

# Columbia County, Oregon

Broadband Feasibility Study

Phase 2: County and Community Stakeholder Report

Prepared By:

Vantage Point Solutions



**Table of Contents**

Introduction ..... 3

1. Stakeholder Outreach Meetings ..... 4

2. Residential Survey Results ..... 9

3. Key Take-Aways from the Stakeholder Outreach and Surveys ..... 19

Appendix A – Raw Survey Data ..... 20



## Introduction

Columbia County awarded Vantage Point Solutions (VPS) a contract through a competitive bid process to conduct a broadband feasibility study. The purpose of the study is to gather data and information and assess options for what Columbia County can do to improve broadband availability and access across the County. The project is broken down into phases with a final report due to the County in March of 2019.

VPS previously provided the County with a Phase 1 Provider Data Report that assessed the existing provider landscape in Columbia County.

The second phase of this study primarily focused on conducting County, community and stakeholder outreach. This report provides the County with a status update on the information collected and analyzed thus far regarding County and stakeholder needs. It is important to note that both the community and stakeholder outreach are still in progress and will not conclude with the submission of this Phase 2 Report. This is typical of a feasibility study wherein the outreach continues through the life of the project. This is particularly true as VPS analyzes potential solutions and evaluates potential partnership opportunities.

The biggest question a broadband feasibility study must answer is “what is the problem we need to solve?” As such, the most critical task of a feasibility study is to conduct outreach in the community, in order to talk to as many stakeholders as possible. Stakeholders represent key groups of potential end-users of a municipal network such as citizens, businesses and government agencies. The purpose of the outreach is to obtain feedback regarding current levels of service, future needs and concerns.

To gather the data and information for this Report, VPS:

- Held on-site meetings in Columbia County with a variety of groups and entities. Columbia County staff participated in all of these on-site meetings.
- Conducted calls with a variety of groups that either could not attend the on-site meetings or required a follow up.
- Conducted a residential market survey. Residents were randomly selected to participate via two mailings.
- Conducted an informal residential survey. Residents were encouraged to participate through social media and other electronic methods.
- Conducted an informal business survey. Business were encouraged to participate via email.

*Please note: For purposes of this study, broadband is defined in accordance with Federal Communication Commission (FCC) standards. The FCC currently defines broadband as internet speeds that reach a minimum of 25 Mbps downstream and 3 Mbps upstream (25/3). Speeds that fall below 25/3 are not considered to be high-speed broadband but may provide subscribers access to the internet with limitations.*

# 1. Stakeholder Outreach Meetings

In order for the stakeholder outreach to be as comprehensive as possible, VPS is utilizing a variety of methods to collect the data and information including hosting 2 town hall meetings with citizens, one-on-one meetings with key groups, and conducting a residential and business survey. Information gathered from these efforts are summarized and detailed below.

## 1.1 Existing Providers

As discussed in the Phase 1 Provider Data Report, there are 8 providers in Columbia County that provide a variety of internet service level offerings and speeds throughout the County. Three providers are most likely to present partnership opportunities for the County. Discussions with these providers are detailed below.

### 1.1.1 Comcast

Over the last few months, Comcast has been rolling out gigabit speed service to its customers in the United States. As of now, Comcast is the only provider in Columbia County that offers gigabit service. Discussions with Comcast include the following points:

- Every household served by Comcast can get one gigabit speed for residential use.
- Comcast just finished a buildout in Rainier including finishing a redundant fiber ring.
- Comcast's entire service area can apply for internet essentials if eligible (low cost internet based on free and reduced meals formula).
- Comcast has an internal formula when considering new builds and reaching new customers that takes into consideration a return on their investment.
- Comcast does not have any current plans to extend into Vernonia. Comcast is in Banks which is closest to Vernonia. However, Comcast may be interested in leveraging any new fiber that is built to Vernonia.
- Comcast is working on a map that they can share with the County.

### 1.1.2 Cascade Networks

Cascade recently completed a five-year project that built over 110 miles of fiber along route 30 in and around Clatskanie. Cascade also has approximately 3000 wireless customers. However, the interest moving forward is growing the fiber-based customer base. The most important take-aways from discussions with Cascade include the following:

- Cascade is open to partnership and growth opportunities including potentially serving customers in Vernonia if new fiber was built there.
- Cascade's network assets may be available to be leveraged along route 30 which could save money in having to deploy new fiber along the same routes.

### 1.1.3 Whiz to Coho

Whiz to Coho is a fixed wireless provider that primarily serves the Vernonia area. The biggest challenge for expansion is the geography and terrain in Columbia County. As a fixed wireless provider, trees and elevation interfere with signal strength and ability to reach customers. Whiz to Coho is interested in partnering and working on solutions with the County.

### 1.1.4 Viasat

Viasat is a satellite internet provider that serves customers in Columbia County. In October, Viasat was awarded \$190,303 in federal funds by the FCC to reach 279 new locations in Columbia County. These funds and census block locations were part of the FCC's CAF II auction that took place earlier this year. As of the writing of this report, Viasat has not returned a call to discuss the project. No further details are publicly available at this time to understand the nature of the project and what fiber needs Viasat may have, if any at all.

## 1.2 Electric Utility Providers

Across the country, electric utility providers are looking into expanding service offerings with broadband services. At a minimum, electric utility providers are important partners for obtaining utility pole access. Stringing fiber along utility poles is more cost effective than burying cable underground. As a result, VPS and the County have reached out to the electric utility providers in Columbia County. As of the writing of this Report, VPS has not connected with Columbia River PUD. However, discussions with the other electric utility providers are summarized below.

- **Clatskanie PUD** partnered with Cascade Networks in their build to provide pole access and obtain fiber for the PUD to utilize for their electric system needs. Clatskanie PUD is open to partnership ideas, including allowing pole access but would prefer if the County could find a way to leverage existing fiber rather than overbuild what was already built. Clatskanie PUD has provided an overview map of their territory which covers 257 square miles and 4700 meters. The PUD has no interest in becoming a broadband service provider.
- **West Oregon PUD** already has some fiber on their poles and currently does not have a need for more fiber. West Oregon PUD is open to allowing the County pole attachment access through their pole attachment agreement process. West Oregon PUD has not provided an overview map as of yet. The PUD has no interest in becoming a broadband service provider.

## 1.3 Groups and Organizations

Through the outreach process, VPS and the County have had discussions with a variety of groups and organizations. These discussions are summarized by group category below.

### **1.3.1 Schools**

Columbia County schools are currently served by a variety of providers and a variety of methods. For example:

- St. Helens is served by Comcast.
- Clatskanie is served by Charter. They experience outages regularly.
- Vernonia is served by Frontier and has limited bandwidth.
- Mist and Rainier are served by Century Link.

The following concerns were expressed:

- There is a need for reasonably priced dark fiber.
- There are power and equipment challenges.
- The schools experience outages and fiber cuts periodically.
- Schools need redundancy and reliability.
- Security at schools is a big issue. For example, a network outage took down the electric door lock in one school.
- There is homework gap and digital equity problem with kids that need internet access at home to do school work.

In addition, the Hillsboro School District is currently involved in a big fiber project. Due to proximity, there has been discussions regarding whether Columbia County could coordinate or connect with the infrastructure being deployed in Hillsboro. As of the writing of this Report, VPS has not yet been able to connect with Hillsboro.

### **1.3.2 Department of Forestry**

The Department of Forestry (Forestry) has a variety of needs across Columbia County in order to better move data, emails and communicate out in the field. Field foresters use iPads in the field for inspections and to collect data. They often need to drive somewhere where there is an adequate signal to download and transfer information. There are significant areas where there is no cell service out in the field. The main office in Columbia City just got fiber and the guard station at Clatskanie just got an internet connection. There is a line buried outside the guard station in Pittsburgh, but it is not connected. There is no cell service and only a landline phone connection in Pittsburgh.

However, the biggest issue relates to incident management. When fires happen, Forestry immediately needs at least 100 Mbps of dedicated internet capacity and cell service at the location of the fire for a minimum of 14-20 days. Every time a fire or incident happens, Forestry spends up to 48 hours or more trying to get service to the incident area.

### **1.3.3 Public Safety**

VPS and the County spoke with a number of public safety groups including CCOM, Mist/Birkenfield Fire and Rescue, Columbia River Fire & Rescue and others. In addition to the concerns expressed by the Department of Forestry, the main problems and critical needs are as follows:

- There are dead spots and weak cell areas around the County – especially in the rural areas that can hamper emergency response. There are facilities such as the Truck Inspection Facility, that have no cell service. There is a need for more cell towers.
- There is a big problem with reliable connectivity to 911 and other critical agencies. Redundant connections are needed in most facility locations. There are also fire substations and other facilities that do not have any internet connectivity at all.
- The current radio system is at end of life and public safety is exploring new technologies and replacement systems.
- Interoperability equipment does not work well and most of public safety has moved to using cell phones and apps.

### **1.3.4 Port of St. Helens**

The Port of St. Helens (Port) has 10 different sites in the County that are mostly served by Comcast. Scappoose Airport which is owned by the Port, might need internet on the east side. The biggest issue they see is reliability. There aren't any data centers because there is a lack of power and problems with reliability. There is not enough Wi-Fi at the RV Park.

Overall, they expressed a sense that Port businesses do not know what would help them. There is not a lot of optimism around internet access and services.

### **1.3.5 Oregon Fiber Partnership**

VPS has spoken with the Oregon Fiber Partnership – a new organization that is launching a project to build a 3500-mile backbone across Oregon. VPS spoke with the Executive Director of the organization. Any new middle mile network in Columbia County should have the opportunity to leverage the network being built by the Oregon Fiber Partnership. This project should begin construction in 2019 and it is anticipated that the first ring will be lit in 2019. VPS will be engaging in further discussions with the Oregon Fiber Partnership.

## **1.4 Municipalities**

VPS and Columbia County have had discussion with several municipalities within the County and are awaiting a call back from St. Helens and Scappoose. The following key points are highlighted below:

- Columbia City stated that they were well connected.
- Vernonia City has different provider connections to different facilities and each have different issues. There are cellular gaps in and around the City.

- City of Rainier is working with Comcast for internet service which is good. There are multiple cell providers. There are some gaps out of town with cell service.

## 1.5 Town Hall Meetings

VPS and Columbia County held two citizens town hall evening meetings in Vernonia and St. Helens. The citizens that came to the meetings were extremely frustrated with their current service. The following concerns were raised by the citizens and are highlighted below and identified by location.

- Vernonia Town Hall:
  - Frontier is only carrier. Internet service is terrible. There are major issues with reliability.
  - The further away from the node you live, the worse your service gets.
  - Folks would like to work from home but cannot with such poor service.
  - It's hard to get someone out to fix service.
  - Some cannot use Netflix after 4pm
  - Cell service is inconsistent.
  - Internet is expensive for what is offered.
- St. Helens Town Hall
  - There are big problems with reliability and consistency throughout the County.
  - In Scappoose, Century Link frequently goes out and can barely do anything with current connection.
  - In Warren at one location the only option is Century Link and can't get more than 1.5 Mbps.
  - Would like to start a home business but only option is satellite and that's not enough bandwidth to do anything.
  - Cell service is inconsistent depending on carrier.



## 2. Residential Survey Results

VPS conducted a residential market demand survey to obtain key data points regarding current level of service, satisfaction with current providers, resident's willingness to switch providers, and the level of pricing residents consider to be reasonable for high-speed broadband among other areas.

The survey itself contained a total of 26 questions (4 of which were demographic related) and was hosted on the online platform of Survey Monkey. VPS worked with National Research Council (NRC) to send a postcard and letter to a random sampling of 4001 households across the 8 zip codes in the County. Overall, VPS received 483 survey responses.

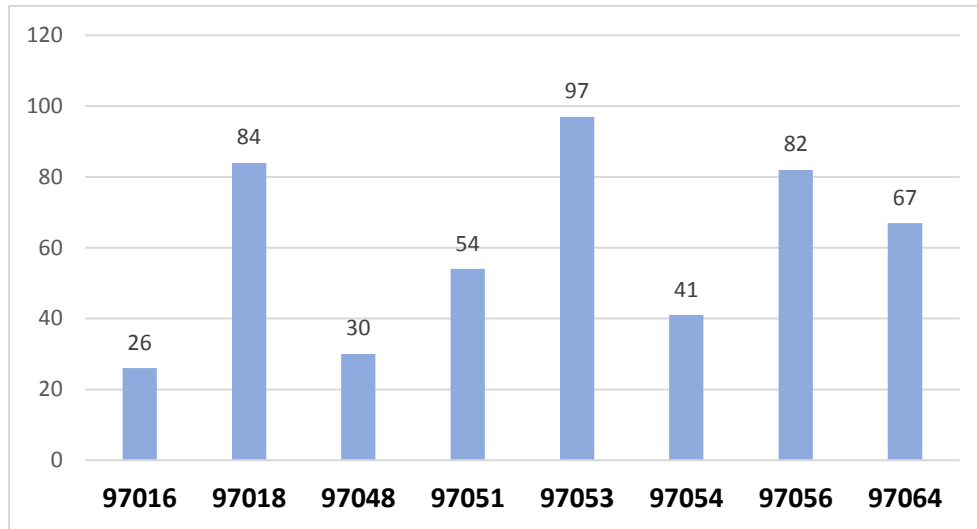
VPS also launched an informal survey that is still in progress. The main purpose of the informal survey is to provide all residents with an opportunity to participate in the survey while preserving the random sampling of the official survey. However, even though the survey questions are identical and the results almost exactly identical, VPS did not merge the two together. The informal survey results detailed in Section 2.12.

The official survey data and analysis is presented below broken down by topic. Actual results, excluding "Respondents by area", are rounded to the closest whole percent for presentation purposes. Please see **Appendix A** for exact percentages that are contained in the raw survey data.

It should be noted that the survey did not ask respondents to test their speed due to the fact that speed tests are dependent on the time of day they are tested, and it can create confusion for the respondents in the middle of a survey because individuals need to open a new web browser to conduct the test. Also, the respondent may not be completing the survey from home. Due to this fact, it should be noted that no steps were taken to verify speeds claimed specifically by respondents. However, according to the speeds offered by providers in Section 2, It is of note that speeds offered in portions of Columbia County are extremely low, and almost all fall well below the federal definition of "broadband".

### 2.1 Area Demographics

Respondents identified themselves as being from 8 different zip codes within the County. Percentages were broken down as follows:



## 2.2 Household Services Purchased and Ranking by Importance

Respondents purchase a variety of communications services for their household, but they are not purchased equally. For example:

- 94% purchase internet
- 88% purchase cellular/mobile service
- 63% purchase cable or satellite television
- 48% purchase land-line telephone service

When asked to rank the services from most to least important, internet and cellular/mobile telephone service were overwhelmingly the most important. On a ranking scale with 4 being most important, the following scores illustrate what community members find most important:

- 3.29 for internet
- 2.95 for cellular/mobile telephone
- 2.21 for television
- 1.63 for land-line telephone

## 2.3 Current Internet Services

Approximately 95% of respondents purchase internet services in some form in Columbia County. Almost 50% of those who do not purchase internet services indicated that internet was not available at their location. Other reasons for not purchasing internet included that an internet connection was too expensive (22%), or their family had no need for internet (9%). Just over 4% indicated that internet was simply too slow to purchase.

For those that do purchase internet services, the survey asked about cost. Around 22% of respondents answered that they purchase internet through a bundled package with phone and/or television so it's difficult to

determine how much they are paying just for internet. However, of the remainder that do purchase internet as a stand-alone service:

- 26% are paying \$41-\$60 a month
- 17% are paying \$61-\$80 a month
- 15% are paying \$40 or less a month
- 13% are paying \$81-\$100 a month
- 7% are paying over \$100 a month

It is important to note that 39% of respondents receive their service from Comcast. Just over 36% purchase service from Century Link with less than 14% purchasing internet services from Frontier Communications. The remaining 11% is made up of various providers with Hughes Net (4%) as the next most used provider.

Many respondents commented that they did not feel they had enough options in their respective areas. They felt this lack of competition often leads to monopolistic practices by providers including above average pricing for inferior services. Respondents also felt the lack of competition had a direct impact on the upgrades, or lack thereof, to the network in their areas. One respondent commented that they only had one provider that served their residence in Vernonia. The respondent believed, "If they had a competitor they would likely be out of business."

## **2.4 Satisfaction of Current Providers**

The next set of questions explores how satisfied internet subscribers are with their current broadband providers and service.

Approximately 38% of respondents are either very satisfied or satisfied with their current provider and approximately 38% of respondents saying they are dissatisfied or very dissatisfied with the current service as a whole from their internet provider. This leaves 24% who are neither satisfied or dissatisfied. This level of satisfaction is well below average for what is typical. The mirrored percentage show the difference in respondent experience based on location, current provider, and access to a variety of providers. Looking deeper into what aspects of service respondents were most concerned with, the following statistics stated:

- 28% were either very satisfied or satisfied with price of service, while 42% were unsatisfied or very unsatisfied with the price of service. The remaining amount were neutral. This level of satisfaction is well below what is typically seen.
- Approximately 51% were very satisfied or satisfied with the speed of their connection. 35% of respondents were unsatisfied or very unsatisfied with the speed of their connection. Due to the number of complaints about speed, this statistic deviated slightly from written comments. However, this again shows the difference in service and satisfaction based on location.
- Respondents were overall more likely to believe that their connections were reliable as 53% felt very satisfied or satisfied with their current connection. This was opposed to 30% who were unsatisfied, or very unsatisfied with their connection's reliability.

Delving a bit deeper into the various aspects of their internet service, respondents indicated how important certain aspects of home internet service were to them. On a scale of 1-5 with 1 being very important, respondents ranked the following aspects from most important to least important:

- Reliability (1.10)
- Speed (1.29)
- Price (1.47)
- Overall customer service (1.65)
- Technical support (1.77)
- Ability to bundle services (2.73)

## 2.5 Willingness to Switch from Current Providers

Keeping in mind what respondents are currently paying for internet service, the survey asked respondents what is the most they would pay if a new provider offered gigabit service. The respondents answered the following:

Answer Choices	Responses
\$21 to \$40	22%
\$41 to \$60	31%
\$61 to \$80	21%
\$81 to \$100	14%
\$100 to \$125	8%
Over \$125	4%

Over 86% of respondents indicated that they would switch providers at the price selected above. This data suggests that individuals may be willing to pay a slightly more money to receive a higher quality service.

However, according to a previous question in which only 28% of respondents were satisfied with price, raising prices past current market may be more than current residents are willing to pay. The data and survey indicate most importantly that residents would switch to a provider who offered them value. Many households indicate they are already paying a premium for services, yet not receiving adequate speeds or reliability. These households are not likely to pay more, yet they would be willing to switch to a provider who offered them more for what they are already paying.

## 2.6 Willingness to Pay One-time Hookup Fees

The Survey asked respondents what is the most you would pay for a one-time hook-up/connection fee if it were required by a new provider that offered a reliable, robust, high-speed internet connection (up to one gigabit) The purpose of this question is to explore partial funding mechanisms for deploying a network. Any hook-up fees can help offset some or a significant portion of the deployment fees depending on the amount.

Columbia County residents do not mind paying hook-up fees if they are reasonably priced, but they would need to be under \$100, preferably \$50. Unfortunately, at this price point, the fee would do little to offset any costs. Below is the data on how much respondents would be willing to pay:

- 37% would pay \$50 dollars or less
- 25% would be willing to pay up to \$100 dollars for a hook-up fee
- 8% would be willing to pay up to \$250 dollars
- 6% of respondents would pay or consider a fee over \$250 dollars
- 24% were averse to the idea of a hookup fee and indicated that they would not pay an upfront hook-up fee regardless of cost.

## **2.7 Television**

Television is an important staple in many households across America. As technology changes, there have become more options for watching popular shows, movies, and live events. Many individuals have begun to move away from traditional sources of television (Cable or Satellite) and started purchasing programming options over the internet. In Columbia County, the data for television programming is as follows.

Respondents reported that:

- 55% stream content over the internet (including Netflix, Hulu, Vudu, etc...)
- 39% purchase satellite television such as Direct TV
- 25% purchase cable television
- 10% only stream shows using the internet and do not subscribe to any other television service
- 10% obtain television content free - over the air with an antenna
- 6% don't purchase any television service

The data tells us that 64% of respondents purchase satellite and cable services and 55% are currently purchasing Internet programming (such as Netflix, Hulu, Vudu). Respondents were able to select more than one option, so someone could indicate they purchase cable service and buy programming through the internet. Interestingly, 45% of respondents who are using Internet streaming services are also paying for some other type of programming via satellite or cable. This indicates that a large number of programming purchasers in Columbia County have not made the switch to solely streaming their video and television programming and becoming "cord cutters."

Cord cutting is the term given to households that stop purchasing traditional television services and instead solely utilize their internet connection to stream television content. While cord cutting is a national trend, broadband providers have found that television service is still a necessary offering in order to help drive subscription rates – in part due to discount rates for bundled service packages (TV, internet and phone).

## **2.8 Cellular Telephone**

Since the feasibility study also looked at cellular broadband, the survey asked a few questions about resident's cell phone experiences. Overall 88% purchase cellular telephone service. Almost 48% of respondents purchase cellular service through Verizon. Percentages of identified carriers are as follows:

- 48% Verizon
- 25% AT&T
- 8% T-Mobile
- 3% Sprint
- 16% Other

Approximately 10% of those that purchase cellular telephone service indicated that “the cell signal is weak at my house and it's very difficult to use my cell phone at home.” Another 13% indicated that they need to move around the house in order to make or receive a call. Just over 10% of respondents had no cellular telephone service at their residence. Over two-thirds of respondents indicated that their cell signal was strong most of the time or better.

Overall, based on the data, the cellular coverage in Columbia County is relatively good and reliable in certain areas, and struggles immensely in other areas. Due to the lack of available broadband providers, some residents have chosen to use cellular hotspots which provide internet for devices through cellular data. These are often far more costly than traditional services, and are data capped. This means there may be limited use. One respondent to the survey commented, “...This Verizon HotSpot is our only option, and it's horrible” Many respondents specifically pointed out the need for better cell service in certain areas of Columbia County in the “additional comments” section of the survey. A few respondents noted that without reliable cell service, or broadband, access to emergency services can be limited in certain areas.

## **2.9 County Action**

The survey asked one question regarding respondents' opinion of the role of the County in improving broadband. The responses were very mixed. However, 36% agree with the statement that the County has a role in improving broadband services, but they aren't sure what the County should do.

Almost an equal number of respondents (approximately 20% each) believe that either the County should use public funds to finance and build a County-owned network, or in stark contrast that current providers are meeting the needs and the County shouldn't do anything. Another 23% of respondents felt the County needed to at least consider using public funds to finance a network of some kind if current providers were not able to improve broadband services in Columbia County.

Out of 221 respondents who added additional general comments, 39 respondents added that they were wary or had adverse opinions to the County becoming involved in broadband improvement. Most concerns stemmed from the use of, or redirection of public funds. Many of these respondents felt County funding would be better spent on other public issues, such as roads or law enforcement.

## **2.10 Respondent Comments**

Below is a summary of the open-ended comments submitted by survey respondents that express a wide-range of opinions regarding their current concerns and need for better broadband.

*Note: The opinions stated below are directly from respondents of this survey and do not represent the views, opinions or positions of VPS.*

- **Columbia County residents have very strong opinions about the current state of broadband in the communities they reside in.**
  - *"All our services are terrible and we have no other option but to pay high priced junk that hardly works. I work from home and it has hindered my business due to my services that don(')t work more than half the time!"*
  - *"Broadband services are severally lacking. And any providers currently out there are scalping folks for connection."*
  - *"Current internet services are not available at my residence, and is of the utmost frustration that we are lacking it. More internet services should be available in this area."*
- **Many Columbia County residents believe they are behind rest of the State and country in their broadband options and deployments.**
  - *"Broadband in Columbia County is substandard. I can be 200 miles away at the Oregon coast and have better internet connection. It is time for Columbia County or for some internet provider in the County to help our county's citizens to have adequate internet service. We DO NOT have it now."*
  - *"Frankly it feels like we're trapped in the 90's..."*
  - *"We are in Portland's backyard. We have to be on par with them in order to be competitive out here."*
- **Many residents in Columbia County feel that they do not have as many options for broadband as they would like and that certain areas of Columbia County are monopolized by current providers.**
  - *"Columbia County is woefully under serviced and the services that are provided are inadequate."*
  - *"It would be nice if there were an option that were competitive with Comcast, as they're the only ISP with the speed and pricing they offer in this area."*
  - *"There simply aren't enough high-speed providers."*
- **Many residents expressed concerns about the personal and public ramifications that not improving broadband access may have. Respondents were notably concerned about public safety, as well as the educational and economic impacts.**
  - *"Vernonia is a lovely little town, but poor infrastructure creates challenges and limits economic growth of the town."*
  - *"Not having internet service to all in Columbia County is putting our school children at a disadvantage."*
  - *"It is very poor – inconsistent, poor signal if any. If there was an emergency, wouldn't be able to rely on it. We have considered moving to areas that have better service. (I)t is virtually a dead zone."*

- **There have been no new network upgrades in many of the local markets in Columbia County.**
  - *“Currently paying for double the speed received. At end of line so no upgrades are available.”*
  - *“DSL speed is limited by the equipment that Frontier has in place. Frontier has not invested in increasing the speed of the network beyond its current capability.”*
  - *“When we moved here we(‘)re told 8 years we would have cable internet available it has been 10 years and nothing(.) We are 3 miles up Canaan and its stops at one mile.”*
- **Broadband experiences currently vary majorly from resident to resident. Two locations and residences may have completely different experiences with speed and reliability.**
  - *“Some areas have high speed internet, but Comcast wanted us to pay a portion of adding cabling up the road. \$30,000 was our portion, which is an impossible choice just to receive high speed internet.”*
  - *“We live on Nick Thomas Rd. High speed cable is one street over on Neer City Rd. with no plans on bringing it to our area. So we are stuck.”*
  - *“It so much depends on where you live.”*
- **Some residents share concerns about government involvement in any type of broadband project and believe funds should be redirected to other County improvements.**
  - *“I don’t think the government needs to compete with the private sector.”*
  - *“I’m not sure public funds should be used to improve broadband/Internet access for the county. We have some of the worst roads in America, in this county.”*
  - *“I do not want my tax dollars to fund government owned communications.”*
- **Much of Columbia County lacks speeds which meet the FCC’s high-speed broadband standards and lacks basic cellular coverage.**
  - *“The only internet provider in our area is (C)entury Link dsl and the fastest speed available is 12 (Mbps). We pay a fortune (over 200/month) for phone, satellite tv and internet.”*
  - *“We are currently only getting 500 Kbps to 3 Mbps. There is nothing we can do about the speeds, our internet provider (CenturyLink) will do nothing to fix it.”*
  - *“Unfortunately there are only a couple choices when it comes to broadband. Comcast, who wants \$10,000 to connect our house being we are so far off the main road, and Century Link which offers basic 10 Mbps speeds but goes down often.”*
- **Residents are extremely vocal about value. Residents would like to see speed and reliability increase, and price decrease. Residents often feel slighted, mislead or lied to by current providers.**
  - *“I would love to feel I am getting value for what I am spending and I do not.”*



- *"We have struggled to find a reliable internet service at a reasonable price."*
- *"I'm really tired of paying for "high speed", but it's slower than molasses."*

## 2.11 Informal Residential Survey

As previously noted, the informal survey contained the same questions and structure as the official survey discussed above. The informal survey was also hosted online in Survey Monkey with its own unique weblink. The survey has also been left open with the intent to continue to gain valuable opinions and information. As of 11/26/2018, there were 371 responses collected for the informal survey.

The data collected in this survey mirrored that of the formal survey in most areas. Any differences between the two may be attributed to the fact that informal survey respondents are "self-selecting" to participate. In other words, the respondents have an interest in broadband with stronger opinions than those that are randomly selected.

The following are examples of differences between the surveys as well as interesting respondent feedback from the opinion survey:

- There was a higher percentage of respondents to the opinion survey from area codes 97064, 97051, and 97106.
- There was a higher percentage of respondents to the opinion survey who received internet through DSL as opposed to other means.
- There was a higher percentage of Frontier subscribers who filled out the opinion survey.
- 25% of respondents to the opinion survey were satisfied or very satisfied overall with the value they received from their current internet provider in contrast to 38% on the formal survey.
- Respondents claimed to be willing to pay more for a new reliable, robust, highspeed gigabit connection with 56% of respondents to the opinion survey willing to pay over \$61 a month versus only 47% on the formal survey.
- Approximately 24% claimed they would not pay a hook up fee on the formal survey. Only 14% of respondents to the opinion survey would not pay a hook up fee.
- Only approximately 8% felt current providers were meeting the local need for broadband. 21% of respondents answered that they felt current providers were meeting the local need in the formal survey.
- Respondents were notably younger with 36% being under 44 versus 25% on the formal survey.
- Respondents left additional comments similar to the formal survey. Provided below is a short sampling of these comments which trend towards, and address similar issues to those included in the formal survey:
  - *"I'm currently looking to move out of Columbia County because it is impossible to work from home due to horrible internet. Also, none of my home technology will work due to insufficient internet (Echo Devices, Hue Lights, Chromecast)."*

- *“I would be careful about having a government take over a service that is being provided by a business. But we do need more access to broadband in ALL areas of the county.”*
- *“The internet service is horrible in Warren with no options available to us. We need at least an option for better service that works at a responsible price.”*

## **2.12 Informal Business Survey**

As of the writing of this Report, the informal business survey has only collected 7 responses. As a result, the survey will be left open and VPS will work with the County to find better ways to promote the business survey. However, below we have provided a few pieces of information that give a sense of what businesses are experiencing in Columbia County.

- Bandwidth varied dramatically between 8mpbs to one gigabit.
- Only one business was satisfied with their current internet, the rest were not sure or worse and 6 out of 7 want to switch providers.
- Comments provided include:
  - “Asked Comcast: \$66,000 to get service run. Century Link wants a 3 year contract at \$2,400/month for fiber.”
  - “It should be cheaper, especially if you don’t have a bundle.”

### 3. Key Take-Aways from the Stakeholder Outreach and Surveys

Overall the data and information collected to date shows that some areas have adequate coverage while other areas are in desperate need of better connectivity and coverage. This includes a need for better and more middle-mile fiber infrastructure that reaches areas like Vernonia. This is true for both internet access and cellular coverage. VPS will utilize the information gathered through this phase to help determine the right solutions for Columbia County to solve the problems uncovered.

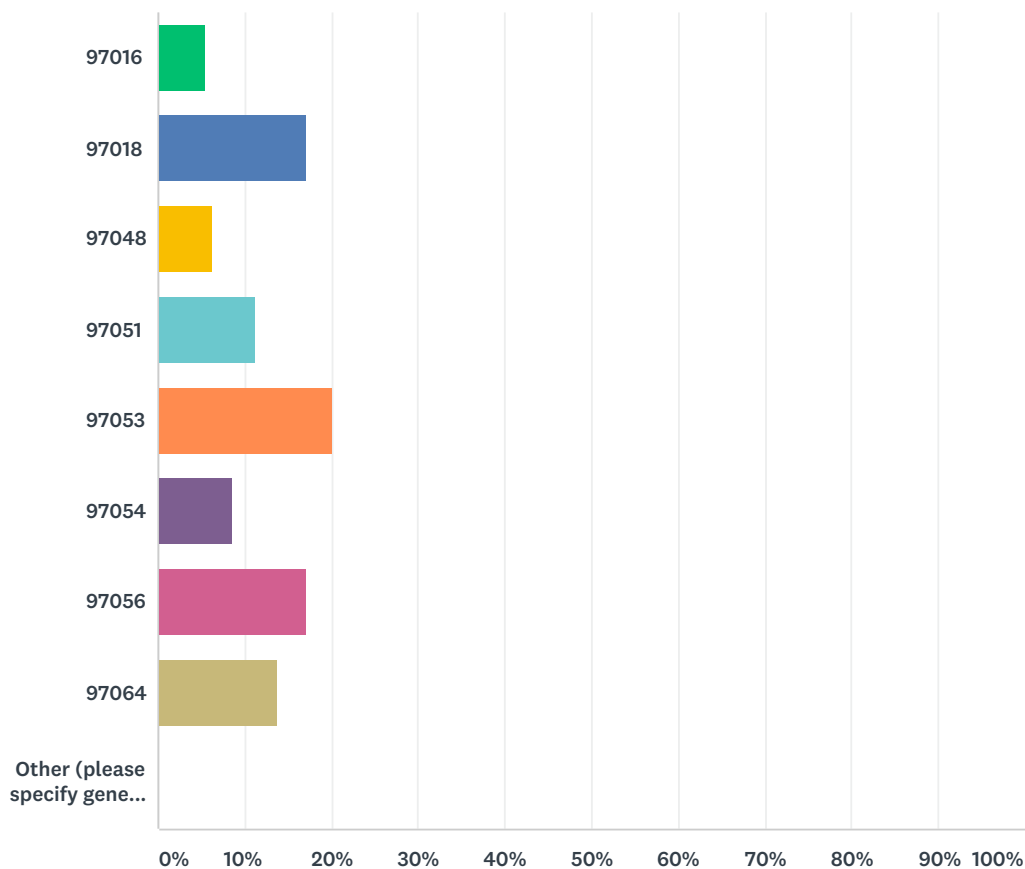
A summary of the key findings is provided below.

- There are potential viable opportunities to partner with some existing service providers to expand last-mile services to unserved and underserved areas.
- While it does not appear that any electric utility PUDs are interested in getting into the broadband business as an internet service provider, there are viable opportunities for the County to partner with the PUDs for pole access to offset deployment costs of a fiber network.
- Schools need better, more redundant connectivity with better pricing/value.
- Public Safety has serious needs including redundancy, improved cell service, connections to all facilities, towers and infrastructure. Any solution should seek to connect to all public safety facilities in the County.
- Residents are asking for better, more reliable and faster internet service.
- Based on what was reported by survey respondents, Columbia county residents are generally paying a lot of money for service that fails to meet even the federal definition of broadband. Even by rural standards, Columbia County residents are often paying too much for service. This is especially true of individuals who live anywhere outside of municipal areas.
- Approximately 38% of survey respondents are either very satisfied or satisfied with their current provider. This is well below the national average and indicates that there is room in the market place for a new residential provider with potential take rates above 35-40% which is generally the threshold required for viability for a last-mile network. A lot of unknown variables can impact take rates such as pricing, ability of subscribers to terminate their existing contracts, and existing incumbent providers suddenly offering better deals. However, particularly in the non-Comcast areas, and areas where choice is limited, a new provider could have a great deal of success.
- Columbia County residents do not mind paying hook-up fees if they are reasonably priced at or below \$100. However, at \$100, this would not generate much revenue to help offset the cost of a network build for both a private or public provider.

## **Appendix A – Raw Survey Data**

## Q1 Please select the Columbia County zip code where you reside

Answered: 482 Skipped: 1

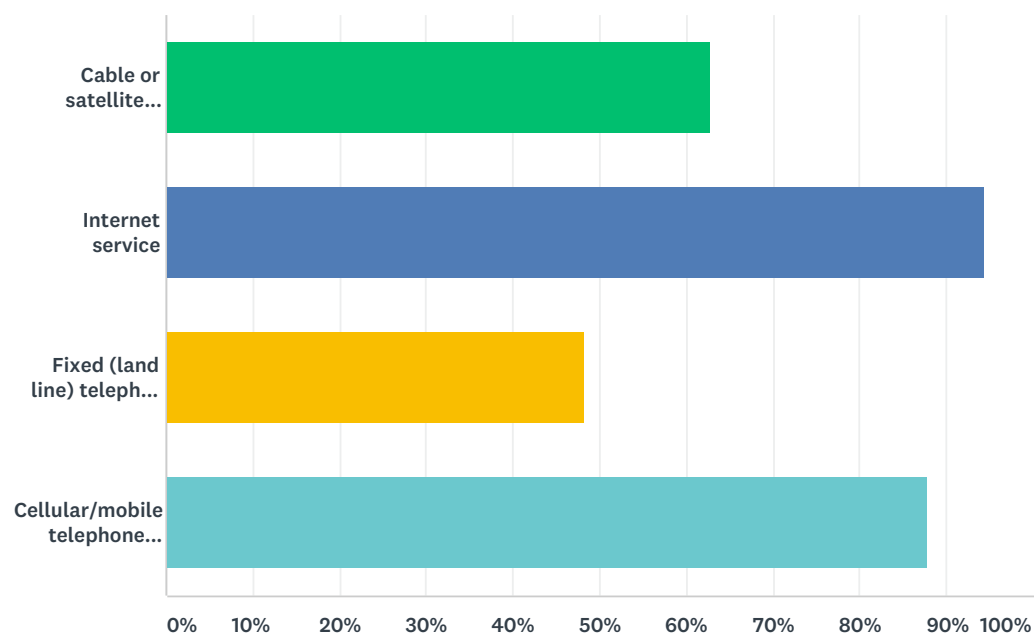


ANSWER CHOICES		RESPONSES	
97016		5.39%	26
97018		17.22%	83
97048		6.22%	30
97051		11.20%	54
97053		20.12%	97
97054		8.51%	41
97056		17.22%	83
97064		13.90%	67
Other (please specify general area)		0.21%	1
TOTAL			482

#	OTHER (PLEASE SPECIFY GENERAL AREA)	DATE
1	97018	10/14/2018 4:26 PM

Q2 Which of the following services does your household purchase?  
(check all that apply)

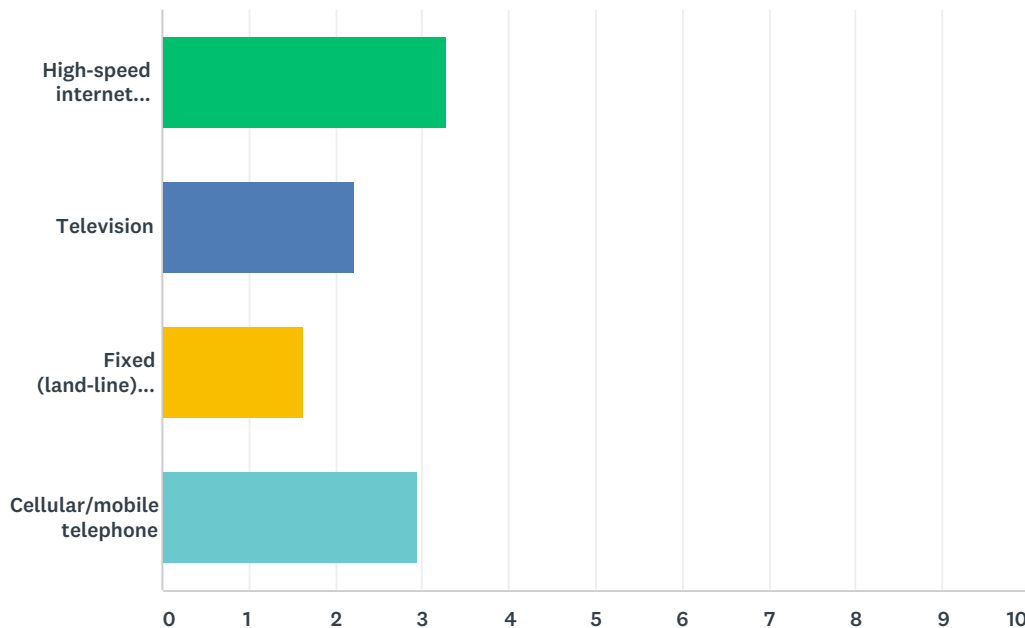
Answered: 483    Skipped: 0



ANSWER CHOICES	RESPONSES	
Cable or satellite television	62.73%	303
Internet service	94.41%	456
Fixed (land line) telephone service	48.24%	233
Cellular/mobile telephone service	87.78%	424
Total Respondents: 483		

### Q3 Please rank the following services by order of importance to your household, with 1 being the most important and 4 being the least important.

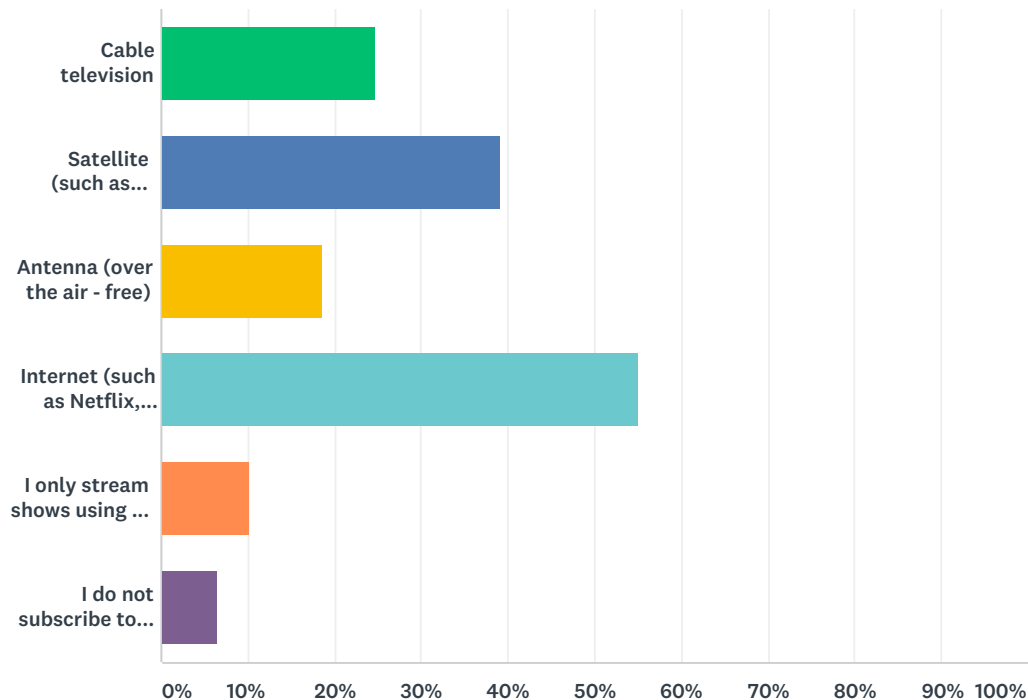
Answered: 483 Skipped: 0



	1	2	3	4	TOTAL	SCORE
High-speed internet connection	48.91% 225	35.65% 164	10.65% 49	4.78% 22	460	3.29
Television	9.91% 45	20.04% 91	51.10% 232	18.94% 86	454	2.21
Fixed (land-line) telephone	9.76% 44	7.76% 35	18.40% 83	64.08% 289	451	1.63
Cellular/mobile telephone	33.97% 160	37.58% 177	17.62% 83	10.83% 51	471	2.95

## Q4 What kind of television service does your household subscribe to? (check all that apply)

Answered: 483 Skipped: 0

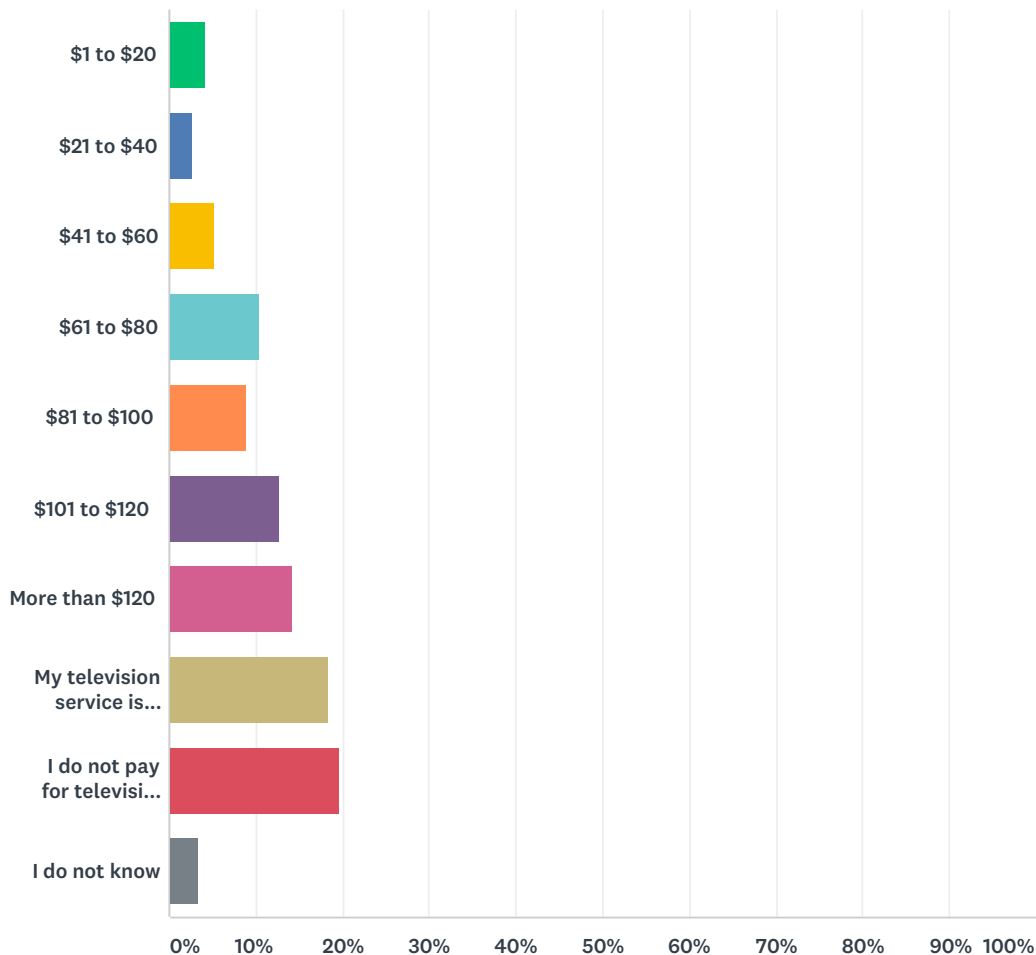


ANSWER CHOICES	RESPONSES	
Cable television	24.64%	119
Satellite (such as DirecTV)	39.13%	189
Antenna (over the air - free)	18.63%	90
Internet (such as Netflix, Hulu, Vudu)	55.07%	266
I only stream shows using the internet and I do not subscribe to another television service	10.35%	50
I do not subscribe to any television service	6.42%	31
Total Respondents: 483		



## Q5 Approximately how much does your household currently pay per month for cable or satellite television service (not including internet or phone)?

Answered: 446 Skipped: 37

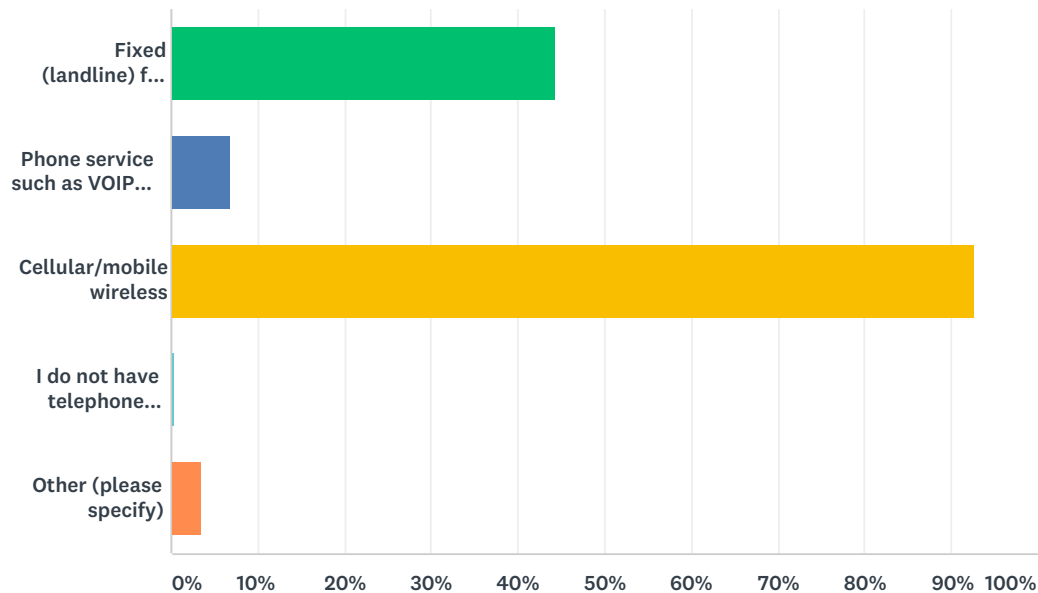


ANSWER CHOICES	RESPONSES	
\$1 to \$20	4.26%	19
\$21 to \$40	2.69%	12
\$41 to \$60	5.16%	23
\$61 to \$80	10.54%	47
\$81 to \$100	8.97%	40
\$101 to \$120	12.78%	57
More than \$120	14.13%	63
My television service is bundled with internet or phone	18.39%	82
I do not pay for television - I get it over an antenna	19.73%	88
I do not know	3.36%	15

TOTAL	446
-------	-----

## Q6 Please indicate which type(s) of telephone services your household purchases: (check all that apply)

Answered: 482 Skipped: 1



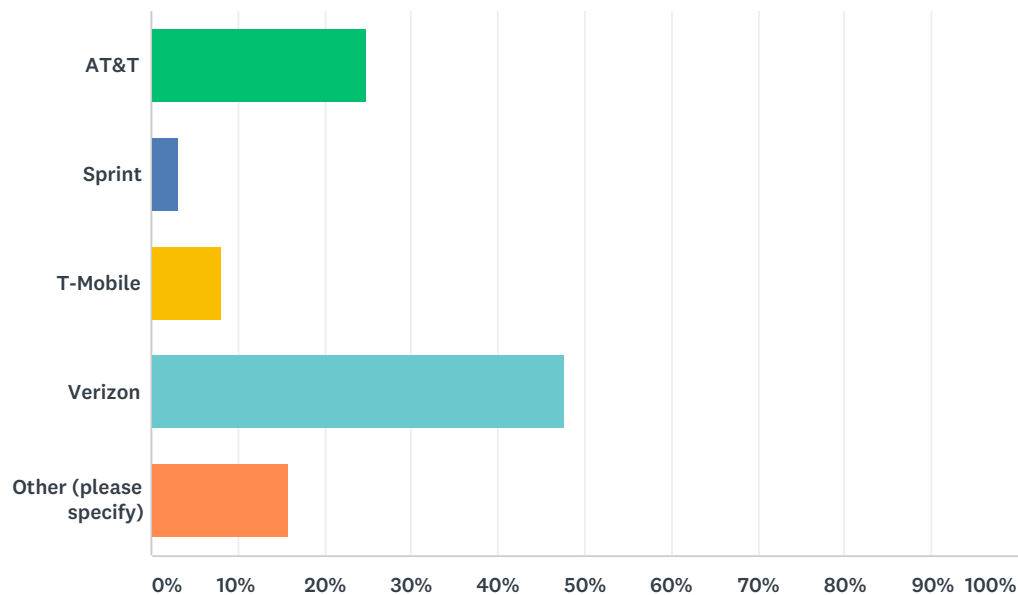
ANSWER CHOICES	RESPONSES	
Fixed (landline) from my telephone provider	44.40%	214
Phone service such as VOIP directly from my cable provider	6.85%	33
Cellular/mobile wireless	92.74%	447
I do not have telephone service	0.41%	2
Other (please specify)	3.53%	17
Total Respondents: 482		

#	OTHER (PLEASE SPECIFY)	DATE
1	had to have land line to get century links crap internet service	11/12/2018 2:42 PM
2	landline bundled with cable and internet	11/9/2018 12:43 PM
3	Pay-as-you-go Cell Phone (TracFone)	11/1/2018 7:07 PM
4	Magic Jack (internet ) free local and long dist, US,CAN,MEX	10/29/2018 4:28 PM
5	Cellular provided by cable company	10/28/2018 1:21 PM
6	tin can and string	10/25/2018 6:46 AM
7	DSL (as backup)	10/21/2018 1:06 PM
8	With fiber optic internet	10/20/2018 8:02 PM
9	VoIP from another carrier via internet	10/20/2018 7:20 PM
10	Phone service bundled with internet from internet provider	10/17/2018 12:31 PM
11	Dsl requires land line	10/15/2018 7:32 PM
12	VOIP from another provider not the cable provider	10/14/2018 11:08 AM

13	Ooma	10/13/2018 9:43 PM
14	Skype - I live outside of cell phone range.	10/13/2018 3:11 AM
15	Satellite from HughesNet	10/12/2018 10:21 PM
16	VOIP (Ooma)	10/12/2018 9:52 PM
17	VOIP from a 3rd party provider (Nettalk)	10/12/2018 4:14 PM

## Q7 If you subscribe to a cellular/mobile wireless service - who is your carrier?

Answered: 475 Skipped: 8



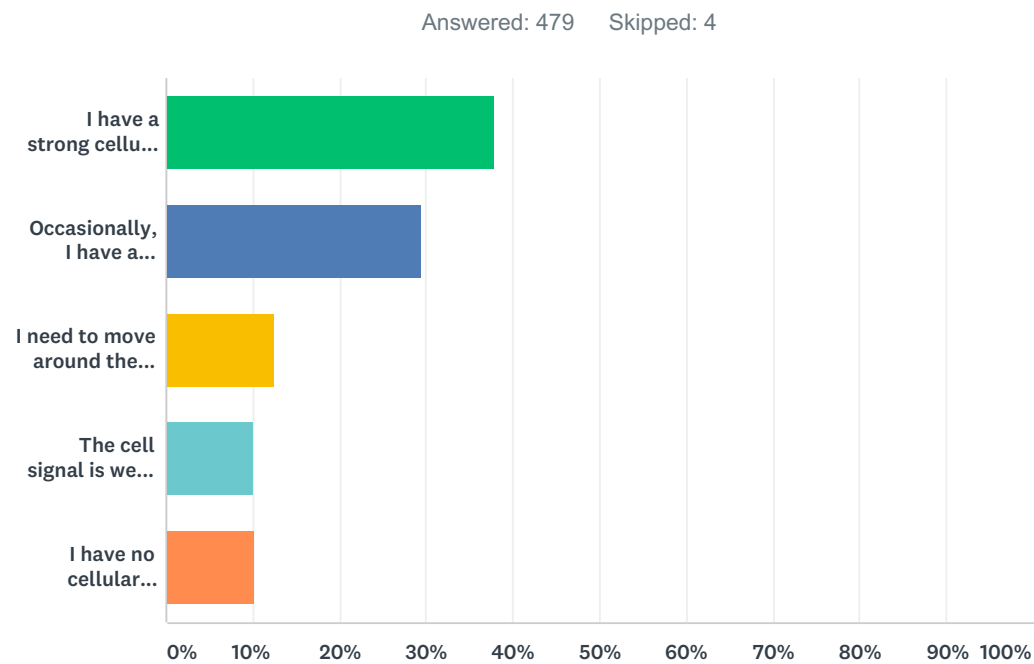
ANSWER CHOICES	RESPONSES	
AT&T	24.84%	118
Sprint	3.16%	15
T-Mobile	8.21%	39
Verizon	47.79%	227
Other (please specify)	16.00%	76
TOTAL		475

#	OTHER (PLEASE SPECIFY)	DATE
1	none	11/10/2018 12:12 PM
2	straight talk	11/9/2018 12:43 PM
3	Google FI	11/5/2018 11:30 AM
4	No personal cellular service	11/2/2018 9:00 AM
5	Cricket	11/1/2018 8:44 PM
6	No subscription	11/1/2018 7:07 PM
7	Consumer cellular	10/31/2018 12:37 PM
8	straight talk	10/30/2018 10:31 AM
9	Cellular One	10/29/2018 7:57 PM
10	Virgin	10/29/2018 3:27 PM
11	Xfinity	10/28/2018 1:21 PM
12	Consumer Cellular	10/28/2018 10:45 AM

13	cricket	10/28/2018 9:03 AM
14	AT&T, Republic Wireless and Metro PCS	10/25/2018 5:14 PM
15	China	10/25/2018 6:46 AM
16	Boost	10/24/2018 9:44 PM
17	straight talk	10/24/2018 8:17 PM
18	Consumer Cellular	10/24/2018 3:07 PM
19	Republic wireless	10/24/2018 8:42 AM
20	Cricket	10/23/2018 7:57 PM
21	spirit	10/23/2018 7:49 PM
22	n/a	10/23/2018 4:36 PM
23	consumer cellular	10/23/2018 9:51 AM
24	Google Fi	10/23/2018 9:11 AM
25	consumer cellular	10/22/2018 10:53 PM
26	Consumer cellular	10/22/2018 7:57 PM
27	consumer cellular	10/22/2018 5:04 PM
28	Straight Talk that works on Verizons network	10/22/2018 12:58 PM
29	i do not	10/22/2018 12:46 PM
30	virgin mobile	10/22/2018 1:01 AM
31	Tracfone	10/21/2018 10:32 PM
32	Consumer Cellular	10/21/2018 9:00 PM
33	Don't subscribe provided through family business	10/21/2018 2:42 PM
34	Consumer Cellular	10/21/2018 12:39 PM
35	Boost Mobile and Republic wireless	10/20/2018 7:39 PM
36	Metro PCS	10/20/2018 6:39 PM
37	Metro pcs	10/20/2018 5:42 PM
38	We are on our Son's plan.	10/20/2018 5:27 PM
39	Tracfone	10/20/2018 4:54 PM
40	AT&T and Verizon	10/19/2018 3:01 PM
41	Frontier	10/19/2018 11:00 AM
42	Boost	10/18/2018 9:56 AM
43	TracFone	10/18/2018 9:35 AM
44	We use both AT&T and Verizon	10/17/2018 4:12 PM
45	Ting	10/17/2018 1:35 PM
46	Xfinity mobile	10/17/2018 9:55 AM
47	Boost & TracPhone	10/16/2018 3:40 PM
48	no cell	10/16/2018 3:16 PM
49	tracfone	10/16/2018 10:24 AM
50	Consumer Cellular	10/16/2018 9:01 AM
51	Consumer celluar	10/15/2018 8:03 PM
52	none	10/15/2018 1:09 PM
53	consumer cellular	10/15/2018 11:55 AM

54	tracfone	10/14/2018 8:45 PM
55	Straight Talk	10/14/2018 6:05 PM
56	Consumer Cellular	10/14/2018 3:53 PM
57	Xfinity	10/14/2018 1:35 PM
58	Tracfone	10/14/2018 11:08 AM
59	Xfinity/Comcast	10/14/2018 2:28 AM
60	Consumer Cellular	10/13/2018 5:31 PM
61	trac phone (verizon?)	10/13/2018 4:39 PM
62	Tracfone	10/13/2018 4:24 PM
63	consumer cellular	10/13/2018 4:05 PM
64	Net10	10/13/2018 3:08 PM
65	Straight talk	10/13/2018 12:37 PM
66	Tracfone	10/13/2018 10:57 AM
67	Consumer Cellular	10/13/2018 10:30 AM
68	Consumer Cellular	10/12/2018 9:52 PM
69	consumer cellular	10/12/2018 9:00 PM
70	tracfone	10/12/2018 8:59 PM
71	Republic Wireless	10/12/2018 6:26 PM
72	Consumer cellular	10/12/2018 5:21 PM
73	Both AT&T and Verizon	10/12/2018 5:13 PM
74	cell service does not work at our house	10/12/2018 4:37 PM
75	Consumer Cellular	10/12/2018 4:29 PM
76	great call	10/12/2018 3:46 PM

Q8 If you subscribe to a cellular/mobile wireless service - how would you describe the cellular signal at your house?

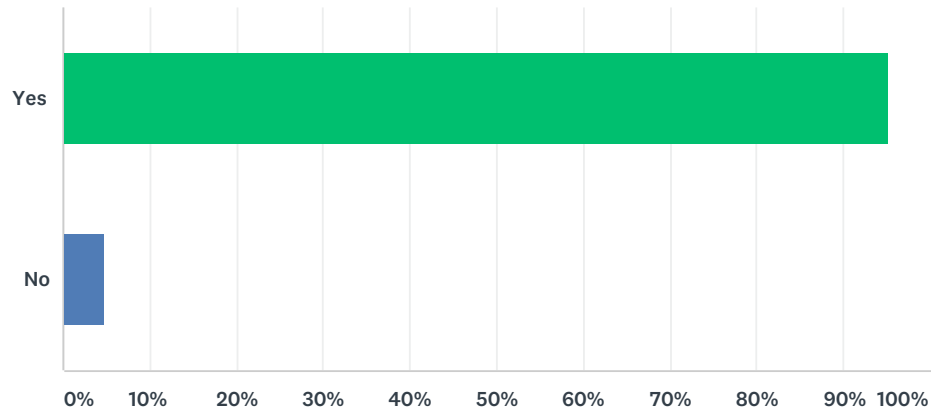


ANSWER CHOICES		RESPONSES	
I have a strong cellular signal at my house and can always make/receive phone calls without an issue.		37.79%	181
Occasionally, I have a problem with my cell signal, but most of the time it is strong enough for me to make/receive calls without an issue.		29.44%	141
I need to move around the house in order to find the best place to make/receive a call.		12.53%	60
The cell signal is weak at my house and it's very difficult to use my cell phone at home.		10.02%	48
I have no cellular service at my house.		10.23%	49
TOTAL			479



Q9 Do you purchase home internet service?

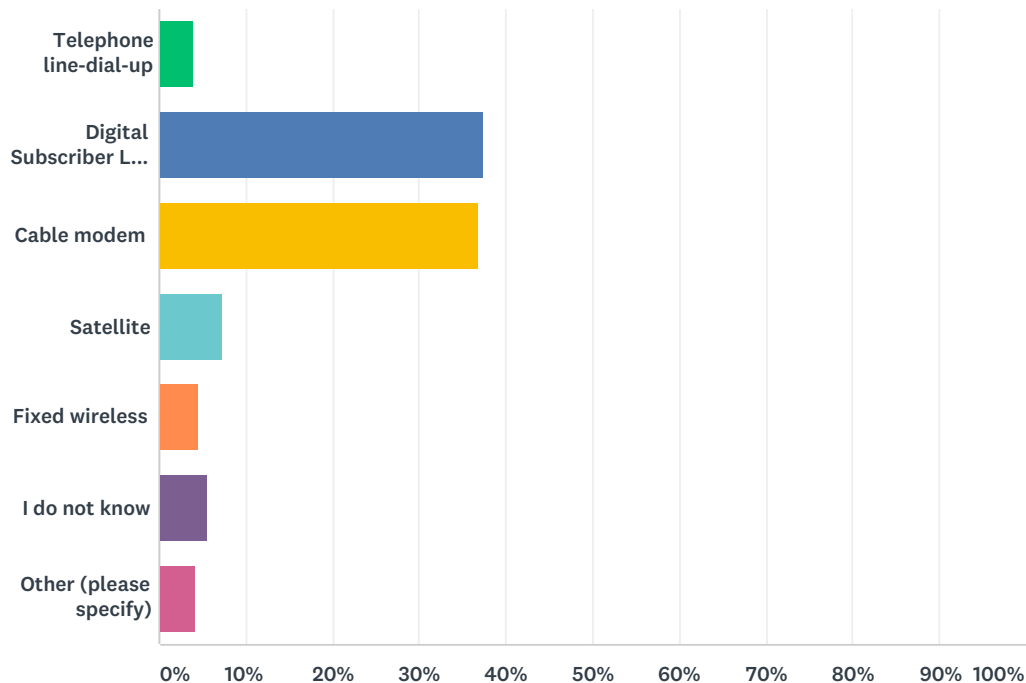
Answered: 478    Skipped: 5



ANSWER CHOICES	RESPONSES	
Yes	95.19%	455
No	4.81%	23
TOTAL		478

## Q10 You indicated your household purchases internet service. What kind of connection do you have?

Answered: 454 Skipped: 29



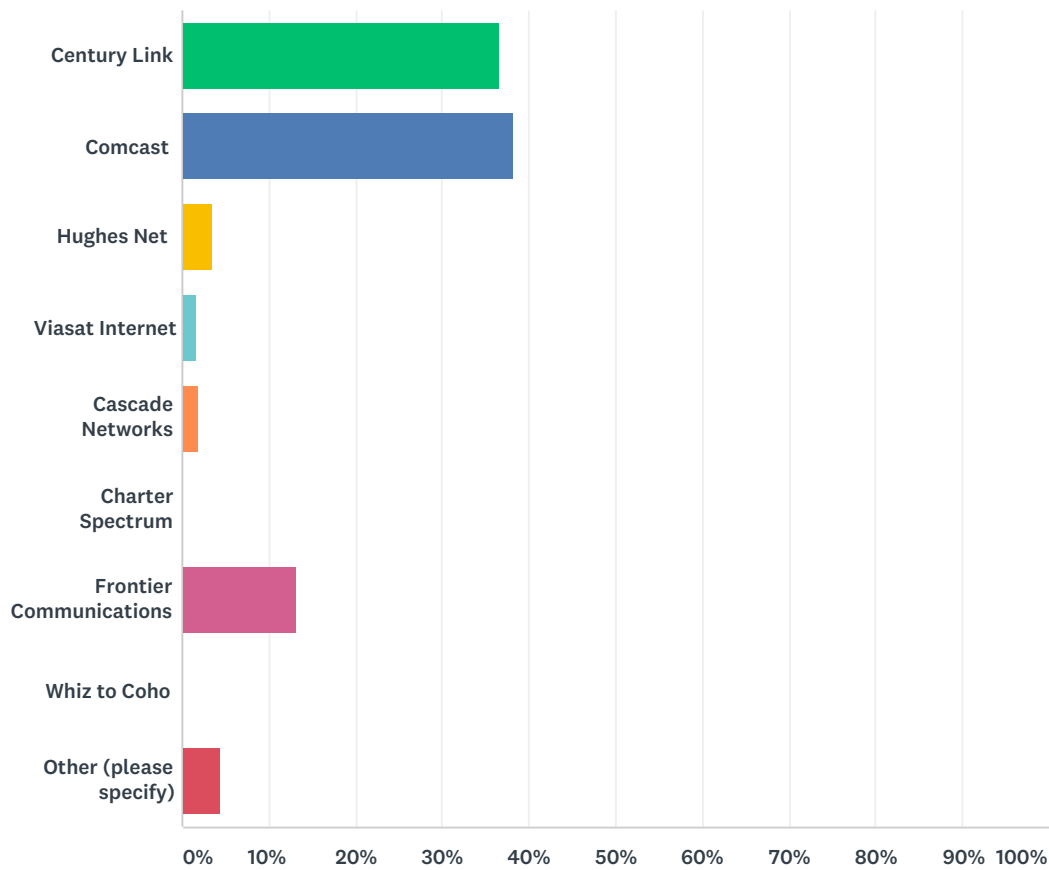
ANSWER CHOICES	RESPONSES	
Telephone line-dial-up	3.96%	18
Digital Subscriber Line (DSL)	37.44%	170
Cable modem	36.78%	167
Satellite	7.27%	33
Fixed wireless	4.63%	21
I do not know	5.73%	26
Other (please specify)	4.19%	19
<b>TOTAL</b>		<b>454</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	broadband	11/10/2018 12:16 PM
2	broadband	11/2/2018 12:39 PM
3	Broadband	11/1/2018 8:44 PM
4	cellular modem	11/1/2018 9:21 AM
5	Century Link	10/28/2018 1:24 PM
6	Verizon HotSpot	10/26/2018 10:18 AM
7	Frontier service, modem through phone jack	10/23/2018 8:25 AM
8	fiber optic	10/22/2018 7:36 PM

9	Fiber optic	10/20/2018 8:08 PM
10	Fiber optic	10/18/2018 9:59 AM
11	Verizon Hotspot	10/17/2018 1:17 PM
12	either DSL or cable modem not super sure which one though	10/16/2018 11:17 AM
13	Comcast Broadband with wireless	10/15/2018 3:54 PM
14	phone line	10/14/2018 10:03 PM
15	T1	10/14/2018 6:08 PM
16	Router from cable modem makes it wireless	10/14/2018 9:59 AM
17	Whatever comcast	10/13/2018 4:05 PM
18	Cellular wireless	10/12/2018 8:12 PM
19	Microwave	10/12/2018 8:06 PM

## Q11 Who is your current primary home internet service provider?

Answered: 453 Skipped: 30



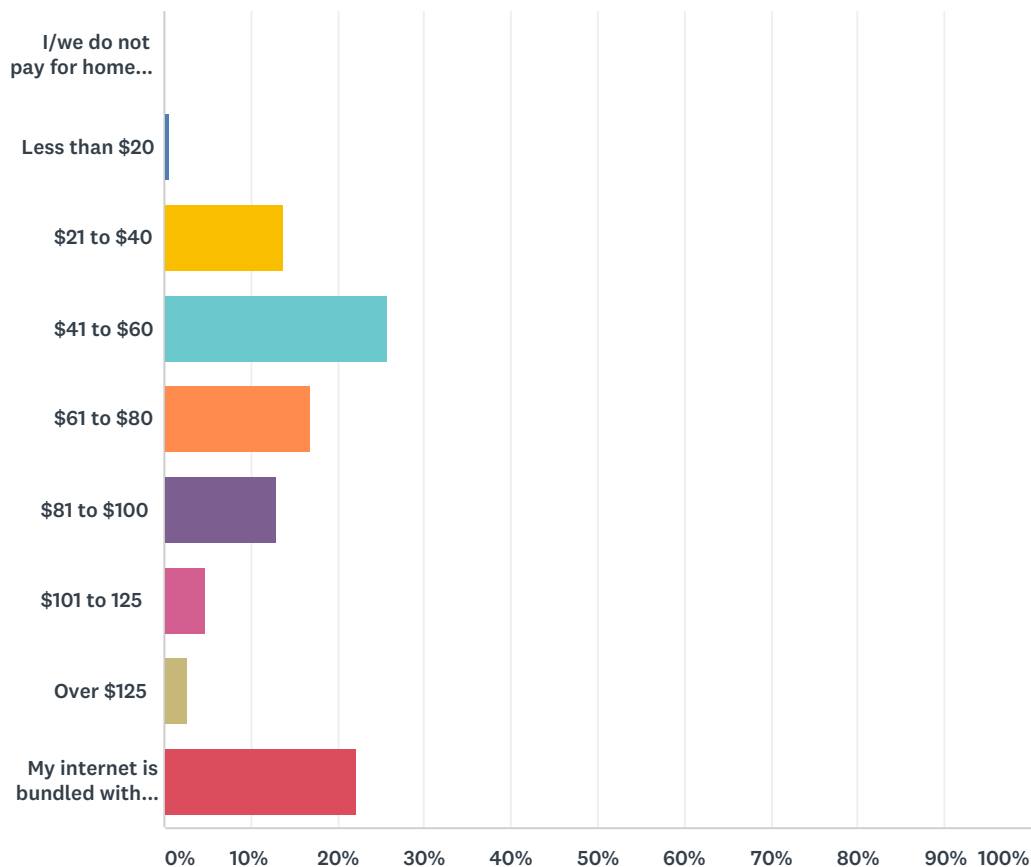
ANSWER CHOICES		RESPONSES	
Century Link		36.64%	166
Comcast		38.19%	173
Hughes Net		3.53%	16
Viasat Internet		1.77%	8
Cascade Networks		1.99%	9
Charter Spectrum		0.22%	1
Frontier Communications		13.25%	60
Whiz to Coho		0.00%	0
Other (please specify)		4.42%	20
TOTAL			453

#	OTHER (PLEASE SPECIFY)	DATE
1	century link because its all we can get in my area	11/12/2018 2:45 PM
2	Dish	11/9/2018 4:40 PM

3	earthlink.net thru Frontier	11/8/2018 5:09 PM
4	ATT	11/1/2018 9:21 AM
5	bundled with dish network	10/26/2018 1:49 PM
6	Verizon - see question 10	10/26/2018 10:18 AM
7	comcast	10/24/2018 5:48 PM
8	Dish	10/23/2018 4:27 PM
9	ATT	10/22/2018 11:03 AM
10	xfinity	10/20/2018 10:21 PM
11	xfinity	10/20/2018 12:05 PM
12	Verizon and it's slow	10/17/2018 1:17 PM
13	Hughes Net	10/16/2018 2:48 PM
14	Dishnet via Century Link	10/14/2018 9:32 PM
15	Dish Network Satellite Internet	10/14/2018 8:58 PM
16	Xfinity	10/13/2018 10:37 AM
17	ATT	10/12/2018 8:12 PM
18	Dish Network via Century Link's poor connections	10/12/2018 8:04 PM
19	Dish	10/12/2018 7:14 PM
20	Wilderness Wireless	10/12/2018 6:38 PM

## Q12 Approximately how much does your household currently pay per month for internet service only (not including television or phone)?

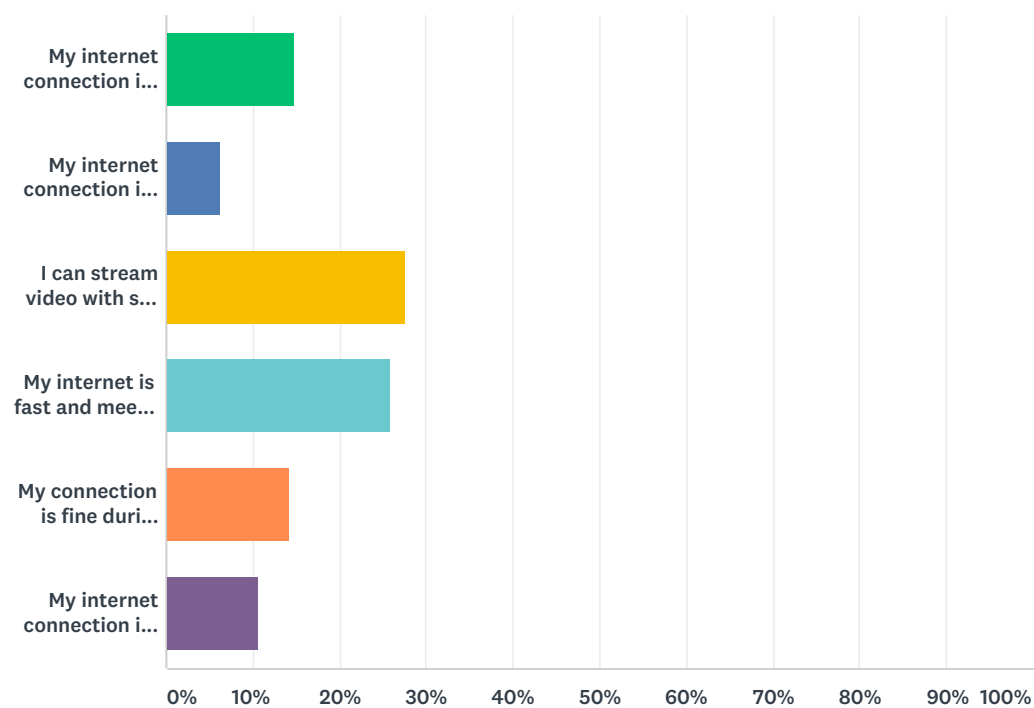
Answered: 455 Skipped: 28



ANSWER CHOICES	RESPONSES	
I/we do not pay for home internet service.	0.22%	1
Less than \$20	0.66%	3
\$21 to \$40	13.85%	63
\$41 to \$60	25.71%	117
\$61 to \$80	16.92%	77
\$81 to \$100	12.97%	59
\$101 to 125	4.84%	22
Over \$125	2.64%	12
My internet is bundled with other services and I do not know	22.20%	101
<b>TOTAL</b>		<b>455</b>

Q13 The following are statements regarding your current home internet service. Please select the statement that best describes your experience.

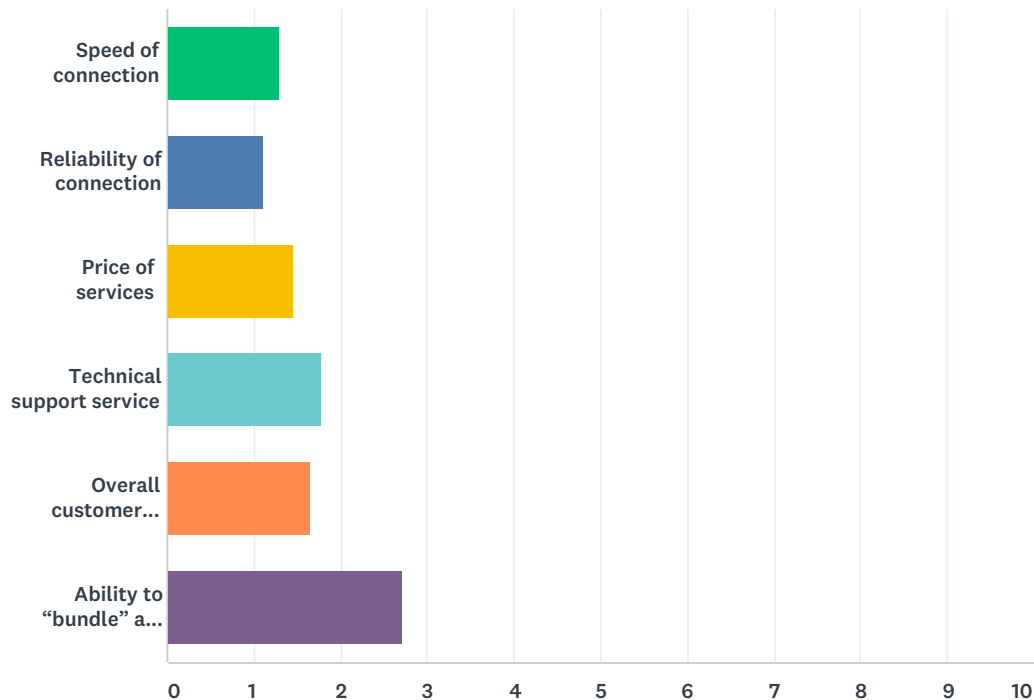
Answered: 455    Skipped: 28



ANSWER CHOICES	RESPONSES	
My internet connection is so slow it is difficult to do anything other than view web pages	14.95%	68
My internet connection is adequate, but I cannot stream video	6.37%	29
I can stream video with some delays and buffering	27.69%	126
My internet is fast and meets all of my needs, including video streaming	25.93%	118
My connection is fine during certain times of the day, slow during peak periods	14.29%	65
My internet connection is fast until there are multiple internet users streaming/doing tasks online at the same time	10.77%	49
TOTAL		455

## Q14 How important are the following aspects of home internet service to you?

Answered: 457 Skipped: 26



	VERY IMPORTANT	IMPORTANT	NEITHER IMPORTANT OR UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	TOTAL	WEIGHTED AVERAGE
Speed of connection	73.85% 336	23.52% 107	2.42% 11	0.00% 0	0.22% 1	455	1.29
Reliability of connection	90.99% 414	8.13% 37	0.66% 3	0.00% 0	0.22% 1	455	1.10
Price of services	59.11% 266	35.33% 159	4.67% 21	0.44% 2	0.44% 2	450	1.47
Technical support service	40.97% 186	41.85% 190	14.32% 65	2.42% 11	0.44% 2	454	1.77
Overall customer service	47.80% 217	40.09% 182	10.57% 48	1.10% 5	0.44% 2	454	1.65
Ability to "bundle" a package with television and phone service	16.63% 75	13.97% 63	31.04% 140	17.74% 80	20.62% 93	451	2.73

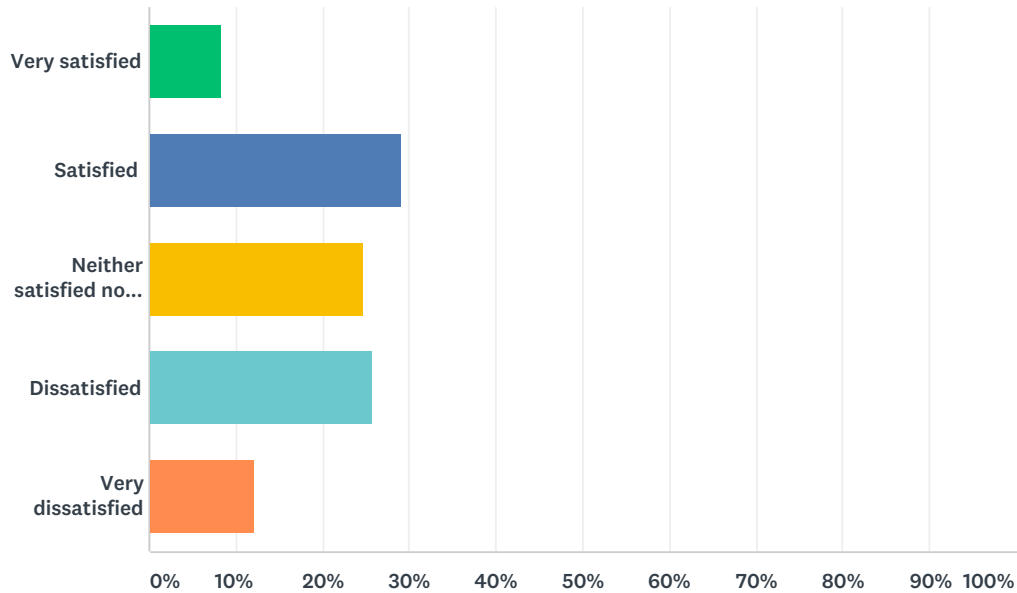
#	OTHER (PLEASE SPECIFY)	DATE
1	higher upload speeds - very important	11/10/2018 12:16 PM
2	We run out of internet - which is our biggest issue	11/1/2018 8:47 PM
3	We would just like a fast reliable internet, and get what we pay for without debating it with the carrier.	10/29/2018 4:34 PM



4	Comcast required me to bundle with landline service which I have never used.	10/28/2018 3:33 PM
5	I would gladly pay more for faster internet. I would love to see fiber optic brought into my area.	10/28/2018 3:31 PM
6	A sliding scale for low income customers would be great	10/24/2018 3:09 PM
7	It is very important that there is no interruption in service.	10/23/2018 9:32 PM
8	Consistency	10/23/2018 6:43 PM
9	Ability to have modern speeds and not ancient dial-up: VERY IMPORTANT	10/21/2018 8:37 PM
10	A fixed payment amount without increasing added charges to my account with no apparent reason is very important.	10/21/2018 8:51 AM
11	time service is restored after an outage	10/20/2018 7:36 AM
12	We have no reliable internet option and would very much love the opportunity to connect with greater consistency.	10/17/2018 8:45 PM
13	VPN capability to work from home remotely - very important!	10/17/2018 9:35 AM
14	Choice of comparable sources - no more monopolies!	10/17/2018 8:55 AM
15	more choices than we currently have	10/15/2018 11:59 AM
16	Maybe a sliding scale for low income households on a fixed income	10/14/2018 3:56 PM
17	lousy, cannot connect to Netflix/reset modem frequently	10/14/2018 2:50 PM
18	I like my cell being bundled with internet; great service and very inexpensive.	10/14/2018 1:37 PM
19	would love to have some higher speed options beside Comcast!	10/14/2018 11:12 AM
20	we need real competition, as long as there isa Monopoly for real high speed internet it will keep sucking	10/14/2018 8:58 AM
21	Too Expensive for DSL - no access to Fiber -Fiber is 1 mile away	10/13/2018 1:53 PM
22	Might be nice if cheap enough.	10/13/2018 10:51 AM
23	onlygood for email and some web surfing	10/13/2018 10:24 AM
24	It is very frustrating to have such slow internet service at home. I often go to the Scappoose library if I have to download a file. This area needs better internet connection service.	10/12/2018 8:04 PM
25	It is important to us to be able to purchase reasonably priced internet access WITHOUT having to bundle with other services (phone, TV, etc.)	10/12/2018 6:50 PM
26	to many adds	10/12/2018 2:57 PM

Q15 How satisfied are you with the overall service and value you receive from your current internet provider?

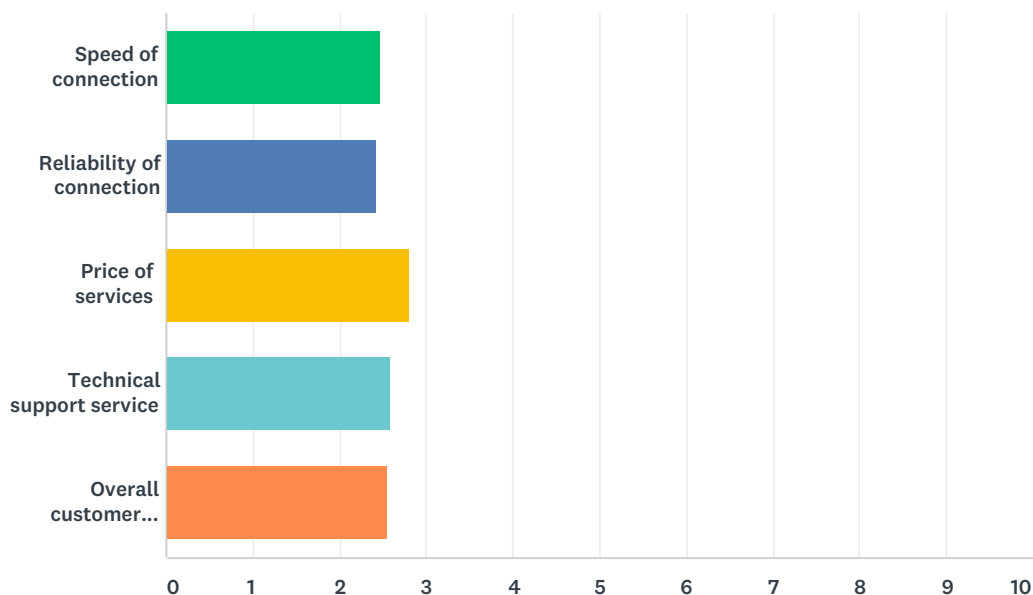
Answered: 456    Skipped: 27



ANSWER CHOICES		RESPONSES	
Very satisfied		8.33%	38
Satisfied		29.17%	133
Neither satisfied nor dissatisfied		24.78%	113
Dissatisfied		25.66%	117
Very dissatisfied		12.06%	55
TOTAL			456

## Q16 How satisfied are you with the following features of your current home internet access?

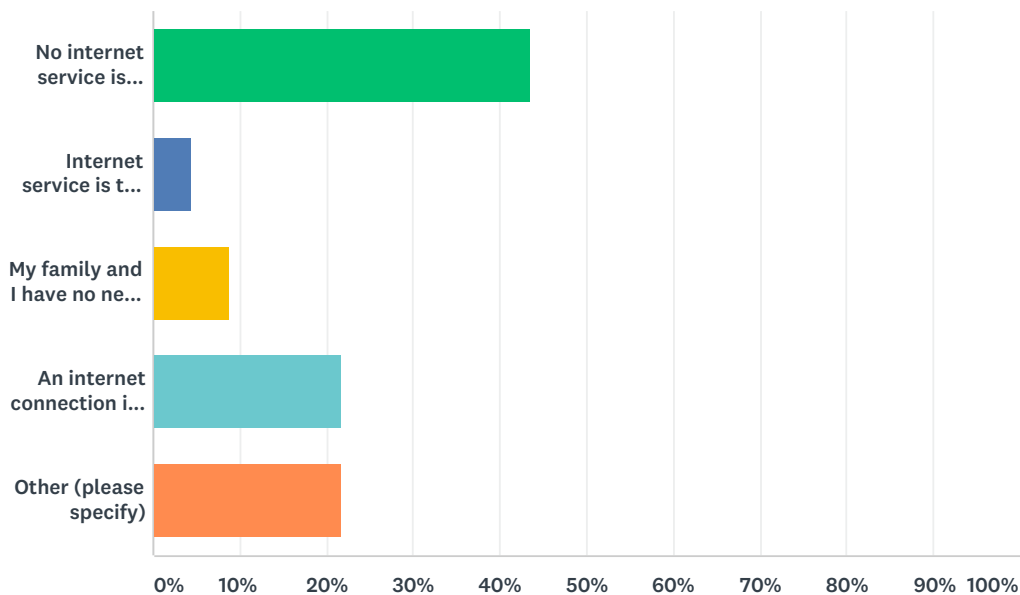
Answered: 457 Skipped: 26



	VERY SATISFIED	SATISFIED	NEITHER SATISFIED OR UNSATISFIED	UNSATISFIED	VERY UNSATISFIED	TOTAL	WEIGHTED AVERAGE
Speed of connection	16.48% 75	34.95% 159	13.63% 62	20.88% 95	14.07% 64	455	2.46
Reliability of connection	16.56% 75	36.64% 166	17.22% 78	18.10% 82	11.48% 52	453	2.42
Price of services	5.07% 23	22.69% 103	30.62% 139	28.41% 129	13.22% 60	454	2.80
Technical support service	7.47% 34	34.07% 155	38.68% 176	10.99% 50	8.79% 40	455	2.60
Overall customer service	8.79% 40	36.48% 166	32.53% 148	12.53% 57	9.67% 44	455	2.56

## Q17 You indicated that your household does not currently purchase internet services. Please tell us why:

Answered: 23 Skipped: 460

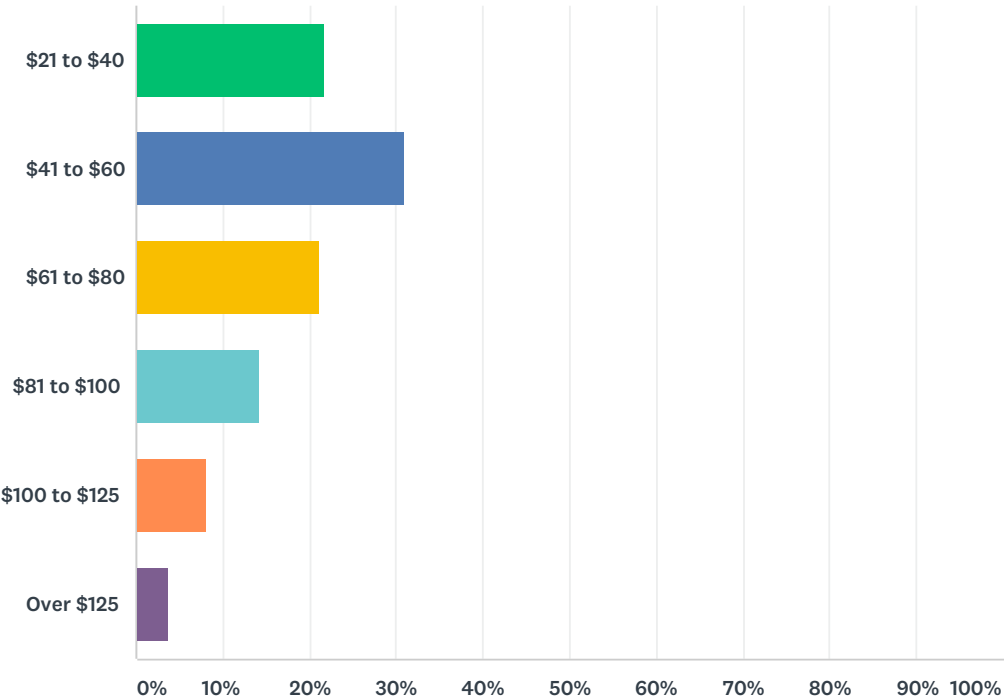


ANSWER CHOICES	RESPONSES	
No internet service is available at our location	43.48%	10
Internet service is too slow to purchase	4.35%	1
My family and I have no need for the internet	8.70%	2
An internet connection is too expensive	21.74%	5
Other (please specify)	21.74%	5
TOTAL		23

#	OTHER (PLEASE SPECIFY)	DATE
1	Mobile Hotspot provided by T-Mobile thru TABLET	11/13/2018 2:24 AM
2	I live at an Assisted Living Facility. My facility provides it free of charge.	10/30/2018 12:09 AM
3	The internet is soooo yesterday	10/25/2018 6:47 AM
4	Business class internet services from Comcast	10/20/2018 7:24 PM
5	Satellite available but it cost too much for quality	10/14/2018 4:08 PM

Q18 If a new provider offered a reliable, robust, high-speed gigabit internet connection, what is the most you would pay monthly for that service?

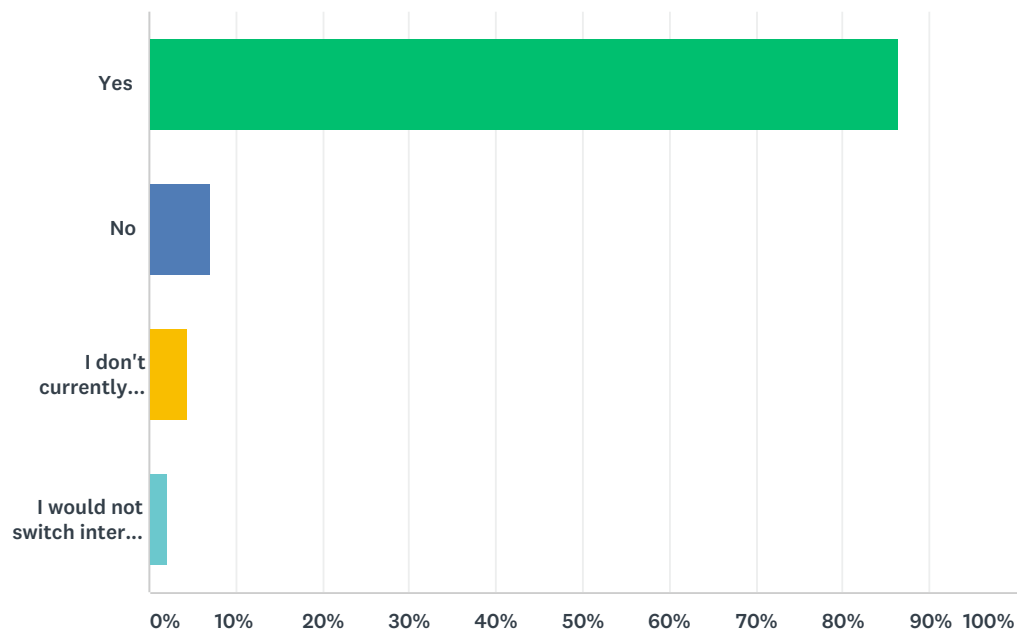
Answered: 473    Skipped: 10



ANSWER CHOICES	RESPONSES	
\$21 to \$40	21.78%	103
\$41 to \$60	30.87%	146
\$61 to \$80	21.14%	100
\$81 to \$100	14.16%	67
\$100 to \$125	8.25%	39
Over \$125	3.81%	18
TOTAL		473

Q19 If a new provider offered a gigabit high-speed internet connection, at the price you selected in the previous question, would you switch providers?

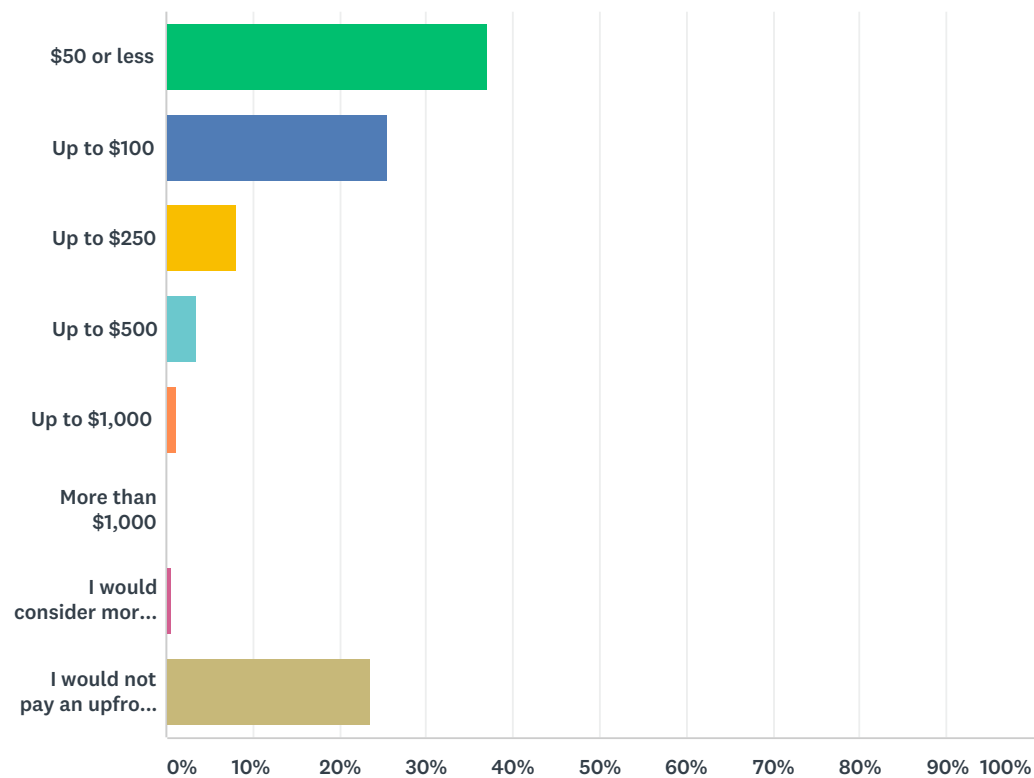
Answered: 466    Skipped: 17



ANSWER CHOICES	RESPONSES	
Yes	86.48%	403
No	7.08%	33
I don't currently purchase internet, but I would subscribe to a new provider	4.29%	20
I would not switch internet providers no matter what the price	2.15%	10
TOTAL		466

Q20 If a one-time hookup/connection fee was required by a new high-speed internet provider in order to get service to your home - how much would you be willing to pay for that connection?

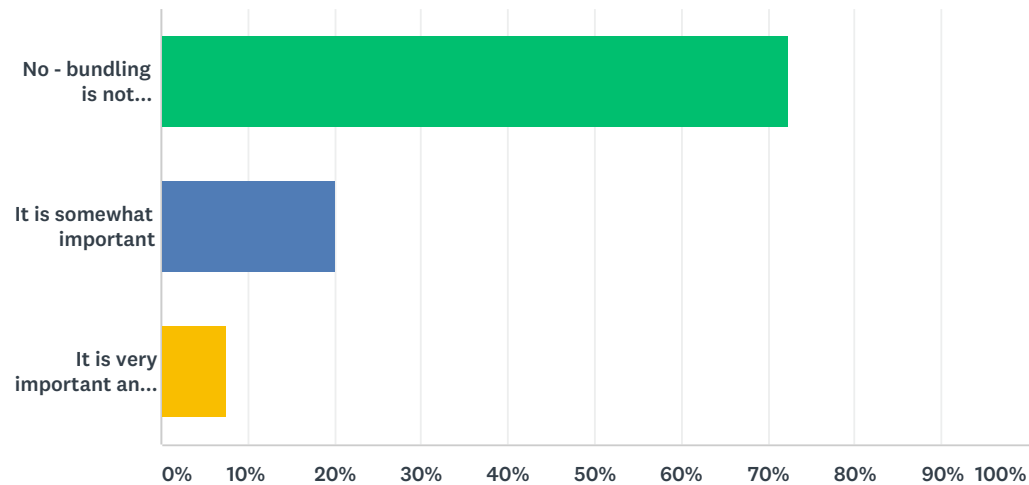
Answered: 472    Skipped: 11



ANSWER CHOICES	RESPONSES	
\$50 or less	37.08%	175
Up to \$100	25.42%	120
Up to \$250	8.26%	39
Up to \$500	3.60%	17
Up to \$1,000	1.27%	6
More than \$1,000	0.00%	0
I would consider more than \$1000 if it could be paid off over time.	0.64%	3
I would not pay an upfront hook-up fee	23.73%	112
TOTAL		472

Q21 Is it important for you to receive television and internet services from the same provider?

Answered: 474    Skipped: 9

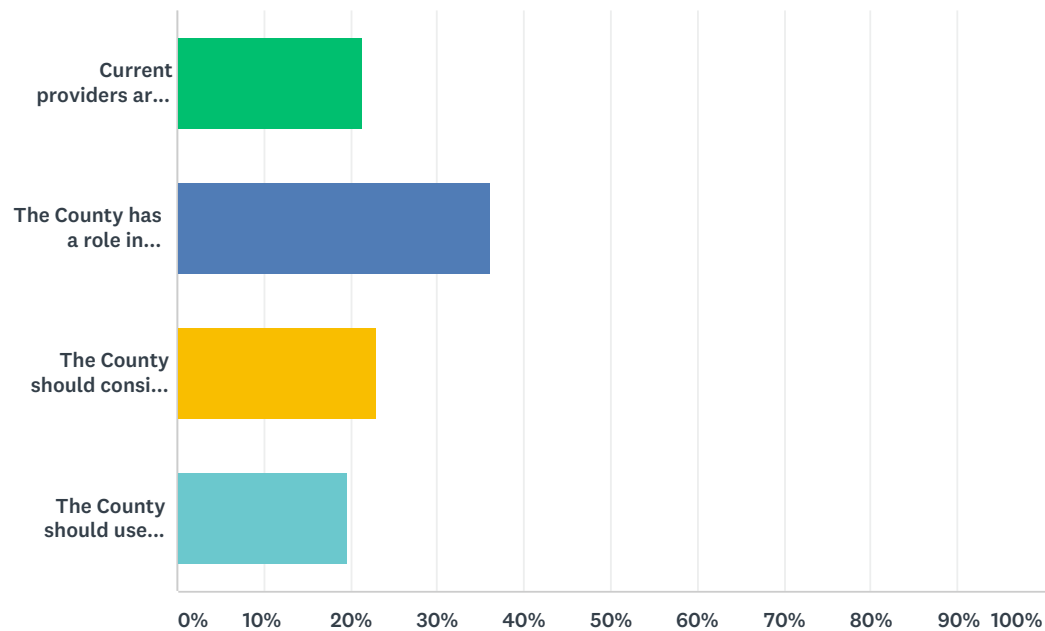


ANSWER CHOICES	RESPONSES	
No - bundling is not important to me	72.36%	343
It is somewhat important	20.04%	95
It is very important and I want both services from the same provider	7.59%	36
TOTAL		474



Q22 Which below statement do you most agree with?

Answered: 470    Skipped: 13



ANSWER CHOICES	RESPONSES	
Current providers are meeting the local need for broadband and there isn't a need for the County to do anything.	21.28%	100
The County has a role in improving broadband services but I am not sure what the County should do.	36.17%	170
The County should consider using public funds to finance a network of some kind if current providers are not able to improve broadband services in Columbia County.	22.98%	108
The County should use public funds to finance and build a County-owned broadband network to serve residents, businesses and government facilities.	19.57%	92
TOTAL		470

## Q23 Please provide any additional comments you may have about broadband in Columbia County.

Answered: 221 Skipped: 262

#	RESPONSES	DATE
1	cost is becoming prohibitive!	11/13/2018 9:32 PM
2	We need better internet, especially in the rural areas	11/12/2018 1:38 AM
3	I don't want the County to use public funds for broadband services.	11/8/2018 3:46 PM
4	Don't waste our tax money on providing internet service to unemployed resource suckers, or low wage earners. I'm tired of supporting people that will not suport themselves.	11/8/2018 2:26 PM
5	Some issues with TV reception occasionally ???	11/5/2018 1:09 PM
6	Frontier is the only provider in Vernonia and it is like being held hostage. They are inept at all levels and the only provider in town. It is simply criminal with what they get away with. If they had a competitor they would likely be out of business.	11/2/2018 8:51 PM
7	Frontier is horrible!	11/2/2018 12:41 PM
8	Some of the answers to the questions do not accurately reflect my opinion because there were limited choices to choose from.	11/1/2018 8:50 PM
9	We need some kind of service in Deer Island that is better than Hughesnet, we would definitely consider ANY other offers which are not satellite based	11/1/2018 8:49 PM
10	Thank God for the Public Library or I'd never be able to answer these survey questions! Internet service is something I wish I could afford but as a retiree on a very limited income it's simply a luxury I cannot, sadly, afford.	11/1/2018 7:10 PM
11	Poor Quality for Rural Families on older properties	11/1/2018 9:23 AM
12	Of all things, I don't think the county should spend money on internet. Let's stick to the basics and adequately fund law enforcement first!	10/31/2018 11:42 PM
13	Good Luck! I would love it	10/31/2018 5:43 PM
14	We NEED reliable, affordable, fast internet... Lets step in to this century Columbia County	10/31/2018 1:11 PM
15	County should stay out of broad band business. We don't need more taxes and what we do pay shouldn't go to this!!	10/31/2018 12:41 PM
16	We do not want 5 gs at any price !	10/31/2018 9:26 AM
17	Please don't leave Vernonia out	10/30/2018 1:59 PM
18	Have tried satellite internet a couple of times and it is terrible. Would happily pay one time installation fee for broadband	10/30/2018 8:47 AM
19	I do not know if the assisted living facility would agree with my responses.	10/30/2018 12:13 AM
20	The phone lines from Centurylink or horrid!	10/29/2018 8:53 PM
21	I'm really tired of paying for "high speed", but it's slower than molasses	10/29/2018 5:16 PM
22	We understand that financial times are always with all of us this day and age. Maybe a collaborative effort with the provider and the county could be discussed? We live in Warren and even when there is faster service available and we are paying for that faster speed, I have to call Centurylink and debate with them. One time they said their own serviceman was lying to us that it was available at our house and even showed us when he was there, but couldn't leave it switched on. When I called them they said he was wrong, latter they called me and said it was a wrongful entry in their database and gave me the higher speed, which still very inadequate. I really hope something can be done. Thank you	10/29/2018 4:45 PM
23	need to be in the real world of internet!	10/29/2018 4:03 PM

24	I used to have Comcast, which was great but crazy expensive.	10/29/2018 3:29 PM
25	It is limited and costs are sky high	10/29/2018 9:18 AM
26	public money should not be used to improve a luxury item.	10/29/2018 6:37 AM
27	Just too slow and no cell phone service available	10/28/2018 7:18 PM
28	With regard to landline phones one has to pay long distance fees & dial 1 first to use to Beaverton & Portland because the county didn't do something I'm told & this should change also.	10/28/2018 5:50 PM
29	I do not want additional taxes.	10/28/2018 3:37 PM
30	Like I said before I love to see our internet services improved by whatever means necessary.	10/28/2018 3:36 PM
31	I am not a heavy user and I don't stream video but I do believe paying \$200 a month for tv and internet is too much	10/28/2018 3:35 PM
32	County should advocate for additional providers and lower costs but not spend public funds implimenting a service	10/28/2018 10:48 AM
33	I beleive current Columbia County internet customers who pay the least monthly costs, get their speed slowed or temporarily cut off when other customers who pay more "stampede" the pipe with demand. This is how I would describe our service, "bottom of the barrel".	10/27/2018 8:23 PM
34	It would be nice to have other options for internet service. Comcast has a monopoly in our county. But do not want to have taxes increased to pay for a service thru the county.	10/26/2018 4:24 PM
35	Working from home is not efficient due to speed	10/26/2018 2:06 PM
36	Century link is a horrible provider and have had nothing but issues with them. Unfortunately it's the only option for the homes in my area and they refuse to make the necessary improvements to our service	10/26/2018 12:10 PM
37	The county SHOULD NOT get into providing broadband network. They don't have the bandwidth to keep it current. The county may monitor the selection of a new provider but nothing more.	10/26/2018 11:42 AM
38	Do something!!!! Bring Xfinity to Warren, Or	10/26/2018 10:59 AM
39	Internet (actually, lack of) effects my property value. My children do their homework at Starbucks. This Verizon HotSpot is our only option, and its horrible.	10/26/2018 10:22 AM
40	It is not the countys problem to get me service other than police fire	10/25/2018 7:11 PM
41	Providing affordable internet to the county would be a really cool thing to do, especially if the infrastructure was able to support Gigabit speeds.	10/25/2018 2:33 PM
42	I'm not sure public funds should be used to improve broadband/Internet access for the county. We have some of the worst roads in America, in this county. It's worse than some third world countries. Let's fix our roads first. Citizens are spending a lot of money on vehicle repairs due to the rough roads.	10/25/2018 12:53 PM
43	I use Comcast and the frustrating part is that they allow other Comcast users to hop onto my signal	10/25/2018 9:50 AM
44	Was this an elaborate phishing scheme?	10/25/2018 6:49 AM
45	It is very important for continued population growth!	10/24/2018 11:54 PM
46	Again, a sliding scale for low income would be awesome.	10/24/2018 3:11 PM
47	Comcast is the current provider. They are not willing to fix the internet speed issue at the top of Dear Island. It is just about a mile down the road and they get 10 Mbps will I only get 1.5Mbps. 1.5Mbps is barely good enough to stream low quility videos from YouTube. When other people get home in the afternoon the internet sufferers for all. Myself and other neighbors have considered and still are bring a class action lawsuit against CentryLink for their lack of solving the issues and breaking their own contact(s)	10/24/2018 2:09 PM
48	without it; working from home is not an option	10/24/2018 1:56 PM
49	We currently bundle so it hard for me to break out individual cost. The only internet provider in our area is centurylink dsl and the fastest speed available is 12k. We pay a fortune (over 200/month) for phone, satellite tv and internet.	10/24/2018 12:52 PM

50	The internet service now provided is adequate. The county should not get involved with private enterprise endeavors. If the residents in the more rural areas of the county feel a need for beter internet service they can always subscribe to a sattelite service. It is their choice to live in the ruaral areas where the internet service may not be to their liking. The rest of the county citizens should not have to pay for their choice of a rural living location. It is not the county's role to provide this service.	10/24/2018 11:51 AM
51	Would be nice to have more than one option to help keep costs and service quality competitive.	10/24/2018 11:41 AM
52	Comcast has a monopoly and it isn't always the best. For what I pay for internet/phone/cable it should be 99% reliable!	10/24/2018 10:02 AM
53	There is a duopoly in my area. The price is way too much because of this. Comcast was unable to install internet, leaving only one choice. Both are way too expensive.	10/24/2018 8:50 AM
54	I am so unsatisfied with the service we have with CenturyLink and it is the only service we can have. I think there should be a class action suit because we have had all to pay for service that doesn't work.	10/23/2018 9:37 PM
55	there simply aren't enough high speed providers	10/23/2018 7:52 PM
56	Columbia County can't even manage their current budget, why would I want them to provide the only internet in the county. I think that they should meet with, and encourage other internet providers to come into Columbia County. There are more than the 2 internet providers that we currently have. Why are other companies not interested in coming into our area? Maybe that should be looked at first	10/23/2018 7:24 PM
57	It is very poor - inconsistent, poor signal if any. If there was an emergency, wouldn't be able to rely on it. We have considered moving to areas that have better service. it is virtually a dead zone	10/23/2018 6:45 PM
58	I work from home, so I rely on good internet connectivity.	10/23/2018 5:07 PM
59	n/a	10/23/2018 4:18 PM
60	Networks should fund their own new developments	10/23/2018 3:01 PM
61	Technology is changing and the need for an improved infrastructure is in demand. CenturyLink refuses to step up and provide service.	10/23/2018 11:55 AM
62	It so much depends on where you live	10/23/2018 10:56 AM
63	it meets my needs try and make it cheaper	10/23/2018 10:37 AM
64	I get mine from a telephone company And I get directv ,it works well must of the time but the price change every other week	10/23/2018 10:32 AM
65	A County owned gigabit connection would be amazing. I would never move.	10/23/2018 9:16 AM
66	Comcast works amazing, though it is expensive	10/23/2018 7:54 AM
67	Not if it is using public funds for it. I want choices, I don't have here. But you have to do it without taking anymore of my money..	10/22/2018 10:10 PM
68	We should have more choices/competition to Frontier	10/22/2018 8:50 PM
69	I wish frontier service was in our area. Cheaper and as good or better than what is avsilable	10/22/2018 8:02 PM
70	Google fiber yes please	10/22/2018 7:55 PM
71	It would be nice to have better service, and pricing.	10/22/2018 4:01 PM
72	I don't think the county should be involved.	10/22/2018 3:23 PM
73	Comcast has been granted a Monopoly, Not in the Best interesst to county residence.	10/22/2018 12:46 PM
74	We don't want Columbia County to spend tax money on broadband.	10/22/2018 11:39 AM
75	I am more concerned about having a cell phone service I can use at a reasonable price.	10/22/2018 10:36 AM
76	With the amount of things required to do on-line today, an internet connection is pretty much a requirement in any household. Internet should be offered at the "bundled price", regardless if a customer has any other services with that company. My internet bill should not be more money than my electric bill...	10/22/2018 9:42 AM

77	Columbia county have enough population to have decent internet services. We dont live in middle of Alaskan wilderness that county have to build everything from scratch. Its about time. Please	10/22/2018 9:28 AM
78	no comments	10/22/2018 9:20 AM
79	Having only Comcast and Centurylink to choose from is awful	10/22/2018 8:37 AM
80	We have two choices on internet providers: Centurylink and Comcast/xfinity. Everyone says Centurylink is too slow/unreliable and comcast is expensive. We have had bad customer service with comcast in the past. This is why we do not have home internet service.	10/22/2018 7:51 AM
81	our internet sucks so bad with hughesnet and ive tried to get frontier to provide services for me but they would never come out	10/22/2018 5:26 AM
82	The county should work with the cities on a project to provide free high speed internet service to county residents.	10/21/2018 10:37 PM
83	We people that live rurally in Columbia County are stuck. If we use Century link, the internet is so slow, dial-up would be as fast. ViaSat isn't for everyone and they are not easy to work with. Plus they cannot deliver internet speeds that enable good streaming and gaming. Anything that can be done will help tremendously. School kids rely so much on internet now that the rural kids are disadvantaged for lack of good internet services.	10/21/2018 9:55 PM
84	Having been a resident for over 5 years in the 97054 area we are being abused. With the way our world is going and how fast this area is growing it is unbelievably ridiculous to not have speeds over 40mbps upload/download. We are currently only getting 500kb/s to 3mb/s. There is nothing we can do about the speeds, our internet provider (CenturyLink) will do nothing to fix it. We pay for 40MB/s but only get speeds up to maybe 3MB/s on a good day. I currently run a company also and I have to travel to a local starbucks to get better internet speeds. Please fix this issue, thank you.	10/21/2018 8:45 PM
85	Public funds shall not be used to subsidize a private industry	10/21/2018 7:32 PM
86	I do not want my tax dollars to fund government owned communications	10/21/2018 3:02 PM
87	I don't think tax \$ should be used. Keep in mind that some of us are under contract and can't change immediately	10/21/2018 2:26 PM
88	It is the County's responsibility to be concerned about rural access. Good luck! Current providers promise way more than they are able to provide, once you turn a corner or dip down into a hollow in outlying areas. We currently don't bundle TV with internet and phone. It woyuld be cheaper, but we wouldn't have TV access if we did.	10/21/2018 2:05 PM
89	Please get me faster internet. Centurylink sucks and I have super crappy speeds	10/21/2018 1:36 PM
90	I believe the county has a responsibilty to the residents that includes making sure we are receiving the service we are paying for, but shouldn't be in the the broadband business.	10/21/2018 1:34 PM
91	Not having internet service to all in Columbia County is putting our school children at a disadvantage.	10/21/2018 1:17 PM
92	Country owned Broadband would give residents a 'Public Option' that would force private operators to offer better service at compedative prices. Instead, we have near-monopoly conditions, with service everyone dislikes, at outrageous prices, with near-predatory contracts.	10/21/2018 1:13 PM
93	Century link is terrible so I use higher priced comcast	10/21/2018 12:51 PM
94	The market needs to provide more options for service providers.	10/21/2018 12:48 PM
95	My CenturyLink Phone bill us to be \$19.00 per month. when I got 12MBPS internet/Phone It is \$90.00 per month.	10/21/2018 12:42 PM
96	Do NOT do anything that increases taxes	10/21/2018 10:33 AM
97	We welcome a company like Xfinity, for its improved internet connection and TV picks over Centruy Linkamd Hughes is terrible. Those are our choices.	10/21/2018 10:12 AM
98	Unfortunately there are only a couple choices when it comes to broadband. Comcast, who wants \$10,000 to connect our house being we are so far off the main road, and Centurylink which offers basic 10mb/sec speeds but goes down often.	10/21/2018 9:41 AM

99	I've had both Comcast and CenturyLink for internet service. Both have problems during peak hours with Comcast definitely being worse. Fixed pricing on CenturyLink is the most attractive thing they offer.	10/21/2018 9:19 AM
100	Viable infrastructure whether it be internet, retail services, utilities, police and fire is very important for growth and economic prosperity.	10/21/2018 9:04 AM
101	It is adequate but could use improving. Considering that the speed was great but has waned over the last several months.	10/21/2018 9:02 AM
102	The device is not the best but the county has no role in building a network, period!	10/20/2018 8:42 PM
103	We previously used Century Link internet, but their people would say one thing and not end up following through. The price kept going up and the service kept getting slower. The service people, which were very good, called it bandwidth overload. They have not been able to add anyone for 3-4 years because of this. I was told that they have exclusive rights to this area. I do not know what others are doing, but cell phones seem to be the cheapest way to get internet, as we cannot afford Satellite internet.	10/20/2018 8:15 PM
104	If the roads weren't in such terrible shape I would support the county finding ways to help improve life for its residents.	10/20/2018 8:14 PM
105	We have limited choices of high speed internet solutions in the area and I see a need for competition.	10/20/2018 7:29 PM
106	Current internet services are not available at my residence, and is of utmost frustration that we are lacking it. More internet services should be available in this area.	10/20/2018 6:47 PM
107	NO COMMENTS	10/20/2018 6:32 PM
108	Comcast is in the local area. Can we help build the infrastructure to provide better quality service? I don't want to give Comcast free anything, but I would like to be able to receive their service.	10/20/2018 5:47 PM
109	I do not believe the county owes people internet service. It wasn't the county's responsibility to give us telephones, let us earn and fill our own needs.	10/20/2018 5:33 PM
110	I don't think the government needs to compete with the private sector	10/20/2018 5:24 PM
111	A reminder that iT is only fast if the servers you connect are	10/20/2018 5:08 PM
112	Comcast is a terrible company. Century Link might be worse.	10/20/2018 4:57 PM
113	I highly doubt Columbia County would take much interest in the area near Mist.	10/20/2018 4:47 PM
114	I would totally support a small tax to improve our county internet and provide Highspeed Gb Internet.	10/20/2018 3:17 PM
115	Fiber Optic! Join the rest of the world!	10/20/2018 3:02 PM
116	I haven't encountered any significant problems with my Internet connection. Though I understand that fiber optic service is not available here and that is likely all that could be done to improve speed.	10/20/2018 2:53 PM
117	Vernonia is a lovely little town, but poor infrastructure creates challenges and limits economic growth of the town. The County should be taking care of Vernonia & making sure we aren't cut off in the snow, during storms, or I guess when the breeze goes the wrong way.	10/20/2018 10:10 AM
118	I love that new, better options are being considered for Columbia County. But I would much prefer the County's money is spent fixing roads and improving the electricity network for our many many power outages...than try to improve a system that is being handled by private companies.	10/20/2018 7:40 AM
119	Comcast is alright but I'd change to a gigabit provider in a heartbeat	10/19/2018 9:18 PM
120	County should ensure open competition is available to other high speed internet providers	10/19/2018 6:05 PM
121	I'm not sure I want to answer question 20. I believe the government(county) does not NEED to get involved in providing those services and certainly should NOT use public funds to do so. If the county can provide cheaper, more reliable service on an optional basis and without taxing the residents, then I would be interested in hearing proposals. I currently believe public funds should be prioritized to mental health, county roads and public safety than internet service. We have more pressing needs than internet in this county! If you have further questions, call 360-200-3287 and I'll give you more of my opinions.	10/19/2018 9:51 AM



122	It is extremely important to ensure broadband connectivity is countywide. This is a technology that we rely on to communicate highly important safety messages.	10/19/2018 9:06 AM
123	Find the hackers of internet and phone.	10/18/2018 4:31 PM
124	ATT, Verison and sprint will not work at my home. Need to improve mobile phone system.	10/18/2018 10:02 AM
125	I hope you can make it happen.	10/17/2018 9:49 PM
126	Our county is rapidly expanding and our infrastructure must grow at a consistent rate to ensure our quality of life does not decrease. We have great opportunity to grow and we must take advantage of this moment.	10/17/2018 8:47 PM
127	I THINK THE COUNTY SHOULD ENCOURAGE MORE BROADBANCD OPTIONS AND PROVIDE FOR COMPETITION HOWEVER USING PUBLIC FUNDS SHOULD NOT BE CONSIDERED. COMPETITION PROVIDES ITS OWN PRICE CONTROLS AND INNOVATION.	10/17/2018 3:33 PM
128	Thank you for sending this and checking with your residence!	10/17/2018 1:19 PM
129	We are in Portland's backyard. We have to be on par with them in order to be competitive out here.	10/17/2018 9:59 AM
130	We are on what is considered a "daisy chain" connection, and the speed is so slow the VPN won't connect so I can work from home.	10/17/2018 9:38 AM
131	Frankly it feels like we're trapped in the 90's...	10/17/2018 8:56 AM
132	Please bring it to our county	10/16/2018 10:12 PM
133	We have struggled to find a reliable internet service at a reasonable price.	10/16/2018 9:02 PM
134	Gigabit broadband would be amazing! I hope this happens!	10/16/2018 8:32 PM
135	We need more competion of broadband companies. I live in Deer Island and All I have a choice of is Century Link which is very average or Satellite internet which is very expensive and at least up until recently not very good.	10/16/2018 6:57 PM
136	I don't agree with the county government being in control of internet services, nor would I trust government. This should be supplied through private business, that has compitition, for price and service.	10/16/2018 3:14 PM
137	18. needs a maybe choice. And if 21 is implying the county either should spend county money on these needs or not then I would say not. It seems the companies should be paying the county to be able to bury cable/fiberoptics, etc. But there does need to be a better phone service that covers the area better. We move to the front side (sometimes out on the porch) of our house to talk on the phone.	10/16/2018 10:31 AM
138	As is the case in most markets in this country, competition and market choices are few and far between. It is difficult to find alternative options or see price reductions when there are not competitors in the area. Due to this, it's frustrating that the cost is so high for just high-speed internet. It would be nice to either bring in competitors or set up a system that is tiered for those with lower level-incomes so that everyone has access to reliable high speed internet and not beholden to the continued price increases by the primary player in the market.	10/16/2018 10:27 AM
139	Service is very limited in St. Helens. I know of only 3 providers to choose from.	10/16/2018 9:05 AM
140	It feels like Comcast has a monopoly in everything but name.	10/16/2018 6:46 AM
141	We continue to pay high prices for bundled services through Frontier. The land line is adequate, but internet, cell and satellite are undependable.	10/16/2018 6:36 AM
142	Fix cellular service . There are no reliable Carrie that work where we live. I can see portland.	10/15/2018 8:12 PM
143	CenturyLink is terrible & expensive	10/15/2018 7:44 PM
144	When we moved here were told 8 years we would have cable internet available it has been 10 years and nothing We are 3 miles up Canaan and it stops at one mile. If you are in the country you only get satellite dial up or dsl. Makes online schooling hard. Please help. Thanks	10/15/2018 7:40 PM
145	Broadband is the key to rural economic development in 2018	10/15/2018 6:58 PM

146	What happened to the 3.2 Million \$ Grant from 6-8 years ago that was supposed to bring broad band to the county. The map showed that Blackford Road & others were supposed to get broadband service with the money from the grant. Cascade Network keeps telling me that it is because there is one telephone pole missing on the corner... Would like to see the County investigate where the Federal grant money was spent and how many people are without the guaranteed service and why.	10/15/2018 6:40 PM
147	I don't believe having involvement from any government entity is a good idea.	10/15/2018 6:35 PM
148	Some areas have high speed internet, but Comcast wanted us to pay a portion of adding cabling up the road. \$30,000 was our portion, which is an impossible choice just to receive high speed internet.	10/15/2018 5:29 PM
149	I would love to feel I am getting value for what I am spending and I do not.	10/15/2018 3:56 PM
150	It would be nice if there were an option that were competitive with Comcast, as they're the only ISP with the speed and pricing they offer in this area.	10/15/2018 2:33 PM
151	Regarding question 18: it would depend upon who the provider is and their reputation for providing good service at a price that's lower than my current service.	10/15/2018 12:10 PM
152	Pretty much limited to Century Link or Comcast	10/15/2018 12:02 PM
153	I think the private sector should be involved. I don't think the County should run broadband but assist a private sector company to make this a reality for people who don't have service out in the more rural parts.	10/15/2018 11:48 AM
154	I find the lack of availability and choices for services based on location within the county extremely frustrating. All residents should have equal access to the services of their choice no matter where they live.	10/15/2018 11:24 AM
155	Private enterprise not publicly funded, thank you.	10/14/2018 8:50 PM
156	We would like to see more options for internet providers. Comcast is the only option for us currently and would be nice to have other options for competitive pricing..	10/14/2018 8:04 PM
157	Currently paying for double the speed received. At end of line so no upgrades are available.	10/14/2018 5:57 PM
158	Again would love a sliding scale for low income households	10/14/2018 3:57 PM
159	fix Frontier we're so discusted	10/14/2018 2:52 PM
160	Not sure that it would be the County's financial responsibility, but Century Link is terrible to work with and very often does not meet the speeds I pay for. Their customer service has to be one of the worst I've been forced to deal with.	10/14/2018 2:01 PM
161	Please bring real internet to Prescott, we are stuck in a communications dead zone.	10/14/2018 1:17 PM
162	Comcast has a near monopoly of services/connections where I live and my internet service is increasingly diminished by unwanted pop up advertising	10/14/2018 12:51 PM
163	seniors need help financially with internet costs	10/14/2018 12:50 PM
164	I would support any high speed network that would be competition for Comcast! County provided might be a good idea since we cannot trust phone companies to force prices up with no justification!	10/14/2018 11:18 AM
165	Please keep it affordable and accessible to all.	10/14/2018 11:05 AM
166	please do not just allow another Monopoly to come in on public funding. either makea community managed option or require competition.	10/14/2018 9:00 AM
167	Our county workers already get their stuff free why would I want to use public funds on these fraudulent government businesses. Also our county already uses public funds for BS only. They dont want to improve anything when county workers get to do whatever they want anyways.	10/14/2018 5:44 AM
168	Broadband services are severally lacking. And any providers currently out there are scalping folks for connection.	10/14/2018 5:36 AM
169	we run a business and the poor performance of frontier has really hurt our business reputation. we really need a change	10/13/2018 10:28 PM
170	Recommend 5G service for internet.	10/13/2018 9:47 PM
171	Public funds in no way or fashion should be used to subsidize a private business!	10/13/2018 7:49 PM



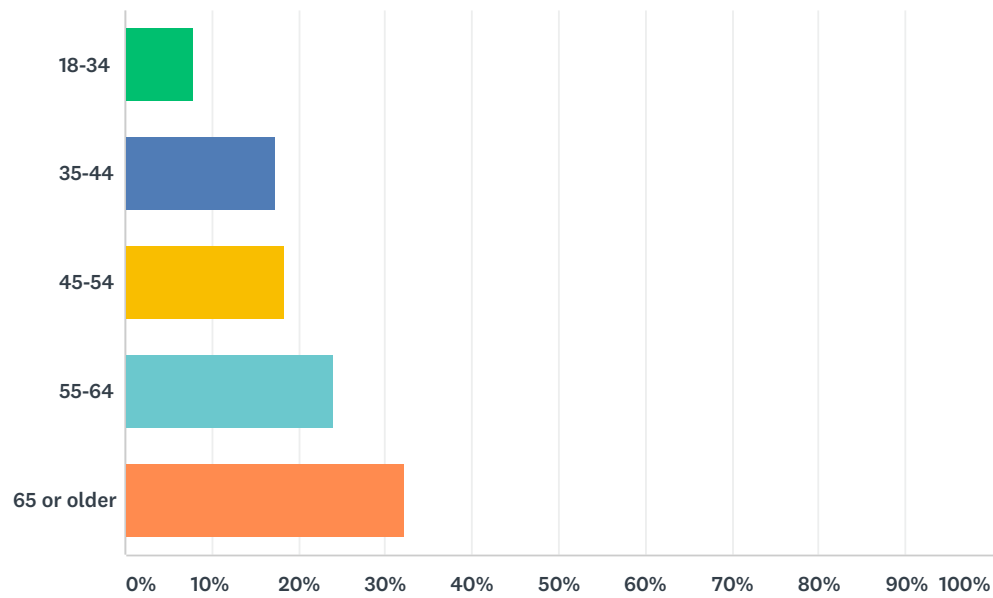
172	unreliable and unpredictable service	10/13/2018 7:31 PM
173	They need to roll out ipv6. That's why I pay so much is to get a static IP address.	10/13/2018 6:23 PM
174	I would like to see everyone in CC have access to affordable broadband.	10/13/2018 5:43 PM
175	Please help us get rid of Comcast as our only reliable provider. They along with Amazon are the ruining their fields in America.	10/13/2018 5:36 PM
176	The county should be concerned with providing for the low income population who cannot afford internet rather than those of us who already have access to services.	10/13/2018 4:28 PM
177	Not sure the County is the responsible party. I think high speed internet should be made available to all by the Federal do nothing government	10/13/2018 4:09 PM
178	WE WANT GIGABIT!	10/13/2018 4:06 PM
179	Note: I work from home, so I use DSL (and have Sat. Internet w/ ViaSat as backup), so it is important to have decent, reliable Internet service to me.	10/13/2018 3:11 PM
180	HELP! CenturyLink SUCKS!	10/13/2018 2:55 PM
181	\$65 for DSL too high - Slow speed always - Not reliable - WE WANT FIBER NOW !	10/13/2018 1:58 PM
182	Need to upgrade speed to 21st century needs.	10/13/2018 1:20 PM
183	In today's modern age, reliable, fast Internet service is becoming less of a luxury and more of a necessity to meet daily needs. Living in a rural area can make it difficult, if not impossible to obtain such service. I appreciate and encourage efforts to expand broadband Internet availability to more rural locations.	10/13/2018 12:32 PM
184	All our services are terrible and we have no other option but to pay high priced junk that hardly works. I work from home and it has hindered my business due to my services that don't work more than half the time! Please make a change up here in deer island....please Kim begging for change!	10/13/2018 11:10 AM
185	This would best be done with emergency preparedness in mind for communication throughout the county.	10/13/2018 11:06 AM
186	County run might be a nice idea, if it isn't an expensive boondoggle.	10/13/2018 10:54 AM
187	I understand there is a law in place that requires all areas to have access to high speed internet. Suppliers are not meeting this need.	10/13/2018 10:49 AM
188	I would support public funding to install and provide high speed wireless internet for all. What I mean is a county wide, robust, wireless network.	10/13/2018 10:41 AM
189	We don't have any on Bishop road	10/13/2018 10:27 AM
190	I could work from home if I had more reliable internet instead of driving all the way to Portland work work.	10/12/2018 10:25 PM
191	Do it.	10/12/2018 9:57 PM
192	Hughes Net is available but too expensive and limited. Need unlimited. Another company that uses a tower on Bradley Hill would be awesome but we have no clear line of site for a dish. Cable is not available.	10/12/2018 9:23 PM
193	Hurry and bring BROADBAND to Columbia County, PLEASE !	10/12/2018 9:05 PM
194	Public funds should not be used to fund broadband but the county could facilitate improved services	10/12/2018 9:04 PM
195	Very poor service for rural customers	10/12/2018 8:15 PM
196	Broadband in Columbia County is substandard. I can be 200 miles away at the Oregon coast and have better internet connection. It is time for Columbia County or for some internet provider in the County to help our county's citizens to have adequate internet service. We DO NOT have it now.	10/12/2018 8:14 PM
197	I don't think internet service is where county funds should be going, there are other higher priorities.	10/12/2018 8:01 PM
198	Frontier sucks. Their service is shit. Their customer service is double shit. My service is crappy and cuts out. They refuse to give me a new router	10/12/2018 7:52 PM
199	Comcast is holding its customers Hostage	10/12/2018 7:36 PM

200	Definitely needs improvement.	10/12/2018 7:24 PM
201	Thank you for reaching out to us to gather this information. We appreciate your consideration of this important issue.	10/12/2018 6:53 PM
202	Unfortunately, the main areas (like us) that are really affected by very poor quality internet and service are the more rural properties. Had I known internet access and low quality cell phone service would be such an issue where we live I may not have bought here and looked elsewhere. I understand the economics of return on investment and running high speed internet to areas of lower population isn't cost effective. The Satellite companies are very unreliable. I was sold up to 25 gb p/m and that majority of the time I can't even download a netflix movie. That would put us less than 5 gbp/m. What a scam. And of course we're locked into 2 year contract based on lies. We were supposed to have UNLIMITED 25 gb/m at all times. NEVER slowed down or prioritized. They just flat out lied to me, locked me into a contract and with no other option anyway, I am stuck with them at least until the 2 years is up. I'm not sure what the County can do, but if they are looking into it and can do something to bring reasonable high speed to everyone at a reasonable, competitive rate, I'm for it. We live on Nick Thomas Rd. High speed cable is one street over on Neer City Rd. with no plans on bringing it to our area. So we are stuck. With poor cell phone service we can't use our wifi hot spot feature. And the only two satellite providers can't provide reliable service. I do good just to access web pages. And sometimes that won't even happen. Their sales pitch to me was an outright lie. The others at least didn't lie but could not provide any better. Help if you can. We'd be onboard.	10/12/2018 6:38 PM
203	I don't think internet service is something that taxpayers should be responsible for. It is the responsibility of the user. I support private enterprise to provide these kinds of services.	10/12/2018 6:35 PM
204	Columbia County is woefully under serviced and the services that are provided are inadequate	10/12/2018 6:14 PM
205	We only have one provider which is frontier it is the worst provider I have ever experienced they do not provide the service that I pay high prices for and do the minimal if anything to try and improve and fix the problems it is widely known in vernonia that frontier has horrible services	10/12/2018 6:13 PM
206	DSL speed is limited by the equipment that Frontier has in place. Frontier has not invested in increasing the speed of the network beyond its current capability.	10/12/2018 6:02 PM
207	Do a survey about being able to vote for St. Helens mayor while living in Warren. WE FOLLOW St. Helens rules but have NO VOICE to choose thoes that governs us!	10/12/2018 6:01 PM
208	I am satisfied with xfinity.It is expensive but it works well.	10/12/2018 5:26 PM
209	Both my wife and I work from home and a high speed internet connection and reliable cell service is essential. Patchy signals and slow connections seem to happen in waves. Comcast will fix but can sometimes take time.	10/12/2018 5:19 PM
210	Internet is terrible for the times 12megs up is terrible when my phone can get 50 and to charge more than my phone bill for it is thievery	10/12/2018 5:06 PM
211	On my road, internet service through Comcast or Verizon (not sure which one) is available from Vernonia to within 1 mile of my house. Then, the 5 miles from the termination point of service to US 26 there is no internet service. Seems odd.	10/12/2018 4:57 PM
212	Our satellite Internet service is our only option, but is very expensive and a problem. We are limited to a monthly data amount and Microsoft updates and other things wipe out our monthly data so we have no Internet about the middle of the month. Very bad situation for something that is very necessary for most things.	10/12/2018 4:48 PM
213	Outside of local hub areas, very low speed is the only thing available. It's would be kind of like electricity where only in the hub could you get 200 amp service, if you lived out side of 5 miles then you could only get 100 amp service, if you lived 10 miles away then only 25amp service. you can get by, but its how you have to deals with it. I'm not sure that the county should have control or sponsorship and differently than electricity, landlines and water. Internet has become a Utility just like Electricity in the early 1900's. What was the push to make electricity available to all?	10/12/2018 4:33 PM
214	I have friends in Columbia County who cannot get internet service	10/12/2018 4:33 PM

215	We had Century Link and they were very unreliable and very slow we could not stream a netflix movie with out buffering and skipping, we now have HughsNet and the same problem, we cant even get through our email sometimes. They said we would have no problems with viewing Netflix and viewing YouTube, but its slow with buffering and skipping as bad or worse than CenturyLink. We often have to use a Verizon jetpack device to even get through reading email and doing online learning classes we take. We would love to have some sort of reliable high speed service. As for the County owning a system, Portland tried it when we lived there and it sucked.	10/12/2018 4:11 PM
216	The Rural residents are the most affected by lack of services	10/12/2018 4:06 PM
217	In order for me to stay employed I need high-speed internet. Frontier was the best option and it barely meets my needs, I sometimes have to use my Verizon hotspot for Skype.	10/12/2018 3:06 PM
218	need to stop the adds for the same product every minute also no adds should be before during or after any type of news	10/12/2018 3:01 PM
219	Perhaps a partnership between the County, Telephone Company(s) and Electric Coop(s)	10/12/2018 2:06 PM
220	I believe internet service is a private service and that the county should not get involved in it. The county is always saying they don't have money for some necessary service so I think it's inappropriate for the county to become involved in providing internet service.	10/12/2018 1:09 PM
221	The speed is not consistent, sometimes we don't have internet or it's so slow nothing will load. This happens a lot evenings and weekends.	10/12/2018 12:32 PM

Q24 Age Group

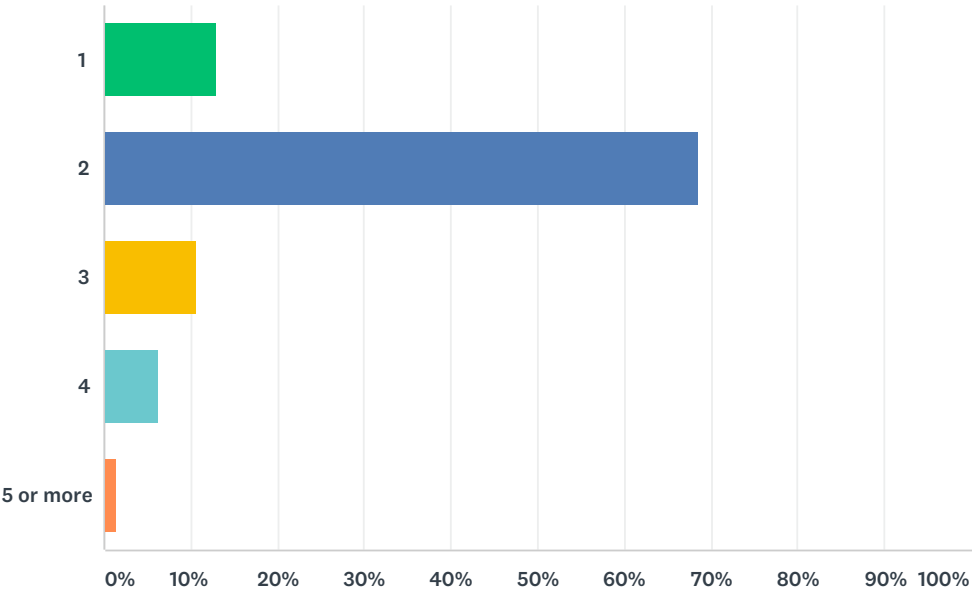
Answered: 470    Skipped: 13



ANSWER CHOICES		RESPONSES	
18-34		7.87%	37
35-44		17.45%	82
45-54		18.51%	87
55-64		24.04%	113
65 or older		32.13%	151
TOTAL			470

Q25 How many adults 18 years or older reside in your household?

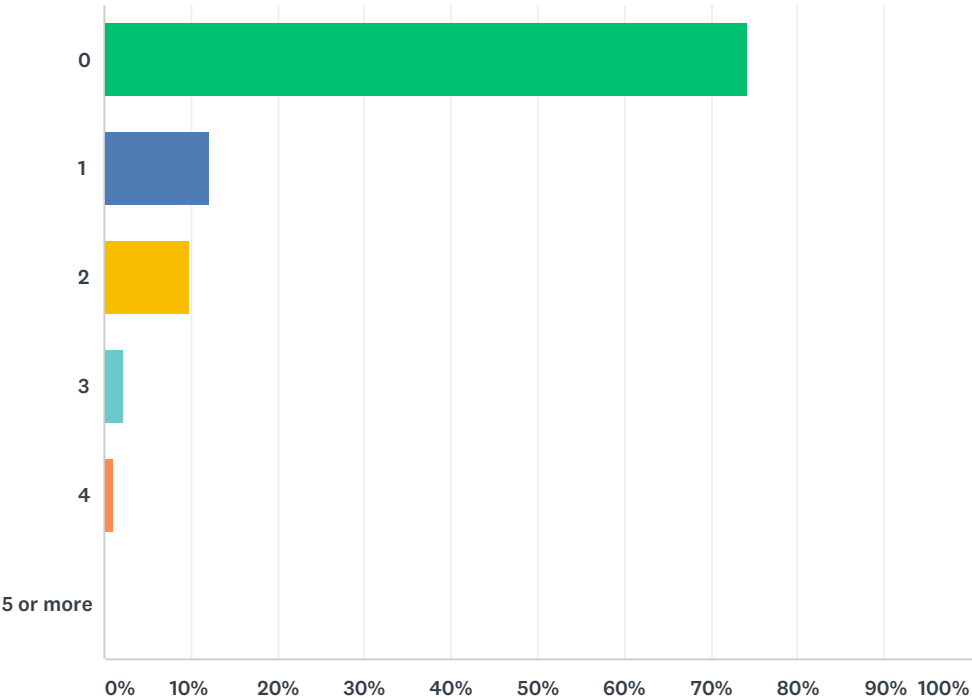
Answered: 468    Skipped: 15



ANSWER CHOICES	RESPONSES	
1	13.03%	61
2	68.59%	321
3	10.68%	50
4	6.20%	29
5 or more	1.50%	7
TOTAL		468

Q26 How many children under the age of 18 reside in your household?

Answered: 468    Skipped: 15



ANSWER CHOICES		RESPONSES	
0		74.36%	348
1		12.18%	57
2		9.83%	46
3		2.35%	11
4		1.07%	5
5 or more		0.21%	1
TOTAL			468