



Blandin "Up to Speed" Broadband Survey Results By Benjamin Winchester University of Minnesota Extension Center for Community Vitality July 7, 2021

The broadband survey was administered between April and June. Residents of Aitkin, Kanabec, and Pine County – as well as the Mille Lacs Band Tribal Economy region – were invited to complete the survey. A total of 2,621 surveys were submitted, of which 2,369 (90%) reported living within the survey region. The following tables will examine overall results which includes responses from those with a region-identified address, as well as 252 responses from those without a verifiable address. It is believed that many respondents with second homes in the region responded to the address questions with their primary residence (for example, in St. Paul), rather than their secondary address in the region.

The Mille Lacs Tribal Economy encompasses the three districts of the Mille Lacs Band of Ojibwe territory within Mille Lacs, Pine and Aitkin Counties. The Tribal Economy includes six specific Census tracts (9504, 9505,7704, 9703, 9701 and 9702). A map of this area can be found in the Appendix. Mille Lacs Corporate Ventures aims to improve the economic vitality within this area for all residents, both Band members and non-members alike. Since the Mille Lacs Tribal Economy has coverage within all other counties, the summative totals of these individual areas will not match "all respondents" throughout this report.

Table 1: Survey responses by survey area.

County	Surveys	Avg.	Estimated
	Completed	Household	Population in
		Size	Survey Sample
Aitkin County	692	2.02	1,398
Kanabec County	887	2.45	2,173
Pine County	610	2.57	1,568
Mille Lacs Tribal Economy	387	*	
No verifiable address	252		

^{* 2019} estimates not available for this small unit of geography.

Table 2: Is anyone in your household a member of the Mille Lacs Band of Ojibwe?

	Count	Percent
Yes	167	7%
No	2,409	94%
Total	2,576	

Table 3: I am completing this survey at...

	Count	Percent
Home	1,939	79%
Work	358	15%
Other	170	7%
Total	2,467	

Most open-ended responses here were related to a cabin or seasonal property. Others indicated public wifi, relatives house, a home in the Twin Cities.

Table 4: Respondents with Internet Service by Survey Area (n / %)

,	I do not have Internet Service at my home.	I have Internet Service (excluding cellular phone or hotspot) at my	I have only cellular Internet at my home.
	·	home.	
Aitkin County	57 / 8%	481 / 70%	154 / 22%
Kanabec County	37 / 4%	688 / 78%	162 / 18%
Pine County	42 / 7%	452 / 74%	116 / 19%
Mille Lacs Tribal Economy	23 / 6%	295 / 76%	69 / 18%
All respondents	162 / 6%	1960 / 75%	499 / 19%

<u>Table 5: Respondents indicating they have 1) only cellu</u>lar internet or 2) do not have internet.

	Count	Percent
Aitkin County	211	30%
Kanabec County	199	22%
Pine County	158	26%
Mille Lacs Tribal Economy	92	24%
All respondents	661	25%

For respondents that indicated they have either 1) only cellular internet or 2) do not have Internet Service, they were asked the following questions. (TABLE 6-10)

Table 6: Does at least one member of the household:

	Work at home (full or part time)	Operate a home business	Attend school online (full or part time)
Aitkin County	90 / 43%	25 / 12%	41 / 19%
Kanabec County	73 / 37%	40 / 20%	54 / 27%
Pine County	60 / 38%	23 / 15%	30 / 19%
Mille Lacs Tribal Economy	38 / 41%	11 / 12%	19 / 21%
All respondents	252 / 38%	94 / 14%	143 / 22%

Table 7: Please tell us why you do not have fixed Internet access as your home.

	No services are offered at my location	The price is too high	Other
Aitkin County	92 / 44%	27 / 13%	56
Kanabec County	86 / 43%	36 / 18%	42
Pine County	68 / 44%	24 / 15%	32
Mille Lacs Tribal Economy	31 / 45%	24 / 35%	14
All respondents	268 / 41%	115 / 17%	142

Do not need or want: 2 responses

Open-ended responses can be found in Appendix B

Table 8: What is the maximum monthly price you would be willing to pay for 100 Mbps service

(high-speed upload and download internet)?

	Count	Percent
Less than \$25	36	8%
\$26-50	158	35%
\$51-\$75	163	36%
\$76-100	66	15%
\$101+	23	5%
I would not subscribe	5	1%
Total	451	

Table 9: If you had internet access at this location, would you use it for: (check all that apply)?

	Count
Education (K12 - higher education)	235
Earn income (work or business)	322
Communication (email, video calls, social media)	485
Entertainment (video or music streaming, gaming)	456
Access government information	211
Cloud-based services (Dropbox, iCloud, etc.)	208
Other	32

Other open-ended responses:

- Banking etc
- Contact with my new granddaughter
- Continuing Education
- Family members would use for work and school
- For the video surveillance system I plan on buying. I have Alexa products I would like to set up. My PS5
- general surfing and googling

- Health, library
- Home security
- If build a home would use for all but income
- Information
- Need for watching farming animals during work hours
- Ongoing education
- order online-shopping
- Pay bills

- personal banking/billpay
- Security
- Security
- security system
- Streaming

- Thermostat
- To be able to work from home
- volunteer work
- Work
- Work from home when needed

Table 10: In your opinion, are there sufficient Internet service provider choices available to you at your location (choose one)?

at your rocation (choose one).			
	Count	Percent	
No	476	97%	
Yes	17	3%	
Total	493	100%	

This is the end of the special bank of questions to respondents that indicated they have either 1) only cellular internet or 2) do not have Internet Service

Table 11: How many working computers, tablets and/or iPads do you have?

	Count	Percent
0-2	457	29%
3-4	626	40%
5+	470	30%

Table 12: How many other devices other than cell phones (TVs, gaming consoles, smart home, medical) in your home are connected to the Internet?

	Count	Percent
0-1	285	18%
2-3	546	35%
4-5	410	27%
6+	303	20%

Table 13: Who is your Internet provider? (choose all that apply)

Provider	Count
Access Communications	4
AirFiber	0
CenturyLink	774
Charter Spectrum	39
CTC	8
Emily Cooperative Telephone	0
Frontier	204
Genesis Wireless	40
Johnson Telephone	1
Mediacom	7
Midco	126
Mille Lacs Energy	33
SCI	91
Starwire Technologies	5
Windstream	1
Cellular/mobile phone data plan	51
Satellite (HughesNet, Viasat)	152
Satellite (Starlink)	20
Other	29

Table 14: To the best of your knowledge, what speed does your Internet service provider promise you?

	Count	Percent
Less than 10 Mbps	347	33%
Between 10 and 25 Mbps	408	38%
Between 26 and 100 Mbps	248	23%
Between 101 and 1 Gbps (Gig)	64	6%
Total	1,067	100%

Table 15: Overall – considering performance, cost, and any other factors – how satisfied are you with this Internet service?

	Affordability	Speed	Reliability
Extremely dissatisfied	19%	19%	19%
Somewhat dissatisfied	27%	27%	27%
Neither satisfied nor dissatisfied	19%	19%	19%
Somewhat satisfied	25%	26%	25%
Extremely satisfied	10%	10%	10%

The following tables show the percent of respondents indicating they are Dissatisfied (Extremely or Somewhat) and Satisfied (Extremely or Somewhat) for the providers having 20 responses or more. Note, open-ended responses were cleaned to identify the appropriate provider. For

example, many listed AT&T yet did not select "Cellular/Mobile Phone Data Plan". For reference, "Satellite (Hughes, Viasat)" also includes DISH Network and Excede.

Table 16: Affordability Satisfaction by Provider

	Count	Percent	Percent
		Dissatisfied	Satisfied
CenturyLink	774	40%	38%
Charter Spectrum	39	56%	28%
Frontier	204	61%	21%
Genesis Wireless	40	55%	33%
Midco	126	35%	46%
Mille Lacs Energy	33	39%	45%
SCI	91	37%	49%
Cellular/mobile phone data plan	51	35%	53%
Satellite (HughesNet, Viasat)	152	78%	10%
Satellite (Starlink)	20	25%	60%
Other	29	48%	38%

Table 17: Speed Satisfaction by Provider

	Count	Percent	Percent
		Dissatisfied	Satisfied
CenturyLink	774	22%	68%
Charter Spectrum	39	15%	31%
Frontier	204	18%	79%
Genesis Wireless	40	13%	65%
Midco	126	19%	26%
Mille Lacs Energy	33	15%	45%
SCI	91	12%	24%
Cellular/mobile phone data plan	51	14%	64%
Satellite (HughesNet, Viasat)	152	10%	83%
Satellite (Starlink)	20	10%	10%
Other	29	16%	62%

Table 18: Reliability Satisfaction by Provider

	Count	Percent	Percent
		Dissatisfied	Satisfied
CenturyLink	774	22%	9%
Charter Spectrum	39	54%	15%
Frontier	204	13%	5%
Genesis Wireless	40	20%	15%
Midco	126	58%	13%
Mille Lacs Energy	33	42%	9%
SCI	91	63%	9%
Cellular/mobile phone data plan	51	29%	7%
Satellite (HughesNet, Viasat)	152	11%	5%
Satellite (Starlink)	20	75%	10%
Other	29	30%	6%

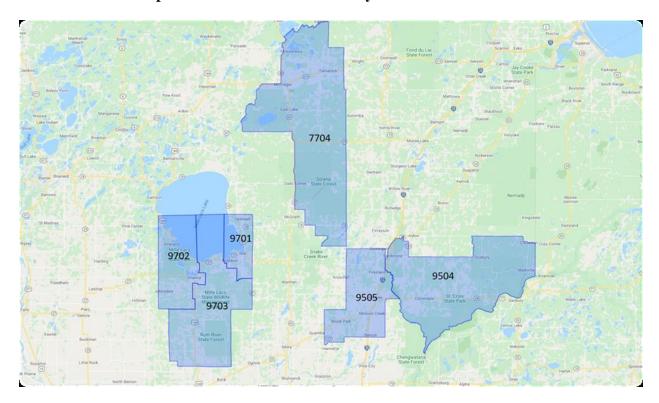
Table 19: Satisfaction by Community

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	Affordability	Speed	Reliability
	% Satisfied	% Satisfied	% Satisfied
Aitkin County	43%	28%	35%
Kanabec County	44%	30%	35%
Pine County	40%	32%	39%
Mille Lacs Tribal Economy	44%	33%	41%
Mille Lacs Band Members	35%	35%	37%

Note this table also includes a row showing statistics from respondents that indicated they were members of the Mille Lacs Band of Ojibwe reported in Table 2. The Band member can be residing across the survey region.

The last question asked respondents to "Tell us your broadband story." These responses are lengthy and can be found in a separate report. A reflection upon this survey process, and analysis, are in the Survey Administration Notes, Appendix C.

$\label{eq:APPENDIX} \textbf{A} - \textbf{Map of Mille Lacs Tribal Economy census tracts}$



APPENDIX B – Open-Ended Location Responses from Table 7

Question: Please tell us why you do not have fixed Internet access as your home. Note: spelling and grammar was not corrected.

- Aitkin is cabin residence. Summer only.
- Bad Century Link experience
- Bad internet service
- Because the only service offered is satellite and I have heard terrible things about it.
- Cabin but may like service if it was reasonable enough
- Can get good service around my area
- Can't afford it and right now my phone works okay for me for service
- Connection speed is very poor but expensive. It is not useful
- Cost vs poor service is outrageous
- Crappy service
- Dial up internet only thing available
- End of the line, speed is too slow
- Fast Internet not available, not paying for slow speed.
- Frontier could not maintain line to the house.
- frontier is only option and constantly is being worked on and we don't want internet that is shut down
- Frontier is the option and ATT hotspot has better speeds.
- Had it they lowered the speed and would not restore it. Canceled it because why pay for something that does not work.
- Have ATT cloud
- Have been waiting for line to be dug since October 2020
- High speed gets used up right away
- High Speed Not Available
- I already have internet service at me home.
- I have heard horrible things about it.
- I have it, but I remember when I didn't have it. It was costly and I had poor connection. I
 work with several employees that could work form home, but internet is bad or they don't
 have it.
- In the process
- Internet is too expensive for such a slow speed.
- internet really sucks between providers that we have
- it is lakeshore
- It is offered by Frontier but it doesn't work very good and is expensive.
- It's difficult to keep up with the spam and other crap that infests the internet
- Limited Internet Available speeds not fast enough for me to work from home. I work from Home FULL Time.
- limited speed, limited access
- Lousy options w poor speeds and high price
- new home and the only wired provider says they can't service us as we are 200 ft away from their line.
- No fiber to home!

- No fiberoptic available and trees are too high for Satellite
- No home on property.
- No phone based internet offered at my location and satellite options are to expensive
- No reliable service
- no reliable service
- No selection and prices too high
- No service ran to house and not going to pay \$2000 have it installed and it's poor internet anyway
- Not sure what services are provided at my address
- On fixed income
- one service is available at a very slow rate of download speed
- Only have 5 spot thru Verizon
- Only have unreliable DSL that is offered
- Only one provider frontier, and it isn't any good.
- only option is CenturyLink. We avoid due to customer service, slow speeds, just don't need to use them
- Only possible service is Century Link. No current lines exist to our house (recent new build). Cost to run line from access point to home is prohibitive. Also the service that would be available if we paid for this DSL is not cost effective and would not meet our access needs.
- only satellite internet at this location
- Only satellite available, expensive and slow
- Only satellite internet is available at my home, which is not affordable or fast enough.
- Only Satellite is offered
- Only satellite is accessible and it wasn't fast enough
- Only service provided is too slow for our needs.
- Only slow internet is available at a high cost
- Phone lines don't support internet
- POOR RECEPTION, TRIED GENESIS WIRELESS FOR YEARS SERVICE WAS VERY SPOTTY
- Poor service and high price.
- Poor Service and Speed
- Poor service offered in this area
- poor service/unreliable
- Price is high and service is poor
- Price is to high in comparison with Verizon hotspot
- Price is too high and internet options are slow and unreliable
- Price is too high for internet speed that is too slow.
- Price is too high for satellite internet
- Price is too high for what crappy services provided. Have only heard bad things about HughesNet etc
- Price too high for lousy service
- Prices are to high for the amount you get

- Pricing too high and only satellite internet. Need more secure than satellite internet
- Quality not good
- Ran out of Bandwidth
- Satellite internet being installed next week
- Satellite internet is really the only option.
- Satellite internet is very expensive
- Satellite internet will not meet my need and to expensive
- Satellite is expensive for small amount of data. Centurylink has been unreliable in the week we were supposed to have service
- Satellite is offered and not affordable or reliable
- Seasonal Cabin / Price too high
- Seasonal owner
- Seasonal property currently- will be full time residence within 5-10 years
- Service is not good
- Service is poor at this location
- Service speed is too slow
- Service that we have tried have been spotty.
- service was too slow
- Services are offered but they are all satellite. Satellite has proven, to us, it is slow and not reliable.
- Services aren't functional enough in our area
- Slow
- Slow speed. Only 10mbps available
- Slow speeds
- slow, bad!!
- Speed and connection issues
- SPEED ARE SLOW AND UNRELAIBLE AT BEST
- Speed is snail slow.
- speed is too slow for cost
- Speeds were not much higher than dial-up, yet we had to pay just as much as those with hi-speed access.
- The reliability and speed were terrible
- The service is intermittent and poor
- The service is not reliable for the cost
- The service is. It good. Can only connect 1to 2 devices usually before it starts to slow down
- The service Providers in our area are worthless and a waste of money. HORRIBLE service and speed.
- The services offered are far too slow
- The services offered are too slow to operate effectively so we use cell service
- The services offered only work a small portion of the time.
- The services that are supposedly available in my area are not only ridiculously expensive but completely insufficient to do what I need to do --- I work from home and teach from

home - two separate jobs -- and fight daily with internet! It's ridiculous to live where I live and continually struggle to do basic Internet tasks!

- The speed is not adequate and too costly
- The speeds are way too slow. I've had internet in the past
- they were too slow
- this is my cabin at the lake
- T-mobile home internet
- too expensive for crappy service
- We are going to build at site. We do not live there now, but have been looking at internet options.
- We do have access.
- We do not have fast enough internet in our area, i have been using my phones hot spot at this point
- We don't use it enough to justify the cost
- We have a cabin and it's only open in the summer. It's too costly for us to have service at the cabin and at home.
- We have no broadband, satellite is available, but is worthless
- We have satellite available, or very slow speeds but the cost is really high.
- We have signed up for fiber through MLEC but it has not been installed yet. Also- the home is a seasonal cabin.
- We have tried every cell provider out there and still can't get decent service.
- We haven't thought about internet for the cabin, but would consider it if the price was right. We're generally not there for extended periods.
- We just bought a lot on Cedar Lake. We have not built our home yet. We have heard from neighbors that internet service in the area is terrible.
- We would like for century link to come to our neighborhood. They have customers down the street from us. We live in a new development. Which is why they haven't came this way yet.
- When we built our home frontier told us our connection to internet would basically be a little better than dial up speed. They were not sure when a better connection would be offered in my area.

APPENDIX C – Survey Administration Notes

The following recommendations are made should the survey be replicated.

- 1. Be clear about why are we asking where people are taking the survey (home/work). I recommend just asking what type of property they have located in the survey region. Is it a primary home, business, cabin. This survey was unable to clarify all those with lake cabins outside of those that selected "other" and wrote in "cabin". It is unclear the value of a "work" response to the respondent location at the time of survey administration.
- 2. For the number of devices, require numeric responses do not allow open-ended.
- 3. Allow option to identify Lake Home, address clarification
- 4. Ask people for their in-region address. Also selectable list of county names.

5. The list of providers was a confusing split between technology type (satellite, cell phone) and provider name. For example, DISH network was not listed and respondents did not find an appropriate response category. Same for AT&T, Verizon, and T-Mobile – though "cellular/mobile plan" was available for a choice. It may be easiest to just list company names and identify the technology type from there.