



Town of Fairfield Broadband Internet 2019 Survey Report

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Finally, we thank the Town of Fairfield residents and property owners who completed the survey.

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Executive Summary

The purpose of this study was to gather information about Town of Fairfield residents' and property owners' current access to and need for high-speed broadband Internet service.

In October 2019, the SRC mailed surveys to 438 households (residents and property owners) in the Town of Fairfield.¹ Of the 438 surveys mailed, 430 were deliverable.² A reminder postcard and a second mailing were sent to non-respondents at two-week intervals. The SRC received 258 responses for an exceptionally strong 60% response rate. The response exceeded expectations and surpassed the goal of 202 responses needed for a confidence interval of plus/minus 5%, which is a widely accepted standard for statistical analysis. With 258 completed surveys, the results provided in this report are expected to be accurate to within plus/minus 3.9 percent with 95 percent confidence. The response rate and resulting confidence interval increases the SRC's confidence in the reliability and representativeness of the results. Because not every respondent answered every question in the survey, the confidence interval for individual questions may be greater than +/-3.9%.

Any survey has to be concerned about non-response bias – the situation where those who don't respond to a survey have systematically different opinions than those who responded. Based on a standard statistical approach, there is little evidence that non-response is a problem with the dataset. **Appendix A** describes the approach to testing for non-response bias and the results. Respondents also provided written comments, which are included in **Appendix B**. Data summaries for each quantitative survey question is found in **Appendix C**.

¹ The SRC received a list of residential and property owners from the Town of Fairfield.

² Eight surveys were returned as non-deliverable with no forwarding address.

Key findings in this report include the following:

Approximately eight in ten respondents subscribe to Internet service (**Figure 1**).

Among those who do not subscribe to Internet service, the most common reason for not subscribing is that it is too expensive (39%) (**Figure 2**).

Fifteen percent of respondents said high-speed broadband Internet service (at least 25 Mbps download/3 Mbps upload) is available at their homes; 59% said it is not available; and 26% said they don't know if it is available (**Figure 3**).

Century Link has the largest percentage of customers of those responding to the survey (87%); other carriers have small shares in the Town (**Figure 4**).

About three-fourths of the respondents' monthly Internet bills fall in the range of \$41 to \$100 per month (**Figure 5**).

Two-thirds of respondents said they are dissatisfied or very dissatisfied with their current Internet service (**Figure 6**). Among those who are dissatisfied or very dissatisfied, the primary reasons are slow speeds (90%), and inconsistent service (67%) (**Figure 7**).

A strong majority of respondents said someone in their residence would be likely or very likely to access medical information/services if access to high-speed broadband Internet service was available (70% combined very likely + likely). Approximately one-half of respondents said someone in their household would work from home (51%), improve the management of a farm or business (50%), or access educational resources (46%). Approximately one-third of respondents said they would start, move, or grow a home-based business if they had access to high-speed broadband Internet. (**Figure 8**).

Approximately six in ten respondents would be willing to subscribe to a high-speed broadband Internet service and pay approximately \$70.00 per month for service delivering download/upload speeds of 100 Mbps (**Figure 9**).

In a response to a question about the maximum amount a respondent would pay towards a one-time hook-up charge for high-speed broadband internet service, a large majority of respondents said the maximum they would pay would be between \$250 - \$500 (**Figure 10**).

Enthusiasm for high-speed broadband Internet service and comments about speed and reliability comprised the largest percentages of open-ended comments (**Table 2**).

Survey Purpose and Methods

The purpose of the survey was to provide the Town of Fairfield, in Sauk County Wisconsin with information to help them better understand residents' and property owners' current access to or need for high-speed broadband Internet service. Input was sought from respondents in two key areas: current internet service and interest in subscribing to a high-speed broadband Internet service if it was available at the respondent's residence. The Town chose to work with the Survey Research Center (SRC) at the University of Wisconsin–River Falls to gather this information.

In fall 2019, the SRC mailed surveys to 438 households (residents and property owners) living in the Town of Fairfield. The SRC received a list of residential and property owners from the Town of Fairfield. Map 1 shows the area of study.

Map 1: Area of Study – Town of Fairfield



Of the 438 surveys mailed, 430 were deliverable. A reminder postcard and a second mailing were sent to non-respondents at two-week intervals. A total of 258 usable surveys were received (60% response rate). With 258 completed surveys, the results provided in this report are expected to be accurate to within plus/minus 3.9 percent with 95 percent confidence. Not every respondent answered every question in the survey, so the confidence interval for individual questions may be greater than +/-3.9%.

The following analysis will:

- Summarize the responses to the 2019 Town of Fairfield Broadband Internet Survey.
- Compare the responses of different demographic groups (e.g. male vs. female, respondents under the age of 45 vs. respondents 45 and above, and respondents with children under the age of 18 in their household vs. those without children in their household) to see if they hold different opinions about a given topic.

Informed Consent. As is the usual practice, survey recipients were promised confidentiality and informed that the SRC would combine all responses, data would be analyzed and reported in aggregated form only, and their name would not be associated with responses to survey questions. However, in this survey, we also included the following question in the survey:

In order to identify areas that are underserved, we would like to use your address and your response to create broadband demand maps. Do we have your permission to use your data in this way?

Of 215 respondents who answered this question, 192 or 89% gave permission to use their addresses and responses for this purpose. The maps included in this report contain data from the 192 respondents who provided their consent.

Note: “Not applicable” or “No opinion” options were included for many of the questions in the survey. Not applicable/no opinion responses were excluded for analysis purposes and were not included in the visual representation of the results for most questions.

Profile of Respondents

Survey Respondents. Table 1 summarizes the demographic profile of respondents to the 2019 Town of Fairfield Broadband Internet Survey. Where appropriate, data from the U.S. Census Bureau’s American Community Survey (ACS) for the Town of Fairfield are included for comparison purposes.³

Table 1: Demographic Profile of 2019 Town of Fairfield Broadband Internet Survey Sample							
Gender	Count	Male	Female	Other			
2019 Sample	246	64%	35%	<1%			
Census (18+)	822	52%	48%	---			
Age	Count	18 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65+
2019 Sample	253	0%	4%	10%	19%	28%	39%
Census (18+)	822	11%	10%	12%	20%	11%	35%
Children (<18) in Home	Count	Yes	No				
2019 Sample	251	22%	78%				
Census (Households)	424	37%	63%				

³ Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates.

Gender: Approximately two-thirds of the respondents were male. The gender profile in the Town of Fairfield is more balanced in the Census.

Age: The Town of Fairfield Broadband Internet Survey sample is relatively evenly matched in the middle age ranges (35 – 54) and for those 65+ and not as representative of the 18 – 34 age groups (less responses) and 55 - 64 age group (more responses). Based on past surveys the SRC has done, younger residents are less likely to participate in surveys.

Children in Home. The proportion of survey respondents with children at home under 18, 22%, is lower than the Census figure for Town of Fairfield overall (37% of households in Town of Fairfield report having one or more people under the age of 18 in their household). To facilitate the analysis, the SRC compared the following demographic groupings to see if there were significant differences in the responses to the survey questions based on demographic characteristics:

- those under 45 versus those 45 and above
- those identifying themselves as male versus female
- those with children (<18) in their household versus those without children in their household

The SRC found no variables with significant differences based on gender, 11 variables out of 14 with differences based on the presence of children in the household, and 10 variables out of 14 with differences based on age. Statistically significant differences will be noted in the report. The testing methodology used to determine statistically significant differences is discussed below.

*The SRC used statistical tests to identify questions with statistically significant differences across demographic groups. In statistics, a result is **statistically significant** if it is unlikely to have occurred by chance. Statistical significance is expressed as a probability that the observed difference between two groups' averages is not real. A commonly used probability standard is .05 (5%). Statistical significance at the .05 level indicates there is only a 5 in 100 probability that the average values for the two groups are actually equal. Such a result does not mean the difference is necessarily large, important, or significant in the common meaning of the word. If there are a sufficiently large number of observations, even small differences of opinion can be statistically significant. **Response patterns that vary at statistically significant levels ($p < .05$) are noted in the report.***

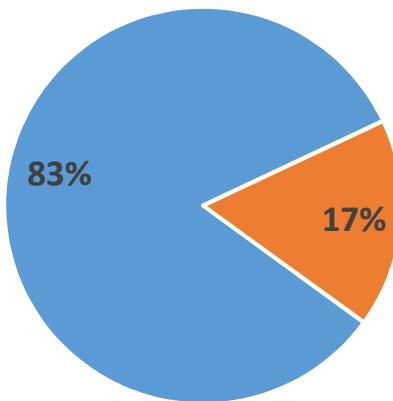
Current Internet Service

Currently Subscribe to Internet Service. The initial question in the survey asked respondents if they currently subscribe to Internet service at their Town of Fairfield home. As shown in Figure 1, approximately eight in 10 respondents said they subscribe to Internet service.

Figure 1: Subscribe to Internet Service

n = 251

■ Yes ■ No

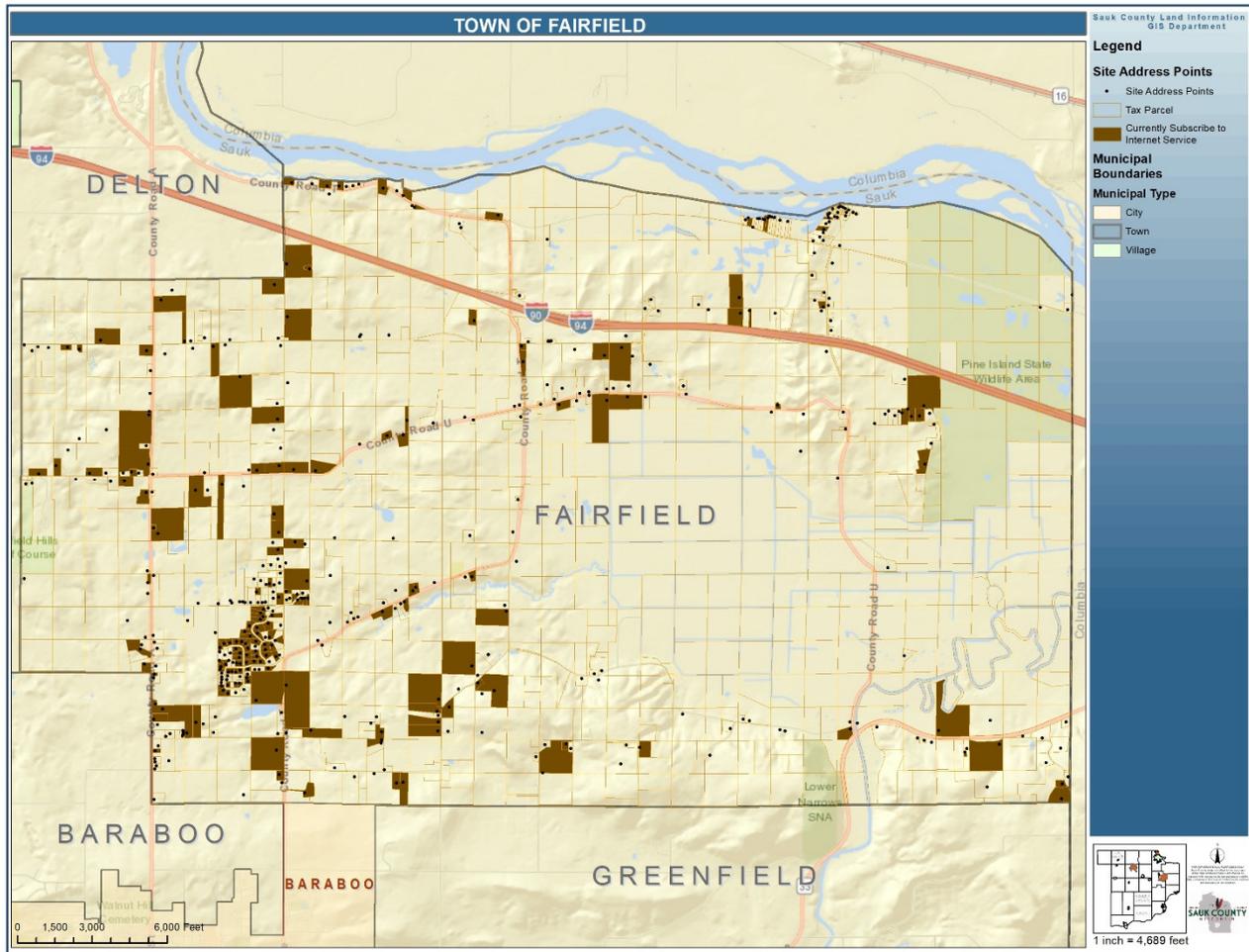


Demographic comparisons.

Respondents in households with children under the age of 18 were more likely to say they subscribe to Internet service.

Map 2 shows the geographic distribution of respondents from the Town who said they subscribe to Internet service. Residential site address points are included for all 483 addresses in the Town. Respondents with service are shown in dark brown and distributed broadly across the Town with the lowest concentration in the east side of the Town. As noted earlier, maps in the report include data provided by respondents who gave permission to use their addresses and responses for the purposes of mapping. Mapping does not include data from the entire dataset.

Map 2: Town of Fairfield Respondents Who Subscribe to Internet Service
Residential Site Address Points in the Town of Fairfield, n = 483
Subscribe to Internet Service, n = 176

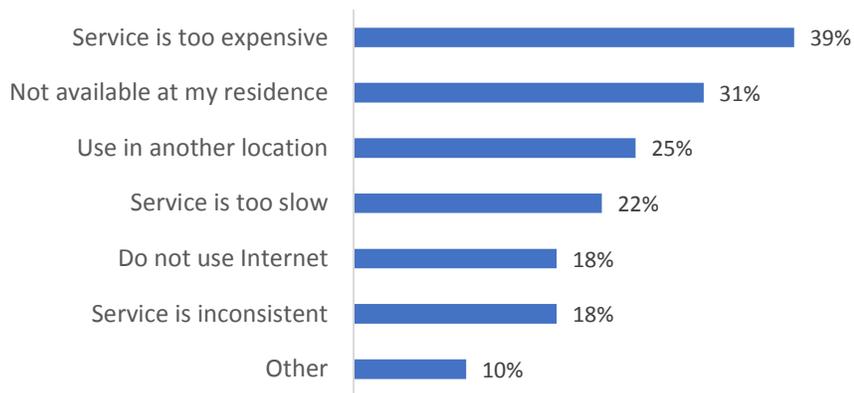


Do Not Subscribe to Internet Service. Respondents who said they do not currently subscribe to Internet service were asked to indicate their reasons for not subscribing. A list of six reasons were presented in the question, plus a “not applicable” option (excluded from analysis) and an option to write a reason not on the list. Respondents could choose as many reasons as apply to their situation. Approximately four in ten respondents who do not subscribe to the Internet said that Internet service is too expensive, while nearly one-third said the service is not available at their residence, and one-fourth said they use the Internet in another location. Slow Internet speed, not using the Internet, and inconsistent service were each given as reasons for not subscribing by approximately one-fifth of the respondents.⁴ Among the “other” written responses were that respondents do not have a computer.

Figure 2: Reasons for Not Subscribing to Internet Service

Total Exceeds 100% - Multiple Choices Allowed

n = 51



Demographic comparisons.

A higher percentage of respondents with no children in their households said that the reason they do not subscribe to the Internet is that it is not available at their residence (8% without children in household vs. 0% of respondents with children in their homes).

⁴ Approximately one-third (35%) of respondents answering this question listed multiple reasons for not subscribing.

The following statement was included in the survey:

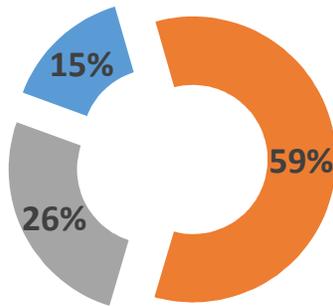
The Federal Communications Commission (FCC) defines high-speed broadband Internet as a connection with a minimum download of 25 Mbps and 3 Mbps upload.

High-Speed Broadband Internet Available at Home. Respondents were asked if high-speed broadband Internet service is available at their Town of Fairfield home. As noted in the survey instrument's preface and again in the wording of this question, high-speed was defined as at least 25 Mbps download/3 Mbps upload. Answer choices were yes, no, or don't know. As shown in Figure 3, 59% said high-speed broadband Internet is not available, 15% said it is available, and 26% didn't know whether it is available or not.

Figure 3: High-Speed Broadband Internet Available at Residence

n = 240

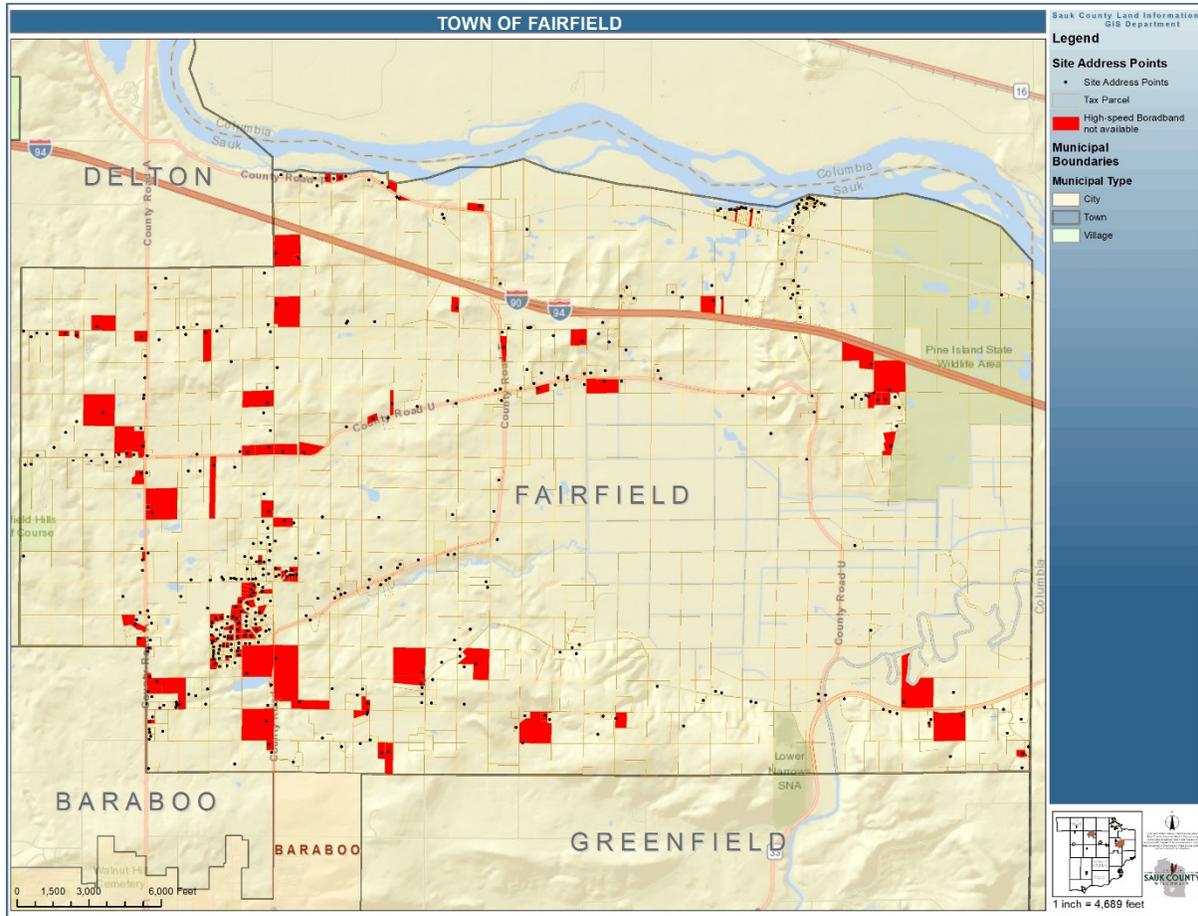
■ Yes ■ No ■ Don't Know



Demographic comparisons. No statistically significant differences.

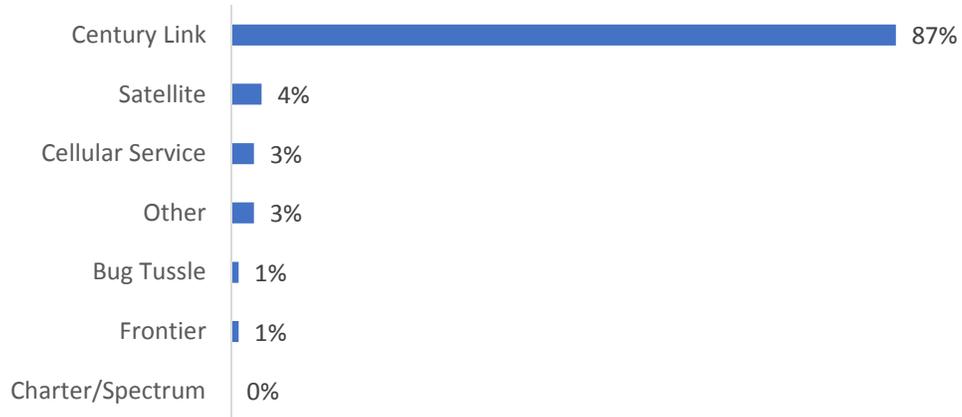
Map 3 shows parcels in dark red that indicate respondents who said high-speed broadband Internet is not available at their residence. The pattern indicates that lack of high-speed broadband Internet service is widespread in the Town.

Map 3: Town of Fairfield Respondents Who Said High-Speed Broadband Internet Service is Not Available at Their Residence
Residential Site Address Points in the Town of Fairfield, n = 483
High-Speed Broadband Not Available, n = 115



Current Internet Service Provider. Respondents were asked for their current Internet service provider at their Town of Fairfield residence. Six options were listed along with answer options of “not applicable” and “other.” Figure 4 indicates that Century Link serves the vast majority of subscribers in the survey sample with an 87% share. All other providers are in the single digits. The SRC notes that residents in the Town appear to have few options for Internet service.

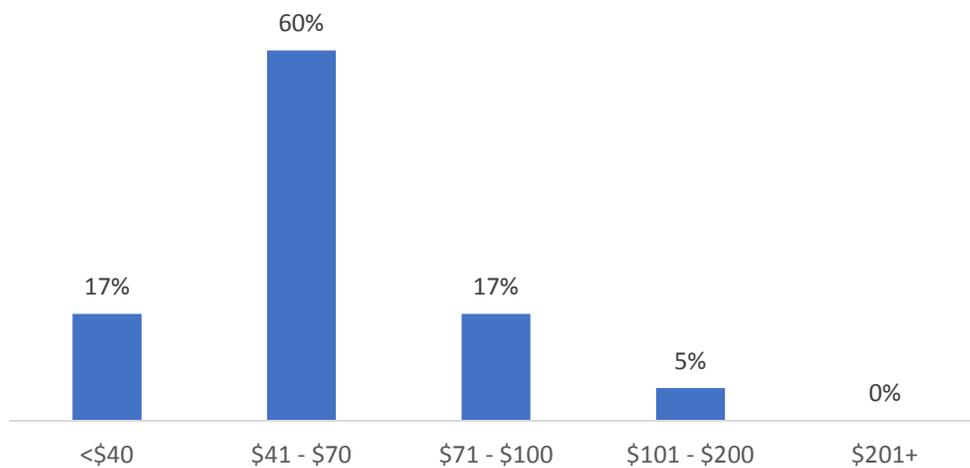
Figure 4: Current Internet Service Provider
n = 208



Demographic comparisons. No statistically significant differences.

Monthly Cost of Current Internet Service. Figure 5 shows the responses to a question asking the respondents to indicate the monthly cost of their Internet service. Respondents were told that if their service is part of a bundle, to only estimate the Internet cost. Answer choices were shown in five ranges: \$40 or less, \$41 to \$70, \$71 to \$100, \$101 to \$200, or \$201 or more. A “not applicable” option was available but is not included in this analysis. The most frequent monthly costs were \$41 to \$70 followed distantly by less than \$40/month or \$71 - \$100/month. Relatively few respondents pay over \$100 monthly for Internet service.

Figure 5: Total Monthly Bill for Internet Service
n = 216

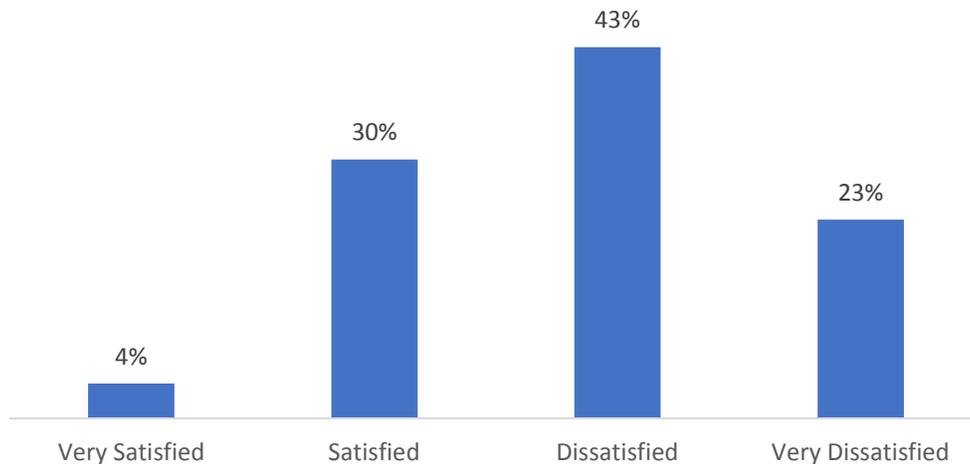


Demographic comparisons. No statistically significant differences.

Satisfaction with Internet Service. Respondents were asked their level of satisfaction with their current Internet service. Answer choices were very satisfied, satisfied, no opinion/NA (excluded from analysis), dissatisfied, or very dissatisfied. As shown in Figure 6, 66% were either dissatisfied (43%) or very dissatisfied (23%), leaving a minority of respondents who are either satisfied (30%) or very satisfied (4%).

A series of cross-tabulations compared a respondent's Internet provider (Figure 4) with their level of satisfaction with their current Internet service. Because there are so few observations per Internet provider (apart from Century Link), the degree to which these survey responses reflect the opinion of all subscribers of a particular provider is uncertain. Dissatisfaction was highest for cellular service subscribers (all seven cellular subscribers who responded to the question were very dissatisfied or dissatisfied with their service). Sixty-five percent (out of 164 subscribers) of Century Link were very dissatisfied or dissatisfied with their service.

Figure 6: Satisfaction with Current Internet Service
n = 192



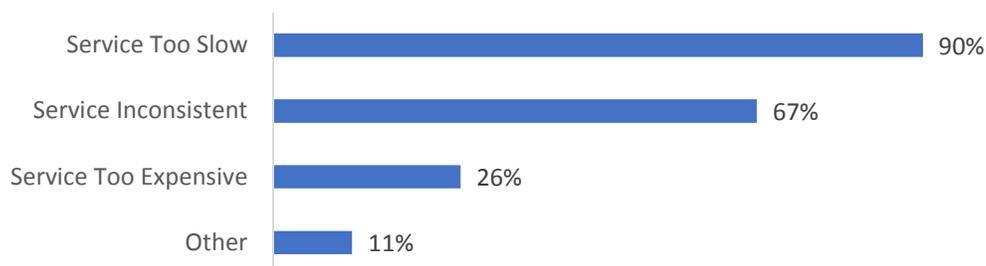
Demographic comparisons.

- Respondents from households with children were less satisfied with their current Internet service (87% dissatisfied + very dissatisfied vs. 62% of respondents without children in their homes).
- Respondents under the age of 45 were less satisfied with their current Internet service (80% dissatisfied + very dissatisfied) vs. 62% of those 45 and above).

Dissatisfaction with Internet Service. In a follow-up question, respondents who said they were either dissatisfied or very dissatisfied with their Internet service were asked to indicate the reasons behind their dissatisfaction. Available answer choices were service is too slow, service is inconsistent, or service is too expensive. A space was provided to enter a reason not included in the list. Respondents could choose as many as applied. As shown in Figure 7, slow speed topped the list at 90%. Approximately two in three respondents said that they were dissatisfied/very dissatisfied with inconsistent service and approximately one-fourth said expense was the reason behind their dissatisfaction with Internet service.⁵ “Other” comments were predominately about service unreliability.

Figure 7: Reasons for Being Dissatisfied or Very Dissatisfied With Current Internet Service

Total Exceeds 100% - Multiple Choices Allowed
n = 141



A series of cross-tabulations compared a respondent’s Internet provider (Figure 4) with areas of dissatisfaction with their Internet service. The SRC compared all areas of dissatisfaction listed on the survey and the small number of cellular subscribers (seven) who answered this series of questions had the highest percentage of dissatisfaction for all areas listed on the survey (service too slow, too inconsistent, too expensive). As noted earlier, the degree to which these survey responses reflect the opinion of all subscribers of a particular provider is uncertain due to the relatively small number of responses for most Internet providers listed on the survey.

Demographic comparisons.

- Respondents from households with children were more likely to say that their dissatisfaction with their current Internet service is due to slow speeds (75% vs. 44% of respondents without children in their homes). Respondents from households with children were also more likely to say dissatisfaction with their Internet service is due to inconsistent service (60% vs. 31% of respondents without children in their homes).
- Respondents under the age of 45 were more likely to say that their dissatisfaction with their current Internet service is due to slow speeds (80% vs. 45% of those 45 and above). Respondents <45 were also more likely to say dissatisfaction with their Internet service is due to inconsistent service (69% vs. 32% of those 45 and above).

⁵Approximately two-thirds (68%) of respondents answering this question listed multiple reasons for being dissatisfied with their current Internet service.

High-Speed Broadband Internet Service Activities

Likelihood of Participating in Activities Due to High-Speed Broadband Internet Access.

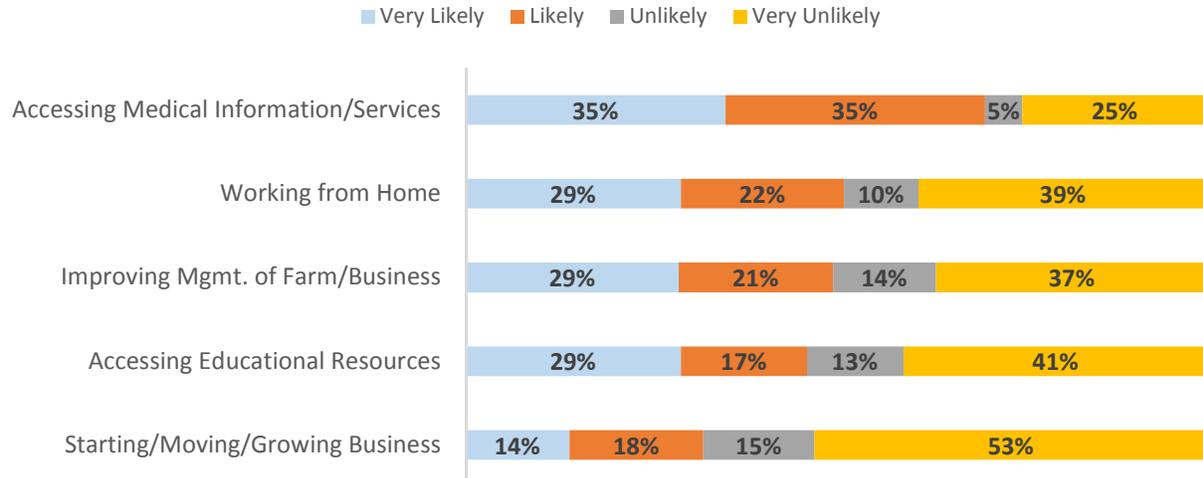
Respondents were asked the likelihood someone in their residence would participate in five activities if they had access to high-speed broadband Internet service (100 Mbps download and 100 Mbps upload). Answer choices were very unlikely, unlikely, likely, very likely, or not sure/NA.⁶ The results are shown in Figure 8 and are sorted in order of the largest percentage of “very likely” responses.

One-half or more of respondents said it would be likely or very likely that members of their household would participate in the following activities if high-speed broadband Internet was available: accessing medical information/services (70% combined likely + very likely) or working from home (51%) or improving the management of a farm or business (50%).

Less than one-half of the respondents said that accessing educational resources (46%) or starting/moving/growing a home-based business (32%) would be likely or very likely if they or members of their household had access to high-speed broadband Internet.⁷

Figure 8: Likelihood of Participation in Activities if Access to High-Speed Broadband Internet Service is Available

n range = 203 - 212



⁶ Not sure/NA responses are excluded from the analysis. The question was designed in a matrix format, so each activity (working from home, accessing medical information, accessing educational resources, etc.) was asked about separately. The total number of responses (*n*) could differ based on each activity.

⁷ Approximately one-fourth (27%) of respondents answering this set of matrix questions said that all five of these uses/activities would be likely or very likely in their household if high-speed broadband Internet is available.

Demographic comparisons. The Internet activities section of the survey contained the most statistically significant differences based on respondent demographics. *Respondents under the age of 45 and respondents with children in their households were more likely to say that they or a member of their household would participate in all five activities described below if they had access to high-speed broadband Internet.* Since younger respondents are underrepresented in the survey, the overall results reported in Figure 8 may underestimate the use of high-speed connectivity for these activities. Each activity's bullet points describe response patterns that vary at statistically significant levels ($p < .05$).

Working from home

- Younger (<45) respondents much more likely (80% vs. 45% of those 45 and above)
- Respondents from households with children under the age of 18 much more likely (79% vs. 41% of those without children in their households)

Starting, moving or growing a home-based business

- Younger (<45) respondents more likely (52% vs. 30% of those 45 and above)
- Respondents from households with children under the age of 18 more likely (57% vs. 26% of those without children in their households)

Accessing educational resources (K-12, post-secondary, continuing education, etc.)

- Younger (<45) respondents much more likely (93% vs. 37% of those 45 and above)
- Respondents from households with children under the age of 18 much more likely (87% vs. 32% of those without children in their households)

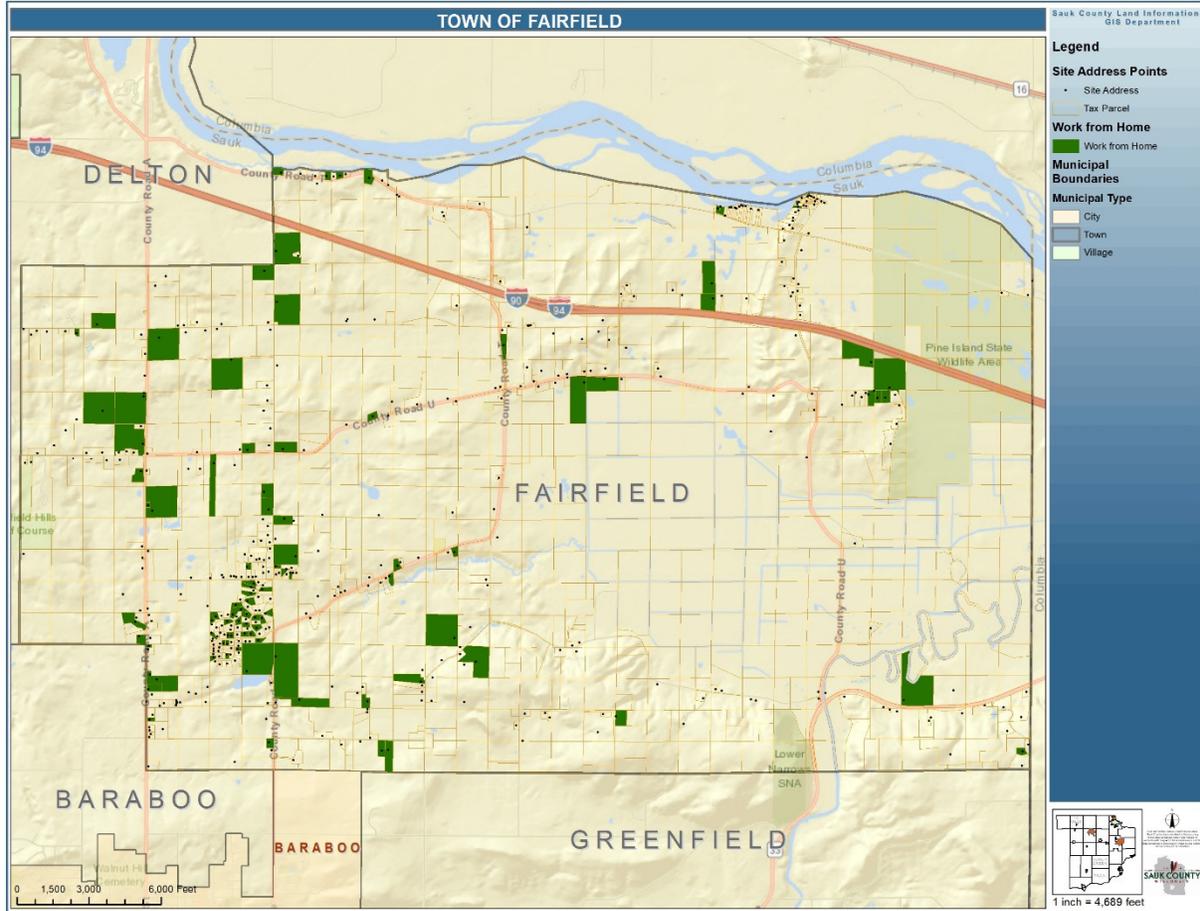
Accessing medical information/services

- Younger (<45) respondents much more likely (94% vs. 66% of those 45 and above)
- Respondents from households with children under the age of 18 more likely (84% vs. 67% of those without children in their households)

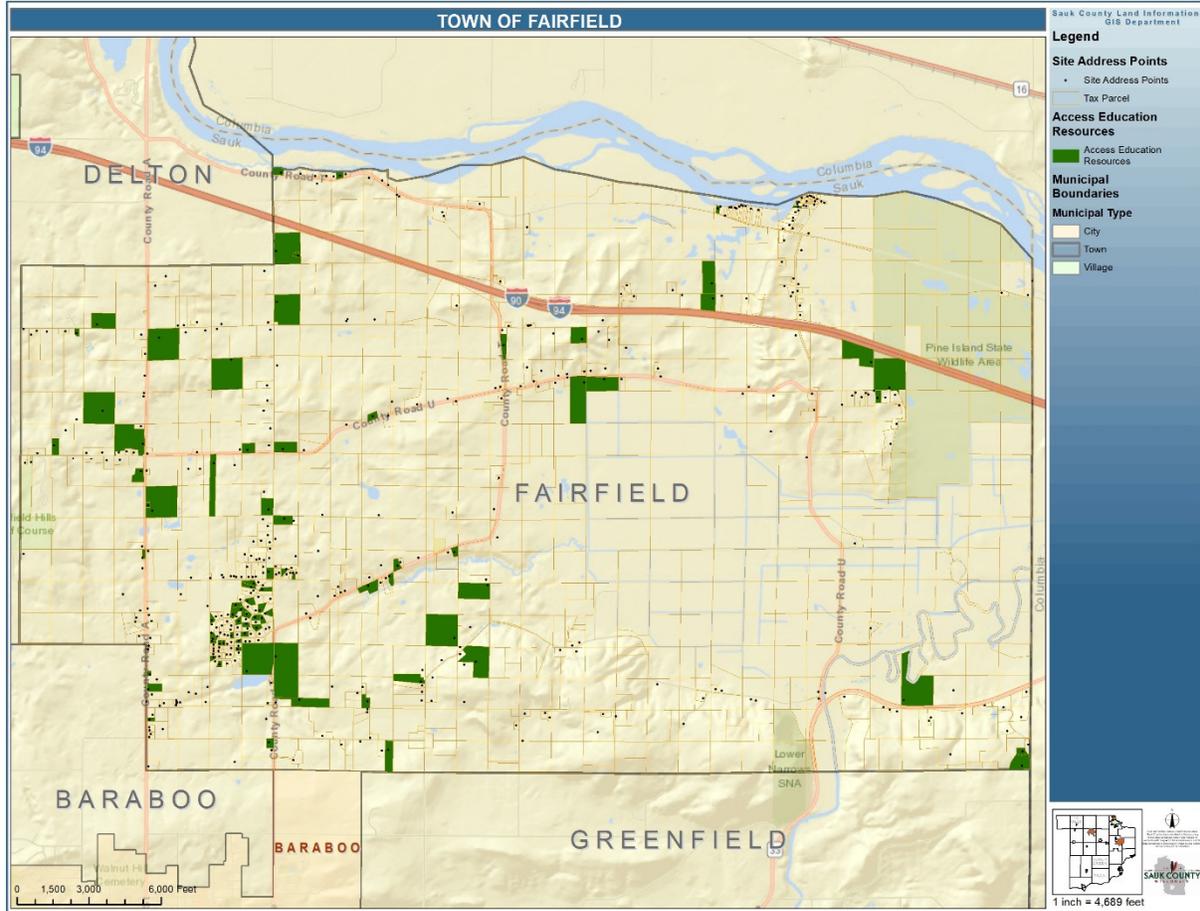
Improving management of farm/business (access market info, work w/lenders, do taxes, etc.)

- Younger (<45) respondents much more likely (83% vs. 44% of those 45 and above)
- Respondents from households with children under the age of 18 more likely (78% vs. 41% of those without children in their households)

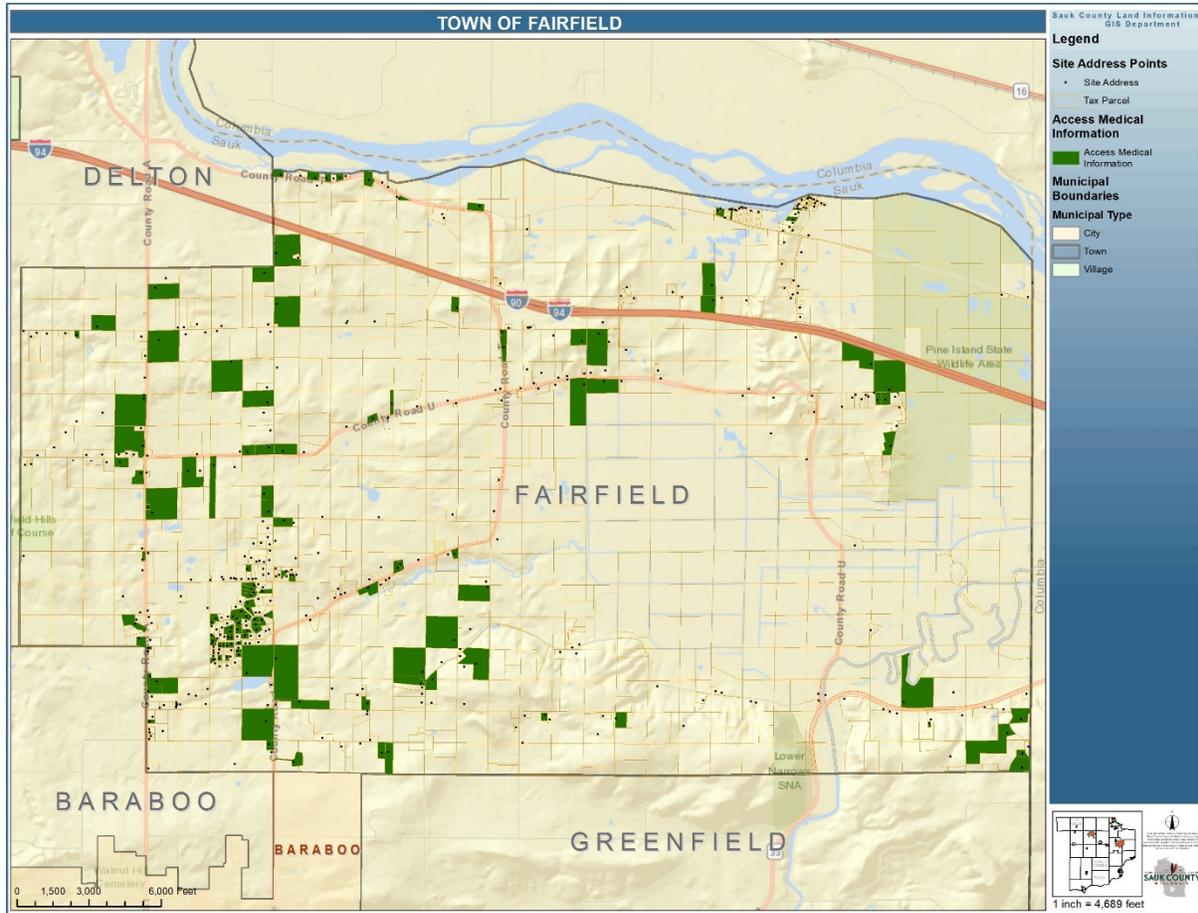
**Map 5: Town of Fairfield Respondents Who Said
Someone in Their Residence Would *Work from Home*
If They Had Access to Speed Broadband Internet Service in Their Residence, *n* = 96
Residential Site Address Points in the Town of Fairfield, n = 483**



**Map 6: Town of Fairfield Respondents Who Said
Someone in Their Residence Would Access Educational Resources
If They Had Access to Speed Broadband Internet Service in Their Residence, $n = 84$
Residential Site Address Points in the Town of Fairfield, $n = 483$**



**Map 7: Town of Fairfield Respondents Who Said
Someone in Their Residence Would *Access Medical Information/Services*
If They Had Access to Speed Broadband Internet Service in Their Residence, *n = 130*
Residential Site Address Points in the Town of Fairfield, *n = 483***



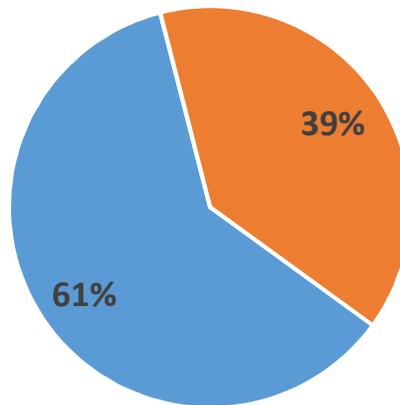
Subscribe to High-Speed Broadband Internet Service

Subscribing to High-Speed Broadband Internet Service. Respondents were asked if they would subscribe to a high-speed broadband Internet service delivering a service of 100 Mbps download/100 Mbps upload for about \$70.00 per month if it was available at their Town of Fairfield residence (Figure 9). Approximately six in ten respondents said they would subscribe to such a service for approximately \$70.00 per month if it were available to them and at the download/upload speeds described. Thirty-four percent of non-subscribers to the Internet said they would be interested in subscribing to high-speed broadband Internet, as would 68% of those currently subscribing to the Internet.

**Figure 9: Would Subscribe to Internet Service Delivering
100 Mbps Download/100 Mbps Upload for about \$70.00/Month
If Available at Town of Fairfield Residence**

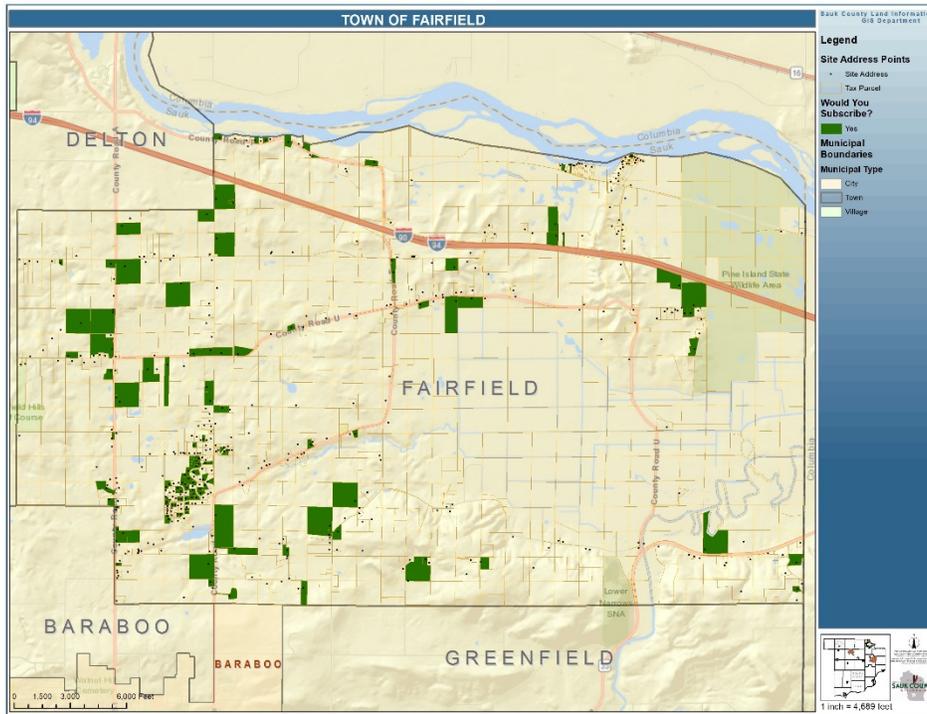
n = 231

■ Yes ■ No



Map 9 shows the geographic distribution of Town of Fairfield respondents who said they would subscribe to high-speed broadband Internet service for about \$70 per month. The market for high-speed broadband Internet service is found throughout the Town of Fairfield with the highest concentration in the west side of the Town.

Map 9: Town of Fairfield Respondents Willing to Pay \$70 Per Month for High-Speed Service (100 Mbps download, 100 Mbps upload), n = 124
Residential Site Address Points in the Town of Fairfield, n = 483



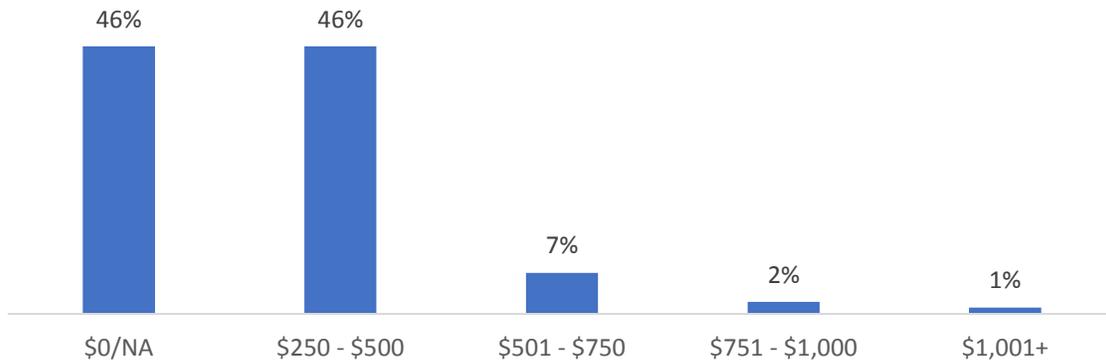
A series of cross-tabulations confirmed that the higher the number of activities that a respondent said someone in their household would likely or very likely participate in if high-speed broadband Internet service was available (Figure 8), the higher the proportion who would subscribe to high-speed broadband Internet service (Figure 9). For example, 95% of respondents that said someone in their household would be likely or very likely to participate in all five activities listed in Figure 8 were likely to say they would subscribe to high-speed broadband internet. Conversely, only 22% of respondents in which none of the activities would be participated in at their household, also said they would subscribe to high-speed broadband Internet service.

Demographic comparisons.

Respondents younger than 45, and respondents with children in their household were more likely to say that they would subscribe to a service delivering 100 Mbps download/upload for about \$70/month.

Hook Up Charge. Prior to asking this question, respondents were told, **“The one-time hook up charge for high-speed broadband Internet service depends on home’s distance from the line but would be a minimum of \$250.** Respondents were asked to provide the maximum amount they would be willing to pay to get high-speed broadband Internet at their Town of Fairfield residence. Answer options were \$0/NA, \$250 - \$500, \$501 - \$750, \$751 - \$1,000, or \$1,001+. The \$0/NA responses (46%) were included in analysis for this question because it is important information in terms of the feasibility of providing this service (Figure 10). Approximately one-half of the respondents said they would be willing to pay between \$250 - \$500 for a one-time hook up charge for high-speed broadband Internet service. Relatively few respondents would be willing to go beyond \$500 for the hook up charge.

Figure 10: Amount Willing to Pay for One-Time Hook Up Charge for High-Speed Broadband Internet Service
n = 235



Demographic comparisons.

Respondents 45 and above and those without children in their homes were more likely to choose “\$0/NA” when asked how much they would be willing (or not willing) to pay for a hook-up charge to obtain high-speed broadband Internet service.

Additional Comments

Respondents were given an opportunity, in an open-ended question, to add any comments about broadband Internet service in the Town of Fairfield. 89 comments from respondents to the mail survey were grouped into broad topical categories (Table 2).

	# of comments	% of all comments
Speed/Reliability	32	36%
Need for High-Speed Internet/Encouragement	20	22%
Cost/Price	13	15%
More Choices/More Options	11	12%
Service Availability	5	6%
Don't Need/Don't Want	4	4%
Miscellaneous	4	4%
Total	89	100%

As indicated by Table 2, more than one-third of the comments addressed **speed and reliability**. Many of these comments mentioned difficulties with their current service:

"It is very difficult to get anything done and goes out all the time. I can't work from home."

"It would be amazing for families. We can't use internet on more than one device, for speed isn't strong enough. Cell phone service is spotty and will drop calls."

"Let's get with the times! This is a much-needed service this day in age, regardless of price!"

Respondents addressed the **need for having access to high-speed broadband Internet service** in the Town of Fairfield:

"Everything for day to day life requires the internet. Our cell service is as bad as satellite - so no communication and unsafe!"

"Long overdue for this service. Lack of broadband service reduces value of home."

"The lack of excellent broadband internet service greatly reduces our property's value. Ironically, we pay taxes at the same rate and assessment as people in Fairfield who have excellent broadband internet service."

Comments pertaining to **cost**:

"The price for hook-up and per month cost for people on limited income is expensive."

"Those close to the road, at \$250, is reasonable, but I would have to pay \$1,000 or more. I would not make any money back when I sell. Progress is expensive."

Respondents wrote about **other options** than what is being currently offered:

"I would prefer cable and the ability to bundle internet with TV and phone. We would agree to internet only if it's the only other option."

"It would be nice to have more choices than just Century Link right now that's our only option."

Service availability concerns:

"Direct and Dish TV are unavailable in the bluffs. I wonder what would be different for Internet."

"They will never come down our road as all services end before I-90 overpass. Basically, dead-end road with only a few houses."

A few comments from the **don't need** category:

"I do not want the Township, or any government to have to pay for this."

"Internet is great. Is it needed? No, I have my phone. I can Google anything anytime."

All comments are compiled in Appendix B, Question 10.

Conclusions

Key findings of this survey include the following:

Most people in the Town of Fairfield being surveyed do not have high-speed broadband Internet service but do subscribe to the Internet.

A high percentage of respondents are dissatisfied with their current Internet service. Slow and inconsistent service are the major causes of dissatisfaction among subscribers.

A strong majority of respondents or members of their household would likely use high-speed broadband Internet service for accessing medical information/services.

There is relatively wide-spread willingness to subscribe to a service that would deliver a high-speed broadband Internet service for about \$70/month.

The results of key questions indicate there are clear differences between the responses of respondents under the age of 45 and those older and respondents with children in their households and those without. Larger percentages of younger respondents and those with children in their homes are more dissatisfied with their current Internet service, are more willing to subscribe to a service for \$70 per month if it delivered 100/100 Mbps upload/download speeds and are more likely to participate in a variety of activities if they had access to high-speed broadband Internet service. Because those under 45 were underrepresented in the survey, the demand for high-speed broadband Internet could be underestimated by these results.

Appendix A – Non-Response Bias Test

Any survey has to be concerned with “non-response bias.” Non-response bias refers to a situation in which people who do not return a questionnaire have opinions that are systematically different from the opinions of those who return their surveys. For example, suppose most non-respondents do not subscribe to Internet service at their home (Q1a), whereas most of those who responded do. In this case, non-response bias would exist, and the raw results would overestimate the number of internet subscribers. The likelihood of non-response bias being an issue declines in surveys that, like this one, have high response rates (60%+). A standard way to test for non-response bias is to compare the responses of those who completed their survey after the first mailing to those who responded to the second mailing. Those who respond to the second mailing are, in effect, a sample of non-respondents (to the first mailing), and we assume that they are more representative of all non-respondents.

Among respondents to this survey, there were 179 responses to the first mailing and 79 to the second mailing. The SRC found 6 variables with statistically significant differences among the 18 variables on the questionnaire. As shown in Table A1, these differences were very small and do not impact the overall pattern of answers or the interpretation of the results.

Early respondents would be slightly more likely to subscribe, if available, to a high-speed broadband internet service delivering service at 100 Mbps download/100 Mbps upload for about \$70 per month using a two-point scale with 1 = yes and 2 = no.

Using a five-point scale with very likely = 1, unlikely = 2, no opinion/NA = 3, likely = 4, and very likely = 5, respondents were asked how likely someone in their residence would participate in five activities if they had access to high-speed broadband Internet service. Early responders were more likely than late respondents to say they had “no opinion” about activities being pursued in their residences due to having access to high-speed broadband Internet service for most of the activities listed on the survey. However, early responders were more likely than late responders to say members of their household would access medical information/services if they had access to high-speed Broadband Internet service. **The Survey Research Center (SRC) concludes that there is little evidence that non-response bias is a concern for the Town of Fairfield Broadband Internet Survey dataset.**

Table A1 – Statistically Significant Difference Between Responses of First and Second Mailings

Variable	Mean First Mailing	Mean Second Mailing	Statistical Significance
Q3: Would subscribe to high-speed internet service (100 Mbps download/100 Mbps upload) for about \$70/month	1.30	1.58	.000
Q5a: Likelihood of starting/moving/growing home-based business	2.57	1.86	.001
Q5b: Likelihood of working from home	3.15	2.35	.000
Q5c: Likelihood of accessing educational resources	3.05	2.26	.000
Q5d: Likelihood of accessing medical information/services	3.68	2.86	.000
Q5e: Likelihood of improving the management of farm/business	3.09	2.51	.010

Appendix B – Written Comments, 2019

Q2: If you do not subscribe to Internet service, why not? “Other” responses (10 Responses)

- No computer in the house (x2)
- Don't own a device, computer, etc.
- I got .01 Gig's; this is not good.
- I have through phone line and is slow.
- I rent out my home in Fairfield.
- Living in the bluffs, I don't think reception would be good.
- Phone
- We do, just unhappy with speed available.
- We use the hot spot on our phone.

Q8: If you are dissatisfied or very dissatisfied with your Internet service, why are you not satisfied? “Other” responses (16 Responses)

- We rarely have service (x2)
- Billing issues
- Doesn't come in as it should
- Goes off a lot
- It sucks
- It's ok- it's getting expensive bad service in areas
- Lost access to pdf files
- Not reliable
- Often rebooting router
- Other service too expensive
- Prevent us from using main internet services
- Spectrum lied about providing service
- Too slow for cost
- Unable to stream
- Unstable

Q9: Who is your current Internet service provider at your Town of Fairfield area residence? “Other” responses (17 Responses)

- HughesNet (x6)
- WI Connect (x6)
- Sprint-Mobile Beacon
- US Cellular
- Verizon and US Cellular
- Verizon Wi-Fi
- WI Connect Wireless, Reedsburg

Q10: Please use the space below to add any comments about broadband Internet service in the Town of Fairfield. (89 Responses)

Speed/Reliability (32 Responses)

- Very slow, can't stream (x2)
- Been paying \$75 for 1.5 Mbps max speed for years. Finally managed to get 15.0 Mbps max. Absolute minimum required for security cameras.
- Can't stream movies on 2 tv's at once, and at peak times, can't get steady service goes out in very wet weather.
- Coverage is spotty and unable to stream.
- Currently have CenturyLink for \$45/month. Their price is locked in for life.
- Download is 4.82 and upload is .48. Our neighbors are higher speed than us.
- Faster internet would be awesome. So much people use streaming for TV and movies. Working from home would be so much better.
- I am able to get 100 Mbps to 1000 Mbps in most place I travel, US & abroad. Think my Mbps 3 might be actionable. I am considering moving largely because the slow speed reflects the work.
- I have canceled my internet because it was so slow it was not useable <2meg.
- I would love 100 Mbps download speed! My current download speed ranges between 15 Mbps and 25 Mbps, which is satisfactory. Most Fairfield residents have nothing!
- Internet buffer is slow at night and weekends.
- It is very difficult to get anything done and goes out all the time. I can't work from home.
- It would be amazing for families we can't use internet on more than 1 device, for speed isn't strong enough. Cell phone service is spotty and will drop calls.
- Let's get with the times! This is a much-needed service this day in age, regardless of price! Up 9.56 Mbps down 0.79 Mbps.
- Our biggest obstacle besides being inconvenient is our children can rarely complete homework from home. Century Link has awful service and rarely works.
- Our current provider advertises 25Mbps but that seldom occurs. The average is usually around 10Mbps or less. I would be interested in 100 Mbps Download, but not at \$70.00 per month. The cost should be between \$50 - \$60 per month.
- Please get a better service!! Sick of listening to everybody complain.
- Reception is terrible. Very slow service can't watch Netflix or do any fast-paced games.
- Service gets extremely poor in bad weather.
- Speed has improved a little. But doesn't considered as high speed.
- Speed test = 4Mbps download 0.4 Mbps upload.
- Unreliable, have to unplug router a lot to restore service. It's slow and can't stream sometimes.
- Way too slow and not able to do what is needed to work at home.
- We have data through our phones only. It is spotty and sometimes does not load even a basic email. It prevents us from working/doing homework. Not to mention any entertainment via internet.
- We just got the opportunity for 25 Mbps. It is wonderful! Everyone needs this access! It's 2019 people!!
- We need high speed internet (w/o hookup fees).

- We only get 3 Mbps down on a good day when it works! Our neighbors sold their house and moved into town because of the terrible internet! We can't use our security cameras we installed without faster upload. The cameras go offline 8 times per day!
- We would like faster internet.
- Weekends very inconsistent.
- Would not connect to Charter under any circumstance. They are terrible and lie about service.
- Would really like 100 bites.

Need for High-Speed Broadband Internet/Encouragement (20 Responses)

- We need broadband now! (x4)
- Been waiting 20 years for this.
- Cellular service selected in Question #9 is a Verizon 4G LTE mobile Hotspot. Due to distance from the cell towers, service from the Mobile Hotspot is poor. Broadband Internet Service would be a great improvement.
- Century Link Phone and Internet is the worst service I ever had and ever experienced. Please help get better internet!
- Everything for day to day life requires the internet. Our cell service is as bad as satellite - so no communication and unsafe!
- Long overdue for this service. Lack of broadband service reduces value of home.
- Please bring broadband to Fairfield township!
- Please do this ASAP.
- Please help. Internet service is very frustrating.
- The lack of excellent broadband internet service greatly reduces our property's value. Ironically, we pay taxes at the same rate and assessment as people in Fairfield who have excellent broadband internet service.
- To be able to continue to live in the township, broadband is needed so I can work from home. If no broadband, we may need to move to an area that has it, which this effect will continue with residents until broadband is brought into the town.
- We appreciate some service, better than having no access, but we could save on other cost if we had faster internet connection speed, quality of life would improve.
- We believe it is essential to have high speed internet in rural areas. We moved from area with high speed internet to Fairfield Twp. We miss it.
- We need access to high speed broadband internet service. Current service is very poor. Everything is done over the internet.
- We would love high-speed broadband here, same as all are neighbors.
- We would love high-speed internet service. Our current internet speed is download 5.68 Mbps/upload.42mbs.
- Would be nice here would be very helpful.

Cost/Price (13 Responses)

- \$70 is pretty high for a monthly fee. \$40-50 might be acceptable.
- Expensive
- Expensive. I would certainly support a service that was fast and less expensive.
- It is awful, not dependable, and not worth the cost we pay.

- It is terrible! I can't believe in the year 2019 we are paying for download speed of 5mbps and our upload speed is a bit better than dial-up. Please do something!
- My only issue is the cost- I don't even think I get my monies worth at what I'm now paying.
- Our current service meets our needs. Though 25 Mbps would be very nice. The max we are willing to pay a month is \$55 and less than \$50 for hookup fees. Currently pay \$44 for 10 Mbps.
- The price for hook-up and per month cost for people on limited income is expense.
- Those close to the road. \$250 is reasonable, but I would have to pay \$1,000 or more. I would not make any money back when I sell. Progress is expensive.
- We have adequate service for \$45, \$70 is too expensive.
- We pay here what our relatives in town pay for 200 Mbps up; and down! We would like a more cost effective and faster solution.
- What I am getting now is terrible for what I pay! 5.97 download/6.50 upload if it is actually working.
- Would be more interested in lower price and lower speeds.

More Choices/More Options (11 Responses)

- I would prefer a bundle with internet, cable, Hulu, Netflix as a single price (re: question # 3).
- I would prefer cable and the ability to bundle internet with TV and phone. We would agree to internet only if it's the only other option.
- It would be nice to have more choices than just Century Link right now that's our only option.
- Most likely we would stay with Century Link, but we are open to changes.
- No service other than Century Link.
- Only 2 providers. One extremely slow (only up to 1.5 mb download) other extremely expensive
- Only available internet service at the time we moved in was HughesNet. Century Link was not available at our address. Was not confident with using cell service.
- Options are limited.
- There is none. It is hard to think that we have so few choices considering how long internet has existed.
- Very few providers. Expensive and slow.
- Would be nice to be notified if a better option becomes available.

Service Availability (5 Responses)

- Contacted Spectrum but the closest line is about 3/4 of a mile away.
- Direct and Dish TV are unavailable in the bluffs. I wonder what would be different for Internet.
- Moving to Fairfield Twp. 1 year ago 1.) Setting up Internet service was challenging and are required services of a Century Link technician on several occasions. 2.) Server on Trap Shoot Rd needs updating per CL tech. 3.) Internet access is down or slow on occasion. 4.) For whatever reason we lost our ability to open and print pdf files which is not good.
- Run cable to the Bent Tree Subdivision
- They will never come down our road as all services end before I-90 overpass. Basically, dead-end road with only a few houses.

Don't Need/Don't Want (4 Responses)

- Do not want if it is going to increase property taxes.
- I do not want the Township, or any government to have to pay for this.

- Internet is great. Is it needed? No, I have my phone. I can Google anything anytime.
- Question doesn't apply to us; we don't have a computer.

Miscellaneous (4 Responses)

- Being charged for a land line.
- Is this fiber? If so, you can do phone + TV.
- It's mounted on silo. Wind, snow, rain affect its reception.
- What I have now is crazy.

Appendix C – Quantitative Summary of Responses by Question Town of Fairfield Broadband Internet Survey

Sample, n = 258

Please completely fill the “bubble” that corresponds to your selection.

Like this: ● Not like this: ☑ ☒ ☓ ☒

The Federal Communications Commission (FCC) defines high-speed broadband Internet as a connection with a minimum download of 25 Mbps and 3 Mbps upload.

1. Currently:	Yes	No	Don't know
a) Do you subscribe to Internet service at your Town of Fairfield home? n= 251	208/83%	43/17%	
b) Is high speed broadband Internet (at least 25 Mbps download/3 Mbps upload) available at your Town of Fairfield home? n= 243	36/15%	143/59%	64/26%

2. If you do not subscribe to Internet service, why not? (● Mark all that apply) n = 81					
34	Not applicable	11	Service is too slow	16	Not available at my residence
9	Do not use internet	9	Service is inconsistent	20	Service is too expensive
13	Use in another location	5	Other, specify: See Appendix B		

3. Would you subscribe to high-speed broadband Internet service delivering service at 100 Mbps download/100 Mbps upload for about \$70 per month if it was available at your Town of Fairfield residence? n = 231	Yes	No
	142/61%	89/39%

4. The one-time hook up charge for high-speed broadband internet service depends on a home's distance from the line but would be a minimum of \$250, what is the maximum amount you would be willing to pay to get high-speed, broadband internet at your Town of Fairfield residence? n = 238					
\$0/NA	\$250 - \$500	\$501 - \$750	\$751 - \$1,000	\$1,001+	
107/46%	109/46%	16/7%	4/2%	2/1%	

5. How likely would someone at your Town of Fairfield residence do any of the following activities if you had access to high-speed broadband Internet service (100 Mbps download and 100 Mbps upload)?	Very unlikely	Unlikely	Not sure/NA	Likely	Very likely
a) Start, move or grow a home-based business n = 239	111/46%	31/13%	29/12%	38/16%	30/13%
b) Work from home n = 244	85/35%	22/9%	28/11%	47/19%	62/25%
c) Access educational resources (K-12, post-secondary, continuing education, etc.) n = 241	86/36%	26/11%	35/15%	35/15%	59/24%
d) Access medical information/services n = 242	54/22%	10/4%	29/12%	75/31%	74/31%
e) Improve the management of my farm/business (access market info, work with lenders do taxes, etc.) n = 244	78/32%	28/11%	33/14%	45/18%	60/25%

If you currently subscribe to Internet service at your residence, please GO TO Question 6. If you don't currently subscribe to internet service, please GO TO Question 12 to complete survey. Thank you.

6. What is your monthly cost for just your current Internet service (if part of a bundle, please estimate Internet cost only)? *n* = 216

\$40 or less	\$41 to \$70	\$71 to \$100	\$101 to \$200	\$201 or more	Not applicable
36/17%	126/58%	37/17%	11/5%	0/0%	6/3%

7. How satisfied are you with your current Internet service? *n* = 218

Very dissatisfied	Dissatisfied	No Opinion /NA	Satisfied	Very satisfied
46/21%	83/38%	23/11%	57/26%	9/4%

8. If you are dissatisfied or very dissatisfied with your Internet service, why are you not satisfied? (• Mark all that apply) *n* = 156

16	Not applicable	94	Service is inconsistent	15	Other: See Appendix B
127	Service is too slow	37	Service is too expensive		

9. Who is your current Internet service provider at your Town of Fairfield area residence? *n* = 216

Not applicable	Charter/Spectrum	Frontier	Bug Tussle	Century Link	Satellite	Cellular Service	Other: See Appendix B
6/3%	1/<1%	2/1%	2/1%	183/85%	9/4%	7/3%	6/3%

10. Please use the space below to add any comments about broadband Internet service in the Town of Fairfield.

See Appendix B

INFORMED CONSENT

11. In order to identify areas that are underserved, we would like to use your address and your response to create broadband demand maps. Do we have your permission to use your data in this way? *n* = 215

Yes	No
192/89%	23/11%

DEMOGRAPHICS (for statistical purposes only)

12. What is your gender? *n* = 246

Male	Female	Other
158/64%	87/35%	1/<1%

13. What is your age? *n* = 253

18-24	25-34	35-44	45-54	55-64	65 and older
0/0%	10/4%	25/10%	48/19%	71/28%	99/39%

14. Do you have children, 18 years old or younger, living in your home? *n* = 251

Yes	No
55/22%	196/78%