STRATHCONA COUNTY

2020 Broadband Survey: Strathcona County Businesses

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I. Introduction and Purpose of the Study

In mid-May 2020, Strathcona County conducted two online surveys pertaining to high speed broadband usage. One survey was directed toward experiences and usage of broadband by residents, the other by business owners. It was possible for people to complete both surveys. This report presents results from County businesses. Resident experiences are summarized in a separate report.

Obtaining primary data directly from businesses provides Strathcona County departments with information and enables County officials to make decisions that accurately reflect the perspectives and attitudes of businesses pertaining to broadband use.

This report provides a comprehensive review of all steps undertaken in the development and implementation of the survey, as well as a detailed summary of the results.

A review of the methodology associated in the development and implementation of the survey can be found in the next section of this report.

II. Methodology

A. The questionnaire

The questionnaire used in this study was newly created specifically for this study. The creation of questions was originally done by members of Strathcona County's Information Technology Services, along with input from Economic Development and Tourism. Wording modifications and other aspects associated with the development of the questionnaire was done by members of Survey Central. The only demographic question required for this survey was the location of the business, so that urban/rural locations could be identified.

In addition to location, up to 16 additional questions were asked in the business broadband survey. These included:

- What type of technology was used to access the internet;
- Whether the internet service was also used for personal use (for those who were home based businesses);
- The type of business category;
- What the internet was being used for;
- What internet sites/services were crucial to their business;
- Who was their current internet service provider;
- How much are the businesses paying monthly for their existing internet connection;
- What was the download and upload speeds that the business was paying for;
- The importance of internet access for their business;
- How were people rating their satisfaction with the internet services for the business in terms of reliability, speed, value for the money they were spending and customer service;
- What the impact that higher internet speeds would have on their business;
- What would be the minimum symmetrical internet service speed that would meet their current business requirements;
- The effect improved access and quality of internet services would have on innovation;
- What level of involvement should Strathcona County undertake to ensure that the community's future internet needs could be met; and
- Were they using a wired or wireless (Wi-Fi) connection?

Respondents were also asked if they would be interested in participating in a future workshop with other businesses to learn more about internet options.

B. Sampling design and data collection procedure

The survey was made available online on two platforms. The first was though the Strathcona County Online Opinion Panel (SCOOP). The other was an open online survey where information was gathered with Survey Gizmo, which was geared toward those who were not members of SCOOP. Almost all of the completed surveys by businesses were gathered through the Survey Gizmo platform.

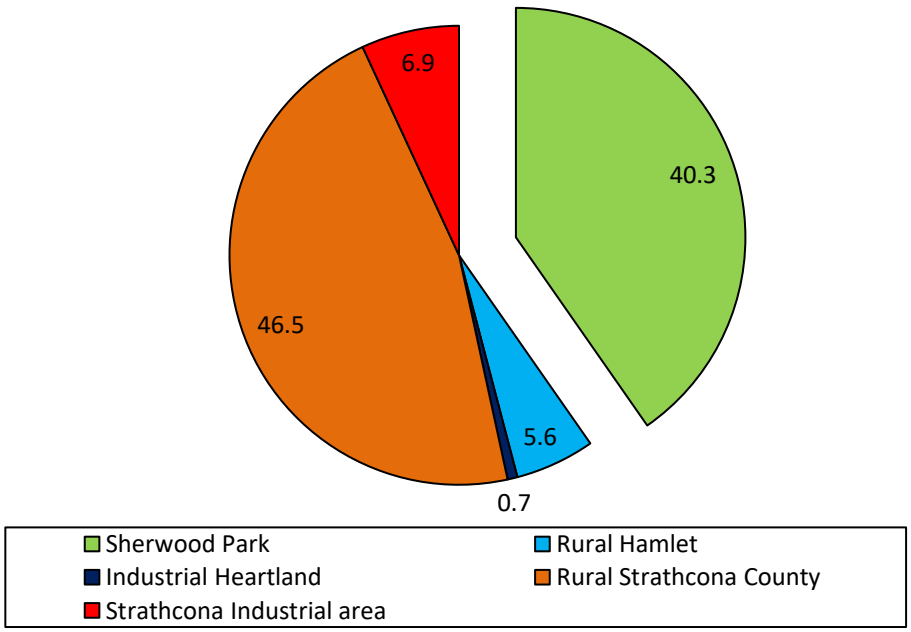
The online survey ran between May 15 and July 15, 2020, during which representatives from 144 businesses took part in the survey. Although online based data is based on people who decide to participate and were not randomly selected and have access to the online poll, the margin of error for a comparable probability-based random sample of the same size is ± 8.1%, 19 times out of 20. The data was analyzed by Strathcona County's Communications using SPSS for Windows.

III. RESULTS

This section of the report presents a summary of the results associated with the perceptions and actions of business representatives with respect to internet usage. In addition to overall results, urban and rural comparisons will be made throughout this report where appropriate.

The distribution of where businesses were located in the County is shown in Figure 1. It can be seen that the majority of businesses were located either in Sherwood Park (40.3%) or in rural Strathcona County (46.5% outside of a hamlet). The remaining businesses were located in Strathcona's Industrial area (6.9%), the Alberta Industrial Heartland (0.7%), or rural hamlets (5.6%). In the remainder of this report, these latter three locations will be merged with the rural data in order to do meaningful comparisons.

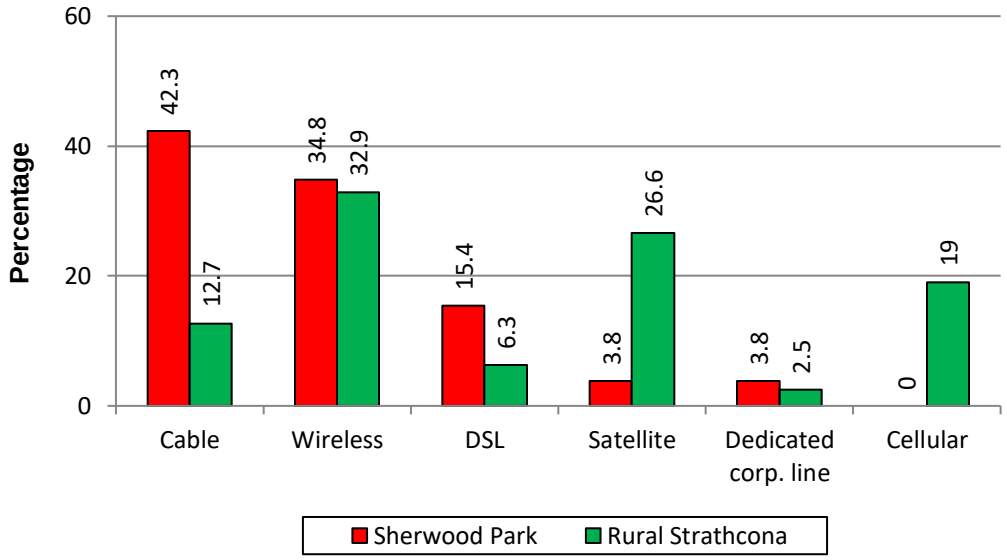
FIGURE 1
Location of Businesses



Initially, respondents were asked what type of internet connection their business used. The breakdown of type of service is shown in Figure 2. It can be seen that businesses in the rural area primarily make use of

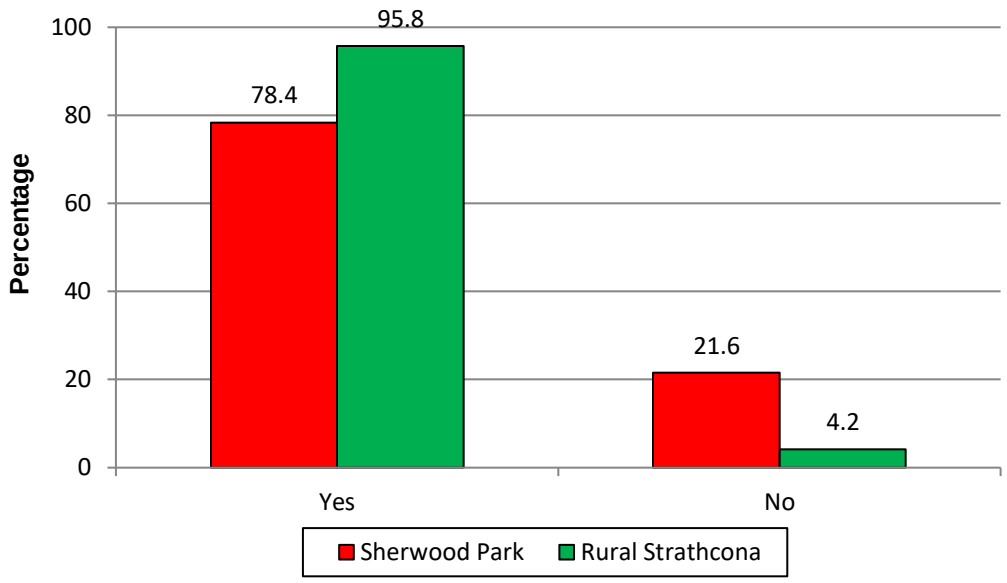
wireless technology. Furthermore, they make use of cellular and satellite services to a far greater extent than those located in Sherwood Park. Sherwood Park businesses primarily make use of either cable or wireless services.

FIGURE 2
Type of service used to access the internet
Sherwood Park and Rural Strathcona



It was determined that 63.8% of Sherwood Park businesses and 82.6% of rural businesses that completed this survey identified themselves as home-based businesses. Of these home-based businesses, it can be seen in Figure 3 that the majority of business respondents (particularly in the rural area) also used their internet for personal use.

FIGURE 3
Was the internet also used for personal use?
(Home-based businesses)



Overall, there were a wide variety of businesses represented in this survey. The most common ones (regardless of where the business was located) were: *consulting (11.5%), construction / home improvement (8.6%), manufacturing (7.9%), business / professional services (7.2%)* and *healthcare / medical (6.5%)*. A full list of the different types of businesses by location will be listed in Appendix A.

Businesses were then asked to indicate how the internet was used. From a list of published options, the following trends were observed:

- ***Access and/or provide cloud services*** – 77.6% urban & 69.8% rural.
- ***Managing online business /website*** – 75.9% urban & 70.9% rural.
- ***Download/viewing videos*** (e.g. training/education for staff) – 72.4% urban & 67.4% rural.
- ***Large file transfers*** - 63.8% urban & 59.3% rural.
- ***Voice and video communication*** (e.g. Skype, other VOIP services) – 65.5% urban & 66.3% rural.

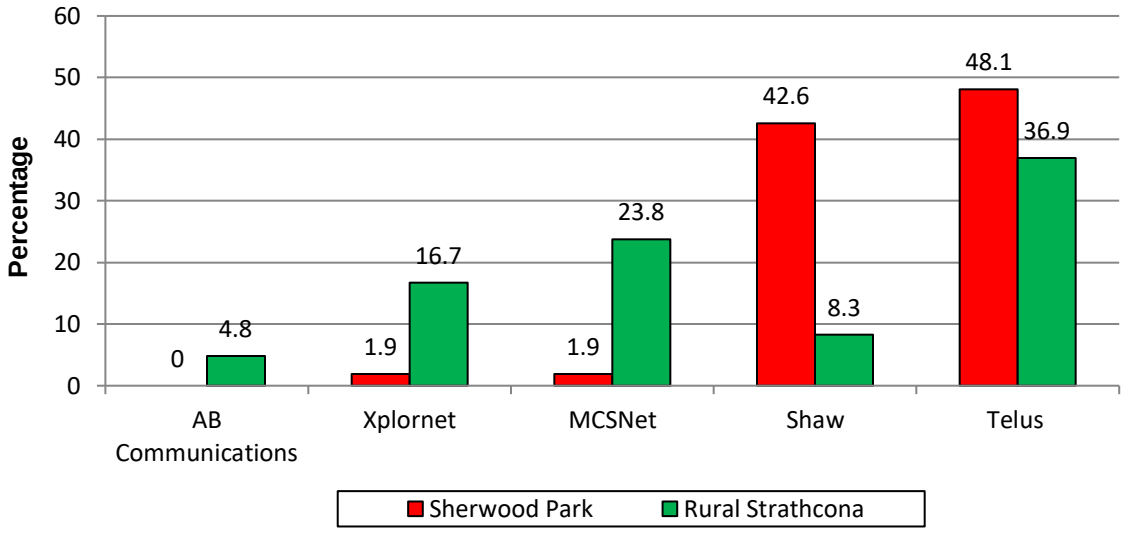
- ***Provide internet access to customers/staff*** – 55.2% urban & 27.9% rural.
- ***Credit card processing*** – 44.8% urban & 33.7% rural.
- ***Security system/video camera monitoring of business and/or remote locations*** – 41.4% urban & 37.2% rural.
- ***Corporate VPN***– 31% urban & 26.7% rural.
- ***Other*** – 5.2% urban & 15.1% rural. For urban businesses, this was getting email. For rural businesses, this included banking and bookkeeping, email and other ongoing business activities.

For the most part, on a proportionate basis, both urban based and rural based businesses tended to have the same usage of the internet. The one big difference based on location was with *providing internet access to customers and staff*, where this function was used by businesses based in Sherwood Park to a greater extent than those businesses based in rural parts of Strathcona County.

There were a variety of internet sites/services that businesses felt were crucial to their operation. Specific ones that were mentioned numerous times included various *Google applications, Microsoft 365, Dropbox, SharePoint* and *Zoom*.

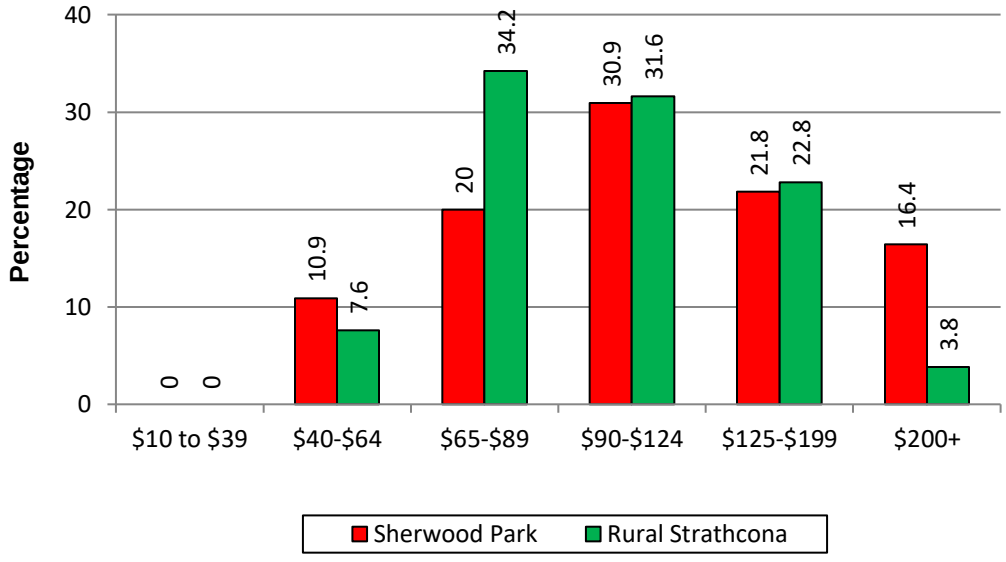
Businesses were also asked to indicate who their current service provider was. It can be seen in Figure 4 that in Sherwood Park, there are two service providers used by the majority of businesses – Shaw and Telus. In the rural area, a variety of service providers are used, with the leading ones being Telus, MCSNet and Xplornet, and to a lesser extent, Shaw and Alberta Communications.

FIGURE 4
Major internet service providers
Sherwood Park and Rural Strathcona



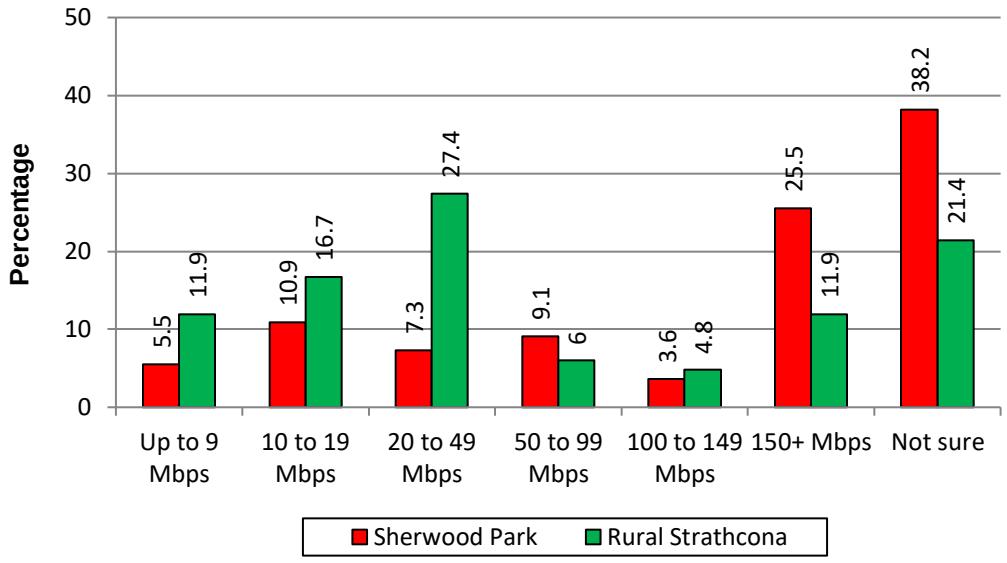
The monthly amount that businesses pay for their internet service is shown in Figure 5. It can be seen that the majority of rural businesses pay between $65 and $199 monthly for their internet, while the majority of urban businesses pay anywhere from $90 or more a month.

FIGURE 5
Monthly fees paid for existing internet service
Sherwood Park and Rural Strathcona



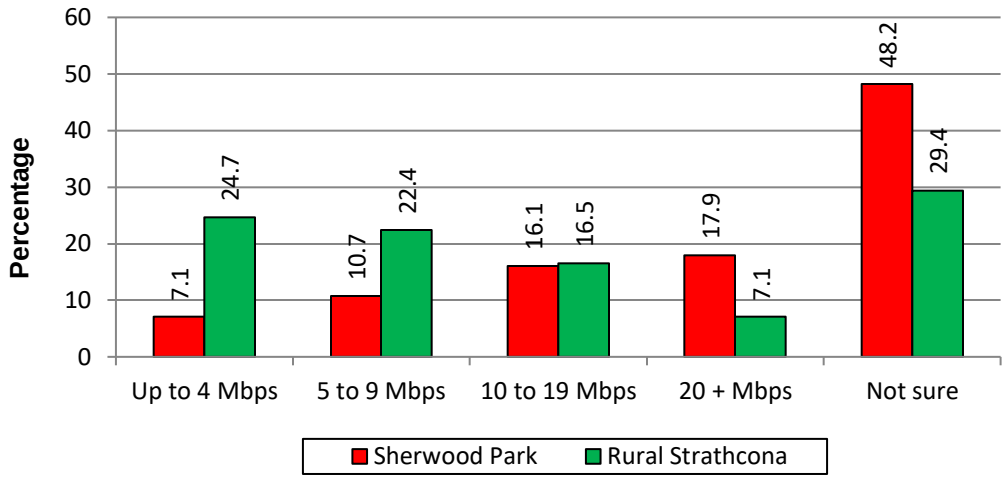
The download speeds that are provided by the account used by businesses are shown in Figure 6. It appears that a considerably smaller percentage of rural businesses are able to get fast download speeds of their internet compared to those based in Sherwood Park. The majority of rural businesses who thought they knew what their download speeds were thought they were getting between 20 and 49 megabytes per second (compared to about one third of urban businesses who were experiencing 100 mbps [or greater]). It should also be noted that 38.2% of urban and 21.4% of rural businesses are unsure of what their download speeds actually are.

FIGURE 6
Download speeds
Sherwood Park and Rural Strathcona



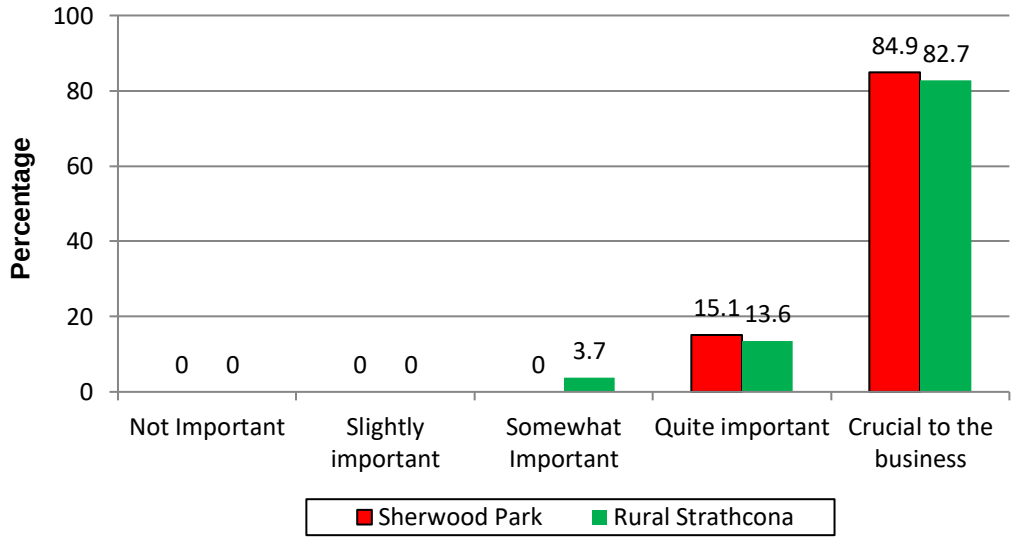
The upload speeds that are provided by the account used by businesses are shown in Figure 7. Although 48.2% of urban and 29.4% of rural businesses are unsure of what their upload speeds actually are, of those that did, it appears that a greater percentage of rural businesses are experiencing slower upload speeds of 9 Mbps, while urban businesses are experiencing upload speeds of 10 Mbps or greater.

FIGURE 7
Upload speeds
Sherwood Park and Rural Strathcona



The overall results pertaining to the importance of internet access to residents in both the urban and rural areas are shown in Figure 8. It can be seen that most businesses placed a high value on having internet access, regardless of where they were based in the County.

FIGURE 8
Importance of Internet Access
By whether the Home currently has an Internet Connection



Businesses were then asked to rate their satisfaction levels with their current internet service in four areas – *reliability, speed, value* and *customer service.* In general, it was found that levels of dissatisfaction were higher among rural businesses compared to those based in Sherwood Park. Figures 9 through 12 cover each aspect of internet service. Overall, rural residents expressed greater dissatisfaction with all four of these measures compared to urban based businesses, but especially were dissatisfied with the speed of the internet (Figure 10) and the value of the service (Figure 11). Over 55% of urban businesses were also dissatisfied with the speed of the service.

FIGURE 9
Level of satisfaction with internet service - Reliability
Sherwood Park and Rural Strathcona

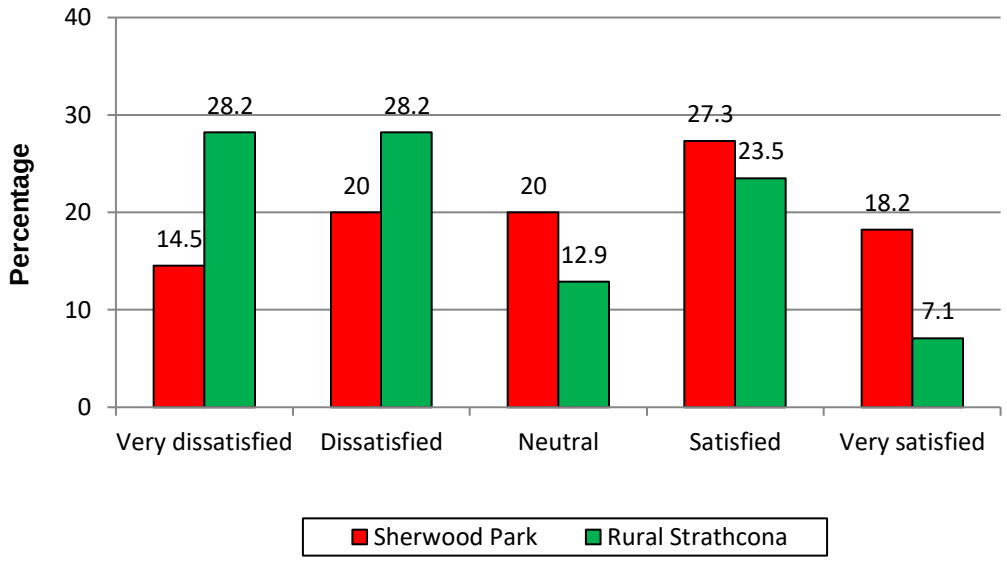


FIGURE 10
Level of satisfaction with internet service - Speed
Sherwood Park and Rural Strathcona

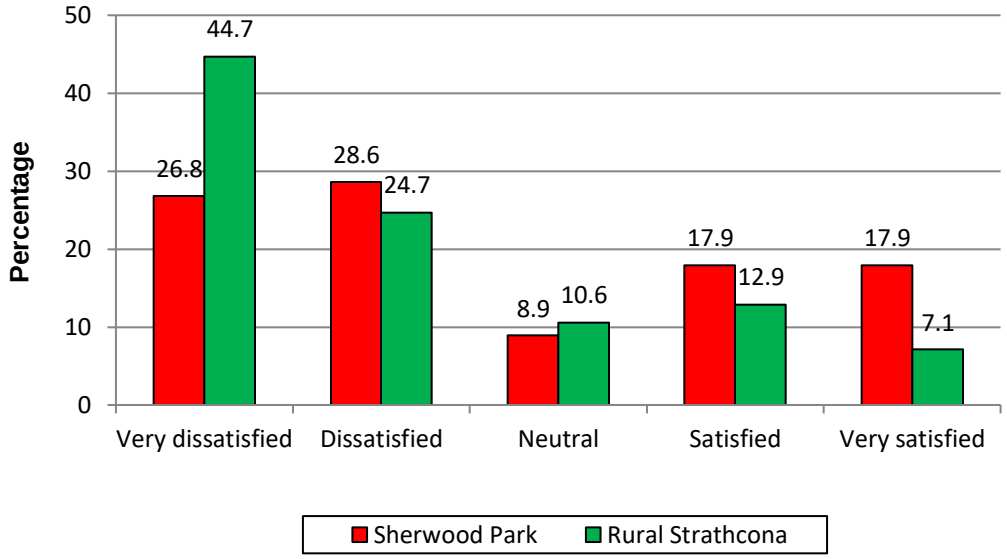


FIGURE 11
Level of satisfaction with internet service - Value
Sherwood Park and Rural Strathcona

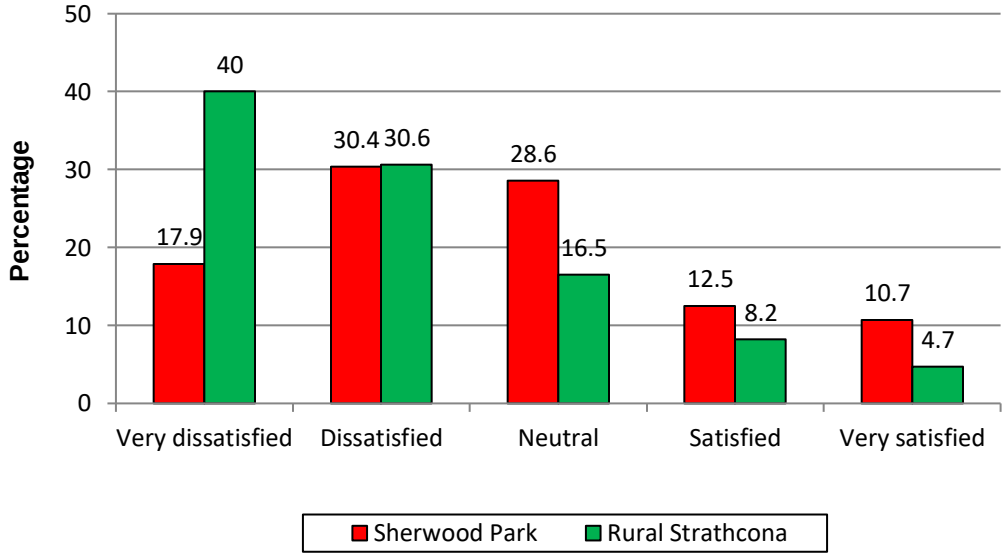
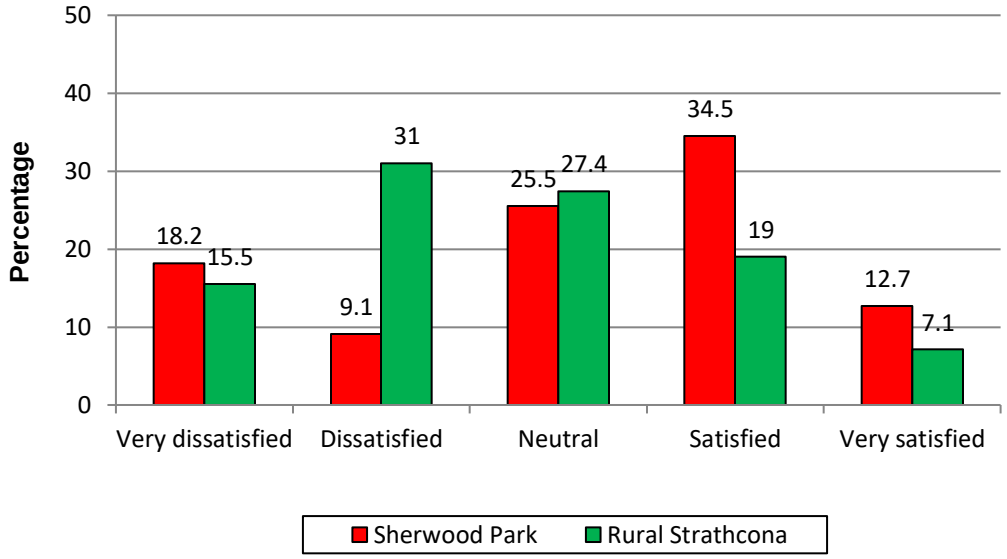


FIGURE 12
Level of satisfaction with internet service – Customer Service
Sherwood Park and Rural Strathcona



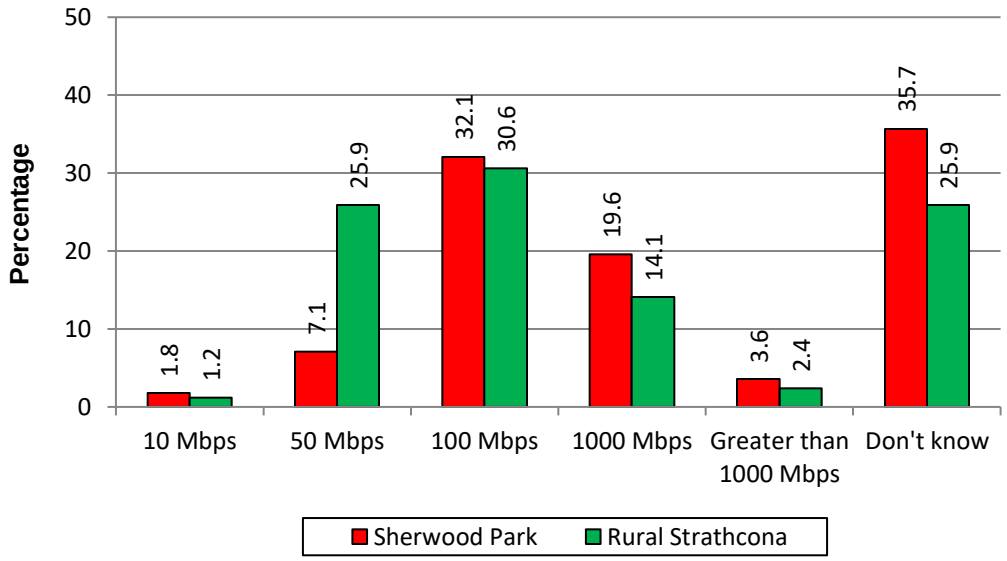
Businesses were then asked what they might be able to do if they had access to higher speeds with the internet. It was found that:

- ***Operating more efficiently*** (e.g. lower operating costs) – 70.7% urban & 80.2% rural.
- ***Provide improved customer service*** – 62.1% urban & 67.4% rural.
- ***Grow the business*** (e.g. increase revenue) – 46.6% urban & 44.2% rural.
- ***Other*** – 10.3% urban & 15.1% rural. "Other" answers given included better time management for the business, being able to run programs more effectively, and being in a position to keep all team members working remotely on a permanent basis.
- ***No changes would occur*** - 13.8% urban & 7% rural.

Next, businesses were asked about minimum symmetrical (download / upload) internet service speed that would meet all current business requirements. It can be seen from Figure 13 that close to one third of urban and rural businesses felt that 100 mbps should be the minimum standard. There were, however, a considerable percentage of businesses across

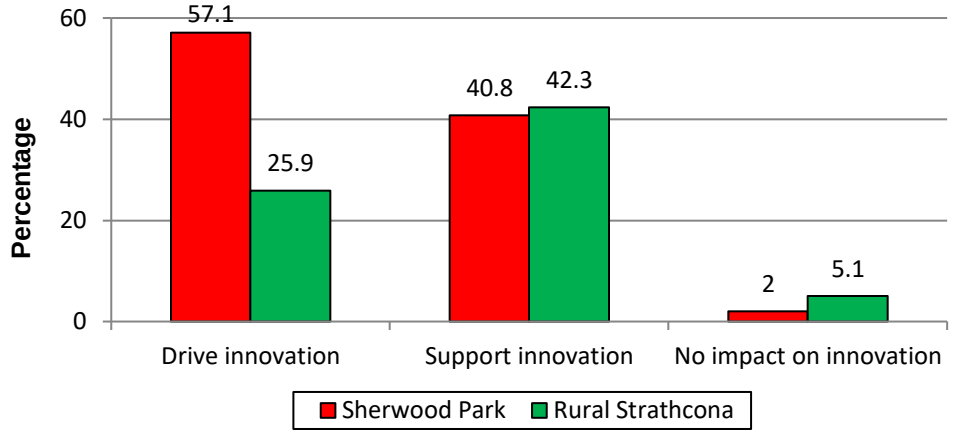
Strathcona County that did not know what a minimum acceptable internet speed should be.

FIGURE 13
Minimum acceptable symmetrical internet speeds
Sherwood Park and Rural Strathcona



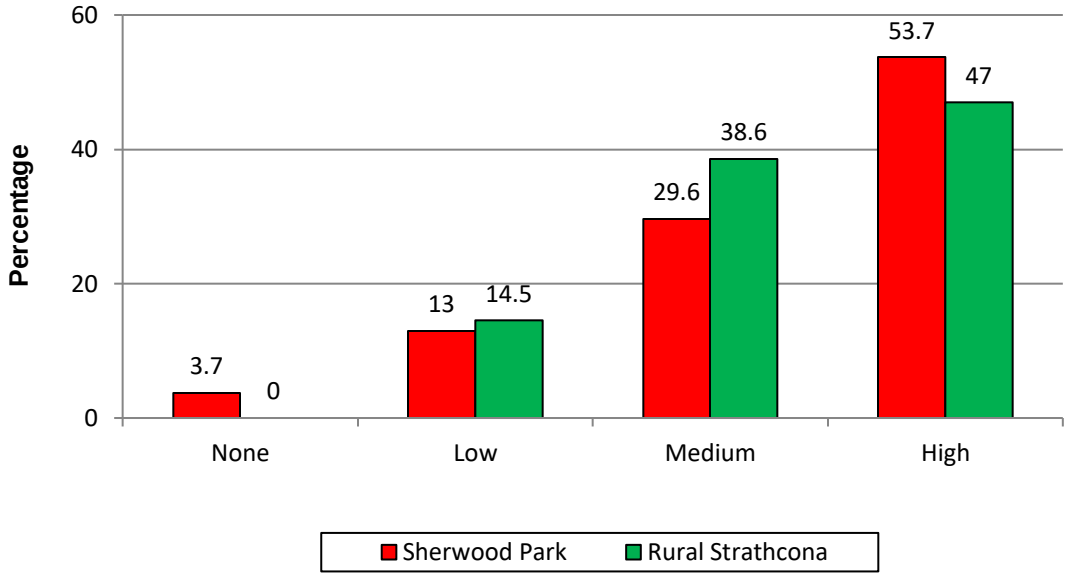
When asked whether an improved access and improved quality of internet services would have an impact on business innovation, it can be seen from Figure 14 that the majority of businesses across Strathcona County would see this either driving innovation or certainly support innovation. Very few felt that this would not have any impact on innovation.

FIGURE 14
Impacts of improved access/quality of the internet on innovation



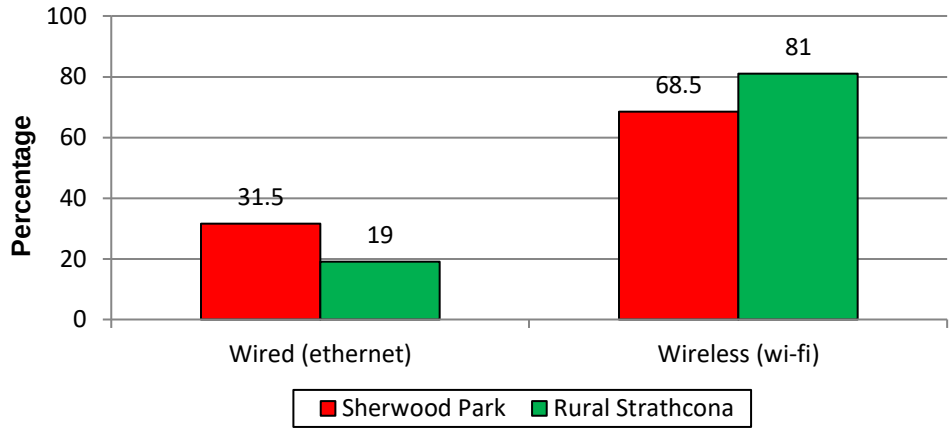
When asked about level of involvement by Strathcona County, it can be seen from Figure 15 that the majority of urban and rural businesses felt that the County should, at a bare minimum, have medium involvement, where the County should consider investment or subsidies. The majority felt that there should be high involvement from the County, to the point where the County should partner with the private sector or invest as required.

FIGURE 15
Level of involvement by Strathcona County with high speed internet Sherwood Park and Rural Strathcona



It can be seen from Figure 16 that wireless technology was used to complete this survey by the majority of urban and rural businesses.

FIGURE 16
Type of connection used to complete the broadband survey



Overall, 44.6% of Sherwood Park businesses and 37.6% of rural businesses consented to potentially take part in a workshop to learn more about internet options. Those who were interested signed up on a different page separate from the survey.

APPENDIX A: TYPE OF BUSINESSES BY LOCATION

A. Businesses located in Sherwood Park

Listed below are the various 55 businesses that took part in the survey that were located in Sherwood Park. Please note that three additional businesses did not identify their focus of work.

- Construction / Home Improvement (N=6) 10.9% of the sample
- Consulting (N=6) 10.9% of the sample
- Healthcare / Medical (N=5) 9.1% of the sample
- Business / Professional Services (N=4) 7.3% of the sample
- Retail (N=4) 7.3% of the sample
- Engineering / Architecture (N=3) 5.5% of the sample
- Finance / Banking / Insurance (N=3) 5.5% of the sample
- Food Service (N=3) 5.5% of the sample
- Manufacturing (N=3) 5.5% of the sample
- Aerospace / Aviation / Automotive (N=2) 3.6% of the sample
- Legal (N=2) 3.6% of the sample
- Real Estate (N=2) 3.6% of the sample
- Accommodation (N=1) 1.8% of the sample
- Computers (Hardware, Desktop Software) (N=1) 1.8% of the sample
- Education (N=1) 1.8% of the sample
- Telecommunications (N=1) 1.8% of the sample
- Utilities(N=1) 1.8% of the sample
- Other (N=7) 12.7% of the sample (none identified)

B. Businesses located in Rural Strathcona

Listed below are the various 84 businesses that took part in the survey that were located throughout rural Strathcona County. Please note that two additional businesses did not identify their focus of work.

- Consulting (N=10) 11.9% of the sample
- Manufacturing (N=8) 9.5% of the sample
- Agriculture/Forestry/Fishing (N=7) 8.3% of the sample
- Business / Professional Services (N=6) 7.1% of the sample
- Construction / Home Improvement (N=6) 7.1% of the sample
- Transportation / Distribution (N=5) 6.0% of the sample
- Healthcare / Medical (N=4) 4.8% of the sample
- Computers (Hardware, Desktop Software) (N=3) 3.6% of the sample
- Education (N=3) 3.6% of the sample
- Finance / Banking / Insurance (N=3) 3.6% of the sample
- Engineering / Architecture (N=2) 2.4% of the sample
- Legal (N=2) 2.4% of the sam*ple*
- Real Estate (N=2) 2.4% of the sample
- Retail (N=2) 2.4% of the sample
- Accounting (N=1) 1.2% of the sample
- Business Services (Hotels, Lodging Places) (N=1) 1.2% of the sample
- Entertainment / Recreation (N=1) 1.2% of the sample
- Food Service (N=1) 1.2% of the sample
- Media / Printing / Publishing (N=1) 1.2% of the sample
- Non-Profit (N=1) 1.2% of the sample
- Research / Science (N=1) 1.2% of the sample
- Telecommunications (N=1) 1.2% of the sample
- Utilities (N=1) 1.2% of the sample
- Other (N=12) 14.3% of the sample (none identified)