherry County	2,537	2,010	79.2%	550	21.7%	210	8.3%
Cheyenne County	4,395	3,467	78.9%	554	12.6%	379	8.6%
Clay County	2,539	1,975	77.8%	435	17.1%	317	12.5%
Colfax County	3,731	2,868	76.9%	695	18.6%	612	16.4%
Cuming County	3,727	2,520	67.6%	387	10.4%	509	13.7%
Custer County	4,862	3,643	74.9%	684	14.1%	571	11.7%
Dakota County	7,404	5,681	76.7%	670	9.0%	436	5.9%
Dawes County	3,525	2,923	82.9%	314	8.9%	345	9.8%
Dawson County	8,965	7,082	79.0%	1,548	17.3%	744	8.3%
Deuel County	830	601	72.4%	120	14.5%	104	12.5%
Dixon County	2,352	1,729	73.5%	242	10.3%	176	7.5%
Dodge County	15,261	12,029	78.8%	1,724	11.3%	1,242	8.1%
Douglas County	218,061	186,192	85.4%	19,539	9.0%	7,353	3.4%
Dundy County	872	619	71.0%	151	17.3%	30	3.4%
Fillmore County	2,510	1,907	76.0%	303	12.1%	294	11.7%
Franklin County	1,377	1,013	73.6%	192	13.9%	169	12.3%
Frontier County	1,135	834	73.5%	164	14.4%	146	12.9%
Furnas County	2,128	1,601	75.2%	349	16.4%	192	9.0%

Geographic Area	Households	Households with Broadband	% Households with Broadband	Households with Mobile Only	% Households with Mobile Only	Households with Satellite	% Households with Satellite
Gage County	8,979	7,132	79.4%	957	10.7%	1,060	11.8%
Garden County	868	636	73.3%	128	14.7%	146	16.8%
Garfield County	884	558	63.1%	110	12.4%	49	5.5%
Gosper County	942	775	82.3%	160	17.0%	132	14.0%
Grant County	288	216	75.0%	35	12.2%	15	5.2%
Greeley Count	1,019	745	73.1%	161	15.8%	79	7.8%
Hall County	23,096	18,815	81.5%	2,948	12.8%	1,535	6.6%
Hamilton County	3,713	3,213	86.5%	452	12.2%	365	9.8%
Harlan County	1,521	1,164	76.5%	274	18.0%	233	15.3%
Hayes County	403	324	80.4%	61	15.1%	85	21.1%
Hitchcock County	1,243	861	69.3%	199	16.0%	136	10.9%
Holt County	4,487	3,357	74.8%	600	13.4%	540	12.0%
Hooker County	318	205	64.5%	41	12.9%	23	7.2%
Howard County	2,720	2,000	73.5%	477	17.5%	352	12.9%
Jefferson County	3,302	2,428	73.5%	274	8.3%	383	11.6%
Johnson County	1,809	1,332	73.6%	297	16.4%	171	9.5%
Kearney County	2,666	2,161	81.1%	388	14.6%	264	9.9%
Keith County	3,882	3,172	81.7%	548	14.1%	317	8.2%
Keya Paha County	304	236	77.6%	23	7.6%	20	6.6%
Kimball County	1,577	1,180	74.8%	206	13.1%	110	7.0%
Knox County	3,586	2,681	74.8%	523	14.6%	287	8.0%
Lancaster County	124,324	109,037	87.7%	9,743	7.8%	6,250	5.0%
Lincoln County	14,856	12,256	82.5%	2,283	15.4%	907	6.1%
Logan County	347	257	74.1%	78	22.5%	48	13.8%
Loup County	294	203	69.0%	21	7.1%	44	15.0%
McPherson County	191	120	62.8%	36	18.8%	17	8.9%
Madison County	14,205	11,027	77.6%	1,800	12.7%	1,500	10.6%
Merrick County	3,373	2,488	73.8%	484	14.3%	399	11.8%
Morrill County	1,954	1,479	75.7%	237	12.1%	236	12.1%
Nance County	1,546	1,183	76.5%	233	15.1%	158	10.2%
Nemaha County	2,977	2,270	76.3%	356	12.0%	259	8.7%
Nuckolls County	1,867	1,349	72.3%	213	11.4%	237	12.7%
Otoe County	6,510	5,230	80.3%	683	10.5%	773	11.9%
Pawnee County	1,222	865	70.8%	124	10.1%	150	12.3%
Perkins County	1,228	1,006	81.9%	212	17.3%	73	5.9%
Phelps County	3,905	3,103	79.5%	477	12.2%	319	8.2%
Pierce County	3,022	2,453	81.2%	338	11.2%	259	8.6%
Platte County	12,947	10,236	79.1%	1,240	9.6%	931	7.2%

Geographic Area	Households	Households with Broadband	% Households with Broadband	Households with Mobile Only	% Households with Mobile Only	Households with Satellite	% Households with Satellite
Polk County	2,052	1,740	84.8%	243	11.8%	363	17.7%
Red Willow County	4,519	3,568	79.0%	702	15.5%	457	10.1%
Richardson County,	3,704	2,887	77.9%	214	5.8%	260	7.0%
Rock County	623	444	71.3%	60	9.6%	73	11.7%
Saline County	5,157	4,123	79.9%	697	13.5%	534	10.4%
Sarpy County	66,260	60,235	90.9%	4,297	6.5%	2,852	4.3%
Saunders County	8,501	6,915	81.3%	858	10.1%	940	11.1%
Scotts Bluff County	14,732	11,451	77.7%	1,751	11.9%	1,171	7.9%
Seward County	6,600	5,496	83.3%	816	12.4%	699	10.6%
Sheridan County	2,273	1,666	73.3%	348	15.3%	276	12.1%
Sherman County	1,368	1,031	75.4%	274	20.0%	132	9.6%
Sioux County	544	390	71.7%	92	16.9%	101	18.6%
Stanton County	2,418	1,983	82.0%	399	16.5%	334	13.8%
Thayer County	2,244	1,722	76.7%	263	11.7%	274	12.2%
Thomas County	277	243	87.7%	32	11.6%	19	6.9%
Thurston County	2,176	1,459	67.0%	226	10.4%	166	7.6%
Valley County	1,865	1,374	73.7%	251	13.5%	179	9.6%
Washington County	8,185	6,924	84.6%	761	9.3%	528	6.5%
Wayne County	3,708	3,195	86.2%	462	12.5%	310	8.4%
Webster County	1,507	1,125	74.7%	175	11.6%	84	5.6%
Wheeler County	346	261	75.4%	34	9.8%	24	6.9%
York County	5,656	4,771	84.4%	672	11.9%	447	7.9%
Nebraska	759,176	632,862	83.4%	76,589	10.1%	49,354	6.5%

Table 4 Population and % Population with Computing Devices, Smartphone only, or No Computer Nebraska Counties

2019 ACS 5-Year

Geographic Area Name	Households with one or more types of computing device	Households with smartphone only	Households with no computer	% Households with one or more types of computing devices	% Households with Smartphone only	% households with no computer
Adams County	11,128	920	1,584	87.5	7.2	12.5
Antelope County	2,271	146	443	83.7	5.4	16.3
Arthur County	168	11	29	85.3	5.6	14.7
Banner County	248	13	35	87.6	4.6	12.4
Blaine County	195	4	18	91.5	1.9	8.5
Boone County	1,962	135	349	84.9	5.8	15.1
Box Butte County	4,171	312	572	87.9	6.6	12.1
Boyd County	723	58	181	80	6.4	20
Brown County	1,205	88	182	86.9	6.3	13.1
Buffalo County	17,378	1,333	1,684	91.2	7	8.8
Burt County	2,403	202	453	84.1	7.1	15.9
Butler County	2,874	209	489	85.5	6.2	14.5
Cass County	9,174	518	771	92.2	5.2	7.8
Cedar County	3,017	191	489	86.1	5.4	13.9
Chase County	1,486	135	193	88.5	8	11.5
Cherry County	2,138	178	399	84.3	7	15.7
Cheyenne County	3,852	313	543	87.6	7.1	12.4
Clay County	2,236	191	303	88.1	7.5	11.9
Colfax County	3,167	402	564	84.9	10.8	15.1
Cuming County	3,099	278	628	83.1	7.5	16.9
Custer County	4,121	380	741	84.8	7.8	15.2
Dakota County	6,594	870	810	89.1	11.8	10.9
Dawes County	3,160	174	365	89.6	4.9	10.4
Dawson County	7,846	1,049	1,119	87.5	11.7	12.5
Deuel County	712	70	118	85.8	8.4	14.2

Geographic Area Name	Households with one or more types of computing device	Households with smartphone only	Households with no computer	% Households with one or more types of computing devices	% Households with Smartphone only	% households with no computer
Dixon County	2,019	188	333	85.8	8	14.2
Dodge County	13,464	1,180	1,797	88.2	7.7	11.8
Douglas County	197,892	11,958	20,169	90.8	5.5	9.2
Dundy County	725	63	147	83.1	7.2	16.9
Fillmore County	2,094	146	416	83.4	5.8	16.6
Franklin County	1,160	120	217	84.2	8.7	15.8
Frontier County	944	67	191	83.2	5.9	16.8
Furnas County	1,756	150	372	82.5	7	17.5
Gage County	7,688	535	1,291	85.6	6	14.4
Garden County	776	64	92	89.4	7.4	10.6
Garfield County	698	43	186	79	4.9	21
Gosper County	844	62	98	89.6	6.6	10.4
Grant County	246	10	42	85.4	3.5	14.6
Greeley County	873	60	146	85.7	5.9	14.3
Hall County	20,416	2,400	2,680	88.4	10.4	11.6
Hamilton County	3,402	270	311	91.6	7.3	8.4
Harlan County	1,332	125	189	87.6	8.2	12.4
Hayes County	353	48	50	87.6	11.9	12.4
Hitchcock County	1,014	128	229	81.6	10.3	18.4
Holt County	3,897	380	590	86.9	8.5	13.1
Hooker County	243	26	75	76.4	8.2	23.6
Howard County	2,347	205	373	86.3	7.5	13.7
Jefferson County	2,691	178	611	81.5	5.4	18.5
Johnson County	1,501	166	308	83	9.2	17
Kearney County	2,328	196	338	87.3	7.4	12.7
Keith County	3,346	206	536	86.2	5.3	13.8
Keya Paha County	254	13	50	83.6	4.3	16.4
Kimball County	1,372	134	205	87	8.5	13
Knox County	3,049	266	537	85	7.4	15
Lancaster County	116,290	5,651	8,034	93.5	4.5	6.5

Geographic Area Name	Households with one or more types of computing device	Households with smartphone only	Households with no computer	% Households with one or more types of computing devices	% Households with Smartphone only	% households with no computer
Lincoln County	13,223	1,557	1,633	89	10.5	11
Logan County	298	48	49	85.9	13.8	14.1
Loup County	258	33	36	87.8	11.2	12.2
McPherson County	157	12	34	82.2	6.3	17.8
Madison County	12,368	904	1,837	87.1	6.4	12.9
Merrick County	2,798	226	575	83	6.7	17
Morrill County	1,704	210	250	87.2	10.7	12.8
Nance County	1,298	134	248	84	8.7	16
Nemaha County	2,601	128	376	87.4	4.3	12.6
Nuckolls County	1,545	188	322	82.8	10.1	17.2
Otoe County	5,753	447	757	88.4	6.9	11.6
Pawnee County	948	42	274	77.6	3.4	22.4
Perkins County	1,087	144	141	88.5	11.7	11.5
Phelps County	3,518	181	387	90.1	4.6	9.9
Pierce County	2,630	178	392	87	5.9	13
Platte County	11,239	1,121	1,708	86.8	8.7	13.2
Polk County	1,851	162	201	90.2	7.9	9.8
Red Willow County	3,975	400	544	88	8.9	12
Richardson County	3,083	191	621	83.2	5.2	16.8
Rock County	519	40	104	83.3	6.4	16.7
Saline County	4,427	402	730	85.8	7.8	14.2
Sarpy County	63,126	2,532	3,134	95.3	3.8	4.7
Saunders County	7,464	537	1,037	87.8	6.3	12.2
Scotts Bluff County	12,837	1,251	1,895	87.1	8.5	12.9
Seward County	5,898	293	702	89.4	4.4	10.6
Sheridan County	1,902	205	371	83.7	9	16.3
Sherman County	1,132	103	236	82.7	7.5	17.3
Sioux County	448	49	96	82.4	9	17.6
Stanton County	2,142	146	276	88.6	6	11.4
Thayer County	1,848	169	396	82.4	7.5	17.6

Geographic Area Name	Households with one or more types of computing device	Households with smartphone only	Households with no computer	% Households with one or more types of computing devices	% Households with Smartphone only	% households with no computer
Thomas County	252	0	25	91	0	9
Thurston County	1,818	273	358	83.5	12.5	16.5
Valley County	1,530	146	335	82	7.8	18
Washington County	7,629	504	556	93.2	6.2	6.8
Wayne County	3,385	91	323	91.3	2.5	8.7
Webster County	1,275	124	232	84.6	8.2	15.4
Wheeler County	310	41	36	89.6	11.8	10.4
York County	4,969	317	687	87.9	5.6	12.1
Nebraska	683,587	46,747	75,589	90	6.2	10

Table 5 Percent Population with Broadband Available at 25/3 Mbps

ADSL, Cable Modem, Fiber, and Fixed Wireless June 2020 FCC Form 477 Data Nebraska Counties

Area	All	Rural
Adams County, NE	96.7	86.3
Antelope County, NE	99.9	99.9
Arthur County, NE	96.1	96.1
Banner County, NE	100.0	100.0
Blaine County, NE	77.2	77.2
Boone County, NE	90.1	90.1
Box Butte County, NE	98.5	94.1
Boyd County, NE	100.0	100.0
Brown County, NE	28.2	28.2
Buffalo County, NE	99.1	97.4
Burt County, NE	100.0	100.0
Butler County, NE	100.0	100.0
Cass County, NE	100.0	100.0
Cedar County, NE	77.1	77.1
Chase County, NE	100.0	100.0
Cherry County, NE	62.6	47.4
Cheyenne County, NE	98.8	97.0
Clay County, NE	95.6	95.6
Colfax County, NE	100.0	100.0
Cuming County, NE	99.9	99.9
Custer County, NE	75.3	64.7
Dakota County, NE	91.6	78.9
Dawes County, NE	80.7	71.5
Dawson County, NE	98.5	94.5
Deuel County, NE	94.1	94.1
Dixon County, NE	99.0	99.0
Dodge County, NE	100.0	100.0
Douglas County, NE	100.0	100.0
Dundy County, NE	96.1	96.1
Fillmore County, NE	95.3	95.3
Franklin County, NE	76.5	76.5
Frontier County, NE	88.4	88.4

Area	All	Rural
Furnas County, NE	95.6	95.6
Gage County, NE	99.4	98.8
Garden County, NE	93.5	93.5
Garfield County, NE	91.1	91.1
Gosper County, NE	90.8	90.8
Grant County, NE	69.3	69.3
Greeley County, NE	56.4	56.4
Hall County, NE	100.0	99.8
Hamilton County, NE	100.0	99.9
Harlan County, NE	93.1	93.1
Hayes County, NE	87.7	87.7
Hitchcock County, NE	97.4	97.4
Holt County, NE	90.4	85.5
Hooker County, NE	94.1	94.1
Howard County, NE	98.0	98.0
Jefferson County, NE	79.4	68.8
Johnson County, NE	100.0	100.0
Kearney County, NE	98.2	96.8
Keith County, NE	96.3	92.1
Keya Paha County, NE	96.5	96.5
Kimball County, NE	97.1	97.1
Knox County, NE	81.4	81.4
Lancaster County, NE	100.0	100.0
Lincoln County, NE	97.6	92.1
Logan County, NE	27.8	27.8
Loup County, NE	85.1	85.1
McPherson County, NE	51.8	51.8
Madison County, NE	100.0	100.0
Merrick County, NE	100.0	100.0
Morrill County, NE	98.2	98.2
Nance County, NE	100.0	100.0
Nemaha County, NE	100.0	100.0
Nuckolls County, NE	79.5	79.5
Otoe County, NE	100.0	100.0
Pawnee County, NE	91.4	91.4
Perkins County, NE	95.9	95.9
Phelps County, NE	99.4	98.6
Pierce County, NE	100.0	100.0

Area	All	Rural	
Platte County, NE	100.0	100.0	
Polk County, NE	100.0	100.0	
Red Willow County, NE	99.3	97.9	
Richardson County, NE	99.6	99.3	
Rock County, NE	93.0	93.0	
Saline County, NE	99.7	99.4	
Sarpy County, NE	100.0	100.0	
Saunders County, NE	100.0	100.0	
Scotts Bluff County, NE	100.0	100.0	
Seward County, NE	100.0	100.0	
Sheridan County, NE	52.1	52.1	
Sherman County, NE	80.9	80.9	
Sioux County, NE	100.0	100.0	
Stanton County, NE	99.9 99.8		
Thayer County, NE	71.6 71.6		
Thomas County, NE	80.2 80.2		
Thurston County, NE	97.6	97.6	
Valley County, NE	99.6	99.6	
Washington County, NE	100.0	100.0	
Wayne County, NE	100.0	100.0	
Webster County, NE	58.3	58.3	
Wheeler County, NE	78.3	78.3	
York County, NE	100.0	99.9	
Nebraska	98.3	93.9	

Table 6 Percent Population with Broadband Available at 100/10 Mbps

ADSL, Cable Modem, Fiber, and Fixed Wireless June 2020 FCC Form 477 Data Nebraska Counties

Area	All	Rural	
Adams County, NE	94.5	76.81	
Antelope County, NE	54.67	54.67	
Arthur County, NE	75.59	75.59	
Banner County, NE	98.79	98.79	
Blaine County, NE	41.72	41.72	
Boone County, NE	55.32	55.32	
Box Butte County, NE	98.49	94.14	
Boyd County, NE	68.84	68.84	
Brown County, NE	16.82	16.82	
Buffalo County, NE	86.24	67.06	
Burt County, NE	86.62	86.62	
Butler County, NE	91.92	88.09	
Cass County, NE	93.37	90.99	
Cedar County, NE	64.5	64.5	
Chase County, NE	93.83	93.83	
Cherry County, NE	20.39	13.1	
Cheyenne County, NE	94.23	85.99	
Clay County, NE	81.93	81.93	
Colfax County, NE	74.08	46.98	
Cuming County, NE	89.55	84.76	
Custer County, NE	35.6	8.42	
Dakota County, NE	90.61	78.85	
Dawes County, NE	73	52.33	
Dawson County, NE	83.62	39.86	
Deuel County, NE	69.29	69.29	
Dixon County, NE	94.48	94.48	
Dodge County, NE	95.15	81.69	
Douglas County, NE	98.2	85.82	
Dundy County, NE	0	0	
Fillmore County, NE	92.26	92.26	
Franklin County, NE	45.15	45.15	
Frontier County, NE	13.13	13.13	

Area	All	Rural	
Furnas County, NE	57.78	57.78	
Gage County, NE	81.87	62.21	
Garden County, NE	92.49	92.49	
Garfield County, NE	1.07	1.07	
Gosper County, NE	12.31	12.31	
Grant County, NE	23.6	23.6	
Greeley County, NE	21.65	21.65	
Hall County, NE	96.94	84.68	
Hamilton County, NE	92.18	85.09	
Harlan County, NE	6.72	6.72	
Hayes County, NE	2.4	2.4	
Hitchcock County, NE	0.29	0.29	
Holt County, NE	11.11	16.76	
Hooker County, NE	22.43	22.43	
Howard County, NE	55	55	
Jefferson County, NE	68.25	52.08	
Johnson County, NE	55.08	55.08	
Kearney County, NE	76.58	57.85	
Keith County, NE	88.05	74.6	
Keya Paha County, NE	7.2	7.2	
Kimball County, NE	95.57	95.57	
Knox County, NE	11.81	11.81	
Lancaster County, NE	99.11	92.9	
Lincoln County, NE	81.86	41.22	
Logan County, NE	26.87	26.87	
Loup County, NE	3.02	3.02	
Madison County, NE	88.55	63.6	
McPherson County, NE	13.97	13.97	
Merrick County, NE	91.53	86.87	
Morrill County, NE	97.78	97.78	
Nance County, NE	79.65	79.65	
Nemaha County, NE	75.26	53.34	
Nuckolls County, NE	78.13	78.13	
Otoe County, NE	85.59	74.24	
Pawnee County, NE	57.25	57.25	
Perkins County, NE	92.11	92.11	
Phelps County, NE	82.07	62.84	
Pierce County, NE	69.39	69.39	

Area	All	Rural	
Platte County, NE	93.75	80.96	
Polk County, NE	84.88	84.88	
Red Willow County, NE	75.92	27.15	
Richardson County, NE	92	84.57	
Rock County, NE	11.79	11.79	
Saline County, NE	95.77	92.01	
Sarpy County, NE	96.31	93.42	
Saunders County, NE	91.75	87.76	
Scotts Bluff County, NE	99.99	99.97	
Seward County, NE	97.7	96.29	
Sheridan County, NE	3.16	3.16	
Sherman County, NE	46.88	46.88	
Sioux County, NE	80.79	80.79	
Stanton County, NE	81.84	79.48	
Thayer County, NE	60.4	60.4	
Thomas County, NE	31.16	31.16	
Thurston County, NE	44.52	44.52	
Valley County, NE	51.32	51.32	
Washington County, NE	58.98	34.64	
Wayne County, NE	77.84	56.03	
Webster County, NE	56.12	56.12	
Wheeler County, NE	53.64	53.64	
York County, NE	97.51	94.6	
Nebraska	90.2	68.2	

Table 7 Nebraska County Population Estimates July 1, 2019

Geographic Area	Population
Nebraska	1,934,408
Adams County, Nebraska	31,363
Antelope County, Nebraska	6,298
Arthur County, Nebraska	463
Banner County, Nebraska	745
Blaine County, Nebraska	465
Boone County, Nebraska	5,192
Box Butte County, Nebraska	10,783
Boyd County, Nebraska	1,919
Brown County, Nebraska	2,955
Buffalo County, Nebraska	49,659
Burt County, Nebraska	6,459
Butler County, Nebraska	8,016
Cass County, Nebraska	26,248
Cedar County, Nebraska	8,402
Chase County, Nebraska	3,924
Cherry County, Nebraska	5,689
Cheyenne County, Nebraska	8,910
Clay County, Nebraska	6,203
Colfax County, Nebraska	10,709
Cuming County, Nebraska	8,846
Custer County, Nebraska	10,777
Dakota County, Nebraska	20,026
Dawes County, Nebraska	8,589
Dawson County, Nebraska	23,595
Deuel County, Nebraska	1,794
Dixon County, Nebraska	5,636
Dodge County, Nebraska	36,565
Douglas County, Nebraska	571,327
Dundy County, Nebraska	1,693
Fillmore County, Nebraska	5,462
Franklin County, Nebraska	2,979
Frontier County, Nebraska	2,627
Furnas County, Nebraska	4,676
Gage County, Nebraska	21,513

Geographic Area	Population
Garden County, Nebraska	1,837
Garfield County, Nebraska	1,969
Gosper County, Nebraska	1,990
Grant County, Nebraska	623
Greeley County, Nebraska	2,356
Hall County, Nebraska	61,353
Hamilton County, Nebraska	9,324
Harlan County, Nebraska	3,380
Hayes County, Nebraska	922
Hitchcock County, Nebraska	2,762
Holt County, Nebraska	10,067
Hooker County, Nebraska	682
Howard County, Nebraska	6,445
Jefferson County, Nebraska	7,046
Johnson County, Nebraska	5,071
Kearney County, Nebraska	6,495
Keith County, Nebraska	8,034
Keya Paha County, Nebraska	806
Kimball County, Nebraska	3,632
Knox County, Nebraska	8,332
Lancaster County, Nebraska	319,090
Lincoln County, Nebraska	34,914
Logan County, Nebraska	748
Loup County, Nebraska	664
McPherson County, Nebraska	494
Madison County, Nebraska	35,099
Merrick County, Nebraska	7,755
Morrill County, Nebraska	4,642
Nance County, Nebraska	3,519
Nemaha County, Nebraska	6,972
Nuckolls County, Nebraska	4,148
Otoe County, Nebraska	16,012
Pawnee County, Nebraska	2,613
Perkins County, Nebraska	2,891
Phelps County, Nebraska	
Pierce County, Nebraska	7,148
Platte County, Nebraska	
Polk County, Nebraska	5,213
Red Willow County, Nebraska	10,724
Richardson County, Nebraska	7,865
Rock County, Nebraska	1,357

Geographic Area	Population
Saline County, Nebraska	14,224
Sarpy County, Nebraska	187,196
Saunders County, Nebraska	21,578
Scotts Bluff County, Nebraska	35,618
Seward County, Nebraska	17,284
Sheridan County, Nebraska	5,246
Sherman County, Nebraska	3,001
Sioux County, Nebraska	1,166
Stanton County, Nebraska	5,920
Thayer County, Nebraska	5,003
Thomas County, Nebraska	722
Thurston County, Nebraska	7,224
Valley County, Nebraska	4,158
Washington County, Nebraska	20,729
Wayne County, Nebraska	
Webster County, Nebraska	
Wheeler County, Nebraska	783
York County, Nebraska	13,679

Suggested Citation: Annual Estimates of the Resident Population for Counties in Nebraska: April 1, 2010 to July 1, 2019 (CO-EST2019-ANNRES-31)

Source: U.S. Census Bureau, Population Division

Release Date: March 2020

American Community Survey Internet Subscription Data Cheat Sheet

Website: data.census.gov

Product: 2019 (or most recent year) ACS <u>5-Year</u> Estimates Subject Table

Only the 5-year estimates include county level data.

TableID: S2802 for Types of Internet Subscription by Selected Characteristics

If you download S802 data, these columns have data for total population and age groups:

S2802_C03_001M	Margin of Error!!Percent Broadband Internet Subscription!!With a
	computer!!Total population in households
S2802_C03_002E	Estimate!!Percent Broadband Internet Subscription!!With a computer!!Total
	population in households!!AGE!!Under 18 years
S2802_C03_002M	Margin of Error!!Percent Broadband Internet Subscription!!With a
	computer!!Total population in households!!AGE!!Under 18 years
S2802_C03_003E	Estimate!!Percent Broadband Internet Subscription!!With a computer!!Total
	population in households!!AGE!!18 to 64 years
S2802_C03_003M	Margin of Error!!Percent Broadband Internet Subscription!!With a
	computer!!Total population in households!!AGE!!18 to 64 years
S2802_C03_004E	Estimate!!Percent Broadband Internet Subscription!!With a computer!!Total
	population in households!!AGE!!65 years and over
S2802_C03_004M	Margin of Error!!Percent Broadband Internet Subscription!!With a
	computer!!Total population in households!!AGE!!65 years and over

These columns have data for those with no computer or smart phone in the household:

S2802_C07_001E	Estimate!!Percent no computer in household!!Total population in households
S2802_C07_001M	Margin of Error!!Percent no computer in household!!Total population in households
	Estimate!!Percent no computer in household!!Total population in households!!AGE!!Under 18
	years
S2802_C07_002E	
	Margin of Error!!Percent no computer in household!!Total population in households!!AGE!!Under
S2802_C07_002M	18 years
	Estimate!!Percent no computer in household!!Total population in households!!AGE!!18 to 64
S2802_C07_003E	years
	Margin of Error!!Percent no computer in household!!Total population in households!!AGE!!18 to
S2802_C07_003M	64 years
	Estimate!!Percent no computer in household!!Total population in households!!AGE!!65 years and
S2802_C07_004E	over
	Margin of Error!!Percent no computer in household!!Total population in households!!AGE!!65
S2802_C07_004M	years and over

If you want to explore other tables, here are the codes and titles:

Code	Title
B28001	Types of Computers in Household
B28002	Presence and Types of Internet Subscriptions in Household
B28003	Presence of a Computer and Type of Internet Subscription in Household

B28004	Household Income in the Last 12 Months by Presence and Type of Internet Subscription in Household
B28005	Age by Presence of a Computer and Types of Internet Subscription in Household
B28006	Educational Attainment by Presence of a Computer and Types of Internet Subscription in Household
B28007	Labor Force Status by Presence of a Computer and Types of Internet Subscription in Household
B28008	Presence of a Computer and Type of Internet Subscription in Household
B28009A [†]	Presence of a Computer and Type of Internet Subscription in Household (White Alone) †Also available
	in <u>racial iterations</u>
B28010	Computers in Household
<u>B28011</u>	Internet Subscriptions in Household

The table above is from Census Reporter (https://censusreporter.org/topics/computer-internet/). Censusreporter.org is a great source of information.

The Census Bureau asks the three questions on computer use and internet access shown on the right:

For more information, go to:

https://www.census.gov/acs/www/about/why-we-askeach-question/computer/

do you or any member of this household own or use any of the following types of computers? Yes				
a. Desktop or laptop b. Smartphone c. Tablet or other portable wireless computer d. Some other type of computer Specify Yes, without paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a - a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	do	you or any member of this	househ	old
a. Desktop or laptop b. Smartphone c. Tablet or other portable wireless computer d. Some other type of computer Specify Test or a partment, or mobile home - do you or any member of this household have access to the Internet? Yes, by paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a - a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?			g type	s of
b. Smartphone c. Tablet or other portable wireless computer d. Some other type of computer Specify This house, apartment, or mobile home— do you or any member of this household have access to the Internet? Yes, by paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a— a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	COL	nputers:	Yes	No
c. Tablet or other portable wireless computer d. Some other type of computer Specify At this house, apartment, or mobile home - do you or any member of this household have access to the Internet? Yes, by paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a - a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	a. D	esktop or laptop		
wireless computer d. Some other type of computer Specify At this house, apartment, or mobile home - do you or any member of this household have access to the Internet? Yes, by paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a - a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	b. S	martphone		
Specify At this house, apartment, or mobile home – do you or any member of this household have access to the Internet? Yes, by paying a cell phone company or Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a – a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?				
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Internet service provider Yes, without paying a cell phone company or Internet service provider → SKIP to question 12 No access to the Internet at this house, apartment, or mobile home → SKIP to question 12 Do you or any member of this household have access to the Internet using a – a. cellular data plan for a smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	do	you or any member of this		
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smartphone or other mobile device? b. broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	a. c	ellular data plan for a	Yes	No
Internet service such as cable, fiber optic, or DSL service installed in this household? c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	S	martphone or other mobile		
c. satellite Internet service installed in this household? d. dial-up Internet service installed in this household? e. some other service?	lr fi	nternet service such as cable, ber optic, or DSL service		
d. dial-up Internet service installed in this household? e. some other service?	c. s	atellite Internet service		
	d. d	ial-up Internet service		

FCC Broadband Availability Data Cheat Sheet

Website: https://broadbandmap.fcc.gov Comparison Select Comparison. Click on Enter a State. Enter in Nebraska. Under Select Area, select County. Click on the settings button Select ADSL, Cable, Fiber, and Fixed Wireless technologies. Select 100/20 for the speed. **Application Settings** Data version June 2020 (latest) Broadband Technologies Speed (Mbps) ADSL ○ ≥ 0.2/0.2 Cable ○ ≥ 4/1 Fiber ○ ≥ 10/1 Fixed Wireless ○ ≥ 25/3 ☐ Satellite ○ ≥ 100/10 ☐ Other ○ ≥ 250/25 ○ ≥ 1000/100 Close

Close the settings box.

Click Compare

Compare

Digital Inclusion Resources

Digital Inclusion Data

Nebraska Broadband County Fact Sheets http://nlc.nebraska.gov/stats/broadband/

U.S. Census American Community Survey <u>data.census.gov</u>

U.S. Census Quick Facts census.gov/quickfacts

Nebraska Broadband Maphttps://broadbandmap.nebraska.govNebraska Broadband Speed Test Maphttps://www.nebraskaspeedtest.org/

FCC Broadband Map https://broadbandmap.fcc.gov

Pew Internet & Technology: Internet & Technology https://www.pewresearch.org/topic/internet-technology/

NTIA Indicators of Broadband Need Map

https://broadbandusa.maps.arcgis.com/apps/webappviewer/index.html?id=ba2dcd585f5e43cba41b7c1ebf2a43d0

NTIA Digital Nation Data Explorer

https://www.ntia.doc.gov/data/digital-nation-data-explorer#sel=internetUser&disp=map

Sample Plans

Rush County, Indiana Digital Inclusion Plan

http://rushcounty.in.gov/wp-content/uploads/2020/02/Rush-County-Digital-Inclusion-Plan-2020-2025-1-8-20.pdf

Other Planning Resources

North Carolina Digital Inclusion Template and Guide

https://www.ncbroadband.gov/assistance/digital-inclusion-template-guide

Leveraging Broadband in Your Community: A Workbook to Help Communities Stimulate Broadband Development http://broadband.nebraska.gov/workbook/html5/index.html

Six Steps to Better Broadband https://ruralbroadband.nebraska.gov/resources/Sixsteps.pdf

Resources for Low-Income Consumers

FCC Emergency Broadband Benefit Program https://www.fcc.gov/broadbandbenefit

EveryoneOn: Find low-cost internet and affordable computers in your area

https://www.everyoneon.org/programs

Google Fiber: Gigabit Internet for Public Housing https://fiber.google.com/community/

E-Rate Information (Mainly Focused on Libraries)

Nebraska Library Commission E-Rate Page

http://nlc.nebraska.gov/erate/

Nebraska E-Rate Special Construction Matching Fund Program (NUSF-117)

 $\underline{\text{https://psc.nebraska.gov/telecommunications/nebraska-e-rate-special-construction-matching-fund-program-nusf-117}}$

Library Broadband

Toward Gigabit Libraries Toolkit and Broadband Improvement Plan https://internet2.edu/community/community-anchor-program/cap-library-resources/toward-gigabit-libraries/

Resources for Digital Literacy and Inclusion Programming

Digital Navigator Model https://www.digitalinclusion.org/digital-navigator-model/

Digital Skill Clusters: Curated resources by category/ need

https://docs.google.com/document/d/1geiiKmLQ1UIoRvI2rdwd5bvIPyzwf4p0LOMCCT1rC68/edit

Digital Skill Infographics: Used for brainstorming what communities need https://www.canva.com/design/DAERJ3vEmH4/kgSiDTXr21ILeC7m7IRlgg/

Digital Literacy Guidebook for Librarians: First version **** http://nlc.nebraska.gov/tech/literacy/

High Tech: Information resources, activity ideas, learning communities, and more to learn the tech of the future http://nlc.nebraska.gov/tech/kits/learn.aspx

Lead for Nebraska

https://ruralimpacthub.com/lfne/

Teaching Technology in the Library Guidebook (full version available by Sept. 2021) http://nlc.nebraska.gov/Tech/Teaching/overview.aspx

Funding

NTIA Broadband USA Federal Funding Guide https://broadbandusa.ntia.doc.gov/resources/federal/federal-funding

FCC Emergency Connectivity Fund (ECF)

https://www.fcc.gov/emergency-connectivity-fund

Resources for Reaching Aging/Older Nebraskans

Older Adults Technology Services (OATS)

www.oats.org

Resources for Addressing the Homework Gap

Northeast Nebraska Tribal Education Broadband Service (NNTEBS) https://tech.ed.gov/wireless-brief/network-models/#Nebraska

Education SuperHighway K-12 Bridge to Broadband

https://www.educationsuperhighway.org/bridge-to-broadband/

Nebraska Dept of Education *Launch Nebraska website* & Internet Service Provider Directory https://www.launchne.com/internet-service-provider/

Nebraska Center for Rural Affairs Homework Gap Factsheet https://www.cfra.org/sites/default/files/publications/the-homework-gap.pdf

Future Ready Schools Homework Gap Resources https://futureready.org/homework-gap/

Budget Calculator: Calculate the Cost of Connecting Students in Your State (DigitalBridgeK-12) https://digitalbridgek12.org/states/budget-calculator/

State Action to Close the Homework Gap: Blueprint for State Education Leaders (DigitalBridgeK-12) https://digitalbridgek12.org/states/

Fact Sheet: The Homework Gap (Center for Rural Affairs) https://www.cfra.org/sites/default/files/publications/the-homework-gap.pdf