



# The City of Craig and Moffat County Broadband Survey Results

SUBMITTED DECEMBER, 2016

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## About NEO Connect

At the forefront of broadband initiatives, from planning to execution, NEO is one of the nation's leaders in planning, engineering and strategy development for community networks. With extensive experience in both the public and private sector, the NEO team applies real-world business sense to every type of project. NEO has helped communities across the United States create successful and sustainable networks that meet each community's specific needs.

Visit NEO online at [www.NEOconnect.us](http://www.NEOconnect.us)

## Introduction

The City of Craig and Moffat County have hired NEO Connect to provide broadband planning services; including conducting community outreach, asset and infrastructure assessment, technical feasibility, preliminary network design and engineering, and strategy development. Community outreach efforts include meetings with the various stakeholder groups to evaluate current levels of service, the importance of broadband in the community, and defining the role of government to improve services within the City and County.

In addition to community meetings, outreach efforts also included two separate online surveys in the City of Craig and Moffat County. These surveys generated 182 residential responses and 34 business responses.

In January of 2015, the FCC changed the definition of broadband by increasing upload and download speeds; raising the minimum download speeds from 4 to 25 Mbps and the upload speed from 1 to 3 Mbps. As part of the survey, respondents were asked to conduct a “speed test” noting actual residential Internet service speeds to determine whether or not citizens were meeting the new FCC definition of broadband service.

**For the residential survey respondents, 72% of the download speed tests recorded in Moffat County were below the FCC’s minimum broadband threshold.**

## Summary of Survey Results

### Residential Results

Although the survey is a randomized sample, the survey results of 182 homes strongly suggest the following:

- Reliability is the most important factor for users, followed by speed/availability and then price.
- Most of the respondents indicated that upload and download speeds are acceptable; however, one out of three respondents (31.45%) are not satisfied with their current Internet speed. As most of the speed test results (72%) fell below the FCC’s minimum standard for broadband, the fact that most respondents find the speeds “acceptable” is an interesting take-away.
- Telecommuting - 42% of the residential respondents have at least one person working from home.

- Pricing for Internet services varies for residential subscribers with nearly half (49%) of respondents paying \$56 - \$100/month, and 1 out of 4 (27%) paying more than \$100/month.
- Households mostly use the Internet for "basics" like email, browsing/research, etc.
- More and more, households are relying on streaming video over the Internet for in-home entertainment
- Household members interact with local businesses (reservations, tickets, etc.) over the Internet and buys things online (Craig's list, eBay, etc.)
- Most respondents strongly agreed that their demands on Internet bandwidth and speed are consistently increasing
- 30 of the respondents indicated that they would consider moving if the Internet service was inadequate.

## Business Results

The business survey generated responses from thirty-four businesses and revealed important information about the local business community. As with residences, reliability is the most important factor for businesses, followed by speed and price.

- 57% of the businesses have employees that work from home at least one day per week. 14.29% responded that employees work five days a week from home. 17.86% responded that employees work three days a week from home.
- 21% of the businesses operate primarily from home.
- The strongest benefits for business respondents with faster Internet were that businesses would be more efficient, they would collaborate with customers and partners, they would provide and attend more webinars/online training and they would provide more products and services to their customers.
- 51.6% of surveyed businesses pay between \$50-100/month for Internet service.
- The average speeds recorded were 33.89 Mbps download and 6.95 Mbps upload.
- 53% of all businesses identified Internet access as critical to their operations. And nearly half identified the need for increased broadband capacity in their businesses.
- When asked to rate the most critical components of Internet service, overwhelmingly, businesses are looking for reliability (70% indicated it was of the most importance), followed by speed and then price.
- While most residential respondents rated their speeds as acceptable, in the business survey, most of the respondents indicated that their speeds were too slow. Only 27% of surveyed businesses rate their download speeds as "excellent" or "good." While less than 12% rated their upload speeds as "excellent" or "good."
- Respondents agreed strongly that their business operations are heavily tied to the Internet and that their demands on Internet bandwidth and speed are consistently increasing.
- 87.88% of business owners think that Broadband is a utility.

## Role of Government and Who Should Step in?

One of the primary study areas in the survey explored the respondents' thoughts regarding the role of government in solving broadband issues. The greatest number of respondents in the residential survey support either having the local government step in or to have the local government work with the private sector to provide adequate service. Businesses responded in favor of the government working with the private sector to provide service.

There are various public/private partnership models that can be explored to improve and enhance service delivery throughout Moffat County. These models leverage the private sector to share in the capital costs and to mitigate potential risks.

A question was posed to respondents who should step in if the private sector did not provide adequate or affordable broadband. Respondents had a choice between the local municipality, the county, the electric company, or a consortium or "I am not sure." Most of the respondents responded with the last option – not sure who should fix it. This is often one of the most challenging areas of broadband planning – determining who is best received to step in and solve broadband challenges. Unfortunately, the survey responses do not give us the sure-thing solution on who should step in.

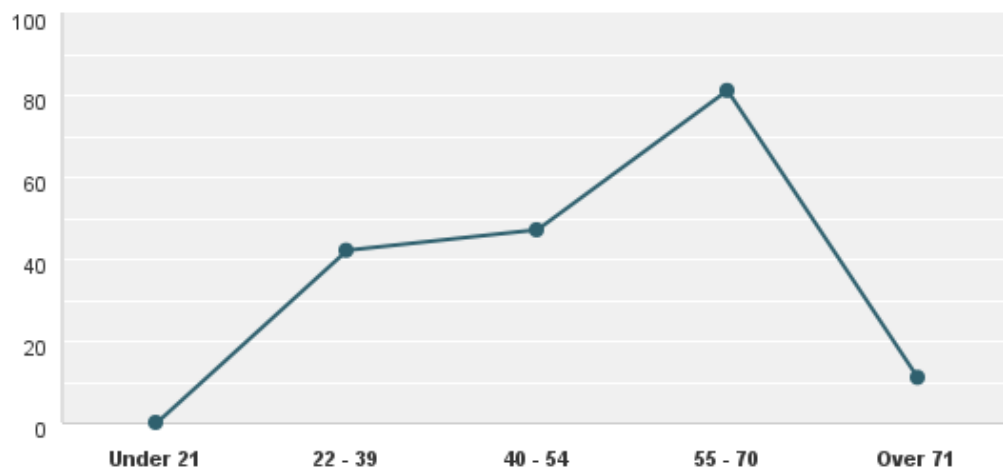
# Residential Survey Results Detail

## Demographics

**Age.** 45% of respondents (80 out of 181 responses) are between the ages of 55 and 70 followed by respondents falling in the age range of 22-54 (23.2%).

### Q1 To which age group do you belong?

Answered: 181 Skipped: 1



39% of the survey's respondents have school-aged children at home. Many homework assignments are now web-based and often require robust connectivity to support bandwidth intense applications. Additional bandwidth demands at home are the result of at-home-workers.

## Telecommuting

Craig and Moffat county respondents report 42% of households have at least one person who works from home. 34% have one person working from home and another 7% have two people working from home..

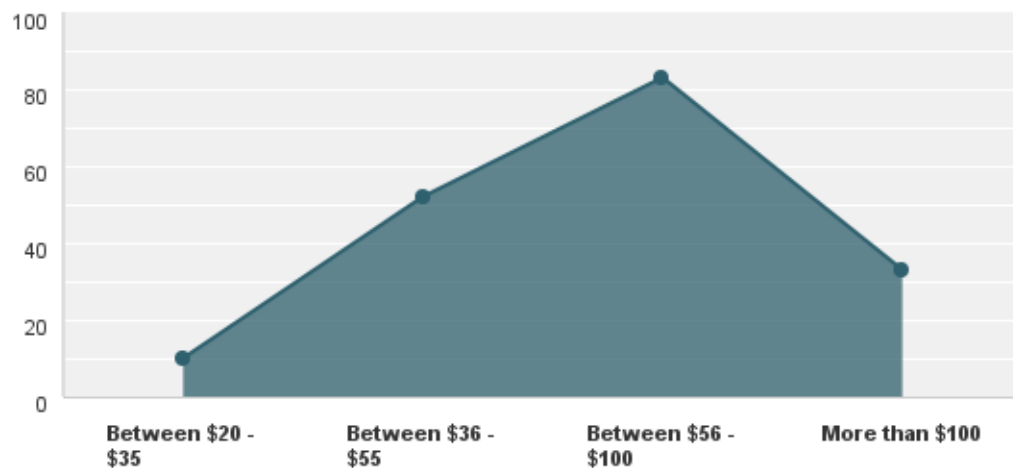
| Answer Choices             | Responses |            |
|----------------------------|-----------|------------|
| Yes, 1 person does         | 34.07%    | 62         |
| Yes, 2 people do           | 7.14%     | 13         |
| Yes, more than 2 people do | 0.55%     | 1          |
| No                         | 58.24%    | 106        |
| <b>Total</b>               |           | <b>182</b> |

## Current Service

**Current Pricing.** Nearly half (47%) of respondents are paying between \$56 - \$100/month for their Internet service. One out of five households pay more than \$100/month to obtain adequate service.

### Q2 How much do you currently pay for your Internet each month?

Answered: 178 Skipped: 4



**Bundling** To determine if the Internet costs were standalone or part of a service package, respondents were asked what else was included in the monthly price. 27% included some other service (TV, telephone, cell phone) while 73% just included Internet service.

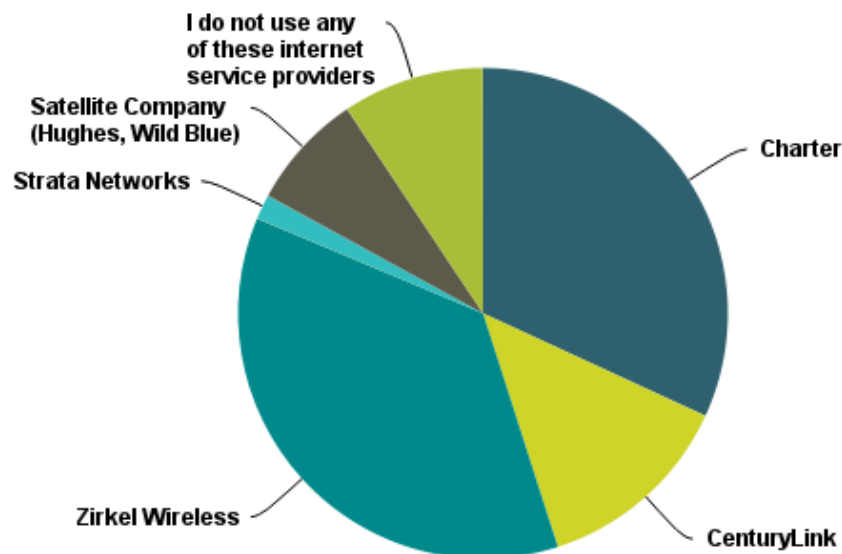


| Answer Choices                                  | Responses     |     |
|---|---------------|-----|
| Yes, it includes my telephone service.          | <b>21.23%</b> | 38  |
| Yes, it includes my TV service                  | <b>15.64%</b> | 28  |
| Yes, it includes my cell phone service          | <b>2.79%</b>  | 5   |
| No, the costs just include my Internet service. | <b>72.63%</b> | 130 |
| <b>Total Respondents: 179</b>                   |               |     |

Bundling many services under one invoice was important in the past as it was typically seen by consumers as a cost saving tool. However, the importance of a single invoice and bundling of services today is not important, with 67% of residents saying it's not a deciding factor for them.

### Current Providers

**Carriers.** Zirkel Wireless and Charter Communications were the dominant service providers, supporting a combined subscriber base of nearly 70% of all respondents.



| Answer Choices                                       | Responses     |            |
|--|---------------|------------|
| Charter  | <b>31.87%</b> | 58         |
| CenturyLink  | <b>13.19%</b> | 24         |
| Zirkel Wireless                                      | <b>36.26%</b> | 66         |
| Unite Fiber Networks                                 | <b>0.00%</b>  | 0          |
| Strata Networks                                      | <b>1.65%</b>  | 3          |
| Mammoth  | <b>0.00%</b>  | 0          |
| Level 3  | <b>0.00%</b>  | 0          |
| Satellite Company (Hughes, Wild Blue)                | <b>7.69%</b>  | 14         |
| I do not use any of these internet service providers | <b>9.34%</b>  | 17         |
| <b>Total</b>   |               | <b>182</b> |

**Connectivity.** 36% of users are connected to the Internet via Wireless, followed by 27% using cable.

| Answer Choices  | Responses     |            |
|---|---------------|------------|
| Wireless (usually provided by an independent service provider using an antenna on the roof pointed to another ground antenna.)                        | <b>35.71%</b> | 65         |
| Cable (usually provided as part of your cable TV package)   | <b>26.92%</b> | 49         |
| DSL (usually provided by the phone company)   | <b>15.93%</b> | 29         |
| Satellite (usually provided as part of your Satellite TV package)   | <b>12.09%</b> | 22         |
| Mobile Phone Wireless, Cellular (typically is part of your cell phone plan)   | <b>3.85%</b>  | 7          |
| I don't have Internet service at my home.   | <b>3.30%</b>  | 6          |
| Dial-up (requires you to use a modem and your regular phone line)   | <b>1.65%</b>  | 3          |
| I do not know what type of connection I have at my home.  | <b>0.55%</b>  | 1          |
| T-1 Service (a special kind of service often available from the phone company rated at a fixed 1.5 Mbps)  | <b>0.00%</b>  | 0          |
| Fiber connection (uses fiber optics to provide the signal. May be provided by the phone company or other providers. Typically used for higher speeds) | <b>0.00%</b>  | 0          |
| <b>Total</b>  |               | <b>182</b> |

## Speed Test Results, Reliability, Perceptions

**Speed Test Results** –The survey provided instructions to respondents to take an actual speed test. 158 of the 182 respondents took the speed test and recorded the results.

- The average speeds recorded were 19.5 Mbps download and 4.25 Mbps upload.
- The lowest speeds recorded were .26 Mbps download and 0.04 Mbps upload.
- The highest speeds recorded were 68 Mbps download and 26.67 Mbps upload.
- 72% of the speed tests recorded were below the FCC's 25 Mbps download threshold.
- 39% of the speed tests recorded were below the FCC's 3 Mbps upload threshold.

**Perceived Reliability.** If fast Internet and no interruptions are the goal, only 13-15% of respondents say their carrier is delivering. Roughly 35% say their connection is too slow either all, or most of the time, and nearly 20% said they have frequent service interruptions.

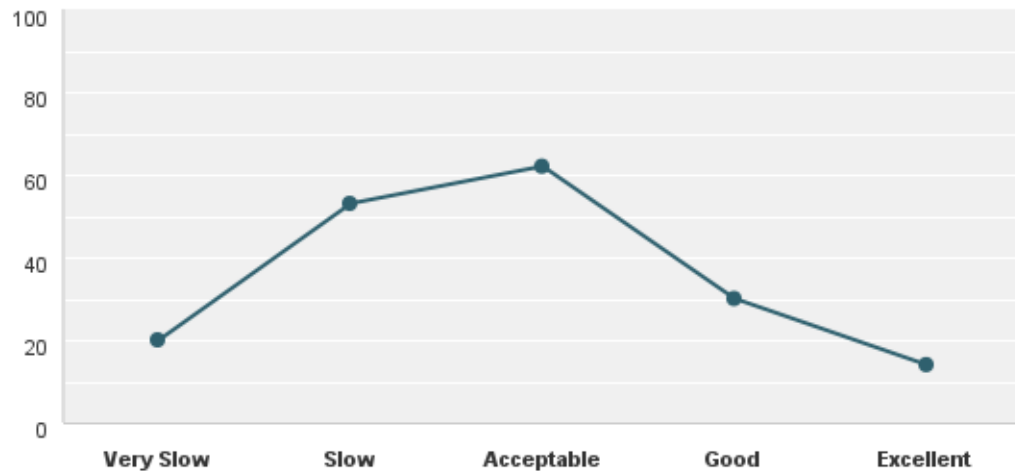


**Perception of Speed.** Only 1 out of 4 respondents (24%) are happy with their Internet speed in terms of rating it “excellent” or “good.”

Most of the respondents indicated that both the upload and download speeds are acceptable, but 41% see their speed as “slow” or “very slow.”

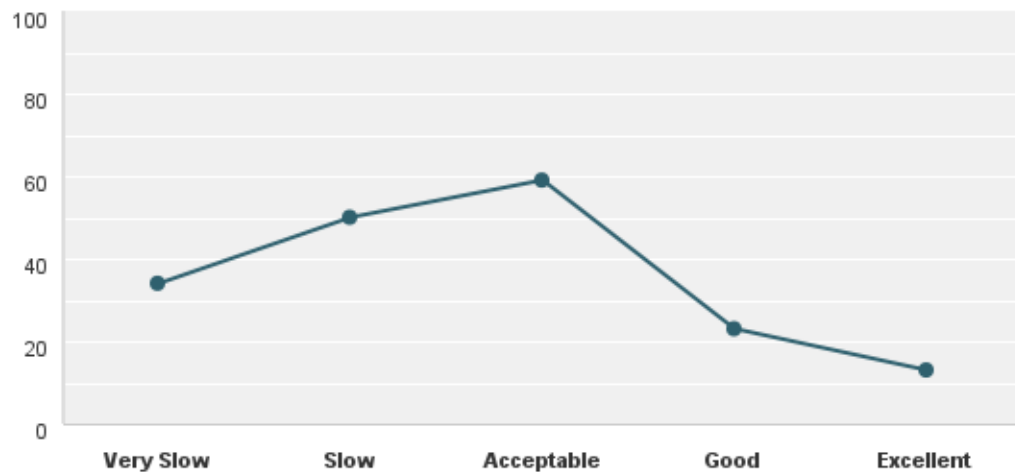
### Q7 How would you rate the download speed of your Internet?

Answered: 179 Skipped: 3



### Q8 How would you rate the upload speed of your Internet?

Answered: 179 Skipped: 3



**Devices.** Internet connected streaming TV devices, game consoles, smart TVs, DVRs, smart phones and more are all placing ever-increasing demands on bandwidth needs.

|   | None                | 1                   | 2                   | 3                   | more than 3         | Total |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| Tablet  | <b>11.24%</b><br>19 | <b>43.20%</b><br>73 | <b>25.44%</b><br>43 | <b>11.24%</b><br>19 | <b>8.88%</b><br>15  | 169   |
| Desktop computer  | <b>34.57%</b><br>56 | <b>48.77%</b><br>79 | <b>11.73%</b><br>19 | <b>3.09%</b><br>5   | <b>1.85%</b><br>3   | 162   |
| Laptop computer   | <b>9.77%</b><br>17  | <b>41.95%</b><br>73 | <b>28.74%</b><br>50 | <b>10.34%</b><br>18 | <b>9.20%</b><br>16  | 174   |
| Smart phone   | <b>4.00%</b><br>7   | <b>20.00%</b><br>35 | <b>46.86%</b><br>82 | <b>16.00%</b><br>28 | <b>13.14%</b><br>23 | 175   |
| Smart TV  | <b>46.15%</b><br>72 | <b>33.97%</b><br>53 | <b>12.82%</b><br>20 | <b>3.21%</b><br>5   | <b>3.85%</b><br>6   | 156   |
| DVD/DVR or Blue Ray Player                                    | <b>13.25%</b><br>22 | <b>55.42%</b><br>92 | <b>19.88%</b><br>33 | <b>7.83%</b><br>13  | <b>3.61%</b><br>6   | 166   |
| Game Console  | <b>47.37%</b><br>72 | <b>34.21%</b><br>52 | <b>10.53%</b><br>16 | <b>4.61%</b><br>7   | <b>3.29%</b><br>5   | 152   |
| Streaming TV (Apple TV, Google Chromecast, Amazon Fire, etc.) | <b>51.85%</b><br>84 | <b>27.78%</b><br>45 | <b>11.11%</b><br>18 | <b>5.56%</b><br>9   | <b>3.70%</b><br>6   | 162   |

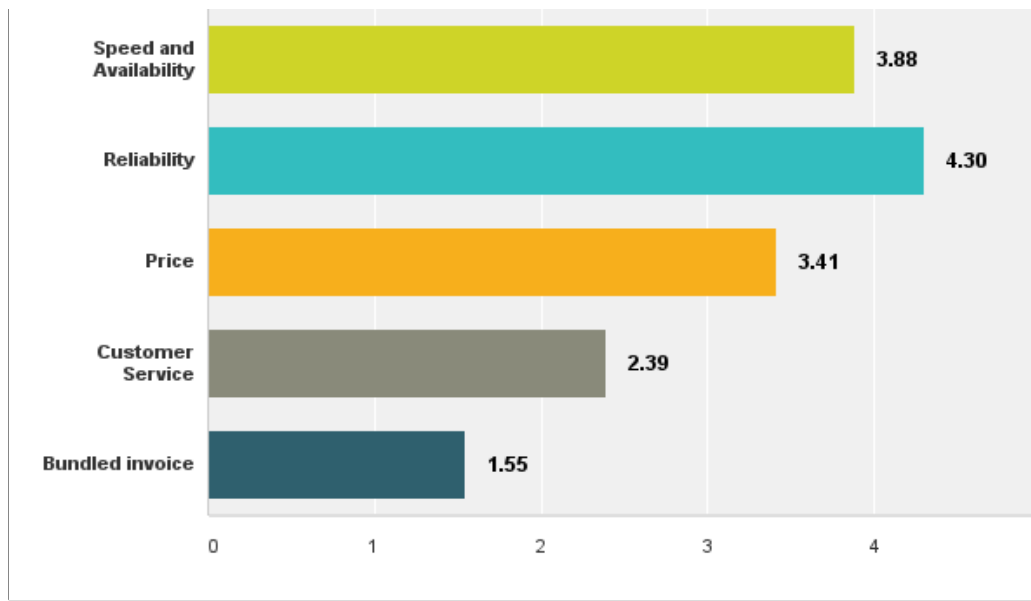
### Expected Level of Service

Of respondents that did not have a definitive speed requirement, nearly half want faster speeds and greater capacity. A third desire greater download capability and 21% percent want faster upload speeds.

| Answer Choices   | Responses           |
|--|---------------------|
| ▼ I don't know how fast I need, but I would like it MUCH faster than what I have.            | <b>49.06%</b><br>78 |
| ▼ I don't know how fast I need, but I know that I need more DOWNLOAD speed than what I have. | <b>31.45%</b><br>50 |
| ▼ I don't know how fast I need, it seems to be working fine with what I have now.            | <b>24.53%</b><br>39 |
| ▼ I don't know how fast I need, but I know that I need more UPLOAD speed than what I have.   | <b>20.75%</b><br>33 |
| Total Respondents: 159   |                     |

## What is Important?

When asked to rate the most critical components of Internet service, residents are primarily focused on reliability and speed, with price coming in as a close third.



## The Role of Government.

The majority of respondents either support having the local government build a state of the art network or support a partnership between local governments and the private sector to provide adequate service to the public, including homes and businesses. Roughly 15% of respondents said that government should do nothing and let the private sector decide on service offerings.

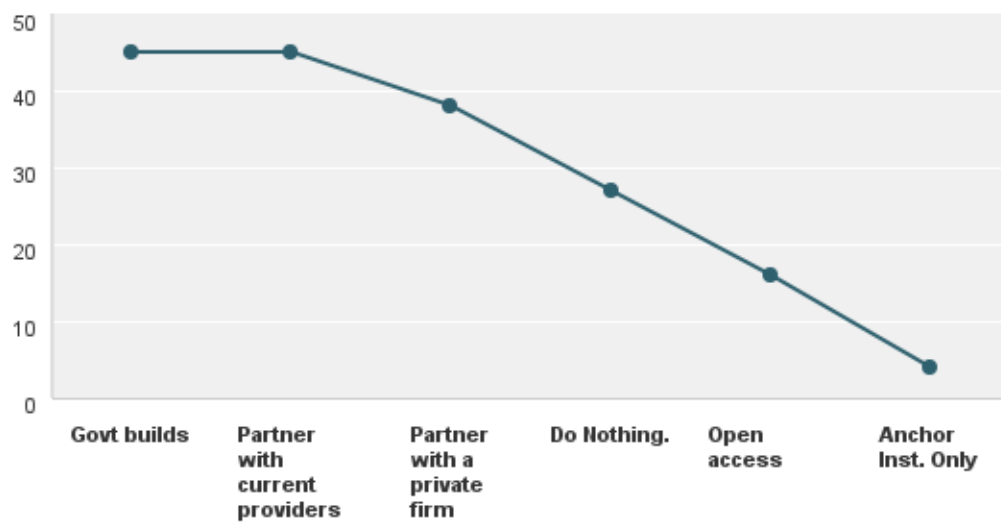
**Specific Actions.** Respondents were presented with six (6) options for actions that could be taken by the community. Having the City of Craig and Moffat County partner with current providers to improve speed and reliability scored the highest of the six options.

| Answer Choices   | Responses        |
|--|------------------|
| ▼ <b>Install state-of-the-art network and offer services to the public, including homes and businesses, and government offices</b> | <b>25.71%</b> 45 |
| ▼ <b>Partner with current providers to improve the speed and reliability of their services.</b>                                    | <b>25.71%</b> 45 |
| ▼ <b>Partner with a private firm to build a state-of-the-art network.</b>  | <b>21.71%</b> 38 |
| ▼ <b>Do Nothing. Let private providers decide what services they are willing to provide.</b>                                       | <b>15.43%</b> 27 |
| ▼ <b>Install state-of-the-art services and enter into agreements with private companies to offer services to the public.</b>       | <b>9.14%</b> 16  |
| ▼ <b>Install state-of-the-art network for businesses, schools, government offices and the medical community only.</b>              | <b>2.29%</b> 4   |
| Total  | 175              |

When asked to select only one option in regards to the role of government, responses to have the government build the network or partner with the current providers received the highest results.

**Q25 If you could choose only one option, what do you think the primary role for the City of Craig/Moffat County government should be with respect to broadband access? (Please choose only one)**

Answered: 175 Skipped: 7



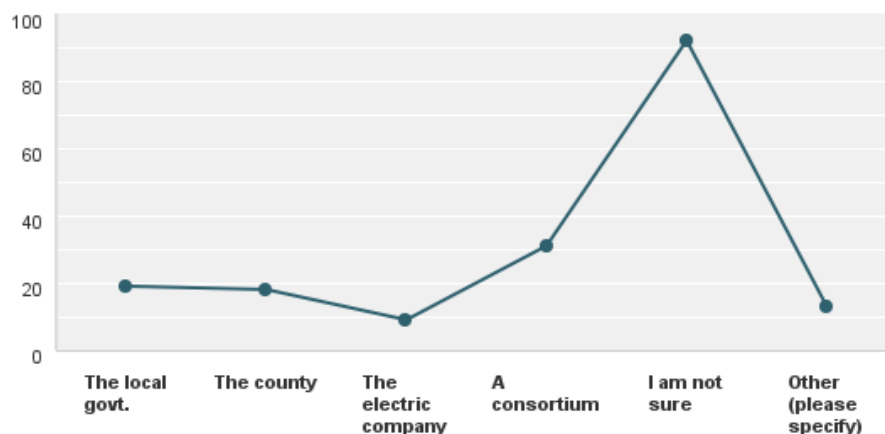
## Who Should Fix this if there is a Problem?

A question was posed to the respondents regarding who should step in if the private sector does not provide adequate or affordable service. It should be understood that this effort is being led by a committee of stakeholders. The stakeholders are made up of local government (the City of Craig), Moffat County, Yampa Valley Electric Association, TriState, the hospital, the school district and the community college.

Most of the responses stated that that they did not know who should step in and facilitate a solution.

### **Q23 If the private sector (phone, cable, wireless or other company) does not provide adequate and affordable broadband service to your home, who would you want to step in to ensure that better services are available?**

Answered: 182 Skipped: 0



## Households Relationship to the Internet

There were several questions posed to respondents regarding how strongly they agree with various statements regarding their household's relationship to the Internet. The questions included the following:

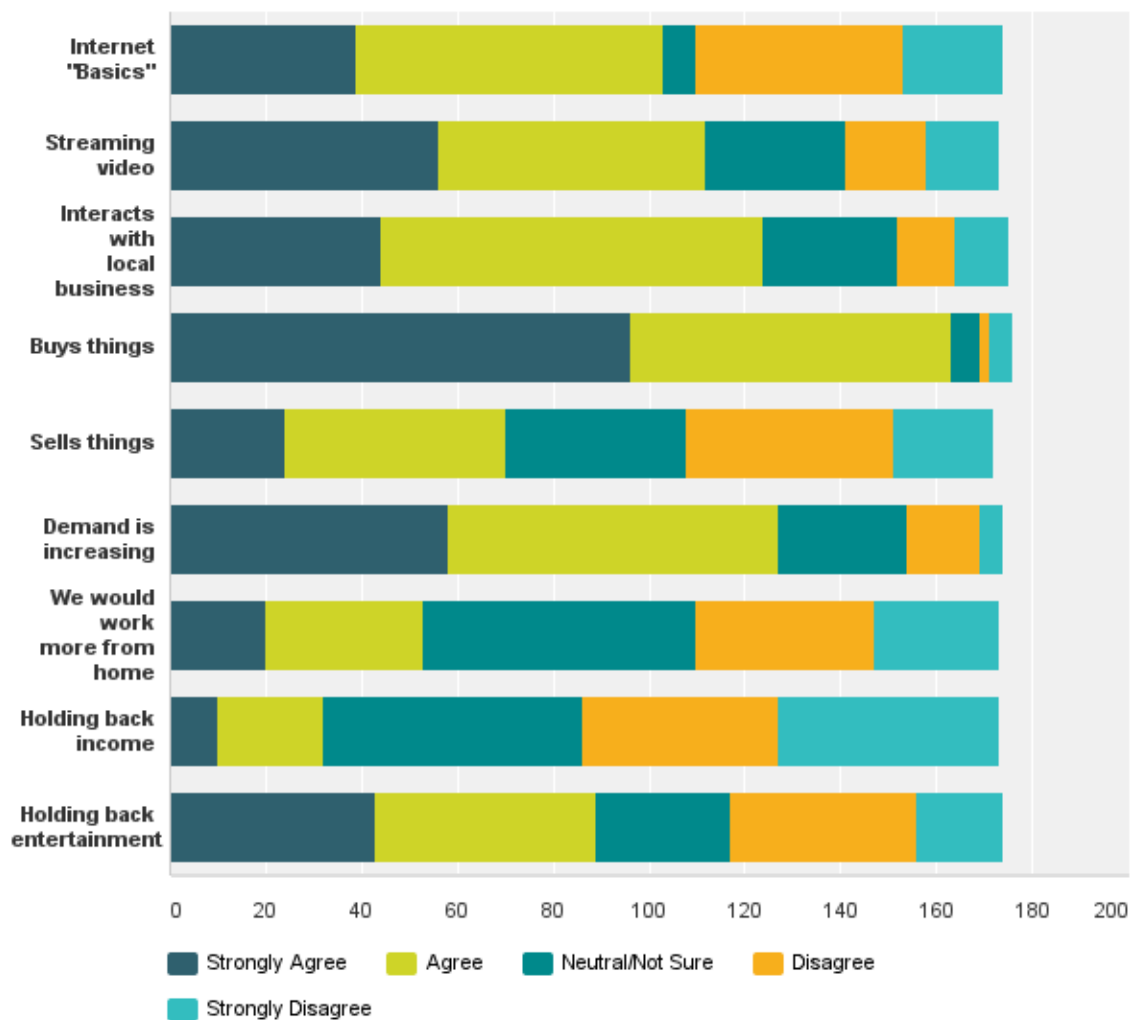
- Our household mostly just uses the Internet for "basics" like email, browsing/research, etc.
- More and more, our household is relying on streaming video over the Internet for in-home entertainment
- Household members interact with local businesses (reservations, tickets, etc.) over the Internet



- Our household buys things online (Craig's list, eBay, etc.)
- Our household sells things online (Craig's list, eBay, etc.)
- Our household's demands on Internet bandwidth and speed is consistently increasing
- If we had better home Internet service, one or more of us would work from home more often
- The current Internet speed available is holding back our household's income potential
- The current Internet speed available is holding back our household's entertainment options

## Q27 How would you characterize your relation to your Internet service?

Answered: 179 Skipped: 3

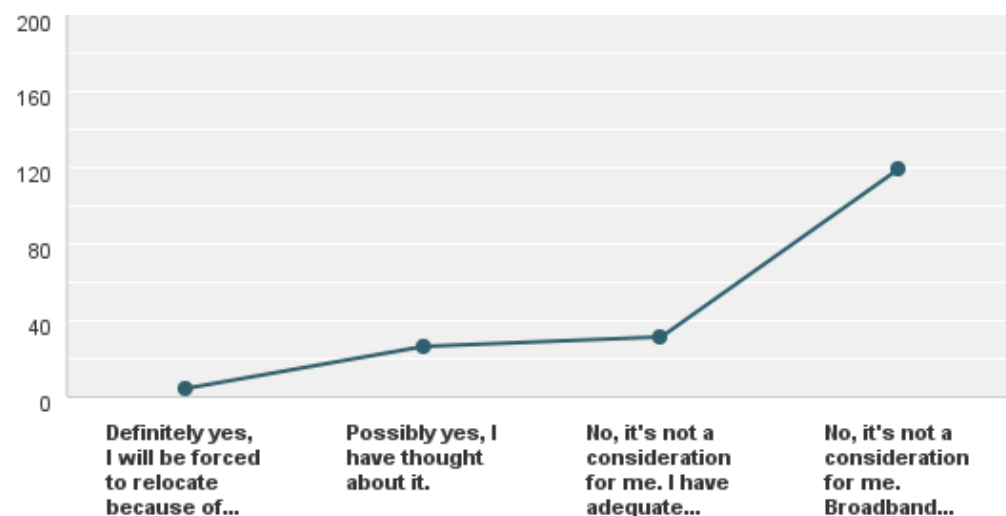


Results where we see “Strongly Agree” in dark blue and “Agree” in green, show responses that are the most prominent. Areas with the most agreement are:

- Our household mostly just uses the Internet for "basics" like email, browsing/research, etc.
- More and more, our household is relying on streaming video over the Internet for in-home entertainment
- Household members interact with local businesses (reservations, tickets, etc.) over the Internet
- Our household buys things online (Craig's list, eBay, etc.)
- Our household's demands on Internet bandwidth and speed is consistently increasing

### Would Residents Move Because of the Internet?

Would residents move away from Craig and Moffat County if adequate broadband is not available? 17% said they would either move or consider moving.



| Answer Choices   | Responses  |
|--|------------|
| Definitely yes, I will be forced to relocate because of inadequate broadband service.                          | 2.22% 4    |
| Possibly yes, I have thought about it.   | 14.44% 26  |
| No, it's not a consideration for me. I have adequate broadband service.  | 17.22% 31  |
| No, it's not a consideration for me. Broadband services need to be better here, but I am not planning to move. | 66.11% 119 |
| <b>Total</b>   | <b>180</b> |

## Open Ended Responses, Residential Survey

The survey asked for any other comments regarding current Internet service or thoughts in regards to a community broadband service. Here is a sampling of the comments.

- Broadband needs to be developed in an expedited manner to maintain the economic health of the community.
- butt out and let free trade take the reins. this town is headed for a Clinton melt down. we don't need to spend any more money on trivial toys
- Century Link frequently reduces our speed by 50% and tells us we are lucky to get that.
- Century Link told me 18 months ago that upgrade work in our neighborhood would begin in June 2016. To my knowledge, nothing has been done.
- Charter's Internet reliability needs to be better. Many businesses have switched to them because they have the best speed, but when they have an outage it severely affects those businesses. Sometimes to the point that they have to close their doors until the Internet comes back up. We're there any service level agreements put in the franchise contract? If not, there should be and there should be SLA's for any new broadband going forward.
- Competition among the private sector will provide much better service than that provided through the government.
- Disappointing.
- Get the government out of the broadband business. Don't do it
- Good Luck :)
- Govt I have one message for you- GET OUT OF MY LIFE AND LET AMERICA WORK. WE DON'T NEED YOUR DAMN HELP BECK!
- having such limited options, we get screwed over one way or another
- I guess I don't have actual broadband Internet... I use a, jet pack from Verizon.
- I HAD ZIRKEL BUT GOT RID OF THEM BECAUSE OF HOW OFTEN IT DIDNT WORK
- I have no options for broadband service here in Shadow Mountain other than my phone and that is spotty with Verizon
- I have to pay for a 12m line to sustain a 1meg download speed for programs. It's very expensive.
- I live in the county and Internet options are very limited and expensive
- I moved here from Greeley Colorado in June and the speed of Internet is considerably slower
- I think with the current shortfall on the Craig budget that this is a total waste of money that could have been spent improving things in our community the Craig city council should not be spending money they don't have let us pick our own Internet provider
- I would be nice to have another option in the county other than satellite. More and better cell coverage is needed even in Craig.
- I would like it to stay at one price instead of going up every year. It is getting to the point where people cannot afford it.
- I would like to expand our broadband speed, but the economy and our jobs do not allow it for now.
- If we could access Cedar Mountain we would be using Zirkel and have much better service.

If you have any other comments regarding your current Internet service or a community broadband service, please tell us below:

- Improving broadband service would help our community attract businesses to diversify our economy.
- In today's world, Internet is a part of life no matter where you are, and having broadband provided as a utility seems to be, to me, the direction we should be heading.
- It goes in and out like cell phone service does.
- It would help with the education places quite a bit.
- keep what we have
- Local service is the only option so they know it's there way or no way. No competition, so you have to pay it or go somewhere else.
- Make broadband happen - we do not want to continue to live in the electronics stone age.
- My wife and I both work from home and our Internet has been sufficient but improving the speed and reliability would help us to be more effective with our jobs. As technology changes, our bandwidth will become more of a priority.
- Our Internet is Wildblue which charges a fee every month but we have limited data.
- Re: question # 28, I chose definitely yes but feel it should be worded "I would be forced to relocate because of inadequate broadband service" because I feel Charter provides adequate download speed most of the time. We are able to stream multiple shows and browse on multiple devices at the same time with the speeds we have now. But if that service was not available that would be a problem for me.
- Service is slow and often interrupted...we have been told many times it's our router only to replace it and have the same results. How many times can you replace the router...come on!
- Survey seems biased to try and get a locally ran high speed network. While I support a local initiative to speed up our Internet, I don't know if our town has the personnel required to install such a network.
- Thank you for the Inter net. Have nice day.
- Thanks
- The faster speed the better! Reasonable cost for Senior Citizens on fixed income is very important to me. Our Charter service is OK but it was better when we had Optimum! Charter is too large a company to properly deal with our small community.
- The needs of those living in rural areas must be included if broadband becomes available - especially if tax dollars are involved in any partnership agreement.
- This is a tax-oriented survey that is looking for an entity to pay for increased service. I disagree that the "big guy" ought to pay the lion's share. If broadband is a utility, then Everybody pays a little, and those that use it the most, pay more.
- Ultra-high speed broadband could be the cornerstone of a grand strategy that can diversify our economy, bring in businesses we didn't think we could have previously attracted, and indemnify our economy against the challenges growing in the energy sector. Not doing this could be the greatest mistake Craig has ever made.
- We do not have Internet at home because there are not adequate services available where we live. It would be nice to have a reliable option that was not prohibitively priced. With the school district forcing the students to have tablets and an increasing amount of homework on these devices, it would be nice for students to be able to do their work from home, and not have to find a hot spot.
- We had NGL Connections for about 10 years, and this month (October 2016) they informed us that they were dropping Craig from their service. We were told to contact Zirkel Wireless to arrange connecting to their service but when the installer arrived he took a look around (we live north of Craig in a low spot between hills) and told us we don't have 'line of sight' of their

towers and therefore cannot make use of their service. I have also contacted Century Link, Dish Net, Accede, and Charter to no avail. Looks like we are SOL unless we are willing to try Verizon's MiFi device which uses cell tower connections and costs accordingly. My son in Denver told us it's time to move away from Craig.

- We have Charter. I'd give them a 7 out of 10. We had Zirkel on Thomson Hill and I'd give them a 7 out of 10. We started with CenturyLink and I'd give them a 2 out of 10.
- We have moved past the days of commercial/private Internet connections. This is a functional utility for everyone, just like water and sewer. All of the community together can fund more than competing companies can, and we all have better services for it.
- We must be competitive in our Internet services/utilities to bring businesses to Moffat County! I'm confident that many businesses have chosen to locate elsewhere because our county cannot support their needs. We cannot serve the needs of our businesses that are here. It's time to step up!
- We strongly support the City of Craig and Moffat County opting out of SB05-152 to allow the citizens a choice in what their local government can provide with regard to broadband Internet.
- We would always "love" bigger, badder, faster but it is not a "need". Our broadband service is adequate at this time for us.
- Zirkel provides both my home and business with excellent service.

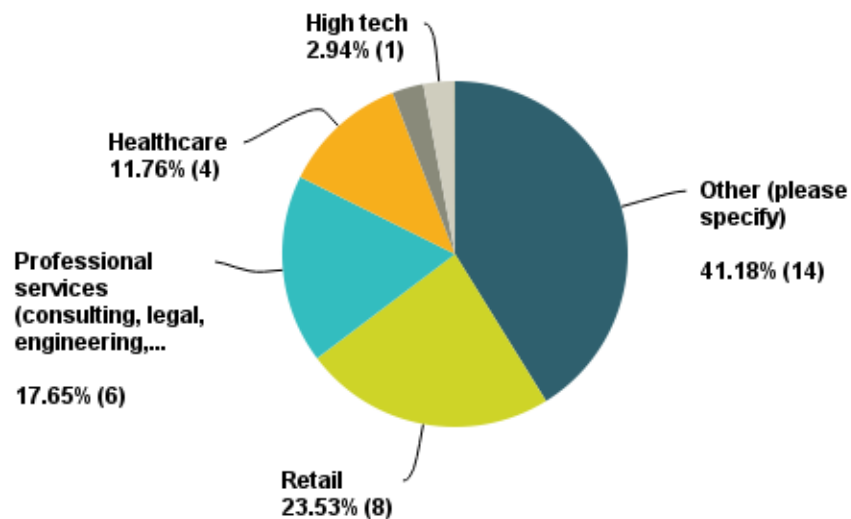
# Business Survey Results Detail

## Demographics

**Business type.** 41% participate in Retail and Professional services, while an additional 41% fall under the “Other” category, which includes Agriculture, Aviation, Boarding Kennel, Church, Generating Electricity, Government, Hospitality, Hotel, Media, Mining, Motel, Nonprofit, Tourism/Marketing and Wholesale.

### Q1 What type of business are you in?

Answered: 34 Skipped: 0

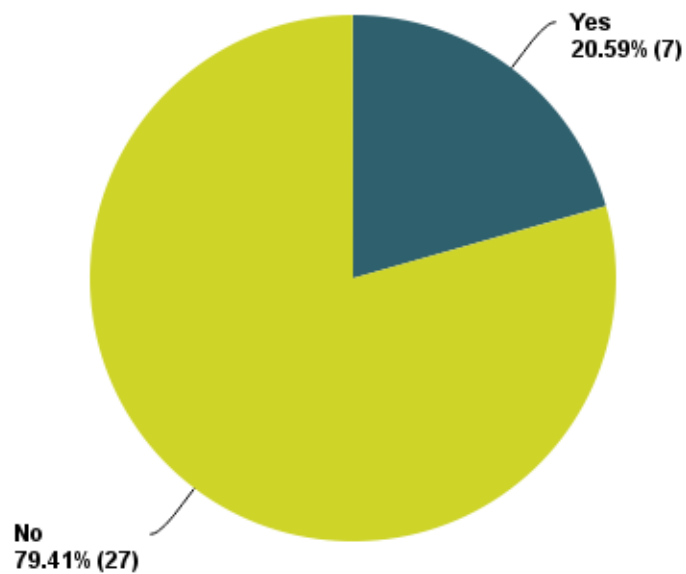


| Answer Choices  | Responses |
|---|-----------|
| Other (please specify) <b>Responses</b>   | 41.18% 14 |
| Retail  | 23.53% 8  |
| Professional services (consulting, legal, engineering, accounting, banking, etc.) | 17.65% 6  |
| Healthcare  | 11.76% 4  |
| Manufacturing   | 2.94% 1   |
| High tech   | 2.94% 1   |
| Restaurant, Food  | 0.00% 0   |
| Education   | 0.00% 0   |
| Total   | 34        |

**Operate a Business Primarily from Home.** 20.6% of the respondents operate a business primarily from home.

## Q2 Do you operate your business from your home as the primary place of business?

Answered: 34 Skipped: 0



**Business size.** Businesses responding to the survey were primarily firms with three or fewer employees.

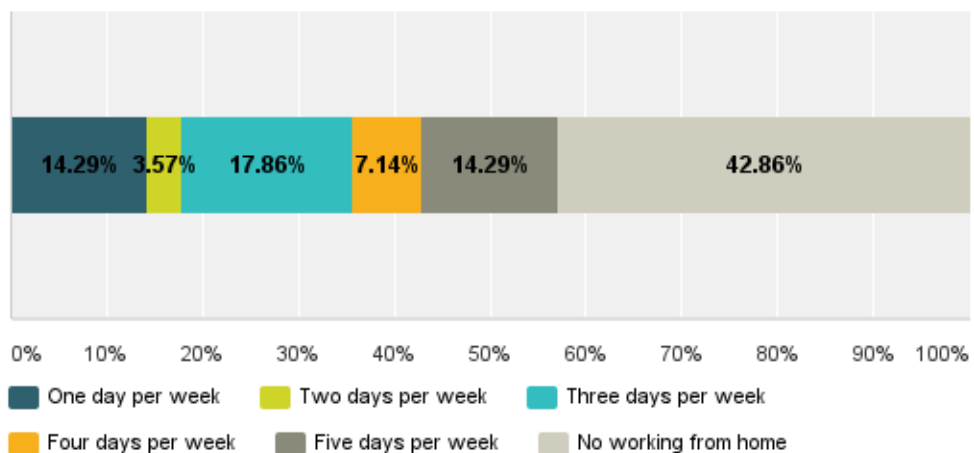
|   | Less than 3  | 3 to 6      | 6 to 10     | 10 to 20   | 20 to 50    | More than 50 | Total |
|---|--------------|-------------|-------------|------------|-------------|--------------|-------|
| How many employees?                                   | 64.29%<br>9  | 0.00%<br>0  | 14.29%<br>2 | 7.14%<br>1 | 0.00%<br>0  | 14.29%<br>2  | 14    |
| How many employees are located in Moffat County?      | 9.52%<br>2   | 38.10%<br>8 | 9.52%<br>2  | 9.52%<br>2 | 14.29%<br>3 | 19.05%<br>4  | 21    |
| How many Moffat County employees primarily from home? | 85.71%<br>18 | 9.52%<br>2  | 0.00%<br>0  | 4.76%<br>1 | 0.00%<br>0  | 0.00%<br>0   | 21    |

**Teleworking.** Of the 28 businesses that responded, 57% have employees that work from home at least one day in a typical work week.

- 14.29% responded that employees work five days a week from home.
- 17.86% responded that employees work three days a week from home.

**Q4 If you have Moffat County-based employees that work from home, how often do they work from home on average? (Select the answer that describes a "typical" week.)**

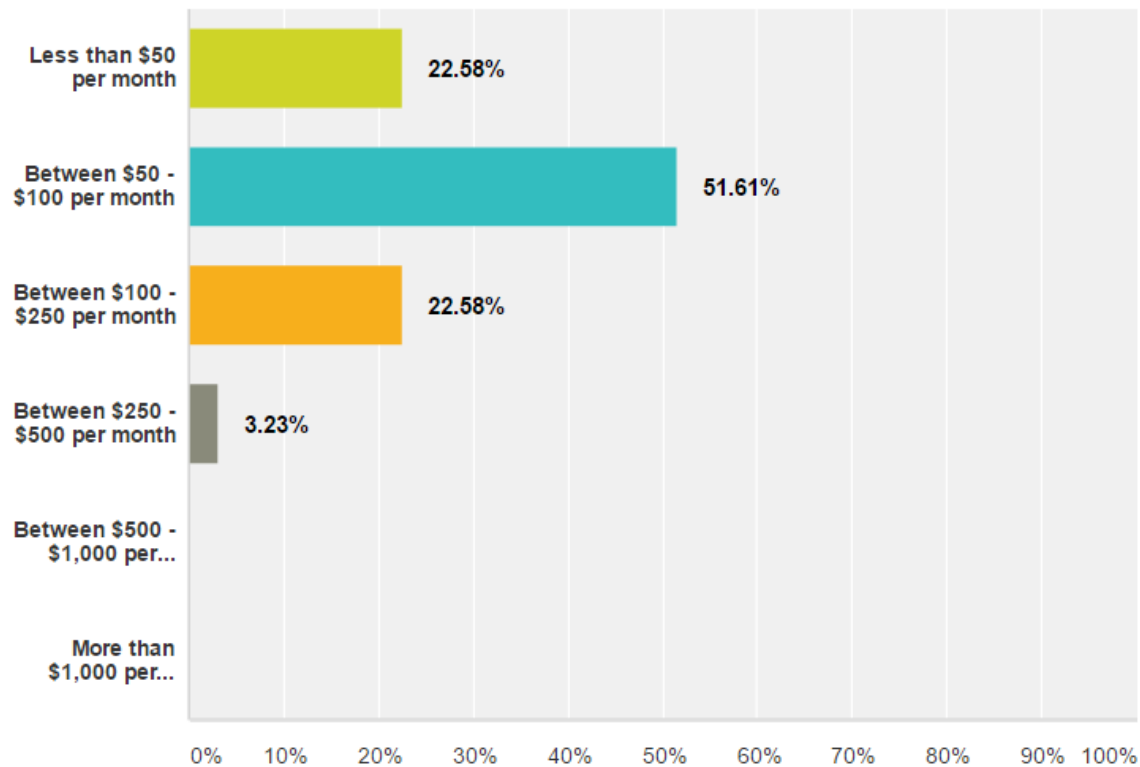
Answered: 28 Skipped: 6





## Current Service

Nearly a quarter of surveyed businesses pay between \$100 & \$250/month for Internet service.

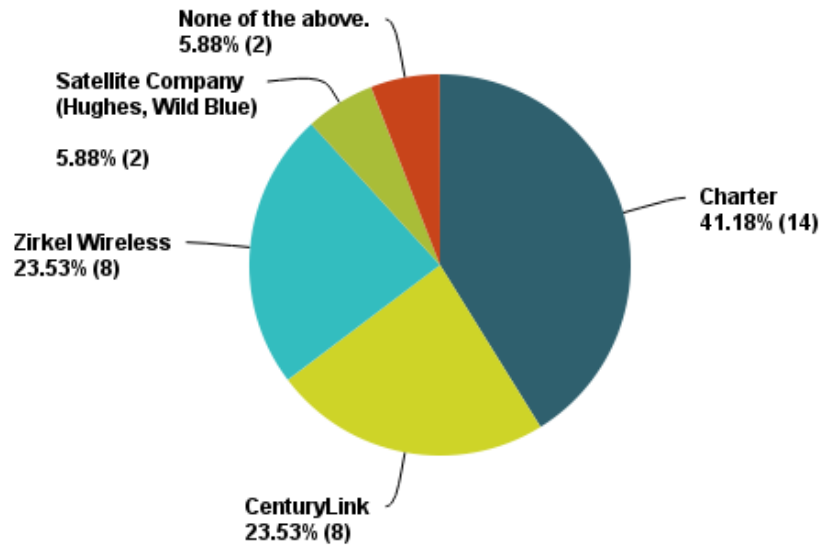


## Current Providers

Charter (41%) and CenturyLink (24%) subscribers dominated the business survey sample as the primary Craig/Moffat County ISPs.

**Q5 Which of the following Internet Service Providers do you use at your business? If you have more than one Internet Service Provider, please select your primary provider at your business.**

Answered: 34 Skipped: 0



| Answer Choices   | Responses |    |
|--|-----------|----|
| ▼ Charter  | 41.18%    | 14 |
| ▼ CenturyLink  | 23.53%    | 8  |
| ▼ Zirkel Wireless                                      | 23.53%    | 8  |
| ▼ Unite Fiber Networks                                 | 0.00%     | 0  |
| ▼ Strata Networks                                      | 0.00%     | 0  |
| ▼ Mammoth  | 0.00%     | 0  |
| ▼ Level 3  | 0.00%     | 0  |
| ▼ Satellite Company (Hughes, Wild Blue)                | 5.88%     | 2  |
| ▼ I do not use any of these internet service providers | 5.88%     | 2  |
| Total  | 34        |    |

**Connectivity.** 39% of Craig/Moffat County residents are connected to the Internet with cable and 24% are connected with DSL. No businesses in Moffat County are currently connected by fiber.

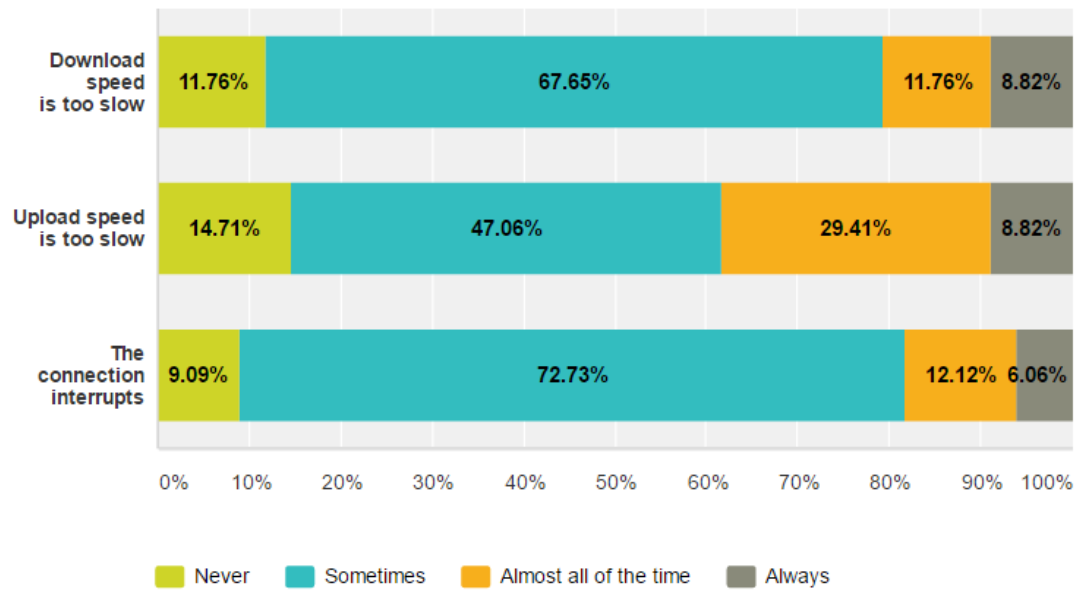
| Answer Choices ▼  | Responses ▼ |
|---|-------------|
| ▼ Cable (usually provided as part of your cable TV package)   | 39.39% 13   |
| ▼ DSL (usually provided by the phone company)   | 24.24% 8    |
| ▼ Wireless (usually provided by an independent service provider using an antenna on the roof pointed to another ground antenna.)                        | 12.12% 4    |
| ▼ I don't have Internet service at my home.   | 12.12% 4    |
| ▼ Mobile Phone Wireless, Cellular (typically is part of your cell phone plan)   | 6.06% 2     |
| ▼ Satellite (usually provided as part of your Satellite TV package)   | 3.03% 1     |
| ▼ I do not know what type of connection I have at my home.  | 3.03% 1     |
| ▼ Dial-up (requires you to use a modem and your regular phone line)   | 0.00% 0     |
| ▼ T-1 Service (a special kind of service often available from the phone company rated at a fixed 1.5 Mbps)  | 0.00% 0     |
| ▼ Fiber connection (uses fiber optics to provide the signal. May be provided by the phone company or other providers. Typically used for higher speeds) | 0.00% 0     |
| Total   | 33          |

## Speed Test Results, Reliability, Perceptions

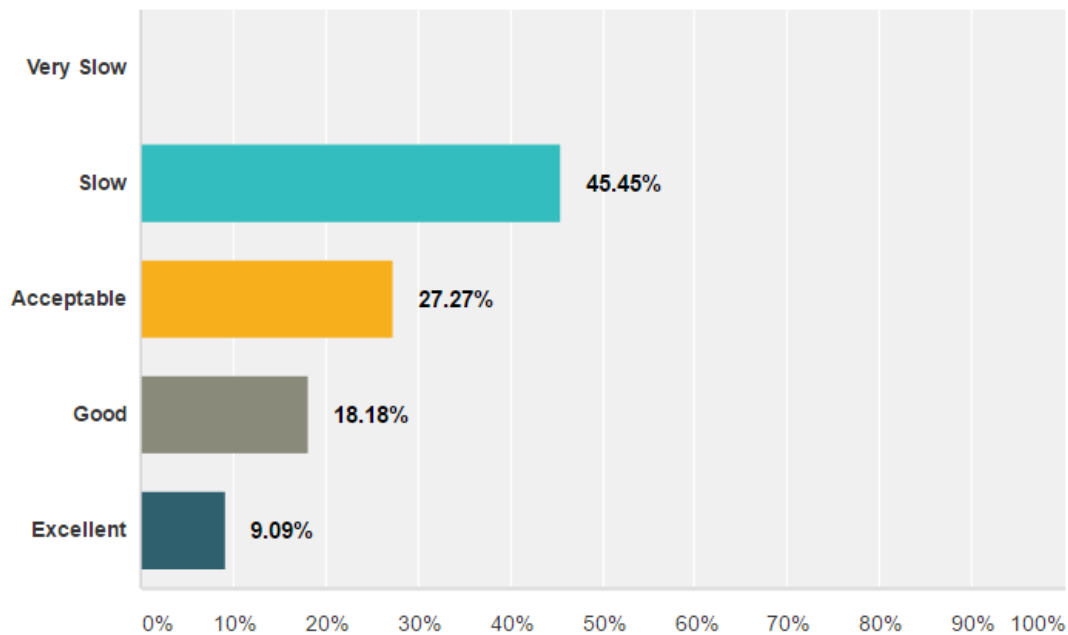
**Speed Test Results.** The survey provided instructions to respondents to take an actual speed test. 33 of the 40 respondents took the speed test and recorded the results.

- The average speeds recorded were 33.89 Mbps download and 6.95 Mbps upload.
- The lowest speeds recorded were 4.29 Mbps download and .15 Mbps upload.
- The highest speeds recorded were 66.42 Mbps download and 9.04 Mbps upload.
- 48% of the speed tests recorded were below the FCC's 25 Mbps broadband threshold.
- 28% of the speed tests recorded were below the FCC's 3 Mbps broadband threshold.

**Reliability.** 21% of respondents say their business' download speed is either always or almost always too slow, while 38% say the same about their upload speed. Nearly a quarter (18%) said they have frequent service interruptions.

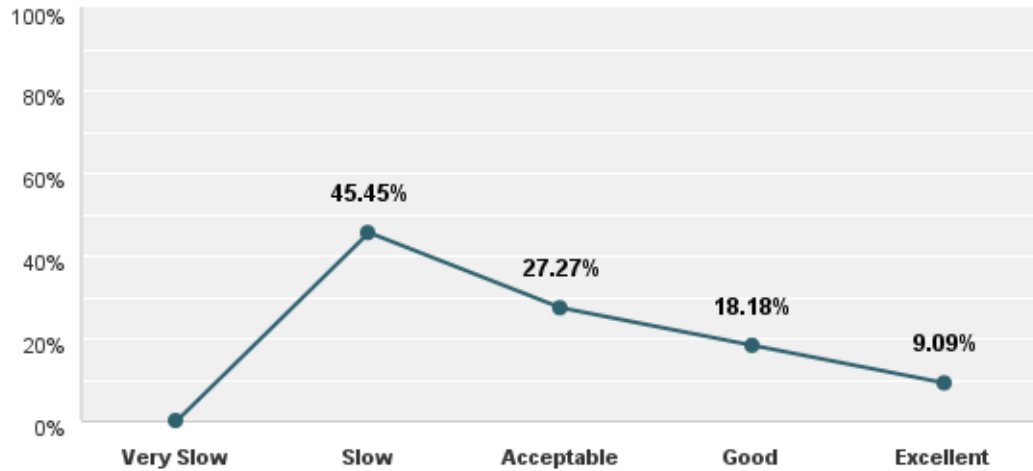


**Perception of Speed.** Only 28% of surveyed businesses rate their Internet as “excellent” or “good.” 45% see their speed as “slow”.



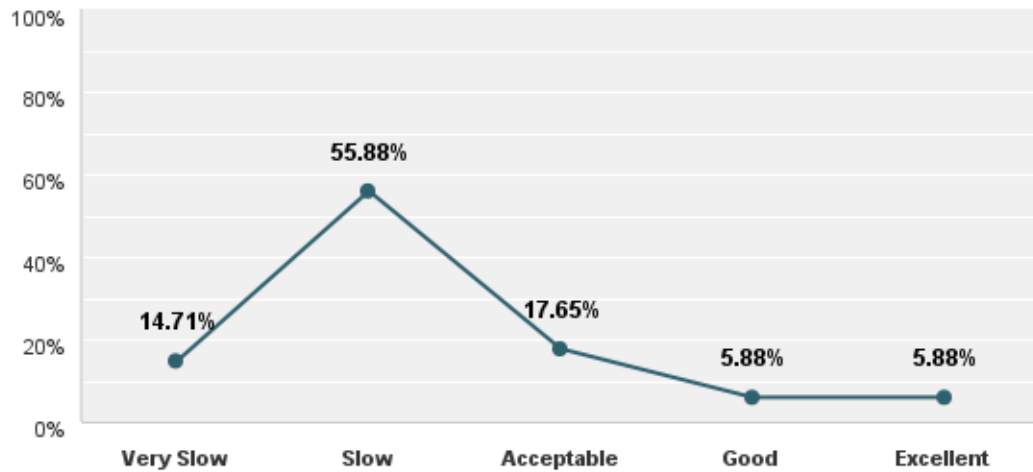
### Q12 How would you rate the download speed of your Internet?

Answered: 33 Skipped: 1



### Q13 How would you rate the upload speed of your Internet?

Answered: 34 Skipped: 0

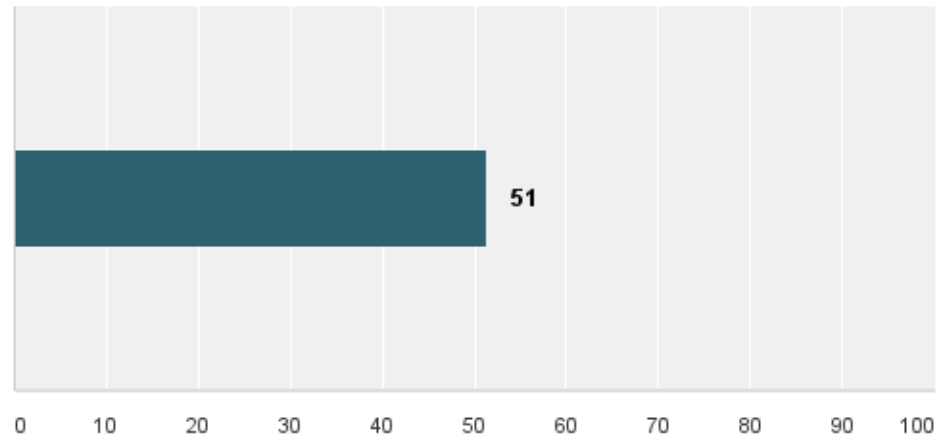


#### Expected Level of Service

When asked how fast the Internet should be, business respondents on average wanted 51 Mbps.

### Q18 How fast do you think your Internet service should be at your place of business? What service level do you expect or need?

Answered: 25 Skipped: 9



As it is difficult to understand how fast the Internet should be, most stated they did not know how fast the Internet should be, but that it should be MUCH faster. Correlating closely with the residential survey data, respondents wanted faster service than what they have today.

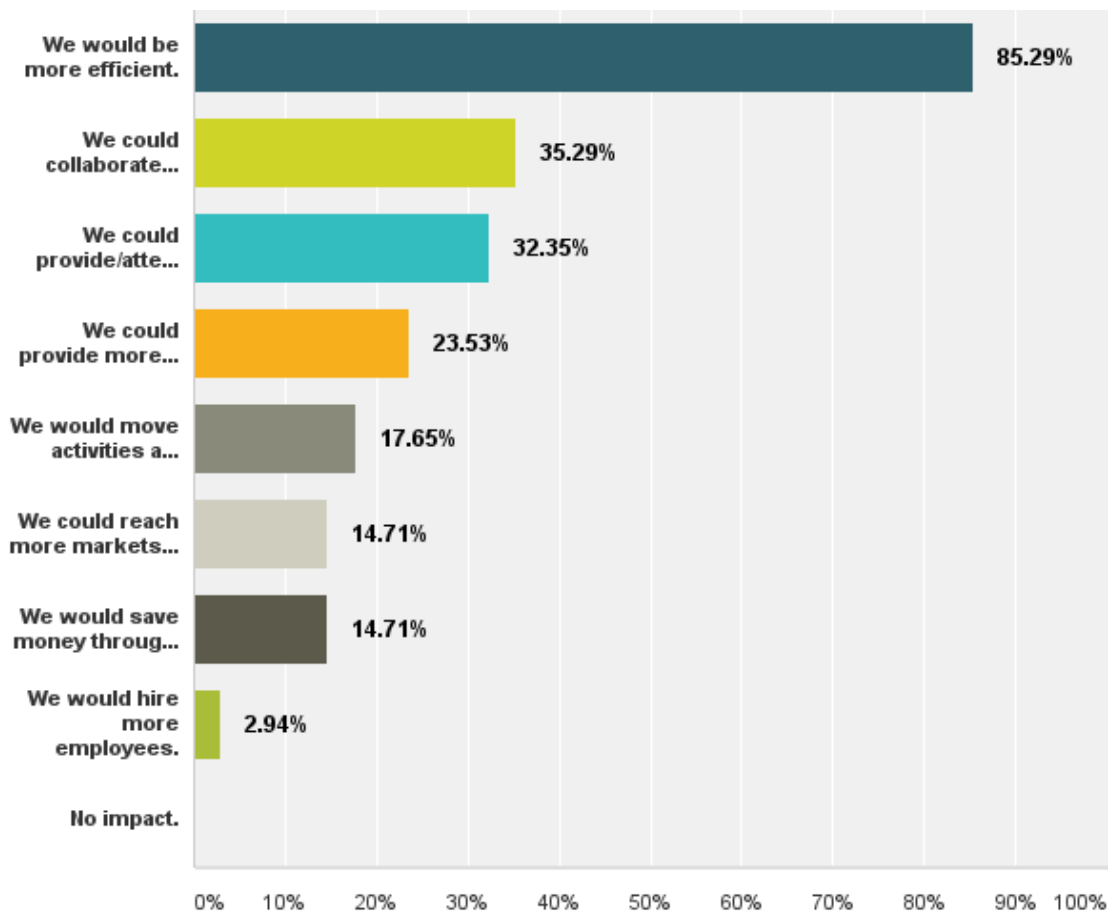
| Answer Choices   | Responses |
|--|-----------|
| ▼ I don't know how fast I need, but I would like it MUCH faster than what I have.            | 41.94% 13 |
| ▼ I don't know how fast I need, but I know that I need more UPLOAD speed than what I have.   | 25.81% 8  |
| ▼ I don't know how fast I need, but I know that I need more DOWNLOAD speed than what I have. | 22.58% 7  |
| ▼ I don't know how fast I need, it seems to be working fine with what I have now.            | 22.58% 7  |
| Total Respondents: 31  |           |

### How would the Business Benefit with Faster Internet?

The strongest benefits regarding faster Internet were that businesses would be more efficient, they would collaborate with customers and partners, they would provide and attend more

webinars and online training and they would provide more products and services to their customers.

| Answer Choices   | Responses        |
|--|------------------|
| We would be more efficient.  | <b>85.29%</b> 29 |
| We could collaborate with customers and partners we currently have difficulty connecting with now. | <b>35.29%</b> 12 |
| We could provide/attend more webinars and online training.   | <b>32.35%</b> 11 |
| We could provide more products and services to our customers.                                      | <b>23.53%</b> 8  |
| We would move activities and more business functions/applications to the cloud.                    | <b>17.65%</b> 6  |
| We could reach more markets, more territories, more locations.                                     | <b>14.71%</b> 5  |
| We would save money through Internet applications  | <b>14.71%</b> 5  |
| We would hire more employees.  | <b>2.94%</b> 1   |
| No impact.   | <b>0.00%</b> 0   |
| <b>Total Respondents: 34</b>   |                  |



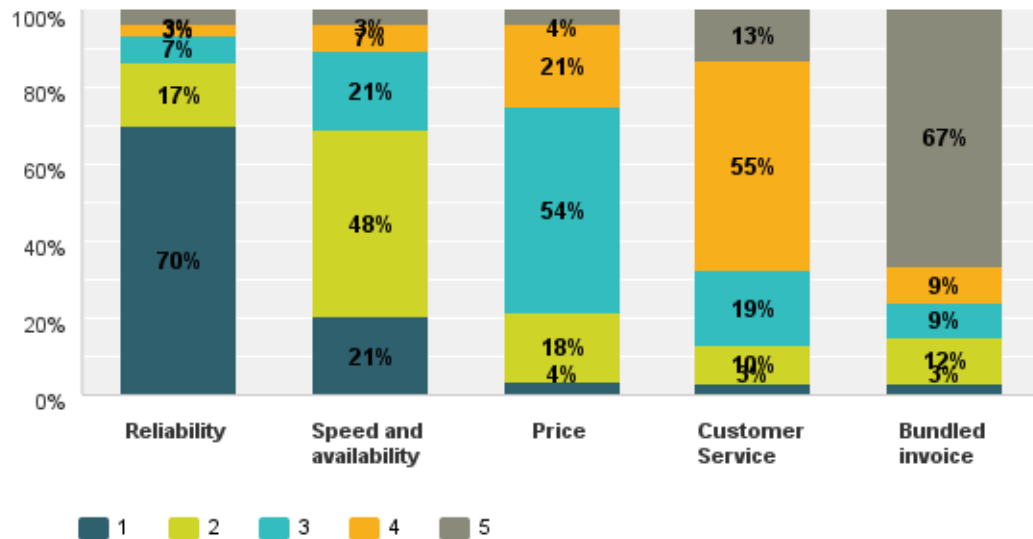
### What is Important?

When asked to rate the most critical components of Internet service, overwhelmingly, businesses are looking for reliability (70% indicated it was of the most importance), followed by and speed and then price.



**Q22 What is most important to you regarding your Internet service? (Please rank the following choices, with 1 being the most important.)**

Answered: 34 Skipped: 0



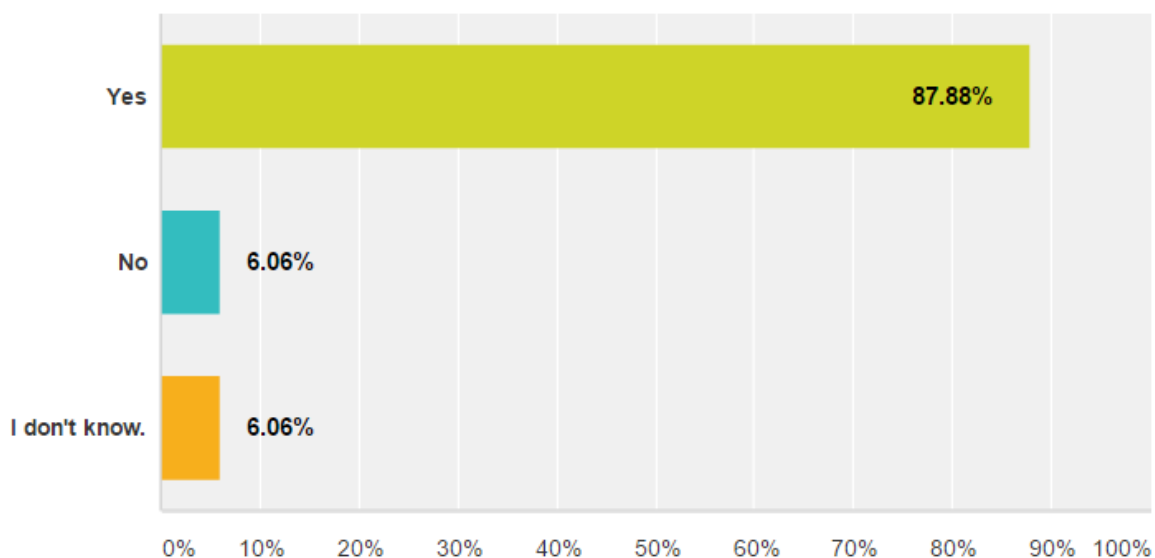
### Relationship of Broadband to Operations & Broadband as a Utility

When asked how to characterize their business in relation to their Internet service, most businesses report that they are heavily tied to the Internet and their demands for it are increasing.

|  | Strongly Agree | Agree        | Neutral/Not Sure | Disagree    | Strongly Disagree | Total | Weighted Average |
|--|----------------|--------------|------------------|-------------|-------------------|-------|------------------|
| Our business operations are heavily tied to the Internet.                                  | 53.13%<br>17   | 28.13%<br>9  | 6.25%<br>2       | 9.38%<br>3  | 3.13%<br>1        | 32    | 4.19             |
| Our demands on Internet bandwidth and speed is consistently increasing.                    | 46.88%<br>15   | 40.63%<br>13 | 3.13%<br>1       | 9.38%<br>3  | 0.00%<br>0        | 32    | 4.25             |
| We rely on the Internet to drive leads and revenues.                                       | 31.25%<br>10   | 46.88%<br>15 | 9.38%<br>3       | 6.25%<br>2  | 6.25%<br>2        | 32    | 3.91             |
| The Internet is important to my business, mostly for "basics" like email, research, etc.   | 18.18%<br>6    | 27.27%<br>9  | 6.06%<br>2       | 24.24%<br>8 | 24.24%<br>8       | 33    | 2.91             |
| We currently sell our products and services online.  | 18.18%<br>6    | 39.39%<br>13 | 18.18%<br>6      | 15.15%<br>5 | 9.09%<br>3        | 33    | 3.42             |
| The current Internet speed available will eventually prevent us from our growth potential. | 18.75%<br>6    | 43.75%<br>14 | 21.88%<br>7      | 15.63%<br>5 | 0.00%<br>0        | 32    | 3.66             |
| The current Internet speed available is holding back our growth potential today.           | 15.63%<br>5    | 28.13%<br>9  | 43.75%<br>14     | 6.25%<br>2  | 6.25%<br>2        | 32    | 3.41             |

## Broadband as a Utility.

Nearly 90% of businesses surveyed believe that Broadband is a utility.

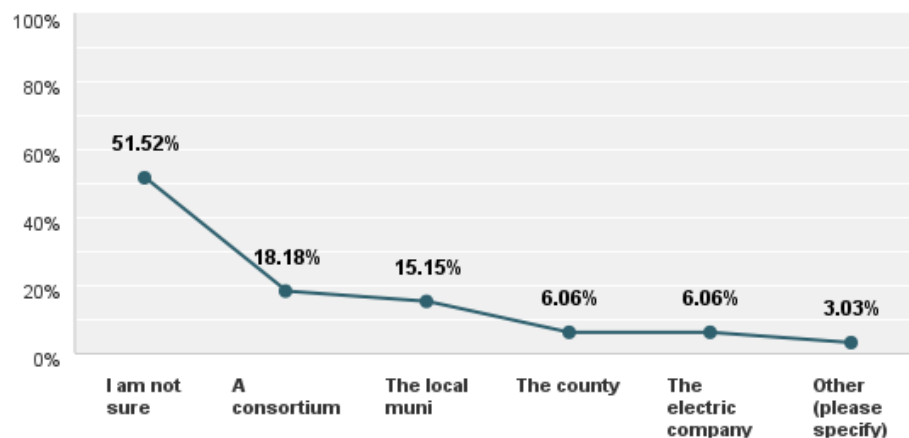


## The Role of Government

Respondents were asked, who should step in to provide adequate and affordable broadband services to business where the private sector is not currently doing so. Over half of all respondents were unsure about who should close the gap.

**Q23 If the private sector (phone, cable, wireless or other company) does not provide adequate and affordable broadband service for your business, who would you want to step in to ensure that better services are available?**

Answered: 33 Skipped: 1



When asked what the role of government (i.e. the local municipality or the county) should be in terms of solving broadband issues within a community if adequate or affordable service was not being offered from the private sector, unlike the residential survey, most respondents were in favor of the local government working with the private sector or having the private sector build the network.

More specifically, business respondents were presented with six (6) options for action that could be taken by the community, including “do nothing” as one of the options. Most popular were options that included partnership with the private sector, either current Internet Service Providers (ISPs) or other private firms.

| Answer Choices ▼  | Responses ▼ |
|---|-------------|
| ▼ Partner with current providers to improve the speed and reliability of their services.                                    | 31.25% 10   |
| ▼ Partner with a private firm to build a state-of-the-art network.  | 25.00% 8    |
| ▼ Install state-of-the-art network and offer services to the public, including homes and businesses, and government offices | 18.75% 6    |
| ▼ Install state-of-the-art services and enter into agreements with private companies to offer services to the public.       | 12.50% 4    |
| ▼ Do Nothing. Let private providers decide what services they are willing to provide.                                       | 9.38% 3     |
| ▼ Install state-of-the-art network for businesses, schools, government offices and the medical community only.              | 3.13% 1     |
| Total   | 32          |

### Businesses Relationship to the Internet

There were several questions posed to respondents regarding how strongly they agree with various statements regarding their business's relationship to the Internet. The questions included the following and resulted in the following order of importance.

- Our business operations are heavily tied to the Internet.
- Our demands on Internet bandwidth and speed is consistently increasing.
- We rely on the Internet to drive leads and revenues.
- The Internet is important to my business, mostly for "basics" like email, research, etc.
- We currently sell our products and services online.
- The current Internet speed available will eventually prevent us from our growth potential.
- The current Internet speed available is holding back out growth potential today.
- If Internet service doesn't improve, we may have to move all or part of our operations to another community.

|  | <b>Strongly Agree</b> | <b>Agree</b>     | <b>Neutral/Not Sure</b> | <b>Disagree</b> | <b>Strongly Disagree</b> | <b>Total</b> | <b>Weighted Average</b> |
|--|-----------------------|------------------|-------------------------|-----------------|--------------------------|--------------|-------------------------|
| Our business operations are heavily tied to the Internet.  | <b>53%</b><br>17      | <b>28%</b><br>9  | <b>6%</b><br>2          | <b>9%</b><br>3  | <b>3%</b><br>1           | 32           | 4.19                    |
| Our demands on Internet bandwidth and speed is consistently increasing.                                      | <b>47%</b><br>15      | <b>41%</b><br>13 | <b>3%</b><br>1          | <b>9%</b><br>3  | <b>0%</b><br>0           | 32           | 4.25                    |
| We rely on the Internet to drive leads and revenues.   | <b>31%</b><br>10      | <b>47%</b><br>15 | <b>9%</b><br>3          | <b>6%</b><br>2  | <b>6%</b><br>2           | 32           | 3.91                    |
| The Internet is important to my business, mostly for "basics" like email, research, etc.                     | <b>18%</b><br>6       | <b>27%</b><br>9  | <b>6%</b><br>2          | <b>24%</b><br>8 | <b>24%</b><br>8          | 33           | 2.91                    |
| We currently sell our products and services online.  | <b>18%</b><br>6       | <b>39%</b><br>13 | <b>18%</b><br>6         | <b>15%</b><br>5 | <b>9%</b><br>3           | 33           | 3.42                    |
| The current Internet speed available will eventually prevent us from our growth potential.                   | <b>19%</b><br>6       | <b>44%</b><br>14 | <b>22%</b><br>7         | <b>16%</b><br>5 | <b>0%</b><br>0           | 32           | 3.66                    |
| The current Internet speed available is holding back our growth potential today.                             | <b>16%</b><br>5       | <b>28%</b><br>9  | <b>44%</b><br>14        | <b>6%</b><br>2  | <b>6%</b><br>2           | 32           | 3.41                    |
| If Internet service doesn't improve, we may have to move all or part of our operations to another community. | <b>3%</b><br>1        | <b>6%</b><br>2   | <b>23%</b><br>7         | <b>29%</b><br>9 | <b>39%</b><br>12         | 31           | 2.06                    |

## Open Ended Responses, Business Survey

The survey asked for any other comments in regards to current services or thoughts regarding a community broadband network. Here are all responses to the open-ended comment question.

- If our community members and professional partners want us to be able to stay current in technologies and be able to communicate outside of our little microcosm we need to invest in infrastructure.
- It would be nice if Moffat County would do something about Internet and cell service. Too often are their areas with no cell service, no network service, etc... Our company would be more efficient with our jobs as well as serving our customers if we didn't lose Internet as often as we do or also speed up the Internet so it is not such a delay when trying to assist teammates and customers. I hope this county does do something to assist with these problems.
- Let the free market thrive and focus on a small, limited government as opposed to an overreaching government that will require unproportionate increased revenues in order to provide slightly faster Internet speeds. Stop trying to make Craig like Steamboat Springs or Denver. If we wanted to live there, we would be there.
- Let's do this!!!!
- We cannot accept mediocracy!
- We have seen some attempts in the past to improve our Internet but nothing has been totally followed thru.
- We need to focus efforts on redundancy to avoid outages, then worry about speed, at least in the beginning.
- What benefit does the City of Craig provide to the public for the franchise fees associated with each bill? Where does the money go? Who is the responsible person in city government who is supposed to address service issues? What was their job performance rating on this issue at their annual review/evaluation?