



Out of Range: Internet and Cell Service in Rural Saskatchewan



June 2020

Introduction

The Agricultural Producers Association of Saskatchewan (APAS) conducted an online survey of rural Saskatchewan residents between May 2019 and January 2020 to get input on cell and internet service levels in rural Saskatchewan. During this period APAS promoted and distributed the survey, gathering over 500 responses from across the province. The survey asked specific questions and allowed for comments from participants, and this report will reflect both the statistical results and the commentary.

This report outlines our key survey results and identifies recommendations and areas for further research on improving service levels across rural Saskatchewan.

Survey Findings

Data collected from the survey demonstrated significant dissatisfaction with the current service levels in rural Saskatchewan. For internet service, 18% of respondents reported satisfaction, 75% reported dissatisfaction, and 7% reported neither satisfaction nor dissatisfaction.

Satisfaction was marginally higher for mobile service levels in the province, with 28% of respondents reporting being satisfied, 63% reporting dissatisfaction, and 8% reporting neither satisfaction nor dissatisfaction.

When asked how far respondents lived from their nearest community there was a great range of answers from zero to 58 kms. The average distance was 12.5 kms with many respondents being significantly further away. Figure 2 below illustrates the distance between respondents and their nearest community.

The geographic spread of responses also did not indicate any major difference between responses across the province. Overall, the survey covered 181 of 296 of rural municipalities or 61% of the total RMs, with at least 22 responses from each of the six APAS districts. Figure 1 shows RMs in red that received at least one response.

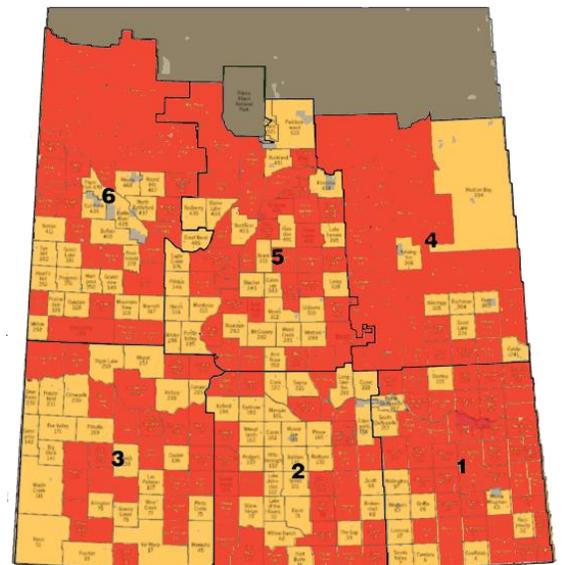


Figure 1

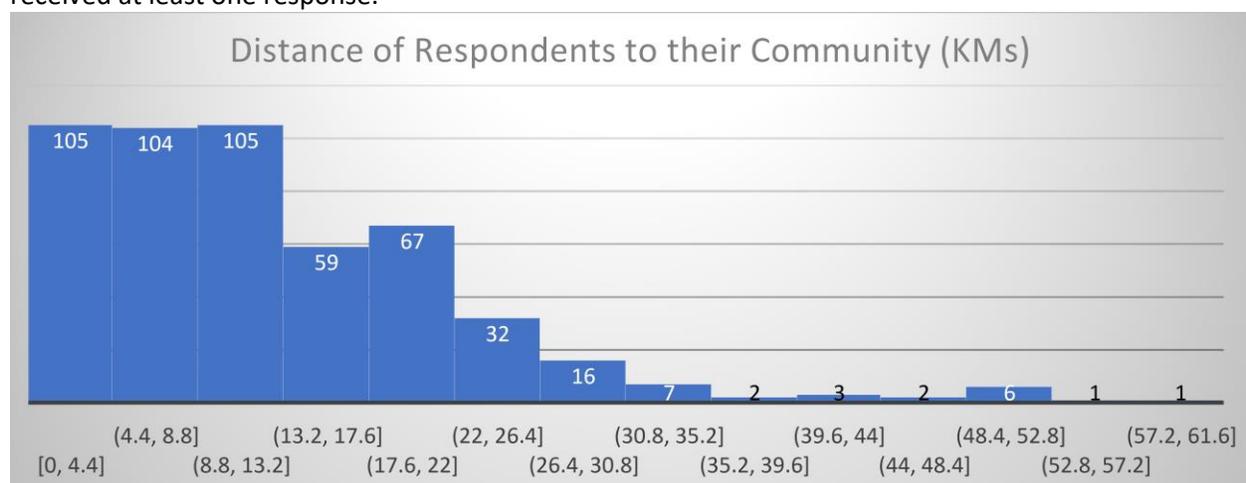
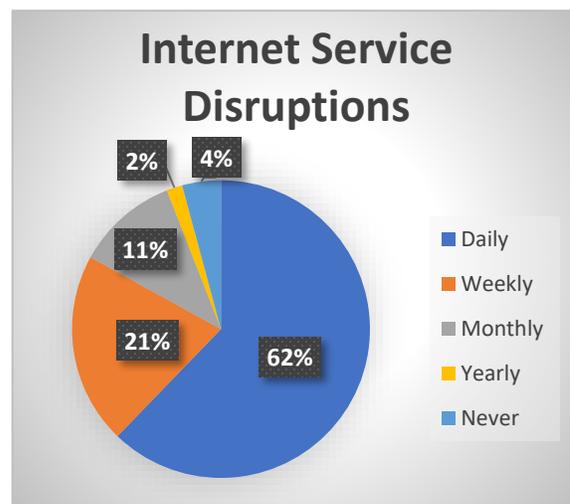
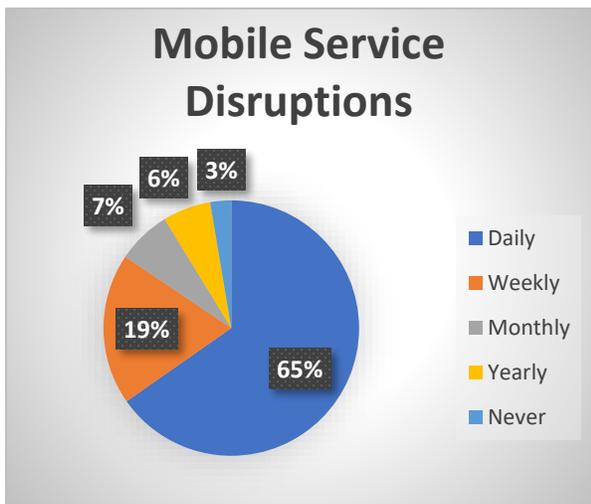


Figure 2

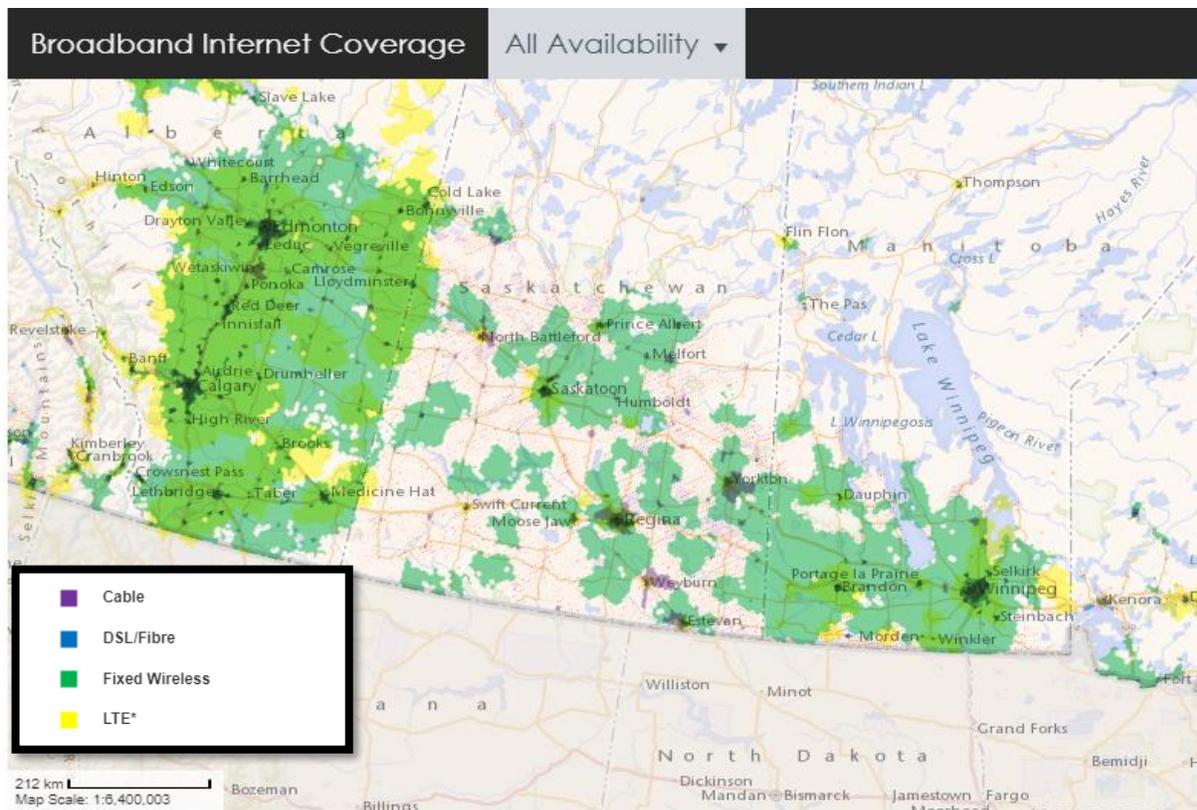


Respondents were asked about the reliability of their service connection. For internet service, 62% of respondents reported having experienced some form of service disruption at least once a day, and a further 31% reported multiple daily disruptions. Only 4% reported never having experienced a service disruption.

Cell service: 65% of respondents reported disruption at least once daily. Only 2% reported never having experienced a service disruption.

Data was further sorted into areas that are considered adequately or inadequately served as defined by the CRTC's *Broadband Internet Service Coverage in Canada 2014*.

The survey did not find significant differences between responses from “adequately served” RMs and



“inadequately served” RMs as defined by the CRTC in 2014.

Respondents in both areas reported high levels of dissatisfaction and frequent service disruption. “Adequately served” areas experienced daily service interruptions at a rate of 54%, whereas “inadequately serviced” areas experienced daily interruptions at a rate of 66%.

Satisfaction levels in CRTC “adequately served” areas had a satisfaction rate of 25%, whereas “inadequately served” areas had a satisfaction rate of 15%. Dissatisfaction within “adequately served” areas was rated at 67% and for “inadequately served” areas it was rated at 78% of respondents.

SaskTel was the most prevalent service provider according to respondents, with over 90% reporting use of at least one SaskTel service. Most respondents noted that they used some form of bundling service where service was provided by the same company for multiple services. Additionally, a small number of respondents noted that they were either denied service or unwilling to pay for service because of the low bandwidth in their area.

Issues identified in survey participant commentary

The commentary section allowed for feedback on how disruptions and service levels affect participants’ lives and business operations. The survey received 890 individual comments.

Comments highlighted three main concerns: safety, economic impacts, and access to education.

Safety was highlighted by 105 respondents as a concern. Most comments relating to safety focused on reliable phone service with fewer comments focused on internet services.

When discussing safety, participants expressed deep concern around the risks associated with farm labour and the ability to get help should a serious accident arise. Comments also raised concerns about being able to receive emergency service alerts and their ability to call emergency services when wildfires and other disasters occur.

In addition, advances in computer technology have improved property owners’ ability to detect, secure, and reach emergency services when criminal actions are occurring. Security system alarms require a reliable internet connection and are therefore not available to many rural residents.

“How can I call 911 if I have no service?”

Internet and mobile service levels are also seen as a limiting factor in the growth of Saskatchewan’s farms and rural small businesses. Survey comments made it clear that respondents rely on the latest technology and that poor service levels are inhibiting the ability of these businesses to expand the range, value, and capacity of their products.

Examples include the dropping of important business calls, the inability to use online business software, and increased costs for data surcharges.

Producers look to innovation and advances in robotics, artificial intelligence, and cloud computing to improve farm management . Modern farm equipment is monitored remotely for service requirements.

New precision agriculture technologies require increased upload and download speeds that are currently unavailable in rural Saskatchewan. Additionally, several comments provided examples of businesses having to relocate from rural Saskatchewan because of inadequate access to and reliability of telecommunications service.

With centralization of farm equipment parts supplies, low connectivity also limits access to machinery diagnostic services and access to parts during critical periods such as seeding and harvest.

“Limits my career opportunities and marketing my farm has been a challenge.”

Respondents also noted that limited broadband was inhibiting their ability to access further education. Responses ranged from parents concerned about unequal access for their children’s education to concerns from adult and distance learners looking to upgrade skills or complete online courses for a diploma or degree program.

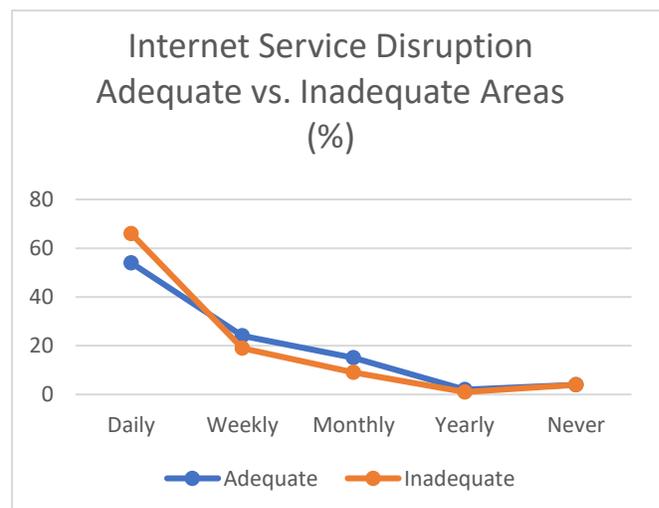
“I’m trying to do an online course, and it’s nearly impossible.”

Respondents living near the borders of the United States and Manitoba reported considerable service disruptions and costs associated with tower switching between MTS and various American companies. Transnational tower switching often had a noticeable footprint on respondents’ bills with one noting a \$3.00 surcharge per day, amounting to about \$90.00 per month.

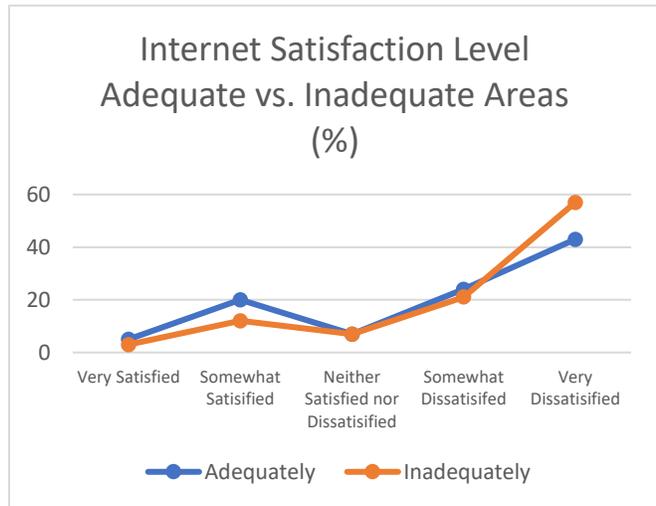
Impediments to Service

In our investigations APAS has noted a few impediments to the delivery of further access across the province. For example, current policy for the deployment of the *Broadband Fund*, as set out in “Telecom Regulatory Policy CRTC 2018-377” would significantly limit the deployment to Saskatchewan communities. Specifically, section 87 outlines:

To be eligible for funding for a fixed broadband Internet access service project, an applicant must propose to build or upgrade infrastructure in an eligible geographic area, defined as a 25 km² hexagon where there is at least one household, as per Statistics Canada’s latest census data, but where no household has access to broadband Internet access service at universal service objective-level download and upload speeds (i.e. 50/10 Mbps).



As noted in previous sections this metric does not align with the reality on the ground. Instead of showing considerable differences between areas that would be eligible for funding under this Broadband Fund “adequate service” clause and areas that would not, the survey results indicated only a minor difference in service levels between the areas.



At times, the low connectivity of rural Saskatchewan has been attributed to the low population density of the province and the sheer distances that infrastructure needs to cover to serve small populations. Despite this assumption, our data shows little difference in service levels based on respondents’ distance to their nearest community, with those greater than 25 km from their community reporting a dissatisfaction rate of 81% and those less than 25 km reporting a dissatisfaction rate of 74%. When comparing disruption rates, 79% of those greater than 25 km from their community experienced daily disruptions whereas 60% of those less than 25 km away experienced daily disruptions.

Additionally, some of the legal requirements for CRTC funding create barriers for innovative solutions to this issue, such as municipally owned and operated service providers and collaboration with First Nations, which could build out the infrastructure needed and secure last-mile development. Moreover, the regulation of bandwidth could be restructured to create an incentive for the large telecommunications companies to build out into rural communities and encourage investment.

Recommendations

Following the completion of this work, delegates at APAS’ annual general meeting passed the following resolution regarding improving access to service levels in Saskatchewan:

RL6—2019 CRTC Definition of “Underserved” Areas

WHEREAS areas of Saskatchewan may be ineligible for Canadian Radio and Telecommunications Commission (CRTC) funding if one-household in a 25 km radius has access to high speed internet;

WHEREAS Saskatchewan has a dispersed population that increasingly relies on internet speed to access markets and conduct business transactions;

BE IT RESOLVED The CRTC revise its eligibility criteria for underserved areas to ensure funding for internet access and cell phone coverage are allocated in a way that meets the economic development and safety needs of rural Saskatchewan

Conclusion

As Saskatchewan moves forward with their plan for growth, developing appropriate policy and infrastructure will be necessary for communities to grow and prosper into the future. COVID-19 has

exposed the flaws in the current service level for Saskatchewan and addressing these issues will be key moving forward.

Reducing the digital divide will facilitate the growth of rural Saskatchewan, allowing for business diversification and market growth, and reducing opportunity loss. For Saskatchewan's youth, overcoming this divide will allow them to pursue their education and contribute to their local community without moving or travelling extensively. Finally, making sure the system is both reliable and fast will improve health and safety in rural Saskatchewan.

However, universal broadband and a reliable mobile network will not come without policy changes and targeted investment in rural Saskatchewan.

Methodology

Responses were collected online from May 13, 2019 to January 1, 2020 with 527 responses collected.

Respondents were self-selected and could take the survey through a variety of means. A majority took the survey online through Microsoft Forms. Additional responses were also collected through physical copies distributed at *Agriculture in Motion 2019*, the *Rural Municipalities Administrators Association Convention 2019*, and *Yorkton Harvest Showdown 2019*. Physical copies were also made available at APAS' office.

For more information on this report, please contact APAS at info@apas.ca.