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Revisions to the *Communications Monitoring Report*

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Infographic 1.6, Figure 1.5 and Table 1.10: The methodology to calculate the average household expenditures in urban centres has been updated to weight the expenditures by the number of households.

Infographic 1.8, Figure 1.9, Figure 1.10, Figure 1.11, Figure 1.12, Map 1.2 and accompanying text: The term Indigenous reserves was replaced by First Nations reserves.

Methodology notes: A typo was corrected in the name of the Media Technology Monitor.

Infographic 4.2:

- PBIT margins for conventional television and discretionary services have been revised.
- The 2017-2018 revenue growth of cable broadcasting distribution has been revised.
- The paragraph following infographic 4.2, has been revised where conventional television and discretionary services PBIT are cited.

Infographic 6.3: PBIT margin for conventional television has been revised.

Infographic 6.5:

- PBIT margin for discretionary services has been revised.
- The second paragraph following infographic 6.5 has been revised where discretionary services PBIT is cited.

Infographic 7.1: Total affiliation payments to Canadian services 2017-2018 growth has been revised.

February 2020

Retail Mobile Sector, subsection "iv.Coverage/availability details": The number of WiFi hotspots in the paragraph before Figure 10.26 was revised to address a discrepancy with the data in Figure 10.26.

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Communications Monitoring Report 2019

Communications Services
in Canadian Households:
Subscriptions and Expenditures
2013-2017



Communications Services in Canadian Households: Subscriptions and Expenditures 2013-2017

This snapshot provides an overview of the adoption of communications technologies by Canadian households from 2013-2017, and illustrates the trends in household communications expenditure. The data presented here was drawn from Statistics Canada’s Survey of Household Spending¹ and CRTC sources. Additional data on Canada’s communications industry can be found in the [Commission’s 2018 Communications Monitoring Report \(CMR\)](#).

i. Quick Facts

Infographic 1.1 Canadian households’ subscriptions and expenditures quick facts



Source: Statistics Canada’s Survey of Household Spending, Table 11-10-0223-01
 Note: “Television distribution” refers to cable, Internet Protocol (IPTV), and satellite services used to provide television services to households.

¹ <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3508>

In 2017:

Canadian households continued to abandon landline telephone service in favour of mobile service, with almost a third subscribing to mobile service only.²

Household subscriptions to television distribution services³ continued their gradual decline, with about three-quarters of households subscribing, while the percentage of households with Internet service increased slightly to 89.0%.

Canadian households spent an average of \$233.00 per month on their communications services, an increase of \$10.17 (4.6%) from 2016. In comparison, the average annual inflation rate in Canada was 1.6% in 2017, according to Statistics Canada.

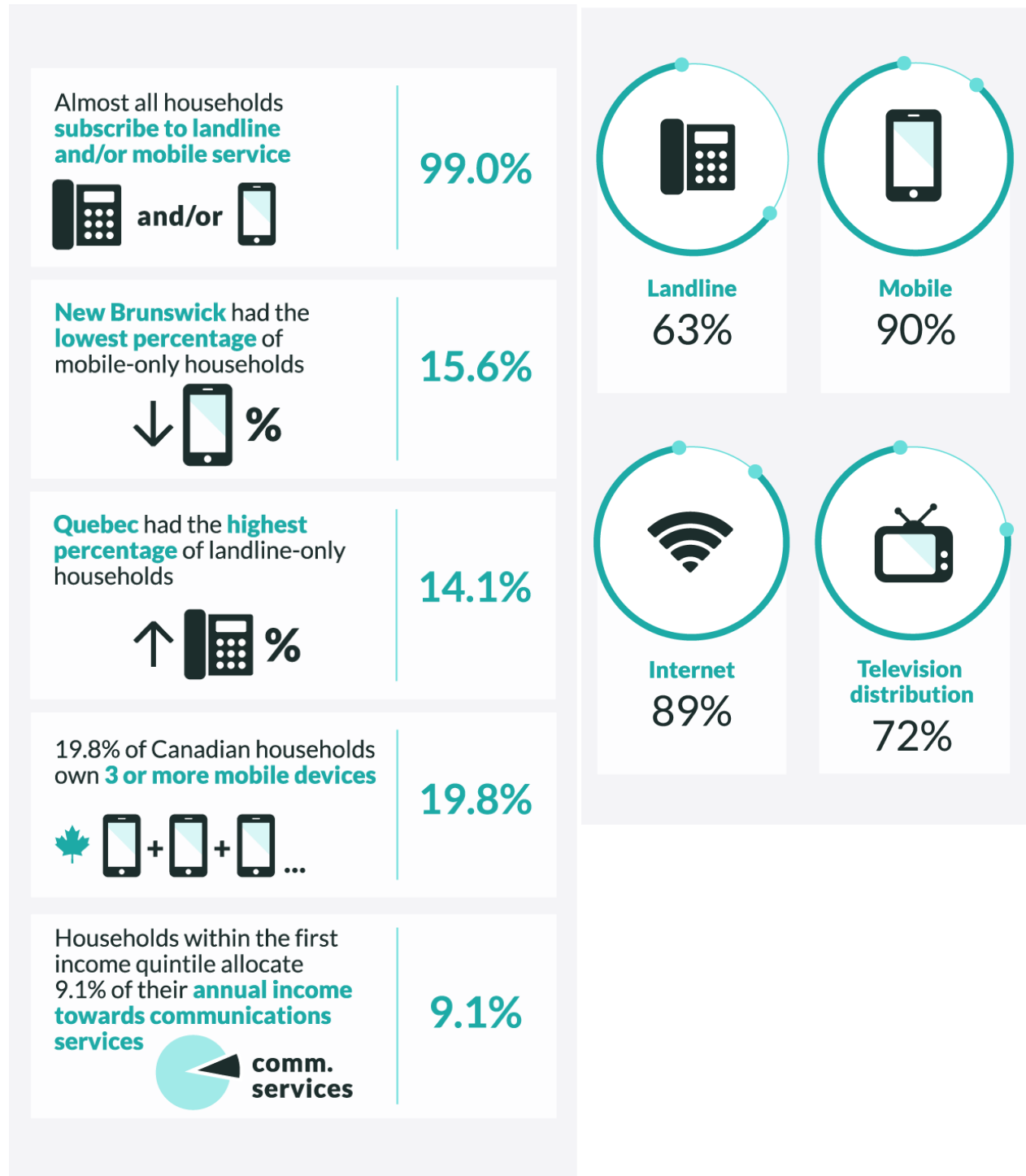
Canadian households spent more per month on mobile (\$101.00) than on Internet services (\$54.17), television distribution (\$52.58) and landline services (\$25.25).

² Various terms are used to describe the telephone services available to Canadians. Statistics Canada reports on cell phone subscriptions and expenditures. This article refers to cell phones as mobile phones, with expenditures on mobile service including voice, SMS, and data services such as Internet access. The term “landline” is used here to describe wireline telephone service.

³ Broadcasting distribution undertakings (BDUs) provide subscription television services to Canadians. They redistribute programming from conventional over-the-air television and radio stations. They also distribute pay audio and discretionary services (i.e. pay, specialty, pay-per-view (PPV) and video-on-demand (VOD) services). Most BDUs are cable, national direct-to-home (DTH) satellite, or Internet Protocol television (IPTV) service providers. In this article, BDU services are referred to as “television distribution services” and exclude digital media subscriptions and watching or streaming television programs or clips over the Internet.

ii. What communications services do Canadian households use?

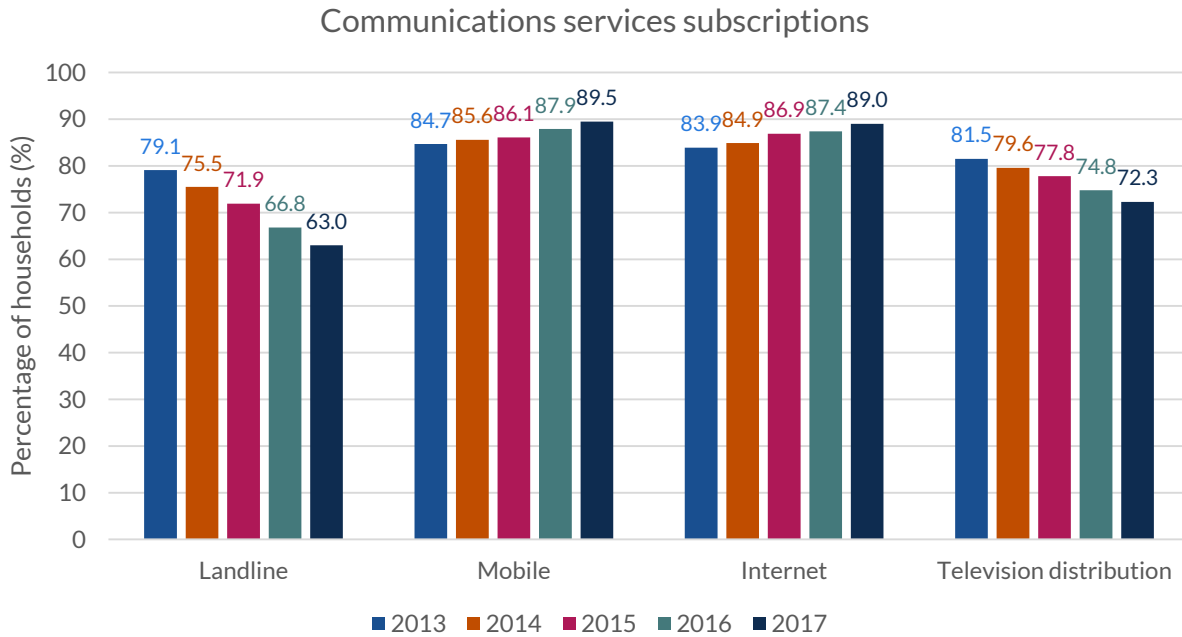
Infographic 1.2 Communications services of Canadian households



Source: Landline, mobile, and Internet subscription data from Statistics Canada, custom breakdown of Table 11-10-0223-01. TV subscription data from CRTC data collection.

Within the Canadian communications system, it is important to highlight individual service subscriptions for landline, mobile, Internet, and television distribution services. Most, if not all, Canadians subscribe to one or more of these services, which play a major role in their everyday lives. This subsection reports Canadian adoption patterns by service type, income, and province.

Figure 1.1 Household communications services subscriptions



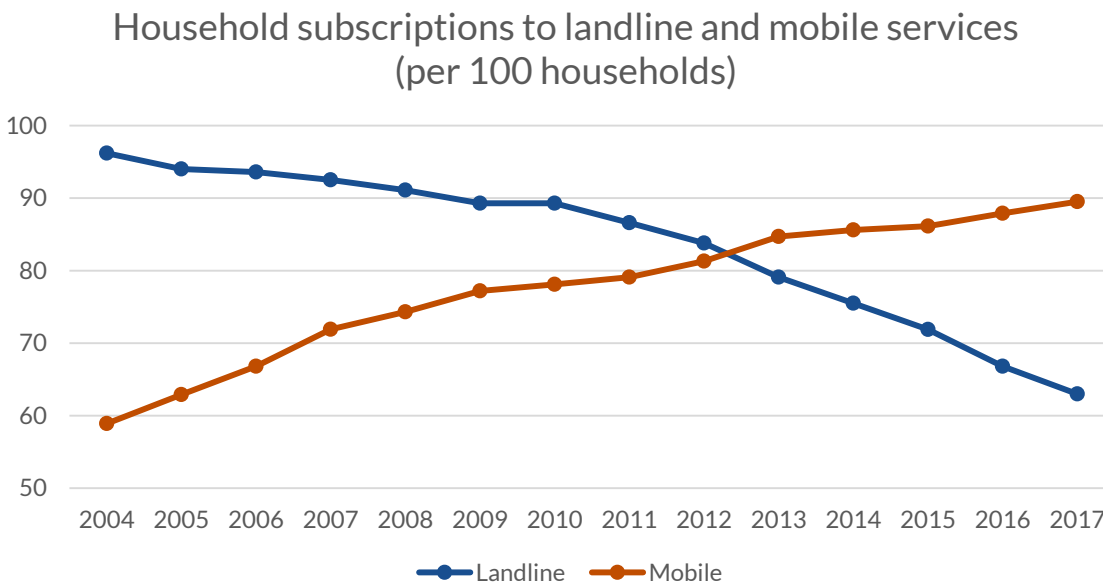
Source: Landline, mobile, and Internet subscription data from Statistics Canada, custom breakdown of Table 11-10-0223-01. TV subscription data from CRTC data collection.

Mobile and landline subscriptions

In 2017, slightly more households subscribed to mobile services (89.5%) than Internet services (89.0%). Nearly all Canadian households (99.0%) subscribed to either mobile or landline service in 2017 (Table 1.2), and households owned on average 1.7 mobile phones.

Over the last decade, the percentage of households with landlines has decreased, while the percentage with mobile phones has increased (Figure 1.2). Fewer households are subscribing to both services – in 2017, almost a third (36.0%) of Canadian households were mobile-only households, and 9.5% had only a landline.

Figure 1.2 Household subscriptions to landline and mobile services (per 100 households)

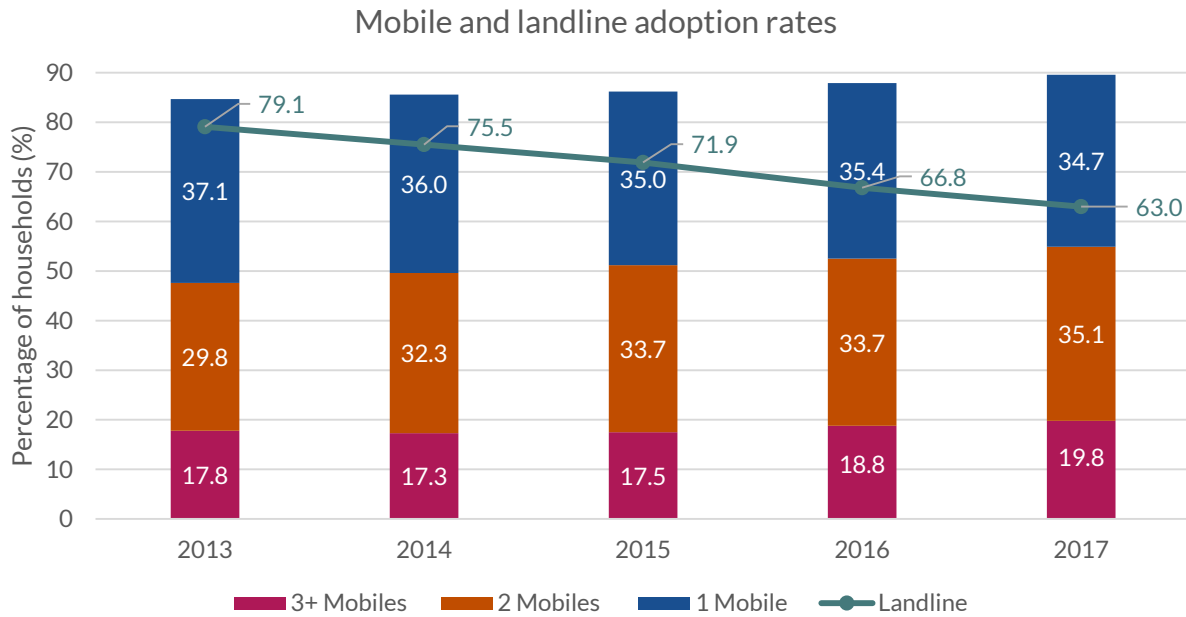


Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

While the transition to widespread mobile phone use – partly as a substitute for landline service – is a long-term process, the historical data in Table 1.2 shows how rapidly Canadian households have embraced mobile phones. In 2004, landline-only households (40.0%) far exceeded their mobile-only counterparts (2.7%). However, landline and mobile penetration data show opposing trends over the last decade and a half. Take-up of mobile services surpassed that of landline services when landline dropped 5.6% between 2011 and 2012, which was exceptionally fast considering that the annual decline in landline penetration between 2004 and 2017 was 3.2%. By contrast, the number of mobile subscribers increased at the rapid rate of 4.2% between 2011 and 2012, ultimately reversing the penetration trends of both services.

In 2017, 36.0% of Canadian households subscribed to mobile services only and 9.5% of households subscribed to landline services only. As mobile and landline service take-up fluctuated, revenues reflected the change. From 2013 to 2017, mobile revenues increased by 4.9% annually (2018 CMR, Table 6.3) and landline revenues decreased by 5.8% annually (2018 CMR, Table 4.6). During this period, mobile revenue growth outpaced subscriber growth. Mobile data revenues generated much of the growth, as they increased at an average rate of 11.9% each year between 2013 and 2017 (2018 CMR, Figure 6.1). From 2016 to 2017 alone, average data usage per subscriber increased by 37.5% (2018 CMR, Figure 6.15), generating greater revenues per subscriber in addition to the increase in mobile subscriptions. For more insight on consumer spending habits, refer to the Canadian household communications spending section below.

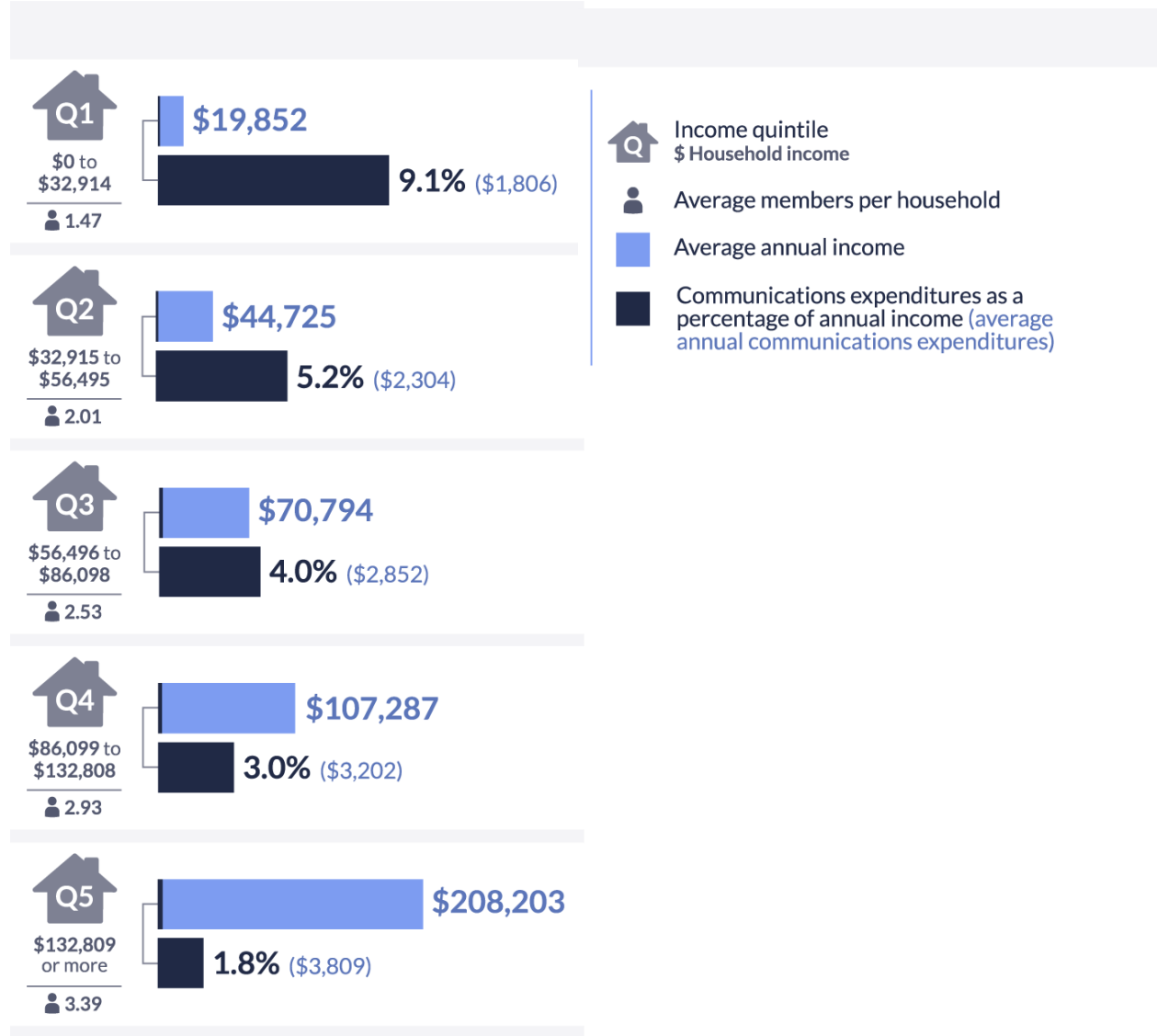
Figure 1.3 Mobile and landline adoption rates



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0228-01

Subscriptions by income quintile

Infographic 1.3 Household characteristics and communications expenditures by income quintile



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0228-01 and Table: 11-10-0223-01

The data on telephone subscriptions by income quintile (see Table 1.1) illustrated different consumption patterns in higher- and lower-income households. While 99.0% of Canadian households had telephone service, just 2.4% of Canada's highest-income households relied solely on a landline, compared to almost 23.9% of the lowest-income households. Forty-two percent of low-income households subscribed to mobile service only, as did about a quarter of the highest-income households.

Of the five income quintiles, households in the fifth quintile changed their telephone usage habits the most in 2017. The number of landline-only households in this income quintile decreased by 29.4%. Households in the fourth income quintile changed their telephone usage habits the most when it came to exclusive use of mobile service, showing an increase of 18.3% in 2017.

Financial resources appear to play a role in whether households subscribed to both mobile and landline services. Over the past five years, households in the highest income quintile consistently recorded the lowest percentage of households subscribing to mobile services only. Conversely, households in the lowest income quintile recorded the highest percentage of households subscribing to landline services only.

Subscriptions by province

Subscriptions by population

In 2017, 99.0% of Canadians were covered by long-term evolution (LTE) networks, and with the exception of the North, which had 63.5% coverage, every province had over 90.0% LTE coverage (2018 CMR Table 6.13). Although LTE coverage was largely available in most regions, Alberta led in terms of mobile penetration, with 91.6% of its population subscribing to mobile services (2018 CMR Table 6.15). Prince Edward Island led in terms of coverage. However, it had the lowest penetration rate of the provinces (71.3%), demonstrating that the availability of a network in a certain region doesn't necessarily translate to a higher penetration rate.

Subscriptions by household

While a majority of Canadians had access to LTE networks and 89.5% subscribed to mobile services, Quebec and the Atlantic provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) continued to have more landline service subscribers than Ontario and the Western provinces (Manitoba, Saskatchewan, Alberta, and British Columbia) (see Table 1.3). Furthermore, there were more mobile-only households in the Western provinces and Ontario than in the Atlantic provinces and Quebec, even though LTE was available to a greater percentage of the population in the Atlantic provinces (2018 CMR Table 6.13). Quebec had the highest percentage of landline-only households (14.1%) and the lowest percentage of households with mobile service (84.4%). Households in New Brunswick were the most reliant upon landlines – 83.4% had landlines and just 11.2% had mobile service only. In contrast, 43.1% of Alberta households relied on mobile service alone, and only 55.6% had landlines. Overall, the coverage of almost 97.0% of Canadians, with two or more networks, gives Canadians some options when making communications services subscription decisions.

Internet subscriptions and computer ownership

In 2017, 99.0% of Canadian households had access to fixed broadband Internet access and 89.0%⁴ of Canadian households had a home Internet subscription. Internet use from home increased slightly in all income quintiles except the fourth quintile, an overall average increase of 1.8% (see Table 1.5). The vast majority of high-income households subscribed to Internet services in 2017, compared to less than two-

⁴ Includes all Internet services, regardless of speed.

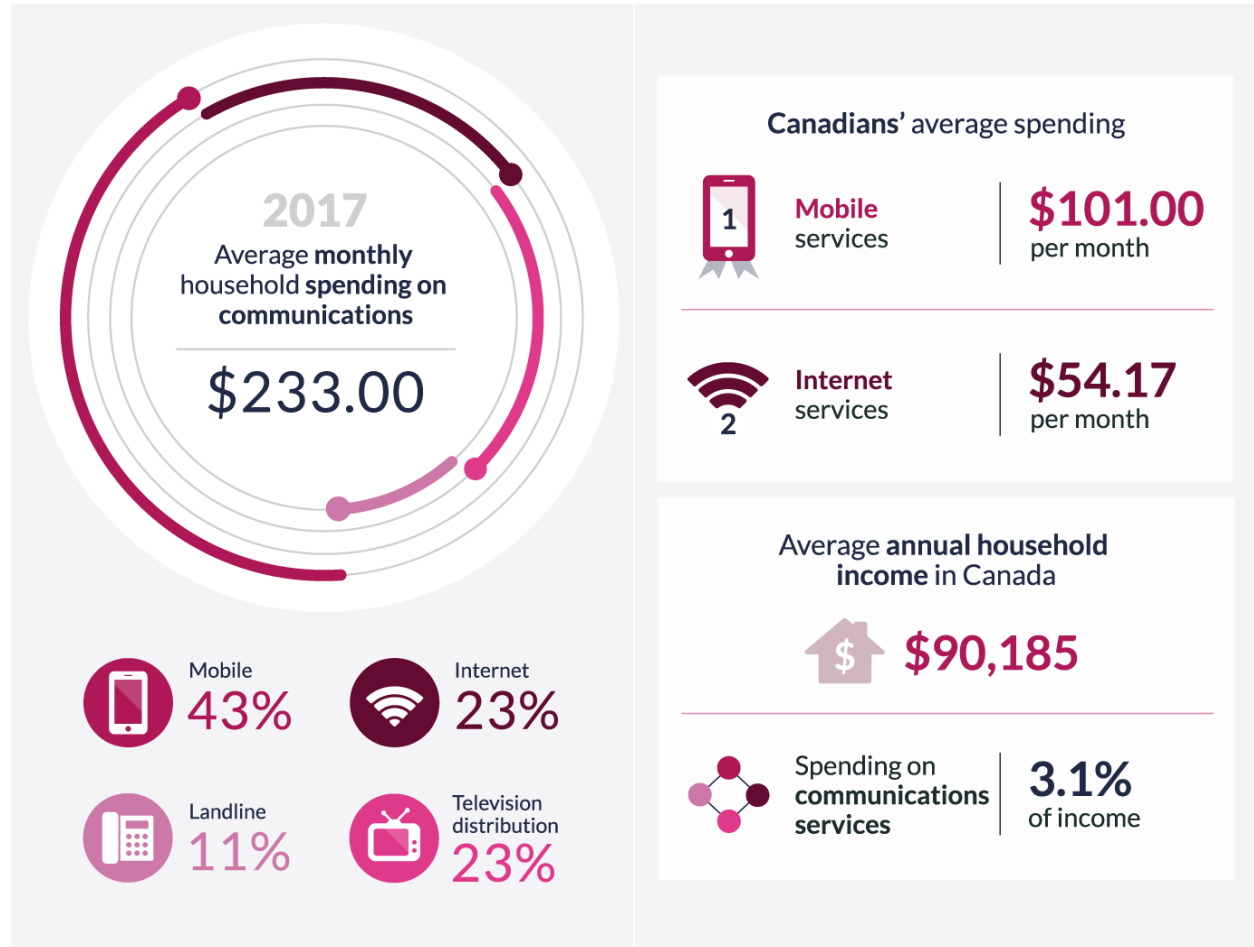
thirds of the lowest-income households. Internet use from home in the first income quintile was 20.0 percentage points lower than the overall average of 89.0% and 16.3 percentage points lower than in the second income quintile.

With mobile devices such as smartphones and tablets, Canadians can access the Internet from nearly any location. However, home computers still played an important role for Canadians. As Table 1.5 shows, most Canadian households had home computers (84.1%).

Overall, more households owned mobile phones (89.5%) than home computers (84.1%) in 2017. This trend was more pronounced in the lower income quintiles. For example, 73.1% of Canadian households in the first income quintile owned mobile phones (see Table 1.3), compared to 63.4% of households that owned home computers (see Table 1.5). Home computer ownership was unchanged between 2016 and 2017, except in the second income quintile, where it increased by 1.4%.

iii. What do Canadian households spend on communications services?⁵

Infographic 1.4 Canadian households' average expenditures on communications services

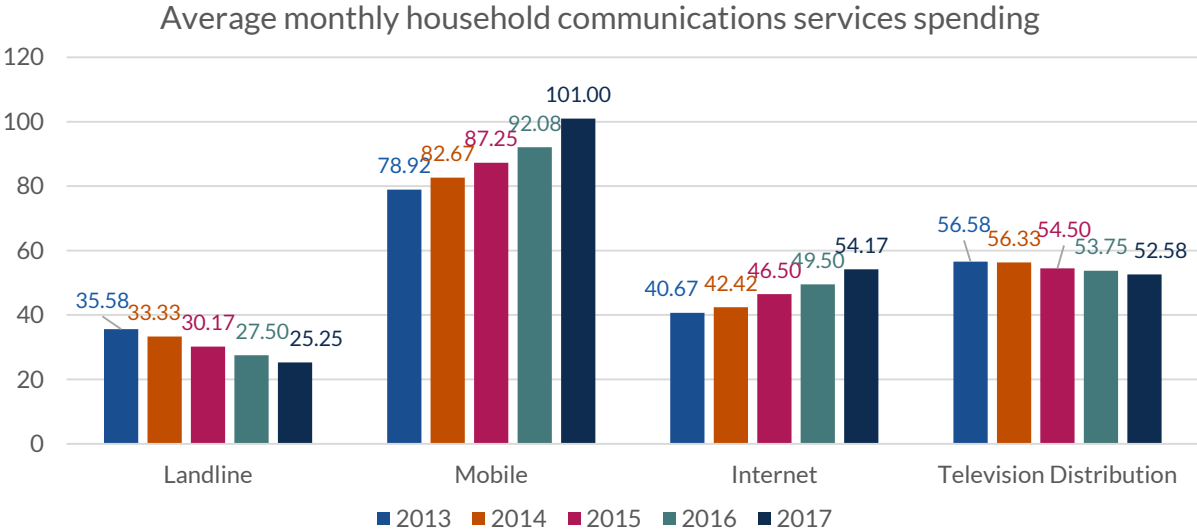


Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0223-01

Households make decisions about the amounts they are willing to spend on communications services, with spending habits varying for many different reasons. Some habits reflect personal choice and others are influenced by service availability, affordability, and household resources. This section focuses on household spending for various services by income, household location (urban/rural), and age, to inform a better understanding of Canadian households' communications spending habits.

⁵ The information presented regarding household expenditures on communications services comes from Statistics Canada's [Survey of Household Spending](#) and does not include any projections or CRTC data.

Figure 1.4 Average monthly household communications services spending



Source: Statistics Canada’s Survey of Household Spending, Table: 11-10-0223-01

Data on communications services spending provides insights into how communications services affect the household budget, but there are limitations when using expenditure data to assess adoption and spending patterns. The data does not reflect consumption of free services, such as over-the-air television and radio services, which remain valuable to many Canadians. The data presented here reports average expenditures and takes into account all households, including those that do not subscribe to any services. As a result, the average expenditures may over- or under-report actual spending for individual households. Most communications subscriptions, like those for television distribution, landline, and Internet services, tend to be purchased at a household level (and often in a bundle)⁶, meaning that there is a single subscription per household. However, larger households may have higher expenditures for these services (e.g. purchasing more Internet data or a broader selection of television channels). Households may have several subscriptions to mobile services. The data presented here does not allow for analysis of individual expenditures on communications services.

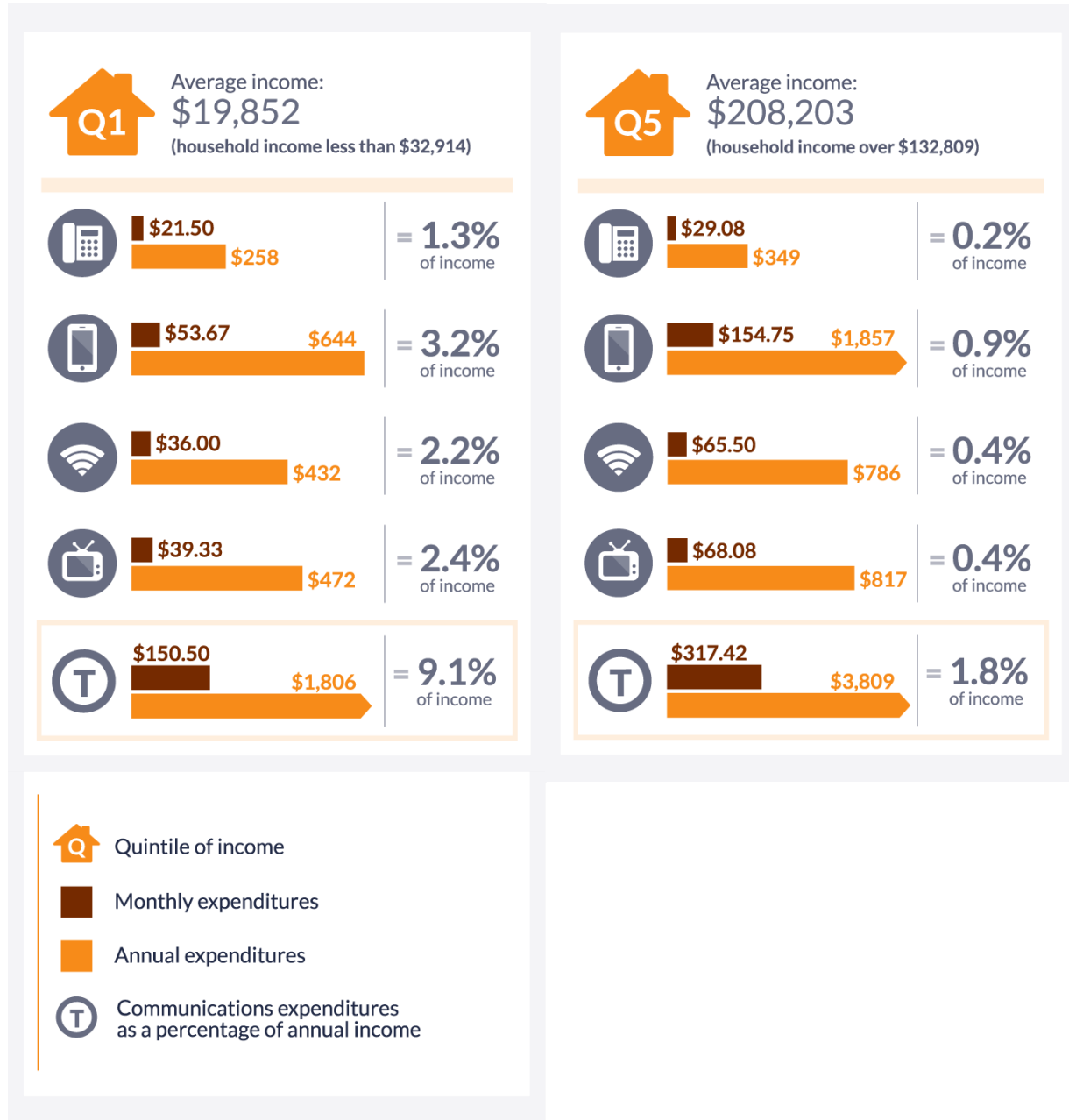
Statistics Canada reported that average annual household incomes before taxes in Canada in 2016 and 2017 were \$91,347 and \$90,185 respectively. Average income increased in all income quintiles, except in the fifth quintile. In 2017, the Canadian provincial average annual household income before taxes ranged from \$76,820 (New Brunswick) to \$111,212 (Alberta). The most significant shift in average household income was in Alberta, which saw a downward shift from \$129,102 in 2016 to \$111,212 in 2017.

Throughout 2017, the average Canadian household spent \$233.00 per month on communications services, an increase of \$10.17 (4.6%) from 2016 (see Table 1.6). As in 2016, Internet and mobile services drove household expenditure growth and telecommunications industry revenues (see Figure 1.4). In 2017, expenditures on mobile services led in terms of annual growth (9.7%), followed by expenditures on Internet services (9.4%). These increases occurred as consumers shifted to services offering higher Internet speeds and more mobile data. (See [Retail Fixed Internet Sector and Broadband Availability](#) and [Retail Mobile Sector](#) in the 2018 CMR for more details on Internet and mobile services respectively.)

⁶ See the annual [User Guide for the Survey of Household Spending](#) for a description of how expenditures for services bought as a bundle (e.g. Internet, television distribution, and landline) are separated into discrete expenses.

Expenditures by income quintile

Infographic 1.5 Household expenditures on communications services by income quintile



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0228-01

See [Table 1.6](#) on Open Data for data of all quintiles

In 2017, similar to previous years, household incomes in the fifth quintile were approximately 10.5 times higher than those in the first quintile, while expenditures on communications services as a percentage of household income were about five times higher in the first quintile than in the fifth. Annual expenditures on communications services represented 9.1% of the average income of households in the first quintile, compared to only 1.8% of the average income of households in the fifth quintile.

While there was considerable variance among the average amounts spent by Canadians in each income quintile, households tended to devote a larger proportion of their communications services budget to either mobile or television distribution services. On average, household spending on television distribution services decreased by 2.2% from 2016 to 2017, while average household spending on landline telephone services decreased by 8.2% during the same period. During the same period, household spending on mobile, Internet, and overall communications services continued to grow.

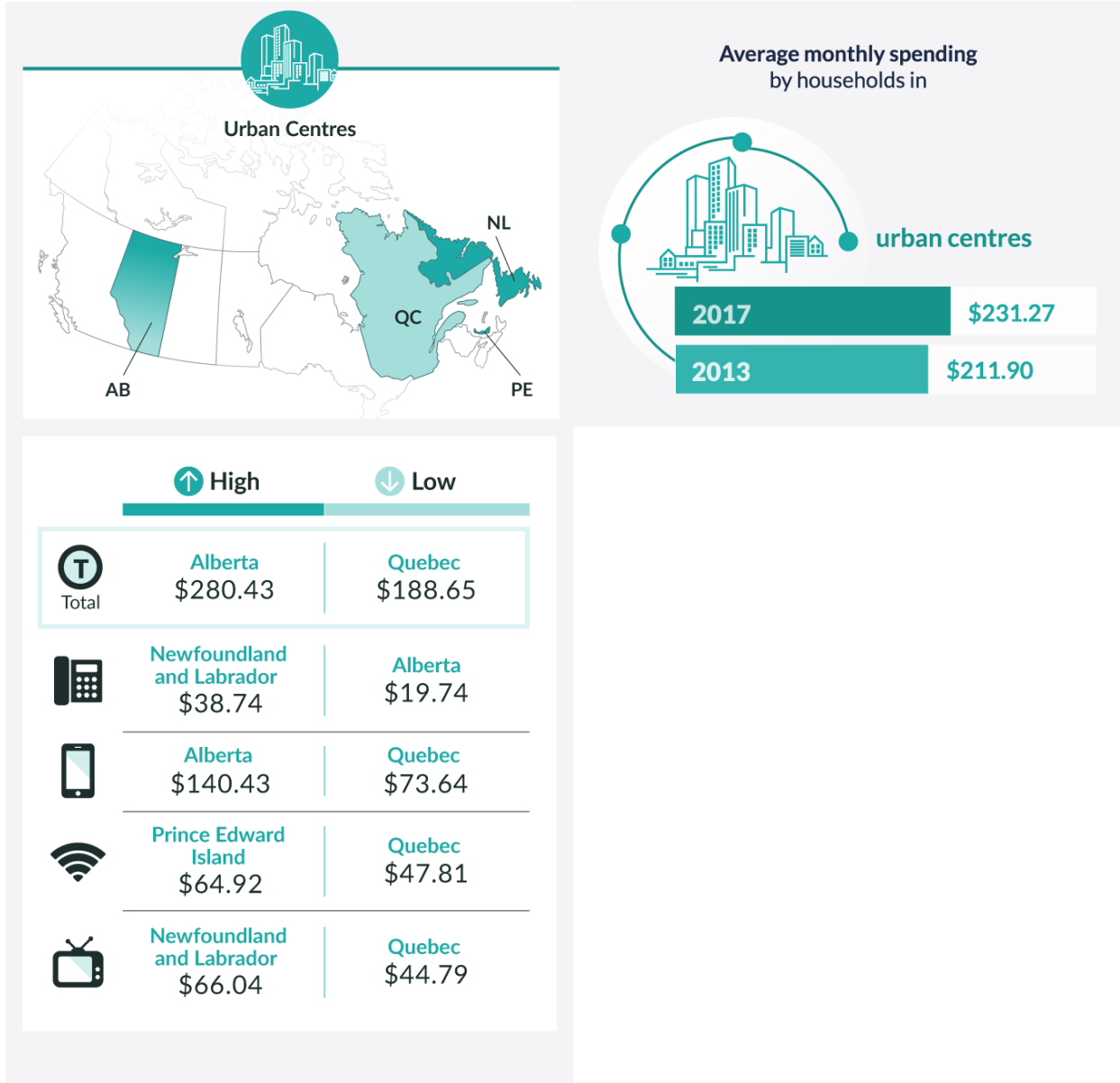
Overall, households spent the most on mobile services (\$101.00 per month on average; see Figure 1.4). On average, for all income quintiles, spending on landline services declined from 2013 to 2017 at a compound annual growth rate (CAGR) of -8.2%. However, average expenditures on Internet services showed the largest growth (9.4%) between 2016 and 2017, and the highest 2013 to 2017 CAGR (7.4%), for all income quintiles (Table 1.6).

Households in the highest income quintiles spent more on communications services than those in the lower income quintiles. Household expenditures increased across all quintiles between 2016 and 2017, with expenditures in households in the first income quintile increasing the most (7.4%).

Even though total spending on communications services by the lowest-income households was more than two times lower than total spending by the highest-income households, as shown in Table 1.7, expenditures on communications services represented a significantly larger percentage of their annual incomes, about five times more to be more precise. In addition, households in the first income quintile spent more on communications services on a per person basis than all other income quintiles, spending almost \$8.75 more per person per month than those in the fifth income quintile.

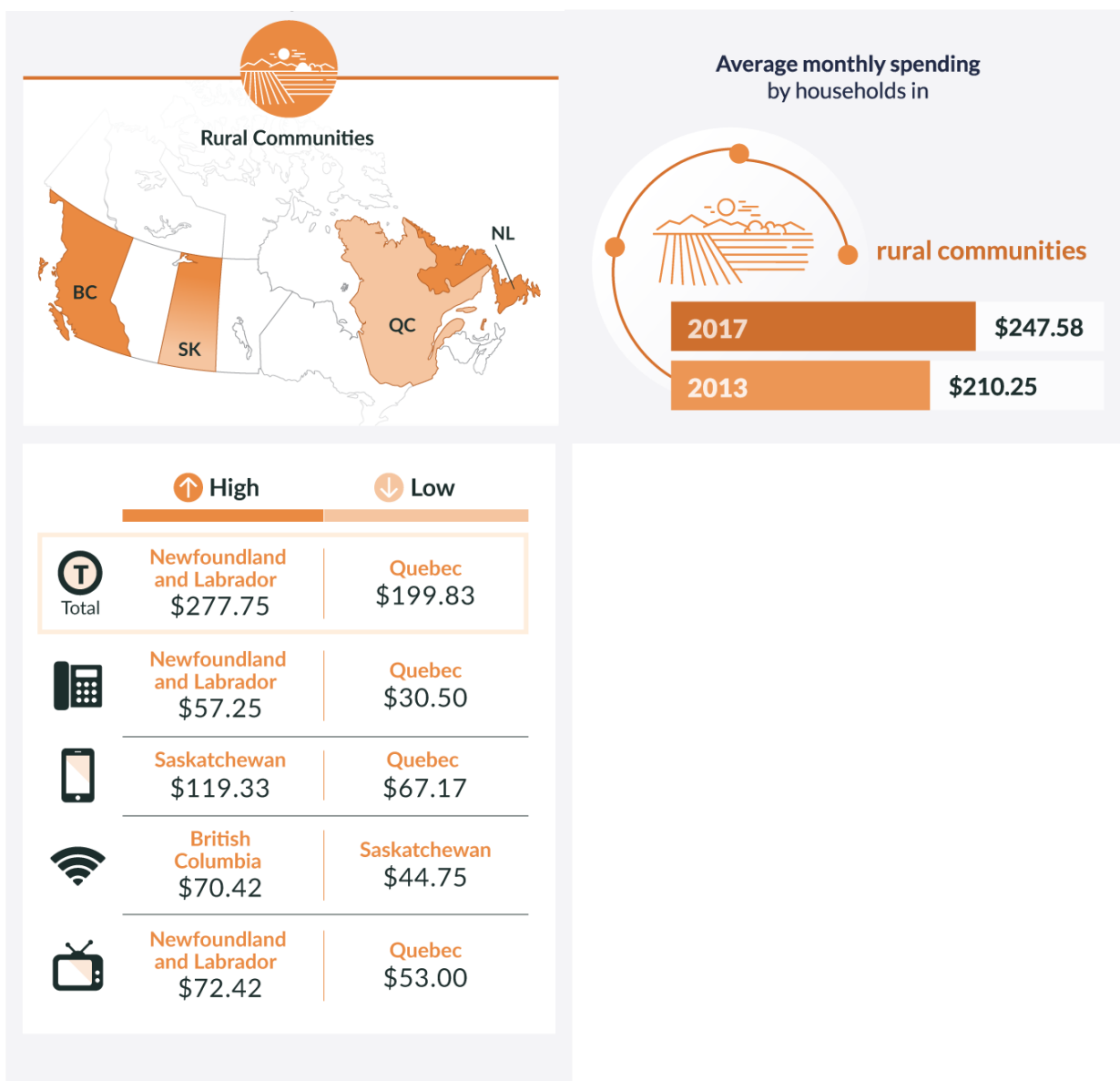
Average monthly expenditures by location - urban centres⁷ vs. rural communities⁸

Infographic 1.6 Average provincial household expenditures on communications services comparison in urban centres and in rural communities



⁷ Urban centres, also known as small/medium/large population centres, are defined by the following: small centres have populations between 1,000 and 29,999; medium centres have populations between 30,000 and 99,999; and large centres have populations greater than 100,000. For the purposes of this report, urban centres data reports the average of small/medium/large centres.

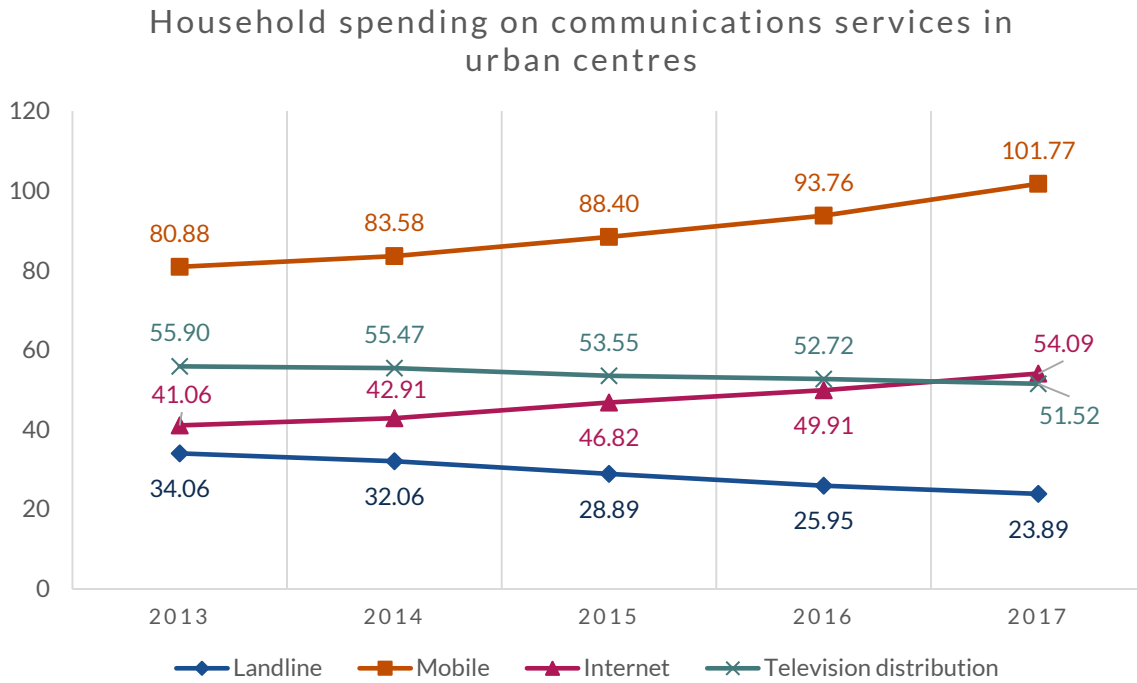
⁸ Rural communities are defined as areas with a population of less than 1,000 or a density of 400 or fewer people per square kilometre.



Source: Statistics Canada's Survey of Household Spending, Table 11-10-0223-01

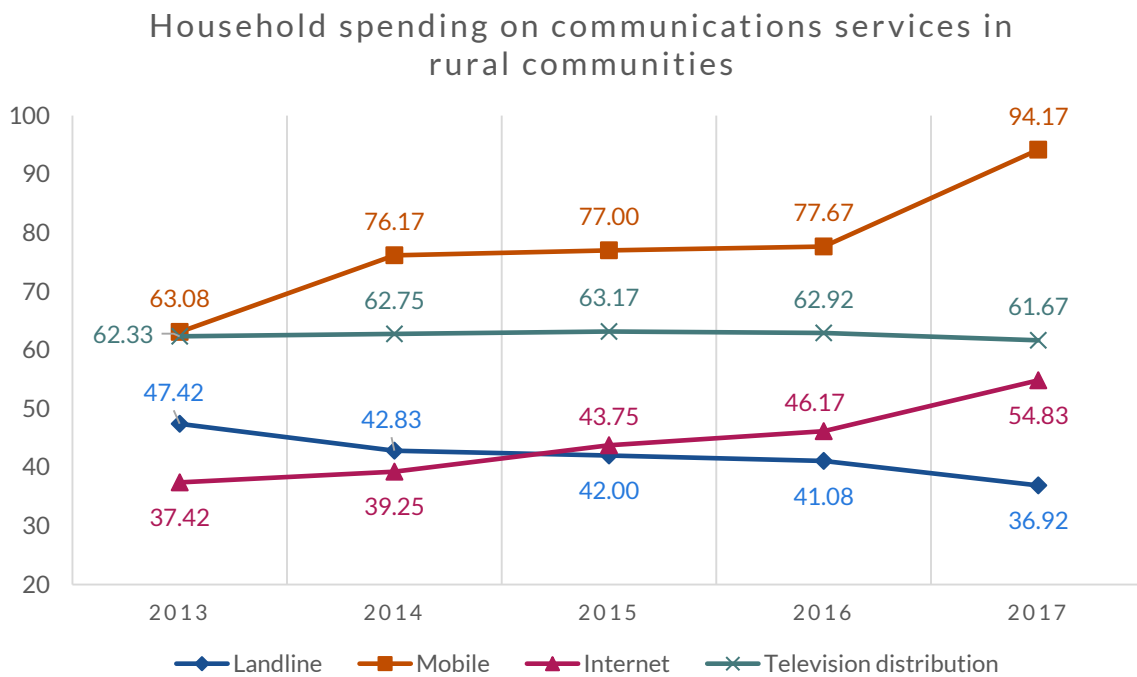
As seen in Table 1.6, expenditures on mobile and Internet services increased from 2013 to 2017, landline service expenditures decreased, and television distribution service expenditures remained relatively stable (see Figure 1.5). Internet expenditures surpassed landline service expenditures in urban centres in 2013, whereas in rural communities (see Figure 1.6) this occurred in 2015. Further, mobile service expenditures were fairly similar to television distribution service expenditures in rural communities prior to 2013, but more was spent on mobile services in recent years.

Figure 1.5 Average monthly household spending on communications services in urban centres



Source: Statistics Canada’s Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Figure 1.6 Average monthly household spending on communications services in rural communities



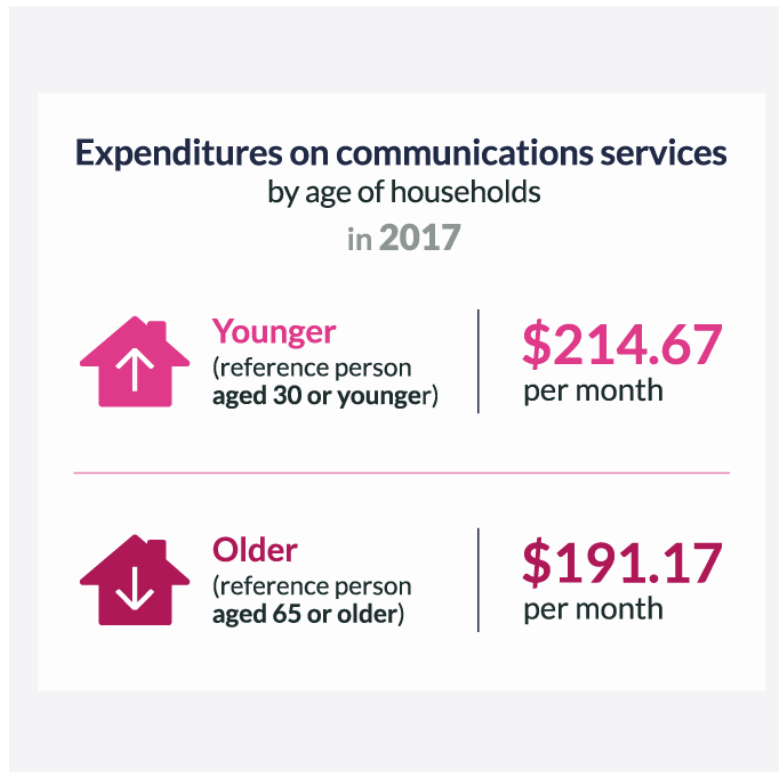
Source: Statistics Canada’s Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Households in rural communities increased their spending on all communications services to a greater degree than urban households. On average, households in rural communities spent \$247.58 per month, an increase of 8.7% from 2016, compared to those in urban centres, which spent \$231.27 per month, an increase of 4.0% for the same period. The difference in average household expenditures between urban and rural communities reflects the slightly higher prices offered in rural areas, where there are typically fewer service providers.

Expenditures also varied by province. For instance, Quebec residents spent significantly less on communications services in both urban and rural communities (see Table 1.9 and Table 1.10) than all other provinces, while Newfoundland and Labrador residents spent the most on communications services. Overall, the highest total monthly service spending in urban centres was in Alberta at \$280.43 while in rural communities it was in Newfoundland and Labrador, at \$277.75.

Expenditures by age

Infographic 1.7 Household expenditures on communications services by age in 2017



Source: Statistics Canada's Survey of Household Spending Table: 11-10-0227-01

Data on household spending by age was segmented based on the age of the household's reference person,⁹ the person who typically handled financial matters in the home. Households whose reference person was aged 40 to 54 spent the most on communications services (\$266.08 per month, up 3.2% from 2016), while those whose reference person was aged 65 years or over spent the least (\$191.17 per month, up 4.8% from 2016).

In all Canadian households, the smallest communications expense was for landline services (Figure 1.7), which were also the services with the biggest age-related differences in household expenditures. Although landline subscriptions are declining annually (as seen in Figure 1.2), landlines remained important for Canada's older households. While younger households spent just \$6.08 per month on average on landline services (an average expenditure that includes many households that do not have a landline), the oldest households spent on average more than six times that amount (\$37.83 per month).

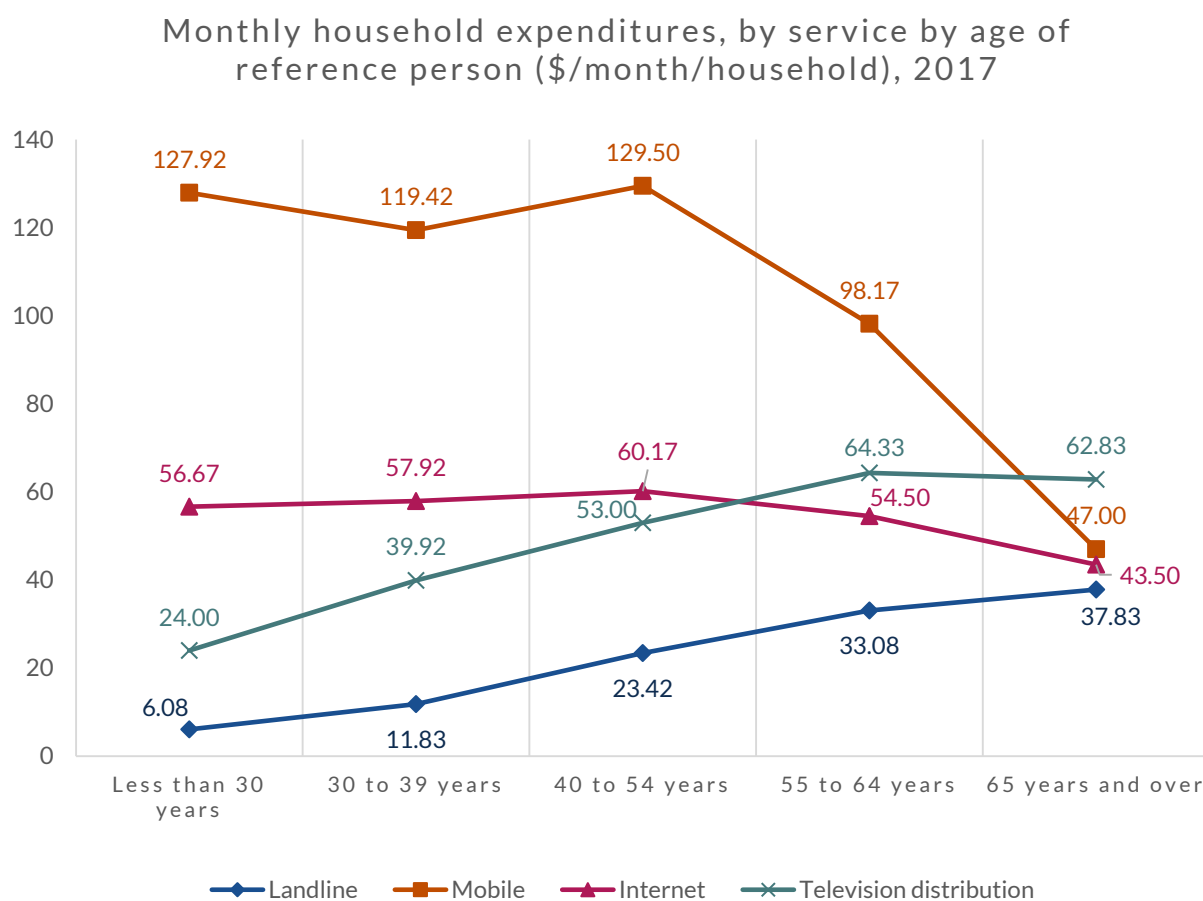
This difference between age groups was also reflected through their usage habits. Older households (whose reference person was aged 65 years or over) spent the most on television distribution services and the least on Internet services. Typically, the younger generation (households whose reference person was under 30 years old), which watched an average of 18.6 hours of television per week, spent on average \$24.00 a month

⁹ Statistics Canada identifies the reference person as the household member mainly responsible for household financial maintenance (for example, paying the mortgage, property taxes, or utility bills). In cases where members share the financial responsibility equally, one person is chosen to be the reference person.

on television distribution services. This spending was more than 50% lower than the oldest generation, which watched on average 42.2 hours per week and spent \$62.83 per month on television distribution services (2018 CMR - Broadcasting, [Figure 9.6](#)). Figure 1.8 is comparable to Figure 1.7, showing how the trends for mobile, Internet, and landline were fairly similar in terms of both expenditures and percentage of users per age group.

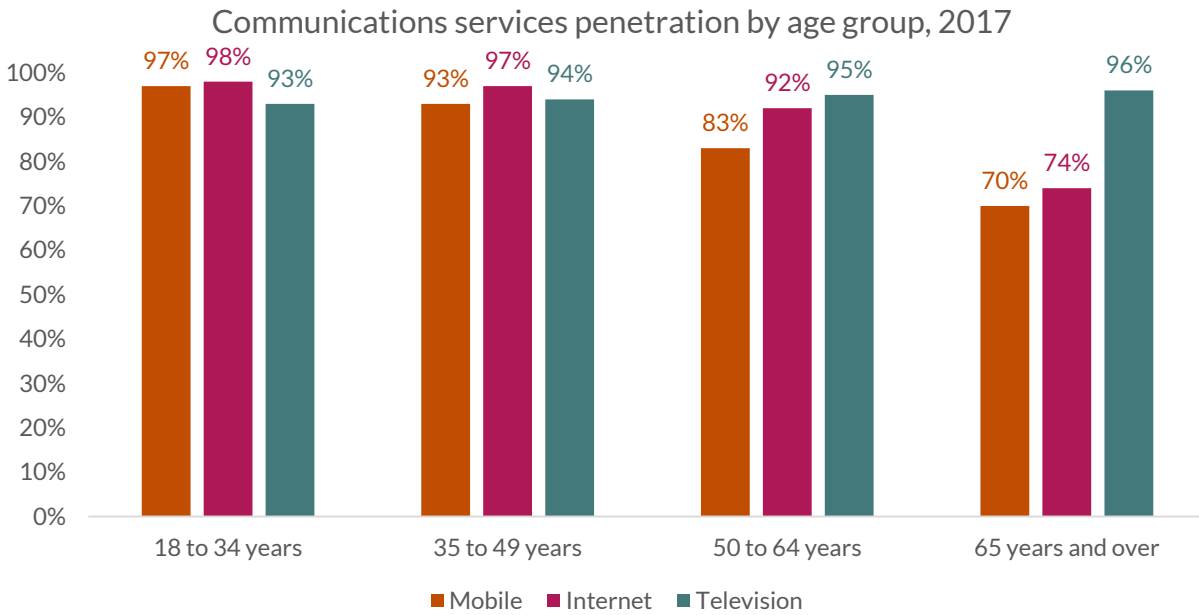
Figure 1.7 illustrates stark differences in spending between the youngest and oldest households. The youngest households tended to spend much more on Internet and mobile services than their older counterparts. Ninety-seven percent of the youngest generation surveyed used mobile services and allocated a large portion of their spending towards it (\$127.92 per month). A similar pattern was visible with Internet services. The correlation between spending and usage suggests that different services have varying levels of importance to each generation, and that individuals spent more on the services they tended to use the most.

Figure 1.7 Monthly household expenditures, by service and by age of reference person (\$/month/household), 2017



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0227-01

Figure 1.8 Communications services penetration by age group¹⁰, 2017

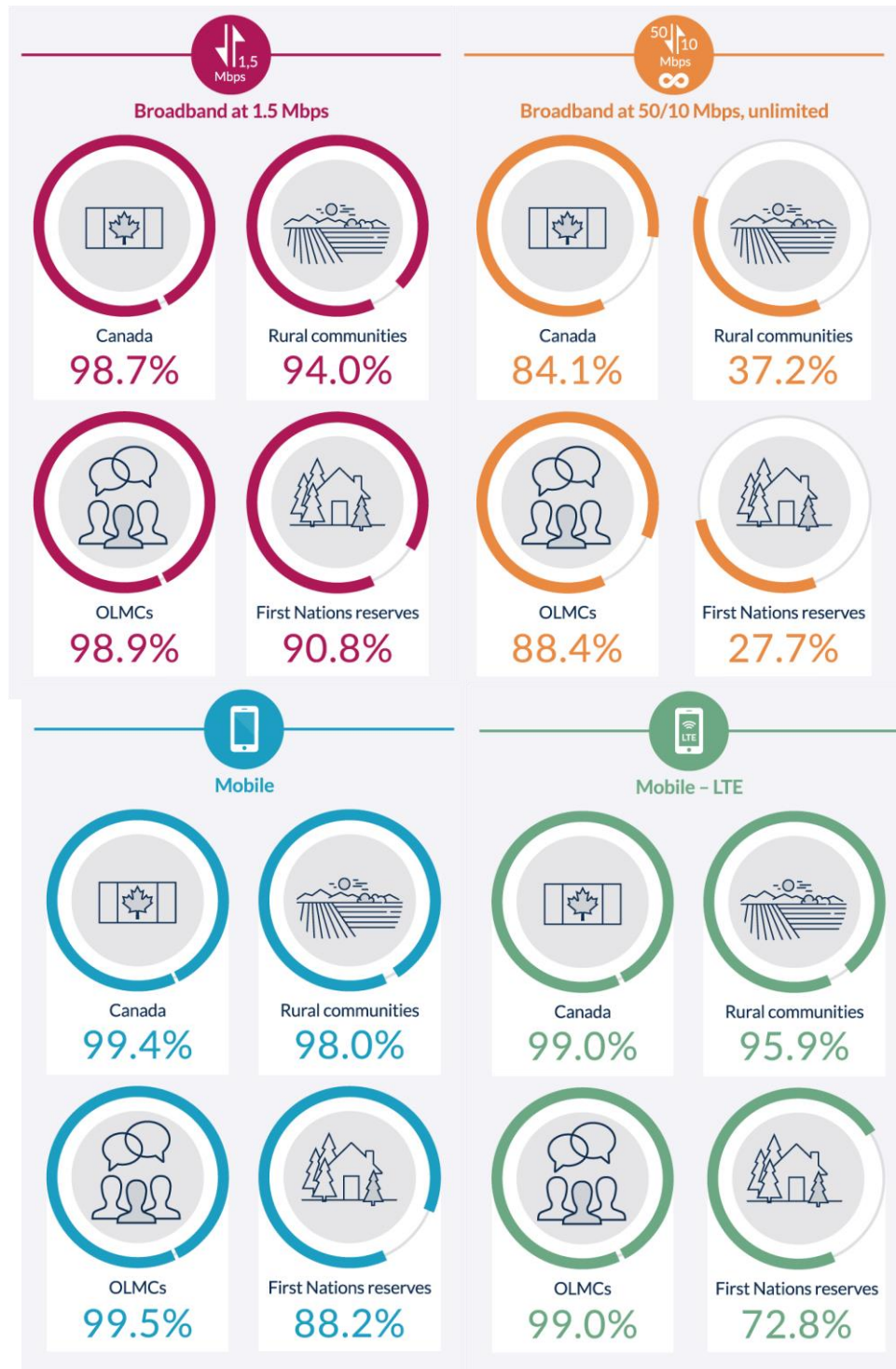


Source: Media Technology Monitor, Fall 2017 (respondents: Canadians aged 18+)

¹⁰ The total number of respondents and responses from the Media Technology Monitor may differ from those in Statistics Canada’s Survey of Household Spending. The age group parameters are also different to correlate with the parameters in the respective surveys.

iv. Who is covered by broadband and mobile networks across Canada?

Infographic 1.8 Broadband and mobile coverage in Canada in 2017



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Notes: For the purposes of this report, the official language minority population is defined in terms of the first official language spoken metric as defined within the [Official Languages Act](#), using data from the 2016 Census. In all provinces and territories except Quebec, the official language having minority status is French. In all provinces and territories except Quebec, the official language having minority status is French. The presence of official language minority populations within a 25km area of an official minority language school was used to model and map OLMCs.

First Nations reserve areas, representing total population and dwellings on reserves, were used in the analysis.

Broadband was measured on a household basis, at 1.5 Mbps and at 50/10 Mbps unlimited service availability. Mobile and mobile via LTE availability were measured on a population basis.

Arguably, broadband Internet services and mobile services have become the two most important services to Canadians over the past several years. The two services combined made up more than 66.6% of total household expenditures of communications services at the end of 2017. Hence, access to these services was fundamentally essential to enable Canadians to fully participate in society and to benefit from the digital economy.

The availability of broadband at 1.5 Mbps and mobile services across Canada varied by province or territory and level of service, especially in certain communities. Generally, Canadians who resided in official minority language communities (OLMCs) and rural communities had similar levels of access to Internet and mobile services to households and Canadians who resided in First Nations reserve areas.

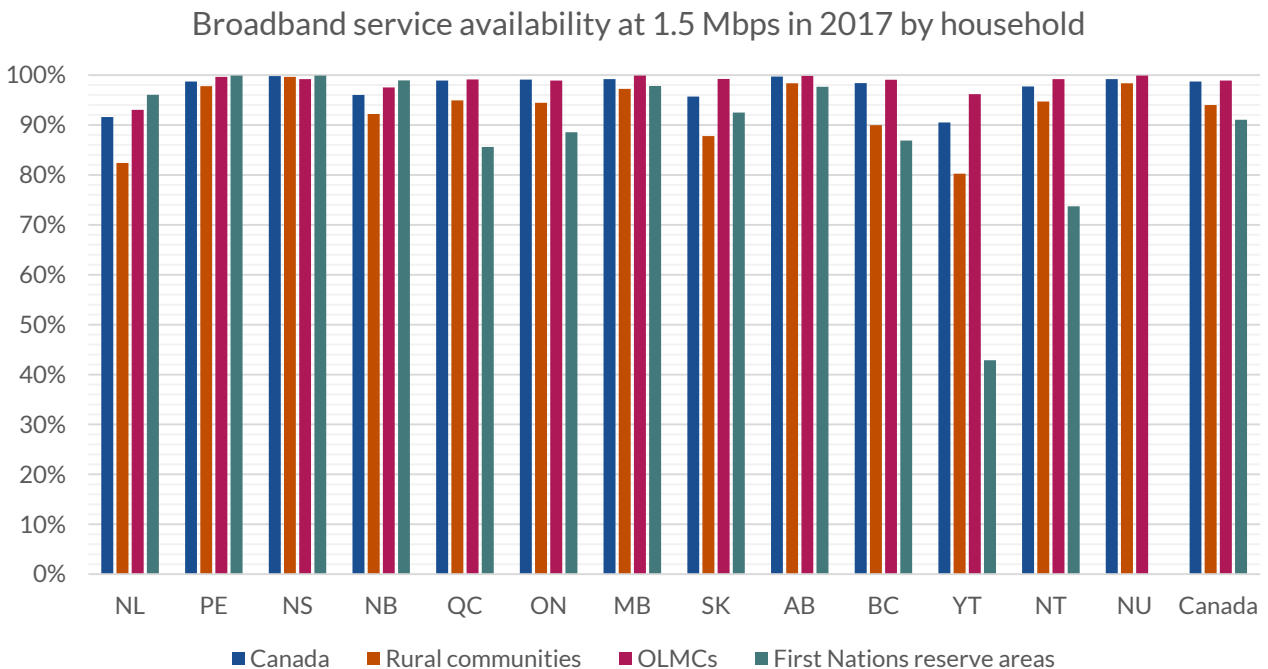
In Newfoundland and Labrador, only 67.9% of First Nations reserve areas had access to mobile services, compared to 96.1%, overall, of all residents of Newfoundland and Labrador; this was even lower than in each of the three territories. Two other provinces where the First Nations reserve areas had considerably less access to mobile services than the overall provincial level were Quebec and Manitoba, at 75.6% and 77.6% respectively.

Broadband Internet services

For the purposes of this section, broadband availability at 1.5 Mbps and at 50/10 Mbps unlimited is reported on a household basis. Availability of 1.5 Mbps broadband in OLMC and rural communities was closely aligned to the provincial average, while availability in First Nations reserve areas in certain provinces was significantly lower. There were four provinces (Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick) where broadband availability was greater in First Nations reserve areas than the provincial average, which may suggest that these communities were well served in 2017. However, in First Nations reserve areas in the North and in the provinces of Quebec and Ontario, broadband availability was much lower than the provincial figures, suggesting that these communities were less well served overall.

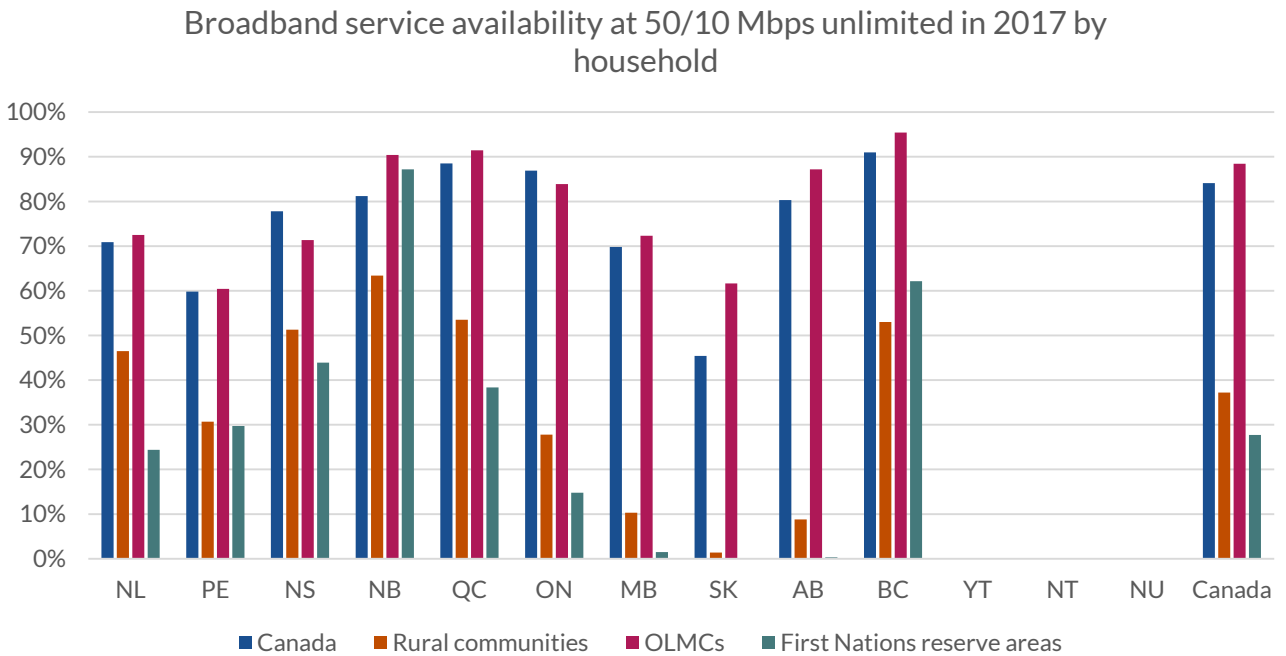
The availability of 50/10 Mbps unlimited broadband was noticeably different from availability at 1.5 Mbps. Across Canada, 50/10 Mbps unlimited was available to 84.1% of Canadians. However, only 37.2% of rural communities and 27.7% of First Nations reserve areas had access to the faster speeds of 50/10 Mbps unlimited, demonstrating a divide between the various communities for faster broadband services. In the northern territories (Yukon, Northwest Territories and Nunavut), 50/10 Mbps unlimited broadband is unavailable altogether, which further illustrates the urban-rural divide in terms of access to service, especially at the faster speeds.

Figure 1.9 Broadband service availability at 1.5 Mbps in the provinces and territories in 2017 by household, in Canada overall, and in rural communities, OLMCs, and First Nations reserve areas



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Figure 1.10 Broadband service availability at 50/10 Mbps unlimited in the provinces and territories in 2017 by household, in Canada overall, and in rural communities, OLMCs, and First Nations reserve areas



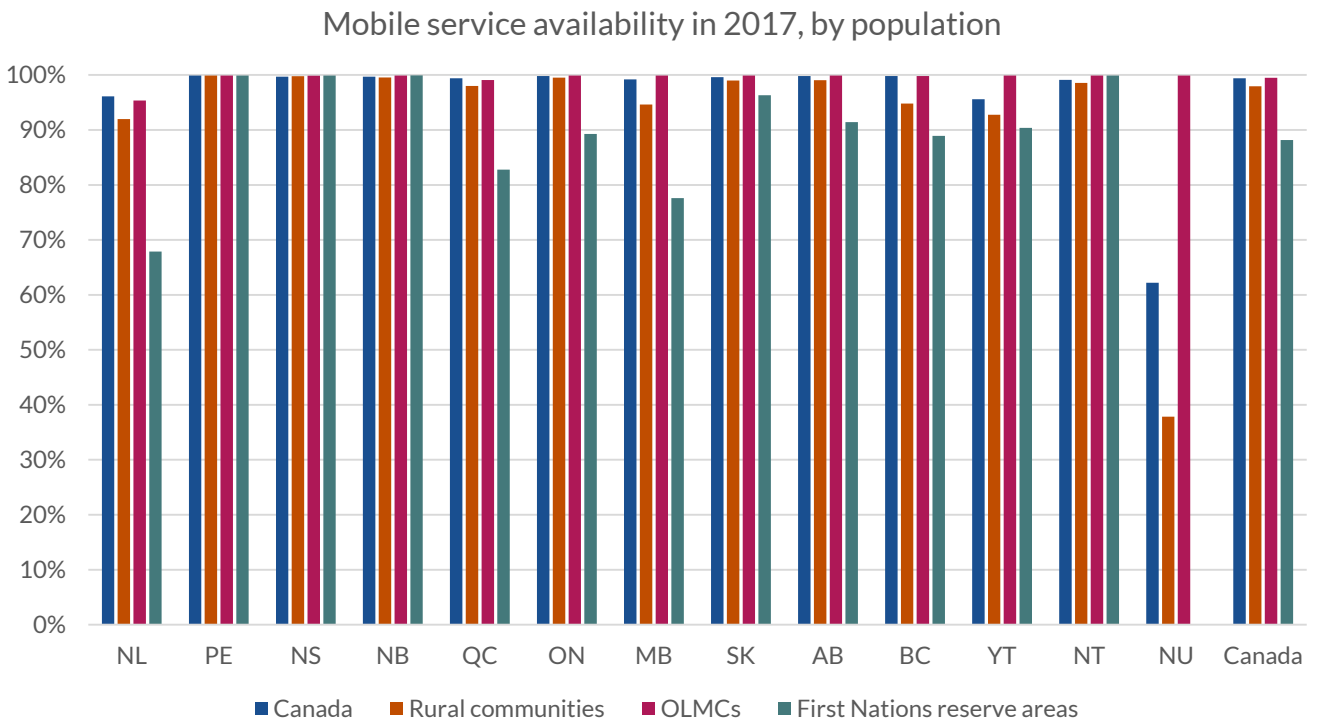
Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Mobile services

Mobile services via LTE were available to 99.0% of Canadians at the end of 2017. In rural communities, OLMCs, and First Nations reserve areas, LTE was available to 95.9%, 99.0%, and 72.8% of the population, respectively.

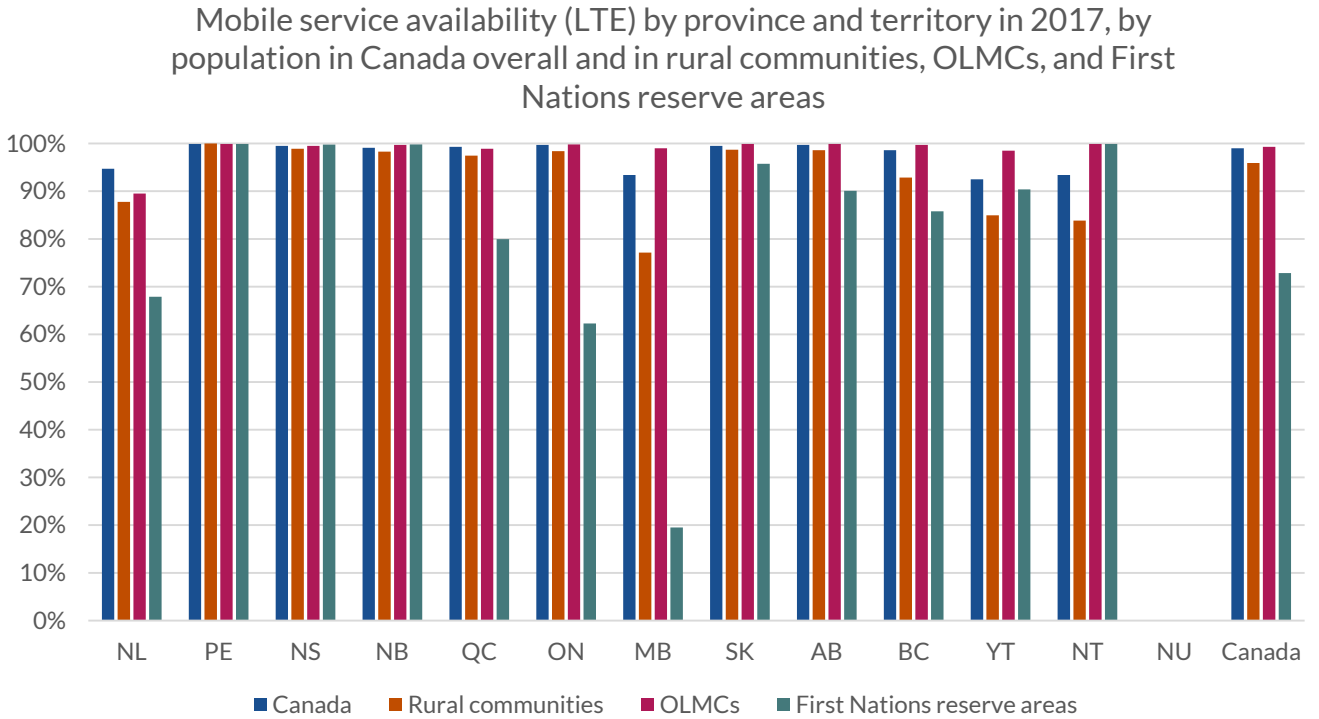
The largest difference in coverage between the provincial average and the First Nations reserve areas was seen in Manitoba. Only 19.5% of the First Nations reserve areas in Manitoba had access to LTE, compared to 93.4% of Manitobans in general. Two other provinces that also showed noticeable differences in access to LTE were Newfoundland and Labrador and Ontario where 67.9% and 62.3% of the First Nations reserve areas are covered by LTE, respectively, compared to their overall provincial figures of 94.7% and 99.7% respectively.

Figure 1.11 Mobile service availability by province and territory in 2017, by population in Canada overall, in rural communities, in OLMCs, and in First Nations reserve areas



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Figure 1.12 Mobile service availability (LTE) by province and territory in 2017, by population in Canada overall and in rural communities, OLMCs, and First Nations reserve areas

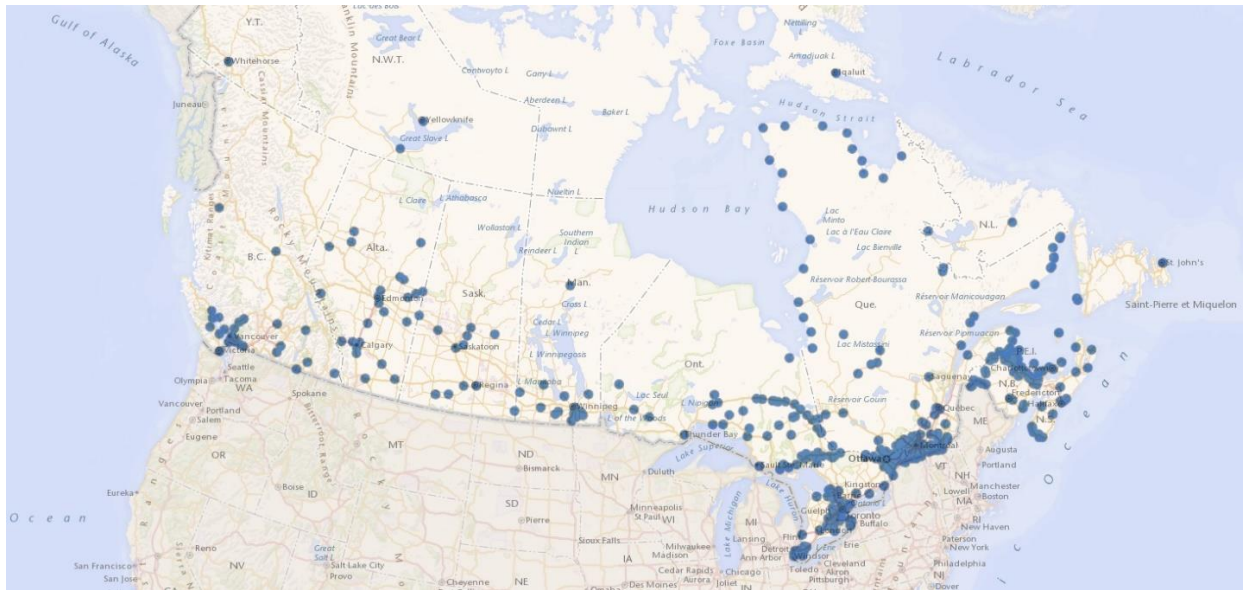


Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

New Brunswick has the largest official language minority population, at 31.0% of its overall population, followed by Quebec at 13.4%.

See Table 1.11 (Open Data) for 2016 data on Canadians whose mother tongue is an official language with minority status in the province or territory in which they reside, and in Canada overall. In all provinces and territories except Quebec, the official language having minority status is French.

Map 1.1 Population distribution of OLMCs across Canada, 2016

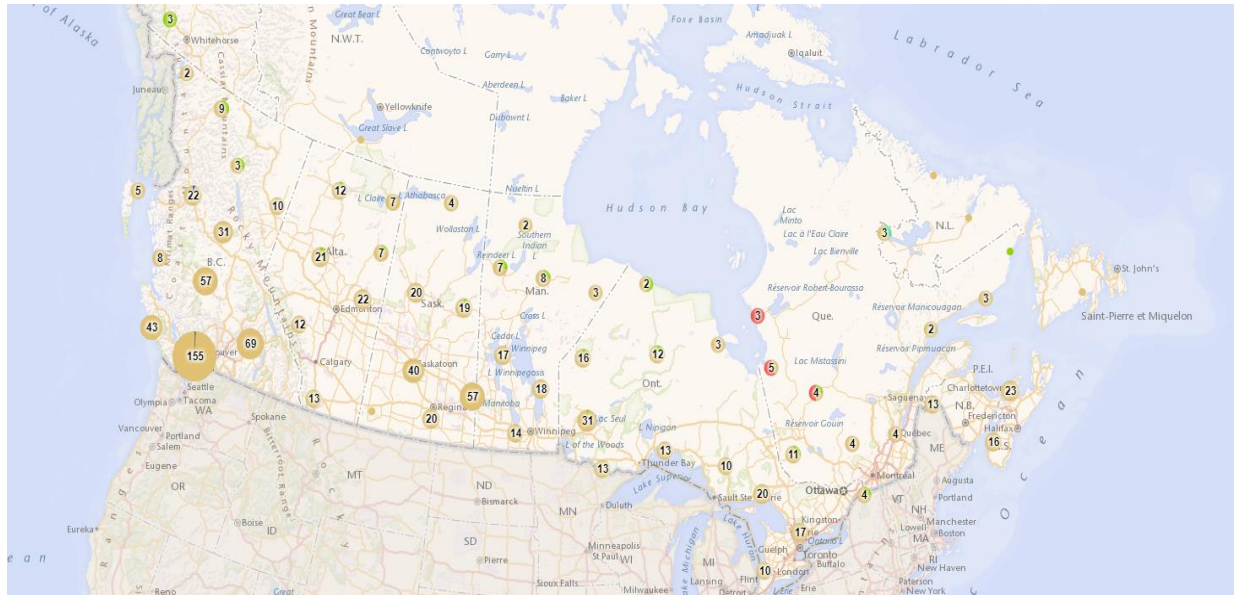


Source: 2016 Census, Statistics Canada, and data collection from both Innovation, Science and Economic Development Canada (ISED) and CRTCC

Map 1.1 displays areas across Canada where OLMCs are present. The blue circles are OLMCs, modeled as areas within 25km of an official language minority school. The [interactive map for OLMCs](#) is also available online.

Map 1.2 displays areas across Canada where First Nations reserve areas are present. The colour and number inside each circle represents the specific type of reserve where First Nations reserve areas are present and the number of reserves in each area. Broadband availability within each census subdivision is available as part of the data set. Zoom into the map to update the tooltip with the broadband availability or review the Data Panel at the bottom of the map for full details. The [interactive map for the number of reserve areas](#) is also available online.

Map 1.2 Distribution of First Nations reserve areas across Canada, 2017



Source: 2016 Census, Statistics Canada, and data collection from both Innovation, Science and Economic Development Canada (ISED) and CRTC

v. Methodology

Urban centres and rural communities

Urban centres, also known as small/medium/large population centres, are defined as follows: small centres have populations between 1,000 and 29,999, medium centres have populations between 30,000 and 99,999, and large centres have populations greater than 100,000. For the purposes of this report, data for urban centres reports the average of small/medium/large centres.

Rural communities are defined as areas with a population of less than 1,000 or a density of 400 or fewer people per square kilometre.

Official language minority communities

To identify official language minority communities (OLMCs) in Canada, a number of different criteria can be used. These include identifying the first language learned at home, the language spoken at home, and the language of education.

For the purposes of this report, the official language minority population is defined in terms of the first official language spoken metric as defined within the [Official Languages Act](#), using data from the 2016 Census. In all provinces and territories except Quebec, the official language having minority status is French.

The presence of official language minority populations within a 25km area of an official minority language school was used to model and map OLMCs.

As a means of mapping OLMCs and calculating the availability of 50/10 Mbps unlimited service, a method of OLMC population placement was chosen that concentrates on areas within 25 km of official language minority schools to represent the locations of the communities. This methodology, which was developed by Canadian Heritage, was used to assign OLMC populations to areas and to calculate 50/10 Mbps unlimited availability to OLMC communities.

First Nations reserve areas

Statistics Canada uses census subdivisions to represent different areas in Canada. Census subdivisions are municipalities or areas that can be equated to municipalities for statistical reasons. The different census subdivisions used by Statistics Canada were assessed. The census subdivisions that represent First Nations reserve areas were included in the data analysis as well as mapping of this population. The analysis was based upon total population and dwellings on reserves according to the Statistics Canada census data and, as such, it may differ from other official sources.

Income quintiles and household spending

Income quintile information regarding household expenditures on communications services comes from Statistics Canada’s [Survey of Household Spending](#) and does not include any projections or CRTC data. Canadian household incomes and household monthly expenditures were reported for the five income quintiles. An income quintile is a measure of the socioeconomic status of 5 different household groups (specifically household income levels), with each household group representing about 20% of the total population.

Table 1.1 Average annual household incomes and average monthly expenditures by income quintile (\$/month), 2017

Type	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile
Income	Less than \$32,914	Between \$32,915 to \$56,495	Between \$56,496 to \$86,098	Between \$86,099 to \$132,808	Over \$132,809
Average annual income	\$19,852	\$44,725	\$70,794	\$107,287	\$208,203
Landline	\$21.50	\$25.17	\$23.58	\$26.67	\$29.08
Mobile	\$53.67	\$71.67	\$103.08	\$121.67	\$154.75
Internet	\$36.00	\$49.33	\$58.00	\$61.92	\$65.50
TV distribution	\$39.33	\$45.83	\$53.00	\$56.58	\$68.08
Total	\$150.50	\$192.00	\$237.67	\$266.83	\$317.42

Source: Statistics Canada’s Survey of Household Spending, Table: 11-10-0223-01

vi. Appendices

Table 1.2 Canadian landline and mobile service subscribers per 100 households, 2004-2017

Year	Landline	Mobile	Landline and/or mobile	Landline only	Mobile only
2004	96.2	58.9	98.9	40.0	2.7
2005	94.0	62.9	98.8	36.0	4.8
2006	93.6	66.8	98.6	31.8	5.0
2007	92.5	71.9	98.8	26.9	6.3
2008	91.1	74.3	99.1	24.8	8.0
2009	89.3	77.2	99.3	22.1	10.0
2010	89.3	78.1	99.4	21.3	10.1
2011	86.6	79.1	99.3	20.2	12.7
2012	83.8	81.3	99.2	17.9	15.4
2013	79.1	84.7	99.3	14.6	20.2
2014	75.5	85.6	99.2	13.6	23.7
2015	71.9	86.1	99.3	13.2	27.5
2016	66.8	87.9	99.3	11.4	32.5
2017	63.0	89.5	99.0	9.5	36.0

Source: Statistics Canada's Affordability Study (2004-2007) and Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01 (2008-2017)

Table 1.3 Canadian landline and mobile service subscribers per 100 households, by income quintile, 2013-2017

Service	Year	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles	CAGR of average of all quintiles (2013-2017)
Landline	2013	65.2	75.0	82.2	84.7	87.5	78.9	-5.5%
	2014	65.3	69.1	74.3	80.2	88.3	75.5	
	2015	63.6	68.6	72.1	74.1	81.0	71.9	
	2016	58.2	65.3	63.6	70.6	76.1	66.8	
	2017	54.9	59.7	62.7	65.2	72.5	63.0	
	Growth 2016-2017 (%)	-5.7	-8.6	-1.4	-7.6	-4.7	-5.6	
Mobile	2013	66.8	79.7	88.5	92.9	96.4	84.9	1.3%
	2014	67.4	83.2	89.4	93.2	95.0	85.6	
	2015	69.9	80.3	89.9	93.9	96.7	86.1	
	2016	68.7	85.6	92.7	96.2	96.4	87.9	
	2017	73.1	86.8	94.4	96.3	96.9	89.5	
	Growth 2016-2017 (%)	6.4	1.4	1.8	0.1	0.5	1.8	
Landline and/or mobile	2013	97.5	99.7	99.7	99.6	100.0	99.3	-0.1%
	2014	97.8	99.4	99.2	99.5	99.8	99.2	
	2015	98.6	99.0	99.5	99.8	99.8	99.3	
	2016	98.2	99.5	99.6	99.6	99.8	99.3	
	2017	97.0	99.6	99.5	99.5	99.3	99.0	
	Growth 2016-2017 (%)	-1.2	0.1	-0.1	-0.1	-0.5	-0.3	
Landline only	2013	30.7	20.0	11.2	6.7	3.6	14.4	-9.9%
	2014	30.4	16.2	9.8	6.3	4.8	13.6	
	2015	28.7	18.7	9.6	5.9	3.1	13.2	
	2016	29.5	13.9	6.9	3.4	3.4	11.4	
	2017	23.9	12.8	5.1	3.2	2.4	9.5	
	Growth 2016-2017 (%)	-19.0	-7.9	-26.1	-5.9	-29.4	-16.8	
Mobile only	2013	32.3	24.7	17.5	14.9	12.5	20.4	15.3%
	2014	32.5	30.3	24.9	19.3	11.5	23.7	
	2015	35.0	30.4	27.4	25.7	18.8	27.5	
	2016	40.0	34.2	36.0	29.0	23.7	32.6	
	2017	42.1	39.9	36.8	34.3	26.8	36.0	
	Growth 2016-2017 (%)	5.2	16.7	2.2	18.3	13.1	10.5	

Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01. Each quintile represents 20% of households.

Table 1.4 Landline and mobile service subscribers per 100 households, by province, 2017

Province	Landline	Mobile	Landline and/or mobile	Landline only	Mobile only
British Columbia	59.3	92.0	98.7	6.7	39.4
Alberta	55.6	93.6	98.7	5.1	43.1
Saskatchewan	57.3	93.5	99.7	6.2	42.4
Manitoba	65.6	90.1	99.5	9.4	33.9
Ontario	61.2	90.8	99.3	8.5	38.1
Quebec	67.6	84.4	98.5	14.1	30.9
New Brunswick	83.4	87.8	99.0	11.2	15.6
Nova Scotia	68.2	87.1	98.9	11.8	30.7
Prince Edward Island	67.8	87.3	98.6	11.3	30.8
Newfoundland and Labrador	83.0	89.1	99.6	10.5	16.6
All of Canada	63.0	89.5	99.0	9.5	36.0

Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Table 1.5 Home computer ownership and Internet use from home per 100 households, by income quintile, 2013-2017

Technology	Year	Household income less than \$32,914 (first quintile)	Household income from \$32,915 to \$56,495 (second quintile)	Household income from \$56,496 to \$86,098 (third quintile)	Household income from \$86,099 to \$132,808 (fourth quintile)	Household income over \$132,809 (fifth quintile)	Average for all quintiles
Home computer	2013	64.4	80.6	89.8	95.4	97.9	85.6
	2014	64.3	78.1	87.7	94.0	97.4	84.3
	2015	61.9	79.6	89.1	95.3	96.6	84.5
	2016	63.9	78.0	89.1	93.4	96.2	84.1
	2017	63.4	79.1	89.5	93.5	95.1	84.1
	Growth 2016-2017 (%)	-0.8	1.4	0.4	0.1	-1.1	0
Internet use from home	2013	59.7	77.6	89.0	94.9	98.4	83.9
	2014	63.5	78.5	88.7	95.5	98.3	84.9
	2015	64.4	82.1	92.8	97.2	98.2	86.9
	2016	65.2	82.7	93.3	97.9	98.1	87.4
	2017	69.0	85.3	94.1	97.7	98.5	89.0
	Growth 2016-2017 (%)	5.8	3.1	0.9	-0.2	0.4	1.8

Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Table 1.6 Average five-year monthly household spending on communications services, by service and by income quintile (\$/month/household), 2013-2017

Service	Year	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles	CAGR of average of all quintiles (2013-2017)
Landline	2013	29.08	33.50	36.08	38.17	41.00	35.58	-8.2%
	2014	26.58	31.08	32.50	36.17	40.33	33.33	
	2015	25.50	28.08	29.83	31.50	36.08	30.17	
	2016	22.75	26.67	27.75	26.92	33.25	27.50	
	2017	21.50	25.17	23.58	26.67	29.08	25.25	
	Growth 2016-2017 (%)	-5.5	-5.6	-15.0	-0.9	-12.5	-8.2	
Mobile	2013	42.42	55.92	77.25	91.75	127.00	78.92	6.4%
	2014	43.92	60.42	80.83	100.42	127.83	82.67	
	2015	43.75	62.25	84.83	105.33	140.08	87.25	
	2016	47.42	66.08	95.42	110.67	141.00	92.08	
	2017	53.67	71.67	103.08	121.67	154.75	101.00	
	Growth 2016-2017 (%)	13.2	8.5	8.0	9.9	9.8	9.7	
Internet	2013	25.58	35.25	42.08	48.00	52.42	40.67	7.4%
	2014	29.50	37.17	44.17	48.75	52.67	42.42	
	2015	30.58	41.58	49.92	53.75	56.83	46.50	
	2016	32.17	43.58	52.00	58.00	61.92	49.50	
	2017	36.00	49.33	58.00	61.92	65.50	54.17	
	Growth 2016-2017 (%)	11.9	13.2	11.5	6.8	5.8	9.4	
Television distribution	2013	37.00	49.33	57.67	64.58	74.50	56.58	-1.8%
	2014	38.92	49.42	56.92	62.25	74.17	56.33	
	2015	38.83	46.92	55.42	58.75	72.42	54.50	
	2016	37.75	47.92	52.50	59.58	71.08	53.75	
	2017	39.33	45.83	53.00	56.58	68.08	52.58	
	Growth 2016-2017 (%)	4.2	-4.4	1.0	-5.0	-4.2	-2.2	
Total	2013	134.08	174.00	213.08	242.50	294.92	211.75	2.4%
	2014	138.92	178.08	214.42	247.58	295.00	214.75	
	2015	138.67	178.83	220.00	249.33	305.42	218.42	
	2016	140.09	184.25	227.67	255.17	307.25	222.83	
	2017	150.50	192.00	237.67	266.83	317.42	233.00	
	Growth 2016-2017 (%)	7.4	4.2	4.4	4.6	3.3	4.6	
CAGR of total services	2013-2017	2.9	2.5	2.8	2.4	1.9	2.4	

Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0223-01

Table 1.7 Expenditure per service and by income quintile as a percentage of average annual income, 2017

Metric	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles
Average income	\$19,852	\$44,725	\$70,794	\$107,287	\$208,203	\$90,185
Landline	1.3%	0.7%	0.4%	0.3%	0.2%	0.3%
Mobile	3.2%	1.9%	1.8%	1.4%	0.9%	1.3%
Internet	2.2%	1.6%	1.0%	0.6%	0.4%	0.7%
Television distribution	2.4%	1.4%	0.9%	0.6%	0.4%	0.7%
Total communications expenditures	9.1%	5.2%	4.0%	3.0%	1.8%	3.1%

Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0223-01

Table 1.8 Household spending on communications services as a percentage of annual income, by income quintile, 2013-2017

Year	Characteristics	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	All quintiles
2013	Minimum household income threshold	\$0	\$30,669	\$51,805	\$79,723	\$121,292	Less than \$30,668
	Maximum household income threshold	\$30,668	\$51,804	\$79,722	\$121,291	n/a	More than \$121,292
	Average annual income	\$18,582	\$41,105	\$64,854	\$98,634	\$199,702	\$84,575
	Average members per household	1.49	2.11	2.49	2.95	3.34	2.48
	Communications expenditures as a percentage of average annual income	8.3%	4.9%	3.8%	2.8%	1.7%	2.9%
2014	Minimum household income threshold	\$0	\$30,520	\$53,275	\$81,295	\$124,839	Less than \$30,519
	Maximum household income threshold	\$30,519	\$53,274	\$81,294	\$124,838	n/a	More than \$124,839
	Average annual income	\$19,664	\$42,122	\$67,083	\$101,177	\$201,752	\$86,360
	Average members per household	1.50	2.05	2.51	2.91	3.40	2.47
	Communications expenditures as a percentage of average annual income	8.5%	4.1%	3.8%	2.9%	1.8%	3.0%
2015	Minimum household income threshold	\$0	\$31,609	\$54,588	\$82,710	\$126,879	Less than \$31,608
	Maximum household income threshold	\$31,608	\$54,587	\$82,709	\$126,878	n/a	More than \$126,879
	Average annual income	\$19,403	\$42,887	\$68,331	\$103,021	\$210,693	\$88,867
	Average members per household	1.43	2.11	2.57	2.91	3.35	2.47
	Communications expenditures as a percentage of average annual income	8.6%	5.0%	3.9%	2.9%	1.7%	2.9%
2016	Minimum household income threshold	\$0	\$32,091	\$55,471	\$85,337	\$130,046	Less than \$32,090
	Maximum household income threshold	\$32,090	\$55,470	\$85,336	\$130,045	n/a	More than \$130,046
	Average annual income	\$19,559	\$43,436	\$70,178	\$104,533	\$219,031	\$91,347
	Average members per household	1.47	2.01	2.51	3.00	3.36	2.47
	Communications expenditures as a percentage of average annual income	8.6%	5.1%	3.9%	2.9%	1.7%	2.9%
2017	Minimum household income threshold	\$0	\$32,915	\$56,496	\$86,099	\$132,809	Less than \$32,914
	Maximum household income threshold	\$32,914	\$56,495	\$86,098	\$132,808	n/a	More than \$132,808
	Average annual income	\$19,852	\$44,725	\$70,794	\$107,287	\$208,203	\$90,185
	Average members per household	1.47	2.01	2.53	2.93	3.39	2.47
	Communications expenditures as a percentage of average annual income	9.1%	5.2%	4.0%	3.0%	1.8%	3.1%

Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0223-01

Table 1.9 Household average monthly household communications services expenditure in rural communities, 2012-2017

Region	Service	2012	2013	2014	2015	2016	2017
Can.	Landline	47.25	47.42	42.83	42.00	41.08	36.92
Can.	Mobile	58.17	63.08	76.17	77.00	77.67	94.17
Can.	Internet	34.00	37.42	39.25	43.75	46.17	54.83
Can.	Television distribution	59.25	62.33	62.75	63.17	62.92	61.67
N.L.	Landline	58.33	58.50	56.17	55.83	53.08	57.25
N.L.	Mobile	60.67	62.33	76.92	87.92	93.67	95.67
N.L.	Internet	31.75	37.83	37.42	45.33	49.33	52.42
N.L.	Television distribution	61.92	65.33	70.25	70.75	76.67	72.42
P.E.I.	Landline	51.83	56.00	52.58	46.42	46.33	47.50
P.E.I.	Mobile	55.25	51.08	89.58	89.75	92.92	94.33
P.E.I.	Internet	35.50	40.50	39.67	50.42	58.83	59.08
P.E.I.	Television distribution	60.83	73.08	62.00	58.92	70.83	63.58
N.S.	Landline	55.42	54.67	53.17	54.08	44.58	44.42
N.S.	Mobile	58.50	67.42	67.67	66.08	84.33	86.00
N.S.	Internet	35.83	38.17	42.75	45.92	52.92	57.00
N.S.	Television distribution	67.92	65.92	65.50	66.25	61.92	63.58
N.B.	Landline	50.17	47.58	47.00	45.75	44.42	43.83
N.B.	Mobile	53.67	58.67	73.42	66.50	63.33	86.08
N.B.	Internet	31.75	33.83	38.58	39.25	41.08	51.08
N.B.	Television distribution	60.17	59.42	57.75	65.33	64.83	59.42
Que.	Landline	43.50	41.83	38.25	38.00	37.08	30.50
Que.	Mobile	31.17	45.25	49.42	49.50	53.42	67.17
Que.	Internet	31.83	33.00	33.67	37.08	36.42	49.17
Que.	Television distribution	51.75	55.75	50.67	50.83	54.08	53.00
Ont.	Landline	46.33	45.33	41.92	43.83	44.33	38.42
Ont.	Mobile	50.75	55.33	80.50	78.25	70.50	108.42
Ont.	Internet	36.83	43.00	44.42	47.42	54.92	57.50
Ont.	Television distribution	57.67	65.83	69.17	66.83	61.92	69.92
Man.	Landline	46.83	49.25	46.33	43.33	40.50	40.08
Man.	Mobile	70.42	83.83	91.42	104.17	103.50	111.50
Man.	Internet	29.58	37.83	42.33	38.00	52.92	57.83
Man.	Television distribution	55.75	58.83	55.67	70.33	77.83	65.50
Sask.	Landline	54.92	52.83	51.17	48.33	47.67	39.00
Sask.	Mobile	68.75	88.25	98.83	109.17	116.00	119.33
Sask.	Internet	34.08	29.25	37.92	41.42	44.75	44.75
Sask.	Television distribution	67.75	64.58	74.75	70.50	73.75	70.42
Alta.	Landline	46.25	56.92	39.58	36.25	36.17	35.00
Alta.	Mobile	130.17	114.67	139.67	118.75	121.17	117.75
Alta.	Internet	41.33	42.42	42.17	52.58	46.08	56.33
Alta.	Television distribution	76.17	72.75	80.08	74.42	70.42	66.58
B.C.	Landline	47.08	43.25	39.83	30.42	34.00	31.42
B.C.	Mobile	63.08	48.92	53.25	94.92	88.92	98.17
B.C.	Internet	31.17	38.33	37.83	54.17	52.92	70.42
B.C.	Television distribution	55.92	59.75	59.00	68.92	64.58	51.67

Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Table 1.10 Household average monthly communications services expenditure in urban centres, 2012-2017

Region	Service	2012	2013	2014	2015	2016	2017
Can.	Landline	35.97	34.06	32.06	28.89	25.95	23.89
Can.	Mobile	70.94	80.88	83.58	88.40	93.76	101.77
Can.	Internet	36.83	41.06	42.91	46.82	49.91	54.09
Can.	Television distribution	56.25	55.90	55.47	53.55	52.72	51.52
N.L.	Landline	47.14	43.48	42.76	40.66	42.19	38.74
N.L.	Mobile	77.17	84.21	92.92	99.46	112.16	117.77
N.L.	Internet	38.28	42.42	42.88	47.00	48.92	54.34
N.L.	Television distribution	62.32	61.44	67.91	61.87	64.05	66.04
P.E.I.	Landline	40.98	42.66	43.50	42.42	37.39	34.58
P.E.I.	Mobile	62.79	70.99	71.25	83.65	84.03	96.50
P.E.I.	Internet	38.76	43.89	45.67	50.40	55.09	64.92
P.E.I.	Television distribution	57.86	58.07	63.75	58.84	61.33	52.92
N.S.	Landline	44.13	40.77	38.93	36.88	36.91	34.11
N.S.	Mobile	70.56	77.16	72.22	85.00	95.31	95.80
N.S.	Internet	38.59	43.92	45.06	49.52	54.67	57.84
N.S.	Television distribution	62.40	58.52	61.36	55.48	58.14	56.09
N.B.	Landline	40.88	40.08	36.31	35.93	36.28	34.50
N.B.	Mobile	64.05	65.84	69.18	78.76	83.96	85.73
N.B.	Internet	38.31	41.14	41.38	46.55	46.51	51.52
N.B.	Television distribution	57.62	58.08	59.72	55.93	57.10	58.34
Que.	Landline	33.20	31.17	32.52	27.47	26.09	22.41
Que.	Mobile	49.77	53.31	57.14	58.48	65.12	73.64
Que.	Internet	35.26	37.97	35.89	37.61	41.36	47.81
Que.	Television distribution	44.64	44.56	46.33	45.91	46.87	44.79
Ont.	Landline	38.61	37.95	33.15	31.23	27.51	25.98
Ont.	Mobile	73.17	86.79	88.82	92.76	97.80	103.93
Ont.	Internet	38.92	43.44	47.25	50.85	53.18	55.66
Ont.	Television distribution	59.47	58.24	55.45	53.08	51.64	51.66
Man.	Landline	35.35	34.03	34.29	30.85	25.66	26.20
Man.	Mobile	71.86	84.86	83.55	84.79	88.48	104.33
Man.	Internet	36.41	37.91	41.90	43.79	46.38	51.32
Man.	Television distribution	61.03	60.79	60.79	58.55	53.72	52.04
Sask.	Landline	38.29	35.05	31.33	28.98	27.11	24.17
Sask.	Mobile	86.50	92.71	95.85	106.26	111.11	118.16
Sask.	Internet	32.80	34.41	37.10	43.22	44.46	50.05
Sask.	Television distribution	62.65	63.83	63.53	63.61	61.21	57.76
Alta.	Landline	34.41	31.60	29.29	25.20	21.24	19.74
Alta.	Mobile	98.18	110.17	113.48	125.42	128.13	140.43
Alta.	Internet	36.31	41.75	44.97	51.57	55.39	60.77
Alta.	Television distribution	65.26	64.97	65.05	65.45	62.14	59.49
B.C.	Landline	30.68	26.89	27.13	23.96	19.83	18.66
B.C.	Mobile	77.98	90.11	92.55	97.98	102.84	113.87
B.C.	Internet	34.03	40.64	42.60	49.06	52.76	56.57
B.C.	Television distribution	55.82	58.38	58.23	54.17	54.13	52.94

Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01



Communications Monitoring Report **2019**

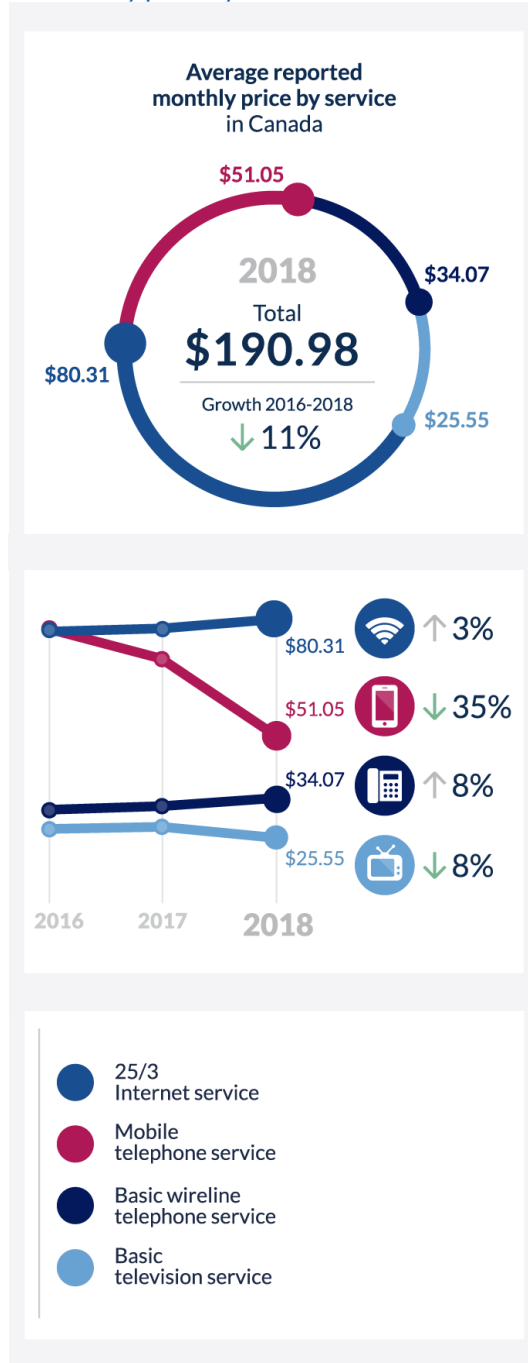
2018 Communications
Services Pricing
in Canada



2018 Communications Services Pricing in Canada

i. Highlights

Infographic 2.1 Average reported monthly price by service in Canada



Source: CRTC data collection

The Canadian Radio-television and Telecommunications Commission (hereafter, the Commission) collects prices annually from Canadian service providers for residential communications services. This report presents the reported monthly prices (hereafter, prices) for each of basic television¹, basic wireline telephone², Internet (3 levels of service) and mobile (4 levels of service) services for 24 urban centres and 54 rural communities, from all provinces and territories across Canada, as of December 31, 2018³.

Based on the prices of basic television, basic wireline telephone, Internet (25/3)⁴ and mobile (unlimited voice & SMS and 5GB of data)⁵, the nationwide monthly reported average price for the four services combined (hereafter, combined price) in 2018 was an average of \$191, or 11%, lower than in 2016.

The decrease in combined prices is attributable to lower prices for mobile services (specifically, plans that include unlimited voice and SMS, and 5 GB of data) across Canada, and to a lesser degree lower basic television service prices in most areas.

In 2018, Internet and mobile services accounted for almost 70% of the combined price, with each service offering a number of plans with varying price trends over the 2016–2018 period. These services are explored in more detail below. Subsequent subsections will examine provincial/territorial as well as urban/rural prices and trends.

¹ A basic television package includes local and regional TV stations, channels with mandatory distribution, community and provincial legislature channels (where available), and provincial/territorial educational channels.

² Basic wireline phone service refers to single-line, local telephone service operating over a managed network, (i.e. circuit-switched or IP-based) including dial-tone, touchtone, message relay and 9-1-1 service. Access independent voice over Internet Protocol (VoIP) telephony and mobile are not considered basic wireline phone services for the purposes of this report.

³ See methodology for pricing methodology and the list of urban centres and rural communities.

⁴ Internet is represented by the category of service that includes 25 Mbps download and 3 Mbps upload, with at least 100 GB of monthly transfer. It is the most representative of subscribership out of the three monitored packages.

⁵ Mobile is represented by the plan that includes unlimited voice and SMS, and 5 GB of Internet data.

Prices by type of service

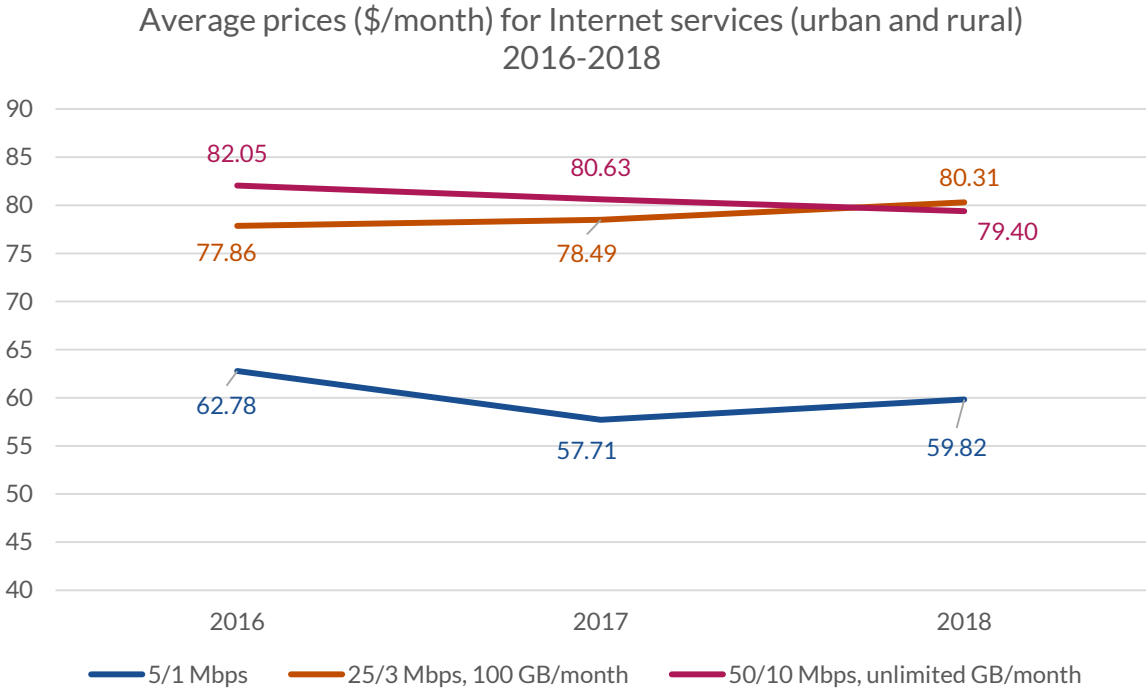
Average monthly prices for Internet services: 2016-2018

From 2016 to 2018, prices for Internet services generally declined, although they evolved at different rates depending on the speed of the service.

Prices for 5/1 and 50/10 internet services decreased by 5% and 3% respectively from 2016 to 2018. At the same time, subscribers were moving towards faster packages and internet service offerings were moving to higher speeds and higher data limits. In 2017, for example, almost 40% of high-speed residential Internet service subscriptions were for download speeds of 50+ Mbps, compared to 26% in 2016.

In contrast to the average price of 5/1 and 50/10 internet services, the average price for 25/3 internet service increased by 3% over the 2016-2018 period.

Figure 2.1 Average prices (\$/month) for Internet services (urban and rural) 2016-2018



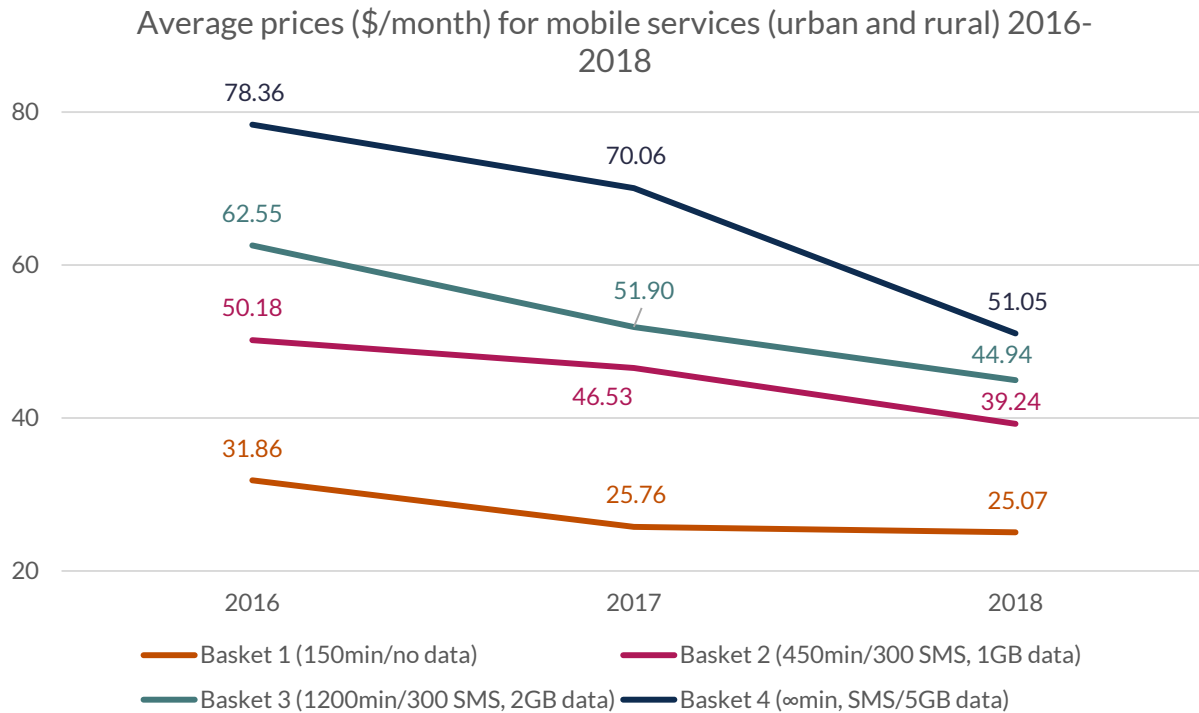
Source: CRTC data collection

Average monthly prices for mobile services: 2016-2018

Against a backdrop of higher data usage (the average mobile data subscriber used over 2 GB of data per month in 2017, a 30% increase from 2016) and significant smartphone penetration (87% in 2017), prices for mobile services have declined over the 2016-2018 period. Decreases were most pronounced for service offerings including 2GB of data or more.

2018 prices for mobile services offering 150 to 450 minutes of voice service and up to 1GB of data decreased by approximately 22% when compared to 2016, while prices for mobile services offering 2GB of data or more decreased by approximately 32% compared to 2016.

Figure 2.2 Average prices (\$/month) for mobile services (urban and rural) 2016-2018



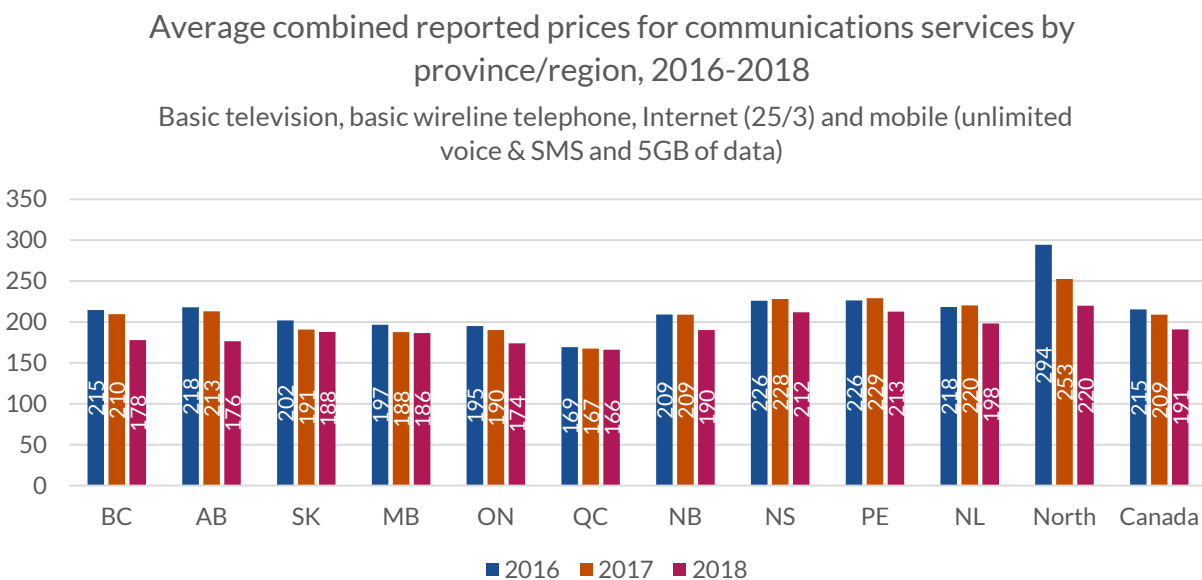
Source: CRTC data collection

Prices by province/territory

While the national price for combined communications services decreased on average by 11% when compared to 2016, there were regional differences.

The graph below focuses on basic television, basic wireline telephone, Internet (25/3), and mobile (unlimited voice & SMS and 5GB of data) services to highlight provincial/territorial pricing differences.

Figure 2.3 Average combined reported prices for communications services by province/region, 2016-2018
Basic television, basic wireline telephone, Internet (25/3) and mobile (unlimited voice & SMS and 5GB of data)



Source: CRTC data collection

Note: for trending purposes, when there is no reported price in a rural location, the corresponding reported urban price is used (e.g. 25/3 Internet service was not available in rural Saskatchewan, Manitoba, Prince Edward Island or the North⁶ in 2016, therefore only urban prices were used).

In 2018, average prices ranged from \$166 in Quebec to \$220 in the North, with Prince Edward Island not far behind at \$213.

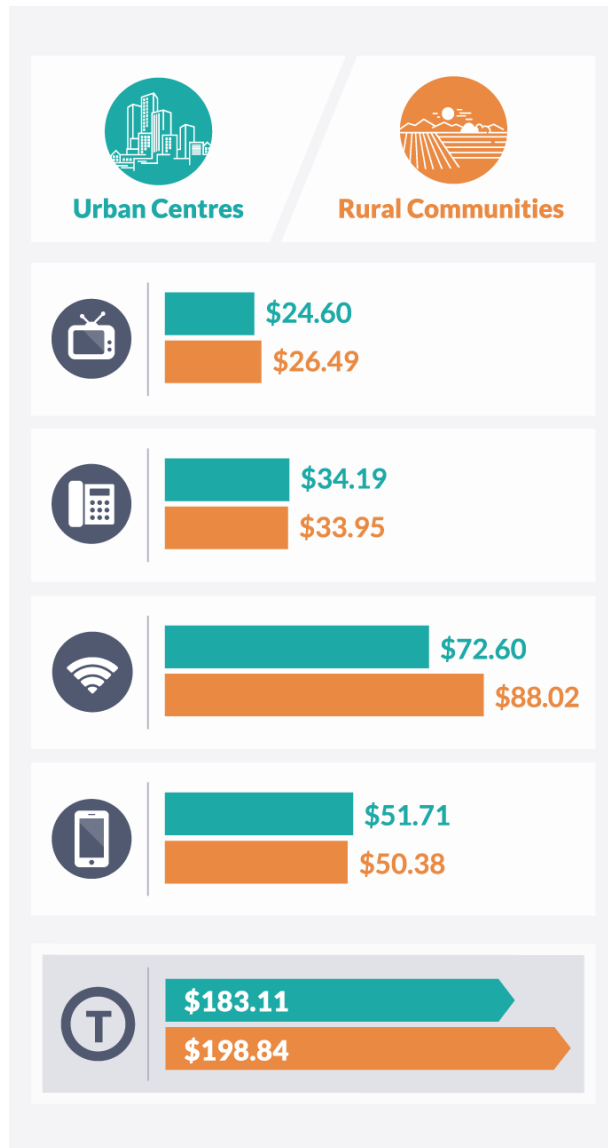
Quebec, Ontario, Alberta and British Columbia reported the lowest average combined prices due to lower internet and mobile prices, in that order.

Average provincial/territorial prices decreased in 2018 as compared to 2016, especially in the North and the West, again due primarily to significantly lower mobile prices. Prices in the North dropped by 25% overall, with price reductions for each service, especially mobile (35%) and Internet (26%). The Internet price drop is largely attributable to an increase in the number of providers now offering Internet service at speeds of 25/3 Mbps or faster.

⁶ The North refers to Nunavut, Northwest Territories, and Yukon.

Urban versus rural comparison

Infographic 2.2 Average reported monthly price of communications services in urban centres and rural communities



Source: CRTC data collection

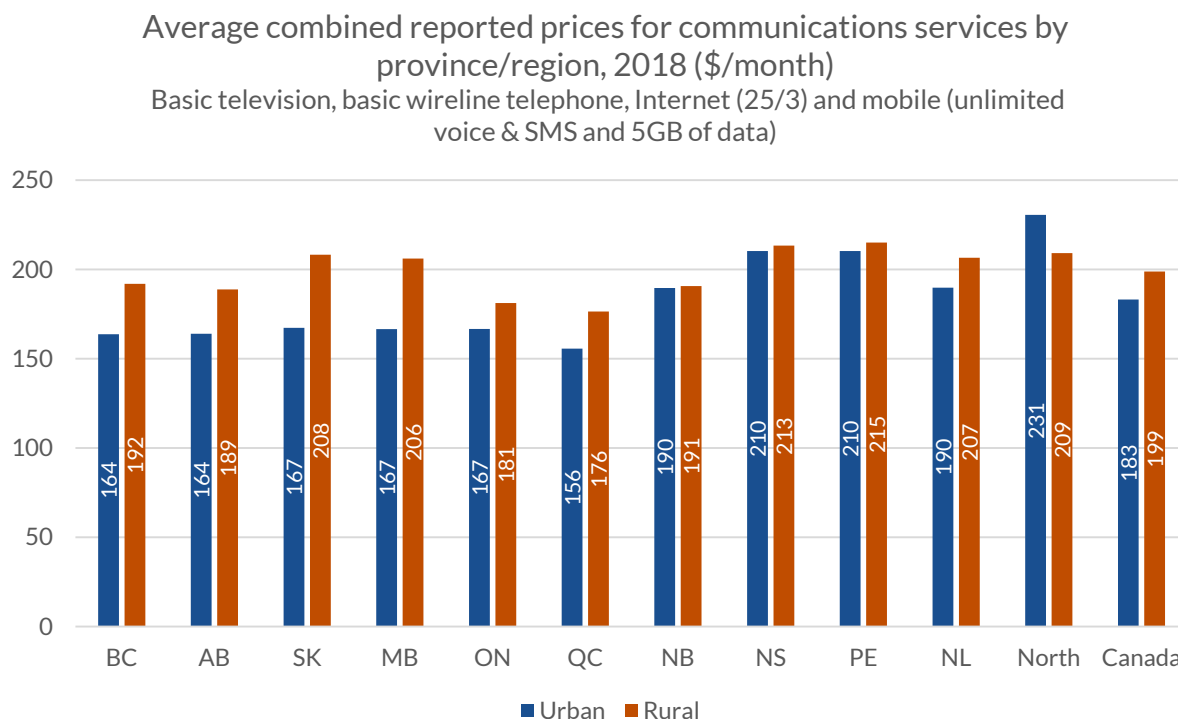
In 2018, the average combined price in urban areas tended to be lower than in rural communities. Nationally, the average combined price was \$183 for urban centres and \$199 for rural communities, a difference of about 9%, higher than the 5% urban-rural difference in 2017. The gap between prices in urban centres and rural communities varied by region (for detailed urban and rural data, please see Open Data).

As seen above, 25/3 Internet service had the largest urban-rural price variance of the four services. This variance was also seen at the provincial/territorial level, ranging from the urban 25/3 price being lower than the rural price by about \$38 in Saskatchewan and Manitoba, to the urban price being about \$6 higher than the rural price in the North.

The urban-rural price difference in 2018 was greatest in British Columbia, Alberta and Saskatchewan, with urban prices approximately 13% lower than rural prices.

Average combined prices in northern rural communities were about 10% lower than those in northern urban areas, due mainly to the presence of satellite Internet access service, which is usually not available in urban areas, and is offered at a lower price than its fixed counterpart.

Figure 2.4 Average combined reported prices for communications services by province/region, 2018
Basic television, basic wireline telephone, Internet (25/3) and mobile (unlimited voice & SMS and 5GB of data)



Source: CRTC data collection

Urban centres

Average combined prices in urban centres ranged from \$156 in Quebec to \$231 in the North,⁷ with Prince Edward Island and Nova Scotia also near the top at \$210.

Provincial/territorial price differences are due, to a large degree, to differences in prices for Internet service, which ranged from \$54 in Ontario to \$107 in the North.

Mobile prices ranged from a low of \$44 in Quebec to a high of \$66 in the North.

⁷ Not all services were available in all three territories.

Rural communities

The average combined price in rural communities ranged from a low of \$176 in Quebec to a high of approximately \$214 in Prince Edward Island and Nova Scotia, with the North not far behind at \$209.

High prices in Prince Edward Island and the North are mainly due to higher Internet (and to a lesser degree mobile) prices, which are similarly high in urban centres.

The highest average price for Internet service was in the North (\$101), while the highest price for basic wireline voice services (\$38) was in Ontario. Ontario also had the highest average price for basic television service (\$30), and Prince Edward Island/Nova Scotia had the highest average price for mobile services (\$56).

ii. Television distribution services

In 2018, the lowest prices for basic television⁸ service ranged from \$14 to \$25, depending on the area in which the service was offered. Generally, the areas with the lowest prices had three or more competitors offering services.

A basic television package usually offers between 20 and 35 channels, depending on the location and service provider. It includes local and regional television stations, mandatory distribution channels (e.g. Weather Network, APTN), community and provincial legislature channels (where available), and provincial/territorial educational channels. A basic television service package is meant as an entry-level service offering and presents the lowest cost for a television service subscription.

While licensed distributors must offer a basic television package for \$25 per month or less, exempted distributors, such as small cable companies, may offer a service including more channels and at a higher price as their entry level service. This results in prices higher than \$25 in the following charts.

The bar charts in this section display the range of prices for the various services in urban centres and rural communities in Canada. The number of service providers surveyed is indicated in parentheses. When multiple numbers are displayed, for example “(2/3)”, it means there were two to three providers reporting for the area.

Urban centres

In urban centres throughout Canada, \$25 television distribution service packages were offered by licensed Broadcasting Distribution Undertakings (BDUs)⁹ as mandated in Broadcasting Regulatory Policy 2015-96. In the North, the lowest price remained \$25, while in the Atlantic provinces¹⁰ prices were reduced to \$18, compared with \$25 in the previous year. This price point was similar to that in the rest of Canada, as only in Toronto, Hamilton, London and Kitchener-Waterloo were prices lower (\$14).

In the markets where basic television service was offered at the lowest price, five or more competitors were present, and they included Internet Protocol television (IPTV)¹¹ service providers.

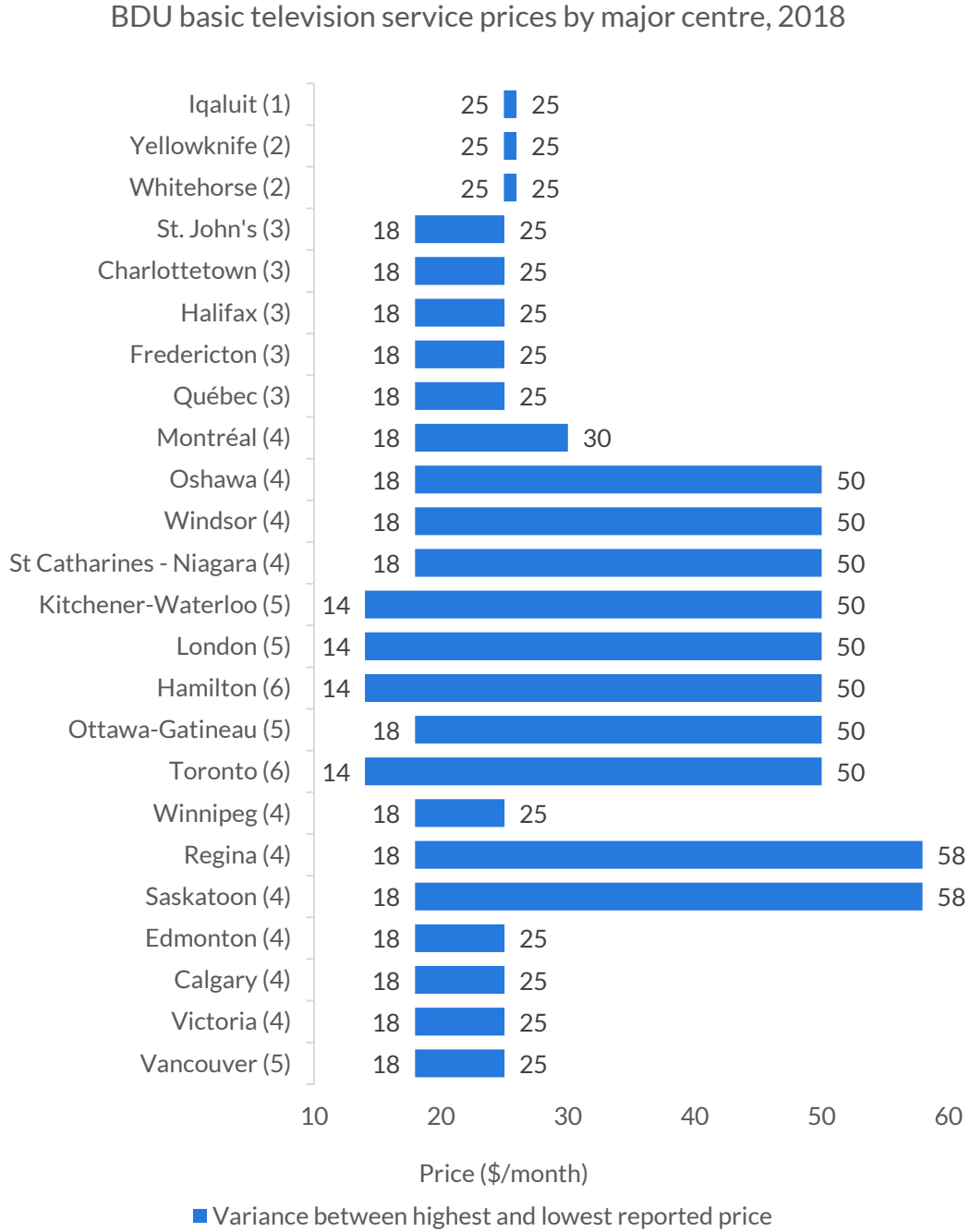
⁸ In its Regulatory Policy [2015-96](#), following the [Let's Talk TV](#) proceeding, the Commission required licensed distributors to offer an entry-level service at \$25 or lower as of March 1st 2016, and full pick and pay as of December 2016.

⁹ Providers who redistribute programming from conventional over-the-air television and radio stations in order to offer subscription television service to Canadians. They also distribute pay audio, pay television, pay-per-view, video-on-demand, and speciality services. Examples include cable (delivered through coaxial cables), satellite, and Internet Protocol Television (IPTV).

¹⁰ The Atlantic provinces are New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

¹¹ IPTV is a system through which television services are delivered using Internet protocol over a private, managed network (e.g. Fibe TV, Optik TV) as opposed to traditional over-the-air (OTA), cable television or satellite. It excludes Internet-based streaming services.

Figure 2.5 BDU basic television service prices by major centre, 2018



Source: CRTC data collection

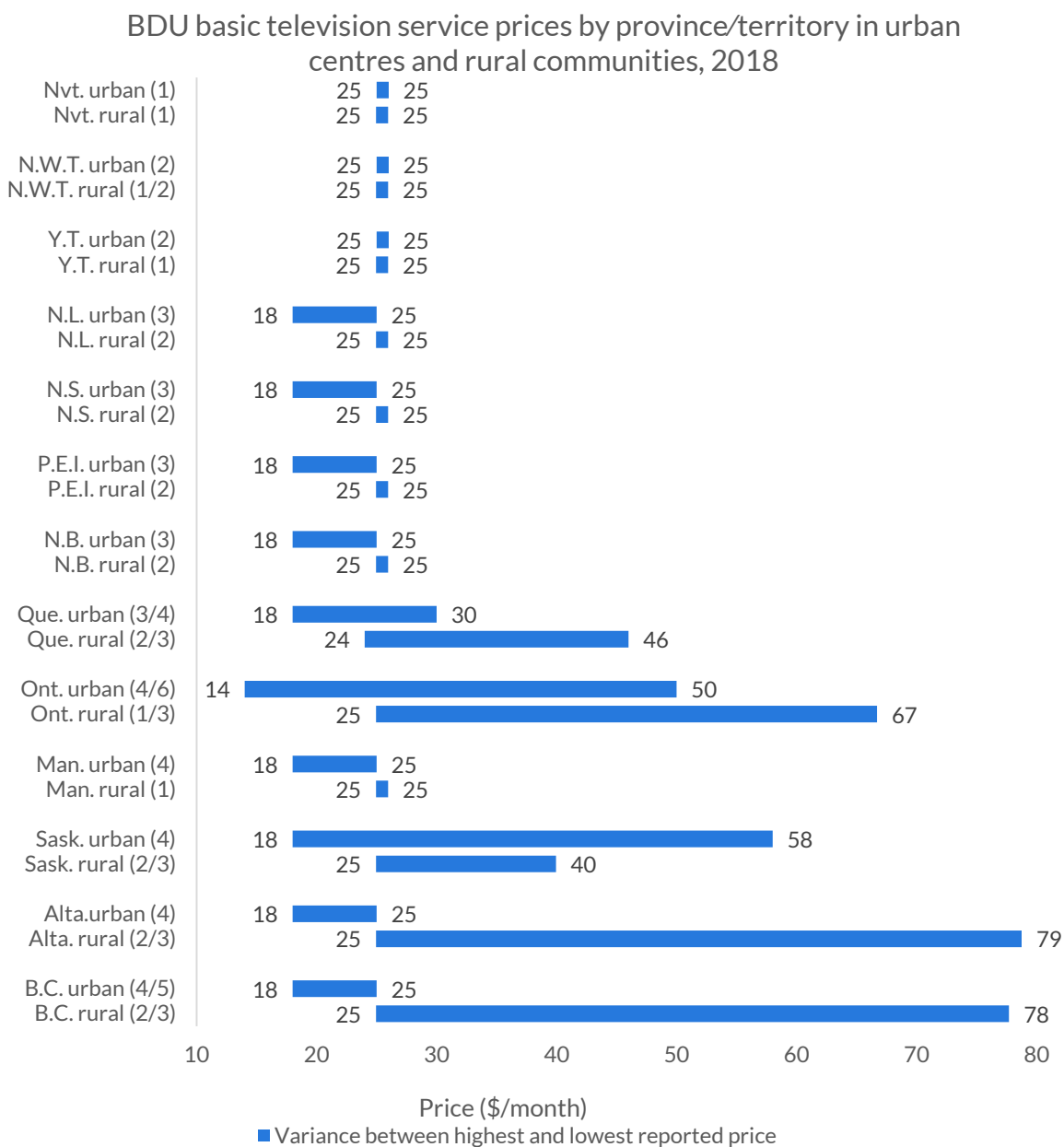
Rural communities versus urban centres

In 2018, prices for basic television service were usually lower in areas with three or more service providers reporting. The lowest price in urban centres was in Ontario, at \$14.

The lowest price in rural communities was \$24 in Quebec and \$25 in all other provinces.

Overall, there was no difference between the lowest price in rural communities and the lowest price in urban centres in the North, while the difference ranged from \$7 in most provinces to \$11 in Ontario.

Figure 2.6 BDU basic television service prices by province/territory in urban centres and rural communities, 2018



Source: CRTC data collection

iii. Local wireline telephone services

Local wireline telephone service was available across Canada for approximately \$33. In certain areas the service was available for under \$25.

Basic local telephone service¹² includes unlimited calling within a defined local calling area, 9-1-1 services, and message relay services, as well as access to long distance services.

The bar charts in this section display the range of prices for the various services in urban centres and rural communities in Canada. The number of service providers surveyed is indicated in parentheses. When multiple numbers are displayed, for example “(2/3)”, it means there were two to three providers reporting for the area.

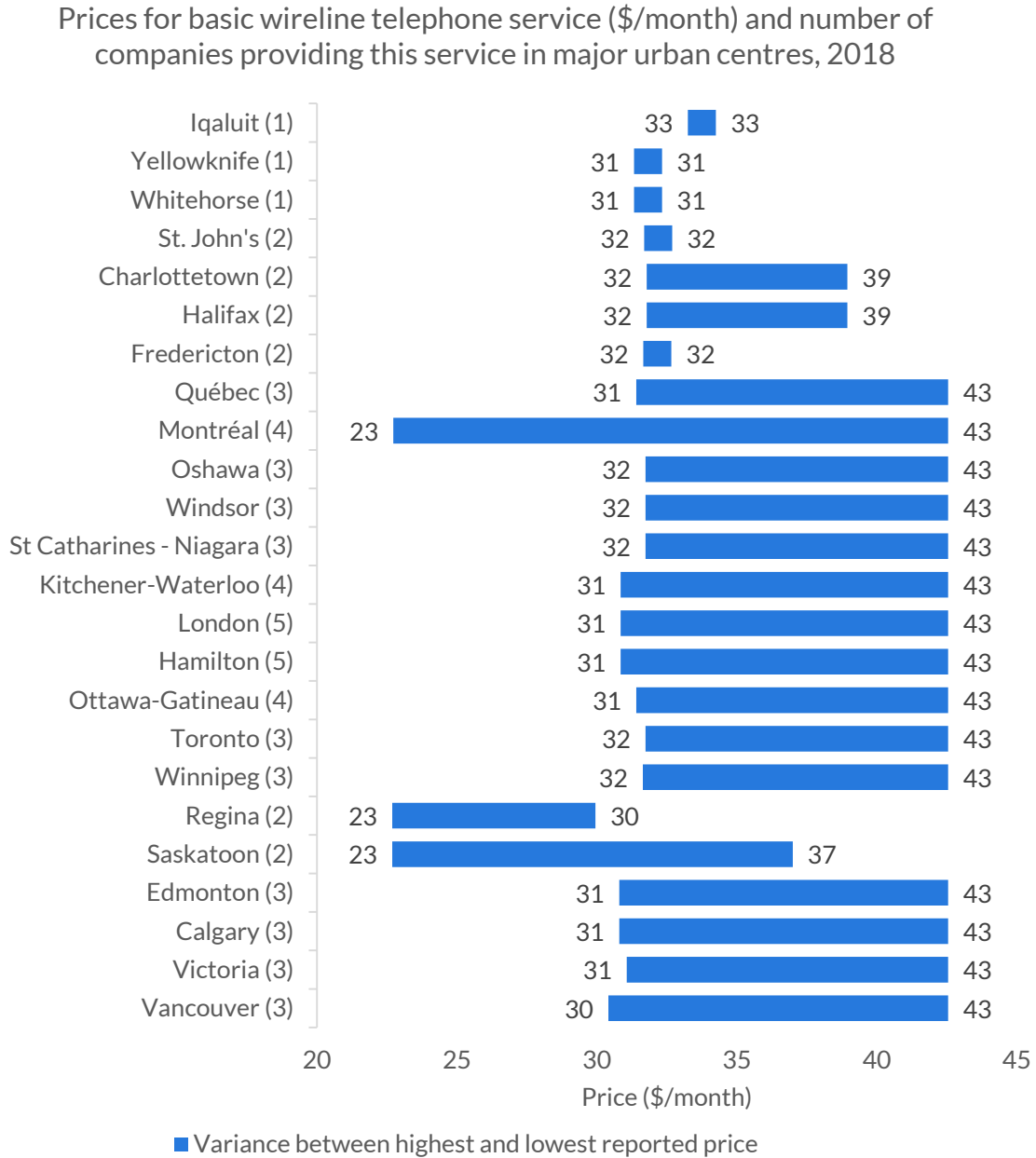
¹² Only access-dependent services were included in the analysis.

Urban centres

Overall, prices for basic wireline telephone service in urban centres ranged between approximately \$31 and \$43 per month. In Montréal, Regina and Saskatoon, reported minimum prices were approximately \$8 lower, at \$23.

The lowest price in the North was \$31 in Whitehorse and Yellowknife.

Figure 2.7 Prices for basic wireline telephone service (\$/month) and number of companies providing this service in major urban centres, 2018



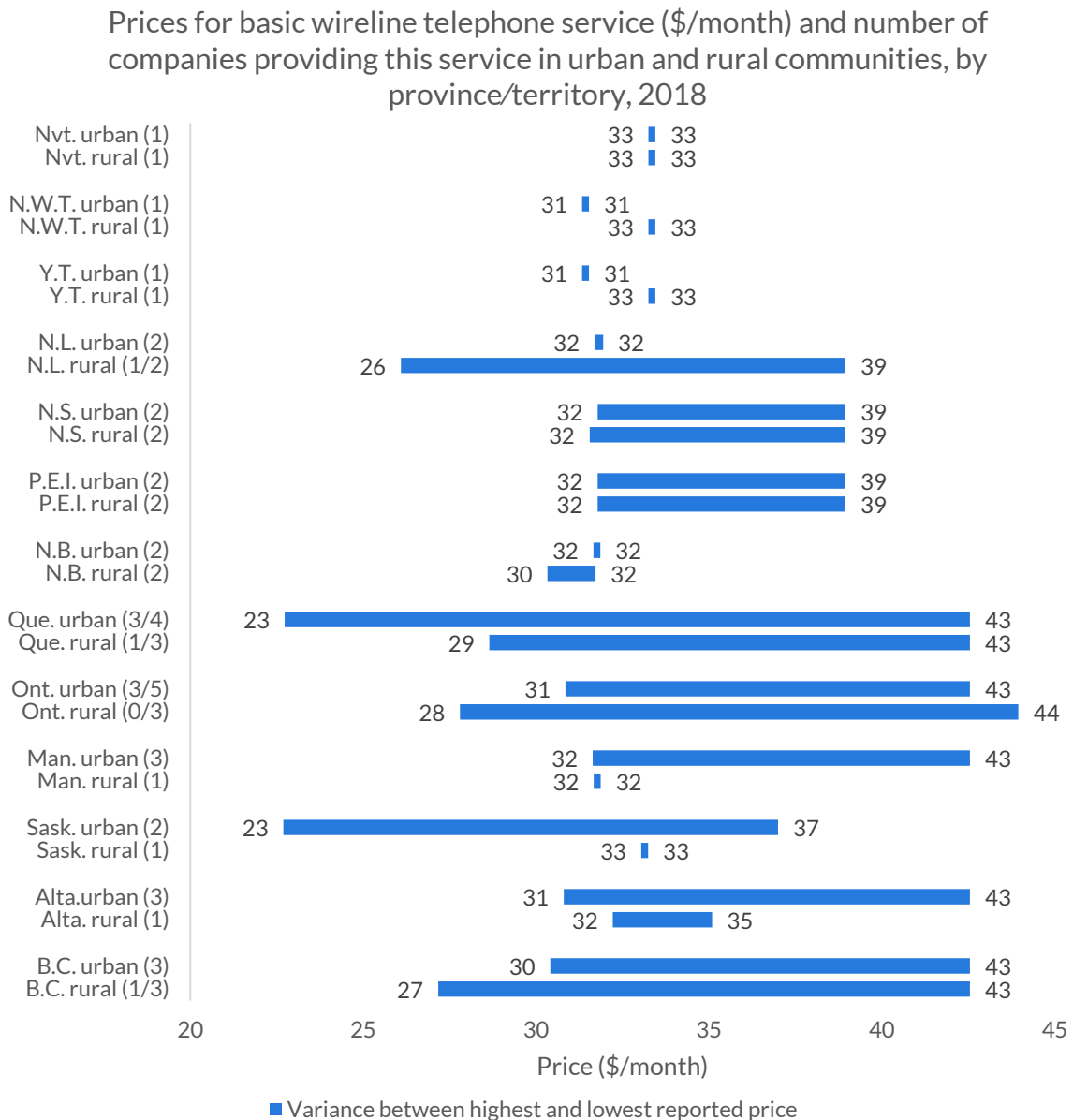
Source: CRTC data collection

Rural communities versus urban centres

Prices for basic wireline telephone service were generally consistent between urban centres and rural communities, with service available at approximately \$32 per month. The lowest prices were in Saskatchewan and Quebec urban centres (\$23), followed by rural communities in Newfoundland and Labrador and British Columbia (\$26).

Overall, prices in urban centres ranged from \$23 in Saskatchewan and Quebec to \$43 in Ontario, Alberta and British Columbia, while prices in rural communities ranged from \$26 in Newfoundland and Labrador to \$44 in Ontario.

Figure 2.8 Prices for basic wireline telephone service (\$/month) and number of companies providing this service in urban and rural communities, by province/territory, 2018



Source: CRTC data collection

iv. Internet services

Consistent with previous years, urban households generally had access to lower Internet service prices in 2018. They also had a greater number of Internet service providers (ISPs) to choose from compared with rural households. On average, rural communities had access to four ISPs, while urban centres had access to eight.

In 2018, ISPs were asked to report the prices of services meeting the service objective target and the former objective target, as well as an intermediate service:

- 5 Mbps download and 1 Mbps upload (5/1 Mbps) (the former basic service objective target speeds)
- 25 Mbps download and 3 Mbps upload (25/3 Mbps) with at least 100 GB of monthly data transfer
- 50 Mbps download and 10 Mbps upload (50/10 Mbps) with unlimited monthly data transfer (the new universal service objective target speeds)

The bar charts in this section display the range of prices for the various services in urban centres and rural communities in Canada. The number of service providers surveyed is indicated in parentheses. When multiple numbers are displayed, for example “(2/3)”, it means that there were two to three providers reporting for the area.

Urban centres

Urban centres in Ontario and Quebec had more ISPs than those in western Canada, followed by the Atlantic provinces. The territories had the fewest options for ISPs.

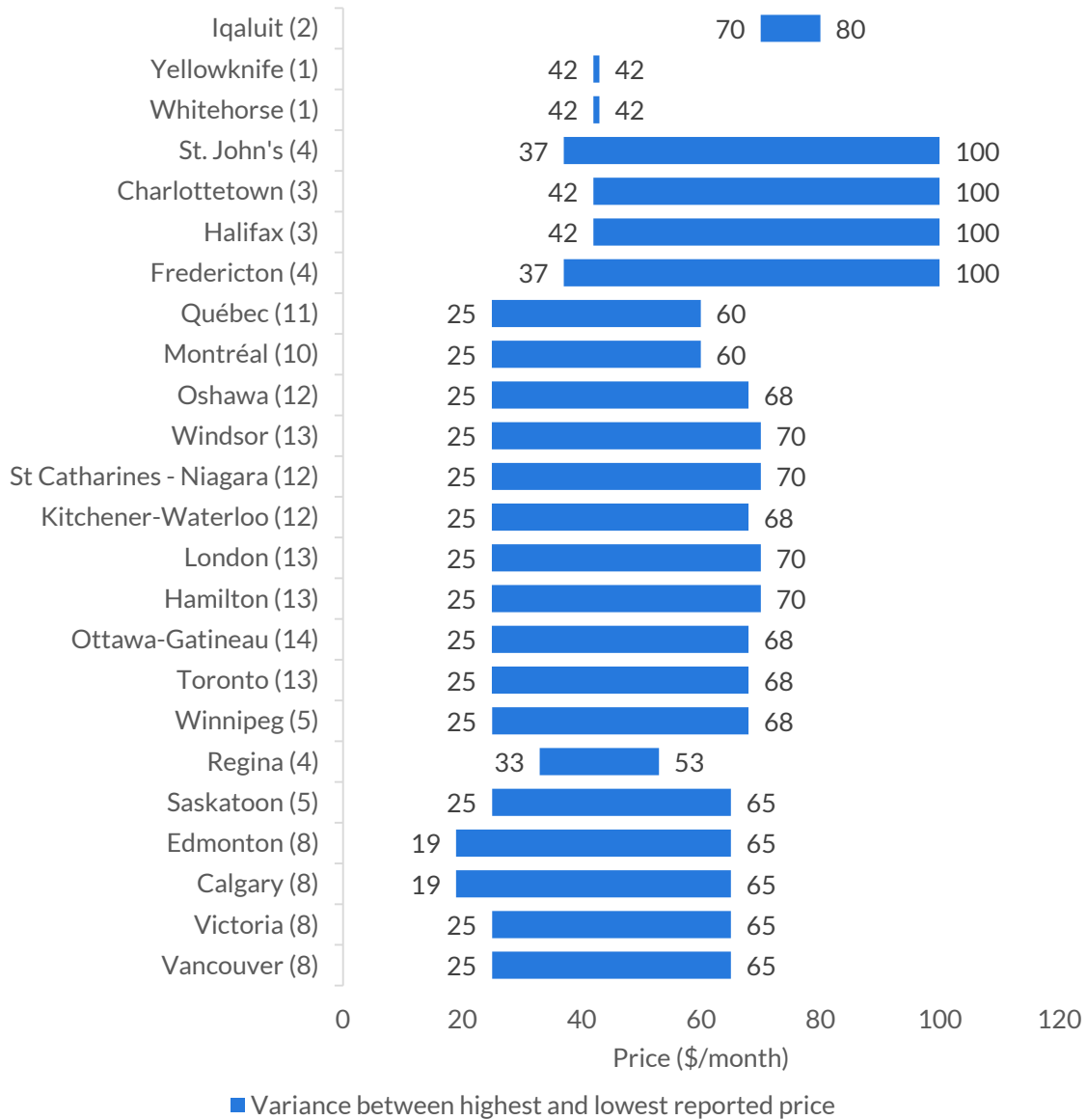
5/1 Mbps service

In urban centres, 5/1 Mbps Internet service was available for as low as \$19 per month in Alberta and \$25 per month in British Columbia, Saskatchewan, Quebec and Ontario, with the exception of Regina (\$39). In the Atlantic provinces and the North, the lowest price varied from \$37 to \$70.

The lowest-priced 5/1 Mbps service option reported was provided with unlimited data transfer by three to five ISPs in each city in the Atlantic provinces and Alberta and British Columbia, four ISPs in each city in Manitoba and Saskatchewan, six in Quebec cities and 8 to 10 ISPs in Ontario cities. Ontario also featured more ISPs and greater use of wholesale broadband services. None of the reported services in the territories had unlimited data transfer in their lowest-priced offering.

Figure 2.9 Prices for residential broadband (5/1 Mbps) Internet access service and number of companies providing this service in major urban centres, 2018

Prices for residential broadband (5/1 Mbps) Internet access service and number of companies providing this service in major urban centres, 2018



Source: CRTC data collection
 Except in Iqaluit, satellite services are excluded in urban areas.

25/3 Mbps service with at least 100 GB of monthly data transfer

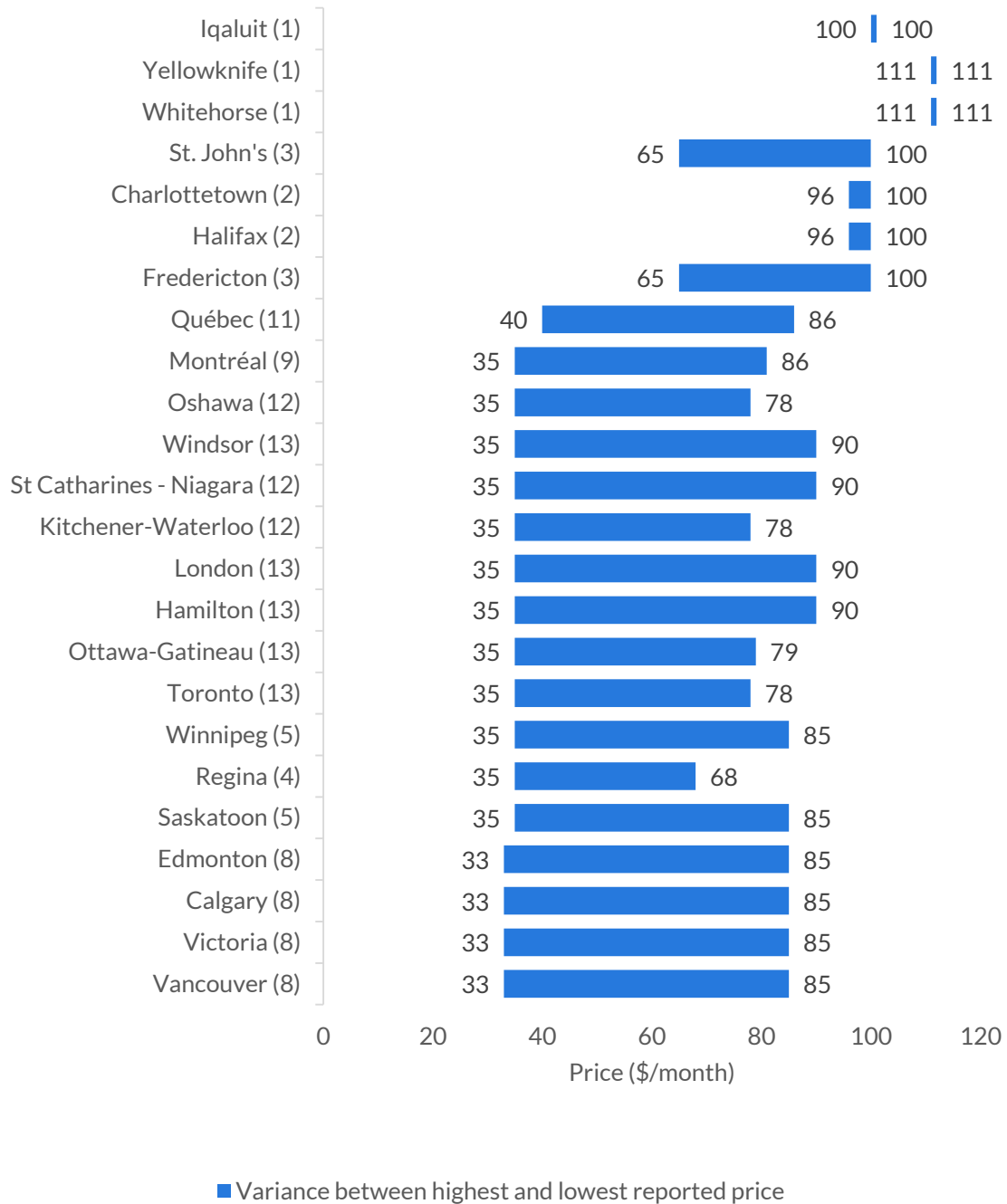
Internet service with a download speed of 25 Mbps and upload speed of 3 Mbps or more was available for a minimum of about \$33 to \$40 across urban centres in Canada, except in the Atlantic provinces and in the North. The lowest price was \$33, found throughout urban centres in British Columbia and Alberta.

The lowest-priced 25/3 Mbps service option reported was provided with unlimited data transfer by two providers in cities in the Atlantic provinces, four in cities in Manitoba and Saskatchewan, and by five providers in each city in British Columbia and Alberta. In Ontario cities, nine to eleven providers in each area provided unlimited data in their lowest-cost option, while cities in Quebec each had eight providers report this. As noted earlier, these areas also featured more ISPs and greater use of wholesale broadband services. No reported services in the territories had unlimited data transfer in their lowest-priced offering.

The lowest-cost 25/3 Mbps service options reported with data transfer limits tended to include at least 200 GB, while in many areas up to 400 GB were included by some ISPs.

Figure 2.10 Prices for residential broadband Internet access service (25/3 Mbps, 100 GB/month) and number of companies providing this service in major urban centres, 2018

Prices for residential broadband Internet access service (25/3 Mbps, 100 GB/month) and number of companies providing this service in major urban centres, 2018



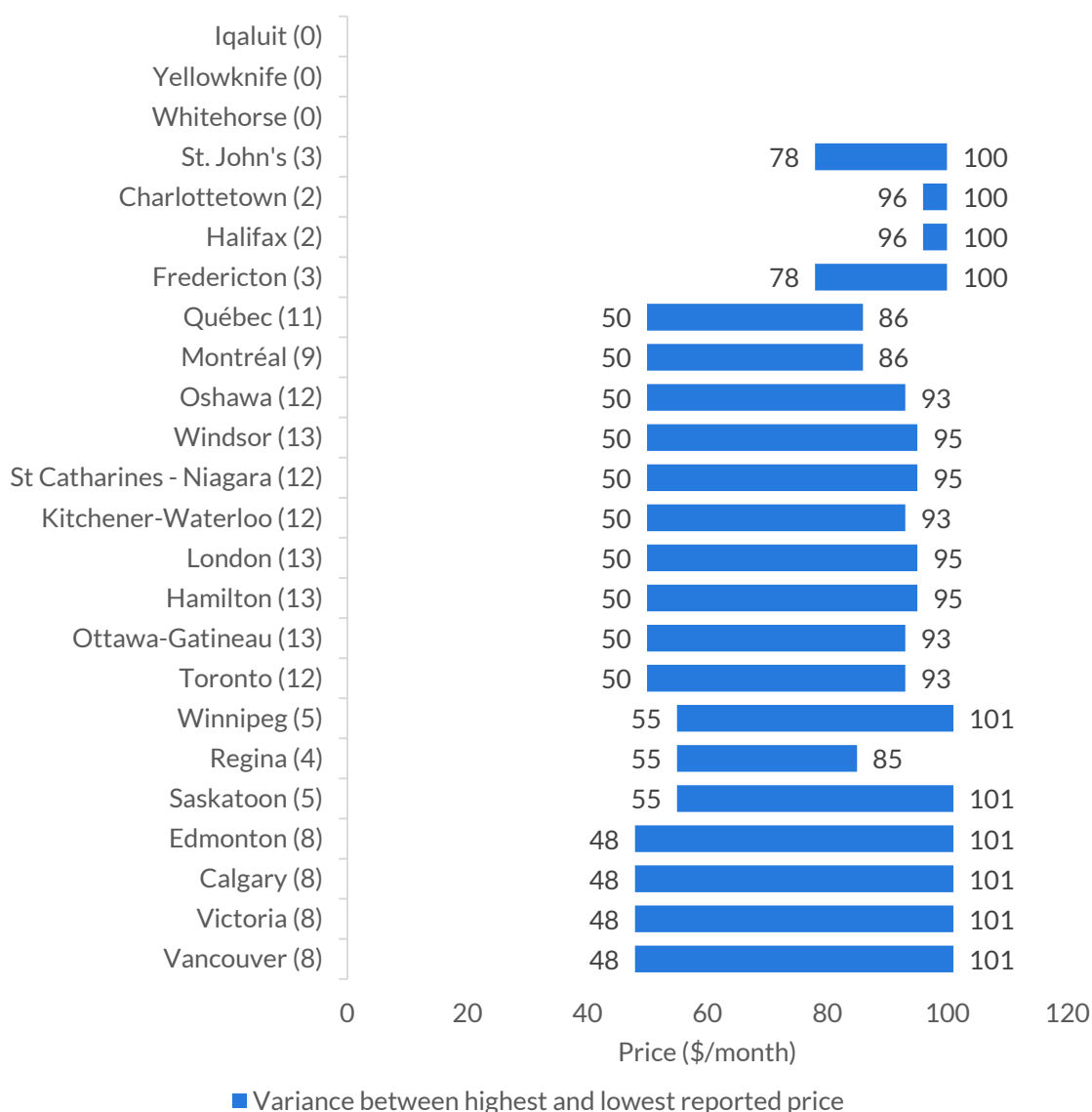
Source: CRTC data collection

50/10 Mbps service with unlimited monthly data transfer

As shown in the figure below, service including unlimited data transfer and speeds of 50 Mbps download and 10 Mbps upload was available in all non-territorial urban centres. Prices ranged from \$48 to \$101 in Alberta and British Columbia, from \$50 to \$95 in Ontario and Quebec, from \$55 to \$101 in Manitoba and Saskatchewan and from \$78 to \$100 in the Atlantic Provinces. This regional difference is also seen in the [average price](#), which is lower in Ontario and Quebec than in other areas.

Figure 2.11 Prices for residential broadband Internet access service (50/10 Mbps, unlimited GB/month) and number of companies providing this service in major urban centres, 2018

Prices for residential broadband Internet access service (50/10 Mbps, unlimited GB/month) and number of companies providing this service in major urban centres, 2018



Source: CRTC data collection

Rural communities versus urban centres

Canadians living in rural communities generally have fewer ISPs to choose from than those living in urban centres. In the rural areas examined, the average number of available ISPs was four, and in urban areas this average was eight.

In addition to having fewer ISPs, rural communities also had access to lower Internet service speeds. Service offerings were reported in all rural communities for 5/1 Mbps and 25/3 service, and in 68% of rural communities for 50/10 Mbps service.

In addition to generally higher prices, service offerings in rural communities tended to have lower reported monthly data transfer limits (an average of 151 GB for 25/3 and 5/1 Mbps services) than those in urban areas (an average of 182 GB for 25/3 and 5/1 Mbps services), as well as fewer ISPs providing unlimited data transfer with their reported lowest-price offering.

Unlimited data transfer was included in the lowest-priced service offering reported in around 83% of rural areas for 5/1 Mbps service, and in 54% of rural areas for 25/3 Mbps service.

5/1 Mbps service

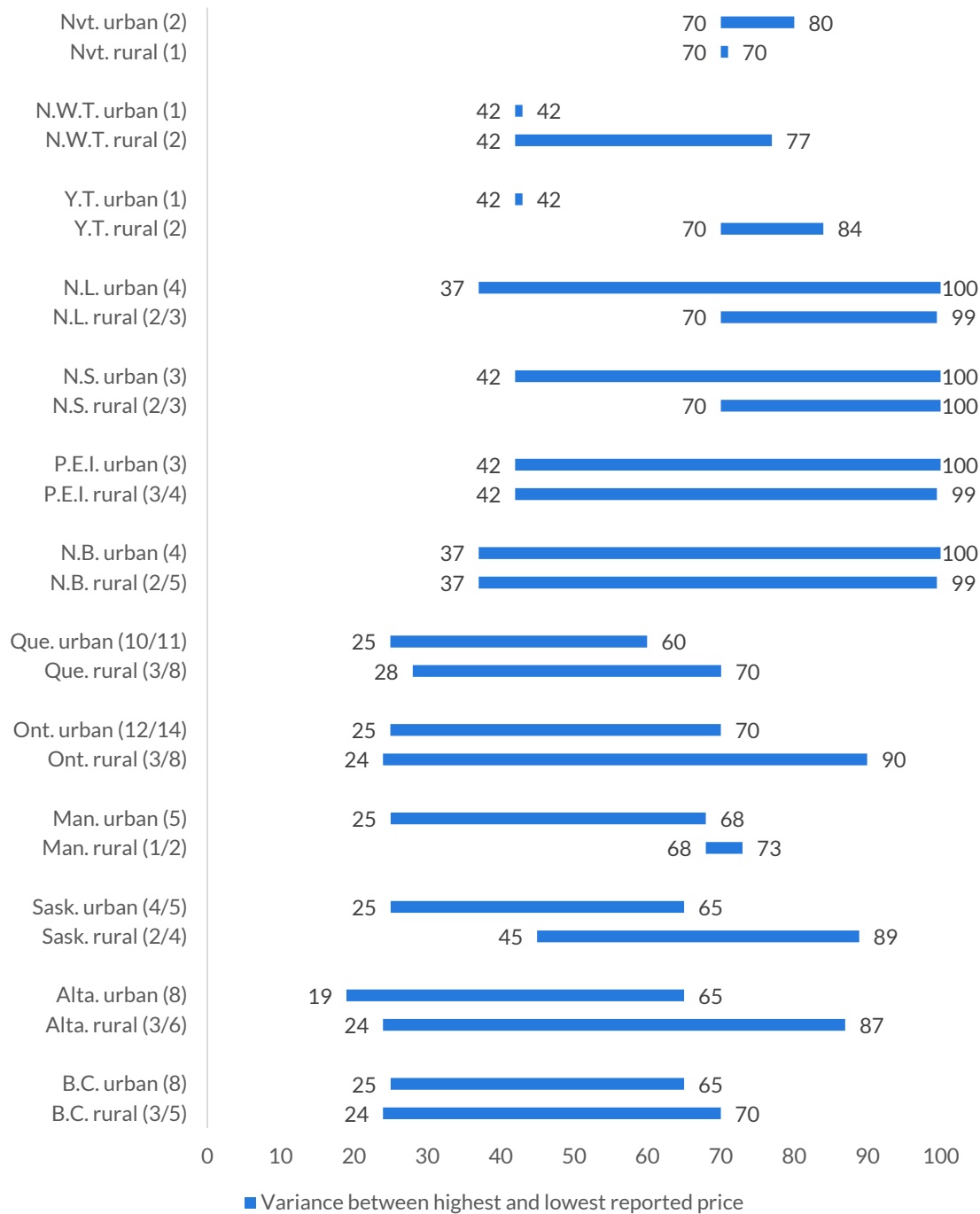
The lowest price for 5/1 Mbps service in urban centres was \$19, in Alberta. The lowest price for the same service in rural communities was \$24, in Ontario and British Columbia.

The provinces with the largest difference in lowest reported price between rural communities and urban centres were Manitoba (a \$43 difference), Newfoundland and Labrador (a \$33 difference), and Nova Scotia and Yukon (a \$28 difference).

Ontario had the highest number of ISPs reporting service offerings and the lowest prices in rural communities (\$24) and only a one dollar difference between the lowest prices in rural communities and urban centres.

Figure 2.12 Prices for residential broadband Internet access service (5/1 Mbps) and number of companies providing this service in urban centres and rural communities, 2018

Prices for residential broadband Internet access service (5/1 Mbps) and number of companies providing this service in urban centres and rural communities, 2018



Source: CRTC data collection
 Except in Iqaluit, satellite services are excluded in urban areas.

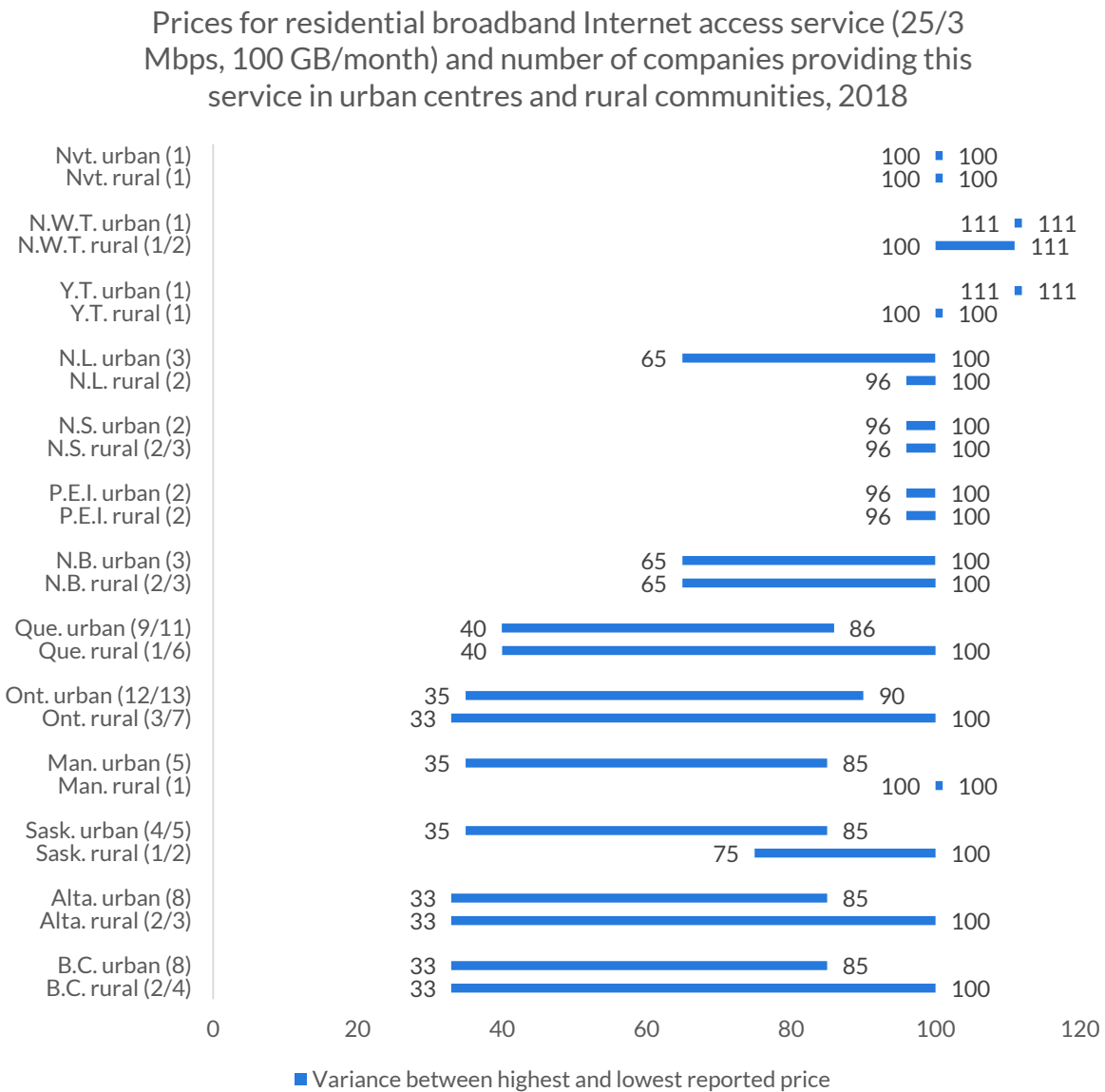
25/3 Mbps service with at least 100 GB of monthly data transfer

Prices for 25/3 Mbps service varied from \$33 to \$111. The lowest price in urban areas was \$33, in British Columbia and Alberta, while prices in the North ranged from \$100 to \$111 per month, where the service was available.

In rural communities, prices for this service ranged from \$33 Alberta, British Columbia, and Ontario to \$111 in the North, where the service was available.

The difference in prices between rural communities and urban areas ranged from \$0 in Alberta, British Columbia, Quebec and New Brunswick to \$65 in Manitoba.

Figure 2.13 Prices for residential broadband Internet access service (25/3 Mbps, 100 GB/month) and number of companies providing this service in urban centres and rural communities, 2018

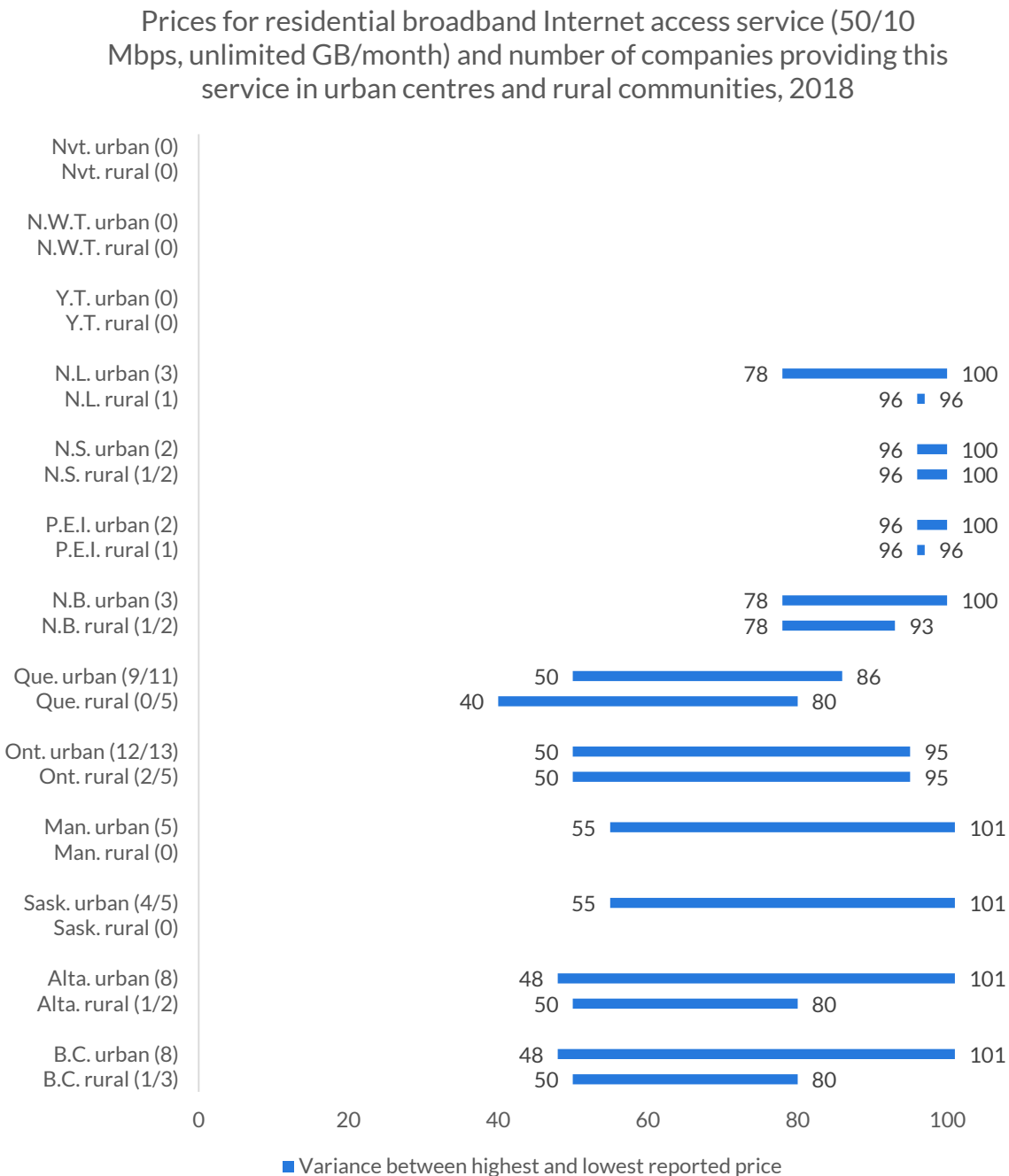


Source: CRTC data collection

50/10 Mbps service with unlimited monthly data transfer

50/10 Mbps service offerings were reported through most of the provinces, with the exception of rural Manitoba and rural Saskatchewan, which tended to rely on fixed wireless service offerings. Prices ranged from \$40 in Quebec to \$101 in Manitoba, Saskatchewan, Alberta and British Columbia. This service was not reported in the territories.

Figure 2.14 Prices for residential broadband Internet access service (50/10 Mbps, unlimited GB/month) and number of companies providing this service in urban centres and rural communities, 2018



Source: CRTC data collection

v. Mobile services

In 2018, each studied market had two or more wireless service providers (WSPs), with Ontario the only province to have five WSPs in certain urban centres.

The price structure of mobile services is based on usage. To assess the prices for these services in urban centres and in rural communities, four service baskets were used, and both flanker and primary service brands were considered. These baskets were modified in 2016 to increase the amount of Internet data included per month in the level 2, 3 and 4 baskets.

- The **level 1** service basket comprises introductory or low-usage types of plans that offer 150 minutes of voice service per month, with no SMS or Internet data.
- The **level 2** mobile service basket comprises low- to mid-tier types of plans that offer at least 450 minutes of voice service, 300 SMS and 1 GB of Internet data per month.
- The **level 3** service basket comprises plans geared towards the typical smartphone user, offering at least 1200 minutes of voice service, 300 SMS and 2 GB of Internet data per month.
- The **level 4** service basket is geared towards smartphone users who want access to unlimited minutes of voice service and SMS, along with 5 GB of Internet data per month.

As in previous years, the difference between the lowest and highest prices generally grew as the service baskets included more voice and data usage.

The bar charts in this section display the range of prices for the various services in urban centres and rural communities in Canada. The number of service providers surveyed is indicated in parentheses. When multiple numbers are displayed, for example “(2/3)”, it means there were two to three providers reporting for the area.

Urban centres

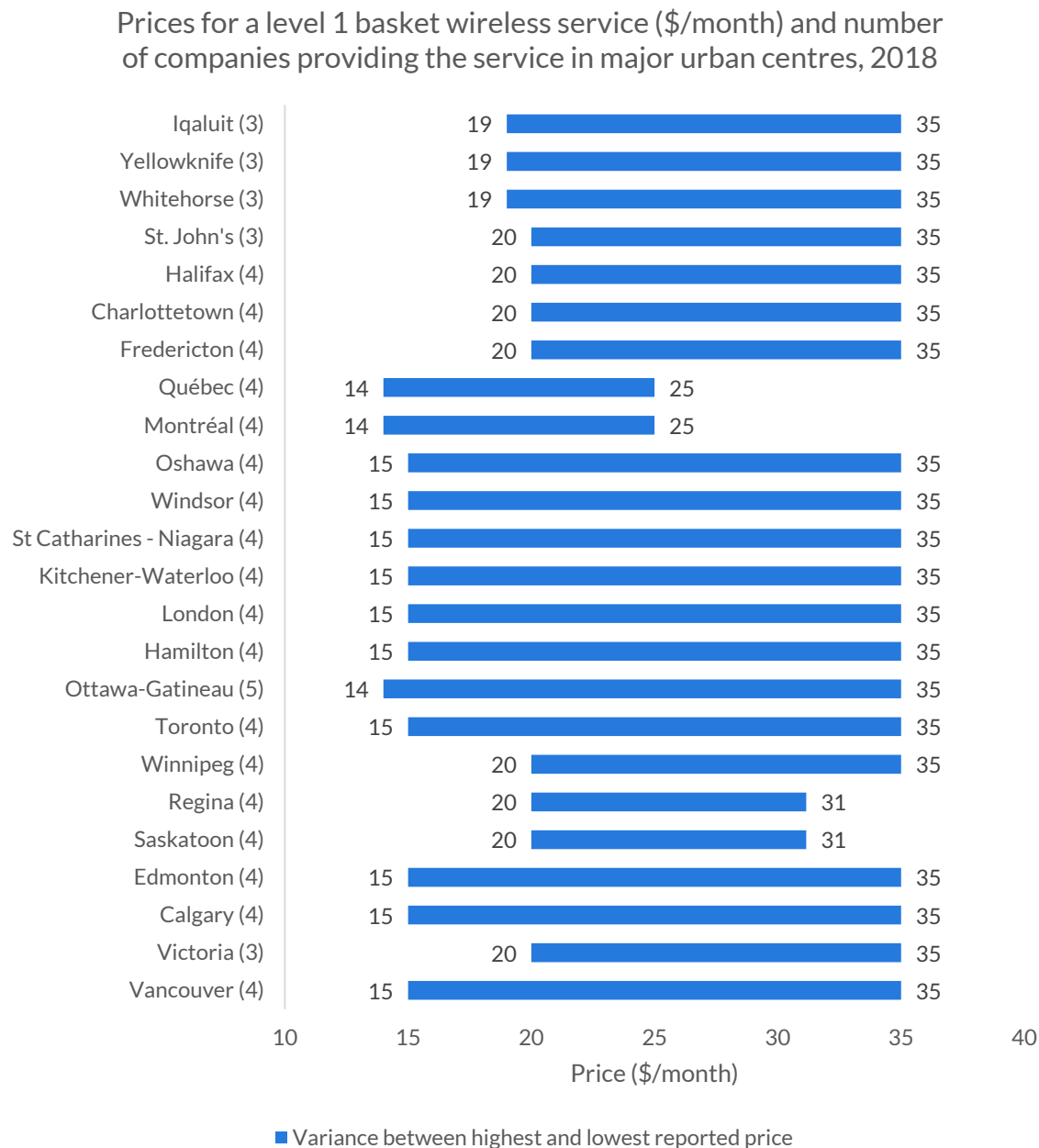
Urban centres with four or more WSPs generally had the largest difference between the lowest and highest prices reported, as well as the lowest reported prices in three of the four service baskets. The differences between the lowest and highest prices across all service baskets in any given urban centre ranged from a low of \$3 to a high of \$54. The price difference that was most pronounced was for the level 4 service basket in the North. The average price differences between the lowest and highest reported prices for the level 1, 2, 3 and 4 service baskets were \$17, \$12, \$15 and \$20 respectively.

Level 1 services – 150 minutes of voice, no SMS, no Internet data

Level 1 services were available for approximately \$20 or less across Canada. Prices were lowest in Ottawa-Gatineau, Montréal and Québec, at \$14, while in the rest of Canada they were at or below \$20.

Prices for level 1 services had limited variations within urban centres. The lowest prices in most cities ranged from \$14 to \$20, with the widest variation between lowest and highest price (\$21) being in Ottawa-Gatineau, the only urban centre that had five WSPs.

Figure 2.15 Prices for a level 1 basket wireless service (\$/month) and number of companies providing the service in major urban centres, 2018



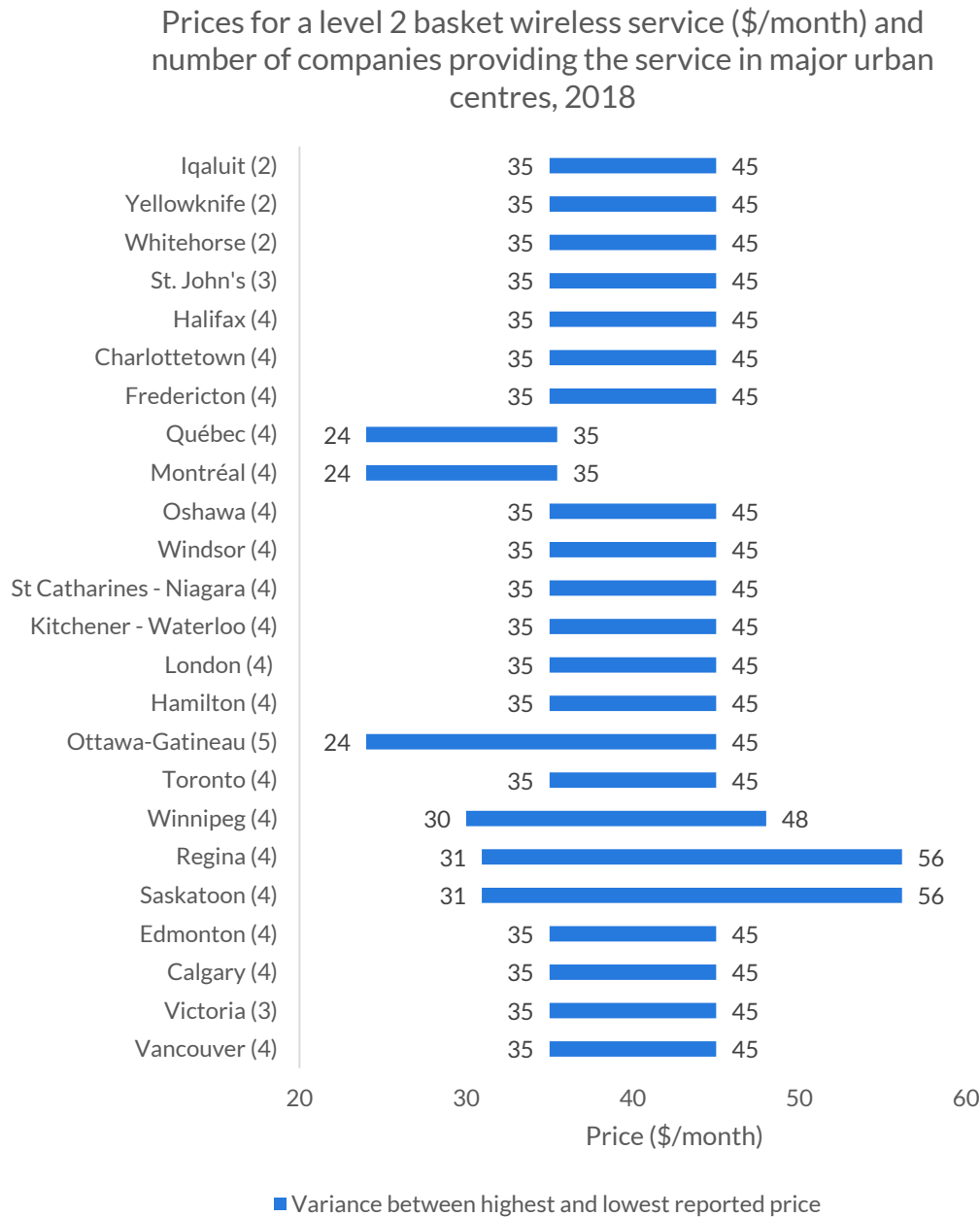
Source: CRTC data collection

Level 2 services – 450 minutes of voice, 300 SMS, 1 GB of Internet data

The lowest prices in urban centres for level 2 services ranged from \$24 in Ottawa-Gatineau, Québec and Montréal to \$35 in almost all other provinces and territories. In all the provinces and territories, including in the North, level 2 services were available at a price point of \$35 or lower.

Overall, prices ranged from \$24 to \$56, while in most areas the difference between the lowest and highest price was about \$10.

Figure 2.16 Prices for a level 2 basket wireless service (\$/month) and number of companies providing the service in major urban centres, 2018



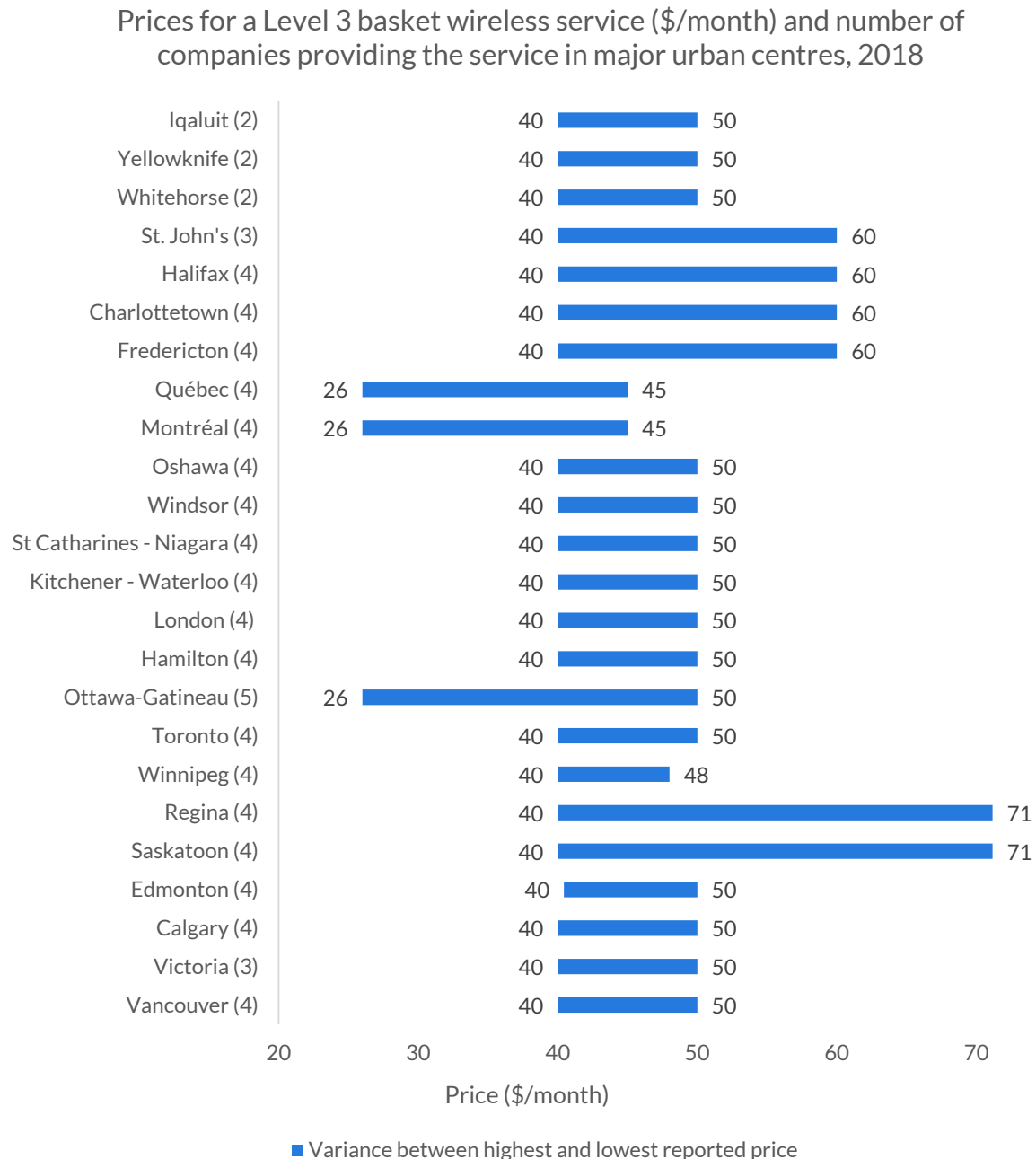
Source: CRTC data collection

Level 3 services – 1,200 minutes of voice, 300 SMS, 2 GB of Internet data

In urban centres, level 3 services were mostly available for \$40 or less. The lowest price was \$26, found in cities in Quebec.

Prices ranged from \$26 to \$71, and three or more service providers reported offerings in each urban centre, except in the North.

Figure 2.17 Prices for a Level 3 basket wireless service (\$/month) and number of companies providing the service in major urban centres, 2018



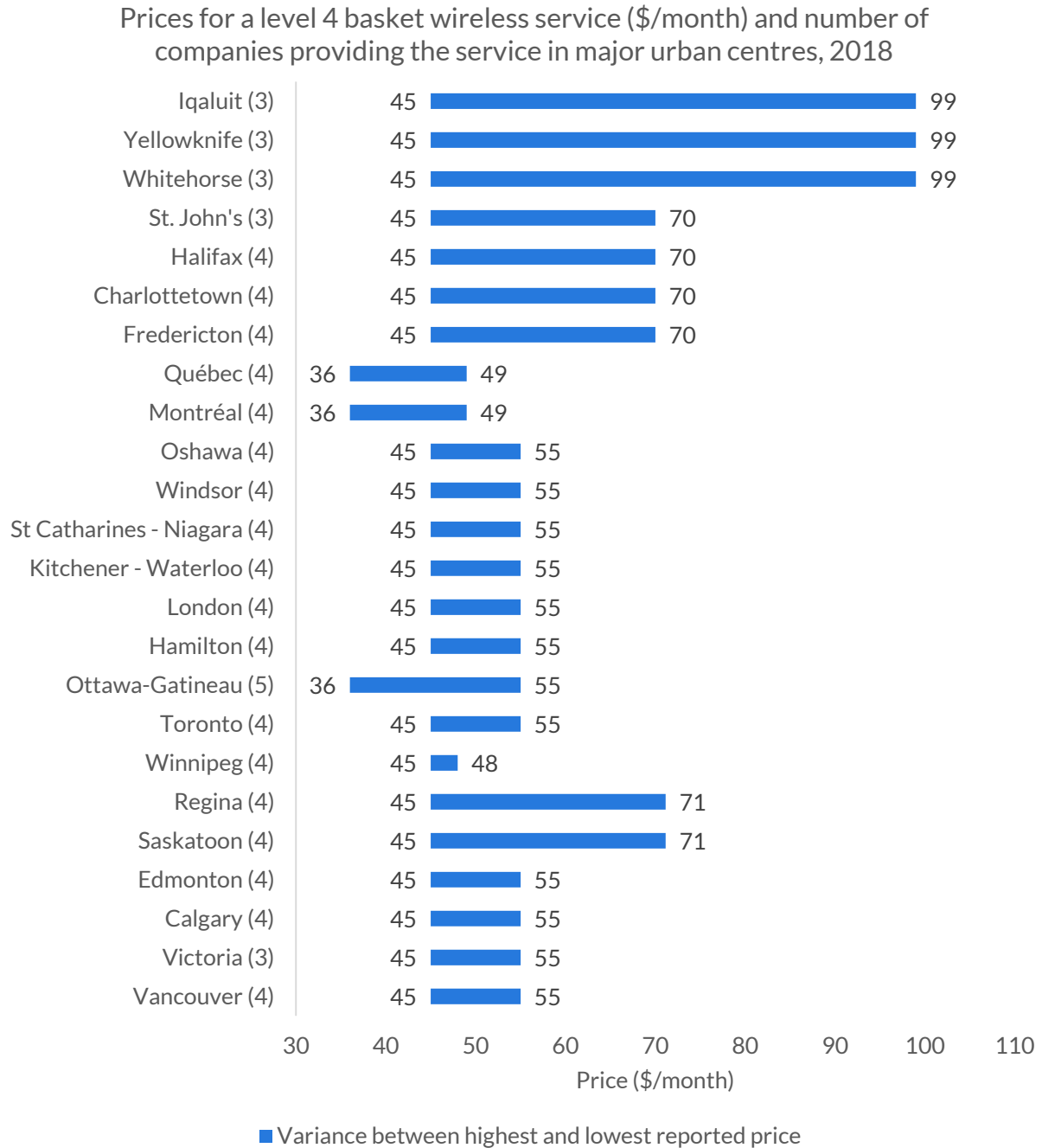
Source: CRTC data collection

Level 4 services – unlimited voice and SMS, 5 GB of Internet data

The lowest price in urban centres ranged from \$36 in Ontario and Quebec to \$99 in the North.

Overall, prices for level 4 services ranged from \$36 to \$99, with the largest difference observed in the North, where prices ranged from \$45 to \$99, a difference of \$54.

Figure 2.18 Prices for a level 4 basket wireless service (\$/month) and number of companies providing the service in major urban centres, 2018



Source: CRTC data collection

Rural communities versus urban centres

The prices for mobile wireless services in rural communities, across all service baskets, were generally equal to or higher than those in urban centres, with the exception of the level 3 and 4 service baskets, for which the average highest prices were slightly lower in rural communities. Within the level 4 service basket, rural communities in several Atlantic provinces and the three territories had access to reported lower prices compared to urban centres.

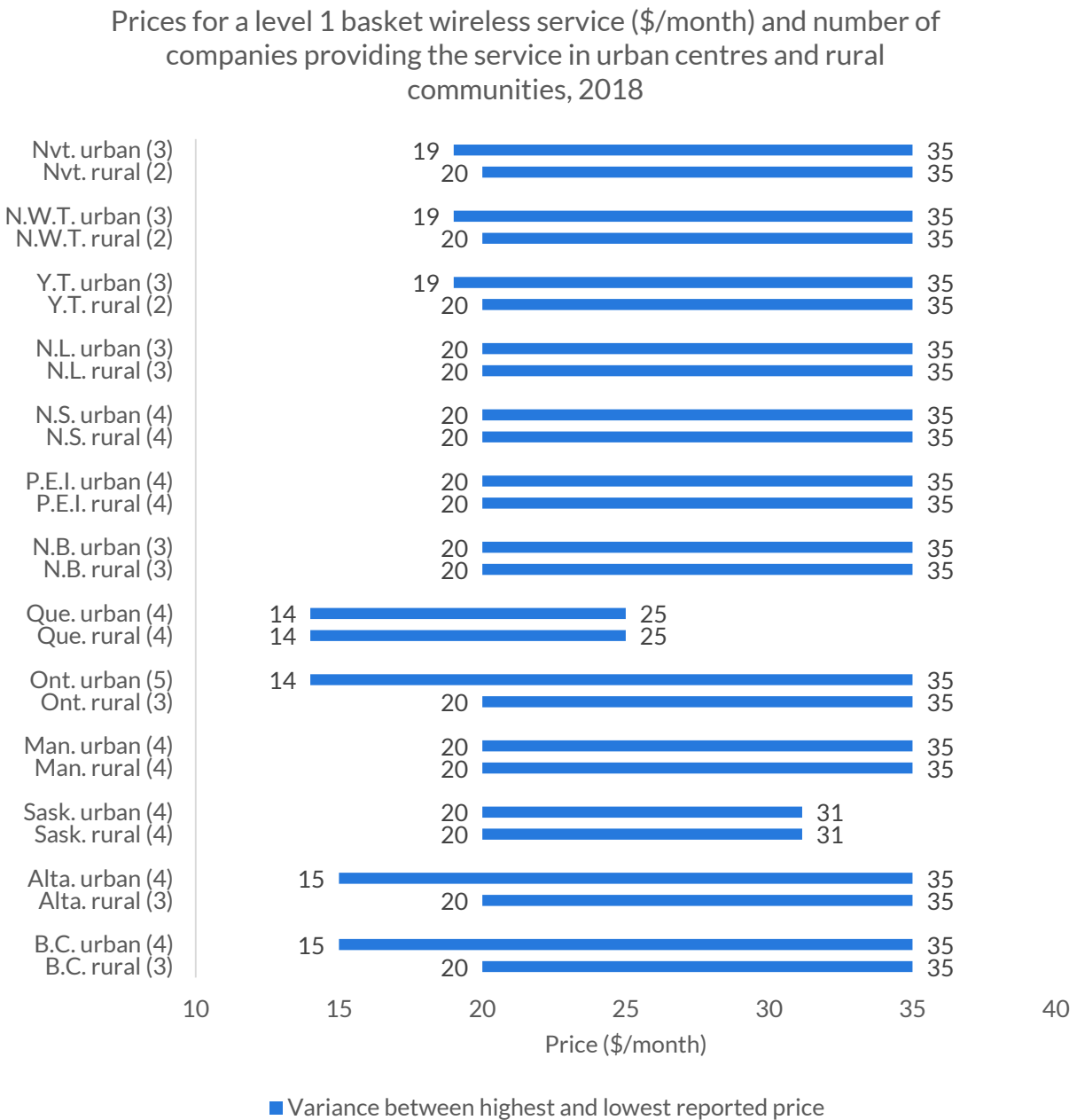
The average differences between the lowest and highest prices were slightly lower in rural communities than in urban centres for the level 1, 3 and 4 service baskets, while the level 2 service basket reported a small variance in the average price differences. The average differences between the lowest and highest prices for level 1, 2, 3 and 4 service baskets in rural communities were \$13, \$15, \$15 and \$15, respectively.

Level 1 services – 150 minutes of voice, no SMS, no Internet data

The lowest prices for level 1 services were consistent between urban centres and rural communities throughout Canada, except in British Columbia, Alberta and Ontario, where prices were approximately \$6 higher in rural communities, at \$20-\$25.

The lowest price for level 1 service in rural communities was \$20, offered in all provinces, while the lowest price for level 1 service in urban centres was \$14, offered in Ontario and Quebec.

Figure 2.19 Prices for a level 1 basket wireless service (\$/month) and number of companies providing the service in urban centres and rural communities, 2018



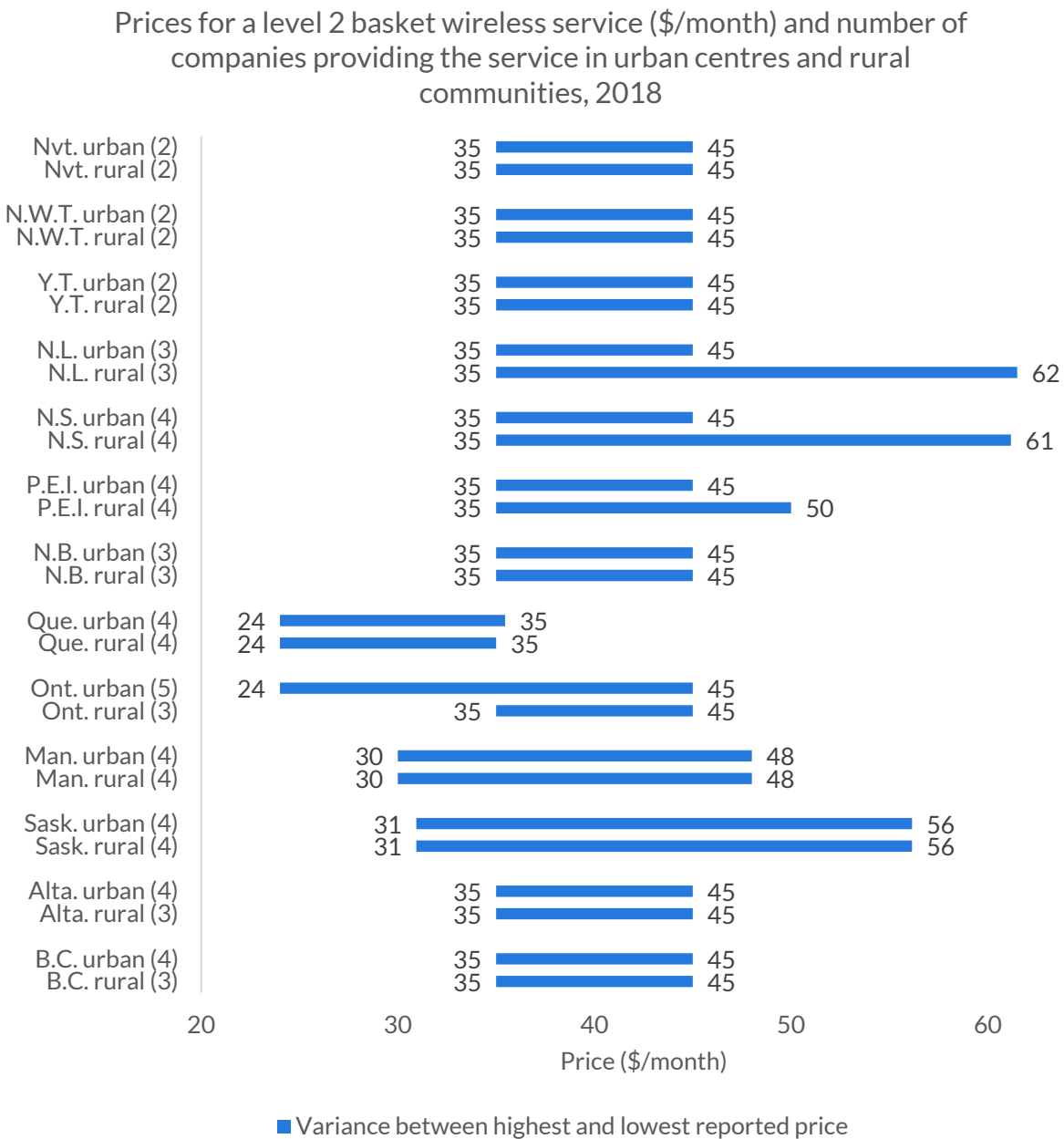
Source: CRTC data collection

Level 2 services – 450 minutes of voice, 300 SMS, 1 GB of Internet data

Prices for level 2 services were consistent between rural communities and urban centres throughout Canada, except in the Ottawa-Gatineau region, where prices were approximately \$11 higher in rural communities, at \$35.

The lowest price for a level 2 service was in Quebec, at \$24, followed by all the other provinces and the North, where prices ranged from \$30 to \$35.

Figure 2.20 Prices for a level 2 basket wireless service (\$/month) and number of companies providing the service in urban centres and rural communities, 2018



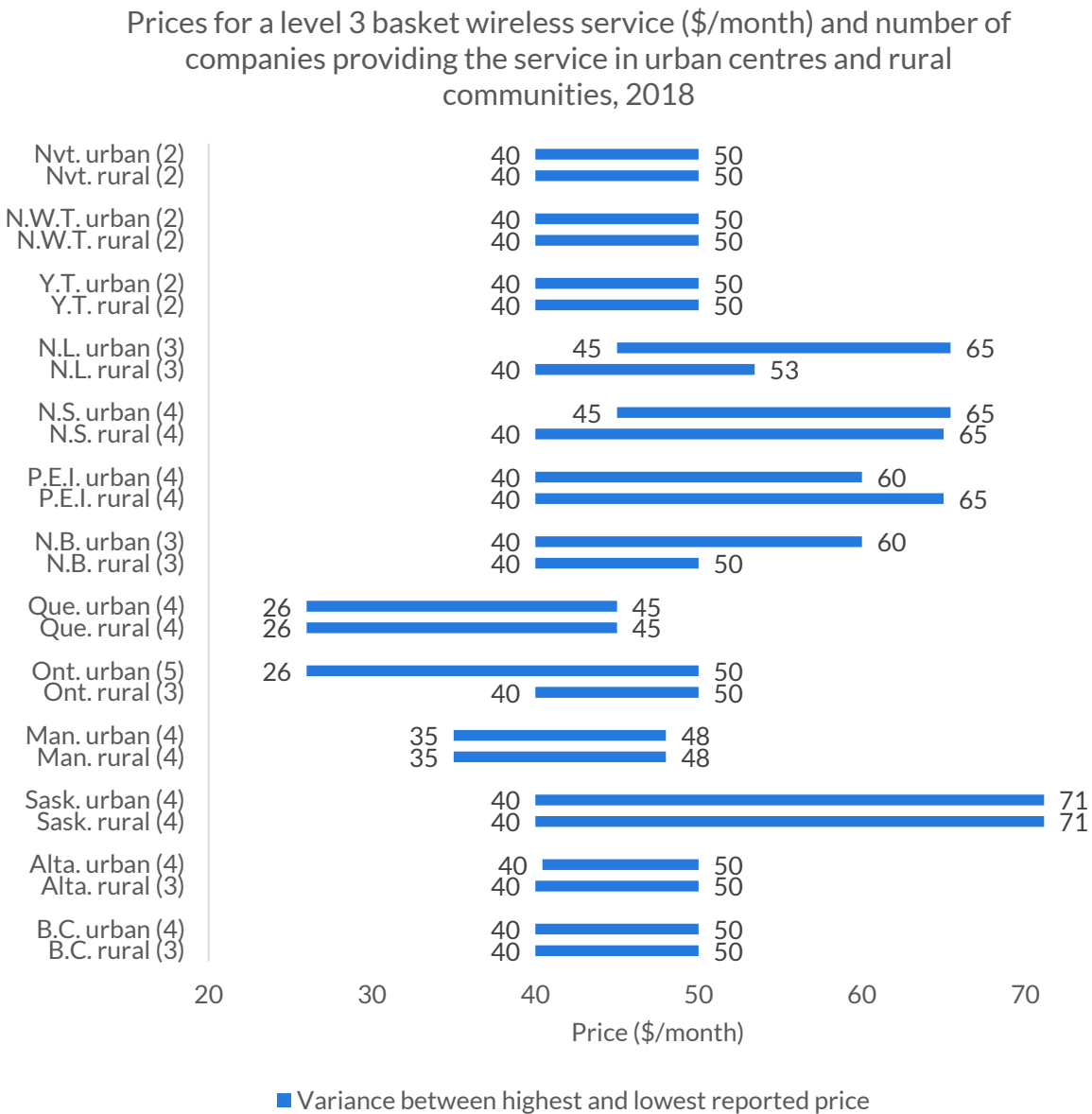
Source: CRTC data collection

Level 3 services – 1,200 minutes of voice, 300 SMS, 2 GB of Internet data

Prices for level 3 services were mostly consistent between urban centres and rural communities, with the exception of Ontario and Quebec where the lowest prices in some urban centres and rural communities were \$26 – the lowest price compared to all other provinces and territories. In the other provinces, the differences between the lowest prices in urban centres and those in rural communities ranged from \$0 (in all provinces and territories except Ontario, Newfoundland and Labrador, and Nova Scotia) to \$14 (Ontario).

In rural communities, the lowest price for level 3 services ranged from \$26 in Quebec to \$40 in all other provinces and territories.

Figure 2.21 Prices for a level 3 basket wireless service (\$/month) and number of companies providing the service in urban centres and rural communities, 2018



Source: CRTC data collection

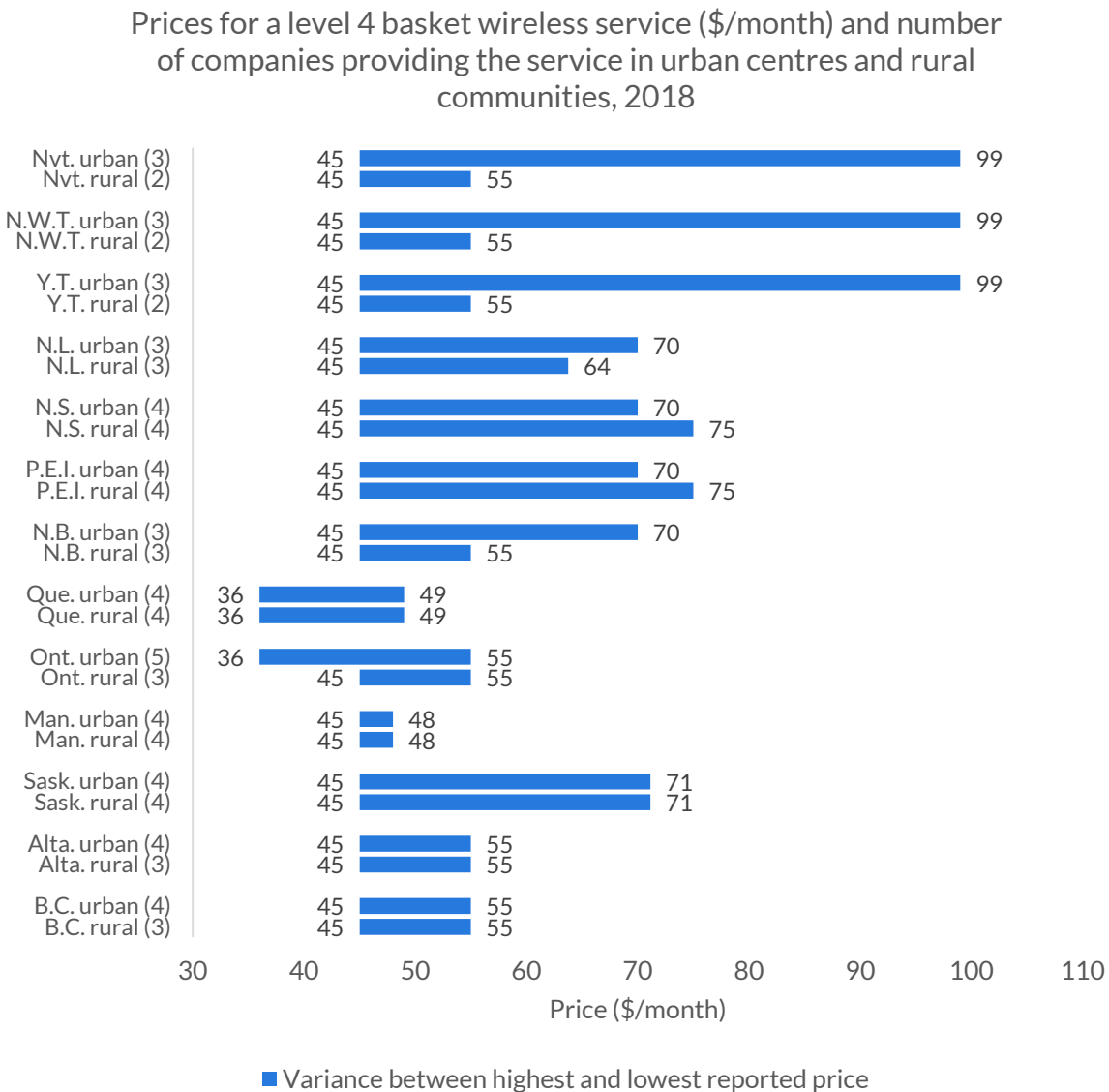
Level 4 services – unlimited voice and SMS, 5 GB of Internet data

The differences in the lowest price for level 4 services between urban centres and rural communities were the most consistent across all provinces and territories. Ontario was the only province to have an urban-rural difference in the lowest price for level 4 services, at \$9.

While services are generally more expensive in rural communities, the opposite was the case in the North, Newfoundland and Labrador, and New Brunswick, where lower prices for level 4 services were available in rural communities than in urban centres.

The lowest prices for level 4 services in rural communities ranged from \$36 in Quebec to \$45 in all other provinces and territories.

Figure 2.22 Prices for a level 4 basket wireless service (\$/month) and number of companies providing the service in urban centres and rural communities, 2018



Source: CRTC data collection

vi. Methodology

Basic television

A basic television package includes local and regional TV stations, channels with mandatory distribution, community and provincial legislature channels (where available), and provincial/territorial educational channels.

Basic wireline phone service

Basic wireline phone service refers to single-line, local telephone service operating over a managed network (i.e. circuit-switched or IP-based), including dial-tone, touchtone, message relay and 9-1-1 service. Access independent voice over Internet Protocol (VoIP) telephony and mobile are not considered basic wireline phone services for the purposes of this report.

Internet services

Internet services are represented by residential fixed Internet for the following services:

- 5 Mbps download and 1 Mbps upload (5/1 Mbps) (the former basic service objective target speeds)
- 25 Mbps download and 3 Mbps upload (25/3 Mbps) with at least 100 GB of monthly data transfer
- 50 Mbps download and 10 Mbps upload (50/10 Mbps) with unlimited monthly data transfer (the new universal service objective target speeds).

Services include packages that meet or exceed one of the three specifications above.

Prices for Internet services using satellite technology are included for rural locations but not for urban locations, except for Iqaluit.

Mobile services

The price structure of mobile services is based on usage. To assess the prices for these services in urban centres and rural communities, four service baskets were used, and both flanker and primary service brands were considered. These baskets were modified in 2016 to increase the amount of Internet data included per month in the level 2, 3 and 4 baskets.

- The **level 1** service basket comprises introductory or low-usage types of plans that offer 150 minutes of voice service per month, with no SMS or Internet data.
- The **level 2** mobile service basket comprises low- to mid-tier types of plans that offer at least 450 minutes of voice service, 300 SMS and 1 GB of Internet data per month.
- The **level 3** service basket comprises plans geared towards the typical smartphone user, offering at least 1200 minutes of voice service, 300 SMS and 2 GB of Internet data per month.
- The **level 4** service basket is geared towards smartphone users who want access to unlimited minutes of voice service and SMS, along with 5 GB of Internet data per month.

Prices

Prices in this section refer to monthly prices as reported through CRTC data collection representing the price of each provider's offering the defined services: basic television, basic wireline telephone, Internet (3 levels of service) and mobile (4 levels of service).

Service providers identify and report the price of the offering, including those of their flanker brands, which best matches the service identified while meeting all of the criteria such as usage allowances and speed. Reported prices exclude charges such as activation fees device subsidies and roaming charges. Reported prices also exclude discounts such as customer retention discounts and bundling discounts.

Two different pricing metrics are used. Average reported prices are used for multi-year, urban versus rural and multiple service analysis: basic television, basic wireline telephone, Internet (25/3) and mobile (unlimited voice & SMS and 5GB of data). Highest and lowest reported prices are used to describe price variances in urban centres and rural communities for the services listed above.

Average reported prices

Average prices are used in Figure 2.1 through Figure 2.3, as well as in the infographics.

The averages are based on the reported service offerings and may not be reflective of the actual consumer expenditures. Data on household expenditures on communication services can be found in the [Household Subscriptions and Expenditures](#) section of the report.

Urban Centres and Rural Communities

The average price for an urban centre/rural community is calculated as the average of the reported prices submitted by entities for each respective urban centre/rural community.

Prices are calculated by service: basic television, basic wireline telephone, Internet (3 individual services) and mobile (4 individual tiers).

Provinces and Regions

Average urban and rural prices

The average price of a service for a province/territory is calculated as the average for each urban centre and rural communities sampled in the respective province/territory.

If there is no service (e.g. 50/10 Internet) offered in a particular rural community, the provincial or territorial average excludes this location.

Average provincial/territorial price

For the purpose of calculating an average price for a service in each province or territory, the average urban and rural prices for that province or territory are combined and weighted equally. When a price for a service is not available in the rural areas of a province or territory, only the urban price is used.

National prices

The average price for a service in urban centres and rural communities in Canada is the average of the respective urban and rural provincial and territorial prices.

For the purpose of calculating an average national price of a service, the national urban and rural prices are combined and weighted equally.

Overall prices

The average overall price is the average of urban and rural prices.

Due to availability issues for certain services, prices for the Yukon, Northwest Territories and Nunavut may be represented as “the North”.

CMR 2019 prices may not match previously published data, due largely to data revisions and late submissions.

Combined prices

The average combined price is the sum of basic television, basic wireline telephone, Internet (25/3) and mobile (unlimited voice & SMS and 5GB of data) prices.

Highest and lowest reported prices

Highest and lowest prices are used in Figure 2.5 through Figure 2.22.

The highest/lowest reported price for an urban centre or rural community is displayed as the highest/lowest reported price as submitted by entities for each particular urban location, by service.

Variance

The price variance is defined as the difference between the highest and lowest reported prices.

Urban Centres and Rural Communities

Rural communities were selected based on the following criteria:

- the community was not part of one of the census metropolitan areas of the 24 urban centres listed in Table 2.1 below;
- the community had a population density of fewer than 400 people per square kilometre, or its population centres had fewer than 1,000 people per centre;
- the number of communities selected in each province or territory reflected that province’s or territory’s proportion of the total population of Canada; and
- the communities were not geographically clustered.

Table 2.1 List of urban centres

Province/territory	Urban centre
British Columbia	Vancouver
	Victoria
Alberta	Calgary
	Edmonton
Saskatchewan	Saskatoon
	Regina
Manitoba	Winnipeg
Ontario	Toronto
	Ottawa - Gatineau
	Hamilton
	London
	Kitchener-Waterloo
	St. Catharines-Niagara
	Windsor
	Oshawa
	Montréal
Québec	
New Brunswick	Fredericton
Prince Edward Island	Charlottetown
Nova Scotia	Halifax
Newfoundland and Labrador	St. John's
Yukon	Whitehorse
Northwest Territories	Yellowknife
Nunavut	Iqaluit

Major centre boundaries are defined using Statistics Canada's census metropolitan area and census agglomeration definitions.

Table 2.2 List of rural communities

Province/territory	Community	Province/territory	Community
British Columbia	Barriere	Ontario	Ingleside
	Bowser		Lion's Head
	Cobble Hill	Quebec	L'Islet
	Hazelton		La Guadeloupe
	Kaslo		Lac-Des-Écorces
	Keremeos		New Carlisle
	Thrums		Laterrière
Alberta	Cremona	New Brunswick	Rock Island
	Evansburg		St-Honoré (Témiscouata Co.)
	Glendon		Cap-Pelé
	Hythe	Florenceville	
	Wabasca	Lamèque	
Saskatchewan	Broadview	Prince Edward Island	Crapaud
	Gull Lake		Hunter River
	Naicam		Morell-St. Peters
	Redvers	Nova Scotia	Bear River
	Spiritwood		Mahone Bay
Manitoba	Ashern	Newfoundland and Labrador	Wedgeport
	La Broquerie		Burin
	Norway House		Harbour Main
	Pine Falls		New Harbour
	Southport	Yukon	Dawson City
Ontario	Bayfield	Northwest Territories	Mayo
	Ripley		Fort Simpson
	Bancroft	Nunavut	Fort Smith
	Echo Bay		Cape Dorset
	Emsdale		Igloolik



Communications Monitoring Report **2019**

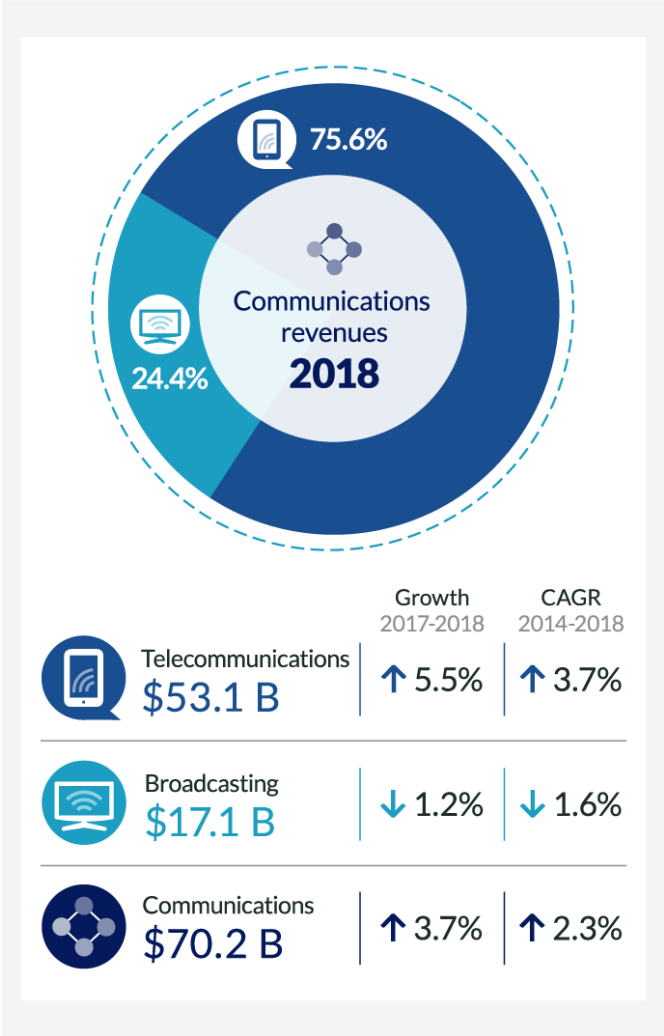
Communications
Industry Overview:
Telecommunications
and Broadcasting



Communications Industry Overview: Telecommunications and Broadcasting

i. Revenues

Infographic 3.1 Highlights of the communications sector, 2018



Source: CRTC data collection

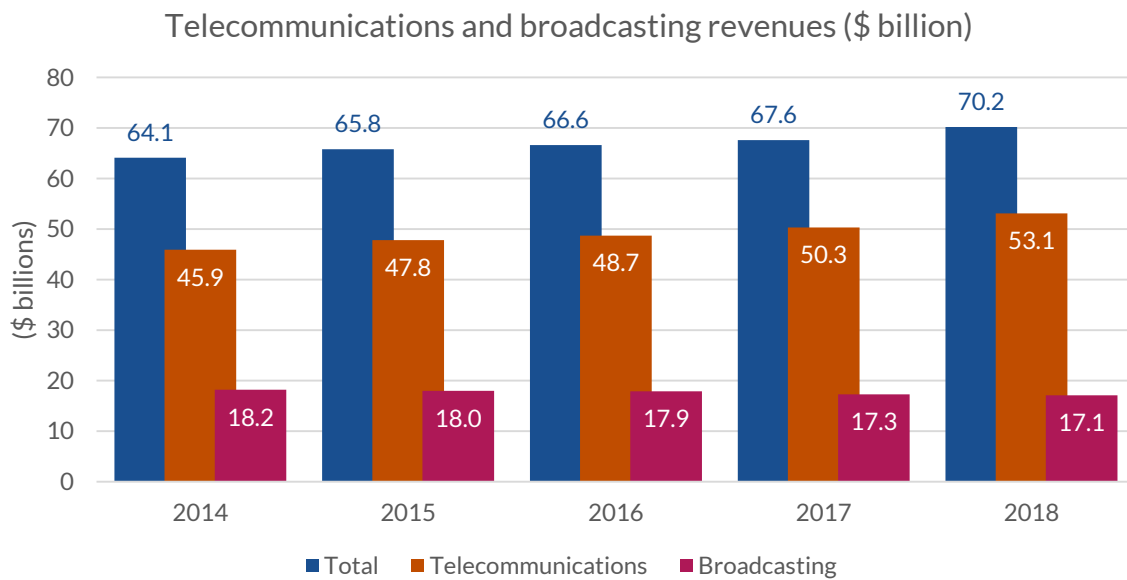
This section provides an overview of the communications industry and highlights pertinent revenue trends and key industry characteristics over the 2014 to 2018 period. The communications industry encompasses both the broadcasting and telecommunications market sectors. The data presented in this section is from CRTC sources.

In 2018, the communications industry accounted for \$70.2 billion in revenues (see Figure 3.1).¹ This represents a growth rate of 3.8% over 2017, and an average annual growth of 2.3% since 2014. The growth came exclusively from the telecommunications sector which grew 5.5% from 2017 to 2018 while broadcasting revenues decreased by 1.2% during the same period. The telecommunications sector represents over three quarters of overall communications revenues

More information, including market financial performance, ownership landscape data, and pricing information for rural and urban centres across the country, can be found in the Telecommunications and Broadcasting sections of the 2019 *Communications Monitoring Report* (CMR).

As seen in Figure 3.1 telecommunications revenues consistently increased from 2014 to 2018, while broadcasting revenues gradually decreased over the same period (see Figure 3.1 and Figure 3.2).

Figure 3.1 Telecommunications and broadcasting revenues (\$ billion)



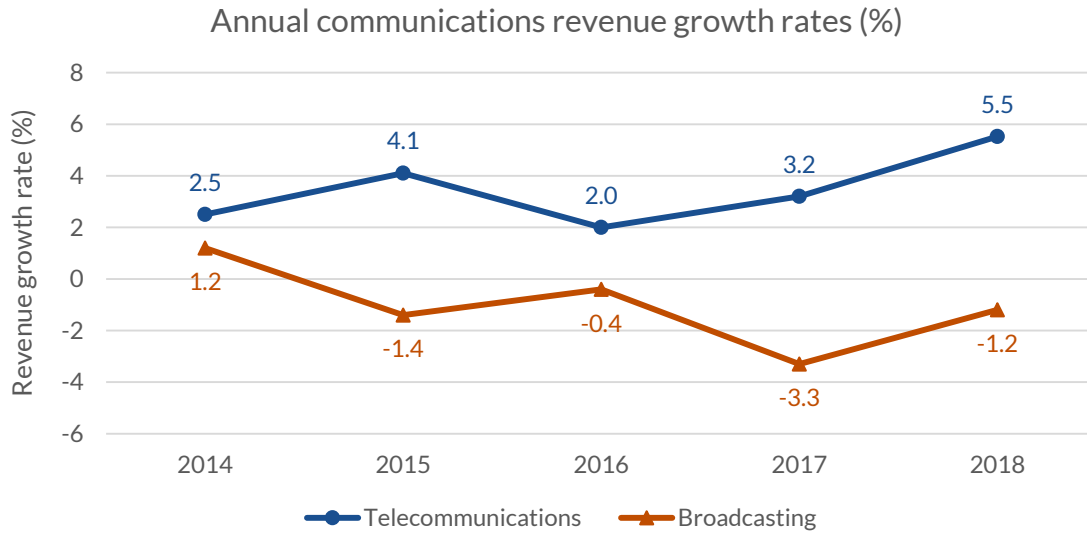
Source: CRTC data collection

This figure shows revenues from 2014 to 2018 for telecommunications service providers (TSPs) and broadcasters, including all CBC/SRC revenues and broadcasting distribution undertakings (BDU) revenues.

¹ Broadcasting data includes reported revenues for commercial services and the Canadian Broadcasting Corporation/Société Radio-Canada (CBC/SRC), but excludes non-commercial and over-the-top (OTT) service data.

As seen in Figure 3.2 below, telecommunications and broadcasting revenue growth rates began following opposite trends in 2017, widening in 2018 - the revenue growth gap stood at 6.5 percentage points in 2017, and 6.7 percentage points in 2018.

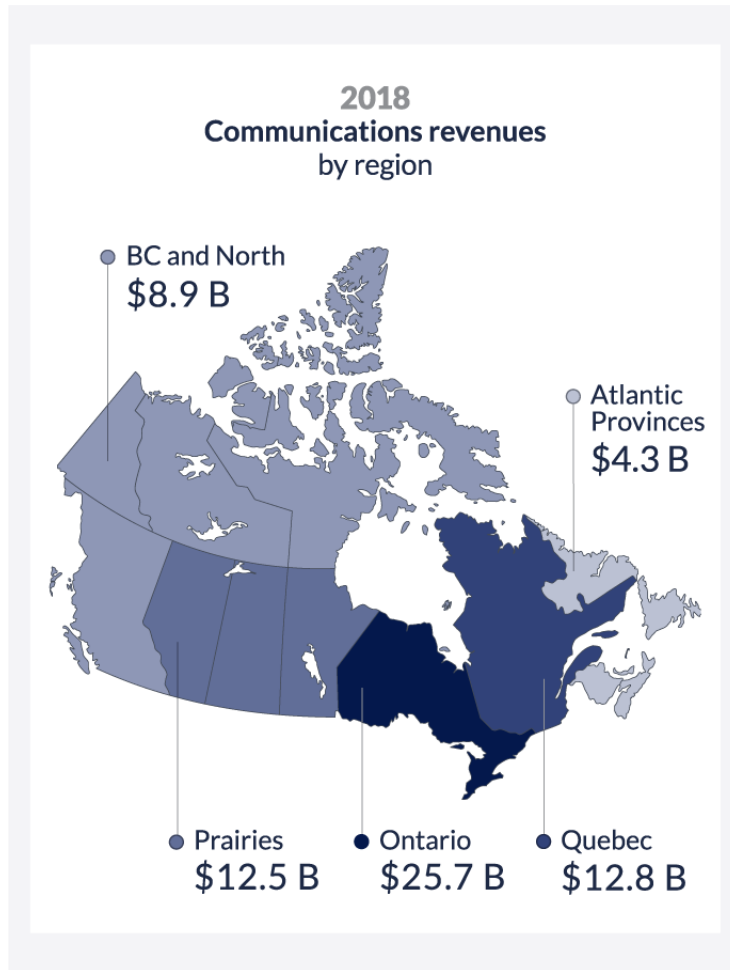
Figure 3.2 Annual communications revenue growth rates (%)



Source: CRTC data collection

Annual revenue growth rates are an indicator of broad trends in the communications industry. This graph shows annual revenue growth rates for the telecommunications and broadcasting sectors from 2014 to 2018.

Infographic 3.2 Communications revenues by region, 2018



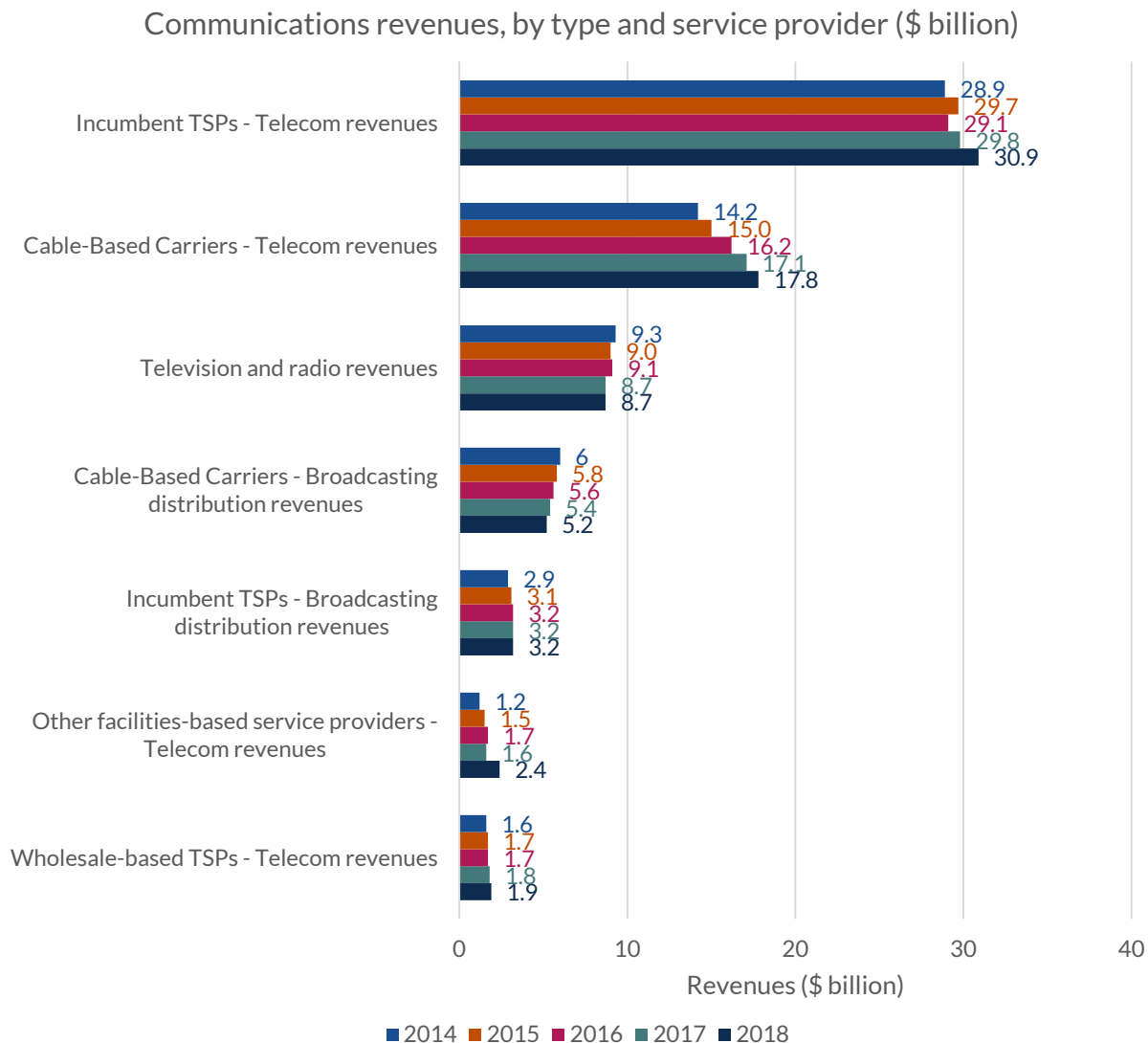
Source: CRTC data collection

This infographic excludes revenues generated from discretionary and on-demand television services as well as direct-to-home (DTH) BDU services (i.e. satellite television) (henceforth referred to as DTH BDU services), because those services are licensed as national services. Those services generated \$4.2 billion and \$1.9 billion, respectively, in 2018. Estimates were made for companies that were not required to provide provincial and territorial telecommunications data.

The communications industry served over 14 million households and over 1 million businesses in Canada using both landline and wireless facilities. Over 60%, or \$38.5 billion, of all communications services revenues, excluding revenues generated from discretionary and on-demand television services, as well as from DTH BDU services, were generated in the provinces of Ontario and Quebec which represent approximately 38% and 23% of the Canadian population, respectively. Ontario accounted for 40% of national revenues, leading the country with the highest revenues.

In terms of the revenue market share, Figure 3.3 shows that at 44% incumbent TSPs' telecommunications revenues account for the largest share of communications revenues, followed by cable-based carriers' telecommunications revenues at 25%.

Figure 3.3 Communications revenues by type and service provider (\$ billion)

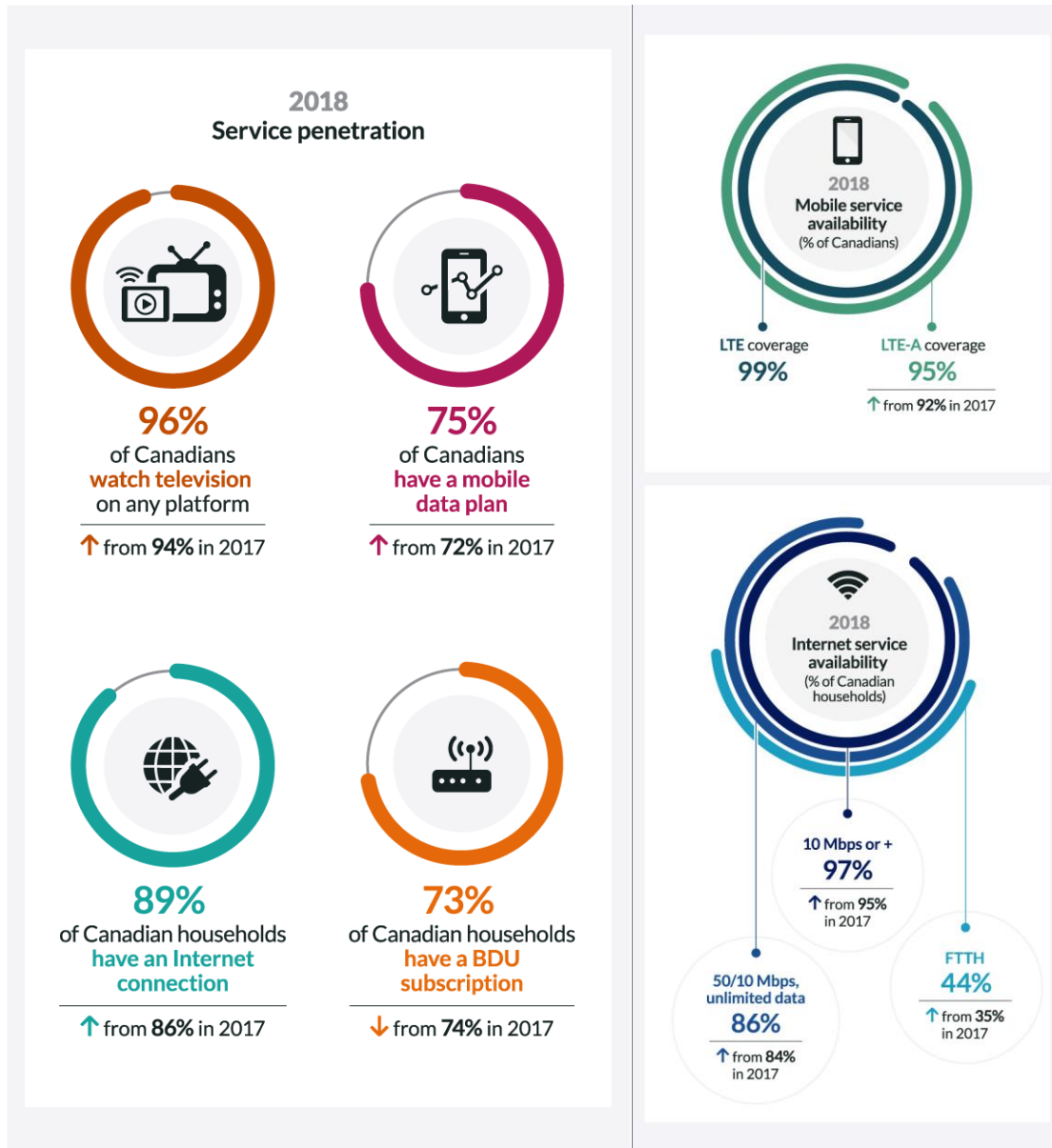


Source: CRTC data collection

From 2014 to 2018, total telecommunications and broadcasting distribution revenues from cable-based carriers and incumbent TSPs, as a percentage of total communications revenues, remained stable at approximately 33% and 49%, respectively. During that period, cable-based carriers' telecommunications revenues increased on average by 5.9% annually, from \$14.2 to \$17.8 billion. However, during the same period, other facilities-based TSPs' telecommunications revenues had the highest growth, with revenues increasing by an average of 18.3% annually, from \$1.2 billion in 2014 to \$2.4 billion in 2018. BDU revenues for cable-based carriers and television and radio revenues continued to decrease year-over-year, with an average five-year decline of 3.6% and 1.6%, respectively.

ii. Subscribers

Infographic 3.3 Service penetration and availability highlights, 2018



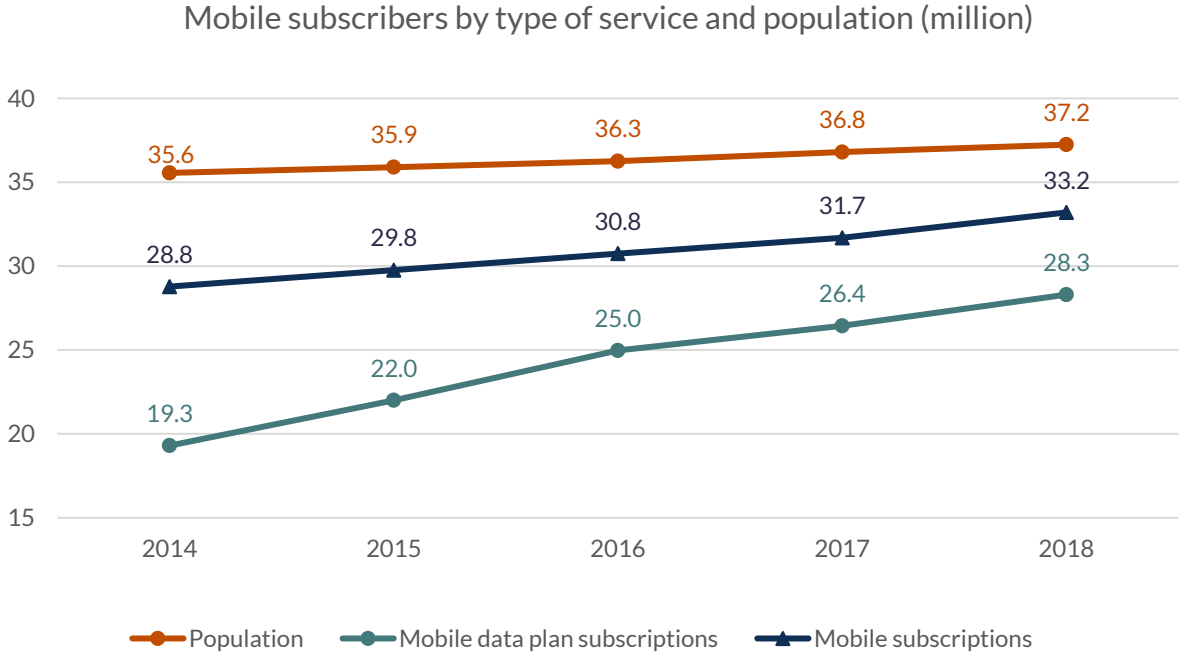
Source: CRTC data collection, Media Technology Media, fall 2018 (respondents: Canadians aged 18+), Innovation, Science and Economic Development Canada (ISED), and Statistics Canada census data

“Watching television on any platform” refers to any form of television viewership, regardless of the chosen television medium. This includes, but is not restricted to, BDU-subscribed television, private conventional television, and Internet-based television services. The content can be viewed on any platform such as tablets, cell phones, Internet-connected television, or any other device.

Availability of wireline and wireless services continues to increase and provides faster telecommunications services to Canadians. In 2018, 44% of households had access to Fibre-to-the-home (FTTH) services while 86% of households had access to Internet services with speeds of 50/10 Mbps with unlimited data and 95% of the population were covered by Long-Term Evolution Advanced (LTE-A) networks. More statistics and breakdowns are available in the [Retail Fixed Internet and Broadband Availability](#) and [Retail Mobile Sector](#) sections of this report.

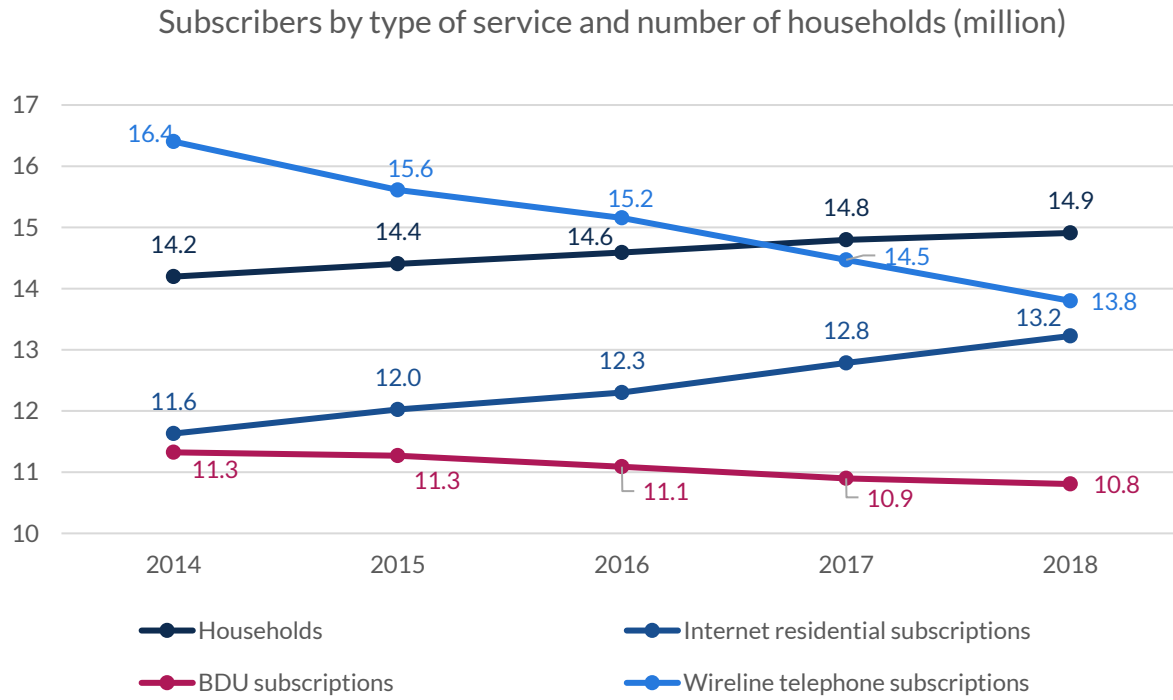
Over the past five years, the average growth for wireless data plan subscriptions and Internet residential subscriptions (9.8% and 3.3%, respectively) outpaced the population growth and household formation, which stood at 1.2% on average per year, from 2014-2018. During this same period, wireline telephone and BDU subscriptions decreased by 4.2% and 1.2% on average per year, respectively.

Figure 3.4 Mobile subscribers by type of service and population (million)



Source: CRTC data collection, Statistics Canada census data

Figure 3.5 Subscribers by type of service and number of households (million)



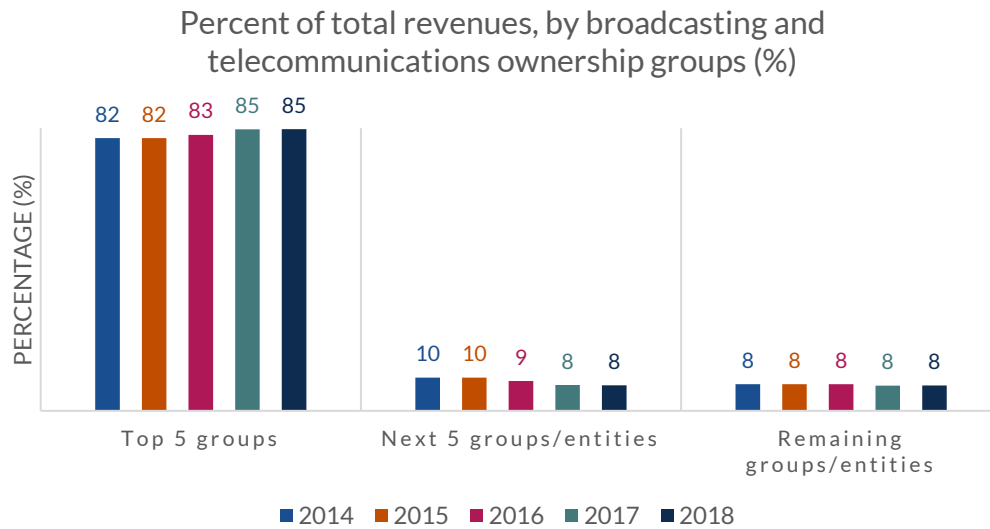
Source: CRTC data collection, Statistics Canada census data

iii. Financial performance

Revenues from the top five ownership groups (Bell, Quebecor, Rogers, Shaw, and TELUS) accounted for approximately 85% of total communications revenues in 2018 (unchanged from 2017), compared to 82% in 2014. While the share of revenues from the top five entities has changed over time, the composition of the top five has remained relatively stable.

Three of the top five groups are cable-carriers (Rogers, Shaw, and Quebecor), while the remaining two are incumbent TSPs (Bell and TELUS).

Figure 3.6 Percent of total revenues, by broadcasting and telecommunications ownership group (%)

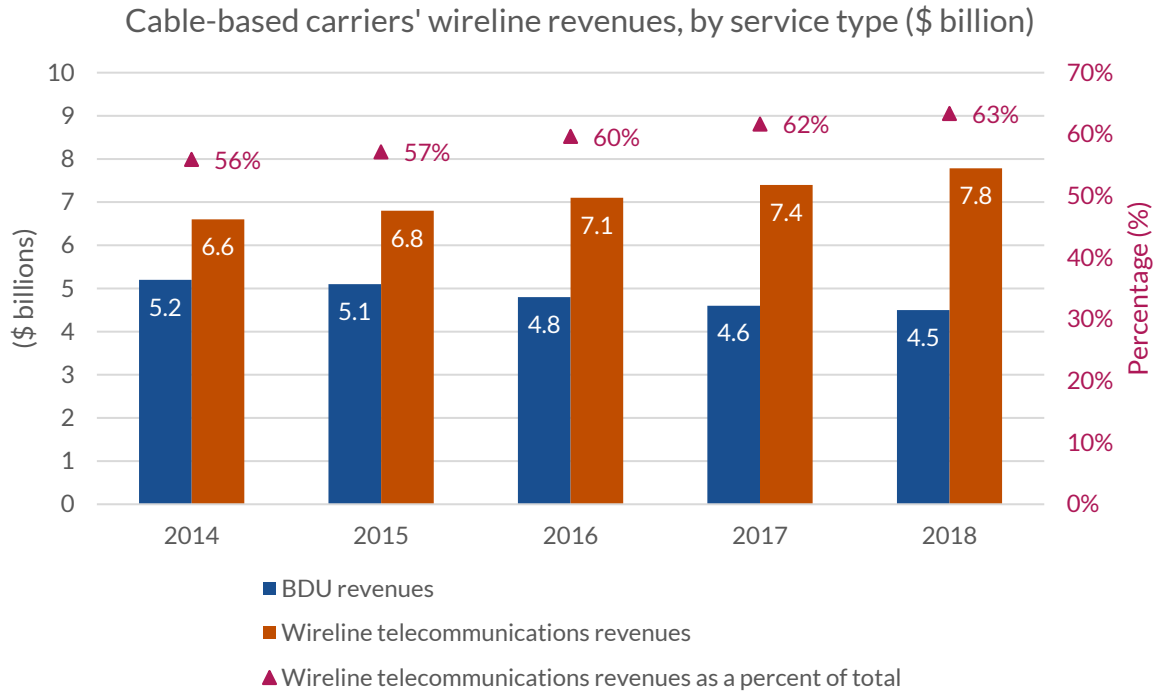


Source: CRTC data collection

Revenues include those of the groups' affiliates. Revenue market share is calculated from exact amounts although the percentages have been rounded and therefore exceed 100%.

As illustrated in Figure 3.7, cable-based carriers' wireline telecommunications services are generating an increasingly important share of total revenues. In 2018, wireline telecommunications revenues represented the largest portion (63%) of cable-based carriers' total revenues.

Figure 3.7 Cable-based carriers' wireline revenues, by service type (\$ billion)

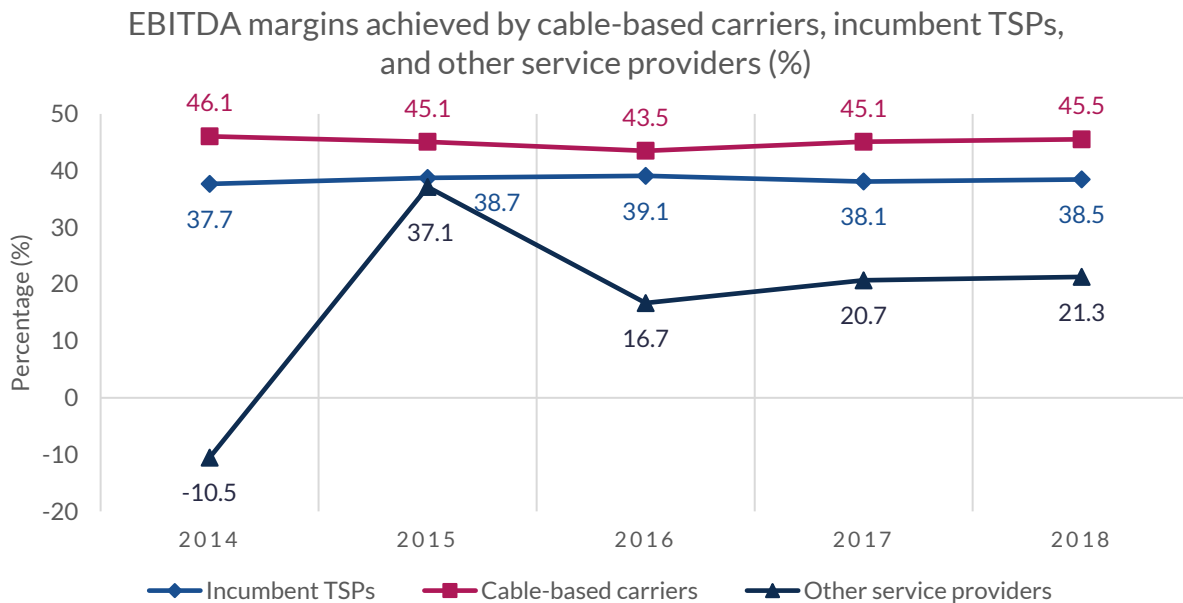


Source: CRTC data collection

This figure compares cable-based carriers' wireline revenues from two principle sources: basic and non-basic programming services (i.e. revenues from the distribution of television services), and wireline telecommunications services (i.e. local, long distance, data, private line, and Internet) between 2014 and 2018. This figure excludes revenues from satellite-based BDU and mobile services.

As seen in Figure 3.8, from 2016 to 2018, earnings before interest, taxes, depreciation, and amortization (EBITDA) margins for other service providers stabilized and margins increased slightly for all three types of carriers. However, EBITDA margins of other service providers are almost half of those of incumbent TSPs and cable-based carriers.

Figure 3.8 EBITDA margins achieved by cable-based carriers, incumbent TSPs, and other service providers (%)



Source: CRTC data collection

This figure shows EBITDA margins for cable-based carriers, incumbent TSPs, and other service providers (including wholesale-based service providers and other alternative facilities-based service providers) for BDU and telecommunications services for the period from 2014 to 2018. EBITDA margin is a measure of profitability. Higher EBITDA margins are generally associated with greater profitability. Only companies with Canadian communications revenues greater than 80% of their total revenues were included in the calculation of EBITDA. Other service providers include resellers and facilities-based service providers that are neither incumbents nor cable-carriers.

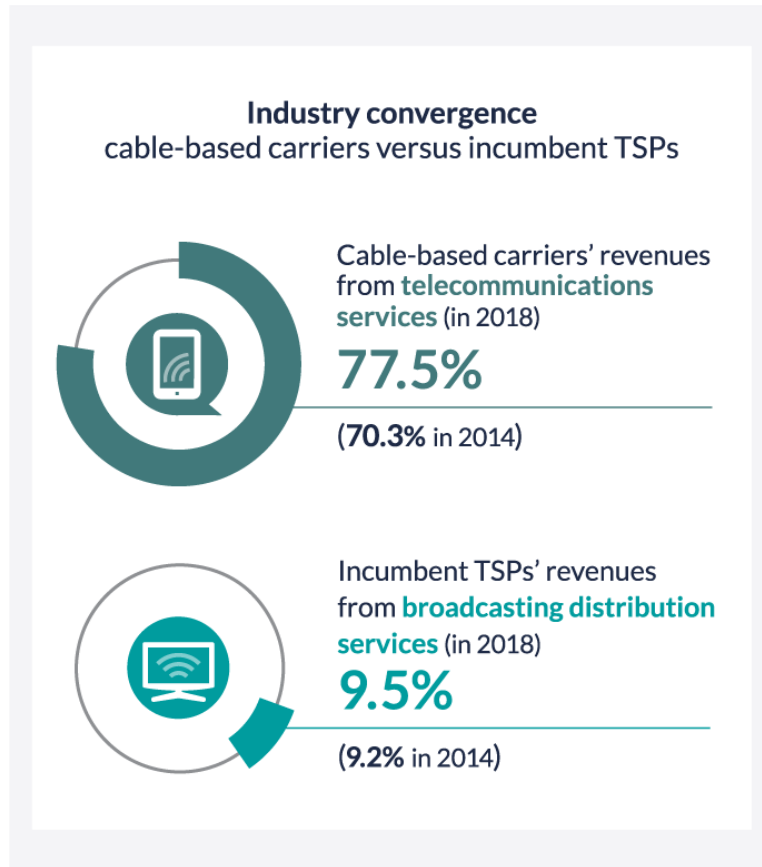
The figure demonstrates a significant increase in the EBITDA margins of other service providers. This was due mainly to some companies reporting “extraordinary accounting items” in their income statements in 2015 and does not represent a change in their position in the market. The drop in 2016 was due to the reclassification of companies as a result of merger and acquisition activities.

Extraordinary accounting items can include a gain or loss from a sale of assets, a write-off and other non-recurring items.

iv. Industry characteristics

The communications industry is comprised of the telecommunications and broadcasting sectors with revenues from telecommunications services accounting for the larger share. This section observes service providers' revenues from each sector.

Infographic 3.4 Industry convergence – cable-based carriers versus incumbent TSPs



Source: CRTC data collection

As seen in the infographic above, the majority of cable-based carriers' revenues is derived from telecommunications services and the ratio has increased over the 2014 to 2018 period (see Open Data).

The portion of incumbent TSPs' revenues from broadcasting services has been quite small and has increased only slightly over the 2014 to 2018 period. Overall, the infographic illustrates a relevant measure of industry convergence.

As shown in

Table 3.1, three entities offered services in all 10 sectors of the communications industry: radio, television, BDU, discretionary and on demand television, local and access, long distance, Internet, wireless, data and private line. In 2018, these three entities generated 62% of communications revenues. In contrast, the 206 providers which offered only one service, generated only 2% of communications revenues.

The communications industry remains highly concentrated. Nine to ten companies operating in eight or more sectors account for approximately 90% of communications revenues.

Table 3.1 Percentage of broadcasting and telecommunications revenues generated by companies operating in multiple sectors

Number of sectors in which companies offer service	Number of reporting groups or entities operating in these sectors			Percentage of broadcasting and telecommunications revenues generated in these sectors		
	2016	2017	2018	2016	2017	2018
10	3	3	3	60	62	62
9	0	0	0	0	0	0
8	7	6	6	29	29	28
7	2	2	2	0	0	0
6	2	1	1	0	0	0
5	18	16	17	2	1	1
4	35	29	35	1	1	2
3	43	43	52	5	4	5
2	42	47	50	1	1	1
1	212	218	206	2	2	2

Source: CRTC data collection

v. Methodology

Grouping of companies by ownership

For reporting purposes, some metrics utilize company groupings whereby revenues are aggregated across affiliated companies (e.g. see Figure 3.6 Percent of total revenues, by broadcasting and telecommunications ownership group (%)).

Regional data

The Atlantic Provinces include New Brunswick, Newfoundland and Labrador, Nova Scotia and Prince Edward Island. The North refers to the Northwest Territories, Nunavut and Yukon.

The Prairies include Alberta, Manitoba and Saskatchewan.

Nationally licensed services such as discretionary and on-demand television services as well as direct-to-home (DTH) broadcasting distribution unit (BDU) services (i.e. satellite television), are not included in regional breakdowns.

Estimates were made for companies that were not required to provide provincial and territorial telecommunications data.

Broadcasting services

The broadcasting sector consists of radio (private and CBC/SRC), conventional television (private and CBC/SRC), discretionary and on-demand television services (pay, pay-per-view [PPV], video-on-demand [VOD] and specialty services) and BDUs, such as cable, satellite and Internet Protocol television (IPTV) distributors.

Telecommunications services

The telecommunications sector includes local, long distance, data, private line, mobile and Internet services.

Broadcasting data collection

Statistical and financial data is sourced from annual returns provided by commercial and CBC/SRC radio stations, conventional television stations, discretionary services, and on-demand services for the broadcast year which ended August 31, 2018.

CBC/SRC revenues include parliamentary appropriations for conventional television.

Annual returns for the broadcast year ending 31 August 2018 were required to be filed with the Commission by 30 November 2018. Data received subsequent to the compilation date is not reflected in this publication. The data reported for previous years has been updated to reflect any additional or adjusted information received by the Commission after the 31 August date for prior years' publications.

Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term "discretionary services" now encompasses all currently licensed pay, specialty and discretionary services, while the term "on-demand service" now encompasses all licensed pay-per-view and video-on-demand services.

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Anglophones and 4,000 Francophones). Of those 8,000 respondents, 2,976 have also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Anglophones and 2,000 Francophones) is surveyed in the spring.

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The CMR uses data collected from the fall survey unless stated otherwise.

“Watching television on any platform” refers to any form of television viewership, regardless of the chosen television medium. This includes, but is not restricted to, BDU-subscribed television, private conventional television, and Internet-based television services. The content can be viewed on any platform such as tablets, cellphones, Internet-connected television, or any other device.

Definitions

BDU revenues refers to revenues from basic and non-basic services and exclude Internet-based service revenues (e.g. Netflix) and telecommunications service revenues (e.g. Internet access or telephony) but include IPTV services (e.g. Bell Fibe and Telus Optik TV).

Broadcasting revenues include reported revenues for commercial services (private commercial radio, private commercial television, discretionary and on-demand services, and broadcasting BDU services such as cable, DTH and IPTV). Broadcasting revenues also include revenues from CBC radio and television services but exclude other non-commercial radio and television, and over-the-top (OTT) service data.

Cable-based carriers are former cable monopolies that also provide telecommunications services (e.g. wireline voice, Internet, data and private line, and wireless services). Examples of cable-based carriers include Rogers, Shaw, and Videotron.

Compound annual growth rate (CAGR) measures the average rate at which a value grows over a certain period of time assuming the value has been compounding over that time period.

Convergence refers to services that were previously separate, such as voice, data, audio and video, being distributed over the same network, to share resources and to interact with each other.

Direct-to-home (DTH) refers to satellite service providers.

Earnings before interest, taxes, depreciation and amortization (EBITDA) is a metric used to measure financial performance. EBITDA margin is expressed as a percentage of total revenues.

An **Incumbent Telecommunications Service Provider (TSP)** is a company that provides local telecommunications services on a monopoly basis prior to the introduction of competition. Examples of incumbent TSPs include Bell, SaskTel and TELUS. They also include small incumbent TSPs such as Sogetel and Execulink.

Internet protocol television (IPTV) refers to services such as Bell Fibe and Telus Optik TV, but excludes Internet-based services such as Netflix, Crave and Club Illico.

Other facilities-based carriers refers to providers of telecommunications services that are not incumbent providers but which own and operate telecommunications networks. Examples of other facilities-based carriers include Xplornet and Allstream Business.

A **reserve** refers to land set aside by the federal government through the Indian Act or through treaties for the use of a specific band or First Nation. The band council has "exclusive user rights" to the land, but the land is "owned" by the Crown. The Indian Act states that this land cannot be owned by individual band members.

Telecommunications revenues include reported revenues from local, long distance, data, private line, mobile and Internet services.

Wholesale-based service providers or non-facilities-based service carriers refers to companies that generally acquire telecommunications services from other providers and either resell those services or create their own network from which to provide services to their customers. A company that owns a small number of facilities but has the vast majority of its operations on leased facilities may also be classified as non-facilities-based. Examples of wholesale-based service providers and non-facilities-based carriers include Distributel and TekSavvy.



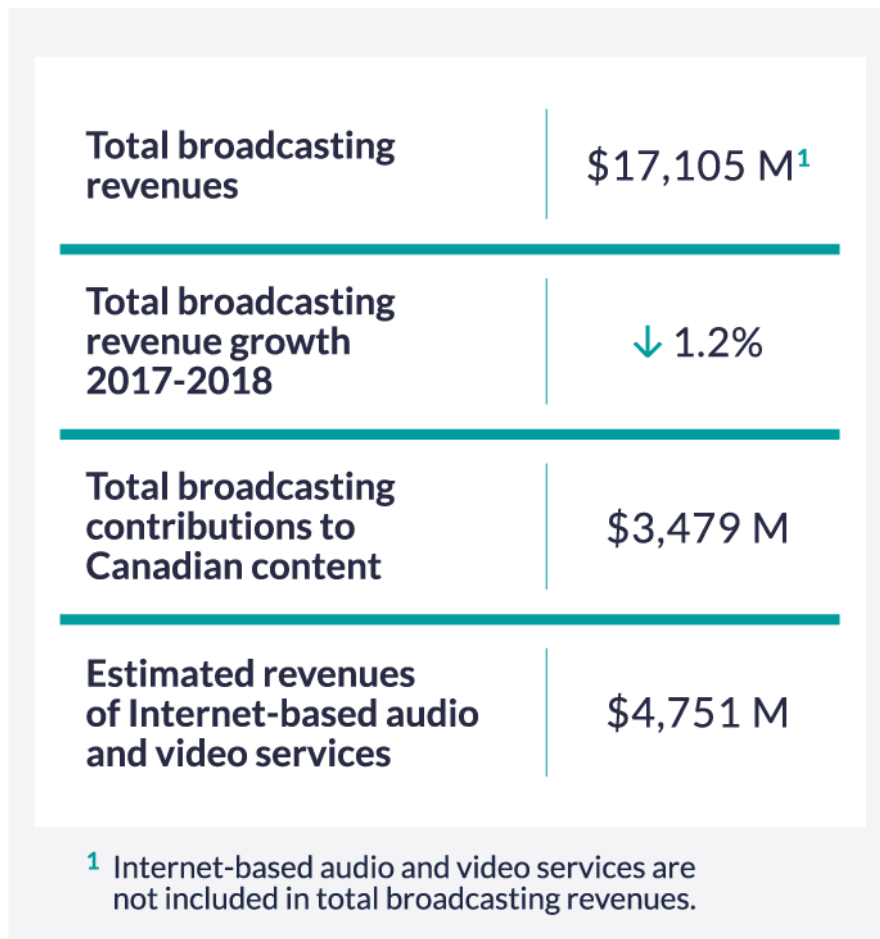
Communications Monitoring Report **2019**

Broadcasting
Overview



Broadcasting Overview

Infographic 4.1 Overview of broadcasting revenues and contributions to Canadian content



Source: CRTC data collection; Ovum for estimated revenues of Internet-based services

Revenues of Internet-based services are over and above those of the traditional broadcasting services.

Total broadcasting revenues include revenues from private commercial and Canadian Broadcasting Corporation/Société Radio-Canada (CBC/SRC) radio services, private commercial and CBC/SRC conventional television services, discretionary and on-demand television, and broadcasting distribution undertakings (BDUs). Broadcasting contributions to Canadian content include Canadian content development (CCD) contributions, Canadian programming expenditures (CPE), contributions to the creation and production of Canadian programming from BDUs and tangible benefits from ownership transactions.

CBC/SRC revenues include parliamentary appropriations for conventional television.

This Broadcasting Overview provides a glimpse into various aspects of broadcasting in Canada. For the purposes of this report, total broadcasting revenues include those from:

- private commercial and CBC/SRC radio services;
- private commercial and CBC/SRC conventional television services;
- discretionary (pay and specialty) and on-demand (pay-per-view [PPV] and video-on-demand [VOD]) services; and
- BDUs¹, such as cable, satellite and Internet Protocol Television (IPTV) distributors.

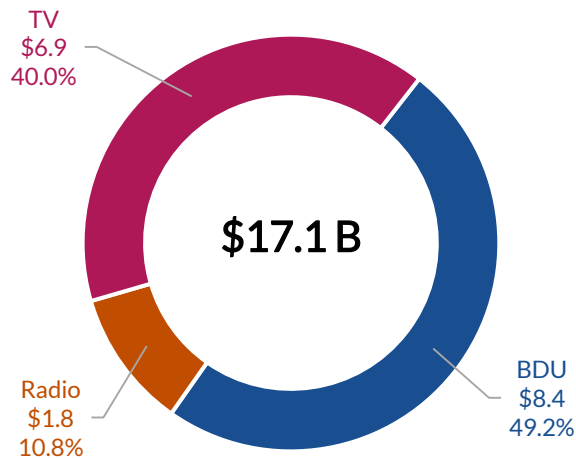
In 2018, broadcasting services generated total revenues of \$17.1 billion, a 1.2% decrease compared to 2017, and contributed approximately \$3.5 billion (20% of total revenues) to Canadian radio and television content through their respective funding mechanisms. Out the of the \$3,016 million made in Canadian programing expenditures, expenditures on news grew by 5% from 2017 to 2018, reaching \$737 million or almost a quarter of the total CPE expenditures. (See the [Television](#) section for more details)

BDUs generated almost half of 2018 total broadcasting revenues, reporting \$8.4 billion (49%). Television services followed with \$6.9 billion (40%), and radio stations generated \$1.8 billion (11%).

In comparison, Internet-based audio and video services were estimated to have generated revenues of \$4.8 billion in Canada², approximately 28% of the revenues of the traditional broadcasting services.

Figure 4.1 Distribution of total broadcasting revenues, 2018

Distribution of total broadcasting revenues (\$ billions), 2018



Source: CRTC data collection

¹ BDU revenues refer to revenues from basic and non-basic services and exclude Internet-based service revenues, such as Netflix and telecommunications service revenues such as Internet access or telephony, but include IPTV services such as Bell Fibe and Telus Optik TV.

² Revenues of Internet-based services are over and above those of the traditional broadcasting services.

i. Revenues and financial performance

Infographic 4.2 Overview of radio, television and broadcasting distribution revenues, growth and PBIT/Operating margin



Radio	2018 total revenues	Growth 2017-2018	PBIT/ Operating margin
Private commercial radio	\$1.5 B	↓ 0.5%	18.3% (PBIT)
CBC radio	\$0.3 B	↑ 10.9%	10.9% (Operating margin)



Conventional Television	2018 total revenues	Growth 2017-2018	PBIT/ Operating margin
Private conventional television stations	\$1.5 B	↓ 4.2%	↓ 8.7% (PBIT)
CBC/SRC conventional television stations	\$1.1 B	↑ 12.6%	11.0% (Operating margin)
Discretionary television services	\$4.0 B	↓ 1.8%	23.6% (PBIT)
On-demand television services	\$0.3 B	↓ 14.5%	13.4% (PBIT)



Broadcasting distribution	2018 total revenues	Growth 2017-2018	PBIT/ Operating margin
Cable	\$4.5 B	↓ 3.4%	15.0% (Operating margin)
IPTV	\$2.1 B	↑ 4.5%	5.0% (Operating margin)
DTH	\$1.9 B	↓ 5.0%	27.4% (Operating margin)

Source: CRTC data collection

PBIT refers to profit before interest and taxes; EBITDA to earnings before interest, taxes, depreciation and amortization; and DTH to national direct-to-home satellite service providers.

In 2018, television distribution via cable continued to generate the most revenues at \$4.5 billion and reported strong profitability with an EBITDA of 15.0%. In regard to television services, discretionary services generated the most revenues at \$4.0 billion and reported a PBIT of 23.6%. In fact, except for private conventional television stations (which collectively reported a -8.7% PBIT), all categories of broadcasting services were profitable in 2018.

That being noted, most services saw their revenues decline. Only CBC/SRC radio, CBC/SRC conventional television stations, and IPTV showed growth in their revenues. The increase in revenues of CBC/SRC radio, up \$32 million (10.9%) compared to 2017, and CBC/SRC television, up \$119 million (12.6%) compared to 2017, may be, in part, a result of an increase in parliamentary appropriations and an

increase in television national advertisement sales resulting from the sports coverage of the 2018 Winter Olympics.

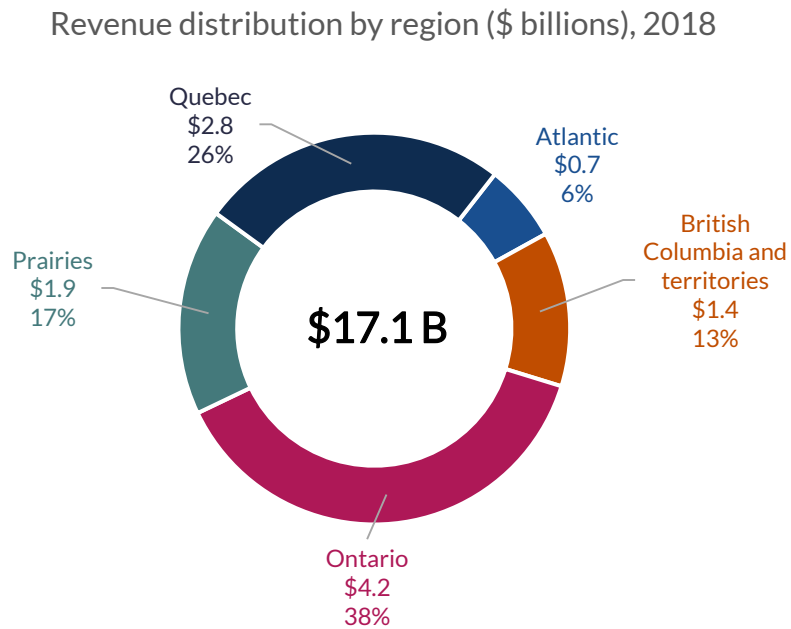
The majority of radio revenues came from commercial services (82%), which include both AM and FM radio stations broadcasting in French, English and third languages. Radio revenues have been declining; however, on average 83%³ of Canadians still use traditional radio each month.

As is consistent with previous years, the majority of television revenues came from discretionary services (58%), which relied on subscriber revenues to generate most (66%) of their revenues.

Finally, among BDUs, IPTV still leads in terms of growth, reporting revenue growth of 4.5% from 2017 to 2018, while DTH services are still the most profitable distribution services, reporting a 27.4% EBITDA in 2018.

In terms of the regional distribution of revenues, the most populous provinces, Ontario and Quebec, lead with 38% and 26% of broadcasting revenues in 2018 respectively, while according to the 2016 Census⁴ their population represented 38% and 23%, respectively, of the Canadian population.

Figure 4.2 Revenue distribution by region (\$ billions), 2018



Source: CRTC data collection

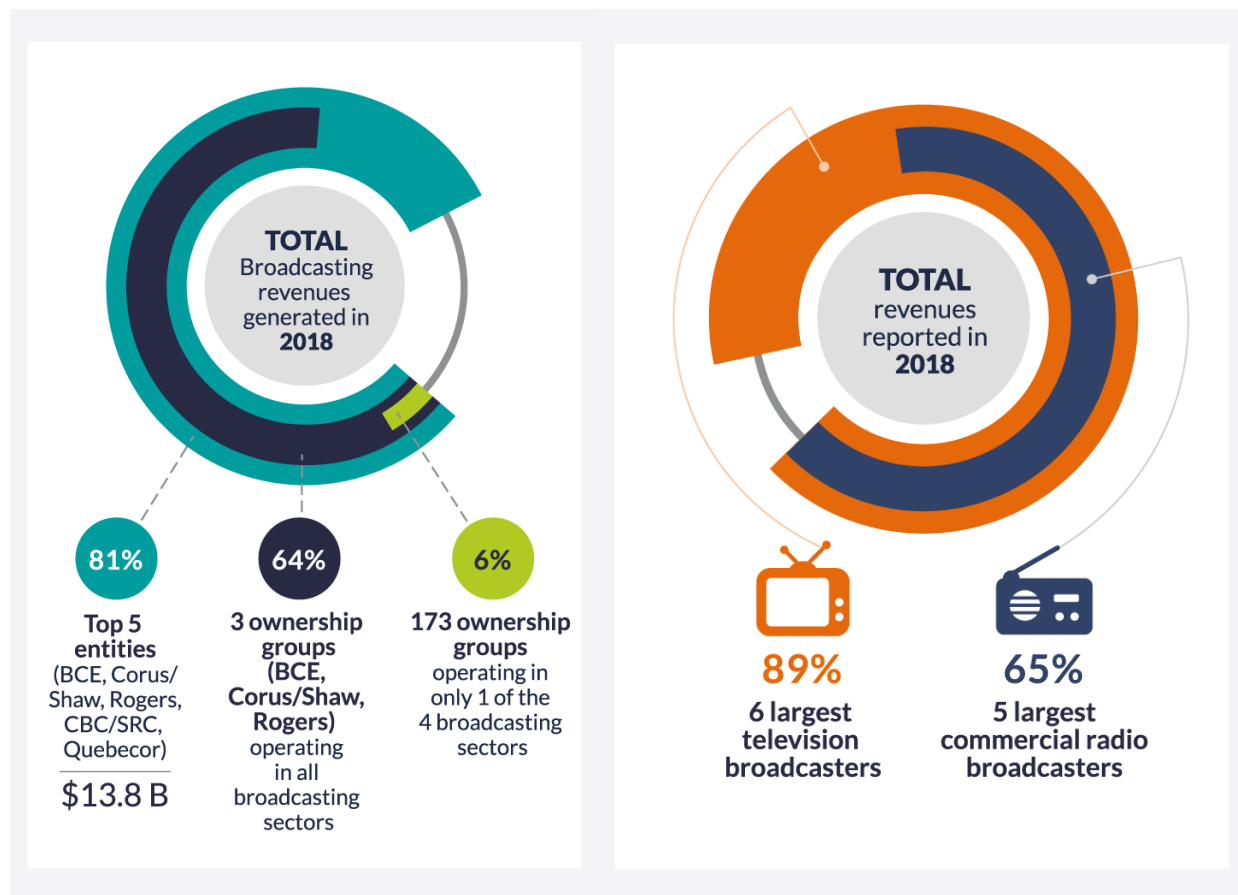
Excludes revenues generated from discretionary and on-demand television services, as well as DTH distribution services, because those services are licensed as national services.

³ Source: MTM 2018 fall survey

⁴ [Population and Dwelling Count Highlight Tables](#), 2016 Census

ii. Industry characteristics

Infographic 4.3 Overview of industry characteristics

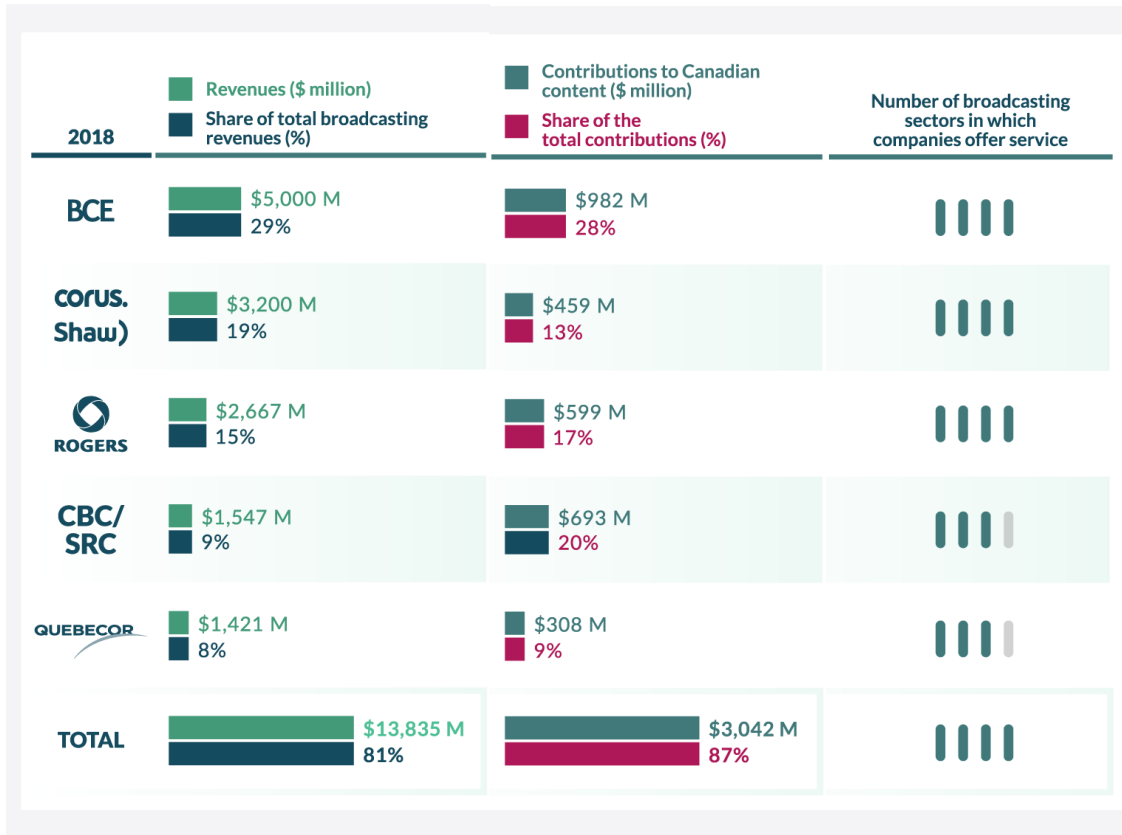


Source: CRTC data collection

In 2018, as in previous years, the broadcasting industry was largely dominated by a few entities. Together, the top 5 entities generated approximately 81% of total broadcasting revenues. Entities operating radio stations, conventional television stations, discretionary or on-demand services and BDUs generated 64% of broadcasting revenues in 2018. Entities operating only one type of these services accounted for 6% of total broadcasting revenues.

Sector composition

Infographic 4.4 Revenues, contributions by major ownership group, by sector

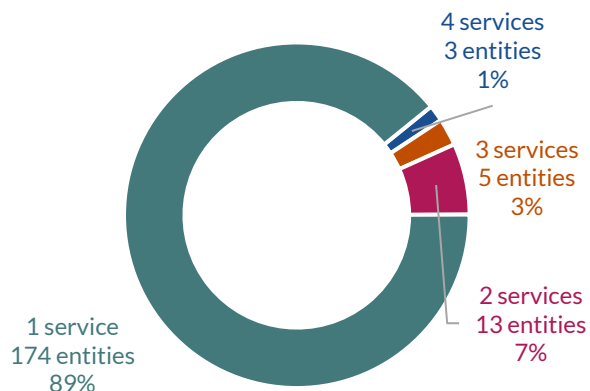


Source: Public disclosure of aggregate annual returns for large ownership groups.

Number of sectors in which companies offer service refers to the four sectors of the broadcasting communications industry: radio, conventional television, discretionary and on-demand, and BDUs.

Figure 4.3 Number and share of entities that operate 1 to 4 services, 2018

Number and share of entities that operate 1 to 4 services, 2018

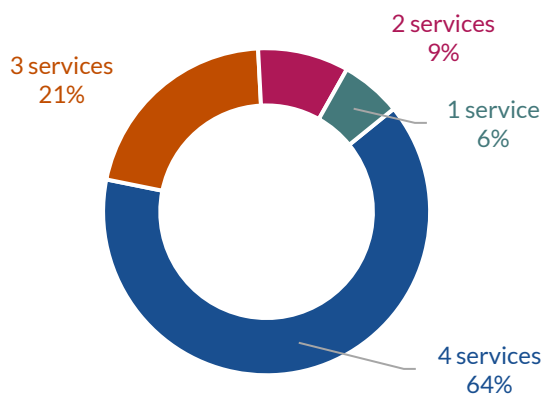


Source: CRTC data collection

This figure shows the number of entities that operate 1 to 4 types of broadcasting services and their share of the total number of entities.

Figure 4.4 Share of broadcasting entities' revenues by number of services offered, 2018

Share of broadcasting entities' revenues by number of services offered, 2018



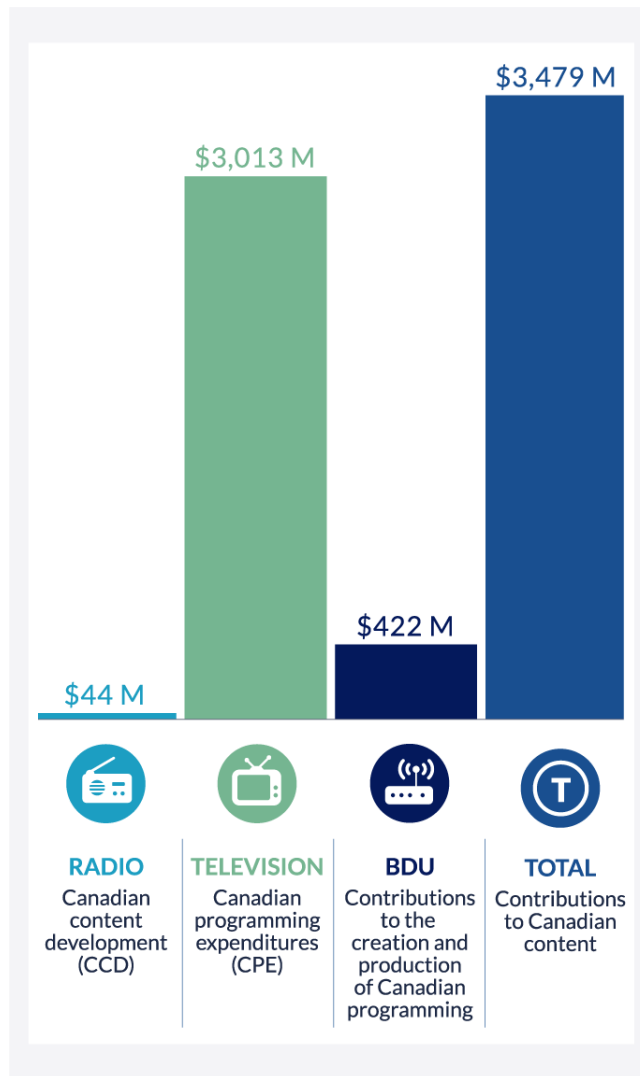
Source: CRTC data collection

This figure shows the percentage of total revenues generated by entities operating 1 to 4 types of broadcasting services.

iii. Contributions to Canadian content

Commercial radio stations typically contribute to CCD initiatives to support the development and promotion of Canadian musical and spoken word content for broadcast. Television services contribute portions of their broadcasting revenues to CPE. BDUs contribute a portion of their annual broadcasting-related revenues to the creation and production of Canadian programming, ranging from contributions to production funds to contributions to community programming.

Infographic 4.5 Contributions to Canadian content, 2018



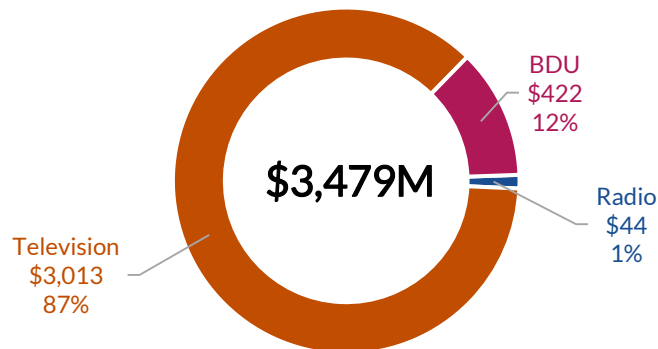
Source: CRTC data collection, 2018 broadcasting year

Television CPE include expenditures from private conventional television, CBC conventional television, other (public and not-for-profit) conventional television, discretionary services, and on-demand services.

In 2018, broadcasters contributed a total of \$3.479 billion towards Canadian content. CPE represented the vast majority (87%) of those contributions, followed by BDUs contributions (12%) and CCD contributions (1%).

Figure 4.5 Contributions to Canadian content by source (\$ million), 2018

Contributions to Canadian content by source (\$ million),
2018 (Total = \$3,479M)

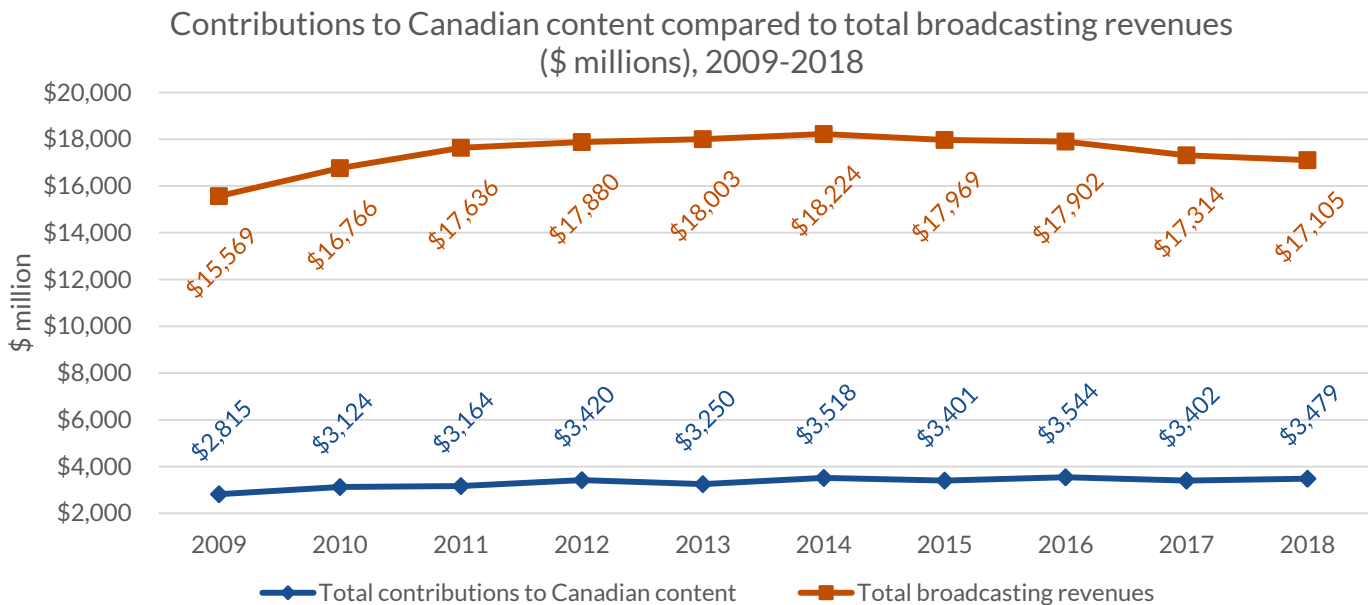


Source: CRTC data collection

Canadian broadcasters also support Canadian content in a variety of other ways, such as through the exhibition of Canadian content, copyright and other programming expenditures, and the production of Canadian radio programming.

Even though total broadcasting revenues have declined from 2017 to 2018, contributions to Canadian content have increased by 2.3%. In fact, contributions to Canadian content have increased in the past ten years, by an average of 2.4% per year.

Figure 4.6 Contributions to Canadian content compared to total broadcasting revenues (\$ millions), 2009-2018



Source: CRTC data collection 2009-2018 financial summaries

Television CPE include expenditures from private conventional television, CBC conventional television, other (public and not-for-profit) conventional television, discretionary services, and on-demand services.

BDU contributions include those directed to the Local Programming Improvement Fund (LPIF) from 2010 until the fund was discontinued in 2014, to the Independent Local News Fund (ILNF) in 2018, toward local expression from 2009 to 2018, to the Canadian Media Fund (CMF) from 2009 to 2018, and to the Certified Independent Production Funds from 2009 to 2018.

Total broadcasting revenues include revenues from private commercial and CBC/SRC conventional television, discretionary and on-demand television, private commercial and CBC/SRC radio, as well as broadcasting distribution undertakings (BDU). Broadcasting contributions to Canadian content include Canadian content development (CCD) contributions, Canadian programming expenditures (CPE), contributions to the creation and production of Canadian programming from BDUs and tangible benefits from ownership transactions in the form of CCD contributions and CPE.

Although total broadcasting revenues have declined since 2015, total contributions to Canadian content have remained stable over the same period. In fact, they have varied in the \$3.4 and \$3.5 billion range since 2014. Contributions to Canadian content growth is measured at 2.4% on average, per year for the past ten years.

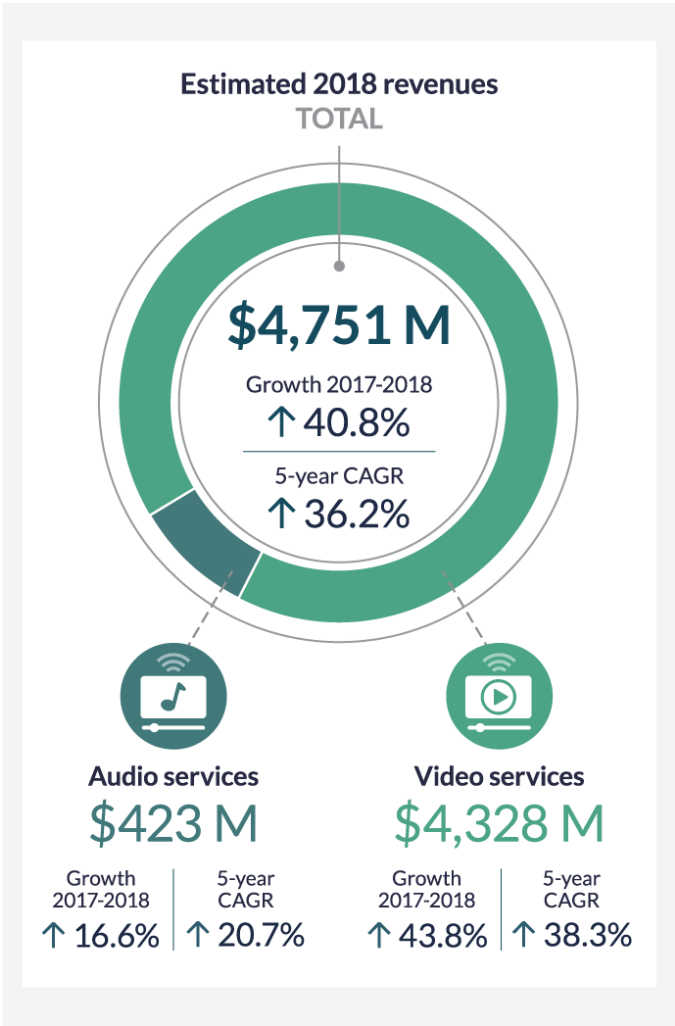
Only radio CCD contributions display negative growth, having declined by 1.7% per year for the past ten years. These contributions represent 1.3% of all contributions to Canadian content for the past three years.

Television CPE increased 2.5% per year for the past ten years, from \$2.4 billion in 2009 to \$3 billion in 2018. Over the same ten-year period, there has been an average decrease in contributions per year from CBC/SRC conventional television services (-1.3%), other (public and not-for-profit) conventional television (-3.8%), and on-demand services (-5.4%). There has, however, been an average increase in contributions per year from private conventional television (1.2%) and discretionary services (5.5%).

Although BDUs contributed to the LPIF (now defunct) and the ILNF, the majority of these contributions over the past ten years have been directed to local expression, Certified Independent Production funds and to the CMF (95% of BDU contributions, in 2018).

iv. Internet-based audio and television services estimated revenues

Infographic 4.6 Overview of Internet-based audio and television services (estimated revenues)



Source: Revenue estimates from Ovum

Note: AVOD revenues in 2014 did not include "out of stream revenues" for Internet-based video services; they were, however, included in subsequent years. Nevertheless, 2014 data was used to calculate the five-year compound annual growth rate.

Internet-based audio and television services, also known as over-the-top (OTT) services, are provided through Internet access. These services, according to the research firm Ovum, generated estimated revenues of \$4.8 billion in Canada in 2018, comparable to the 2018 cable revenues (\$4.5 billion). These revenues compare to roughly one third of the traditional, regulated broadcasting revenues.

Internet-based video estimated growth is still on the rise, compared to last year, as revenues grew by an estimated 43.8%. The majority of estimated revenues from Internet-based video content come from subscription-based video-on-demand (SVOD) services such as Netflix, Amazon Prime Video and Crave TV.

For Internet-based audio, streaming is the method of accessing content that generates the most estimated revenues. The estimated growth for Internet-based audio services revenues, while significant at 16.6%, are less noteworthy than the average annual growth rate of 20.7% for the past 5 years.

SVOD refers to subscription-based video-on-demand service. This is an Internet-based service model in which a client pays a subscription fee to gain access to a library of content. This category includes services that air the content of the library according to a linear schedule (e.g., Sportsnet Now) and services that permit a user to choose from a catalogue of content that is available at any time (e.g., Netflix, Crave and Club Illico).

TVOD refers to transactional video-on-demand service. This is an Internet-based service model in which a client pays for specific content but generally does not pay to access the service itself (e.g., iTunes, Microsoft Movies & TV, and the PlayStation Network).

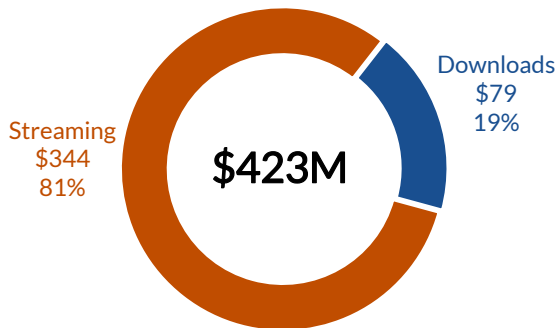
AVOD refers to advertising video-on-demand service. This is an Internet-based service model in which a client typically has free access to content but is exposed to advertisements (e.g., YouTube).

Although Internet-based services are becoming more popular, a great majority of Canadians continue to use traditional television and radio services. In 2018, on average, 80% of Canadians watched traditional television on any given week and 83% listened to traditional radio in any given month. These penetration figures are far higher than those for their Internet-based counterparts, which stood at 56% for Canadians watching Internet-based television services and 63% for Canadians streaming music content on YouTube.

Additional information concerning Internet-based audio and video services as well as methodology is provided in the [Radio](#) and [Television](#) sections of this report.

Figure 4.7 Internet-based audio services estimated revenues in Canada (\$ million), 2018

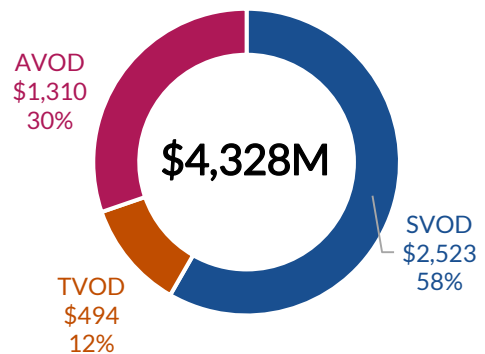
Internet-based audio services estimated revenues in Canada (\$ million), 2018 (Total = \$423M)



Source: Revenue estimates from Ovum

Figure 4.8 Internet-based video services estimated revenues in Canada (\$ million), 2018

Internet-based video services estimated revenues in Canada (\$ million), 2018 (Total = \$4,328M)



Source: Revenue estimates from Ovum

v. Methodology

CRTC data collection

The CRTC data collection has sourced its statistical and financial data from the annual returns provided by commercial and CBC/SRC radio stations, conventional television stations, discretionary services, and on-demand services for the broadcast year which ended August 31, 2018.

CBC/SRC revenues include parliamentary appropriations for conventional television.

Annual returns for the broadcast year ending 31 August 2018 were required to be filed with the Commission by 30 November 2018. Data received subsequent to the compilation date is not reflected in this publication. The data reported for previous years has been updated to reflect any additional or adjusted information received by the Commission after the 31 August date for prior years' publications.

Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term “discretionary services” now encompasses all currently licensed pay, specialty and discretionary services, while the term “on-demand service” now encompasses all licensed pay-per-view and video-on-demand services.

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Anglophones and 4,000 Francophones). Of those 8,000 respondents, 2,976 have also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Anglophones and 2,000 Francophones) is surveyed in the spring.

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The CMR uses data collected from the fall survey unless stated otherwise.

Ovum

SVOD services

Subscription-based (SVOD) services revenues are estimated based on publicly available data on the number of subscribers and services rates/pricing such as company annual reports and news articles. These are then used to estimate an average monthly subscription revenue per subscriber considering all available service plans from a given provider and distributed among the estimated number of subscribers. The estimated average monthly subscription revenue per subscriber is then multiplied by the subscriber estimate.

TVOD services

Transactional (TVOD) services revenues are estimated based on publicly available data such as company annual reports in addition to the country's other media revenues such as home video and pay TV revenues. These estimates are further refined using data about online video subscriptions in the market as a benchmark.

In some cases where information is unavailable, Ovum based its revenue estimations on the service provider's market shares and revenues in a country similar to the one subject to analysis.

AVOD services

Advertising based (AVOD) services' revenues are estimated based on publicly available and, where necessary, quantitatively modelled data (informed by analyst knowledge and assumptions) about advertising load, pricing, and market share. These are then applied to video traffic and digital advertising forecast models to derive revenue estimates. These estimates are further refined based on each entity's performance in other video segments.

Ovum defines AVOD revenue as revenue generated through the sale of in-stream video advertising (i.e., pre-roll, mid-roll, post-roll and in-player overlays) delivered over the Internet. This excludes out-of-stream video advertising (i.e., video ads that play independently of video content, such as in-read and in-feed social video ad formats). This revenue is from advertiser spending.

Note: 2014 AVOD revenues did not include "out of stream revenues," which were included in subsequent years. The data was nevertheless used in the calculation of the five-year compound annual growth rate.

Numeris

Audience measurement data is important not only to industry stakeholders, who use the data to help sell air time to advertisers, but also to the CRTC, which uses the data to assess the effectiveness of its policies by understanding the reach of programming across the country and across various demographics.

Unless otherwise specified, audience measurement data sourced from Numeris was collected by portable people meter (PPM) devices.

The Numeris data presented by linguistic market divides Canada into two sections: (1) all of Canada, excluding Francophone respondents in Quebec; and (2) exclusively Francophones respondents in Quebec.

The television seasons used by Numeris were the following:

- 26 August 2013 to 31 August 2014, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 1 September 2014 to 30 August 2015, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 31 August 2015 to 28 August 2016, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 29 August 2016 to 27 August 2017, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 28 August 2017 to 26 August 2018, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.

Definitions

BDU revenues refer to revenues from basic and non-basic services and exclude Internet-based service revenues, such as Netflix and telecommunications service revenues such as Internet access or telephony, but include IPTV services such as Bell Fibe and Telus Optik TV.

Broadcasting contributions to Canadian content include Canadian content development (CCD) contributions, Canadian programming expenditures (CPE), contributions to the creation and production of Canadian programming from BDUs and tangible benefits from ownership transactions in the form of CCD contributions and CPE.

Direct-to-home (DTH) refers to satellite service providers.

IPTV refers to Internet protocol television such as Bell Fibe and Telus Optik TV, but excludes Internet-based services, such as Netflix, Crave and Club Illico.

Earnings before interest, taxes, depreciation and amortization (EBITDA) is a metric used to measure financial performance. It is expressed as a percentage of total revenues.

PBIT refers to profit before interest and taxes.

Total broadcasting revenues include revenues from private commercial and CBC/SRC conventional television, discretionary and on-demand television, private commercial and CBC/SRC radio, as well as broadcasting distribution undertakings (BDU). They do not include Internet-based services unless stated otherwise.



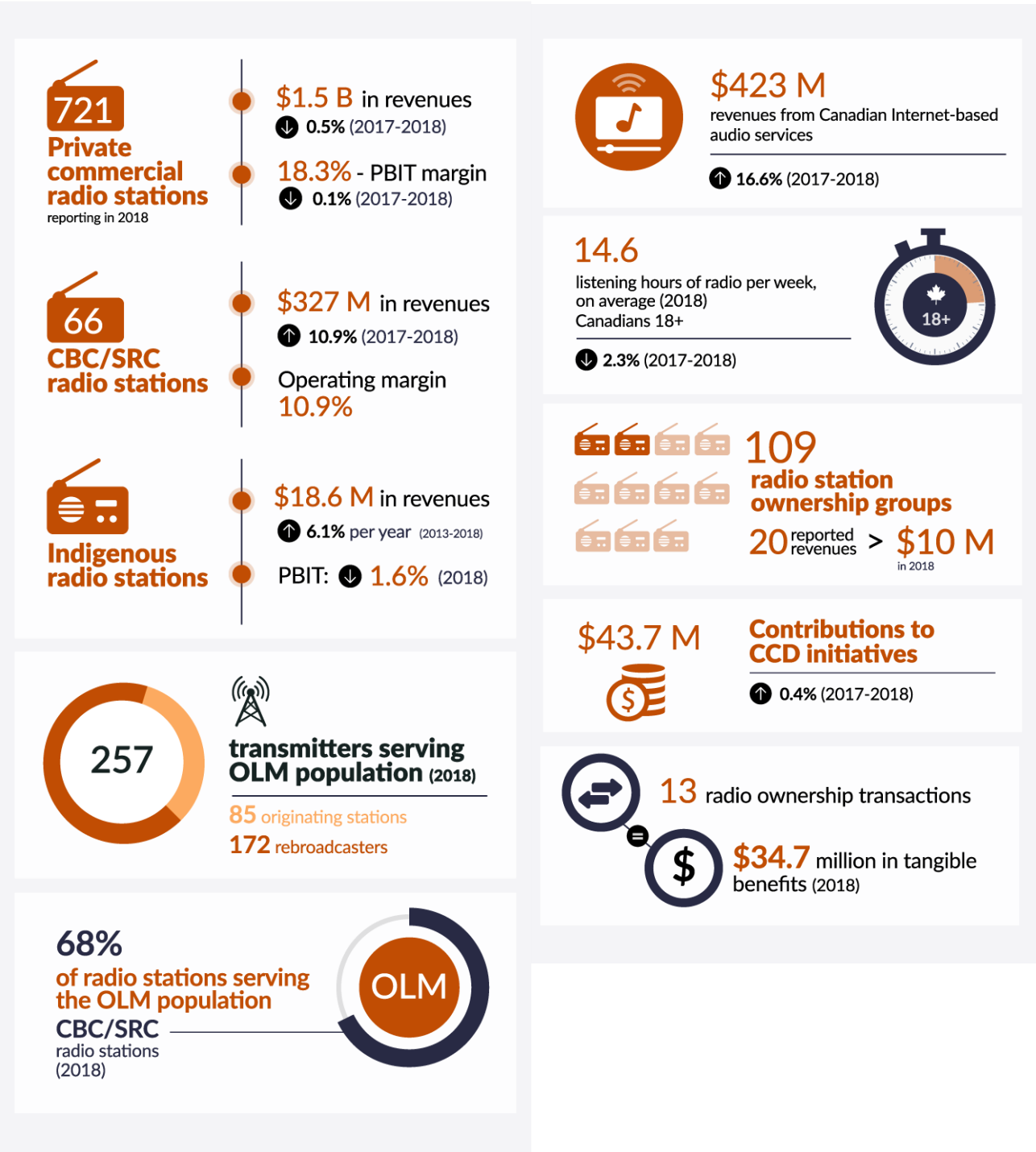
Communications Monitoring Report **2019**

Radio Sector



Radio Sector

Infographic 5.1 Highlights about the Canadian radio sector



Source: CRTC data collection, Ovum, CRTC internal database, Numeris, Aggregate returns

In 2018, private commercial and the Canadian Broadcasting Corporation (CBC)/Société Radio-Canada (SRC) radio stations reported \$1.8 billion in revenues, the vast majority of which (82%) were for private commercial radio stations. In comparison, Internet-based audio services generated estimated revenues of \$423 million in the same year, which is equal to 23% of the revenues reported by traditional radio stations (private commercial and CBC/SRC combined).

In 2018, on average, Canadians 18+ tuned in to 14.6 hours of radio content per week. This weekly tuning was supplemented, on average, by an additional 8.1 hours of audio streaming content, for a total of 22.7 hours of audio listening each week. These levels are the highest observed for the period from 2014 to 2018.

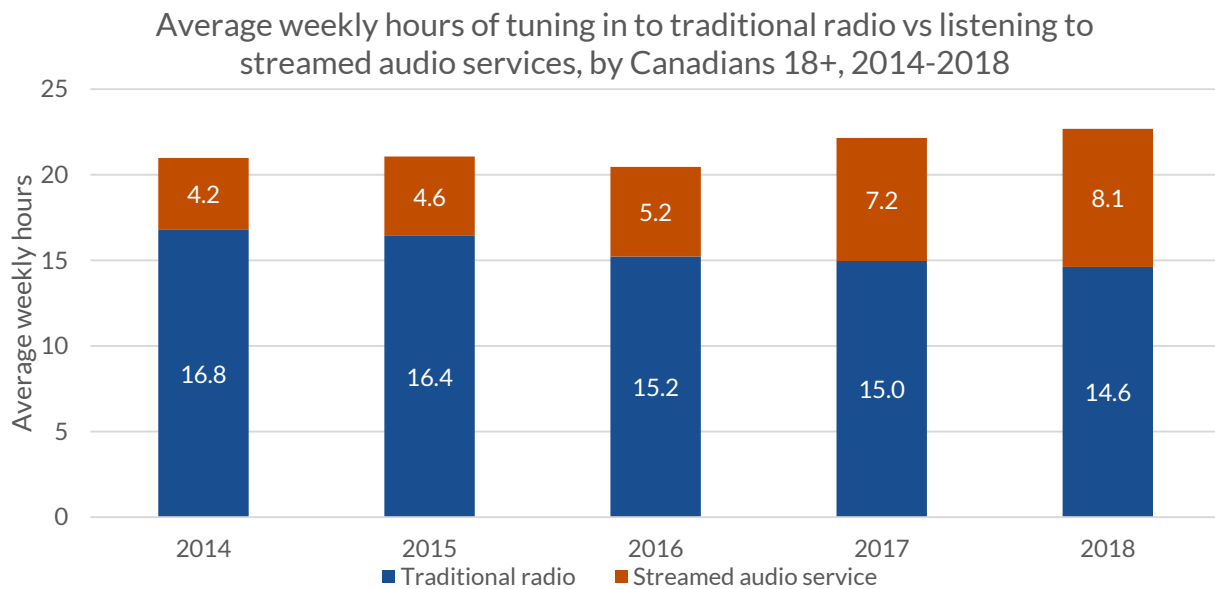
In 2018, the five largest radio operators, operating 289 commercial radio stations, reported 65% of the total commercial radio revenues.

i. Audience measurement

The average weekly number of hours that Canadians 18+ spent listening to traditional radio decreased slightly from 15.0 to 14.6 from 2017 to 2018. The average weekly number of hours spent listening to streamed audio services grew from 7.2 to 8.1 during the same period, a 12% increase. As such, the average weekly number of hours spent listening to all audio services increased from 22.1 to 22.7 from 2017 to 2018, the highest level of listening during the 2014-2018 period.

This demonstrates that Canadians are listening to increased amounts of audio content. Furthermore, notwithstanding a shift from traditional radio, it suggests that the hours of listening to streamed audio content are complimentary to the hours of listening to traditional radio content.

Figure 5.1 Average weekly hours of tuning in to traditional radio vs listening to streamed audio services, by Canadians 18+, 2014-2018



Source: Numeris Radio Diary, Fall surveys, Mo-Su 5a-1a, 18+, total Canada and MTM, Fall 2014-2018 (respondents: Canadians 18+).

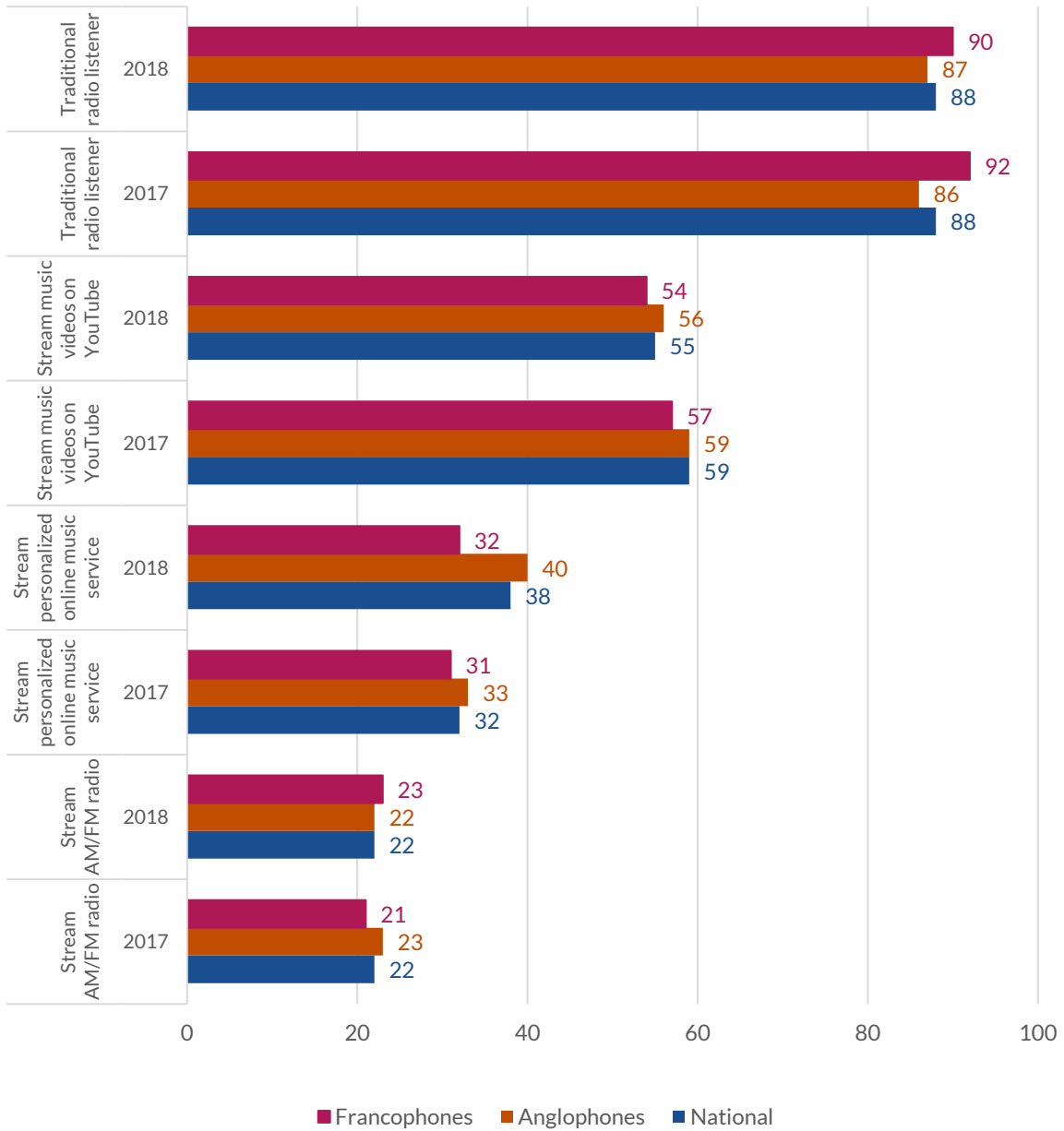
Fall 2016 Online Radio Diary (ORD) introduced.

MTM data includes all types of audio streaming including AM/FM radio using Internet.

In 2018, the vast majority of Canadians were still tuning in to traditional radio. When asked about their use of radio and audio services, 88% of Canadians aged 18+ reported having listened to the radio in any given month. While streaming music videos on YouTube remains popular and listening to personalized online music services continued to rise in popularity in 2018, reaching 55% and 38%, respectively, of Canadians aged 18+, both types of online services have yet to reach as many Canadians as traditional radio.

Figure 5.2 Percentage of Canadians 18+ who tuned in to radio and listened to Internet audio services and programming in the past month, by language and platform, 2017 and 2018

Percentage of Canadians 18+ who tuned in to radio and listened to Internet audio services and programming in the past month, by language and platform, 2017 and 2018



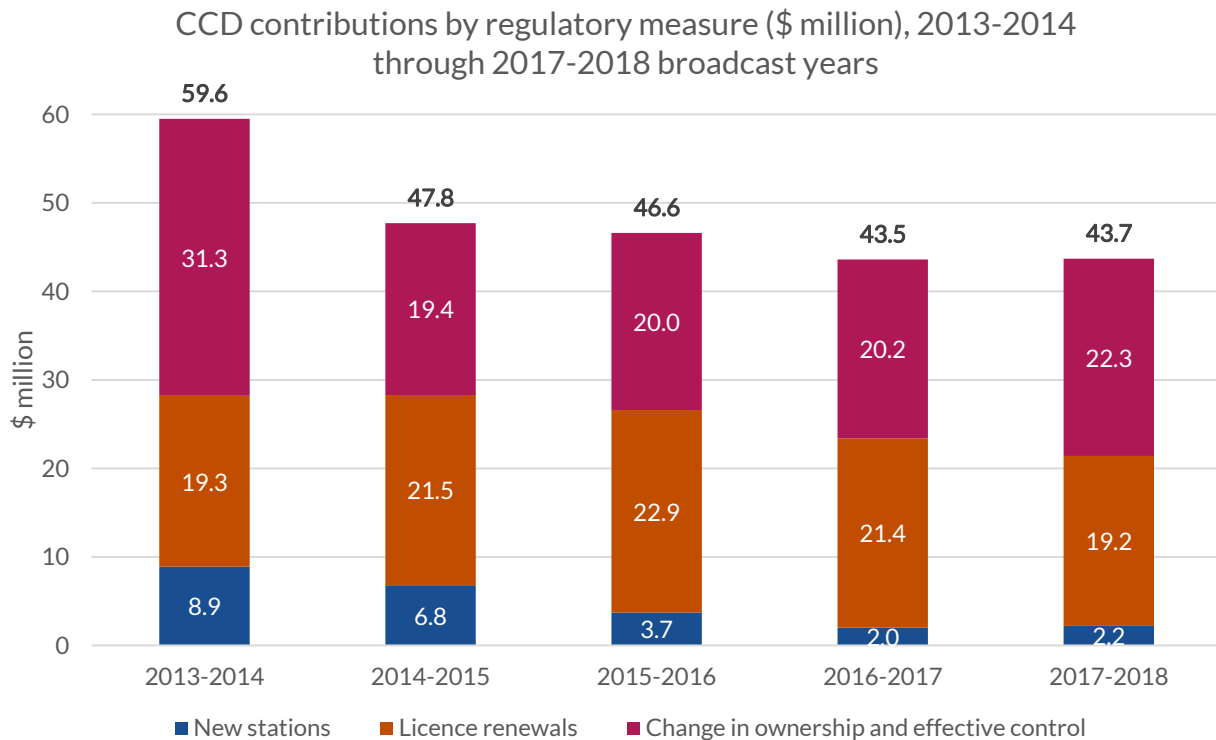
Source: MTM, Fall 2017-2018 (respondents: Canadians 18+)

“Past month” refers to the 30 days prior to when the respondent is surveyed.

ii. Canadian content development

Canadian content development (CCD) contributions are financial contributions made by radio broadcasters to support the development and promotion of Canadian musical and spoken word content for broadcast. There are three sources of CCD contributions: new stations during their first licence terms (5.0% of total CCD contributions), stations for which the licences have been renewed (43.9% of total CCD contributions), and stations for which a change in ownership and effective control resulted in the payment of tangible benefits (51.0% of total CCD contributions). In 2018, CCD contributions, including tangible benefits contributions, totaled \$43.7 million, a 0.4% increase from the previous year.

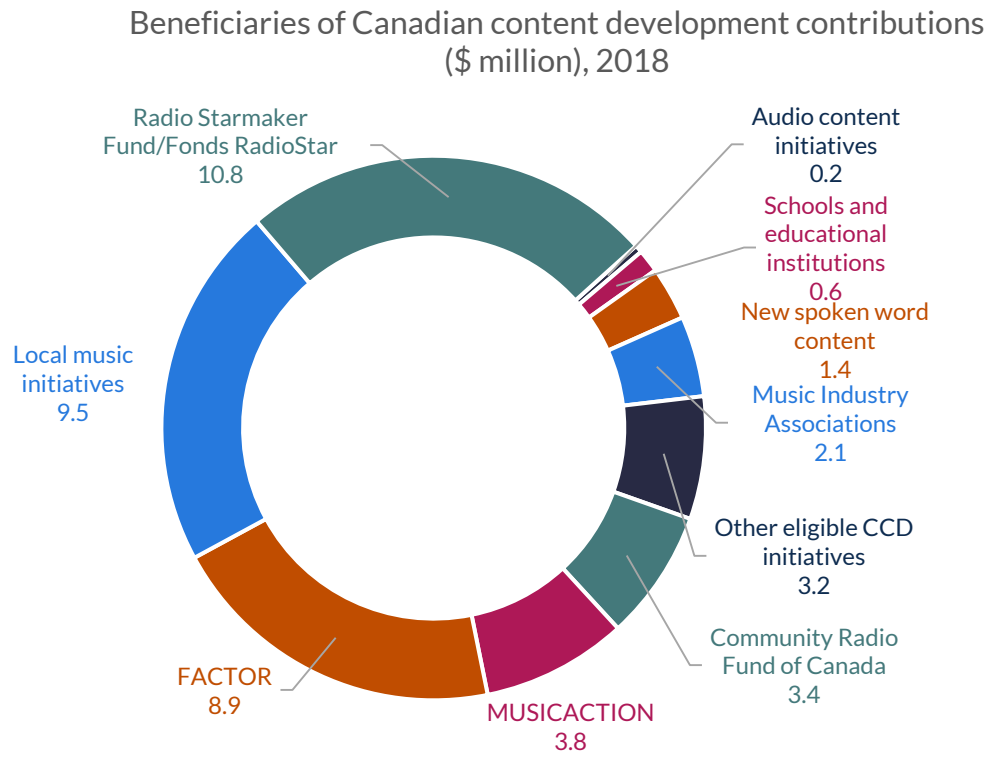
Figure 5.3 CCD contributions by regulatory measure (\$ million), 2013-2014 through 2017-2018 broadcast years



Source: CRTC data collection

In 2018, Radio Starmaker and Fonds RadioStar, combined, were the leading recipients of CCD contributions, receiving a total of \$10.8 million (representing 25% of total CCD contributions). Next were local initiatives (\$9.5 million) and FACTOR (\$8.9 million). Together, these three recipients received 67% of all CCD contributions in 2018. MUSICACTION, received approximately \$3.8 million in CCD contributions, the equivalent of 43% of the funds that FACTOR received.

Figure 5.4 Beneficiaries of Canadian content development contributions (\$ million), 2018



Source: CRTC data collection

iii. Tangible benefits

In 2018, the Commission approved 13 ownership transactions for both French- and English-language services, resulting in total tangible benefits of \$34.7 million.

Table 5.1 Number of radio ownership transactions, the value of those transactions (\$ million) and the resulting tangible benefits (\$ million), by language of service, for the period 1 January 2014 to 31 December 2018

Language of services	Metric	2014	2015	2016	2017	2018	Total
French	Number of transactions	0	6	4	1	4	15
	Value of transactions (\$M)	0	54.6	9.4	239.5	41.4	344.9
	Tangible benefits (\$M)	0	3.9	0.6	14.4	2.5	21.4
English	Number of transactions	9	6	4	8	9	36
	Value of transactions (\$M)	257.7	55.1	1.4	260.4	537.6	1,112.2
	Tangible benefits (\$M)	15.5	4	0.8	15.6	32.2	68.1
Total	Number of transactions	9	12	8	9	13	51
	Value of transactions (\$M)	257.7	109.7	10.8	499.9	579	1457.1
	Tangible benefits (\$M)	15.5	7.9	1.4	30	34.7	89.5







Sources: CRTC decisions and administrative approvals

The Stingray/Newcap ownership transaction, which occurred in 2018 (see Broadcasting Decision CRTC 2018-404), resulted in \$31 million in tangible benefits. Approximately \$30.1 million of this amount was committed to radio.

The 2017 Sirius XM Canada transaction (see Broadcasting Decisions 2017-114 and 2018-91) resulted in \$28.7 million in tangible benefits. In its decisions, the Commission mandated equal distribution of \$27.1 million between French- and English-language funds. The Commission also directed Sirius XM Canada to contribute the remaining \$1.6 million of the tangible benefits package to the Broadcast Participation Fund. Given the breakdown of the tangible benefits contributions between French- and English-language recipients, the Sirius XM transaction is listed under the French and English sections, and its value is divided equally in each section.

iv. Commercial radio

Infographic 5.2 Commercial radio overview

2018	 Commercial	 AM stations	 FM stations	 FRA language stations	 ENG language stations	 Third language stations
Number of reporting stations	721	122	599	97	599	25
Revenues	\$1,514 M	\$269 M	\$1,244 M	\$254 M	\$1,214 M	\$46 M
2017-2018 Revenue growth	↓ 0.5%	↓ 1.3%	↓ 0.3%	↓ 1.7%	↓ 0.1%	↓ 3.5%
Local advertising revenues*	64%	73%	62%	60%	64%	91%
National advertising revenues*	34%	25%	36%	38%	35%	5%
PBIT margin	18.3%	5.8%	21.0%	19.1%	18.2%	14.9%
Tuning share	71.5%	12.4%	59.2%	14.5%	56.4%	0.6%

* % of total revenues

Source: CRTC data collection, Numeris

Note: For the purposes of this infographic, the tuning share is based on total hours associated with reporting stations and availability of audience data.

In 2018, 721 reporting commercial radio stations reported \$1.5 billion in revenues, a 0.5% decrease from 2017. This decrease is slightly lower than the annual average 1.6% decrease in revenues from 2014 to 2018. However, the overall profitability margin of those commercial radio stations remained steady, at 18.3%, compared to 18.4% for 2017.

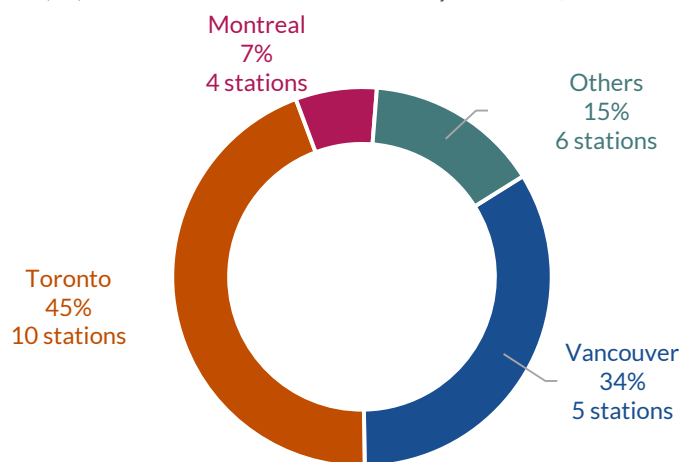
The 599 reporting FM commercial stations reported revenues of \$1.2 billion in 2018, equal to 82% of all commercial radio revenues. FM stations surpassed AM stations in terms of profitability, reporting a PBIT margin of 21.0%, compared to 5.8% for AM stations.

FM commercial stations relied less on local advertising revenues and more on national advertising revenues than AM stations. Whereas FM stations generated 62% of their revenues from local advertising and 36% from national advertising, AM stations generated 73% of their revenues from local advertising and 25% from national advertising.

Although the vast majority of revenues were generated by English- language radio stations, profitability in terms of PBIT margins was somewhat similar between French-, English- and third-language stations. What sets third-language radio stations apart from French- and English-language radio stations is revenue composition: third-language stations generated 91% of their revenues from local advertising, compared to 60% and 64% for French- and English-language stations, respectively. In addition, third-language stations are mainly concentrated in major markets, and have a limited presence outside of those markets.

Figure 5.5 Third-language commercial radio stations revenues (%) and number of stations by market, 2018

Third-language commercial radio stations revenues (%) and number of stations by market, 2018







Source: CRTC data collection

Market composition

In 2018, the five largest radio ownership groups in Canada garnered over 65% of total commercial radio revenues. The two largest groups, BCE (109 stations) and Rogers (57 stations) garnered close to 40% of total radio revenues in 2018.

Infographic 5.3 Radio ownership market composition

2018	Number of reporting stations	Revenues	Share of total commercial radio revenues	 language stations revenues	 language stations revenues	CCD	 Tuning share in the French-language market	 Tuning share in the English-language market
 BCE	109	\$373 M	25%	\$90 M	\$283 M	\$14 M	21%	19%
 COGECO	13	\$99 M	7%	n/a	n/a	\$0.5 M	30%	n/a
 CORUS.	39	\$115 M	8%		\$115 M	\$0.9 M		12%
 ROGERS	57	\$226 M	15%		\$226 M	\$1 M		12%
STINGRAY	71	\$158 M	10%		\$158 M	\$2 M		9%
 Total	289	\$971 M	65%	\$90 M	\$782 M	\$18.4 M	51%	52%

Source: Public disclosure of aggregate annual returns for large ownership groups, Numeris

The breakdown of Cogeco’s revenues by language market is not provided for residual disclosure issues.

For 2018, in addition to reporting the majority of the revenues of the radio sector, these 5 ownership groups garnered the majority of tuning in both official-language markets. In the French-language market, Cogeco and BCE together held 51% of weekly average tuning hours, with Cogeco leading at 30%, followed by BCE at 21%. In the English-language market, they together held 52% of the tuning, with BCE leading at 19%, followed by Rogers and Corus, both at 12%.

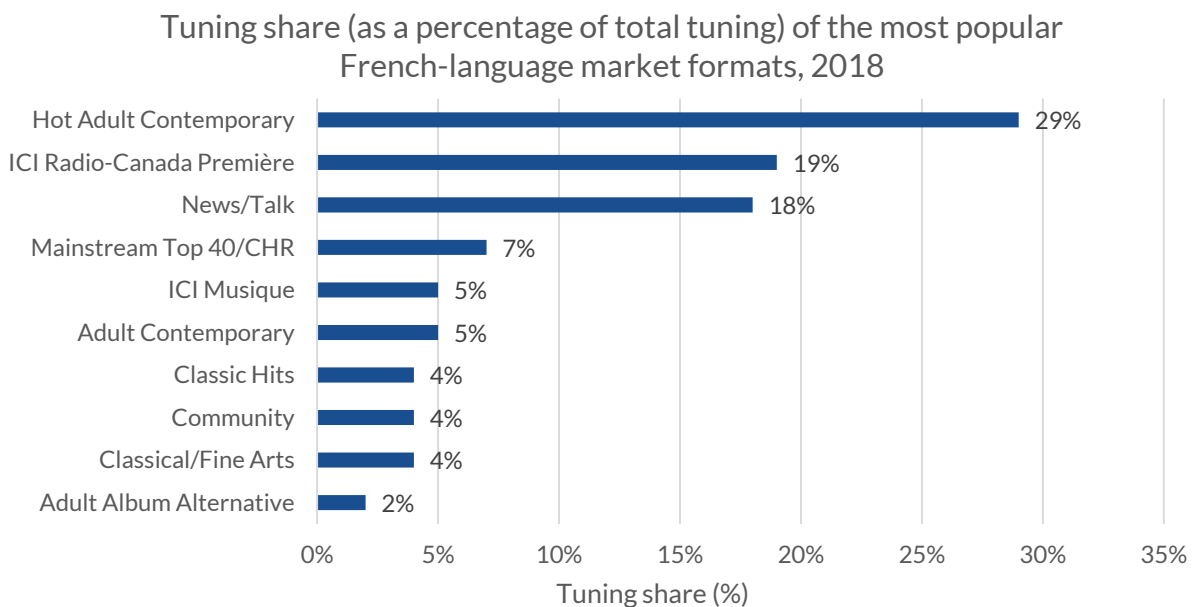
Formats

In 2018, radio tuning in the English-language market was more fragmented than in the French-language market.

The top 3 formats in the French-language market garnered approximately 73% of the tuning share, with talk radio (News/talk and Radio-Canada Première combined) leading with 37%, followed by the Hot adult contemporary format at 29% and Mainstream Top 40/Contemporary Hit Radio (CHR) at 7%.

The top 3 formats in the English-language market garnered approximately 45% of the tuning share, with talk radio (CBC Radio One and News/talk) leading with 24%, followed by the Adult Contemporary and Country formats, garnering approximately 11% and 10%, respectively, of the tuning share.

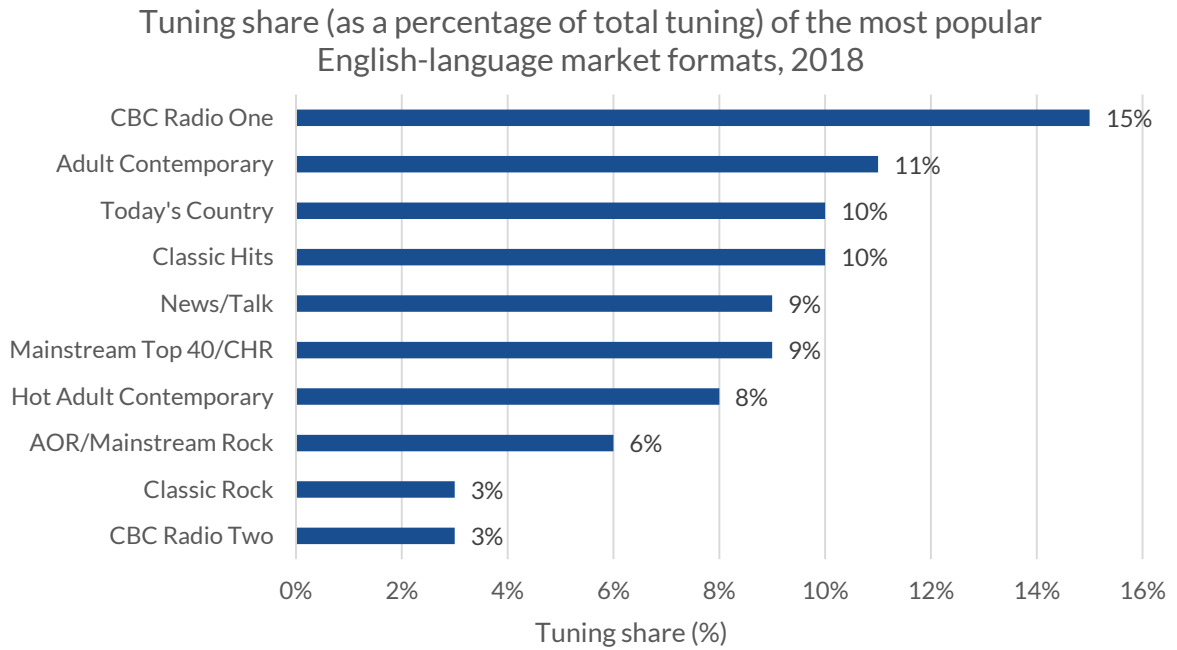
Figure 5.6 Tuning share (as a percentage of total tuning) of the most popular French-language market formats, 2018



Source: Numeris Radio Diary, 2018 Fall survey, Mo-Su 5a-1a, 12+.

Although CBC/SRC radio stations are not considered a format, they have been included as they hold an important radio tuning share.

Figure 5.7 Tuning share (as a percentage of total tuning) of the most popular English-language market formats, 2018



Source: Numeris Radio Diary, 2018 Fall survey, Mo-Su 5a-1a, 12+.

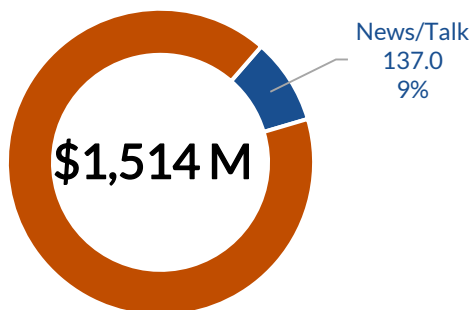
Although CBC/SRC radio stations are not considered a format, they have been included as they hold an important radio tuning share.

The 32 News/Talk stations in Canada reported a total of \$137 million in revenues in 2018. These stations represented 4.4% of the total commercial radio stations in Canada and reported 9% of the revenues. Although they reported a higher average revenue per station than the average commercial radio station, due to higher operating expenses – spoken word programming is labour intensive and involves significantly more resources to produce than musical content¹ – the average PBIT for stations operating this format is 8.1% compared to the average of 18.3% of the 721 commercial radio stations.

In terms of regional distribution, 46% of the revenues of the commercial radio stations in the News/Talk format were garnered by the 8 stations in Quebec. These stations reported an average revenue per station of \$7.9 million in 2018 compared to \$3.1 million for the 24 stations outside Quebec.

Figure 5.8 Revenues of News/Talk commercial radio stations (\$ million), 2018

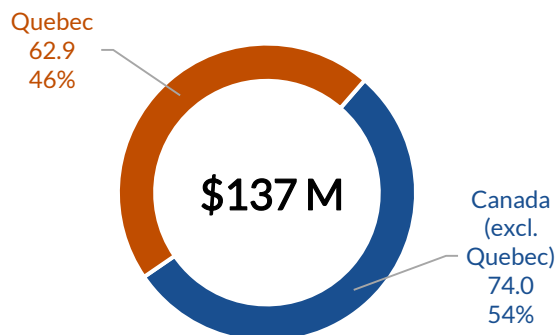
Revenues of News/Talk commercial radio stations (\$ million), 2018



Source: CRTC data collection

Figure 5.9 Revenues of News/Talk commercial radio stations in Canada excluding Quebec compared to those in Quebec (\$ million), 2018

Revenues of News/Talk commercial radio stations in Canada excluding Quebec compared to those in Quebec (\$ million), 2018

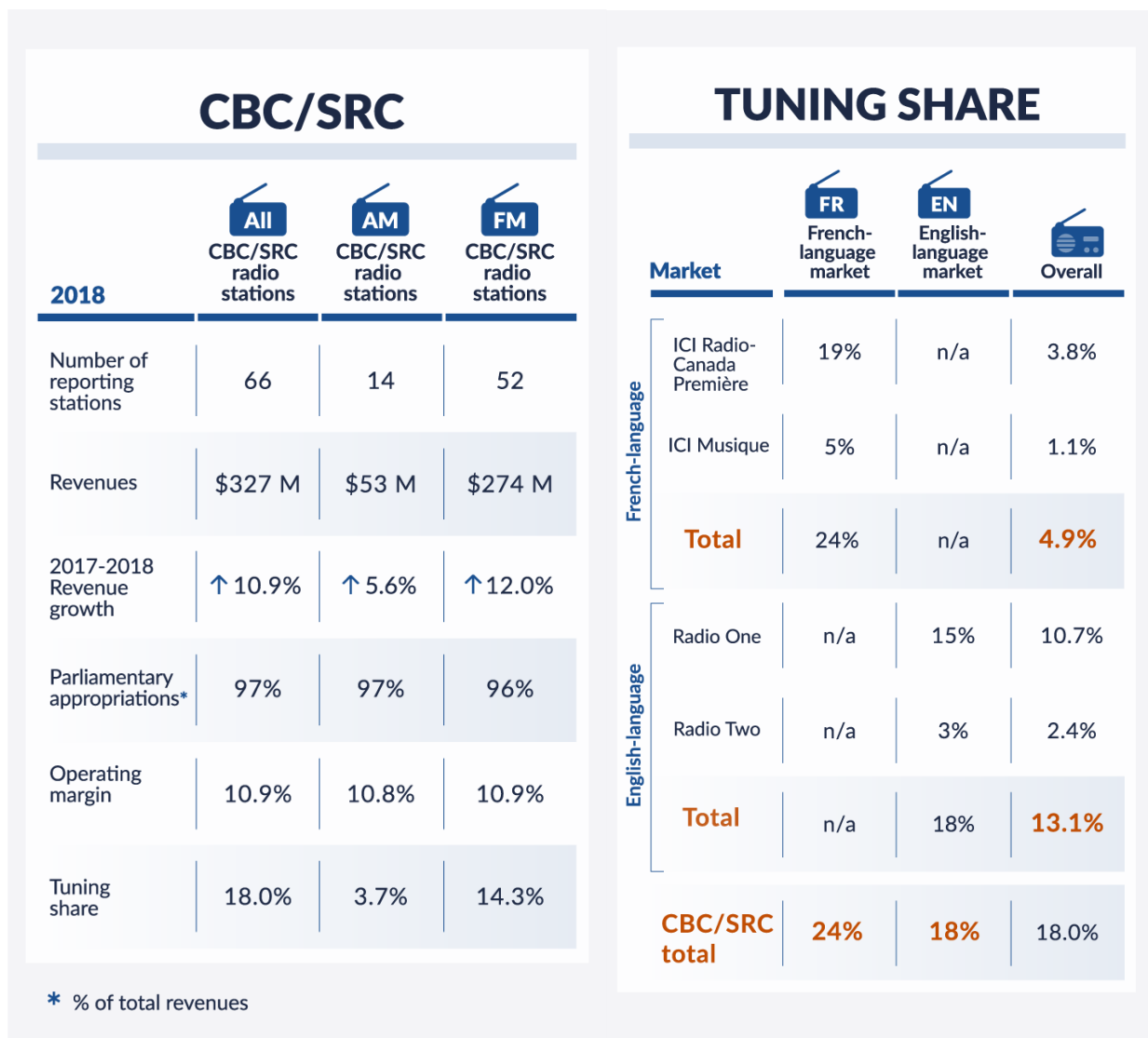


Source: CRTC data collection

¹ The programming of spoken word content is heavily reliant on an availability of staff to research, produce and broadcast such content. It can also be of significant relevance to the local community and allow for greater local reflection than other types of programming.

v. CBC/SRC radio

Infographic 5.4 CBC/SRC overview and breakdown of radio stations by market and format



Source: CRTC data collection, Numeris

The CBC/SRC is Canada’s public broadcaster. Its 14 AM stations and 52 FM stations reported revenues of \$327 million in 2018, an increase of 10.9% from 2017. This growth is mainly attributed to a similar rise in parliamentary appropriations which represented 97% of the CBC/SRC’s radio revenues.

From 2014 to 2017, national advertising sales for CBC/SRC stations represented a modest source of income. At their height in 2015, they represented 0.5% of the public broadcaster’s total revenues. Since 2017, the CBC/SRC ceased receiving revenues from national advertising sales.

ICI Radio-Canada Première and its English counterpart, CBC Radio One, are popular talk radio services. ICI Radio-Canada Première, is the second most popular radio format, with 19% of French-language tuning share, while CBC Radio One is the most popular English-language radio format with 15% of English-language tuning share. Within the context of the total radio market, CBC/SRC’s combined talk

and music radio programming (in both languages) garnered 18% of the total tuning shares in 2018 (4.9% for French-language stations and 13.1% for the English-language stations).

CBC/SRC French- and English-language radio services are available, over the air, in every province in both official languages. In many places they are the most important source of over-the-air radio services for Canadians in official language minority. Without CBC/SRC stations and rebroadcasters, population in official language minority in Canada would lose 68% of radio services in their first official language spoken.

The CBC/SRC operates the majority of all radio stations and rebroadcasters serving populations in an OLM situation, particularly in Prince Edward Island, British-Columbia, Saskatchewan and Manitoba (for more information, see the section “Over-the-air radio serving the Official Language Minority population in Canada”).

vi. Non-commercial radio

Infographic 5.5 Non-commercial radio overview

2018	Number of reporting stations	Revenues	Average revenues per station	2017-2018 Revenue growth	2014-2018 Average annual revenue growth rate	Advertising revenues*	Government/Corporate grants*	PBIT margin	Tuning share
Campus	48	\$10.7 M	\$223,000	↓ 2.7%	↑ 2.3%	9%	8%	↓ 0.6%	0.3%
Community	119	\$37.9 M	\$319,000	↑ 2.1%	↑ 3.4%	47%	14%	↑ 2.7%	1.5%
Indigenous	31	\$18.6 M	\$599,000	↑ 4.7%	↑ 6.1%	23%	20%	↓ 1.6%	0.3%
Religious	28	\$9.4 M	\$334,000	↑ 0.6%	↑ 2.5%	31%	5%	↑ 12.8%	0.3%
TOTAL Non-commercial radio	226	\$76.6 M	\$339,000	↑ 1.8%	↑ 3.8%	34%	14%	↑ 2.4%	2.3%

Source: CRTC data collection, Numeris

Non-commercial radio stations play an important role in the communities they serve and in the broadcasting sector as a whole. In 2018, there were 226 reporting non-commercial radio stations, falling under four categories: campus, community, Indigenous and religious. Total reported revenues of these stations in 2018 was \$76.6 million, with community stations garnering approximately half of those revenues (49%), and Indigenous stations garnering almost one quarter (24%).

In 2018, advertising revenues represented 34% of the total revenues of non-commercial radio stations (82% of which were from local advertising) whereas government grants represented 14% of total revenues. Based on average revenues per station, of all non-commercial radio stations, Indigenous radio stations generated the highest revenues per station. Conversely, Indigenous radio stations' profitability margin is the lowest of all non-commercial radio stations. Nearly 55% of Indigenous radio station revenues are derived from alternative sources and fundraising activities (e.g., 20% of total revenues are from government grants).

Campus radio station revenues are also mainly derived from alternative sources and fundraising activities. In 2018, government grants represented 8% of those stations' revenues, while advertising revenues represented 9% (93% of which were from local advertising).

Although their mandates are similar, community radio stations differ from campus radio stations in regard to revenue sources. In 2018, advertising revenues represented 47% of community station revenues, with 78% coming from local advertising. Government grants represented 14% of community station revenues.

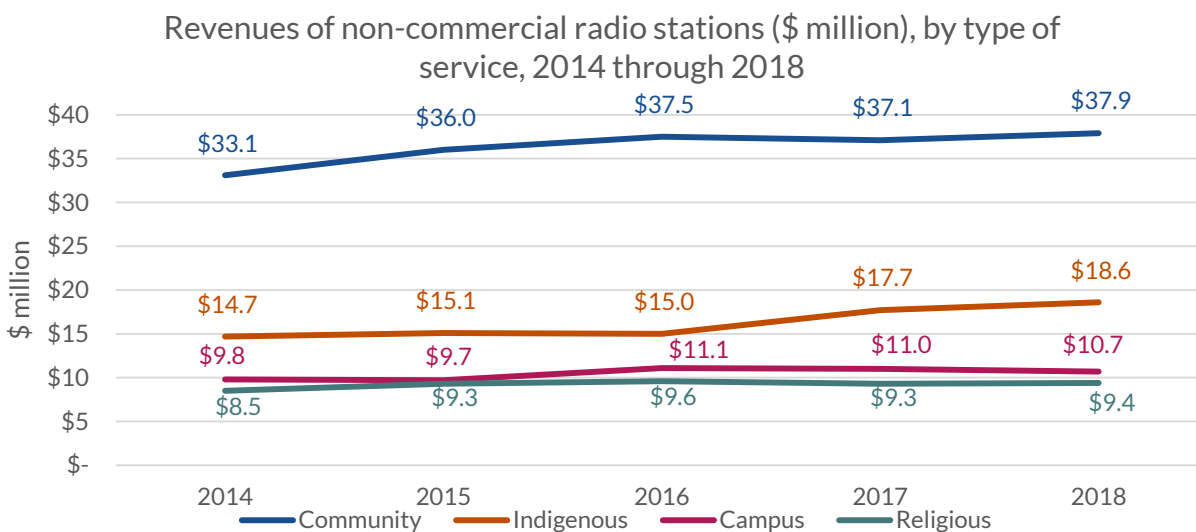
As is the case for other non-commercial radio stations, in 2018, alternative sources of funding were an important revenue source for religious radio stations (59% of total revenues). Advertising revenues

represented 31% of total revenues (88% of which were from local advertising). Syndicated production sales represent 6% and government grants represented 5% of religious radio station revenues.

From 2014 to 2018, of all types of non-commercial radio stations, religious radio stations reported the highest profitability margin (12.8%), followed by community radio stations (2.7%). They are the only two station types with a greater profitability margin than the non-commercial stations combined (2.4%).

Revenues

Figure 5.10 Revenues of non-commercial radio stations (\$ million), by type of service, 2014 through 2018



Source: CRTC data collection

Although the number of non-commercial radio stations decreased slightly from 2014 to 2018 (from 230 to 226 stations), their overall revenues increased on average by 3.8% per year over the same period. The total revenue share for each type of non-commercial radio station in 2018 was similar to that for the period 2014-2018, with community radio stations garnering the greatest share of total non-commercial radio revenues, at approximately 50% (compared to 24% for Indigenous radio stations, 14% for campus radio stations, and 12% for religious radio stations).

Revenue sources for non-commercial radio stations range from air-time advertisement sales, syndicated production, government/corporate grants, and other, non-radio related revenues. In 2018, revenues from government/corporate grants represented nearly 14% of total revenues. Although they declined by 13% compared to the previous year, these contributions increased at an average rate of 3.1% each year from 2014 to 2018. Revenues from syndicated productions represented a negligible amount of total revenues.




Advertising revenues represented 34% of total revenues. Advertising revenues can be broken down based on local and national advertising revenues. Much like local stations, non-commercial radio stations share the distinction of being hyperlocal, with 82% of their total advertising revenues coming from local advertising revenues (compared to 64% for commercial radio stations).

vii. Internet-based audio services

Internet-based audio services are a growing means by which Canadians access audio content. Different types of services are available, which can be categorized under two main types of business model:

- **Download-based audio services** are offerings that allow consumers to download audio files in exchange for a one-time fee (for example, iTunes).
- **Streaming audio services** refer to Internet-based services that allow users to stream audio content that either contains advertising, or that is done in exchange for a subscription fee (for example, Spotify).

Infographic 5.6 Internet-based audio services reported revenue, 2018

Audio services			
	 Download	 Streaming	 Total
2018 Estimated revenues in Canada	\$79 M	\$344 M	\$423 M
2017-2018 revenue growth	↓ 23%	↑ 33%	↑ 17%
Revenue CAGR 2014-2018	↓ 16.8%	↑ 78.3%	↑ 20.7%
Share of the estimated revenues of Internet-based audio services	19%	81%	100%

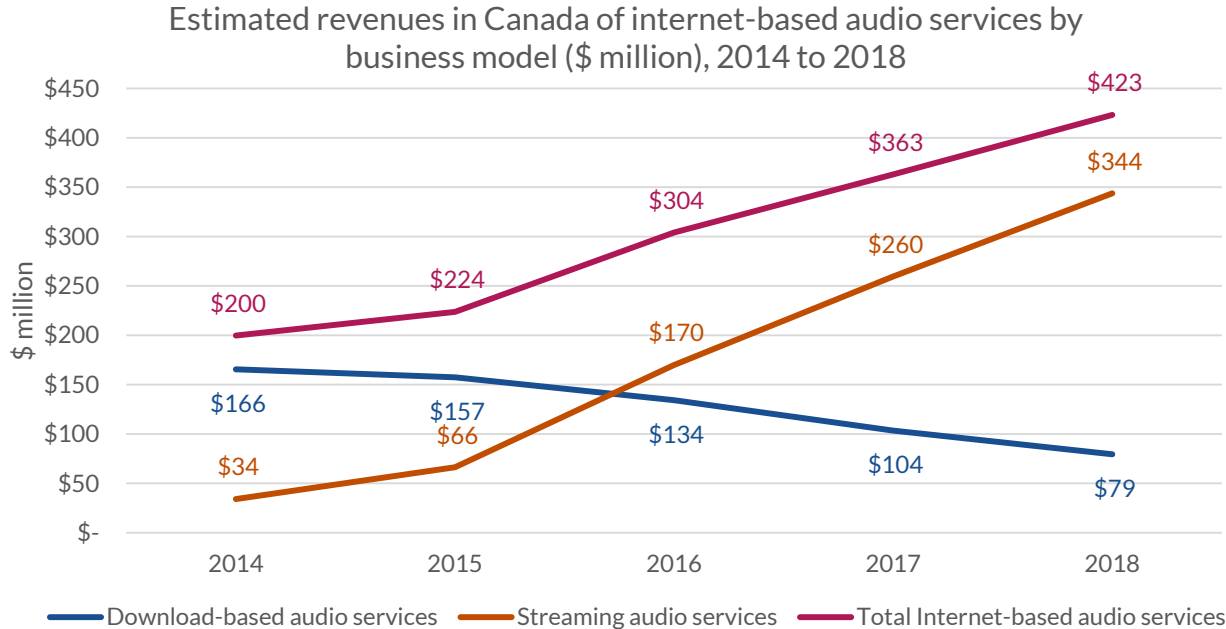
Source: Revenue estimates from Ovum

Estimated revenues in Canada for Internet-based audio services grew by 16.6% from 2017 to 2018, reaching \$423 million. Compared to the \$1.8 billion in revenues of Commercial and CBC/SRC radio stations, Internet-based audio services still only represent 23% of the regulated radio sector revenues.

Whereas estimated revenues of streaming audio services increased, those of download-based audio services declined. In 2018, streaming audio services garnered 81% of the estimated Internet-based revenues in 2018, while download-based services garnered 19%.

In 2014, the revenues of Internet-based audio services were driven by download-based audio services, which garnered 83% of estimated revenues. Since then, download-related revenues declined on average by 16.8% each year, while revenues garnered by streaming-based services rapidly increased over the same period, with an average year-over-year growth of 78.3%. Streaming services garnered estimated revenues of \$344 million in 2018, suggesting that Canadians are shifting from downloading audio content to streaming such content.

Figure 5.11 Estimated revenues in Canada of Internet-based audio services by business model (\$ million), 2014 to 2018



Source: Revenue estimates from Ovum

viii. Availability of radio services and other audio services

The following table lists the type and number of radio services and audio services that were authorized to broadcast in Canada in 2017 and 2018. The list includes commercial AM and FM radio stations, non-commercial AM and FM radio stations, satellite subscription radio services, specialty audio services and pay audio services.

In 2018, 1,120 radio services and audio services were authorized to broadcast in Canada. Private commercial radio stations accounted for almost two thirds of all radio services and audio services in Canada, while community stations, the second most numerous type of radio service, represented 12% of all radio services and audio services in 2018.

Type and number of radio services and audio services authorized to broadcast, by language of broadcast, 2017 and 2018

Table 5.2 Type and number of radio services and audio services authorized to broadcast in Canada, by language of broadcast

Type of station	French-language		English-language		Third-language		Indigenous-language		All languages	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
CBC/SRC Radio	35	35	53	53	0	0	0	0	88	88
CBC/SRC Radio network licences	2	2	2	2	0	0	0	0	4	4
Private commercial AM stations	6	5	104	102	18	18	0	0	128	125
Private commercial FM stations	93	93	481	481	23	23	0	0	597	597
Private commercial AM and FM network licences	1	0	0	0	0	0	0	1	1	1
Religious (music and spoken word)	6	6	47	48	1	1	0	0	54	55
Community	68	69	61	59	3	3	0	0	132	131
Community Developmental	1	0	3	2	0	0	0	0	4	2
Campus Community-based	5	5	42	42	0	0	0	0	47	47
Campus Instructional	0	0	0	0	0	0	0	0	0	0
Indigenous stations	5	5	43	43	3	0	0	4	51	52
Other (tourist/traffic, etc.)	2	2	7	6	0	0	0	0	9	8
Total number of over-the-air radio services	224	222	843	838	48	45	0	5	1,115	1,110
Satellite subscription radio service	0	0	2	2	0	0	0	0	2	2
Specialty audio (commercial/non-profit, regional/national)	0	0	2	1	5	5	0	0	7	6
Pay audio	0	0	0	0	2	2	0	0	2	2
Total number of radio and audio services	224	222	847	841	55	52	0	5	1,126	1,120

Source: CRTC internal database, as of 31 December 2018

This table shows the number of radio services and audio services approved by the Commission. Not all are necessarily in operation. “Over-the-air radio services” exclude radiocommunication distribution undertakings, rebroadcasting transmitters, and radio services that are exempt from licensing requirements.

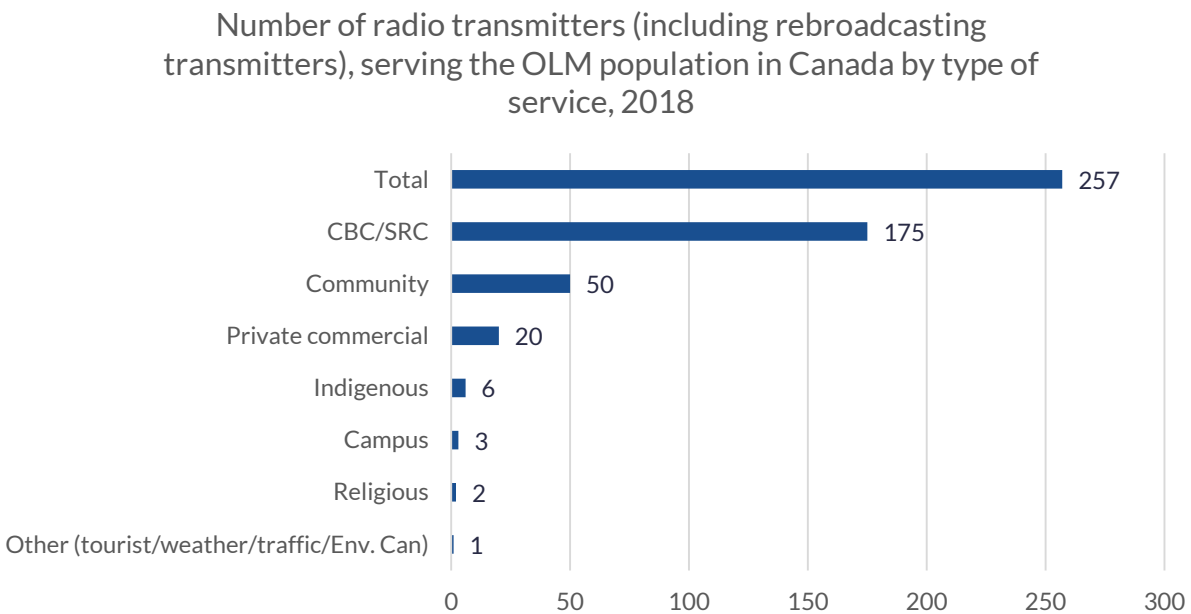
Over-the-air radio serving the Official Language Minority population in Canada

Canadians who are part of the OLM population² can be found in all ten provinces and in the main urban centres of the northern territories. Over 2.1 million Canadians are considered part of this population group, over half of which (52%) is located in Quebec. While another 26% of the total OLM population can be found in Ontario, the greatest concentration resides in New Brunswick, with over 31% of that province's population being regarded part of the OLM population.

Of the 1,000 over-the-air radio services operating in Canada, 85 are licenced to operate in French in provinces/territories other than Quebec or in English in Quebec. When factoring rebroadcasting transmitters, the number of available transmitters serving the OLM population in Canada in their first official language spoken at home (hereafter, serving the OLM population) increases to 257.

CBC/SRC operates 68% of all radio transmitters serving the OLM population. In regards to the number of radio transmitters serving this population group, CBC/SRC leads in every province, with the exception of New Brunswick. For example, CBC/SRC operates 100% of radio transmitters serving the OLM population in Prince Edward Island, 93% in British-Columbia, 89% in Saskatchewan and 89% in Manitoba.

Figure 5.12 Number of radio transmitters (including rebroadcasting transmitters), serving the OLM population in Canada by type of service, 2018



Source: CRTC Internal database

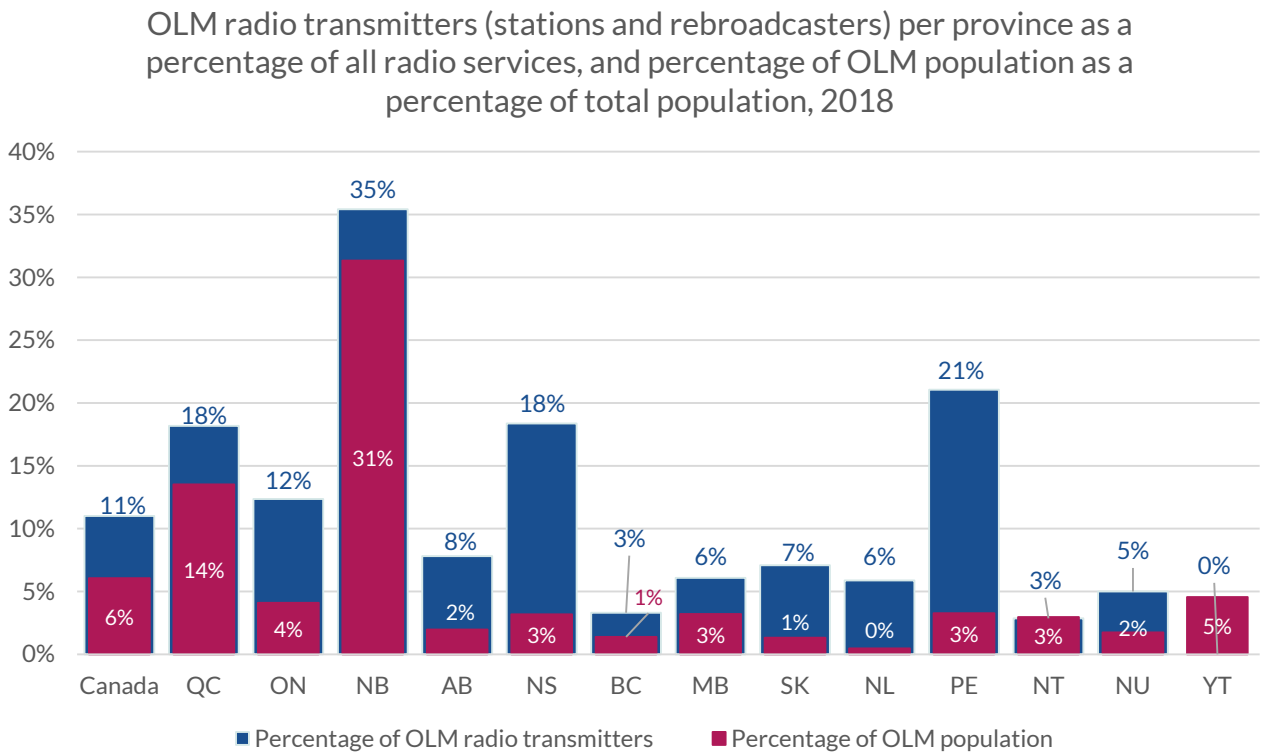
² The OLM population of Quebec includes all individuals with English as the first official language spoken and half of those with both French and English as the first official language spoken. The OLM population of the country overall and of every province and territory other than Quebec includes individuals with French as the first official language spoken and half of those with both French and English as the first official language spoken.

Community radio stations – the second most important in terms of number of transmitters – are present in every province except Prince Edward Island. Notwithstanding their absence in that province, community radio stations have an important presence in Atlantic Canada, making up 38% of radio transmitters serving the OLM populations in New Brunswick, 33% in Nova Scotia’s, and 29% Newfoundland and Labrador.

Yellowknife (Northwest Territories) and Iqaluit (Nunavut) both have a local francophone community radio station. Yukon did not have a francophone radio service or transmitter at the time of the compilation of this report, despite having a larger number of overall radio services than either the Northwest Territories or Nunavut.

Private commercial stations serving the OLM population (20 services) are found exclusively in Quebec (8), Ontario (7) and New Brunswick (5). Those operating in Quebec are all in the Montréal region, whereas those operating in Ontario and New Brunswick are scattered throughout both provinces, in smaller areas. There are 6 Indigenous non-commercial radio transmitters serving the OLM population in Canada and are all based in Quebec. These are broadcasting from five locations: Kahnawake, Listuguj, Restigouche, Maniwaki, and Kanesatake.

Figure 5.13 Radio transmitters serving the OLM population (stations and rebroadcasting transmitters) per province as a percentage of all radio transmitters, and percentage of OLM population as a percentage of total population, for each province and territory, and for Canada as a whole, 2018



Source: CRTC internal database, Statistics Canada

Figure 5.13 Figure 5.3 shows the presence of radio transmitters serving the OLM population as a percentage of the total number of available radio transmitters in each province and territory, along with OLM population in each province and territory as a percentage of the total population, in 2018. Across Canada, 6% of the population in 2018 was considered to be part of the OLM population, whereas 11% of

the country's radio stations and rebroadcasting transmitters served the OLM population. This does not imply that 100% of the OLM population has access to a radio service in its first official language, given that members of the population could reside outside the radio service coverage areas. Further, this figure shows that the population of Yukon does not have an over-the-air traditional francophone radio service.

The aforementioned services are available to Canadians via traditional radio broadcast. Other, different types of radio and audio services are also available to Canadians, notwithstanding their geographic location. These include network radio, specialty, pay, satellite, and Internet audio services. Furthermore, exempt services, such as radiocommunication distribution undertaking services, may offer services to the OLM population, possibly in their language of choice.

Number of public/community-based and private radio services authorized to broadcast over-the-air in Canada, by province and language of broadcast, 2018

Table 5.3 Number of public/community-based and private radio services authorized to broadcast over-the-air in Canada, by province and language of broadcast, 2018

Province/ territory	French-language		English-language		Third-language		Indigenous-language		Total	
	Public/ community	Private	Public/ community	Private	Public/ community	Private	Public/ community	Private	Public/ community	Private
British Columbia	3	0	33	103	1	8	0	0	37	111
Alberta	5	0	12	102	0	5	0	0	17	107
Saskatchewan	2	0	13	44	0	0	0	0	15	44
Manitoba	3	0	10	34	0	2	0	0	13	36
Ontario	14	4	67	211	1	16	1	0	83	231
Quebec	64	90	16	7	0	7	3	0	83	104
New Brunswick	13	4	8	25	0	0	0	0	21	29
Nova Scotia	6	0	17	31	0	1	0	0	23	32
Prince Edward Island	1	0	1	5	0	0	0	0	2	5
Newfoundland and Labrador	1	0	13	18	0	0	0	0	14	18
The North	2	0	10	5	0	0	0	0	12	5
Canada	114	98	200	585	2	39	4	0	320	722

Source: CRTC internal database

This table shows the number of radio services that currently have Commission approval to Operate in Canada. Non-commercial, tourist information and emergency radio services, as well as rebroadcasting transmitters, are excluded. All are not necessarily in operation.

"The North" refers to Northwest Territories, Nunavut and Yukon.

Number of new over-the-air radio stations licensed by the Commission from 2014 to 2018, by language of service, licence category, type of service, and licensing process

Table 5.4 Number of new over-the-air radio stations licensed by the Commission from 2014 to 2018, by language of service, licence category, type of service, and licensing process

Category	Sub-category	2014	2015	2016	2017	2018	Total
Language of service	French-language	3	2	2	2	0	9
	English-language	10	10	6	8	8	42
	Third-language	1	3	0	1	0	5
	Indigenous	-	-	-	1	-	1
	Total	14	15	8	12	8	57
Licensing category	Commercial	7	4	0	4	5	20
	Community	2	6	2	3	0	13
	Campus	1	0	0	0	0	1
	Indigenous	1	5	6	5	1	18
	Other	3	0	0	0	2	5
	Total	14	15	8	12	8	57
Type of service	Stand-alone digital	0	0	0	0	0	0
	Digital radio	0	0	0	0	0	0
	AM frequency	1	2	1	1	0	5
	FM frequency	13	13	7	11	8	52
	AM to FM conversions (included in FM)	-2	0	-1	3	0	0
	Total	14	15	8	12	8	57
Licensing process	Competitive	1	2	8	4	2	17
	Non-competitive	13	13	0	8	6	40
	Total	14	15	8	12	8	57

Source: CRTC decisions issued from 1 January 2014 to 31 December 2018

Under “Licensing category,” “Other” includes not-for-profit stations, such as those operated in French and English by the CBC/SRC and Environment and Climate Change Canada.

ix. Methodology

CRTC data collection

The CRTC data collection has sourced its statistical and financial data from the annual returns provided by commercial and CBC/SRC radio stations for the broadcast year ending 31 August 2018.

Annual returns for the broadcast year ending 31 August 2018 were required to be filed with the Commission by 30 November 2018. Data received subsequent to the compilation date is not reflected in this publication. The data reported for previous years has been updated to reflect any additional or adjusted information received by the Commission subsequent to the date of prior years' publications.

In total, 721 commercial private radio stations reported operational activity for the broadcast year ending August 2018. In the 2017-2018 broadcasting year, 10 stations reported for the first time. In addition, as of the date of the compilation of this report, 4 stations that held an active license (i.e., CFNV Montréal, CFOR-FM Maniwaki and CFQR-AM Montréal, Quebec, and CJVN-FM Ottawa, Ontario) failed to provide their annual returns, which constitutes a violation of the *Radio Regulations, 1986*.

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Francophones and 4,000 Anglophones). Of those 8,000 respondents, 2,976 also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Francophones and 2,000 Anglophones) is surveyed in the spring.

www.mtm-otm.ca

The CMR uses data collected from the fall survey unless stated otherwise.

Ovum

Download-based audio services

Revenues of download-based audio services are estimated based on publicly available data such as company annual reports in addition to the country's other media revenues such as physical music album sales and live music attendance revenues. These estimates are further refined using data about online audio subscriptions in the market as a benchmark.

In some cases where information is unavailable, Ovum based its revenue estimations on the service provider's market shares and revenues in a country similar to the one subject to analysis.

Streaming audio services

Streaming audio services comprise different business models for which different methodologies apply. The total revenues of subscription-based digital streaming, advertisement-based digital streaming, and video (audio) streams are added to determine total revenues of streaming audio services.

- Revenues of subscription-based digital streaming services (such as Spotify) are estimated based on publicly available data on the number of subscribers and service rates/pricing such as

company annual reports and news articles. These are then used to estimate an average monthly subscription revenue per subscriber considering all available service plans from a given provider and distributed to the estimated number of subscribers. The estimated average monthly subscription revenue per subscriber is then multiplied by the subscriber estimate.

- Revenues of advertisement-based digital streaming and video streams are estimated based on publicly available data about traffic, advertising load and pricing as well as video traffic and digital advertising forecasts. These estimates are further refined based on each entity's performance in other video segments.

Numeris

Audience measurement data is important not only to industry stakeholders, who use the data to help sell air time to advertisers, but also to the CRTC, which uses the data to assess the effectiveness of its policies by understanding the reach of programming across the country and across various demographics.

- Audience measurement data is compiled by Numeris through the use of portable people meters (electronic devices that records listenership data) and diary surveys (written logs of listenership). National figures are based on diary surveys only. All Numeris-related data for previous years have been restated to align with methodological changes.
- Audience measurement data is based on Numeris radio diary data from the fall surveys across Canada, Monday to Sunday from 5 am to 1am, with participants aged 12 or older.

As of fall 2016: Online Radio Diary (ORD) was implemented in all radio diary markets³. For the first time, participating households were provided the choice of completing the day diary by using either the traditional paper form or the new online form. The introduction of ORD affects the data collection methodology and therefore, fall 2016 results may not be comparable to those of previous years with high precision.

Official language minority population

For the purposes of this report, the official language minority population is data used and defined from the 2016 Census as: "The official language minority population of Quebec includes all individuals with English as a first official language spoken and half of those with both English and French. The official language minority population of the country overall and of every province and territory other than Quebec includes individuals with French as a first official language spoken and half of those with both English and French."

Transmitters serving OLM population

A radio transmitter serving OLM population is defined as an over-the-air radio transmitter (stations and rebroadcasting transmitters), licensed to operate in French in provinces/territories other than Quebec or in English in Quebec.

³ Diary markets are defined as markets other than Calgary, Edmonton, Montréal, Toronto and Vancouver.

Definitions

Canadian content development (CCD) contributions are financial contributions made by radio broadcasters to support the development and promotion of Canadian musical and spoken word content for broadcast.

PBIT refers to profit before interest and taxes.



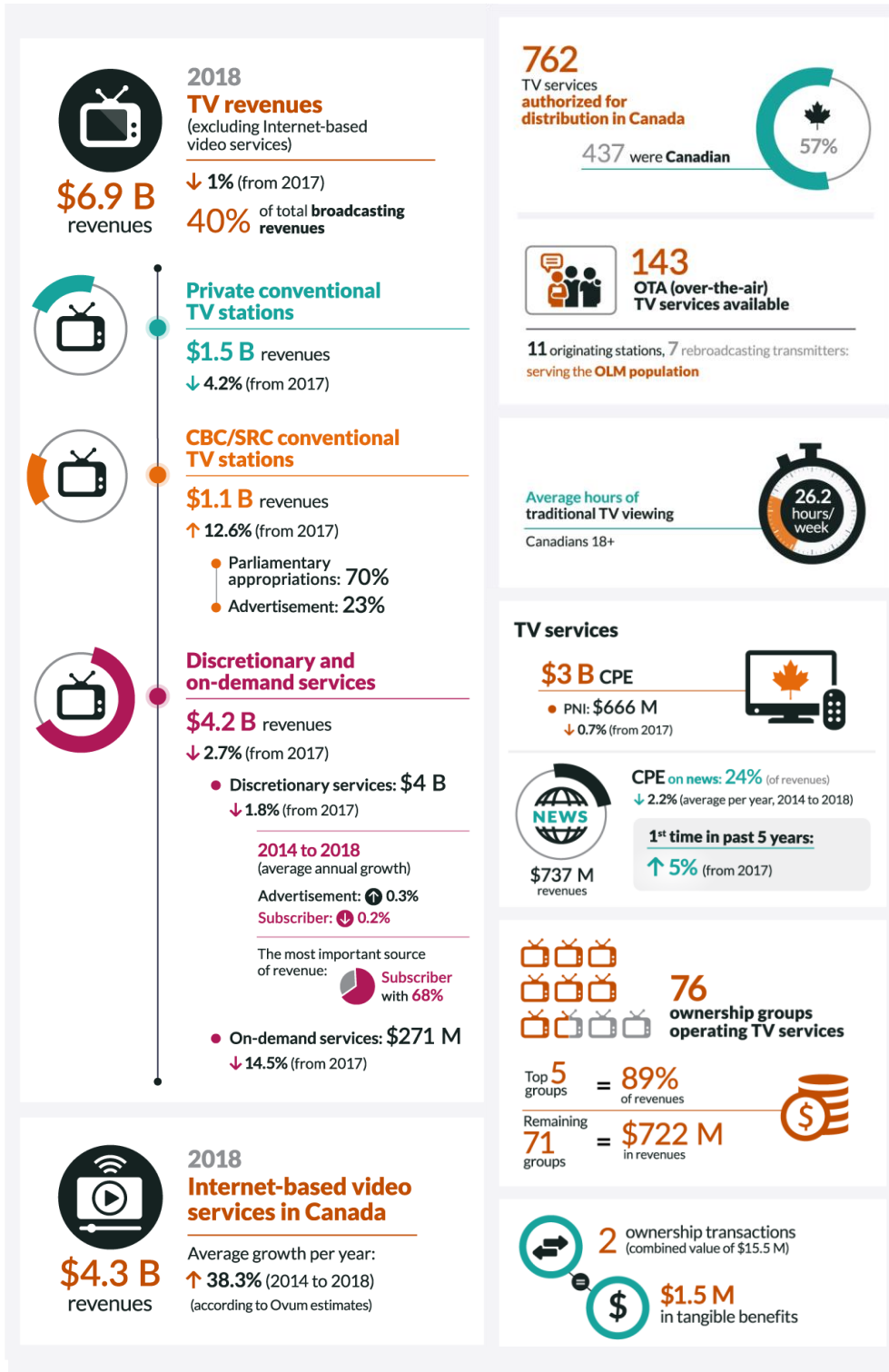
Communications Monitoring Report **2019**

Television Sector



Television Sector

Infographic 6.1 Overview of the television sector



Source: CRTC data collection, Ovum, CRTC internal database, Numeris, public disclosure of aggregate annual returns for large ownership groups

In 2018, when combined with discretionary and on-demand services, both private commercial conventional television stations and CBC/SRC conventional television stations generated \$6.9 billion in revenues and spent over \$3 billion in CPE. Discretionary services reported the majority of revenues (58%) and CPE (56%). In comparison, revenues of Internet-based video services operating in Canada reached \$4.3 billion, according to estimates from Ovum.

Canadians 18+ tuned in to 26.2 hours of content per week on average among the 762 conventional and discretionary television services authorized for distribution in Canada. In addition to these tuning hours, Canadians 18+ watched 3.2 hours of Internet television on average per week, for a total of 29.4 hours of content viewing per week.

Consistent with previous years, the top five ownership groups—out of approximately 80 entities in the Canadian television landscape—generated 89% of television revenues in 2018. According to 2018 Numeris data (Canadians, 2+), the top five groups garnered 92% of audience tuning shares in the French-language market while the top four groups garnered 91% of the audience tuning shares in the English-language market.

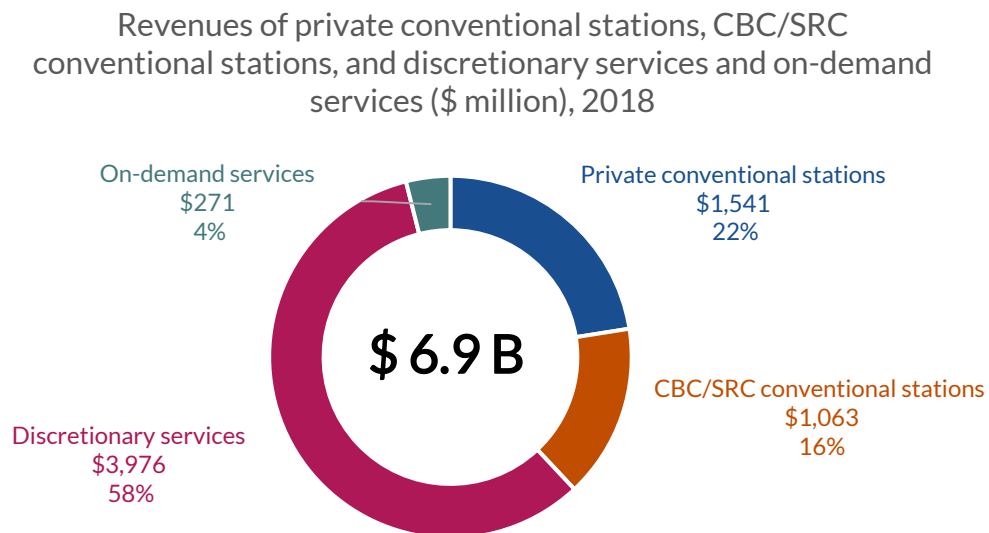
i. Sector overview

Types of services

The traditional television sector is split into four main segments: private conventional stations, CBC/SRC conventional stations, discretionary services and on-demand services.

In 2018, discretionary services reported generating the largest portion of the television revenues at \$4 billion (58%), followed by private conventional stations at \$1.5 billion (22%), CBC/SRC conventional stations at \$1.1 billion (16%) and on-demand services at \$271 million (4%).

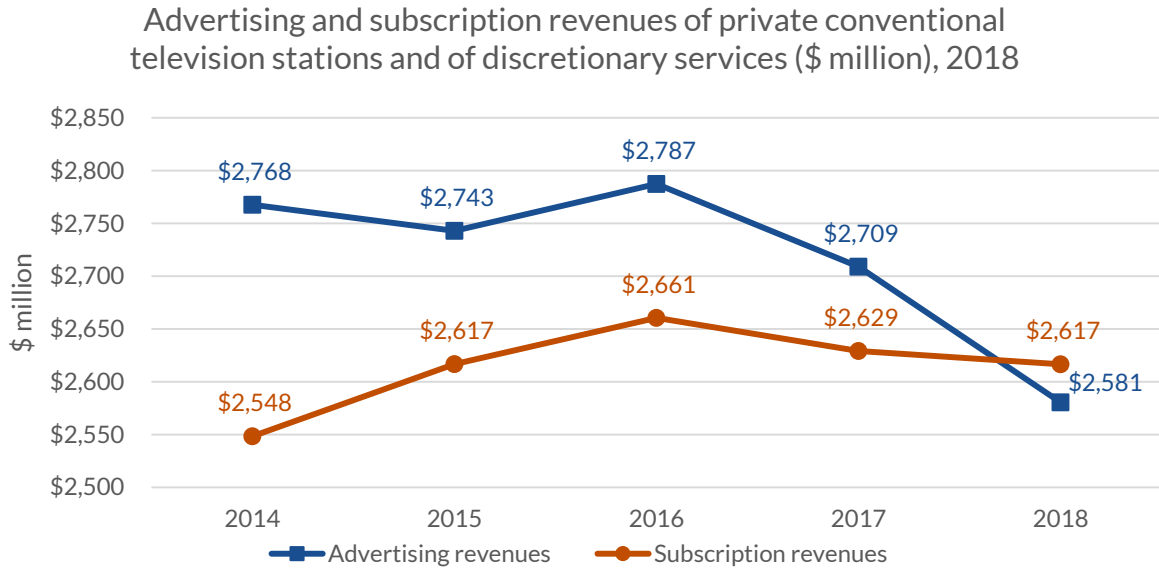
Figure 6.1 Revenues of private conventional stations, CBC/SRC conventional stations, discretionary services and on-demand services (\$ million), 2018



Source: CRTC data collection

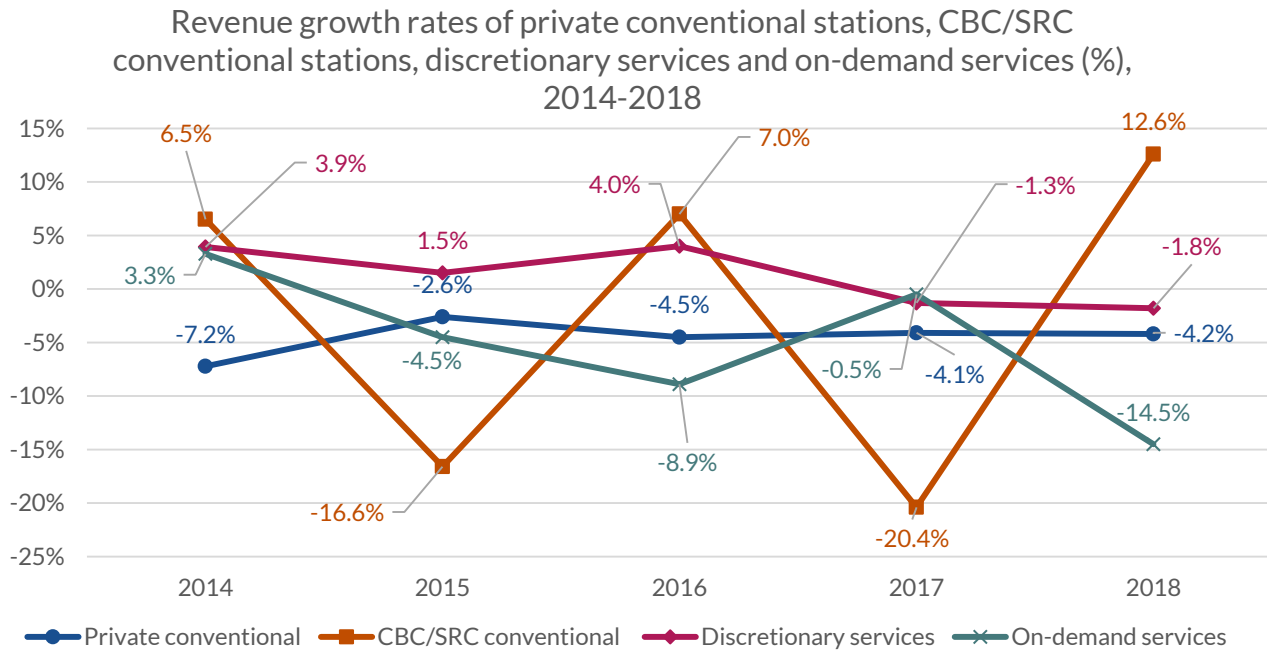
There was a slow decline in television revenues from 2014 to 2018: on average, total television revenues decreased annually by 1.8%. However, during the same five-year period, discretionary services still reported a slight average annual revenue growth of 0.6% per year, largely due to the more robust subscription revenues (compared to advertising revenues; see Figure 6.19 for the revenue composition of discretionary services).

Figure 6.2 Advertising and subscription revenues of private conventional television stations and of discretionary services (\$ million), 2018



Source: CRTC data collection

Figure 6.3 Revenue growth rates of private conventional stations, CBC/SRC conventional stations, discretionary services and on-demand services (%), 2014-2018



Source: CRTC data collection

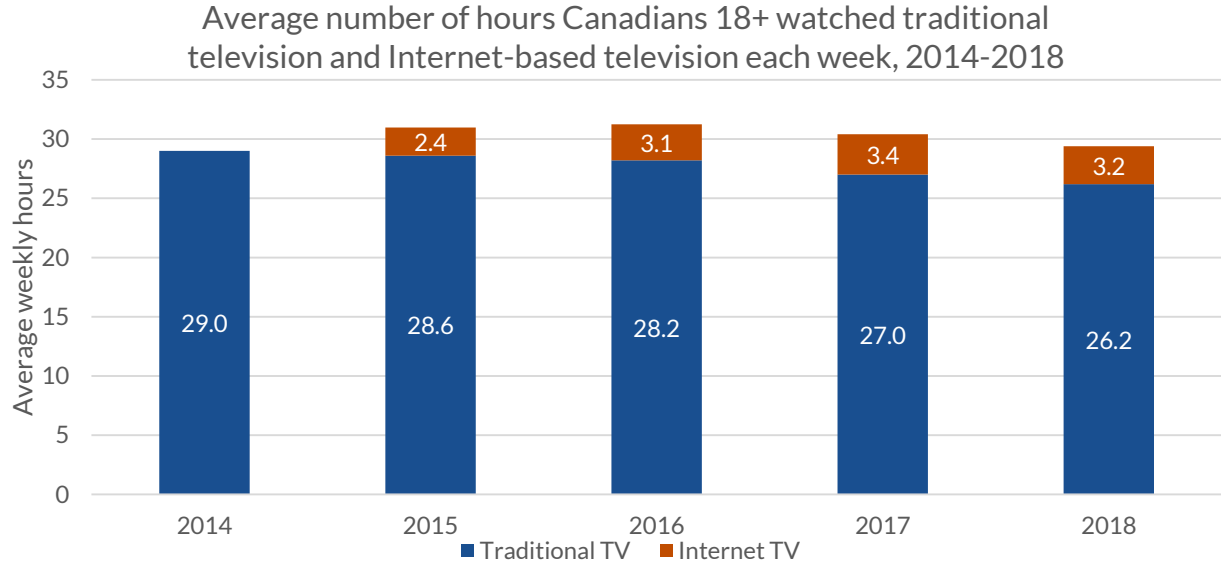
While the traditional television sector is experiencing decreases in revenues, its revenues of \$6.9 billion still exceed the estimated revenues of Internet-based video services in Canada, which totaled \$4.3 billion in 2018.

Audience measurement

Traditional television and Internet-based television

While the majority of Canadians have adopted Internet-based video services, traditional television viewing still far exceeds viewing of Internet-based television. In 2018, Canadians 18+ watched on average a total of 29.4 hours of television per week, with traditional television representing 89% of the viewing and Internet-based television only 11%.

Figure 6.4 Average number of hours Canadians 18+ watched traditional television and Internet-based television each week, 2014-2018



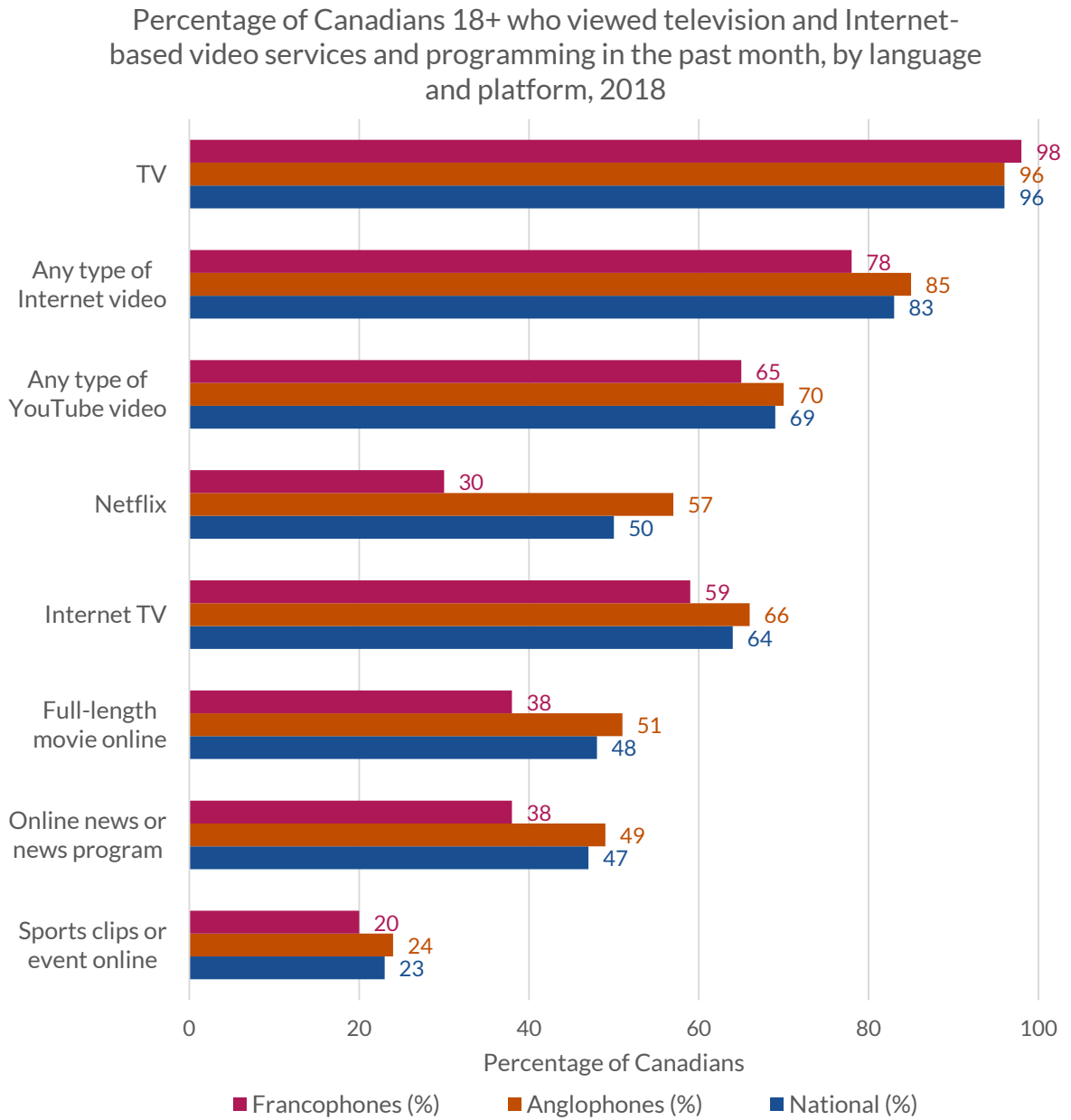
Source: Numeris, Media Technology Monitor (respondents: Canadians 18+)

Note that 2014 data is unavailable for Internet-based television.

Although viewership for Internet-based video services is growing, the number of hours that Canadians 18+ spend watching traditional television is still more than eight times higher than the number of hours they spend watching Internet-based television.

Traditional television leads in audience share and in audience penetration. In any given week in 2018, 80% of Canadians 18+ watched traditional television on a regular set, while 54% watched video content on the Internet during the same period.

Figure 6.5 Percentage of Canadians 18+ who viewed television and Internet-based video services and programming in the past month, by language and platform, 2018



Source: Media Technology Monitor, Fall 2018 (respondents: Canadians aged 18+)

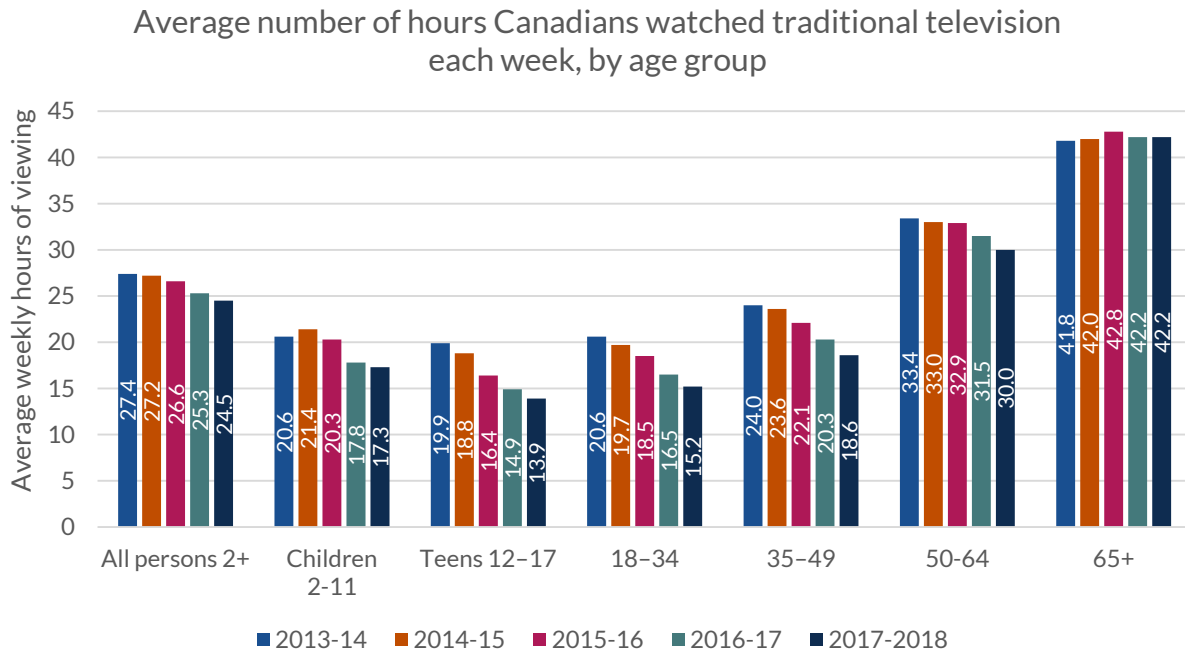
“Past month” refers to the 30 days prior to when the respondent is surveyed.

MTM refers to Internet TV as a full program or clips from TV programs watched with the use of a computer, smartphone, tablet, or internet connected TV.

Traditional television

In 2018, Canadians 2+ watched an average of 24.5 hours per week¹ of traditional television, a decrease of 48 minutes per week compared to the 2017 levels. Breaking down the audience data by age group shows that Canadians 65+ watch the most television, averaging 42.2 hours per week, while children aged 2 to 11 watched on average 17.3 hours of television per week.

Figure 6.6 Average number of hours Canadians watched traditional television each week, by age group



Source: Numeris

From 2013-14 to 2017-18, average weekly hours of traditional television viewing decreased by 2.8% on average, annually. This decrease is more pronounced in the 12-17 age group, while the 65+ age group slightly increased its television viewing during the same period.

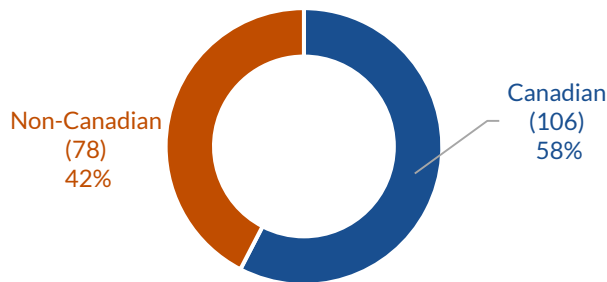
¹ Canadians 18+ watched on average 26.2 hours of television per week (Figure 6.4)

Language markets and program categories

In 2017-2018, 57.6% of the average weekly viewing hours of French-language content in the French-language market went to Canadian programs, whereas 41.2% of the average weekly viewing hours of English- and third-language content went to Canadian programs in the English-language market.

Figure 6.7 Average weekly viewing hours (million) of Canadian and non-Canadian programs in the Quebec French-language market broadcast by French-language television services

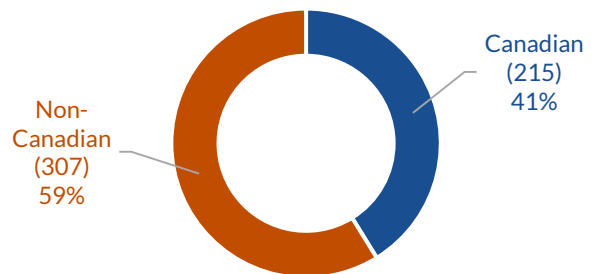
Average weekly viewing hours (million) of Canadian and non-Canadian programs broadcast by French-language Canadian television services in the Quebec French-language market



Source: Numeris (Canadians 2+). The above data is based on Canadian services with available data that incorporate country of origin and program genre.

Figure 6.8 Average weekly viewing hours (million) of Canadian and non-Canadian programs in all of Canada (excluding the Quebec French-language market) broadcast by English-language and third-language television services

Average weekly viewing hours (million) of Canadian and non-Canadian programs broadcast in Canada (excluding the Quebec French-language market) broadcast by English-language and third-language television stations



Source: Numeris (Canadians 2+). The above data is based on Canadian services with available data that incorporate country of origin and program genre.

Canadian programs

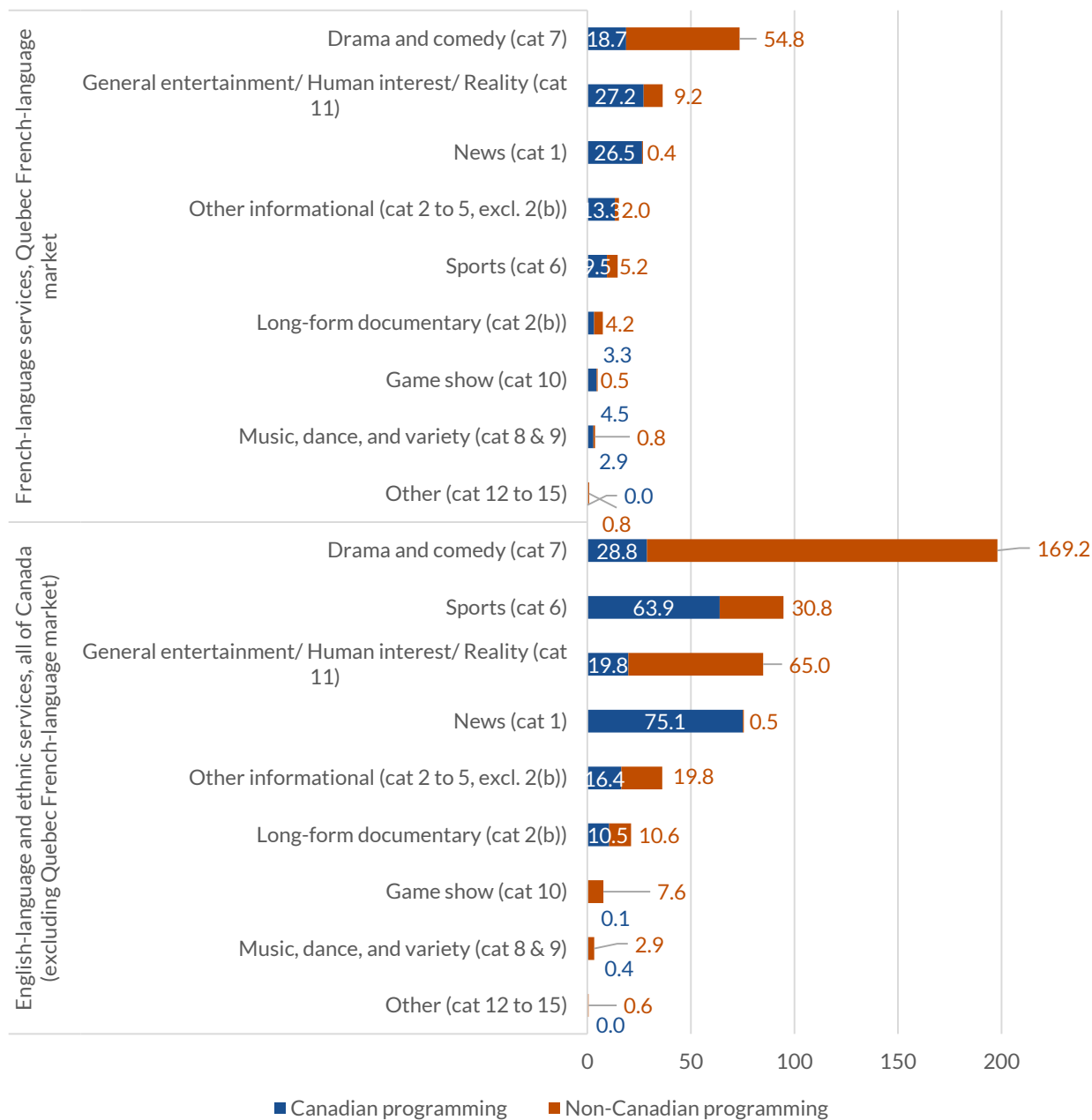
Viewing habits of Canadians have not changed much in the past year in regard to program categories for traditional television. This is true for both French- and English-language markets. “News,” the second most watched category of Canadian programs in the French-language market, is the leading category in the English-language market. In 2017-2018, Canadian programming in the “News” category garnered on average 26.5 million hours of viewing per week in the French-language market and 75.1 million hours of viewing per week in the English-language market.

Canadian and non-Canadian programs

Combining Canadian and non-Canadian programs, the “Drama and comedy” category is the most popular in both language markets, garnering 40% of the viewing in French and 38% in English, when considering average weekly viewing hours for Canadian television services. The second most watched category in the French-language market is “General entertainment and human interest/Reality,” with 20% of the viewing. The second most watched program category in the English-language market is “Sports,” with 18% of the viewing.

Figure 6.9 Average weekly viewing hours (million) for Canadian programs broadcast by Canadian television services, by language market, program origin and program category, 2018

Average weekly viewing hours (million) for Canadian programs broadcast by Canadian television services, by language market, program origin, and program category, 2018



Source: Numeris (Canadians 2+)

The above data is based on Canadian services with available data that incorporate country of origin and program genre.

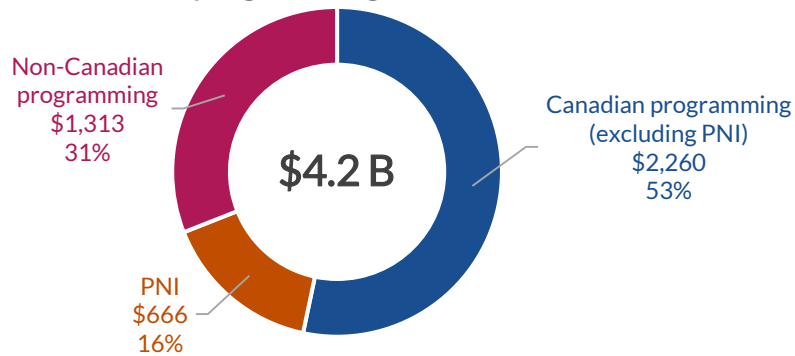
Programming expenditures

Canadian television services spent a total of \$4.2 billion on programming expenditures in 2018 (a 2.7% increase from 2017), with the vast majority (69%) going towards CPE and the PNI subcategory.

For every dollar of revenue broadcasters earned in 2018, \$0.34 was spent on Canadian programming (excluding PNI), \$0.10 was spent on PNI and \$0.20 was spent on non-Canadian programming. Therefore, excluding video-on-demand and pay-per-view services as well as other public and not-for-profit conventional television stations, broadcasters spent \$0.64 on programming expenses for every dollar of revenue earned.

Figure 6.10 Television programming expenditures on PNI, Canadian and Non-Canadian programming (\$ millions), 2018

Television programming expenditures on PNI, Canadian and Non-Canadian programming (\$ millions), 2018



Source: CRTC data collection

Programming expenditures of video-on-demand and pay-per-view services, as well as other public and not-for-profit conventional television stations, are excluded in this figure.

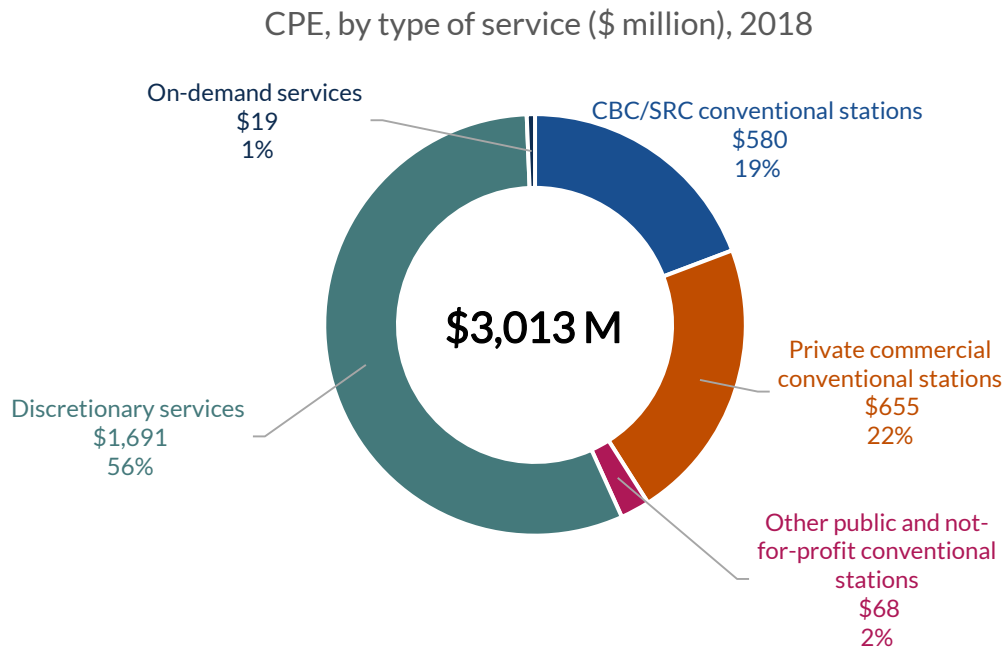
For the purposes of this report, PNI expenditures include expenditures in any of the following program categories:

- Long-form documentary (category 2b);
- Drama and comedy (category 7);
- French-language music, dance and variety programming (categories 8 and 9); and
- English-language award shows (subset of category 11).

Canadian programming expenditures

Television services spent over \$3 billion on CPE in 2018. Discretionary services led with CPE totalling \$1.7 billion or 56% of total CPE. Canadian contributions increased by 2.5% from 2017 to 2018 and by 0.2% per year in the past five years.

Figure 6.11 CPE, by type of service (\$ million), 2018



Source: CRTC data collection

From 2014 to 2018, CPE grew with “Sports” having dethroned “News” in 2017 as the category that represents the biggest share of total CPE (33% of total CPE in 2018). Expenditures in the “Sports” category increased by 22% compared to 2014.

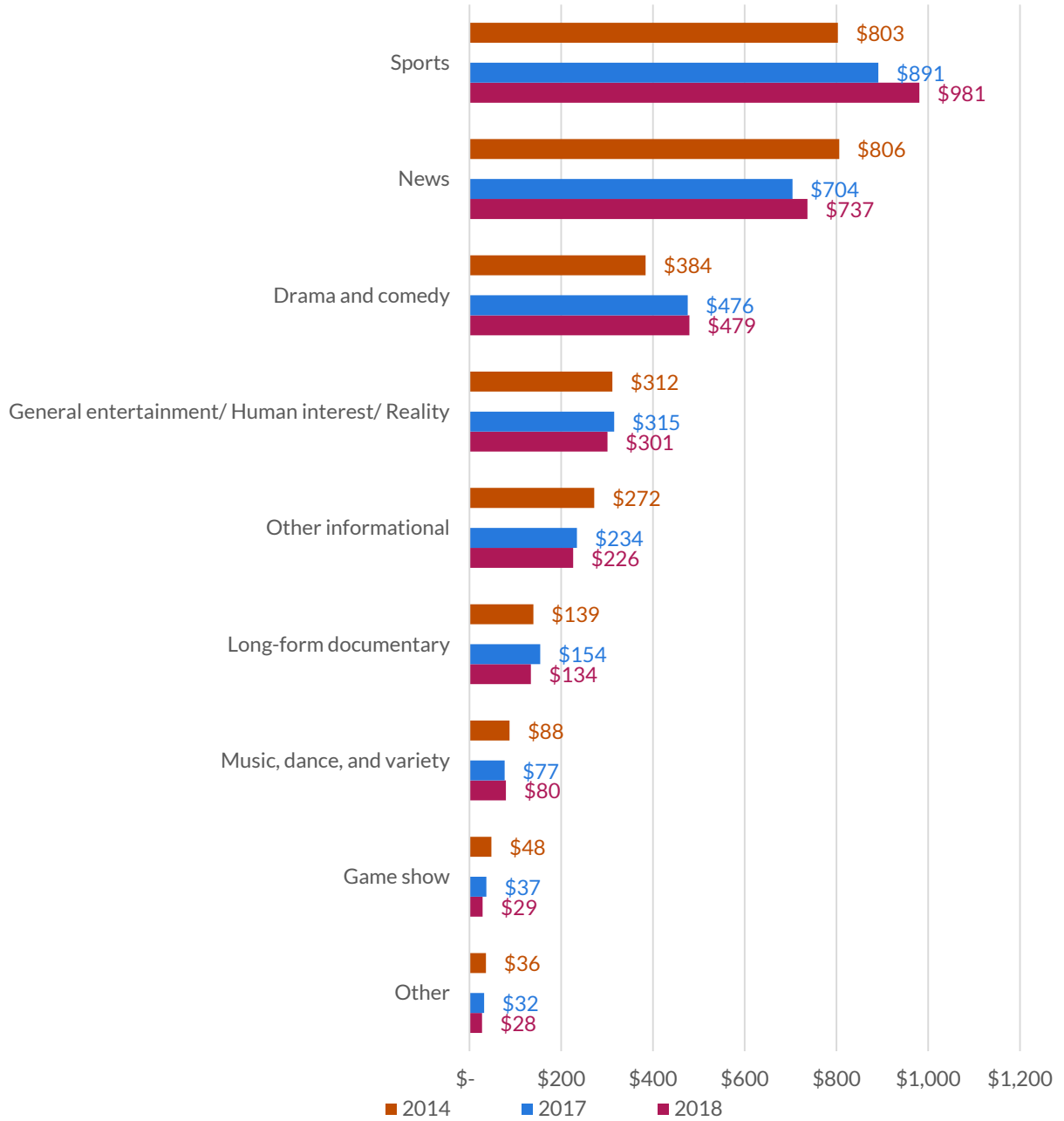
Even though CPE on “News” has declined of 9% compared to 2014, it experienced a positive 5% growth from 2017 to 2018.

Significant gains have been made in CPE in the “Drama and comedy” category (a 25% increase in 2018 compared to 2014). CPE in the “General entertainment, human interest and reality” (-0.9%), “Music, dance, and variety” (-2.3%) and “Long-form documentary” (-1.0%) categories did not fare as well, weathering overall yearly declines during the 2014 to 2018 period.

Canadian programming expenditures made by the discretionary service Aboriginal Peoples Television Network (APTN) which presents programming reflecting Indigenous peoples in Canadian society reached \$24.5 million in 2018 (or 55% of the services’ revenues) and grew on average by 3.5% from 2014 to 2018.

Figure 6.12 CPE of conventional television stations and discretionary services by program category (\$ million), 2014, 2017 and 2018

CPE of conventional television stations and discretionary services by program category (\$ million), 2014, 2017 and 2018



Source: CRTC data collection

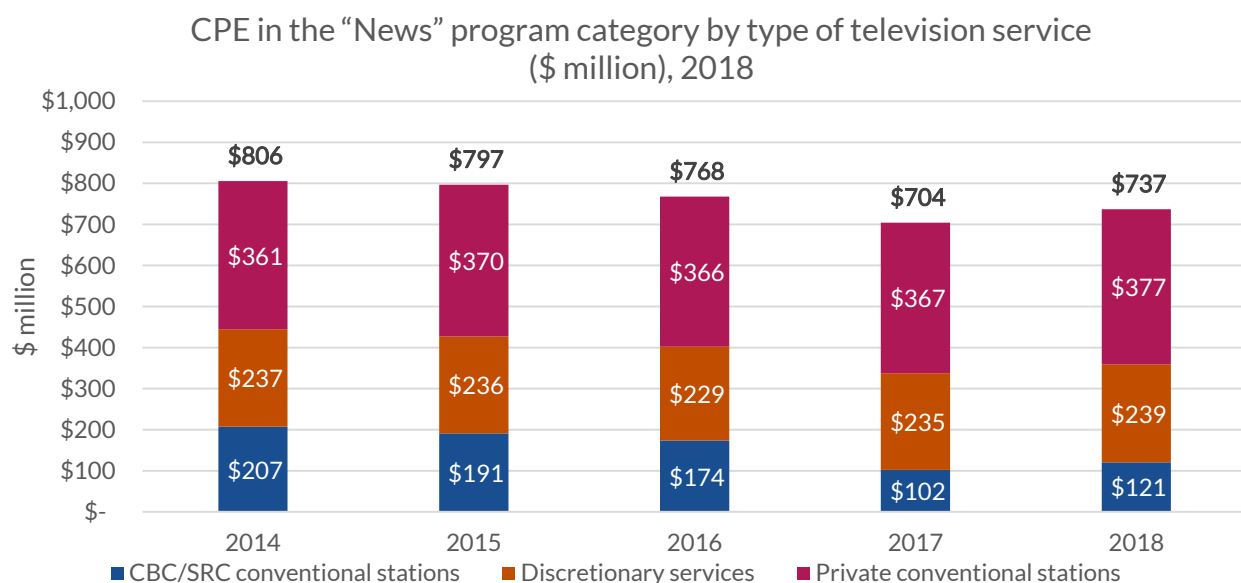
News

For the first time in the past five years, CPE on news has experienced a positive growth (5% compared to 2017). Benefiting from the Independent Local News Fund and broadcasting distribution undertakings' (BDU) new-found flexibility that allows them to devote part of their contributions to Canadian programming to the production of local news, commercial television stations have increased their news expenditures by over \$10 million.

The fund, which was implemented in the 2017-2018 broadcast year, is fuelled by contributions from all licenced BDUs and has replaced the Small Market Local Production Fund. Licensed terrestrial BDUs have the flexibility to devote part of their local expression contribution to the production of locally reflective news on local television stations, while direct-to-home (DTH) BDUs may devote part of their contributions to Canadian programming to the production of locally reflective news on local television stations.

Private commercial stations have contributed more than half of the CPE in the "News" program category. CBC/SRC conventional, discretionary services and private conventional Canadian news expenditures have increased compared to 2017. Discretionary services' spending on news has risen by 1.5% compared to 2017 and has grown by a 0.2% over the past five years. CBC/SRC news expenditures have increased by 18.1% compared to 2017, yet have declined, on average, by 12.7% over the past five years.

Figure 6.13 CPE in the "News" program category by type of television service (\$ million), 2018

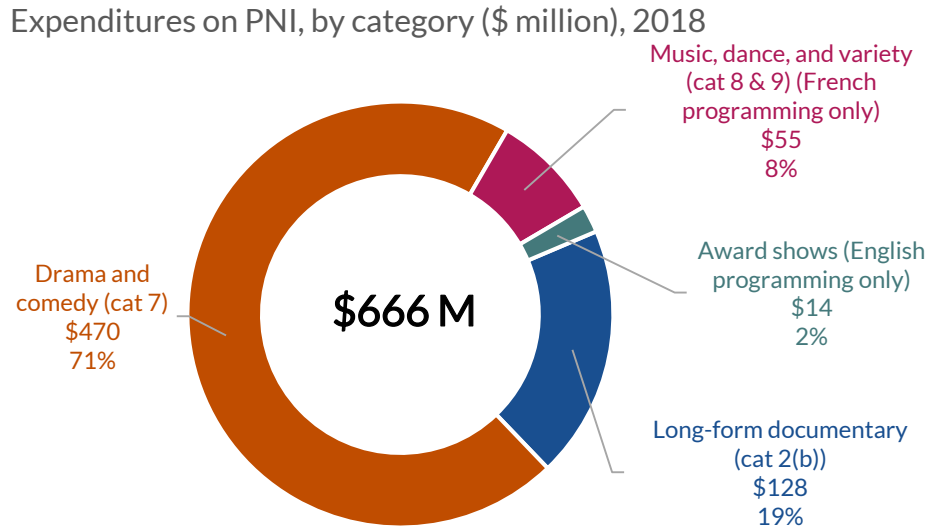


Source: CRTC data collection

Programs of national interest

In 2018, expenditures on programs of national interest (PNI) totalled \$666 million, a slight 0.7% decrease from 2017. Similar to 2017, the majority of the PNI went to the “Drama and comedy” category, followed by “Long-form documentary.”

Figure 6.14 Expenditures on PNI, by category (\$ million), 2018



Source: CRTC data collection

Programming expenditures of video-on-demand and pay-per-view services, as well as those of other public and not-for-profit conventional television stations, are excluded from these figures.

Sector composition

The television sector was composed of 76 ownership groups in 2018. The two largest broadcasters, BCE and Corus/Shaw, garnered half (50%) of the total television revenues as well as over 70% of the tuning in the English-language market. The five largest broadcasters generated over 89% of total revenues and reported 89% of the CPE and garnered over 91% of the tuning in the English-language market.

Infographic 6.2 Television ownership market composition

2018	Television revenues	Share of total television revenues	CPE	News	PNI	Tuning share	
						FRE language market	ENG language market
BCE	\$2,212 M	32%	\$849 M	\$249 M	\$152 M	15.7%	38.0%
CORUS. Shaw)	\$1,238 M	18%	\$361 M	\$136 M	\$109 M	10.2%	34.9%
CBC	\$1,220 M	18%	\$693 M	\$207 M	\$256 M	19.3%	8.0%
 ROGERS	\$1,032 M	15%	\$524 M	\$31 M	\$14 M		10.5%
 QUEBECOR	\$422 M	6%	\$256 M	\$49 M	\$58 M	38.4%	
 vmmedia	\$66 M	1%	\$31 M	\$3 M	\$5 M	8.2%	
TOTAL	\$6,190 M	90%	\$2,715 M	\$674 M	\$595 M	91.8%	91.4%

Source: Public disclosure of aggregate annual returns for large ownership groups, individual discretionary and on-demand statistical and financial summaries, Numeris

CBC/SRC revenues include parliamentary appropriations for conventional television.

CPE includes spending from private conventional, discretionary and on-demand services. News and PNI categories represent expenditures on Canadian programming and do not include on-demand services expenditures.

Viewing shares attributed to each entity are based on viewing to Canadian commercial television, as displayed in Table 6.4 set out in the Appendix to this report.

Data for Groupe V Media does not include News and PNI contributions from discretionary services as details are not publicly available.

BCE leads in terms of revenues and spends the most in CPE with \$849 million, followed by CBC/SRC (\$693 million) and Rogers (\$524 million).

Tangible benefits

Tangible benefits are another means by which the CRTC ensures that a diversity of voices and interests are represented in the Canadian broadcasting system. These benefits represent a proportion of the value of a transaction to transfer the ownership or change the effective control of a television service, usually paid over the course of a licence term. In 2018, two ownership transactions, with a combined value of \$15.5 million, generated \$1.5 million dollars for the English-language market.

Table 6.1 Value of television ownership transactions and corresponding tangible benefits from 1 January 2014 to 31 December 2018

Language	Metric	2014	2015	2016	2017	2018	Total
French-language services	Transactions	1	0	0	0	0	1
	Value (\$M)	22.9	0	0	0	0	22.9
	Benefits (\$M)	2.3	0	0	0	0	2.3
English-language services	Transactions	2	0	2	1	2	7
	Value (\$M)	174.3	0	5.7	1.5	15.5	197
	Benefits (\$M)	17.4	0	1	0.1	1.5	20
Total	Transactions	3	0	2	1	2	8
	Value (\$M)	197.2	0	5.7	1.5	15.5	219.9
	Benefits (\$M)	19.7	0	1	0.1	1.5	22.3

Source: CRTC internal database

The Stingray/Newcap ownership transaction, which occurred in 2018 (see Broadcasting Decision CRTC 2018-404), resulted in \$31 million in tangible benefits. Of this amount, \$859,277 was committed to television.

In Broadcasting Decision CRTC 2014-465, the Commission approved the divestiture of the remaining two services (MusiquePlus and MusiMax) to Groupe V Média Inc. (Groupe V). Groupe V has committed approximately \$2.3 million in tangible benefits to French-language initiatives.

In Broadcasting Decision CRTC 2014-388, the Commission approved the divestiture of three of the remaining five services (Disney Junior, Disney XD and Family Channel) to DHX Media Ltd. (DHX). DHX has committed approximately \$17.3 million in tangible benefits to English-language initiatives.

ii. Conventional television stations

Infographic 6.3 Overview of conventional television stations

2018	Private conventional stations	CBC conventional stations
Number of reporting stations	94	27
Revenues	\$1.5 B	\$1,063 M
Independent Local Programming Fund	\$21.7 M	
2017-2018 revenue growth	↓ 4.2%	↑ 12.6%
CPE	\$655 M (42.5% of revenues)	\$580 M (54.6% of revenues)
PNI	\$91 M (5.9% of revenues)	\$241 M (22.7% of revenues)

2018	Private conventional stations	CBC conventional stations
Canadian News	\$377 M (24.5% of revenues)	\$121 M (11.4% of revenues)
Profit before interest and tax (PBIT)/ Operating Margin	↓ 8.7% (PBIT)	↑ 11% (Operating Margin)
Average weekly viewing hours in the Quebec French-language market	65.5 M	28.8 M
Average weekly viewing hours in Canada (excluding the Quebec French-language market)	152.1 M	32.9 M

Source: CRTC data collection, Numeris

In 2018, the combined revenues of private and CBC/SRC conventional television stations totalled \$2.6 billion. These segments continue on a slow revenue decline averaging a 4.5% decrease per year from 2014, when they totalled \$3.1 billion.

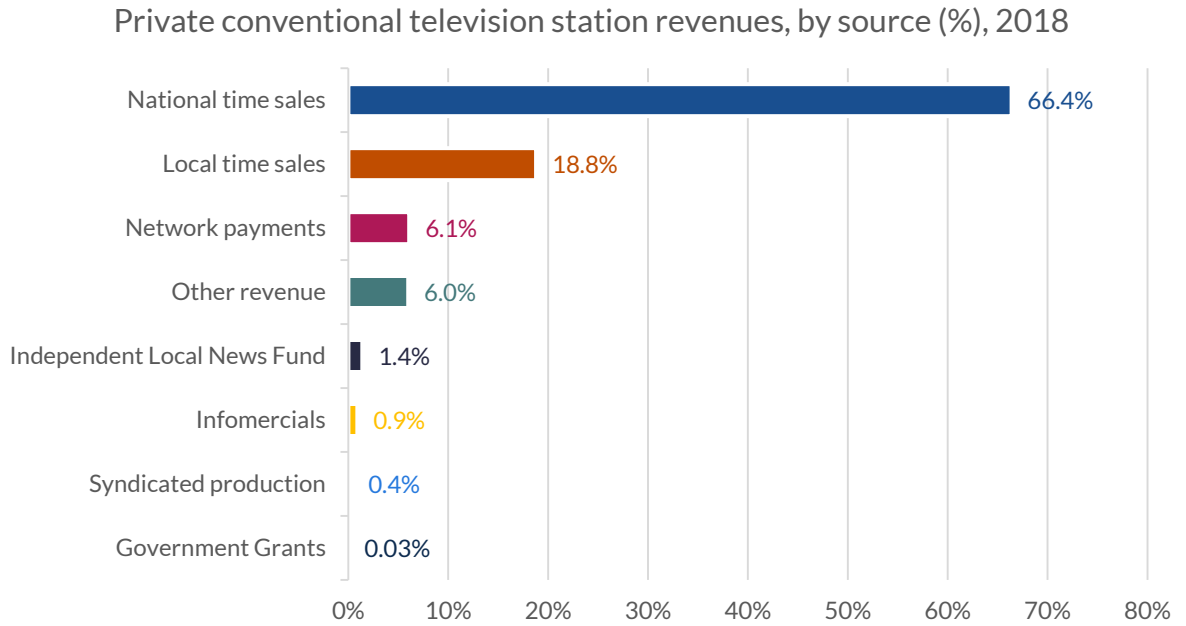
Average viewing hours for conventional television stations totalled 279 million hours per week for the 2018 broadcast year, a 3.3% decrease from the 2017 level of 288.3 million hours per week.

In 2018, when Canadians were asked by Media Technology Monitor (MTM) what type of television service they watched, 7% of Canadians replied watching conventional stations over-the-air, consistent with 2017 and 2016, which were both 1% higher than in 2015.

The majority of the decrease private conventional television stations' revenues was observed in the advertising revenues which represent the vast majority of their revenues. For CBC/SRC television stations, the increase is mainly attributable to increases in national advertising revenues due to the broadcast of the 2018 PyeongChang Winter Olympics.

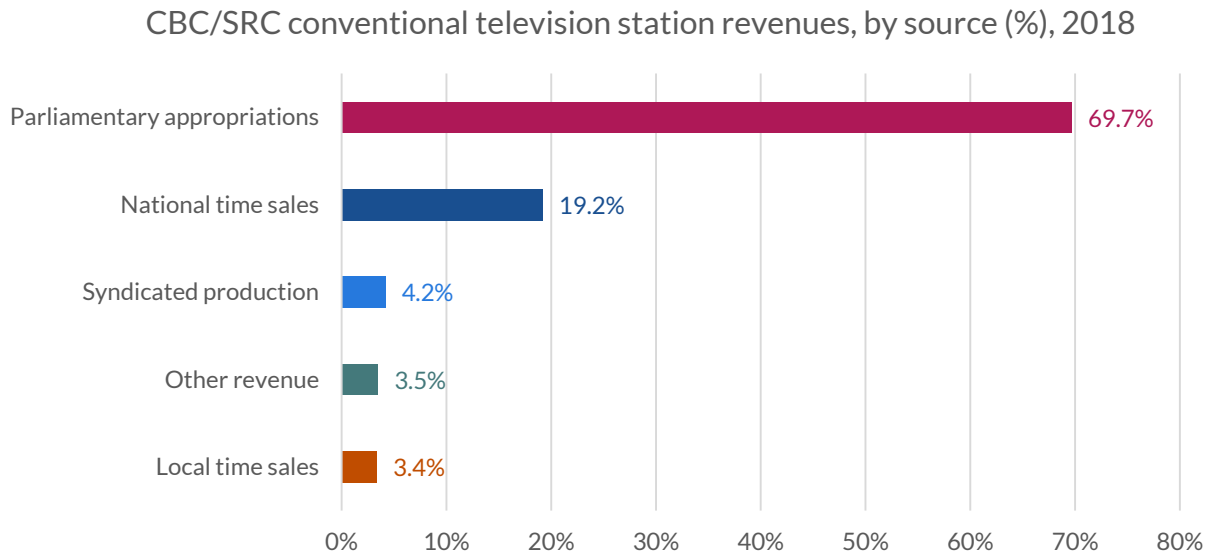
As previously stated, advertising constitutes the vast majority (85%) of the revenues of private conventional television stations and represents 23% of revenues derived from CBC/SRC conventional stations. Parliamentary appropriations represented 70% of the revenues of CBC/SRC conventional television stations in 2018. In the past five years, parliamentary appropriations have increased on average by 0.5% per year while advertising revenues decreased on average by 15.7% per year.

Figure 6.15 Private conventional television station revenues, by source (%), 2018



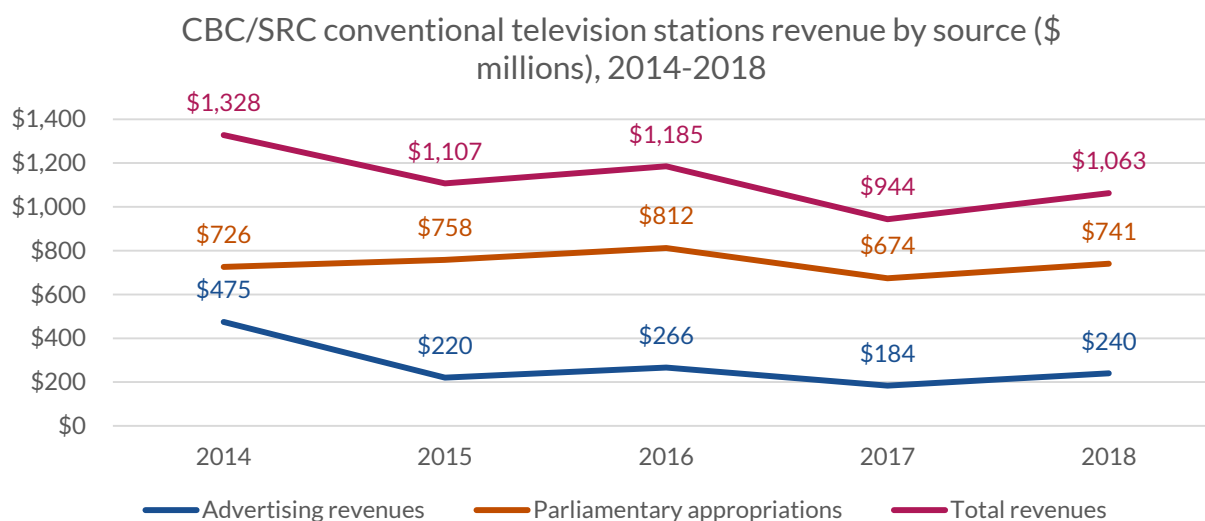
Source: CRTC data collection

Figure 6.16 CBC/SRC conventional television station revenues, by source (%), 2018



Source: CRTC data collection

Figure 6.17 CBC/SRC conventional television stations revenue by source (\$ millions), 2014-2018



Source: CRTC data collection

“Network payments” includes net payments made to the affiliates as a reduction of the revenue. For the affiliates it should include their share of the network net payments, or the reverse as the case may be.

“Infomercials” is programming exceeding 12 minutes in length that combines entertainment or information with the sale or promotion of goods or services into a virtually indistinguishable whole.

“Syndicated production” is the revenue perceived by the sale or airing permission of a program produced by a network to another network.

“Independent Local News Fund” is made up of contributions by BDUs aimed at helping independent local television stations.

“Local time sales” are revenues from the sale of air time by local sales representative, net of advertising agency commissions and trade discounts.

“National time sales” are revenues for national advertising, net of any advertising agency commissions and trade discounts.

“Other” includes broadcast-related revenue received from the use of talent services and technical facilities.

“Local Programming Improvement fund” was established to support local programming by conventional television stations with the help of broadcasting distribution undertakings contributions. The fund was discontinued in 2014.

“Parliamentary appropriations” is government funding for operating and working capital expenditures.



Private conventional television market composition

In 2018, the two largest broadcasters, BCE and Corus, garnered 62% of the total private conventional television revenues and reported 64% of the CPE for conventional television stations with 46 of the 94 stations.

The two largest French-language broadcasters combined reported 16% of the conventional television revenues with 11 television stations and accounted for 20% of the CPE for conventional television stations.

Combined, the five largest conventional television broadcasters represented 69 stations and reported 91% of the revenues in 2018.

Infographic 6.4 Private conventional television stations of large ownership groups

2018	Number of stations	Conventional television revenues	Share of private conventional television revenues	Private conventional television			Tuning share	
				CPE	News	PNI	 language market	 language market
BCE	31	\$623 M	40%	\$243 M	\$166 M	\$17 M	0.9%	14.7%
CORUS. Shaw)	15	\$338 M	22%	\$174 M	\$134 M	\$12 M	0.6%	9.2%
QUEBECOR	6	\$205 M	13%	\$110 M	\$22 M	\$48 M	24.5%	
ROGERS	12	\$201 M	13%	\$62 M	\$23 M	\$7 M		3.8%
GROUPES vmedia	5	\$43 M	3%	\$23 M	\$3 M	\$5 M	6%	
TOTAL	69	\$1,410 M	91%	\$612 M	\$347 M	\$89 M	32%	27.7%

Source: Public disclosure of aggregate annual returns for large ownership groups, Numeris

CPE includes spending from private conventional, discretionary and on-demand services. News and PNI categories represent expenditures on Canadian programming and do not include on-demand services expenditures.

Viewing shares attributed to each entity are based on viewing to Canadian commercial television, as displayed in Table 6.4 set out in the Appendix to this report.

iii. Discretionary and on-demand services

Infographic 6.5 Overview of discretionary² and on-demand services

Discretionary services ²				On-demand services			
2018	French-language	English-language	Third-language	2018	Pay-per-view services	Video-on-demand services	Total
Number of reporting services	33	127	110	Number of reporting services	7	14	21
Revenues	\$732 M	\$3.2 B	\$92 M	Revenues	\$70.8 M	\$200.2 M	\$271.0 M
Average revenue per station	\$22 M	\$25 M	\$0.8 M	2017-2018 revenue growth	↓ 28.7%	↓ 8.0%	↓ 14.5%
2017-2018 revenue growth	↓ 4.5%	↓ 1.7%	↑ 23.3%	CPE	\$5.2 M (7.3% of revenues)	\$14.3 M (7.1% of revenues)	\$19.5 M (7.2% of revenues)
CPE	\$444 M (60.6% of revenues)	\$1.2 B (38.4% of revenues)	\$38 M (40.8% of revenues)	PBIT	19.8%	11.1%	13.4%
News	\$75 M (10.3% of revenues)	\$151 M (4.8% of revenues)	\$13 M (14.1% of revenues)	Average weekly viewing hours in Canada (excluding the Quebec French-language market)	1.2 M	320.6 M	3.0 M
PNI	\$90 M (12.3% of revenues)	\$234 M (7.4% of revenues)	\$11 M (11.9% of revenues)	Average weekly viewing hours in the Quebec French-language market	91.6 M	7.0 M	0.4 M

² Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term "discretionary services" now encompasses all currently licensed pay, specialty and discretionary services, while the term "on-demand services" now encompasses all licensed pay-per-view and video-on-demand services.

Source: CRTC data collection, Numeris (Average weekly viewing hours of discretionary services do not include on-demand services average viewing hours)

² Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term "discretionary services" now encompasses all currently licensed pay, specialty and discretionary services, while the term "on-demand services" now encompasses all licensed pay-per-view and video-on-demand services.

Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term “discretionary service” now encompasses all currently licensed pay, specialty and discretionary services. On-demand services include pay-per-view and video-on-demand services. In 2018, discretionary and on-demand services exhibited a negative revenue growth (-2.7%) compared to the previous year. Nevertheless, these services remain profitable ventures with a combined revenue of \$4.2 billion and a PBIT margin of 22.9% in 2018.

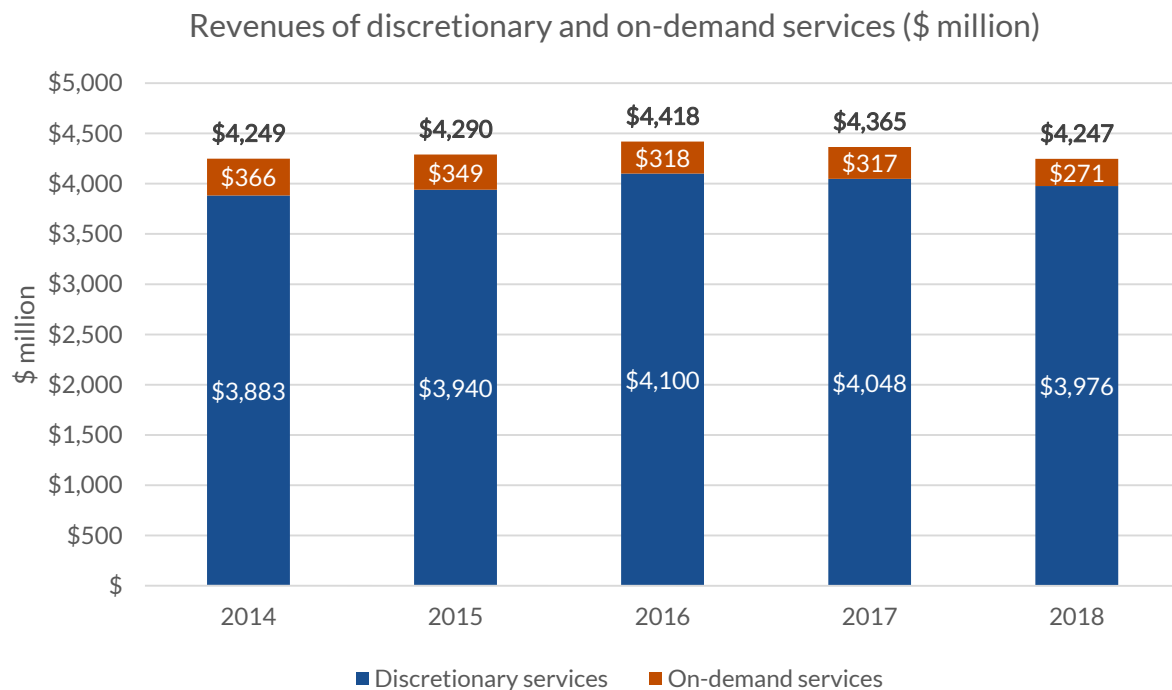
Discretionary services revenues totalled \$4 billion in 2018. While their growth compared to the previous year was negative in 2017 (-1.3%) and 2018 (-1.8%), their five-year compound annual growth rate (CAGR) was still positive (0.6%) and they maintained a very positive profitability margin of 23.6% (in 2018). Examples of discretionary services include Food Network, Sportsnet 360 and Canal D.

Although representing only 2% of total discretionary services revenues, third-language services’ revenues have seen the most notable growth compared to their French- and English-language counterparts. From 2014 to 2018, third-language discretionary services had an annual growth rate of 3.4% per year, including 23.3% from 2017 to 2018.

With revenues of \$200 million in 2018, video-on-demand services are also in a declining trend. Revenues have decreased at an average rate of 6.7% per year in each of the past five years. There are 14 video-on-demand services, which include, among others, Bell TV On Demand and Illico sur demande.

Pay-per-view services accounted for the smallest revenues in this category (\$71 million in 2018). Many of the seven services saw their past year's growth in subscriber revenues dwindle. Notwithstanding the two past years’ financial performances (PBIT of 19.6% in 2017 and 19.8% in 2018), this market segment is trending towards a decline in revenues (-8.6% per year for the past five years). Examples of services include Shaw Pay-Per-View and Canal Indigo.

Figure 6.18 Revenues of discretionary and on-demand services (\$ million)



Source: CRTC data collection

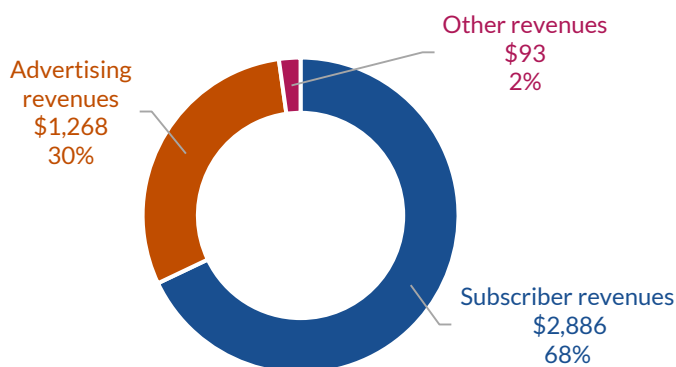
In 2018, subscriber revenues represented 68% of revenues, while advertising revenues represented 30%. These ratios were similar to those found in 2014. Subscriber revenue is comprised of terrestrial subscribers (53% of total revenues in 2018) and DTH subscribers (15% of total revenues). Advertising revenues are split between national ads (29% of total revenues in 2018) and local ads (1% of total revenues in 2018).

Between 2014 and 2018, viewership for discretionary services declined by -3.0% per year on average, including a sharp decline in the last year (-4.6%).

Over the past five years, both subscriber and advertising revenue growth has been limited (-0.2% per year for subscribers and 0.3% per year for advertising). When compared to the previous year, subscriber and advertising revenue growth is negative (-1.9% for subscriber revenue and -4.5% for advertising revenue).

Figure 6.19 Revenues of discretionary and on-demand services by source (\$ million), 2018

Revenues of discretionary and on-demand services by source (\$ million), 2018



Source: CRTC data collection

Discretionary and on-demand service market composition

In 2018, the two largest broadcasters, BCE and Corus, garnered 59% of the total discretionary service revenues and reported 47% of the CPE of these services, as well as garnering 49% of the tuning in the English-language market.

While Rogers came in third place in terms of discretionary service revenues with \$787 million in 2018, it reported \$455 million in CPE, placing it in second place, behind BCE, which reported \$604 million in CPE and \$1,519 million in revenues.

Infographic 6.6 Discretionary services of large ownership groups and the CBC/SRC

2018	Number of discretionary services	Revenues	Share of the revenues of discretionary services	Discretionary services			Tuning share	
				CPE	News	PNI	FRE language market	ENG language market
BCE	32	\$1,519 M	38%	\$604 M	\$83 M	\$135 M	14.7%	23.3%
CORUS. Shaw)	44	\$837 M	21%	\$186 M	\$2 M	\$97 M	9.6%	25.7%
ROGERS	9	\$787 M	20%	\$455 M	\$8 M	\$7 M		6.7%
CBC	5	\$157 M	4%	\$113 M	\$86 M	\$15 M	4.8%	1.7%
QUEBECOR	7	\$176 M	4%	\$143 M	\$27 M	\$10 M	13.9%	
GROUP Vmedia	2	\$23 M	0.6%	\$8 M			2.1%	
TOTAL	99	\$3,500 M	87.6%	\$1,509 M	\$206 M	\$264 M	45.1%	57.4%

Source: Public disclosure of aggregate annual returns for large ownership groups, individual discretionary and on-demand statistical and financial summaries, Numeris



CPE includes spending from private conventional, discretionary and on-demand services. News and PNI categories represent expenditures on Canadian programming and do not include on-demand services expenditures.

Viewing shares attributed to each entity are based on viewing to Canadian commercial television, as displayed in Table 6.4 set out in the Appendix to this report.

Individual discretionary and on-demand statistical financial summaries do not include CPE breakdown. Therefore, News and PNI contributions for Groupe V Media are not disclosed.

In 2018, the four largest broadcasters garnered 80% of the total revenues for on-demand services and reported \$13.3 million in CPE with 12 of the total 21 services.

Infographic 6.7 On-demand services of large ownership groups

2018	Number of on-demand services	Revenues	the s of ind s	CPE
BCE	5	\$70.2 M		\$2.8 M
CORUS. Shaw)	3	\$62.7 M		
 ROGERS	2	\$43.1 M		\$7.3 M
 QUEBECOR	2	\$40.9 M		\$3.2 M

Source: Public disclosure of aggregate annual returns for large ownership groups, individual discretionary and on-demand statistical and financial summaries

iv. Internet-based video services in Canada

Internet-based video services are a growing segment. In 2018, this market segment generated revenues totalling an estimated \$4.3 billion in Canada. Internet-based video services represent approximately 63% of total television revenues, on par with discretionary and on-demand services.

Internet-based video services are segmented into three distinct main business models:

Subscription-based video-on-demand (SVOD) service refers to an Internet-based service model in which a client pays a subscription fee to gain access to a library of content. This category includes both the services where the content of the library is aired according to a linear schedule (e.g., Sportsnet Now) and those where a user chooses amid a catalogue of content that is available regardless of viewing time (e.g., Club Illico, Crave and Netflix).

Transactional video-on-demand (TVOD) service refers to an Internet-based service model in which a client pays only for the specific content watched. The client usually does not pay to access the service itself. Examples of this type of service are iTunes, Microsoft Movies & TV and the PlayStation Network.

Advertising video-on-demand (AVOD) service refers to an Internet-based service model in which a client typically has free access to content but is exposed to advertisements. YouTube is an example of this type of service.

Infographic 6.8 Overview of Internet-based video services

2018	2018 Estimated revenues in Canada	2017-2018 growth	2014-2018 CAGR	Share of estimated revenues of Internet-based video services
SVOD	\$2,523 M	54.8%	41.4%	58%
AVOD	\$1,310 M	41.0%	58.1%	30%
TVOD	\$494 M	9.6%	9.8%	11%
TOTAL	\$4,328 M	43.8%	38.3%	100%

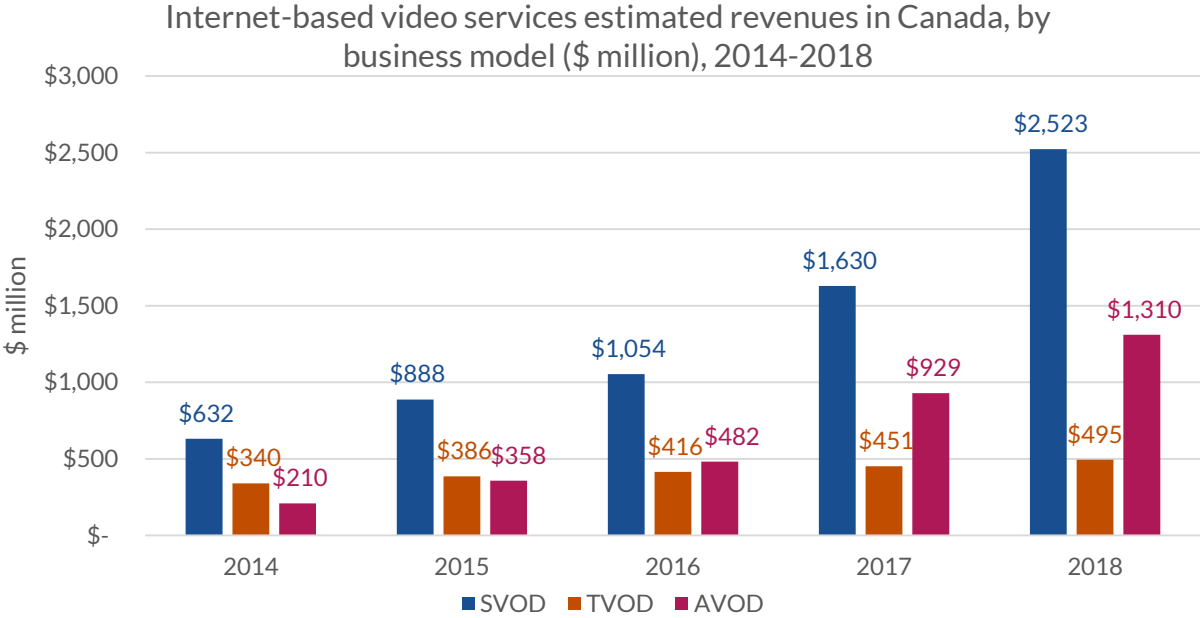
Source: Revenue estimates from Ovum

All data pertaining to Internet-based video services were acquired from a third party and should be regarded as estimates.

While the traditional television sector saw its revenues decline on average by 1.8% per year from 2014 to 2018, estimated revenues of Internet-based video services in Canada grew at an average rate of 38.3% per year during the same period.

SVOD services led Internet-based video services in terms of total revenues and growth. In 2018, SVOD services garnered 58% of the total estimated Internet-based revenues, totalling \$2.5 billion, and grew on average by 41.4% per year from 2014 to 2018. AVOD and TVOD services came in second and third place, respectively, in terms of total estimated revenues and growth.

Figure 6.20 Internet-based video services estimated revenues in Canada, by business model (\$ million), 2014-2018



Source: Revenue estimates from Ovum

Note: Revenues for 2014 AVOD do not include "out of stream revenues," which are present in subsequent years' revenues.

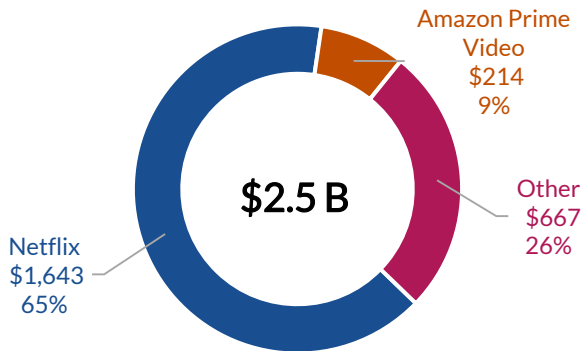
Similar to the traditional broadcasting system, the Internet-based video services are led by a few services generating the majority of the revenues. In 2018, the top three services, Netflix, Facebook and iTunes, generated an estimated \$2.3 billion in revenues or 54% of the total revenues of Internet-based video services. Interestingly, they each represent a different type of service.

In 2018, Netflix represented the largest portion (65%) of SVOD revenues, followed by Amazon Prime Video (8%), while iTunes represented 67% of the TVOD revenues and Facebook was estimated to garner 23% of the AVOD revenues.

Figure 6.21 Estimated revenues in Canada of SVOD services (\$ million), 2018

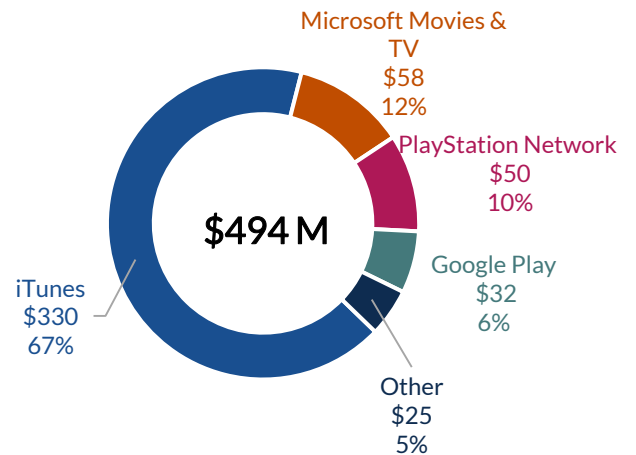
Figure 6.22 Estimated revenues in Canada of TVOD services (\$ million), 2018

Estimated revenues in Canada of SVOD services (\$ million), 2018



Source: Revenue estimates from Ovum

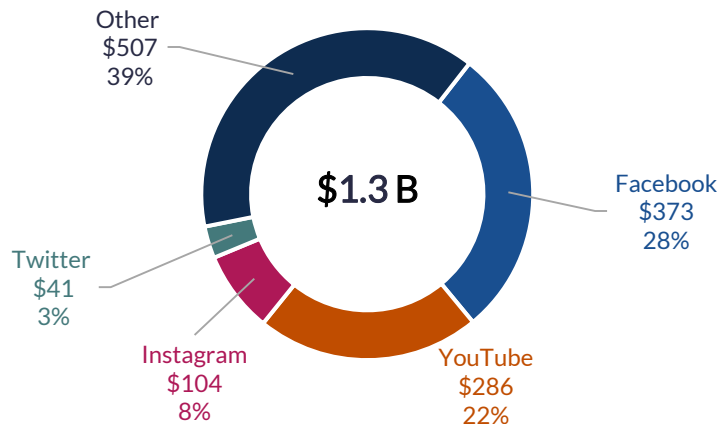
Estimated revenues in Canada of TVOD services (\$ million), 2018



Source: Revenue estimates from Ovum

Figure 6.23 Estimated revenues in Canada of AVOD services (\$ million), 2018

Estimated revenues in Canada of AVOD services (\$ million), 2018

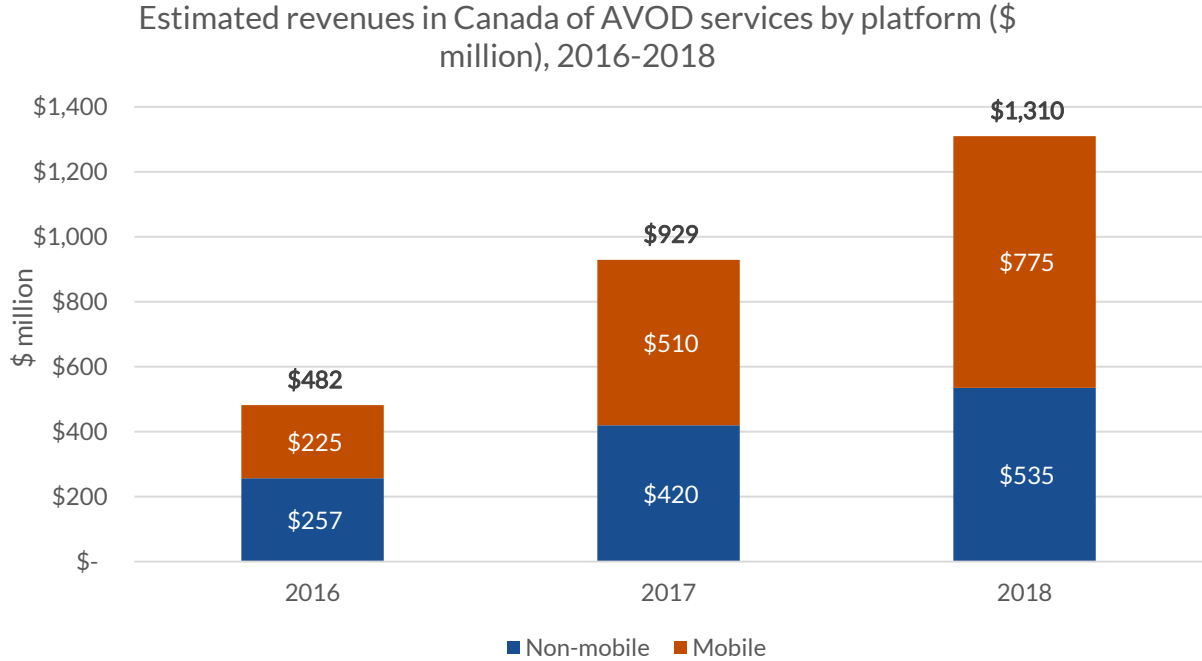


Source: Revenue estimates from Ovum

Mobile platforms are generating an increasing portion of revenues for AVOD services. As mobile usage grows, so do the AVOD revenues generated from mobile platforms. According to estimates, AVOD services generated 59% of their revenues from mobile platforms in 2018, up from 47% in 2016.

Laptop and desktop video advertising revenues (\$377 million) represented 71% of non-mobile platform revenues, while connected TV advertisement revenues were estimated at 158 million, 29% of non-mobile revenues.

Figure 6.24 Estimated revenues in Canada of AVOD services by platform (\$ million), 2016-2018



Source: Revenue estimates from Ovum

v. Availability of television and video services

The following is a list of television and video services available to Canadians. The list includes Canadian conventional, discretionary and other services as well as non-Canadian services authorized for distribution in the country.

In 2018, a total of 767 services were authorized to broadcast in Canada, an increase of 17 services compared to 2017, mainly due to the availability of new non-Canadian services. Discretionary and on-demand services accounted for 39% of television services, while conventional and other services represented 19%.

Table 6.2 Type and number of television and video services authorized to broadcast in Canada, by language of broadcast, 2017 and 2018

Category	Subcategory	French-language		English-language		Third-language		All languages	
		2017	2018	2017	2018	2017	2018	2017	2018
Canadian conventional television stations	CBC/SRC (owned and operated)	13	13	14	14	0	0	27	27
	Private commercial	20	20	67	68	6	6	93	94
	Religious included in private commercial	0	0	5	6	0	0	5	6
	Other religious	0	0	2	1	0	0	2	1
	Educational	3	3	4	3	0	0	7	6
Canadian discretionary services	Discretionary services	31	33	131	127	110	110	272	270
	PPV services (Direct-to-home and terrestrial)	0	0	7	7	0	0	7	7
	VOD services	1	1	14	14	0	0	15	15
Other Canadian services	Community services	4	3	12	12	0	0	16	15
	House of Commons (CPAC)	1	1	1	1	0	0	2	2
Non-Canadian services	Authorized for distribution in Canada	30	32	111	121	162	172	303	325
Total	Total	103	106	363	368	278	288	744	762

Source: CRTC internal database

This table shows the type and number of television services that are authorized to broadcast in Canada. Types include conventional television services; various discretionary and on-demand services (i.e., discretionary, pay-per-view and video-on-demand); community services and the House of Commons (CPAC) service; and non-Canadian programming services authorized for distribution.

Radiocommunication distribution undertakings (RDUs), rebroadcasters, exempt television services, specialty services for which the broadcast authority has expired and some network licences are not included.

Private commercial does not include private commercial religious stations. Conventional community and other Canadian community services have been broken down. Video-on-demand services include services that have been approved but are not necessarily in operation. Carriage of authorized non-Canadian services is at the discretion of the BDU. Appendix 2 to Broadcasting Regulatory Policy [CRTC 2019-2](#) sets out a complete list of non-Canadian programming services approved as of 20 December 2018. English-language services include those considered bilingual (English/French and English/Indigenous languages). Other Canadian services exclude community channels reported by BDU licensees.

Number of Canadian public, community and educational services and private conventional television stations authorized to broadcast, by province and language of broadcast, 2018

Table 6.3 Number of Canadian public, community and educational services and private conventional television stations authorized to broadcast, by province and language of broadcast, 2018

Province/territory	French-language		English-language		Third-language		Total	
	Public, community and educational	Private conv.	Public, community and educational	Private conv.	Public, community and educational	Private conv.	Public, community and educational	Private conv.
British Columbia	1	0	7	11	0	1	8	12
Alberta	1	0	3	15	0	2	4	17
Saskatchewan	1	0	2	6	0	0	3	6
Manitoba	1	0	3	4	0	0	4	4
Ontario	3	0	5	21	0	2	8	23
Quebec	11	20	1	3	0	1	12	24
New Brunswick	1	0	2	3	0	0	3	3
Nova Scotia	N/A	0	3	4	0	0	3	4
Prince Edward Island	N/A	0	1	0	0	0	1	0
Newfoundland and Labrador	N/A	0	1	1	0	0	1	1
The North	N/A	0	2	0	0	0	2	0
Canada	19	20	30	68	0	6	49	94

Source: CRTC internal database

Nationally, Canadians have access to 94 private conventional television stations and 49 public, community and educational television services. Quebec leads all provinces in regard to public, community and educational stations (12). Ontario and Quebec lead in regard to private conventional television stations (23 and 24, respectively).

Public, community and educational television services include over-the-air CBC/SRC, non-commercial religious, educational, and community television services.

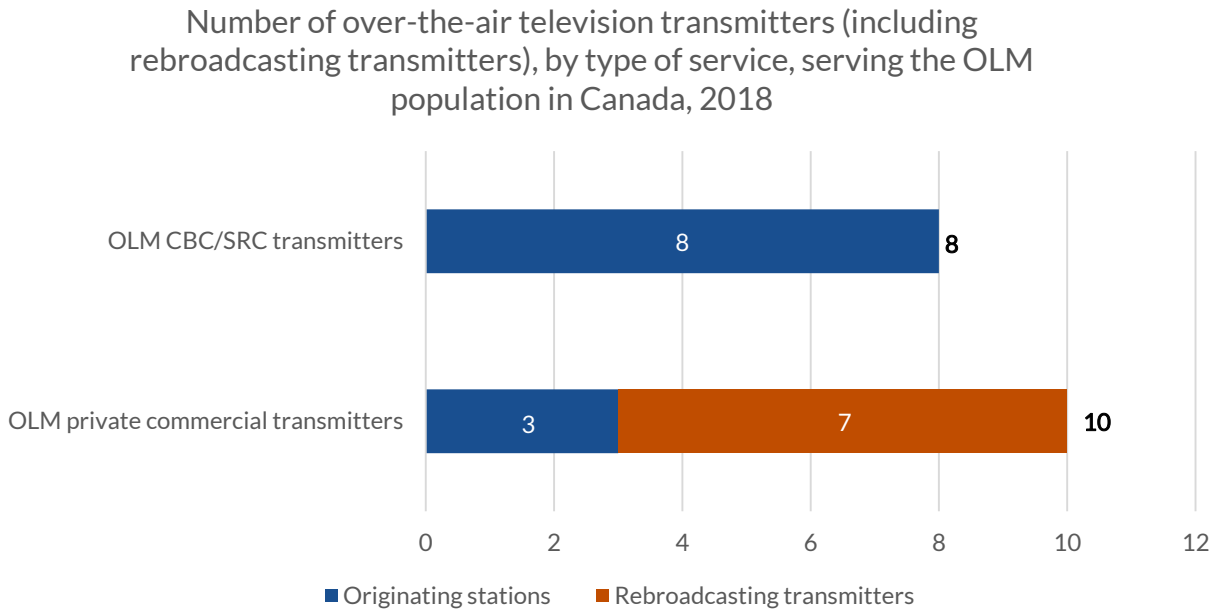
Over-the-air television stations serving the OLM population in Canada

Canadians who are part of the official language minority (OLM) population³ can be found in all ten provinces and in the main urban centres of the northern territories. Over 2.1 million Canadians are considered to be part of this population group, of which over half (52%) is located in Quebec. While another 26% of OLM Canadians can be found in Ontario, the greatest concentration of the OLM population resides in New Brunswick, with over 31% of that province’s population considered a part of the OLM population.

Of the 143 over-the-air originating services operating in Canada, 11 are licensed to operate in French in provinces/territories other than Quebec or in English in Quebec. When factoring rebroadcasting transmitters, the number of available transmitters increases to 375 and the transmitters serving the OLM population in Canada in their first official language spoken at home (hereafter, serving the OLM population) increases to 18.

CBC/SRC operates 8 originating stations, or 44% of all television stations and rebroadcasting transmitters serving the OLM population. CBC/SRC is the only broadcaster that operates an over-the-air television broadcasting source serving the OLM population in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. While CBC/SRC and private commercial services both serve the OLM population in the provinces of Quebec and New Brunswick, the remaining Atlantic Provinces do not have a source for over-the-air television that serves their OLM population.

Figure 6.25 Number of over-the-air television transmitters (originating stations and rebroadcasting transmitters), by type of service, serving the OLM population in Canada, 2018



Source: CRTC Internal database

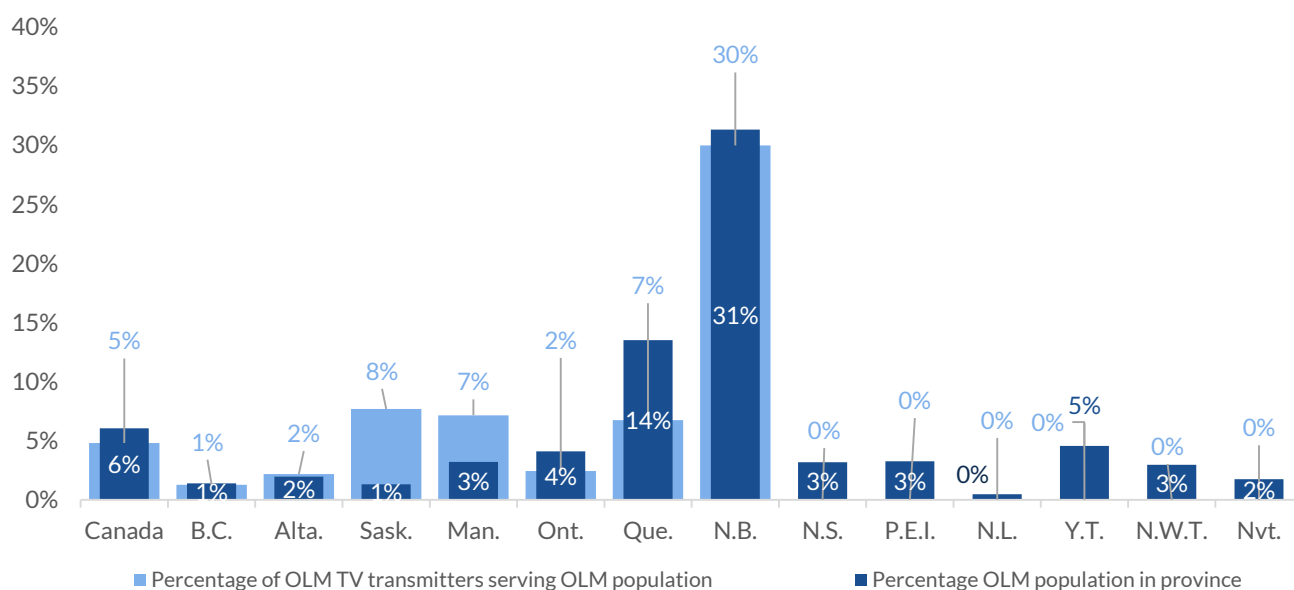
³ The OLM population of Quebec includes all individuals with English as the first official language spoken and half of those with both French and English as the first official language spoken. The OLM population of the country overall and of every province and territory other than Quebec includes individuals with French as the first official language spoken and half of those with both French and English as the first official language spoken.

Private commercial stations serving the OLM population (10 services) are found exclusively in Quebec (5) and New Brunswick (5). All of the transmitters operating in Quebec are based in the urban centres of Montréal, Québec and Sherbrooke, whereas those operating in New Brunswick are found in the northwestern part of the province (Edmundston, Saint-Quentin, Kedgwick), with the exception of the transmitter for Tracadie, located in the northeastern part of the province.

Although 3% of the population of the Northern Territories are considered to be part of the OLM population, there were no over-the-air French-language television services at the time of the compilation of this report.

Figure 6.26 Television transmitters serving the OLM population (stations and rebroadcasting transmitters) per province as a percentage of all TV transmitters, and percentage of OLM population as a percentage of total population, 2018

Television transmitters serving the OLM population (stations and rebroadcasting transmitters) per province as a percentage of all TV transmitters, and percentage of OLM population as a percentage of total population, 2018



Source: CRTC Internal database and Statistics Canada

Figure 6.25 illustrates the presence of television transmitters serving the OLM population as a percentage of the total number of available television transmitters in each province and territory, along with the OLM population in each province and territory as a percentage of the total population, in 2018.

Across Canada, 6% of the population was considered to be part of the OLM population, whereas 5% of the country's television stations and rebroadcasting transmitters served the OLM population. This does not imply that 5/6 of the OLM population has access to a television service in its first official language given that members of the population could reside outside the television service coverage areas.

For example, the province of Quebec has a disproportionately higher ratio of OLM population compared to the percentage of transmitters serving the OLM population. In New-Brunswick, the percentage of OLM population is similar to the percentage of television stations serving the OLM population. In the Territories and in the Atlantic Provinces, OLM populations are not served by over-the-air television

transmitters. The Western Provinces' over-the-air OLM television services are offered by a single broadcaster: the CBC/SRC.

The aforementioned services are available to Canadians via traditional over-the-air television broadcasting transmitters. Different types of television and video services, other than those mentioned, are also available to Canadians, notwithstanding their geographic location. These include services offered by cable, IPTV and DTH providers, network television, and Internet-based video services. Further, exempt services may offer services to the OLM population, possibly in their language of choice.

vi. Methodology

CRTC data collection

The CRTC collects its statistical and financial data from the annual returns provided by conventional television stations, discretionary services and on-demand services for the broadcast year, which ended 31 August 2018.

CBC/SRC revenues include parliamentary appropriations for conventional television.

Annual returns for the broadcast year that ended 31 August 2018 were required to be filed with the Commission by 30 November 2018. Data received subsequent to the compilation date is not reflected in this publication. The data reported for previous years has been updated to reflect any additional or adjusted information received by the Commission after the 31 August date for previous years' publications.

Pursuant to Broadcasting Regulatory Policy CRTC 2015-86, the term “discretionary service” now encompasses all currently licensed pay, specialty and discretionary services, while the term “on-demand service” now encompasses all licensed pay-per-view and video-on-demand services.

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Anglophones and 4,000 Francophones). Of those 8,000 respondents, 2,976 have also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Anglophones and 2,000 Francophones) is surveyed in the spring.

www.mtm-otm.ca

The CMR uses data collected from the fall survey unless stated otherwise.

Ovum

Internet-based video services

Internet-based video services are defined as a media service offered over the internet to Canadians by Canadian and non-Canadian providers, directly to viewers, which provides access to programming that is independent of a facility or network dedicated to its delivery. In this report, we present revenue estimates provided by Ovum, segmented in three types of services, SVOD, TVOD and AVOD services.

SVOD services

Subscription-based services revenues are estimated based on publicly available data on the number of subscribers and services rates/pricing such as company annual reports and news articles. These are then used to estimate an average monthly subscription revenue per subscriber considering all available service plans from a given provider and distributed among the estimated number of subscribers. The estimated average monthly subscription revenue per subscriber is then multiplied by the subscriber estimate.

TVOD services

Transactional services (TVOD) revenues are estimated based on publicly available data such as company annual reports in addition to the country's other media revenues such as home video and pay TV revenues. These estimates are further refined using data about online video subscriptions in the market as a benchmark.

In some cases where information is unavailable, Ovum based its revenue estimations on the service provider's market shares and revenues in a country similar to the one subject to analysis.

AVOD services

Advertising-based services' revenues are estimated using publicly available and, where necessary, quantitatively modelled data (informed by analyst knowledge and assumptions) about advertising load, pricing and market share. These are then applied to video traffic and digital advertising forecast models to derive revenue estimates. These estimates are further refined based on each entity's performance in other video segments.

AVOD revenue is defined here as revenue generated through the sale of in-stream video advertising (i.e., pre-roll, mid-roll, post-roll and in-player overlays) and out-of-stream video advertising (i.e., video ads that play independently of video content, such as in-read and in-feed social video ad formats), delivered over the internet. This revenue is sourced from advertiser spending.

Numeris

Audience measurement data is important not only to industry stakeholders, who use the data to help sell air time to advertisers, but also to the CRTC, which uses the data to assess the effectiveness of its policies by understanding the reach of programming across the country and across various demographics.

Unless otherwise specified, audience measurement data sourced from Numeris was collected by portable people meter (PPM) devices.

The Numeris data presented by linguistic market divides Canada into two sections: (1) all of Canada, excluding Francophone respondents in Quebec; and (2) exclusively Francophone respondents in Quebec.

The television seasons used by Numeris were the following:

- 26 August 2013 to 31 August 2014, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 1 September 2014 to 30 August 2015, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 31 August 2015 to 28 August 2016, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 29 August 2016 to 27 August 2017, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 28 August 2017 to 26 August 2018, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.

Table 6.4 Total viewing hours (millions) by market

	Canada (excluding the Quebec Francophone market)	Quebec Francophone market
2015-2016 Conventional	216	111
2015-2016 Discretionary	363.1	109
2015-2016 Total	579.1	219.9
2016-2017 Conventional	198	106.5
2016-2017 Discretionary	336.7	105.3
2016-2017 Total	534.7	211.9
2017-2018 Conventional	192.7	101.7
2017-2018 Discretionary	323.4	98.8
2017-2018 Total	516.1	200.5

Source: Numeris

This table presents total viewing hours per market. Total viewing was based on viewing for all Canadian conventional stations (including ethnic stations) and Canadian discretionary services, excluding on-demand (pay-per-view and video-on-demand services).

Official language minority population

For the purposes of this report, the official language population (OLM) population is data used and defined from the 2016 Census as: “The official language minority population of Quebec includes all individuals with English as a first official language spoken and half of those with both English and French. The official language minority population of the country overall and of every province and territory other than Quebec includes individuals with French as a first official language spoken and half of those with both English and French.”

Transmitters serving an OLM population

A television transmitter serving an OLM population is defined as an over-the-air television transmitter (stations and rebroadcasting transmitters), licensed to operate in French in provinces/territories other than Quebec or in English in Quebec.

Definitions

Advertising video-on-demand (AVOD) service refers to an Internet-based service model in which a client typically has free access to content but is exposed to advertisements. YouTube is an example of this type of service. All data pertaining to Internet-based video services were acquired from a third party and should be regarded as estimates.

Canadian programming expenditures refers to expenditures used to create Canadian programming and to ensure that a diversity of voices and interests are represented in our national broadcasting system.

The policy objectives of the *Broadcasting Act* include encouraging the development of Canadian expression and ensuring that each element of the Canadian broadcasting system contributes to the creation and presentation of Canadian programming, in an appropriate manner. As such, Canadian broadcasters are required to allocate portions of their annual broadcasting revenues to expenditures on Canadian programming.

The term **discretionary services** encompasses all currently licensed pay, specialty and discretionary services, pursuant to Broadcasting Regulatory Policy CRTC 2015-86.

The term **on-demand services** encompasses all licensed pay-per-view and video-on-demand services, pursuant to Broadcasting Regulatory Policy CRTC 2015-86.

Program of national interest (PNI) are programs including drama and comedy, long-form documentary, and specific Canadian award shows that celebrate Canadian creative talent. For French-language broadcasters, PNI also include music video and variety programs:

- Long-form documentary (category 2b);
- Drama and comedy (category 7);
- French-language music, dance and variety programming (categories 8 and 9); and
- English-language award shows (subset of category 11).

Subscription-based video-on-demand (SVOD) service refers to an Internet-based service model in which a client pays a subscription fee to gain access to a library of content. This category includes both the services where the content of the library is aired according to a linear schedule (e.g., Sportsnet Now) and those where a user chooses amid a catalogue of content that is available regardless of viewing time (e.g., Club Illico, Crave and Netflix). All data pertaining to Internet-based video services were acquired from a third party and should be regarded as estimates.

Transactional video-on-demand (TVOD) service refers to an Internet-based service model in which a client pays only for the specific content watched. The client usually does not pay to access the service itself. Examples of this type of service are iTunes, Microsoft Movies & TV and the PlayStation Network. All data pertaining to Internet-based video services were acquired from a third party and should be regarded as estimates.



Communications Monitoring Report **2019**

Broadcasting
Distribution Sector



Broadcasting Distribution Sector

Broadcasting distribution undertakings (BDUs) provide subscription television services to Canadians. They distribute conventional television, discretionary and on-demand services. The broadcasting distribution section of this report focuses on three types of BDUs: cable, Internet Protocol Television (IPTV) and national direct-to-home (DTH) satellite service providers. IPTV refers to services such as Bell Fibe and Telus Optik TV, but excludes Internet-based services such as Netflix, Crave and Club Illico.

Infographic 7.1 Highlights about the Canadian BDU sector

	2018	2017-2018 Growth
BDU subscribers	10.8 M	↓ 0.9%
BDU revenues	\$8.4 B	↓ 2.0%
BDU EBITDA margin	15.3%	n/a
Total BDU contribution to Canadian programming	\$422 M	1.2%
Total affiliation payments reported by BDUs	\$3.6 B	1.2%
Total affiliation payments to Canadian services	\$3.1 B	1.0%
Percentage of households subscribing to BDUs	72.5%	Compared to 73.7% in 2017

Source: CRTC data collection

Affiliation payments refer to the remuneration that providers of discretionary and on-demand programming services (both Canadian and non-Canadian) receive from the BDUs distributing their services.

In 2018, BDU revenues¹ were \$8.4 billion and represented almost half of total broadcasting revenues. While 2018 BDU revenues were down 2.0% compared to 2017, BDUs reported a combined earnings before interest, taxes and depreciation and amortization (EBITDA) margin of 15.3% in 2018. They also contributed over \$422 million to the creation and production of the Canadian programming, in addition to making over \$3.1 billion in affiliation payments to Canadian television services as a result of delivering programming to almost 11 million subscribers, or 72.5% of Canadian households.

¹ BDU revenues refer to revenues from basic and non-basic services and exclude Internet-based service revenues, such as Netflix and telecommunications service revenues such as Internet access or telephony, but include IPTV services such as Bell Fibe and Telus Optik TV.

i. Revenues and financial performance

Infographic 7.2 Revenues and financial performance overview

2018	Revenues	2017-2018 revenue growth	Subscribers	2017-2018 subscriber growth	Average revenues by subscriber	EBITDA margin
Cable	\$4,478 M	↓ 3.4%	6.1 M	↓ 2.8%	\$60.60 /month	15.0%
IPTV	\$2,075 M	4.5%	2.8 M	7.8%	\$63.91 /month	5.0%
DTH	\$1,860 M	↓ 5.0%	1.9 M	↓ 5.8%	\$77.97 /month	27.4%
TOTAL	\$8,414 M	↓ 2.0%	10.8 M	↓ 0.9%	\$64.60 /month	15.3%

Source: CRTC data collection

National direct-to-home (DTH) refers to satellite service providers, while IPTV refers to Internet protocol television, such as Bell Fibe and Telus Optik TV, but excludes Internet-based services, such as Netflix and telecommunications service revenues such as Internet access or telephony.

Monthly revenues per subscriber (ARPU) are calculated by dividing BDUs' annual revenues from basic and non-basic services by the average number of subscriptions in the year. The result is then divided by 12 to obtain the monthly amount. The average number of subscribers is determined by dividing by two the sum of the number of subscribers at the beginning and at the end of the year.

The EBITDA margin is a metric used to measure financial performance; it represents earnings before interest, taxes, depreciation and amortization and is expressed as a percentage of total revenues.

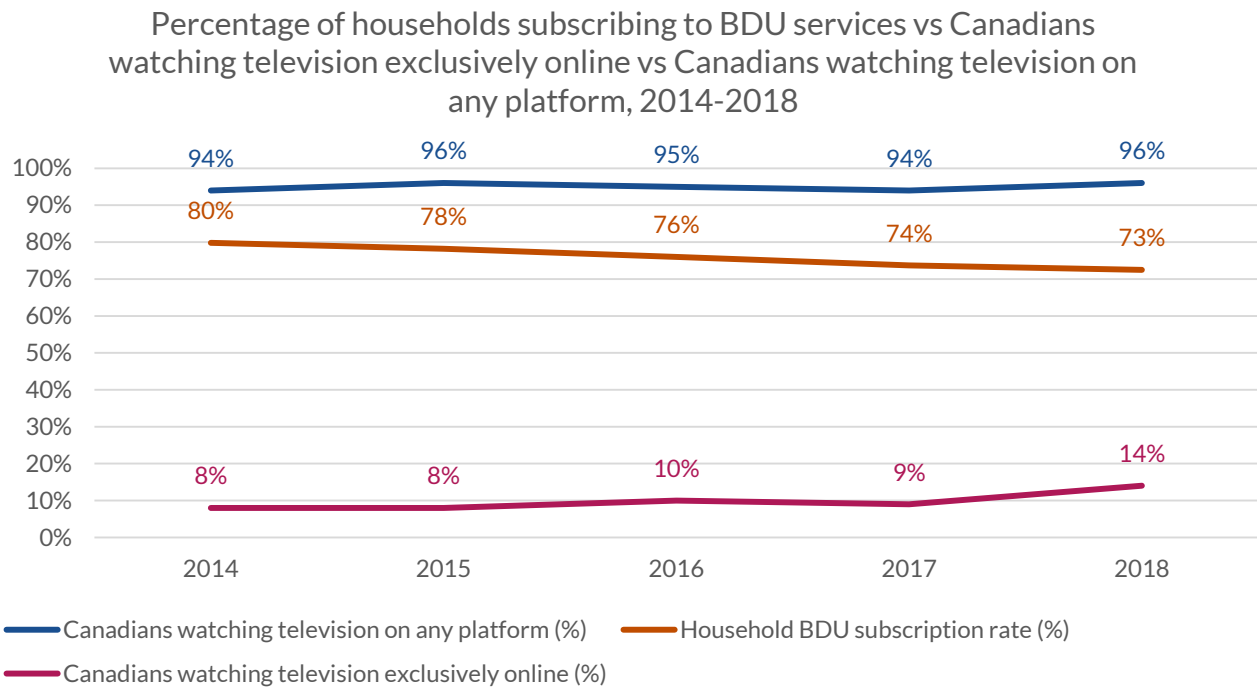
The above-noted \$8,414 million of revenues of Canadian cable, IPTV and satellite companies, in 2018, represented a 2.0% decrease from the previous year. This marked a fourth consecutive year of declining revenues. BDU revenues displayed a decline in its average five-year CAGR: revenues declined 1.5% per year on average from 2014 to 2018.

Revenues of IPTV services continued their upward trend, totalling \$2,075 million in 2018. They surpassed DTH revenues for the second consecutive year, and for a second time reported a positive EBITDA margin (5.0%). DTH services, however, remain the most profitable of the three types of services, reporting a 27.4% EBITDA margin. DTH services also generated a higher average monthly revenue per subscriber (\$77.97/month) than the other service, surpassing cable by IPTV services by over \$14/month and \$17/month.

Service penetration

In 2018, 96% of Canadians viewed television, on any given platform. Across Canada, 72.5% of Canadian households subscribed to services provided by cable, IPTV, and DTH. While BDU penetration decreased from 79.8% to 72.5% of Canadian households between 2014 and 2018, the percentage of Canadians who reported watching television exclusively online increased from 8% to 14% over the same period.

Figure 7.1 Percentage of households subscribing to BDU services vs Canadians watching television exclusively online vs Canadians watching television on any platform, 2014-2018



Source: CRTC data collection and Media Technology Monitor, 2014-2018 (Respondents: Canadians 18+), Statistics Canada census data

“Watching television exclusively online” refers to those who do not watch live TV at home and choose to watch television exclusively online via various streaming websites and services. A small percentage of these might still have a traditional paid TV subscription or receive over-the-air broadcast signals in their household, yet they do not use them, opting instead for online services for their television viewing.

“Watching television on any platform” refers to any form of television viewership, regardless of the chosen television medium. This includes, but is not restricted to, BDU-subscribed television, private conventional television, and Internet-based television services. The content can be viewed on any platform such as tablets, cellphones, Internet-connected television, or any other device.

To calculate the household subscription rates, the number of BDU subscriptions at the end of the annual period is divided by the total number of households in Canada.

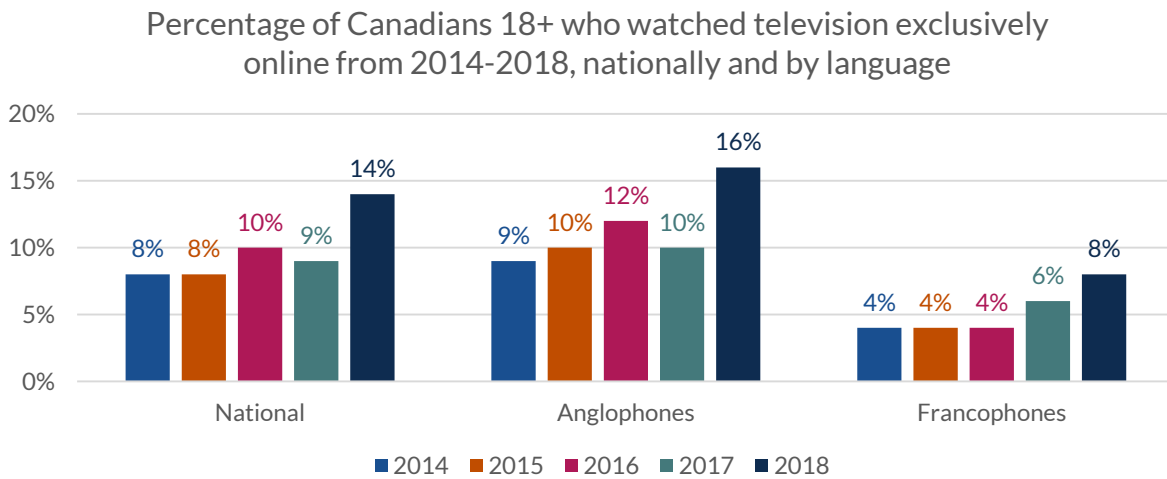
According to Media Technology Monitor (MTM), in 2018, 96% of Canadians claimed to have watched some form of television (e.g., traditional cable, DTH, online, other). Of those Canadians, 37% claim to have a subscription to a cable service, 16% claim to have a subscription to a DTH service, and 20% claim to have a subscription to a fiber optic service.

Although 64% of Canadians watched some television content online, only 14% of Canadians watched television exclusively online. Most Canadians watching television exclusively online were Anglophones and tended to be in the 18-34 age group.

In 2018, 16% of Anglophones and 8% of Francophones watched television content exclusively online. Younger Canadians were more likely to watch television exclusively online than older Canadians: 30% of Canadians in the 18-34 age group reported watching television exclusively online, while only 15% of the 35-49 age group, 6% the 50-65 age group and 2% of the 65+ age group reported doing so.

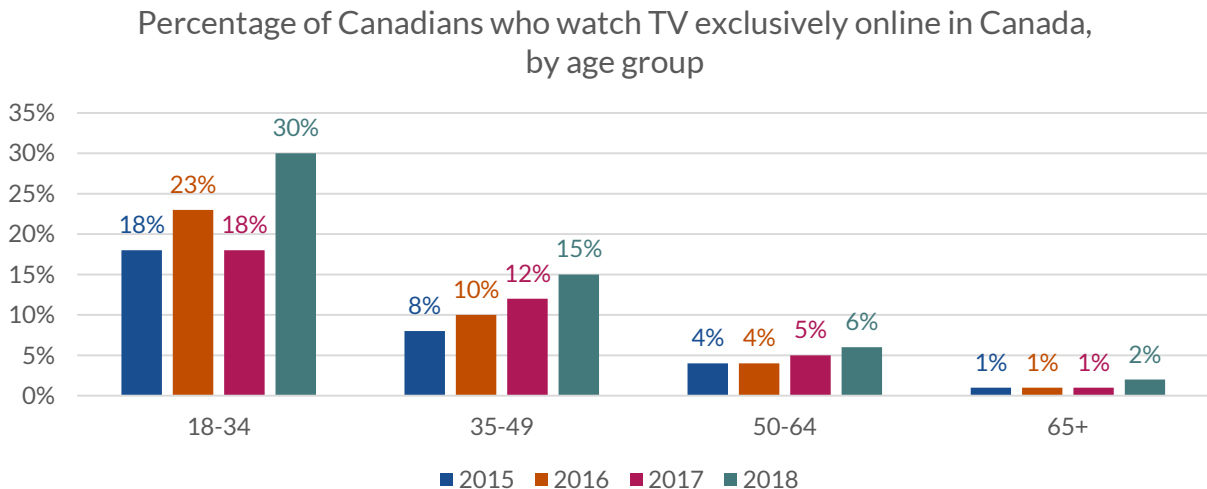
The significant increase from 2017 to 2018 of Canadians watching television exclusively online may be attributed, in part, to MTM changing their methodology: beginning fall 2018, MTM began using the 2016 Statistics Canada census.

Figure 7.2 Percentage of Canadians 18+ who watched television exclusively online from 2014-2018, nationally and by language



Source: Media Technology Monitor, 2014-2018 (Respondents: Canadians 18+)

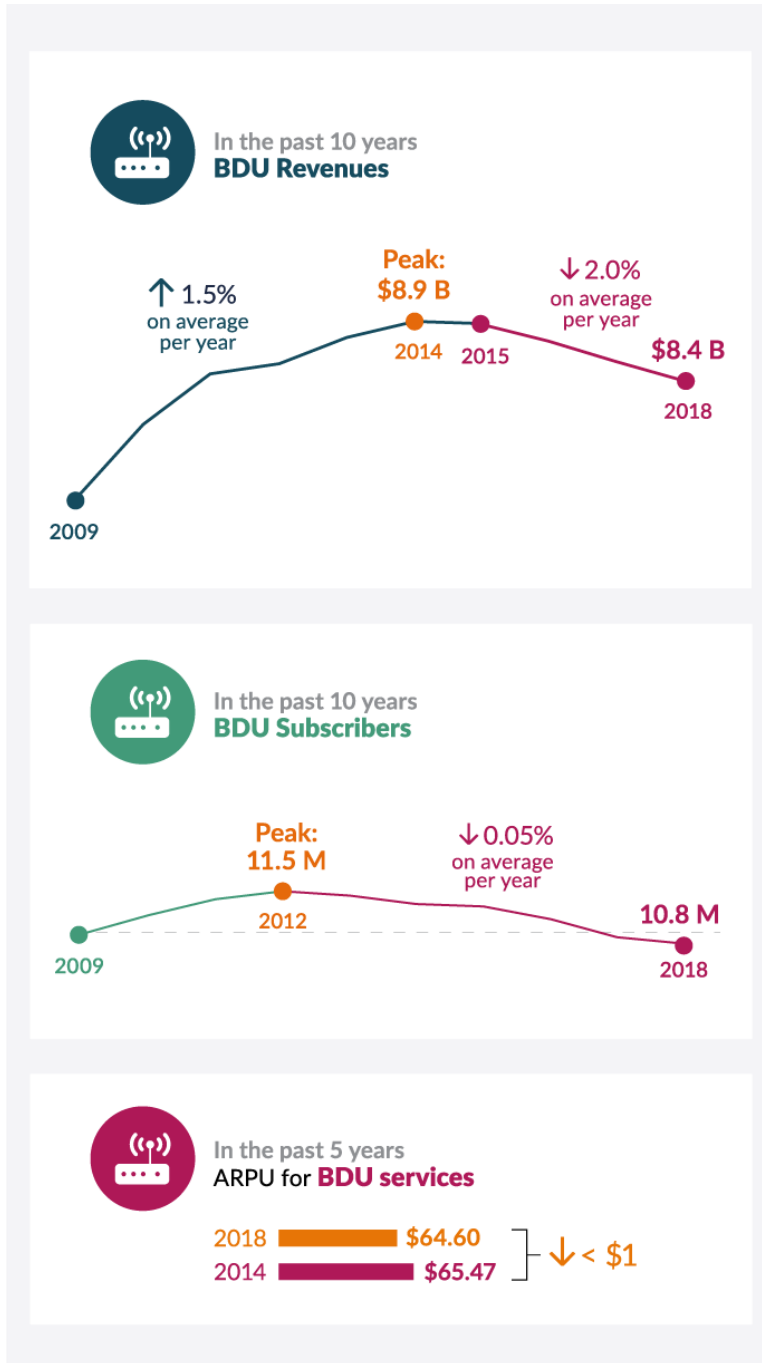
Figure 7.3 Percentage of Canadians 18+ who watched television exclusively online, by age group



Source: Media Technology Monitor, 2014-2018 (Respondents: Canadians 18+)

ii. BDUs over the past 10 years

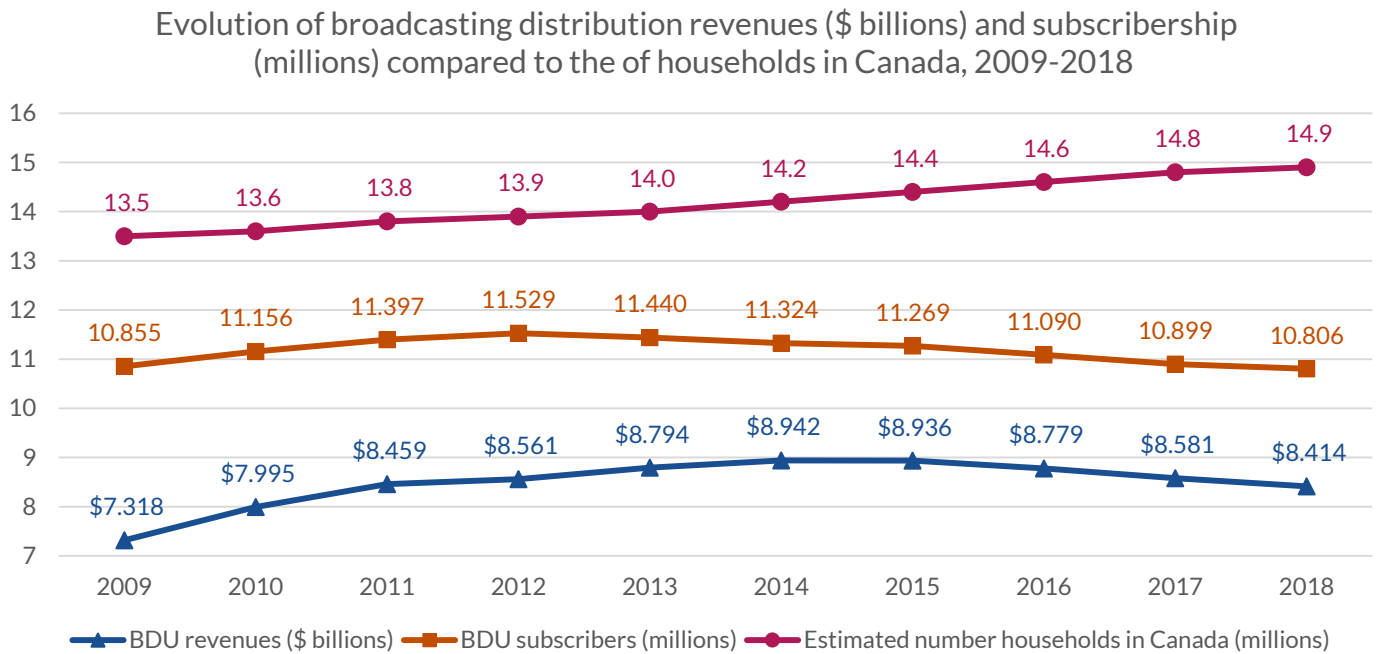
Infographic 7.3 A 10-year snapshot of the BDU sector



Source: CRTC data collection

A 10-year review of the evolution of the number of households in Canada, BDU revenues and BDU subscribership reveals that, although the number of households has increased constantly, the amount of revenues and subscribers have not matched this trend: subscribers to BDU services have been declining since 2013 and revenues have been declining since 2015.

Figure 7.4 Evolution of broadcasting distribution revenues (\$ billions) and subscribership (millions) compared to the of households in Canada, 2009-2018



Source: CRTC data collection, Statistics Canada census data.

Even though BDU revenues have declined since 2015, they have experienced a positive annual growth, averaging a 1.6% increase per year, over the past 10 years. BDU subscribership has been declining since 2013 (with a 0.05% yearly decline spanned over 10 years), and in 2018, total BDU subscribership was lower than in 2009.

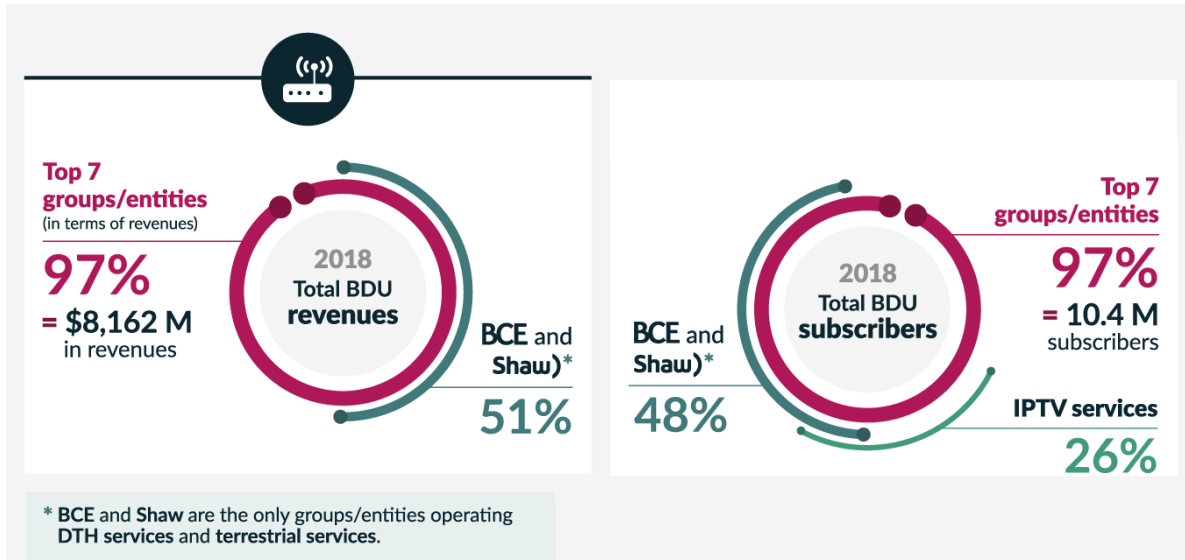
From 2009 to 2013, BDU revenues increased annually by an average of 4.7%, while subscribership increased annually by an average by 1.3%. However, over the following five years, revenues and subscribership declined by an average of 1.5% and 1.2% per year, respectively.

The ARPU for all services combined has slightly declined over the past 5 years, decreasing from \$65.47 in 2014 to \$64.60 in 2018. During this period, cable and IPTV ARPUs have declined (\$60.98 to \$60.60 for cable; \$67.24 to \$63.91 for IPTV), while average revenue per DTH client has increased (\$76.63 to \$77.97).

See CMR Open data for 10 year trends for BDU revenues and subscribership by technology as well as additional information. Furthermore, see CMR section [Communications services in Canadian households: Subscriptions and expenditures](#) for details on Canadian household communications expenditures.

iii. Industry characteristics

Infographic 7.4 Overview of industry characteristics



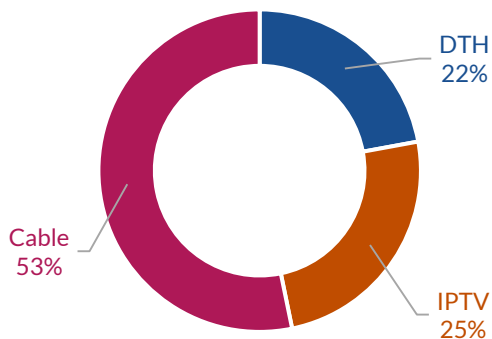
Source: CRTC data collection, Public disclosure of aggregate annual returns for large ownership groups

For the second time in 2018 (5.0%), IPTV services achieved a positive EBITDA. Although IPTV continued to grow in terms of subscribers and revenues, cable services continued to represent over half of the BDU market, generating 53% of the total BDU revenues and 56% of subscribers.

Figure 7.5 Revenues by type of distribution platform (%), 2018

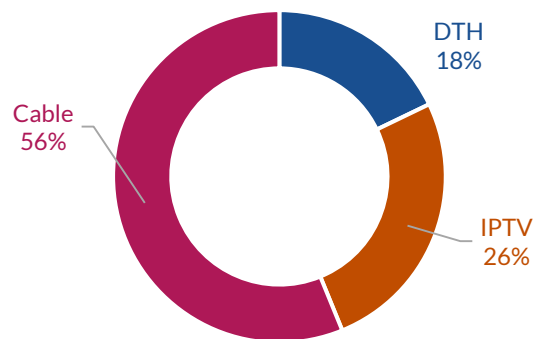
Figure 7.6 Subscribers by type of distribution platform (%), 2018

Revenues by type of distribution platform (%), 2018



Source: CRTC data collection

Subscribers by type of distribution platform (%), 2018

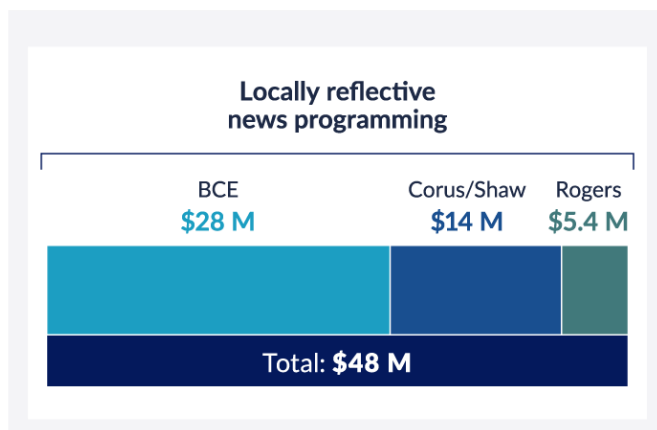


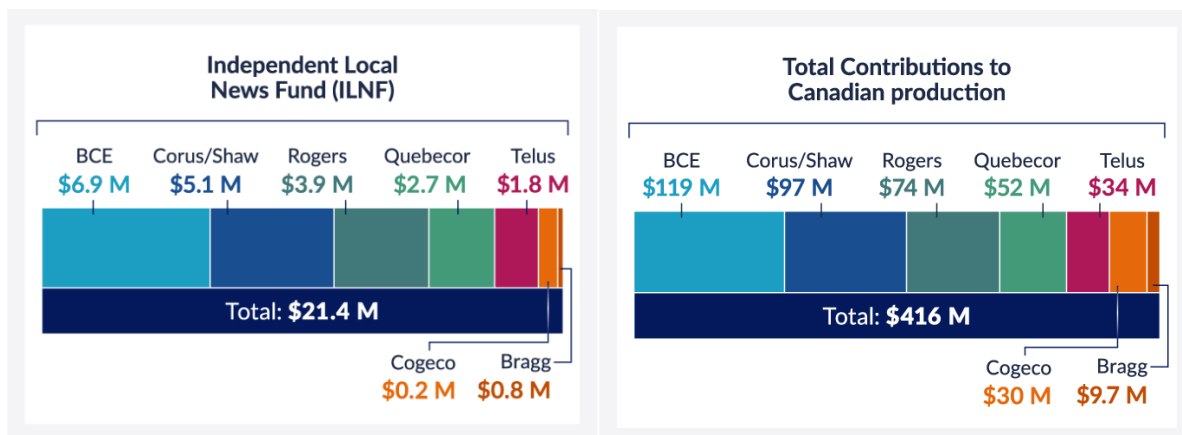
Source: CRTC data collection

Sector composition

As is the case for the overall broadcasting industry, the majority of the BDU sector's revenues are generated by a few large entities. In 2018, the top seven groups/entities reported 97% of total BDU revenues, and accounted for 97% of BDU subscribers.

Infographic 7.5 BDU services of large ownership groups





Source: Public disclosure of aggregate annual returns for large ownership groups

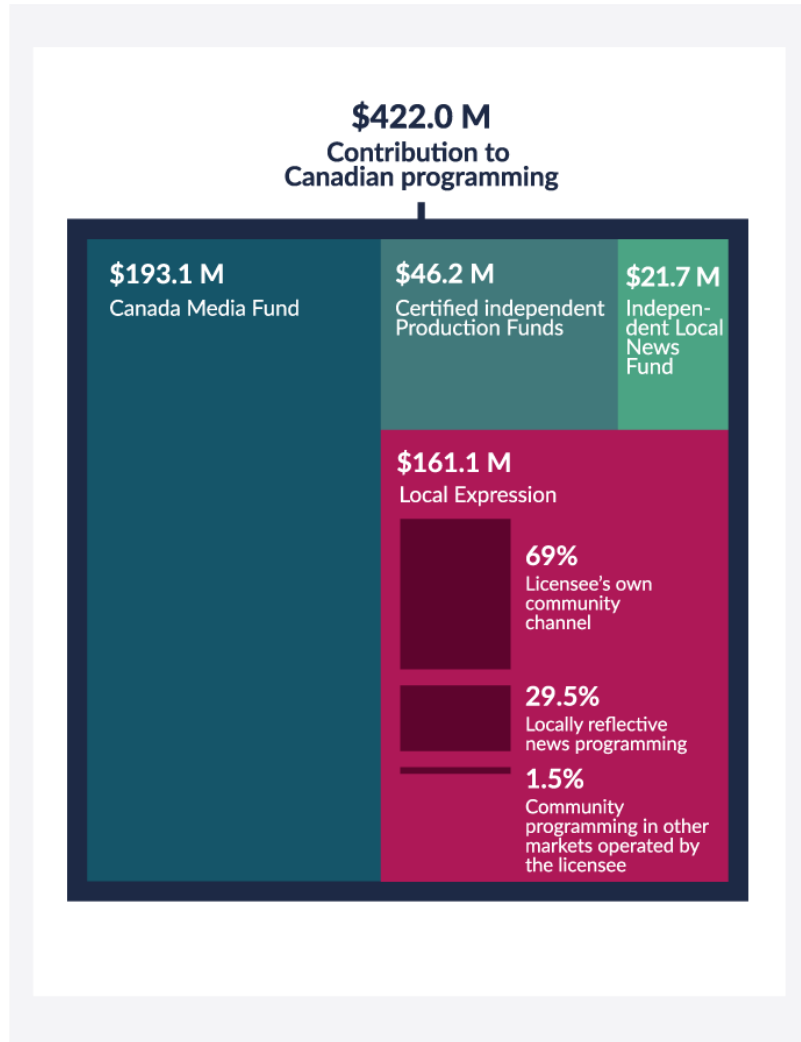
BCE, Corus/Shaw, and Rogers, the three ownership groups that generated the most revenues in 2018, chose to divert a portion of contributions from local expression to locally reflective news programming. These groups were the only BDUs that made contributions to locally reflective news programming for 2018.

All licensed BDUs contributed a percentage of their revenues to the Independent local news fund (ILNF) which has supported stations in the production of local news. In total, BDUs contributed \$21.7 million to the ILNF in 2018. The top three BDU ownership groups in terms of revenues contributed 73 % of this total.

All seven ownership groups (listed above) generated 97% of total BDU revenues. These groups combined contributed a slightly higher proportion 99% (\$416 million) of total contributions to Canadian productions.

iv. Contributions

Infographic 7.6 Total BDU contributions by recipient



Source: CRTC data collection

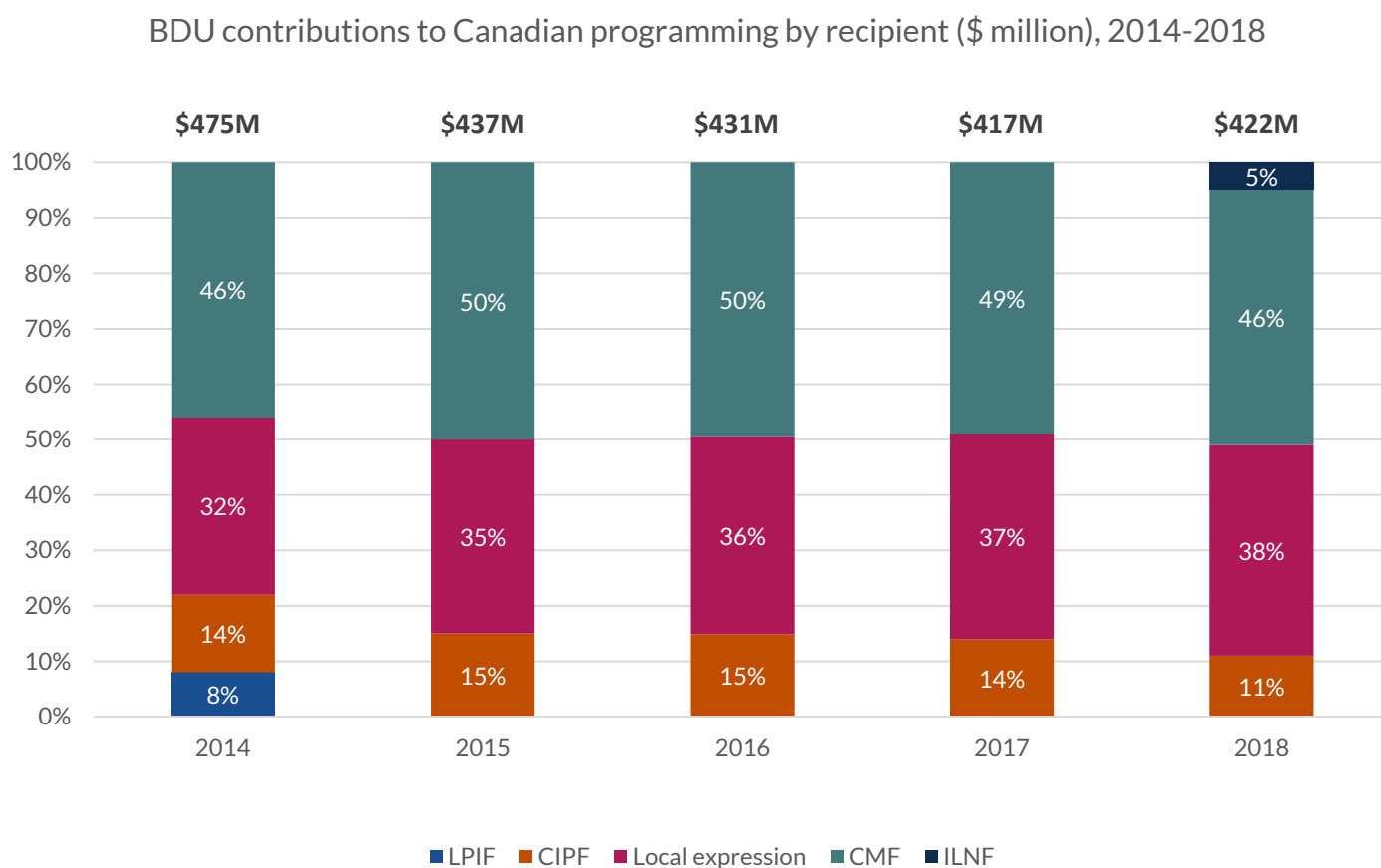
Cable, IPTV and satellite companies are required to contribute at least 5% of their gross annual revenues derived from broadcasting activities to the creation and production of Canadian programming. This may include contributions to Certified Independent Production Funds (CIPFs), the Canada Media Fund (CMF) and/or local expression. Cable, IPTV and satellite companies contributed \$422 million to the creation and production of Canadian programming in 2018, a 1.2% increase compared to 2017.

In addition to contributions to the funding of community channels, local expression funds can now benefit from BDU contributions aimed at locally reflective news programming on conventional television stations. In 2018, BDUs allocated a total of \$47.7 million of their contributions to local stations for the creation of locally reflective news programming. IPTV services accounted for 43% of these contributions and reported 25% of the total BDU revenues. Cable and DTH services accounted for 32% and 25%, respectively, of the contributions to locally reflective news programming in 2018.

In *Broadcasting Regulatory Policy 2016-224*, the Commission announced that the Small Market Local Production Fund would be replaced by the Independent Local News Fund (ILNF). This fund is devoted to supporting the production, by private, independent television stations, of news and information that reflects the local reality. BDUs are required to contribute a percentage of their gross annual revenues derived from broadcasting activities to this fund. Contributions to the ILNF reached \$21.7 million, in 2018.

In 2018, approximately 46% of BDU contributions to Canadian programming went to the CMF (\$193 million), followed by local expression (38% or \$161 million) and CIPFs (11% or \$46 million). The ILNF received \$22 million (5% of BDU contributions).

Figure 7.7 BDU contributions to Canadian programming by recipient (\$ millions), 2014-2018



Source: CRTC data collection

This figure shows the contributions made by BDUs to the new ILNF, the CMF, the LPIF and the CIPFs, as well as spending on local expression, during the 12-month period ending 31 August of each year. BDU contributions include contributions reported by cable BDUs and DTH satellite services. Note: the LPIF was discontinued on 1 September 2014.

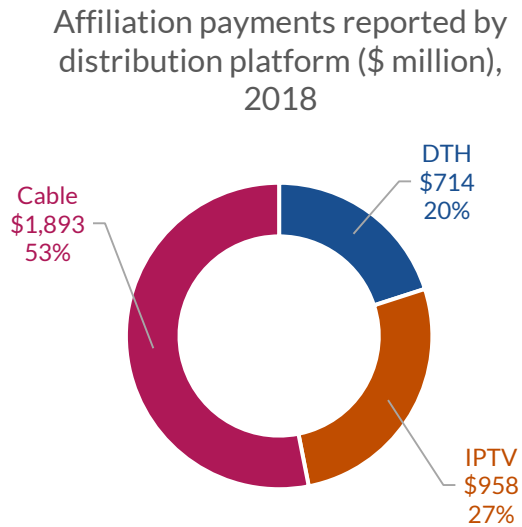
v. Affiliation payments

Providers of discretionary and on-demand programming services² (both Canadian and non-Canadian) receive remuneration from the BDUs distributing their services. This remuneration is referred to as an affiliation payment and is based on the number of BDU subscribers who receive the programming service.

Payments to Canadian affiliates increased by 1.8% on average per year from 2014 to 2018, whereas payments to non-Canadian affiliates increased by 2.5% on average per year over the same period. In 2018, affiliation payments were of the sum of \$3,565 million.

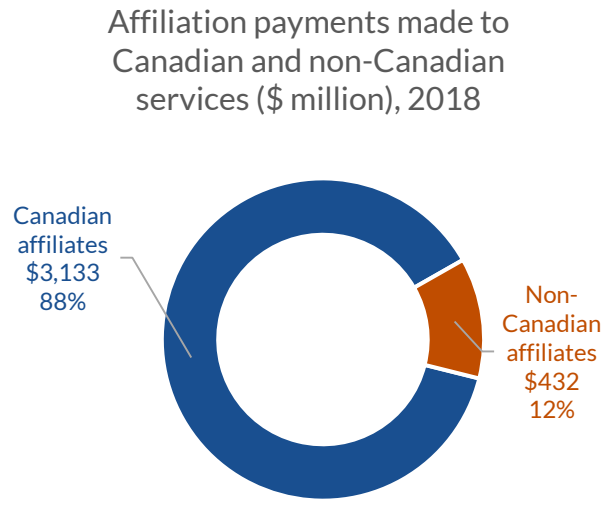
In line with revenues, cable services made the majority (53%) of the affiliation payments to discretionary and on-demand services in 2018, followed by IPTV and DTH services. Affiliation payments made to Canadian services exceeded \$3 billion, over seven times more than the amount (\$432 million) paid to non-Canadian services.

Figure 7.8 Affiliation payments reported by distribution platform (\$ million), 2018



Source: CRTC data collection

Figure 7.9 Affiliation payments made to Canadian and non-Canadian services (\$ million), 2018



Source: CRTC data collection

The data is based on the 12-month period ending 31 August 2018.

² CBC News Network and Sportsnet are examples of Canadian discretionary services. CNN and WWE Network are examples of non-Canadian discretionary services.

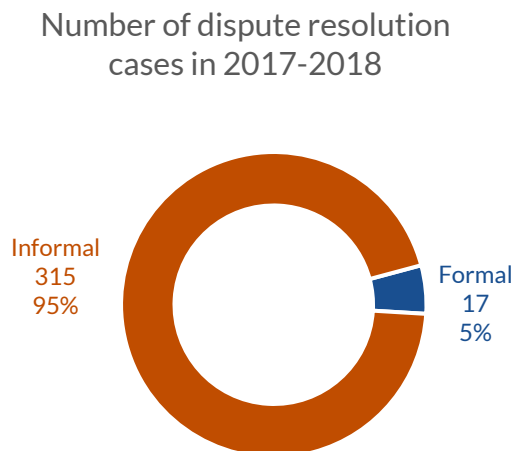
vi. Dispute resolution

Dispute resolution is designed to effectively assist parties in reaching mutually beneficial agreements and to resolve disputes in an increasingly competitive broadcasting industry. Until late May 2019, the practices and procedures used for resolving disputes that came under the Commission's regulatory purview were set out in *Practices and procedures for staff-assisted mediation, final offer arbitration and expedited hearings*, Broadcasting and Telecom Information Bulletin CRTC 2013-637. That information bulletin was subsequently replaced by *Practices and procedures for dispute resolution*, Broadcasting and Telecom Information Bulletin CRTC 2019-184.

Disputes are generally categorized as: (1) disputes between broadcasting distributors and programming services regarding the terms of distribution, (2) disputes between competing broadcasting distributors over access to buildings and the end-user and (3) disputes between programmers regarding programming rights and markets served. Most disputes that come before the Commission are of the first type.

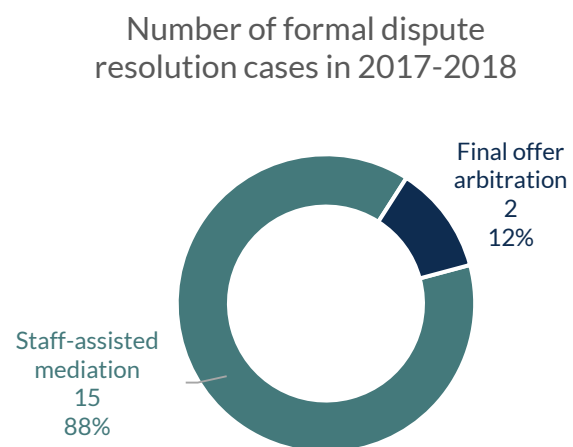
In 2018, a total of 332 dispute cases were brought before the Commission: 95% were informal disputes, while 5% were formal disputes. Among the formal disputes, only two went to final offer arbitration, with the others addressed through staff assisted mediation.

Figure 7.10 Number of dispute resolution cases in 2017-2018



Source: CRTC data collection

Figure 7.11 Number of formal dispute resolution cases in 2017-2018



Source: CRTC data collection

The formal dispute resolutions, consisting of staff assisted mediations and final offer arbitrations, were conducted over 35 days, during the 12 month period beginning April 1st, 2017.

vii. Methodology

CRTC data collection

The CRTC data collection sourced its statistical and financial data from the annual returns provided by broadcasting distribution undertakings (BDUs) for the broadcast year which ended 31 August 2018.

CBC/SRC revenues include parliamentary appropriations for conventional television.

Annual returns for the broadcast year which ended 31 August 2018 were required to be filed with the Commission by 30 November 2018. Data received subsequent to the compilation date is not reflected in this publication. The data reported for previous years has been updated to reflect any additional or adjusted information received by the Commission after the 31 August date for prior years' publications.

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Anglophones and 4,000 Francophones). Of those 8,000 respondents, 2,976 have also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Anglophones and 2,000 Francophones) is surveyed in the spring.

www.mtm-otm.ca

The CMR uses data collected from the fall survey unless stated otherwise.

“Watching television exclusively online” refers to those who do not watch live TV at home and choose to watch television exclusively online via various streaming websites and services. A small percentage of these might still have a traditional paid TV subscription or receive over-the-air broadcast signals in their household, yet they do not use them, opting instead for online services for their television viewing.

“Watching television on any platform” refers to any form of television viewership, regardless of the chosen television medium. This includes, but is not restricted to, BDU-subscribed television, private conventional television, and Internet-based television services. The content can be viewed on any platform such as tablets, cellphones, Internet-connected television, or any other device.

Dispute resolution

Disputes that involve one issue – or in exceptional cases, several closely related issues – and have the following characteristics will lend themselves to the Commission's dispute resolution processes:

- the dispute is bilateral or involves only a small number of parties;
- the parties have been unable to resolve the dispute by other methods;
- the dispute is relevant to the regulation and supervision of either the Canadian broadcasting or telecommunications system, primarily to matters of interpretation or application of an existing Commission decision, policy or regulation; and
- the resolution of the dispute does not require the establishment of a new policy or change to an existing policy.

The resolution of certain disputes or the breaking of an impasse may, in certain cases, require nothing more than assistance from Commission staff over a period of a few hours or days. In other situations, parties may not be able to make progress in their negotiations, and may require staff's opinion or other assistance. Where staff's opinion is requested and where staff determines that the request is appropriate, the Commission's objective is that, wherever possible, such an opinion be released within 60 days of the date of receipt of the request.

Generally, the more complex or technical a dispute, the more likely it is that at least some type of informal or formal oral phase (including meetings between the parties) will be required. Written submissions from the parties may not be sufficient to enable Commission staff to prepare a comprehensive opinion. In such circumstances, the 60-day objective may have to be extended.

Formal dispute resolution takes the form of staff-assisted mediation or final offer arbitration. Staff-assisted mediation is the method of dispute resolution in which Commission staff assists parties in reaching a consensual resolution of the issues under dispute. Final offer arbitration is used for disputes that involve no more than two parties, that are exclusively monetary in nature, and that otherwise meet the criteria set out in paragraph 4 of that Broadcasting Information Bulletin 2019-184. These methods are discussed in greater detail in the aforementioned information bulletin.

The formal dispute resolutions, consisting of staff-assisted mediations and final offer arbitrations, were conducted over 35 days, during the 12 month period beginning 1 April 2017.

Definitions

Affiliation payments refer to the remuneration that providers of discretionary and on-demand programming services (both Canadian and non-Canadian) receive from the BDUs distributing their services.

BDU revenues refers to revenues from basic and non-basic services and exclude Internet-based service revenues, such as Netflix, Crave and Club Illico, but include IPTV services such as Bell Fibe and Telus Optik TV.

Broadcasting contributions to Canadian content include Canadian content development (CCD) contributions, Canadian programming expenditures (CPE), contributions to the creation and production of Canadian programming from BDUs and tangible benefits from ownership transactions in the form of CCD contributions and CPE.

Direct-to-home (DTH) refers to satellite service providers.

Earnings before interest, taxes, depreciation and amortization (EBITDA) or Operating Margin is a metric used to measure financial performance. It is expressed as a percentage of total revenues.

The **estimated number households in Canada** is calculated by dividing the 4th quarter population estimate for Canada by Statistics Canada with the population to dwelling ratio. In turn, the population to dwelling ratio is calculated by dividing the population of Canada from the number of households found in Statistics Canada Census 2016.

Household BDU subscription rate is used to calculate the household subscription rate, the number of BDU subscriptions at the end of the annual period is divided by the total number of households in Canada.

IPTV refers to Internet protocol television such as Bell Fibe and Telus Optik TV, but excludes Internet-based services, such as Netflix, Crave and Club Illico.

Locally reflective news programming contributions refers to the contributions made by licensed BDUs to designated local television stations for the production of local news. See *Policy framework for local and community television*, Broadcasting Regulatory Policy CRTC 2016-224.

Monthly revenues per subscriber or average revenue per user (ARPU) are calculated by dividing BDUs' annual revenues from basic and non-basic services by the average number of subscriptions in the year. The result is then divided by 12 to obtain the monthly amount. The average number of subscribers is determined by dividing by two the sum of the number of subscribers at the beginning and at the end of the year.

PBIT refers to profit before interest and taxes.

Total broadcasting revenues include revenues from private commercial and CBC/SRC conventional television, discretionary and on-demand television, private commercial and CBC/SRC radio, as well as broadcasting distribution undertakings (BDU). They do not include Internet-based services unless stated otherwise.



Communications Monitoring Report **2019**

Telecommunications
Overview

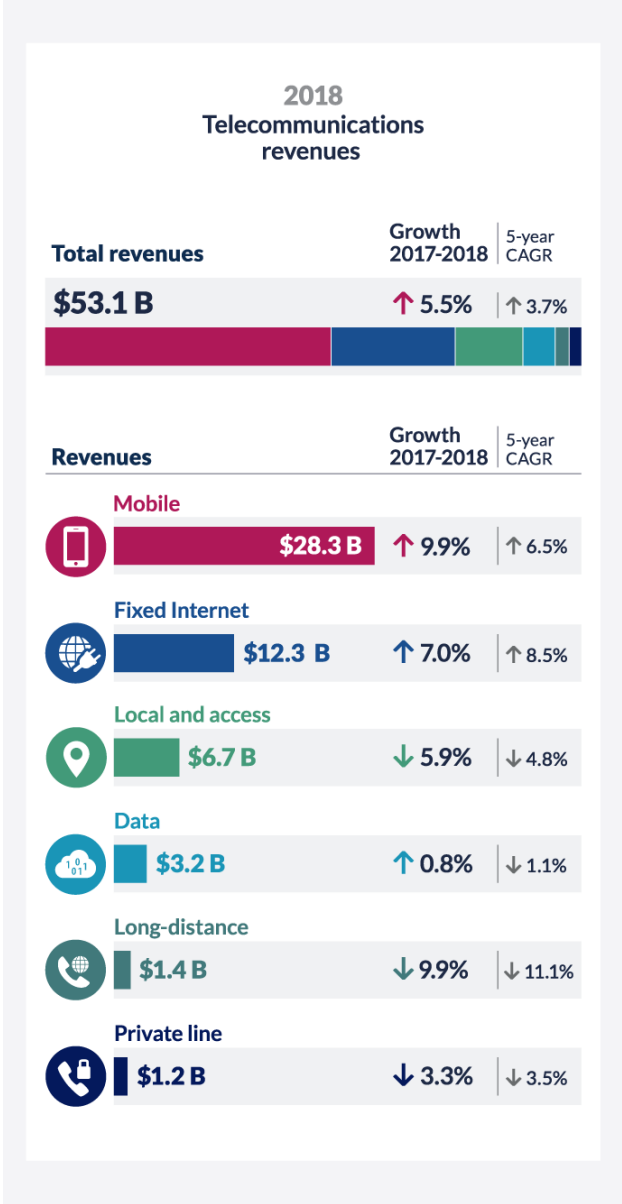


Telecommunications Overview

i Revenues

Total Canadian telecommunications revenues reached \$53.1 billion in 2018, as Canadians used ever-increasing amounts of data through both fixed Internet and mobile services. (“Data usage” includes the use of data for video streaming services such as Netflix and YouTube, as well as for audio streaming services such as Spotify and various radio applications via mobile devices or fixed Internet services.)

Infographic 8.1 Overview of total telecommunications revenues, 2018



Source: CRTC data collection

Total telecommunications revenues is calculated from exact amounts and may appear to differ from total sector revenues due to rounding.

Service providers are divided into two broad categories: incumbent telecommunications service providers (TSPs), which provided local telecommunications services on a monopoly basis prior to the introduction of competition, and alternative service providers, which encompass all other types of entities.

Alternative service providers include cable-based carriers, which are the former cable monopolies that currently also provide telecommunications services; other facilities-based service providers; and wholesale-based service providers, which are companies providing services primarily using other companies' facilities.

Incumbent TSPs, along with cable-based carriers, own and operate the majority of the infrastructure used by other service providers.

Please refer to the Methodology section for more details.

Infographic 8.2 Total revenue market share by type of service provider, 2018

2018 Total revenue market share by type of service provider			
	Revenue share	Growth rate 2017-2018	5-year CAGR
Large incumbent TSPs	57.2%	↑ 3.7%	↑ 1.7%
Cable-based carriers	33.6%	↑ 4.3%	↑ 5.9%
Other facilities-based carriers	4.6%	↑ 51.9%	↑ 18.3%
Wholesale-based service providers	3.6%	↑ 5.8%	↑ 4.6%
Small incumbent TSPs	1.0%	↑ 3.9%	↑ 3.1%

Source: CRTC data collection

Growth and CAGR are calculated from the revenues in billions of dollars.

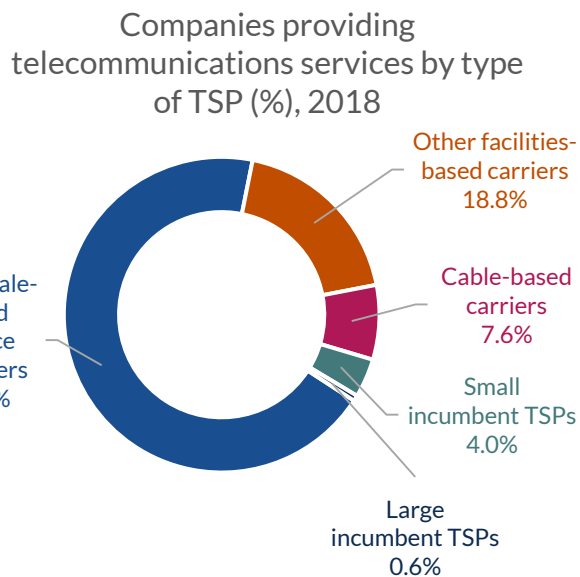
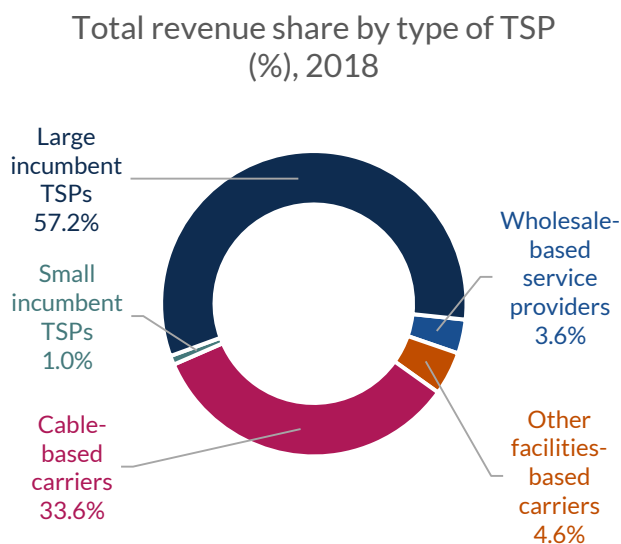
Grouping companies in order to include their affiliates, the five largest providers of telecommunications services accounted for 87.4% of total revenues in 2018. These company groups are Bell, Quebecor, Rogers, Shaw and TELUS. They are a mix of incumbent TSPs and cable-based carriers, though all are facilities-based service providers. The percentage of revenues represented by the top five changes slightly from year to year, but more significant changes are usually due to larger factors such as occasional ownership transfers. One recent example is the BCE's acquisition of MTS in 2017, which contributed to growth in the revenue share of Canada's largest provider.

Generally, since 2014, the incumbent TSPs' (large and small) share of revenues has been declining by about two percentage points per year on average, to 58.2% in 2018. During the same period, the revenue market share of cable-carriers grew by approximately two percentage points to reach 33.6% in 2018.

While large incumbent TSPs represented 0.6% of all telecommunications providers¹ in 2018, they generated 57.2% of revenues. Cable-based carriers made up 7.6% of the total number of companies and generated 33.6% of revenues. With relatively lower barriers to entry, wholesale-based service providers comprised nearly 69.0% of service providers while generating 3.6% of revenues.

Figure 8.1 Total revenue share by type of TSP (%), 2018

Figure 8.2 Companies providing telecommunications services by type of TSP (%), 2018



Source: CRTC data collection

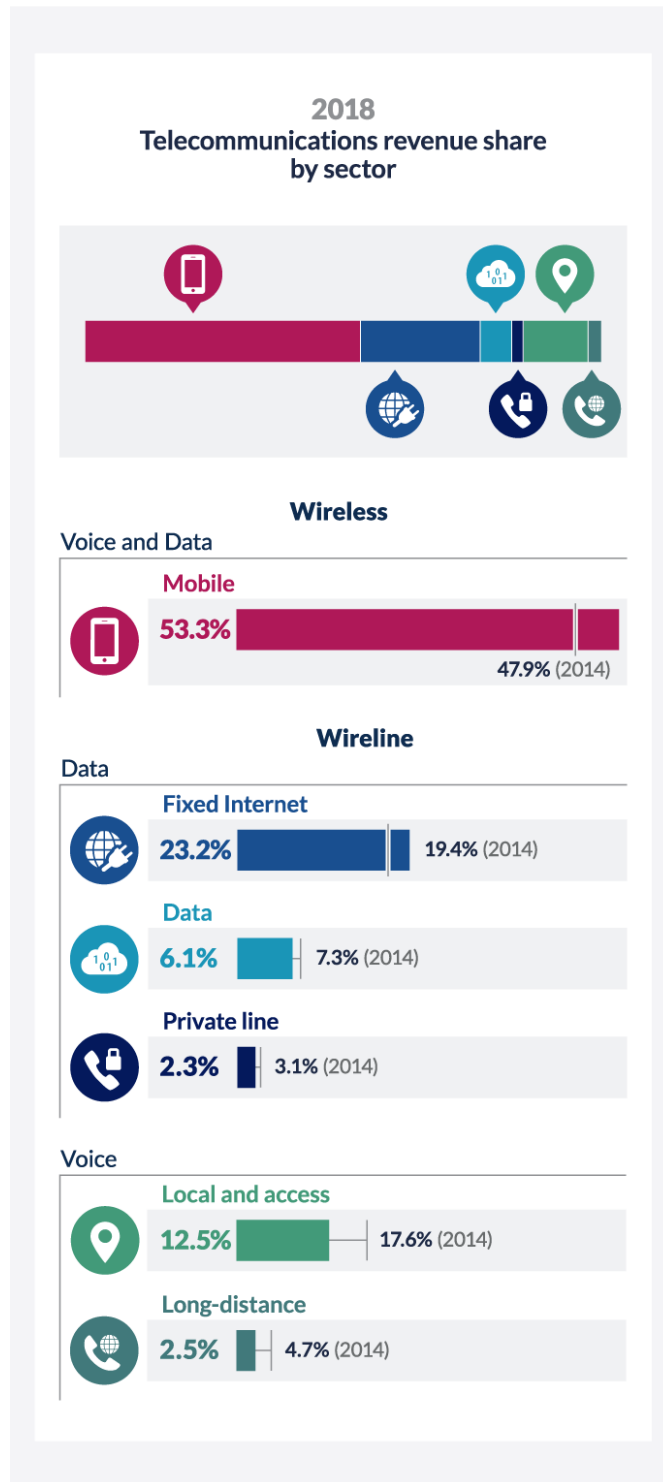
Source: CRTC data collection

¹ Based on the number of entities submitting data to the CRTC.

ii Telecommunications sectors

In the *Communications Monitoring Report*, telecommunications services are divided into six sectors:

Infographic 8.3 Telecom revenue share by sector, 2018



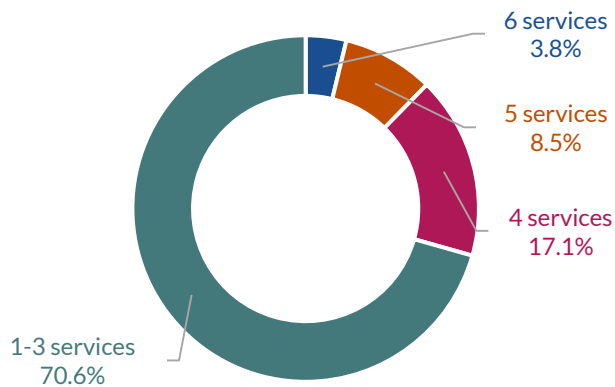
Source: CRTC data collection

In 2018, eight companies offered services in all six telecommunications sectors, accounting for 86.4% of total telecommunications revenues in Canada. These large, facilities-based entities tend to offer a wider array of services than their smaller counterparts. At the other end, companies providing one to three services generally offered Internet access, local, or long-distance phone services. These smaller entities, often wholesale-based service providers, represented 70.6% of all TSPs and generated 4.4% of telecommunications revenues in 2018.

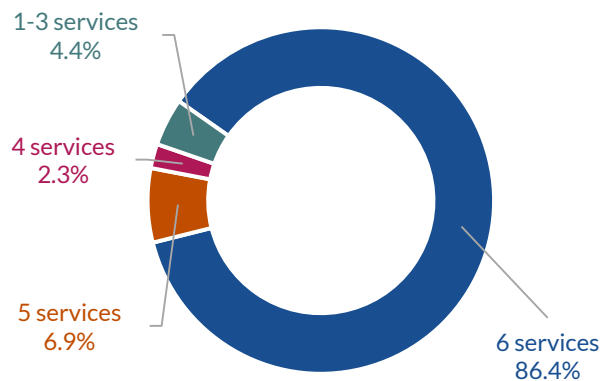
Figure 8.3 Distribution of TSPs by the number of services offered (%), 2018

Figure 8.4 TSPs' revenue share grouped by the number of services offered (%), 2018

Distribution of TSPs by the number of services offered (%), 2018



TSPs' revenue share grouped by the number of services offered (%), 2018



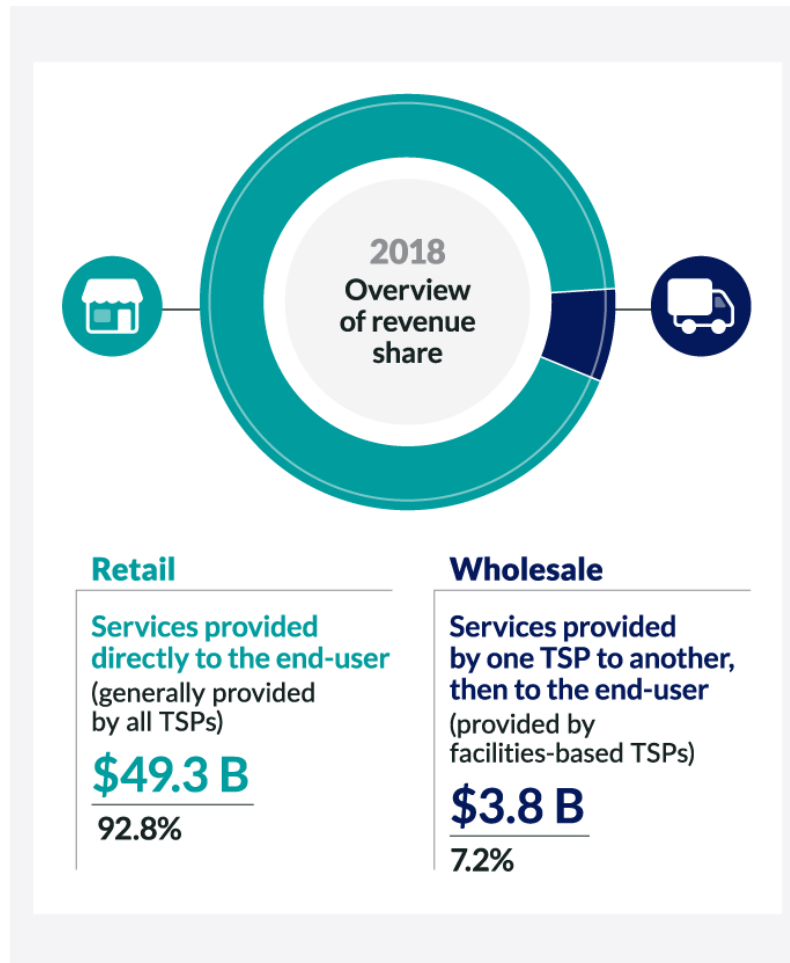
Source: CRTC data collection

Source: CRTC data collection

Revenues – Retail versus wholesale

Revenues from telecommunications services are derived from sales to residential and business consumers (retail) and to other carriers (wholesale).

Infographic 8.4 Overview of retail vs wholesale revenue share (%), 2018



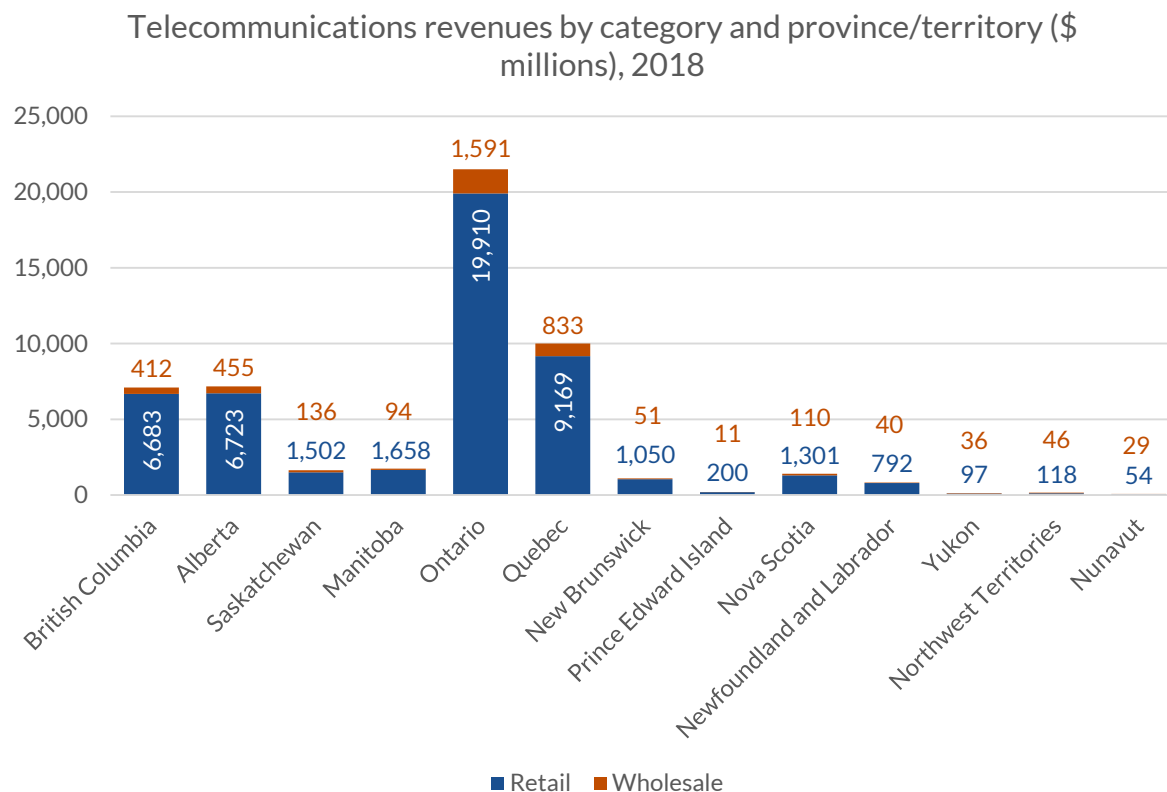
Source: CRTC data collection

Retail revenues increased slightly to account for 92.8% of total telecommunications revenues in 2018, having remained constant at 91.8% over the 2013-2017 period. 95.8% of mobile revenues were generated from retail services, compared to 89.3% for wireline. Those numbers have remained virtually unchanged since 2013.

Canadian retail telecommunications service revenues grew 6.5% to reach \$49.3 billion in 2018. In Ontario, these services had the largest share (37.5% or \$19.9 billion) of all telecommunication revenues amongst the provinces and territories. The prairies (Alberta, Saskatchewan, and Manitoba) had the second largest retail revenue share at 18.6% (\$9.9 billion), followed by Quebec at 17.3% (\$9.2 billion).

The wholesale telecommunications market saw a similar trend, with Ontario leading the provinces/territories at 3.0% (\$1.6 billion) of all telecommunication revenues, followed by Quebec at 1.6% (\$0.8 billion) and the prairies region with 1.3% (\$0.7 billion).

Figure 8.5 Telecommunications revenues by category and province/territory (\$ millions), 2018

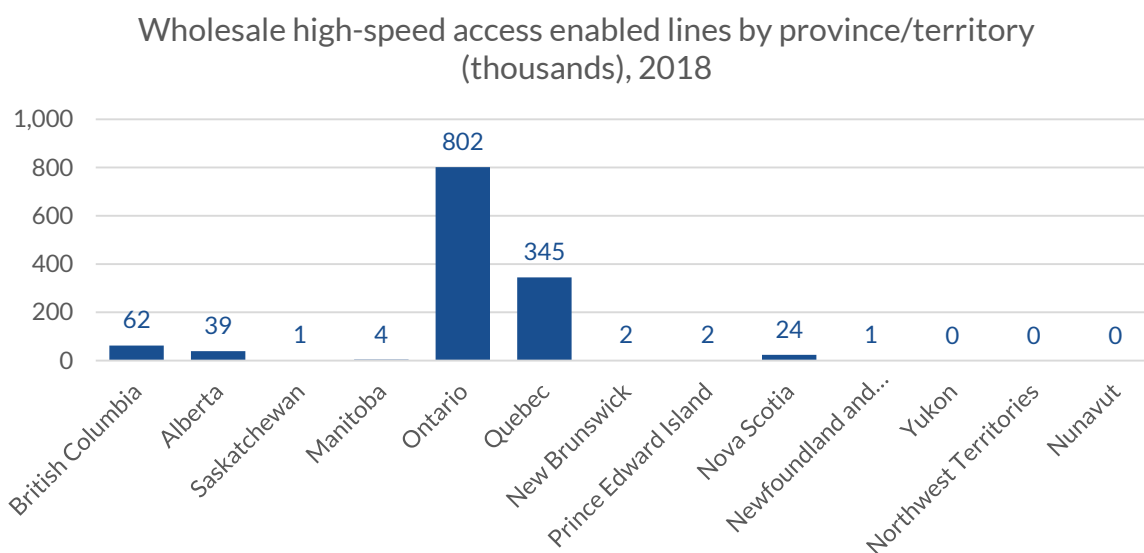


Source: CRTC data collection

The number of wholesale Internet lines increased in 2018, growing by 8.8% to 1.3 million lines across Canada. Ontario maintained the highest share of wholesale lines with 0.8 million lines (62.6%); Quebec trailed behind with 0.3 million (26.9%), and the rest of Canada totaled 0.1 million (10.5%).

The Atlantic region (Newfoundland and Labrador, New Brunswick, Prince Edward Island, and Nova Scotia) saw substantial growth in the number of wholesale lines, growing from approximately 6,000 to 28,000 lines, over four times as many as the previous year. This increase can be largely attributed to the growth in Nova Scotia, which added over 20,000 wholesale lines in 2018.

Figure 8.6 Wholesale high-speed access enabled lines by province/territory (thousands), 2018



Source: CRTC data collection

Information in this figure regarding Internet wholesale lines is from the larger ISPs. They reported approximately 98% of total Internet wholesale lines in 2018.

Revenues – Forborne services

Over time, the Commission has refrained from regulation when it finds that a service is subject to sufficient competition or where refraining from regulation is consistent with the Canadian telecommunications policy objectives, as outlined in section 7 of the *Telecommunications Act*. This is referred to as forbearance. Where a service is forborne from regulation, the provider is generally relieved of the obligation to provide the service pursuant to a Commission-approved tariff. For example, the retail rates for mobile services are forborne from regulation, whereas the rates for wholesale high-speed access (HSA) services (i.e. fixed Internet access) are not. HSA rates are based on Commission-approved tariffs.

Table 8.1 Percentage of telecommunications revenues generated by forborne services (%)

Sector	2014	2015	2016	2017	2018
Local and access	78.8	80.5	82.0	83.0	83.0
Long-distance	98.0	98.1	98.2	98.4	98.4
Fixed Internet	96.0	95.7	96.7	97.2	97.2
Data	95.8	95.9	95.9	96.0	96.0
Private line	70.5	70.9	71.6	71.9	71.9
Mobile	100.0	100.0	99.9	99.8	99.8
Overall	94.2	94.8	95.4	95.6	95.6

Source: CRTC data collection

Since 2014, approximately 95.6% of telecommunications revenues have been generated from forborne services. In 2018, the percentage of revenues derived from forborne services ranged from a low of 83.0% in local and access, to a high of 99.8% in mobile.

Revenues – Canadian ownership

Section 16 of the *Telecommunications Act* addresses the eligibility of Canadian companies to operate as telecommunications common carriers.

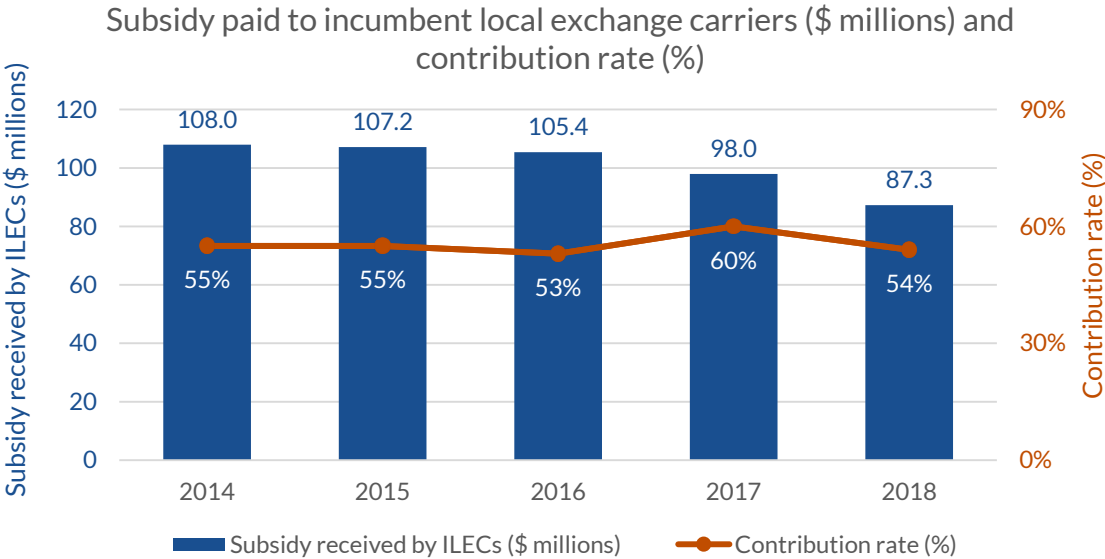
Subject to certain exceptions, section 16 requires that telecommunications companies that own or operate telecommunications transmission equipment and have Canadian telecommunications revenues greater than \$5.3 billion (10% of total Canadian telecommunications revenues) be Canadian-owned and controlled.

For the purposes of applying the provisions of section 16, the Commission has determined that total annual revenues from the provision of telecommunications services in Canada was \$53.1 billion in 2018.

Revenues – Contribution

The total amount of subsidies paid to local exchange carriers (LECs) was \$87.3 million in 2018, down from \$98.0 million (10.9%) in 2017.

Figure 8.7 Subsidy paid to incumbent local exchange carriers (\$ millions) and contribution rate (%)



Source: CRTC data collection

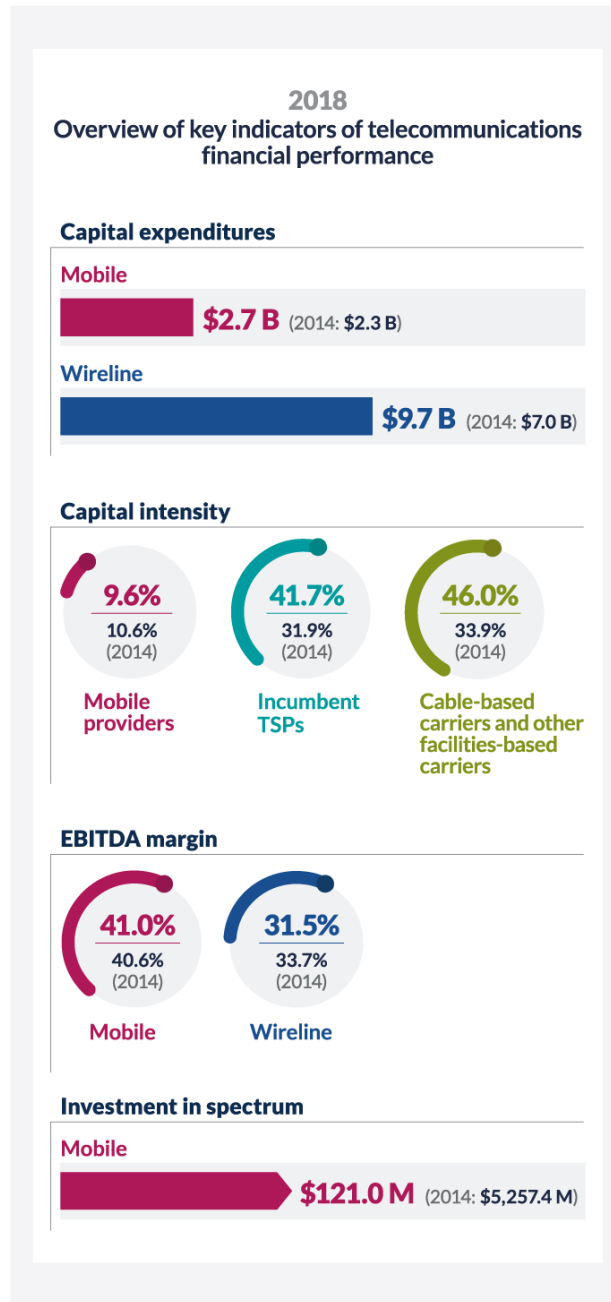
This subsidy represents revenue contributions toward the provision of residential telephone service in high-cost serving areas (HCSAs) by TSPs, or groups of related TSPs that have a minimum of \$10 million in annual Canadian telecommunications revenues. HCSAs are areas where the cost of providing service is substantially higher than in other parts of an incumbent LEC’s territory. HCSAs are often remote or rural areas. In 2018, 29 companies received subsidies, down from 32 companies in 2017, after taking into account all mergers and acquisitions.

In Telecom Regulatory Policy 2016-496, the Commission stated that in order to help meet the new universal service objective, it would begin to shift the focus of its regulatory frameworks from wireline voice services to broadband Internet access services.

iii Financial performance

This section of the telecommunications overview will focus on metrics such as capital expenditures made into acquiring spectrum, capital intensity, and earnings before interest, taxes, depreciation and amortization (EBITDA). These are key indicators that can be used to evaluate the financial performance of the Canadian telecommunication industry by showing the amount of capital that is being reinvested back into maintaining and improving telecommunications networks.

Infographic 8.5 Overview of key indicators of telecommunications financial performance, 2018



Source: CRTC data collection

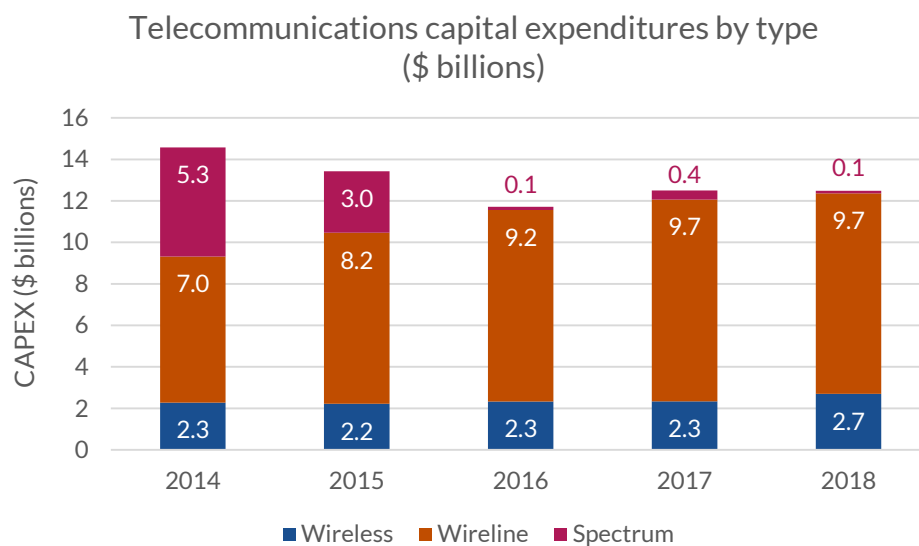
Capital expenditures and capital intensity

Capital expenditures, or CAPEX, are investments made primarily to maintain or upgrade telecommunications networks. In 2018, TSPs with over \$100 million in revenues spent \$12.4 billion on CAPEX, \$9.7 billion of which was spent on wireline networks.

Although wireline CAPEX grew at an annual rate of 8.2% from 2014 to 2018, the large incumbent TSPs' share of CAPEX declined from 67.8% to 59.1% (2014 to 2018). During the same period, the CAPEX share of cable-based carriers increased from 31.8% to 38.0%.

Capital intensity (the ratio of capital expenditures to revenues) was on the rise for both the incumbent TSPs and cable-based carriers, increasing from approximately 32.7% in 2014 to 44.1% in 2018. By contrast, capital intensity for mobile providers was around 9.7% over the 2014 to 2018 period.

Figure 8.8 Telecommunications capital expenditures by type (\$ billions)

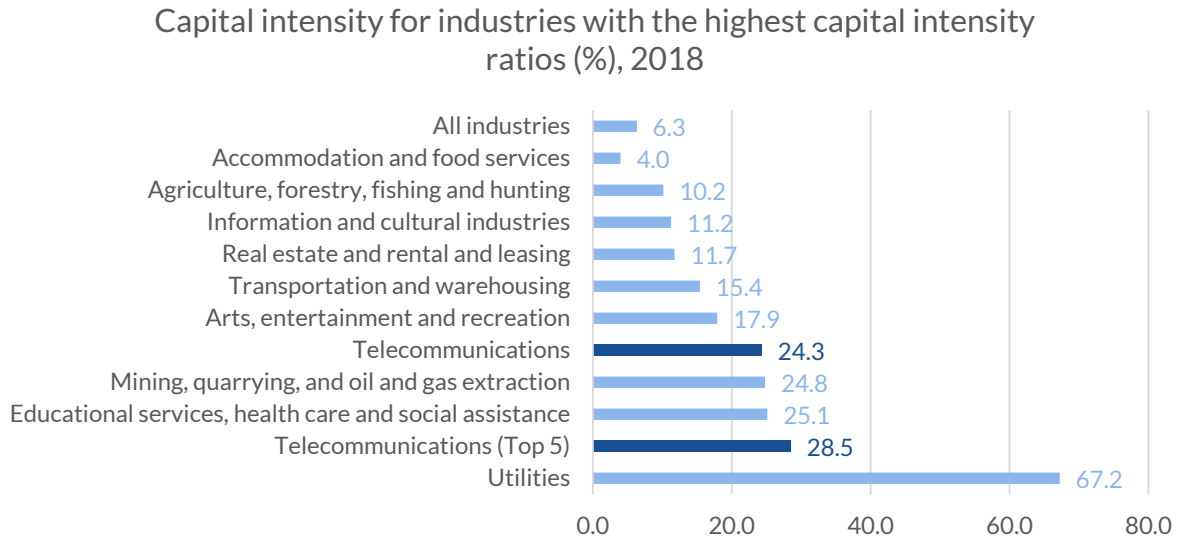


Source: CRTC data collection

At 24.3%, the telecommunications industry ranked fourth in terms of capital intensity, behind the utilities industry; the educational services, health care and social assistance industry; and the mining, quarrying, and oil and gas extraction industry. This is due to the requirement to maintain and upgrade extensive network infrastructure.

The capital intensity of the Top 5 TSPs, Bell, Rogers, Shaw, TELUS, and Videotron, was 28.5%. These TSPs accounted for 82.2% of the total telecommunications CAPEX in 2018.

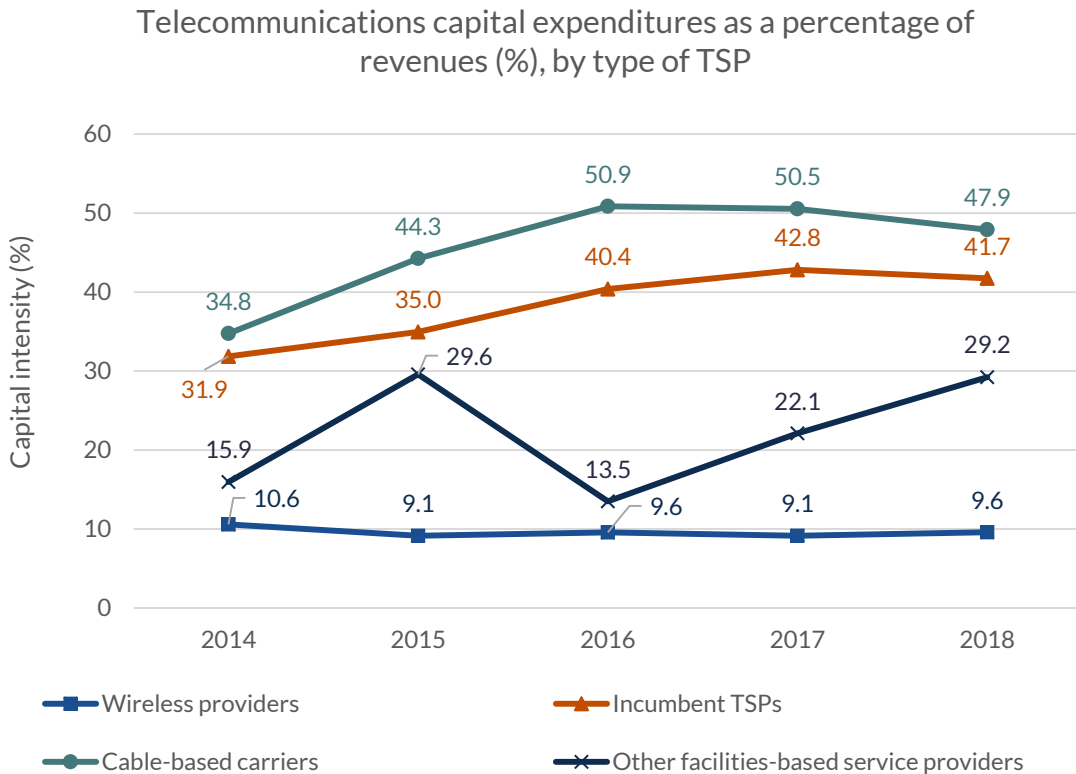
Figure 8.9 Capital intensity for industries with the highest capital intensity ratios (%), 2018



Source: CRTC data collection and Statistics Canada Tables [34-10-0035-01](#) and [33-10-0007-01](#)

Since many carriers do not recognize and report spectrum as a CAPEX, the investments made in spectrum were not included in the figure above.

Figure 8.10 Telecommunications capital expenditures as a percentage of revenues (%), by type of TSP



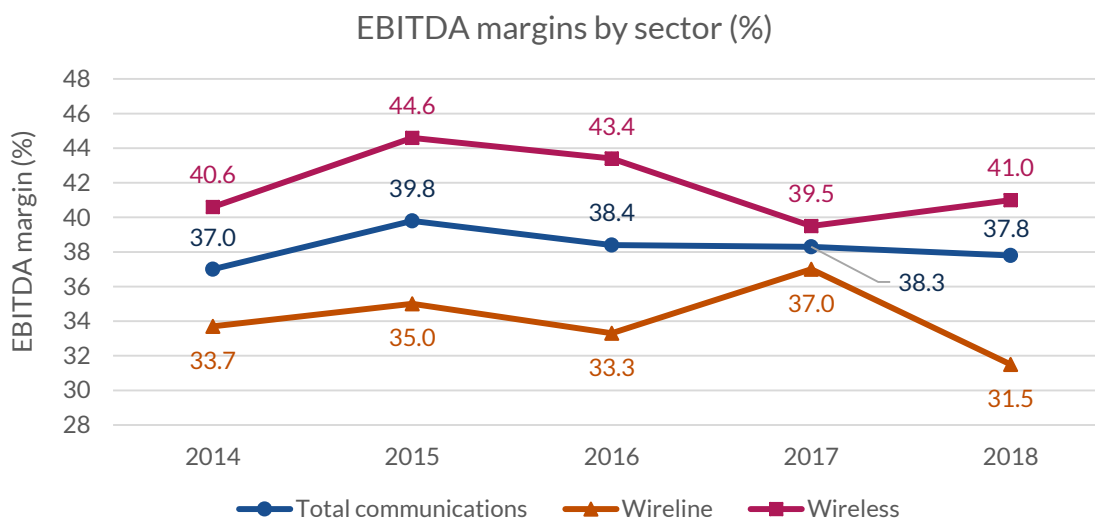
Source: CRTC data collection

Earnings before interest, taxes, depreciation and amortization (EBITDA)

EBITDA margins (i.e., EBITDA as a percentage of total telecommunications revenues) are instrumental in assessing the financial performance of a company or group of companies. Margins are calculated for TSPs with at least 80% of their total revenues represented by telecommunications services.

Over the 2014-2018 period, margins for wireless services were consistently above those for wireline, with the difference widening to approximately 9.5% as wireless margins reached 41.0%, in 2018.

Figure 8.11 EBITDA margins by sector (%)



Source: CRTC data collection

Over the 2014-2018 period, EBITDA margins were stable at around 45.1% for the cable-based carriers and 38.4% for the incumbents.

Investment in spectrum

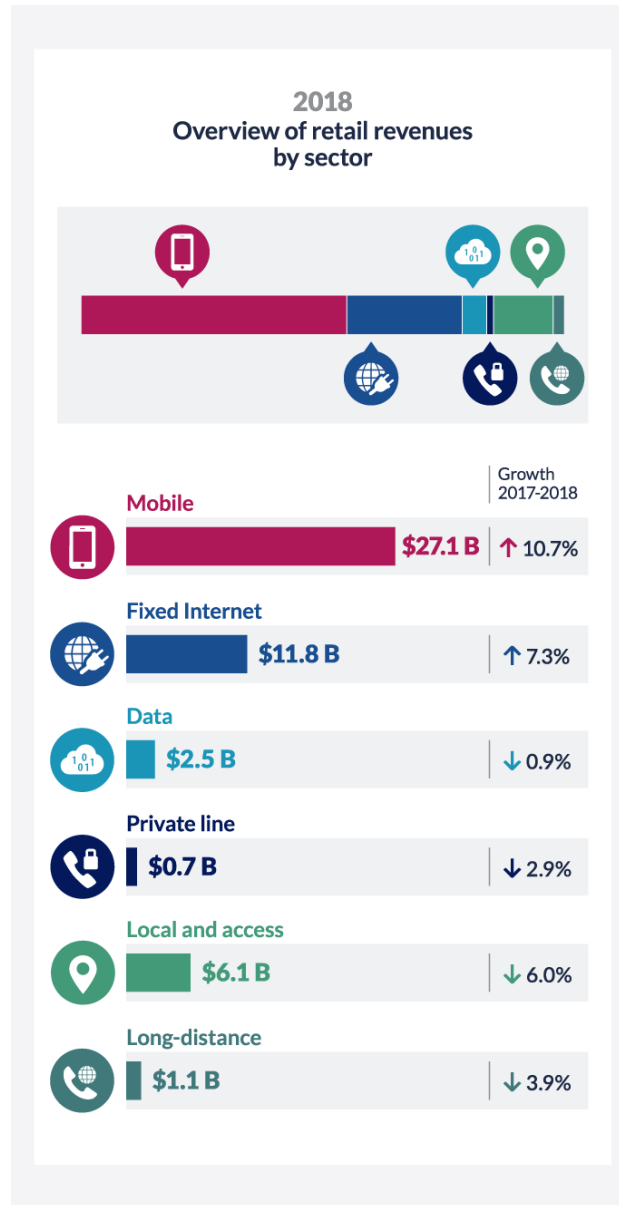
Annual investments in spectrum from 2013 to 2018 were \$0.28 billion (2013), \$5.26 billion (2014), \$2.96 billion (2015), \$0.15 billion (2016), \$0.44 billion (2017), and \$0.12 billion (2018), respectively.² The amounts reported in 2013 reflect investments made mainly by satellite carriers. Investments made from 2014 to 2018 reflect investments made by mobile carriers to acquire Advanced Wireless Services-3 (AWS-3), Personal Communications Services-GSM bands (PCS-G), and 700 megahertz (MHz), 2300 MHz, and 2500 MHz spectrum.

² To reduce regulatory burden, only TSPs with revenues over \$100 million were surveyed.

iv Sector summaries

Total Canadian telecommunications revenues reached \$53.1 billion in 2018, growing by 5.5%, which is slightly faster than the five-year average annual growth rate of 3.7%. Total retail telecommunications revenues, which represent the vast majority of telecommunications revenues, totaled \$49.3 billion in 2018, growing 6.5% from 2017 to 2018, and, on average, growing 4.0% annually from 2014 to 2018.

Infographic 8.6 Overview of retail revenues by sector, 2018



Source: CRTC data collection

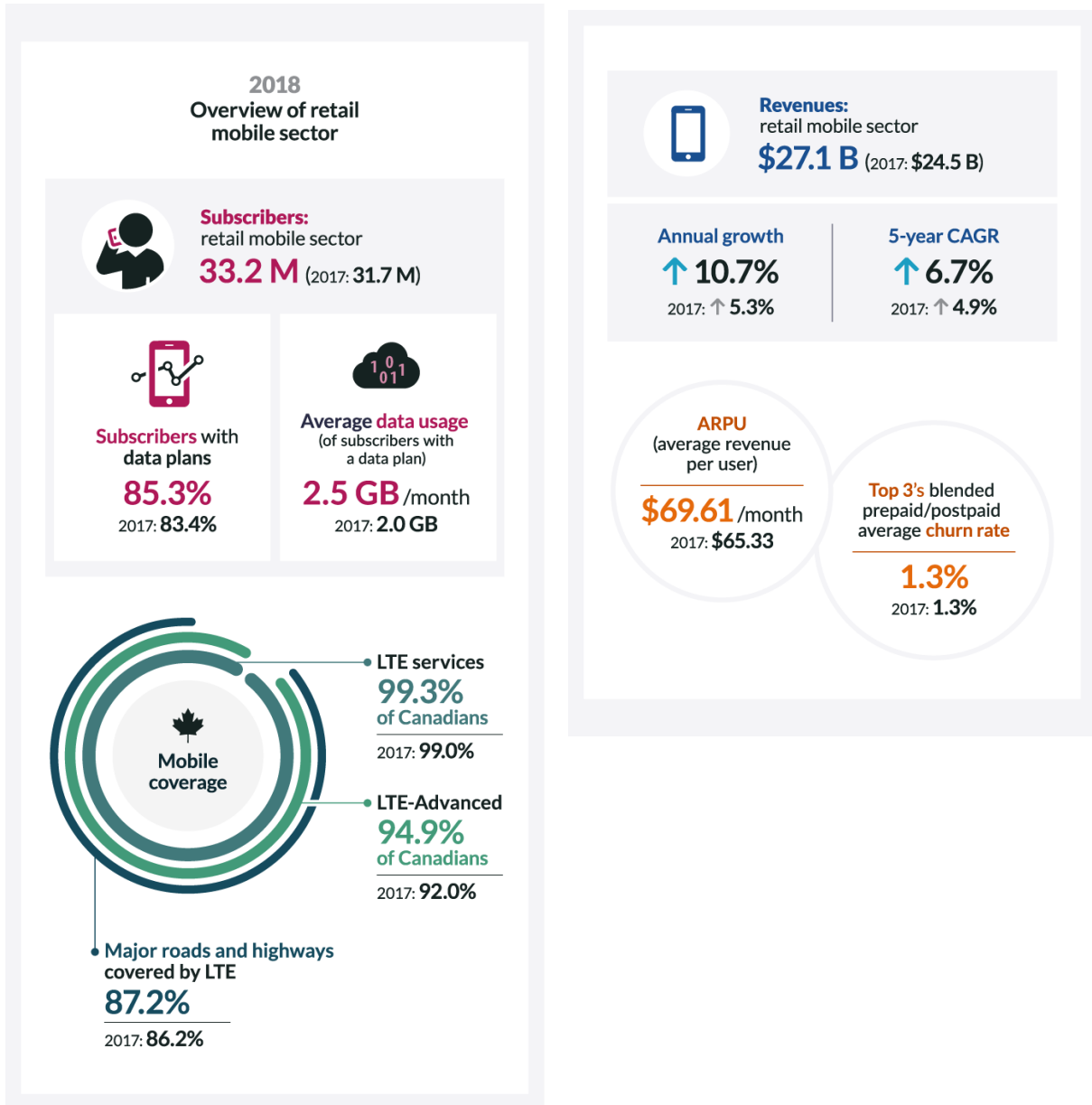
In terms of retail revenues, the sources of revenue growth in 2018, and over the 2014 to 2018 period, were mainly the fixed Internet and mobile sectors, which grew by 7.3% and 10.7%, respectively. These sectors accounted for 78.9% of retail revenues in 2018, compared to 69.6% in 2014.

In 2018, fixed Internet and mobile revenues continued to grow, exceeding subscriber growth, as Canadians subscribed to telecommunications services that contained more data in their monthly allowance. Average mobile revenue per subscriber increased from \$61.03 in 2014 to \$69.61 in 2018 as subscribers used (and paid for) more data, while average residential fixed Internet revenue per subscriber increased from \$47.74 in 2014 to \$60.39 in 2018 as users migrated to higher speeds and plans with more data.

This section will provide a brief summary of the six retail sectors (mobile, fixed Internet, local access, long-distance, data, and private line) and the wholesale market within the Canadian telecommunications industry. Additional data and descriptions for [Fixed Internet](#) and [Mobile](#) can be found in subsequent sections of the 2019 *Communications Monitoring Report*.

Retail mobile sector

Infographic 8.7 Overview of retail mobile sector, 2018



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Churn is a measure of the number of customers a service provider loses on a monthly basis relative to that service provider's total subscriber base. It is calculated by dividing the number of customers who have cancelled their service in a month by the total number of subscribers for that service provider.

Table 8.2 Retail mobile and paging service revenue components (\$ millions)

Component	2014	2015	2016	2017	2018	Growth (%) 2017-2018	CAGR (%) 2014-2018
Basic voice	8,665.5	8,689.0	8,834.3	9,219.7	7,747.3	-16.0	-2.8
Long-distance	880.4	656.1	547.0	481.9	417.4	-13.4	-17.0
Paging	17.3	12.6	11.1	8.9	9.0	1.1	-15.1
Terminal equipment (including handheld devices)	1,673.7	2,129.8	1,911.1	1,896.1	6,961.9	267.2	42.8
Data	8,672.6	10,034.9	10,980.5	11,832.4	10,857.0	-8.2	5.8
Roaming and other	1,035.7	1,001.9	960.0	1,047.2	1,125.0	7.4	2.1
Data, roaming, and other – subtotal	9,708.3	11,036.8	11,940.4	12,879.6	11,982.0	-7.0	5.4
Total	20,945.2	22,524.3	23,243.9	24,486.2	27,117.7	10.7	6.7

Source: CRTC data collection

IFRS 15 came into effect on 1 January 2018 for all Canadian publicly accountable enterprises. Under the new accounting standards, revenues are recognized upon control of goods or services, impacting mainly the terminal equipment revenues in 2018.

Mobile wireless became the fastest-growing telecommunications sector in 2018 with revenues of \$27.1 billion and a 10.7% growth rate compared to 2017. It also remained the largest sector, representing over 55.1% of all retail telecommunications revenues in 2018.

The exceptional revenue growth reported in 2018 was a direct result of the implementation of new international financial reporting standards (IFRS) that changed the way in which providers recognized mobile revenues derived from contracts with customers. This change in reporting resulted in terminal equipment revenues increasing from \$1.9 billion in 2017 to \$7.0 billion in 2018, an increase of 267.2%.

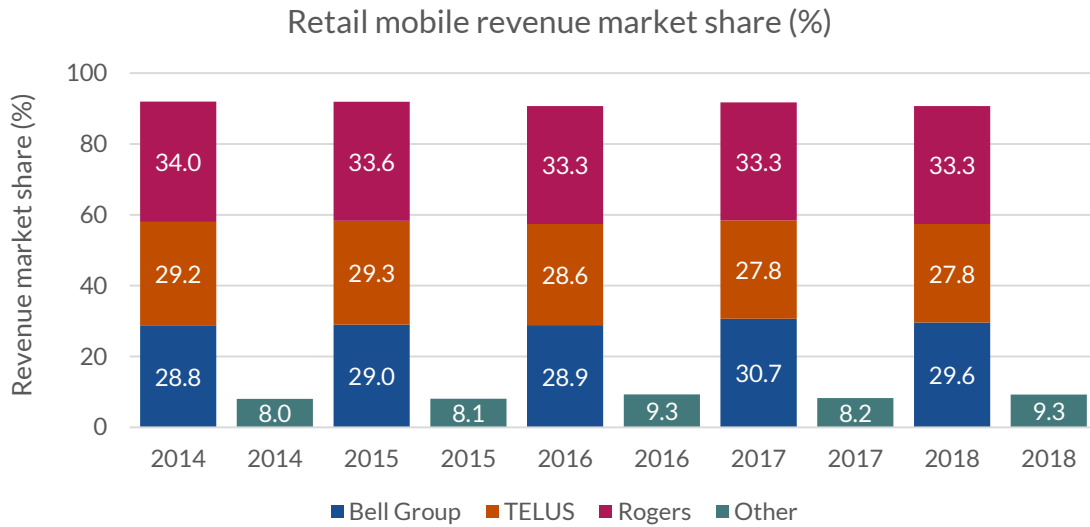
The number of mobile subscribers reached 33.2 million in 2018, with mobile networks covering approximately one-fifth of Canada's geographic land mass and reaching 99.5% of Canadians. In 2018, advanced wireless networks such as LTE-A, continued to deliver higher speeds than previous generation networks. LTE-A was available to approximately 94.9% of Canadians in 2018, compared to 92.0% in the previous year. In 2018, LTE was available to 99.3% of Canadians, compared to 99.0% in 2017.

Average monthly data usage per data subscriber was over 2.5 GB, compared to 1.0 GB in 2014. From 2017 to 2018, there was a 23.4% increase in data usage.

In 2018, the average revenue per user (ARPU) reached \$69.61 per month, compared to \$61.03 in 2014. In 2018, Alberta recorded the highest monthly ARPU at \$77.74, while the lowest ARPU was in Quebec, at \$59.53.

The mobile sector continued to be dominated by the three largest mobile service providers (Top 3), Bell Group³, Rogers, and TELUS. In 2018, these entities accounted for 90.7% of retail mobile revenues, compared to 90.7% in 2016 and 91.8% in 2017. The Top 3 held the majority revenue share in each province/territory, except in Saskatchewan where the other providers captured 60.3% of the sector, a decrease from 61.8% in 2017.

Figure 8.12 Retail mobile revenue market share (%)



Source: CRTC data collection

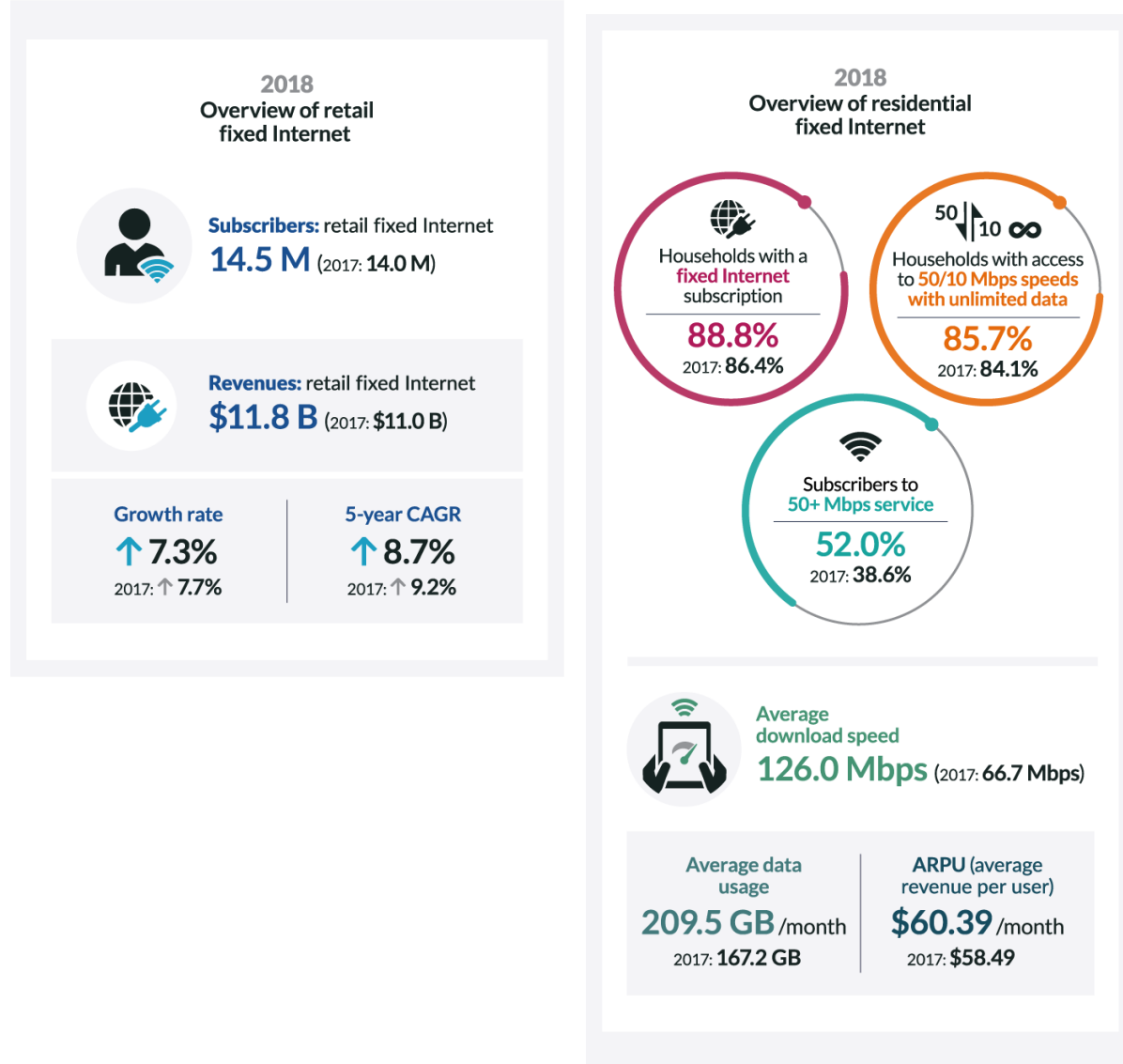
Other mobile providers include SaskTel, Freedom Mobile, Videotron, and Bragg Communications and wholesale-based service providers.

More data on mobile and other telecommunications services can be found in Open Data and their respective sections of the *Communications Monitoring Report*.

³ The Bell Group includes Bell Canada, Bell Mobility, KMTS, Latitude Wireless, NorthernTel, Northwestel Mobility, and Télébec. In 2017, MTS Inc. was incorporated into the Bell Group.

Retail fixed Internet sector

Infographic 8.8 Overview of retail fixed Internet sector



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Table 8.3 Retail Internet service revenue (\$ millions)

Type	Subtype	2014	2015	2016	2017	2018	Growth (%) 2017-2018	CAGR (%) 2014-2018
Residential	Access	6,554	7,265	8,091	8,804	9,429	7.1	9.5
	Applications, equipment, and other Internet-related services	162	210	289	314	376	19.7	23.5
	Total	6,716	7,475	8,380	9,118	9,805	7.5	9.9
Business	Access and transport	1,320	1,394	1,442	1,502	1,576	4.9	4.5
	Applications, equipment, and other Internet-related services	378	380	356	347	385	10.9	0.5
	Total	1,698	1,774	1,798	1,849	1,961	6.1	3.7
All	Total	8,414	9,249	10,178	10,967	11,765	7.3	8.7

Source: CRTC data collection

The majority of Canadian households (88.8%) are subscribing to Internet services. Canadians continue to use more data, subscribe to faster, larger packages and allocate more money to Internet access services.

In 2018, fixed Internet revenues grew by 7.3% and subscriptions grew by 3.4%. From 2014 to 2018, fixed Internet grew by an average annual rate of 8.7%.

In 2018, Internet services were provided by a variety of Internet service providers (ISPs), including incumbent TSPs, cable-based carriers, other facilities-based carriers, fixed wireless service providers, and wholesale-based service providers. The number of residential subscribers reached 13.2 million, a 3.5% increase from 2017 and more than twice the population growth rate. Cable-based carriers and incumbent TSPs accounted for the majority of subscribers (85.5%), while other entities accounted for 14.5%, up from 10.7% in 2014.

Canadians are increasingly subscribing to faster Internet services. Subscriptions to services with download speeds slower than 16 Mbps represented 58.4% of the total in 2014 compared to 28.9% in 2018, while subscriptions to services including speeds of 50 Mbps and higher increased from just 9.8% of residential high-speed subscriptions in 2014 to 52.0% in 2018.

Canadians are also using more data. The average monthly data amounts downloaded by residential subscribers increased on average by 30.5% annually from 2014 to 2018, and by 25.4% from 2017 to 2018 to 192.9GB per month. Average upload amounts also increased by 24.9% in 2018, reaching approximately 16.7GB per month.

Fibre deployment continued in 2018, with the availability of fibre-to-the-home (FTTH) increasing from 35.1% to 44.0% (2017 to 2018) of households. These deployments were mainly in large urban areas.

Retail wireline voice sector

Infographic 8.9 Overview of retail fixed wireline voice sector, 2018

2018 Overview of retail fixed wireline voice sector		
	2017	2018
Subscribers: retail wireline voice	14.5 M	13.8 M
Revenues: retail wireline voice	\$7.5 B	\$7.1 B
Revenues: Growth rate	↓ 4.4%	↓ 5.6%
Revenues: 5-year CAGR	↓ 5.8 %	↓ 6.1%

Source: CRTC data collection

Table 8.4 Local and long-distance retail revenues (\$ millions)

Service	2014	2015	2016	2017	2018	Growth (%) 2017-2018	CAGR (%) 2014-2018
Gross local revenues	7,441	7,146	6,635	6,474	6,086	-6.0	-4.9
Gross local revenues, excluding contributions	108	107	105	98	87	-10.9	-5.2
Retail local revenues	7,333	7,039	6,529	6,376	5,999	-5.9	-4.9
Retail long-distance revenues	1,755	1,506	1,287	1,095	1,052	-3.9	-12.0
Total local and long-distance retail revenues	9,088	8,545	7,817	7,471	7,051	-5.6	-6.1

Source: CRTC data collection

In 2018, the retail wireline voice sector reported \$7.1 billion in revenues, with a 6.1% average annual decline since 2014. Local revenues (excluding contributions) accounted for 85.1% of retail wireline voice revenues in 2018. Long-distance revenues were approximately \$1.1 billion, declining by an average annual rate of 12.0% since 2014.

From 2014 to 2018, residential wireline voice revenues per line decreased by \$2.12 to \$37.10 per month, while business revenues decreased by \$6.09 to \$51.75 per month.

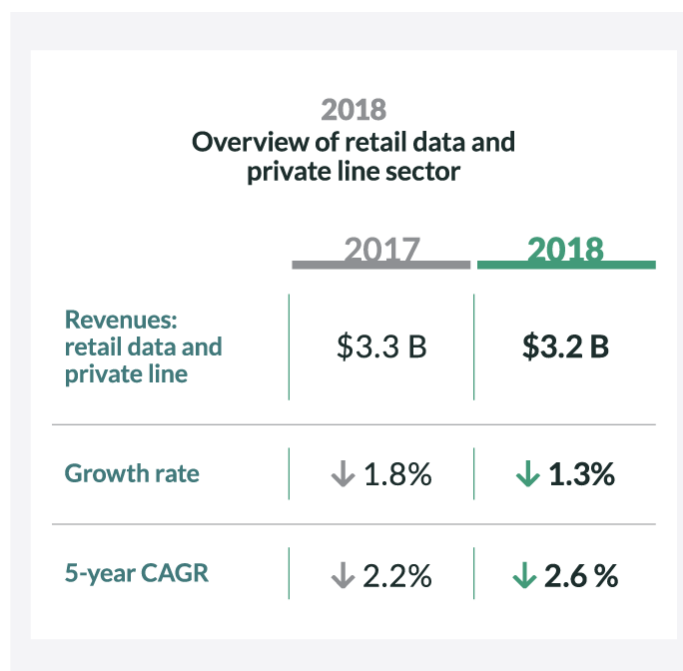
The incumbent carriers accounted for 64.8% of the residential sector of retail wireline revenues, a 1.9% increase since 2014, and 79.4% of the business sector, a 6.6% decrease since 2014. Residential revenue shares for facilities-based non-incumbent service providers remained consistent over the same period at approximately 30.6%.

The introduction of access-independent VoIP services⁴ has opened the wireline voice sector to non-traditional providers. There were approximately 579,000 subscribers to access-independent VoIP in 2018, representing 4.2% of retail local telephone lines. This percentage has remained constant since 2013.

There were approximately 37,000 payphones in 2018, generating an average of \$369 in annual revenues per unit, compared to 74,000 payphones generating \$462 per unit in 2014. The number of payphones dropped by 8,800 or 19.3% from 2017 to 2018, while the average revenue per phone decreased by approximately \$60 or 14.2%.

Retail data and private line sector

Infographic 8.10 Overview of retail data and private line sector, 2018



Source: CRTC data collection

Table 8.5 Data and private line retail revenues (\$ millions)

Sector	Subsector	2014	2015	2016	2017	2018	Growth (%) 2017-2018	CAGR (%) 2014-2018
Data	Data protocols	1,952	1,920	1,870	1,864	1,845	-1.0	-1.4
	Other	857	779	731	694	690	-0.6	-5.3
	Total	2,809	2,699	2,600	2,558	2,535	-0.9	-2.5
Private line	Total	784	754	738	721	700	-2.9	-2.8
Total	Total	3,593	3,453	3,339	3,279	3,235	-1.3	-2.6

Source: CRTC data collection

⁴ Access-independent VoIP services are VoIP services delivered through the public Internet as opposed to a dedicated or managed network.

Data and private line services refers to services sold by TSPs to business customers for the transmission of data, video and voice traffic. These services provide private and highly secure communications channels between locations. Data and private line revenues have been in decline since 2014.

Data services are packet-based services that intelligently switch data through carrier networks. They make use of newer data protocols such as Ethernet and Internet Protocol (IP), or legacy data protocols such as X.25, asynchronous transfer mode (ATM), and frame relay to transmit data⁵. Legacy services make up less than 0.3% of revenues. The subcategory “Other” includes network management and networking equipment.

Private line services provide non-switched, dedicated communications connections between two or more points to transport data, video and/or voice traffic.

Incumbent TSPs accounted for approximately 13.8% of the entities providing either data or private line services and captured 65.4% of retail data and private line revenues.

Wholesale

Infographic 8.11 Overview of wholesale market, 2018

2018 Overview of wholesale market		
	2017	2018
Revenues: wholesale	\$4.0 B	\$3.8 B
Growth rate	↓ 0.9%	↓ 4.4%
5-year CAGR	↑ 2.1%	↑ 0.4%

Source: CRTC data collection

⁵ See [telecommunications glossary](#) for definitions and examples.

Table 8.6 Wholesale telecommunications revenues by sector (\$ millions)

Type	Sub-type	Sector	2014	2015	2016	2017	2018	Growth (%) 2017-2018	CAGR (%) 2014-2018
Wireline	Voice	Local and access	646	603	615	599	571	-4.8	-3.1
		Long-distance	414	423	458	407	300	-26.2	-7.7
		Subtotal	1,060	1,026	1,073	1,006	871	-13.4	-4.8
	Non-voice	Internet	481	556	589	558	571	2.4	4.4
		Data	576	604	600	634	684	7.9	4.4
		Private line	628	615	593	546	525	-3.9	-4.4
		Subtotal	1,685	1,776	1,782	1,737	1,780	2.5	1.4
All	Wireline	2,745	2,801	2,855	2,743	2,651	-3.4	-0.9	
Mobile	All	Mobile	1,038	1,123	1,200	1,277	1,193	-6.5	3.5
All	Total	Total	3,783	3,925	4,055	4,020	3,844	-4.4	0.4

Source: CRTC data collection

Wholesale services are services provided by one TSP to another, usually when the latter does not have end-to-end facilities of its own.

In 2018, the wholesale telecommunications sector was worth \$3.8 billion, of which 31.0% was for the provision of mobile services and 69.0% for wireline services. From 2014 to 2018, wholesale mobile revenues increased at an average annual rate of 3.5%, compared to a decrease of 0.9% for wholesale wireline revenues.

Independent ISPs⁶ frequently depend on access services offered⁶ by the incumbent TSPs and the cable-based carriers to connect to their customers. Over the years, sales of cable-based access services, known as third-party Internet access (TPIA) services, to independent ISPs have increased, growing at an annual rate of 6.3% since 2014.

Wholesale voice revenues declined, on average, by 4.8% annually from 2014 to 2018, whereas wireline non-voice revenues increased, on average, by 1.4% annually during the same period.

With 72.2% of wholesale wireline revenues, incumbent TSPs maintained the largest share of the wholesale wireline sector, which has been trending upwards slightly since 2016.

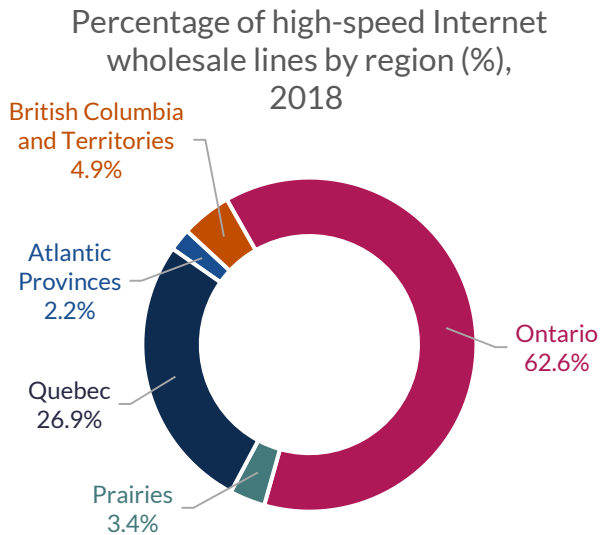
The number of wholesale high-speed Internet access lines and revenues grew in 2018. Ontario had the largest share of wholesale lines (62.6%) and revenues (65.1%) in 2018. While Ontario's overall share of wholesale lines has been in decline since 2016, the province's share of wholesale revenues has increased year-to-year over the same period.

There were no wholesale lines or revenues reported in the North⁷ in 2018.

⁶ Independent ISPs are defined as ISPs that are not cable-based carriers or incumbent TSPs.

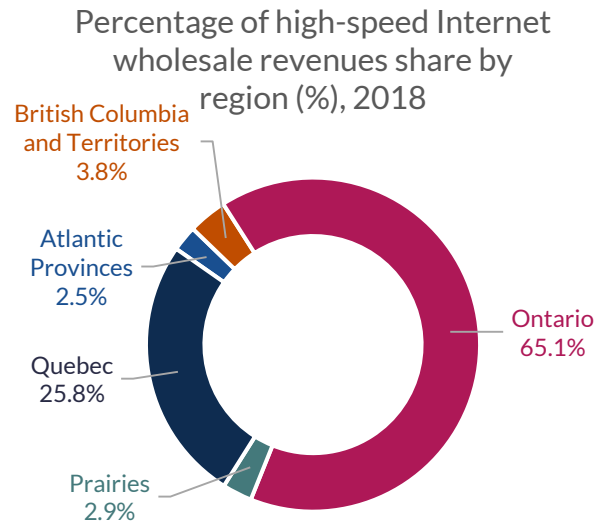
⁷ The "North" refers to the Northwest Territories, Nunavut and Yukon.

Figure 8.13 Percentage of high-speed Internet wholesale lines by region (%), 2018



Source: CRTC data collection

Figure 8.14 Percentage of high-speed Internet wholesale revenues share by region (%), 2018



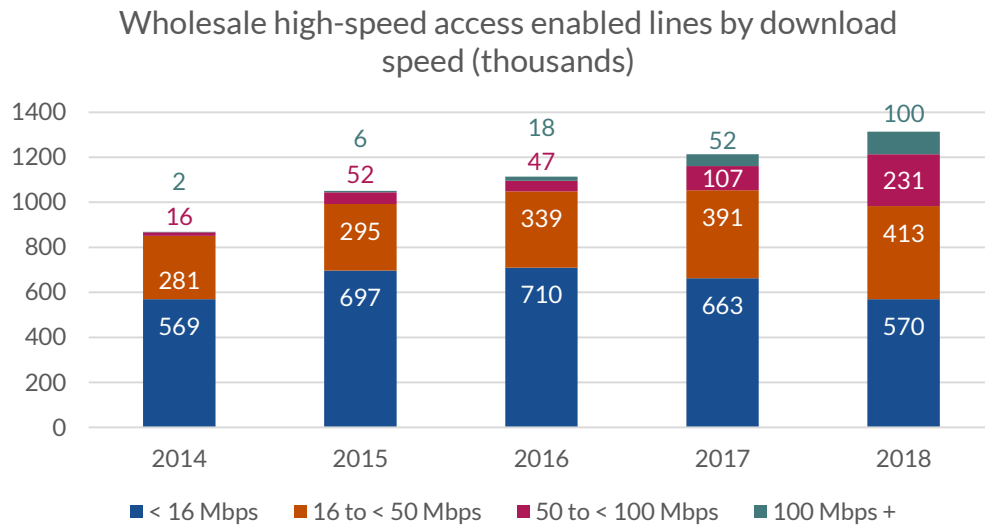
Source: CRTC data collection

Information in the above figures regarding high-speed Internet wholesale lines and revenues is from a sample of the larger ISPs. They reported approximately 67% of total wholesale Internet service revenues in 2018.

As mentioned earlier, the number of wholesale Internet lines has reached 1.3 million, growing at an annual rate of 10.9% from 2014 to 2018. Although wholesale lines with download speeds under 16 Mbps continued to have the largest share at 43.4% (0.57 million), this share has decreased by 14.0% from the previous year and has been on the decline since 2016.

Wholesale Internet lines with download speeds of 50 Mbps to 100 Mbps saw the largest growth (114.9%), more than doubling the number of wholesale lines from the previous year. Wholesale lines of 100 Mbps and above also saw substantial growth, growing 90.5% from 2017.

Figure 8.15 Wholesale high-speed access enabled lines by download speed (thousands)



Source: CRTC data collection

v Methodology

Capital expenditures and capital intensity

Capital expenditures (CAPEX) are the costs associated with procuring, constructing, and installing new assets of telecommunications networks, to replace or add to existing assets, or to lease to others. The capital expenditures metric in this report includes data only from companies which supplied both telecom revenue and capital expenditure data.

Capital intensity is the ratio of capital expenditures to revenues. The capital intensity metric of the telecommunications industry found in this report was derived by dividing the total annual capital expenditures by the annual telecommunications revenues of companies that reported capital expenditures. The capital intensity of the Top 5 TSPs was calculated by dividing the sum of their capital expenditures of the Top 5 TSPs by the year-end telecommunications revenues of these TSPs. These TSPs accounted for 82% of all capital expenditures in 2018.

The capital intensity for all other industries found in Infographic 8.6 was calculated by dividing the industry CAPEX by the full-year industry revenue. Industry CAPEX and industry revenue can be found in Statistics Canada Tables [34-10-0035-01](#) and [33-10-0007-01](#).

Earnings before interest, taxes, depreciation, and amortization

Earnings before interest, taxes, depreciation, and amortization (EBITDA) is the operating revenue after having subtracted operating expenses but before subtracting charges for interest payments, taxes, depreciation, and amortization. The EBITDA margins were determined by dividing the total EBITDA by the total operating revenues. The EBITDA margins were calculated for companies for whom at least 80% of their total revenues are represented by Canadian telecommunications services.

Wholesale Internet lines and revenues by province/territory and region

All information in the telecommunications overview section regarding provincial wholesale Internet lines and revenues is from data collected through surveying the larger ISPs. These larger ISPs are telecom providers that have historically provided regulated telecom services (such as WHSA, unbundled loops, and Content Delivery Network [CDN] services). They are assigned forms that report details of their wholesale high-speed Internet access lines and revenues.

These ISPs accounted for approximately 67% of total wholesale Internet revenues in 2018.

Definitions

An **alternative service provider** is any entity that is not an incumbent TSP. Examples of alternative service providers include Rogers, Shaw, Videotron, Distributel, and TekSavvy.

Cable-based carriers are former cable monopolies that also provide telecommunications services (e.g. wireline voice, Internet, data and private line, and wireless services). Examples of cable-based carriers include Rogers, Shaw, and Videotron.

Facilities-based service providers are any entity that has its own facilities. Examples of facilities-based service providers include Rogers, Shaw, Videotron, Bell Canada, SaskTel, and TELUS.

Fixed wireless service providers are any entity that provides its services over a wireless network that uses either licensed or unlicensed spectrum to provide communications services, where the service is intended to be used in a fixed location. Examples of fixed wireless service providers include Xplornet and Corridor Communications.

Incumbent local exchange carrier (ILEC's) are incumbent entities providing local voice services. Examples of incumbent local exchange carriers include Bell Canada, SaskTel, TELUS, Sogetel, and Execulink.

An **Incumbent Telecommunications Service Provider (TSP)** is a company that provides local telecommunications services on a monopoly basis prior to the introduction of competition. These can be further categorized as large and small incumbent TSPs.

An **independent Internet service provider (ISP)** refers to ISPs that are not cable-based carriers or incumbent TSPs. Examples of independent ISPs include TekSavvy, Xplornet, Distributel, and Verizon Canada.

Large incumbent TSPs serve relatively large geographical areas, usually including both rural and urban populations, and provide wireline voice, Internet, data and private line, wireless, and other services. Examples of large incumbent TSPs include Bell, SaskTel and TELUS.

Other facilities-based carriers refers to providers of telecommunications services that are not incumbent providers but which own and operate telecommunications networks. Examples of other facilities-based carriers include Xplornet and Allstream Business.

Small incumbent TSPs serve relatively small geographical areas. Due to the limited size of their serving areas, these companies do not typically provide facilities-based long distance services. However, they provide a range of wireline voice, Internet, data and private line, and wireless services. Examples of small incumbent TSPs include Sogetel and Execulink.

Tariff services are services whose rates, terms, and conditions are set out in a Commission-approved tariff. Non-tariff services are those telecommunications services whose rates, terms, and conditions are not set out in a Commission-approved tariff. Off-tariff services are those whose prices are filed with the Commission but for which the parties have agreed to an alternate price.

A **telecommunications service provider (TSP)** refers to any entity providing telecommunications services.

Wholesale-based service providers or **non-facilities-based service carriers** refers to companies that generally acquire telecommunications services from other providers and either resell those services or create their own network from which to provide services to their customers. A company that owns a small number of facilities but has the vast majority of its operations on leased facilities may also be classified as non-facilities-based. Examples of wholesale-based service providers and non-facilities-based carriers include Distributel and TekSavvy.

A **wireless service provider (WSP)** is any entity providing wireless services. Examples of wireless service providers include Rogers, Shaw, Videotron, Bell Canada, SaskTel, and TELUS.



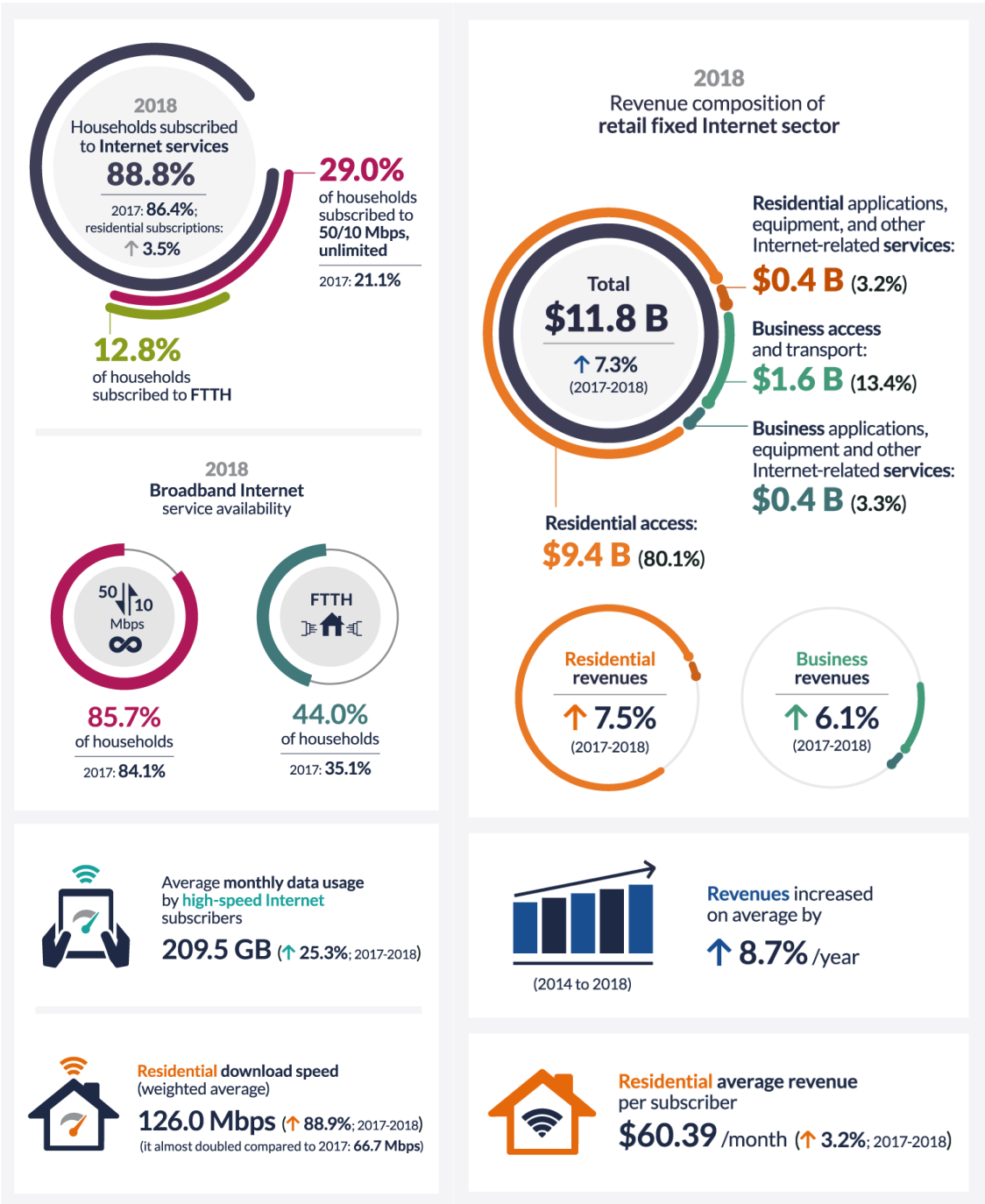
Communications Monitoring Report **2019**

Retail Fixed Internet Sector
and Broadband Availability



Retail Fixed Internet Sector and Broadband Availability

Infographic 9.1 Overview of retail fixed Internet sector, 2018



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Internet applications include services such as email, web hosting and data centre services. All information in this section regarding gigabytes per month usage, and subscriptions by advertised speed and advertised download capacity, is from the larger ISPs. They reported approximately 90% of total residential high-speed Internet service subscriptions in 2018.

In 2018, the retail fixed Internet sector revenues increased by 7.3% and subscriptions by 3.4% compared to 2017. From 2014 to 2018, revenues for this sector grew at an average annual rate of 8.7%. Out of a total of \$11.8 billion revenues generated in 2018, residential access services accounted for the largest share at \$9.4 billion (80.1%). Business access and transport services generated \$1.6 billion (13.4%) of revenues, while equipment sales and rentals, as well as Internet applications, generated the remaining \$0.8 billion (6.5%).

More Canadians are subscribing to Internet services, with 88.8% of households subscribing to these services in 2018 and 29.0% subscribing to broadband services with speeds of 50/10 Mbps and unlimited data transfer. Canadians continued to use more data, subscribe to faster and larger packages, and allocate more money to Internet services.

Business Internet revenues grew at a slower pace than residential revenues. However, more Canadian businesses subscribed to high-speed Internet service packages, with subscriptions increasing by 3.1%.

Fibre deployment continued, increasing the availability of fibre-to-the-home (FTTH) Internet services from 35.1% to 44.0%. These deployments were mainly in large urban areas. At the same time, availability of 50/10 service with unlimited data reached 85.7% of households, compared to 84.1% in 2017.

In this report, Internet service providers (ISPs) are categorized into four main groups: incumbent TSPs,¹ cable-based carriers,² other facilities-based carriers³ and wholesale-based service providers⁴.

¹ Examples of incumbent TSPs include Bell, SaskTel and TELUS. They also include small incumbent TSPs such as Sogetel and Execulink.

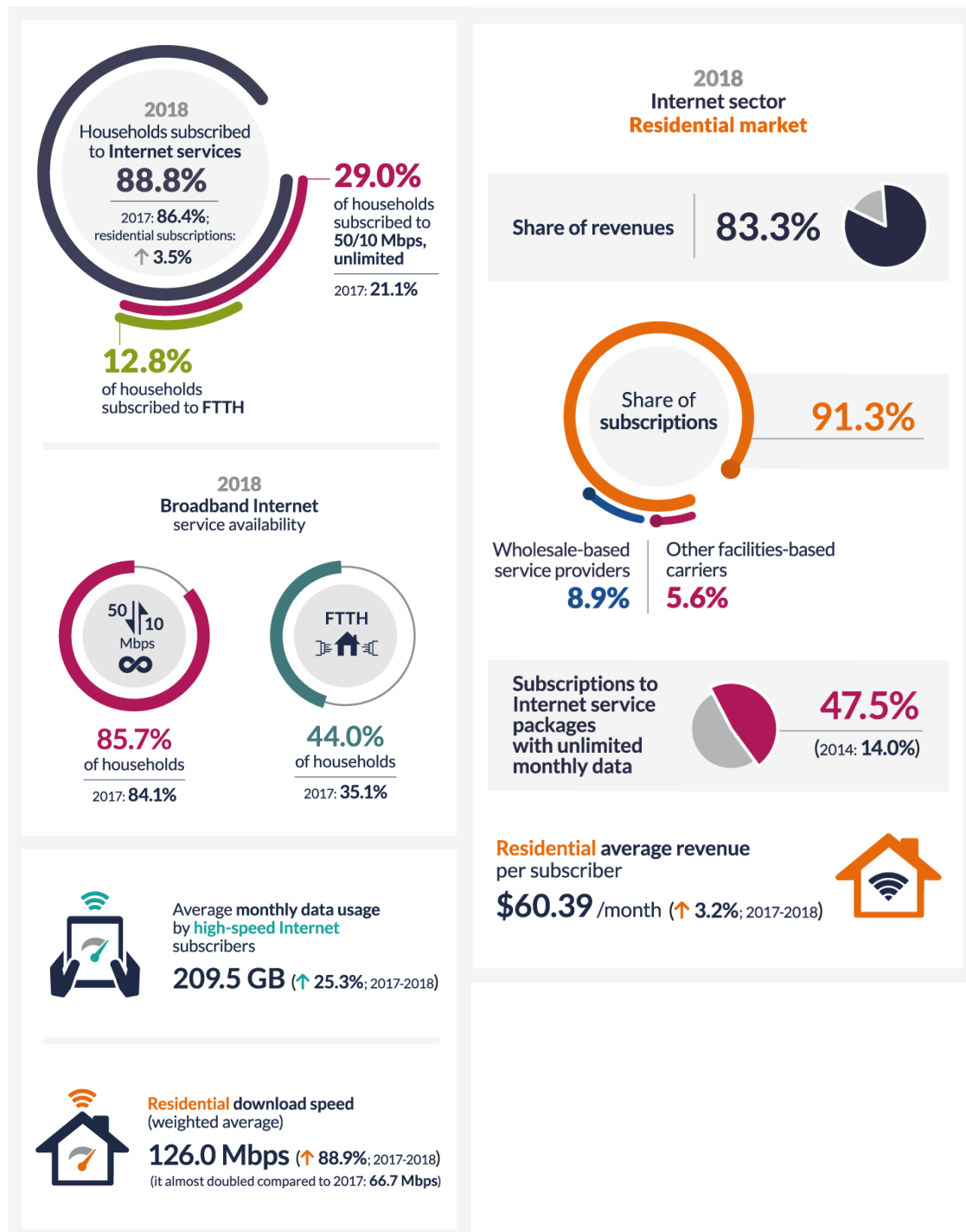
² Examples of cable-based carriers include Rogers, Shaw, and Videotron.

³ Examples of other facilities-based carriers include Xplornet and Allstream Business.

⁴ Examples of wholesale-based service providers include Distributel and TekSavvy.

i. Residential market

Infographic 9.2 Overview of the residential Internet market, 2018

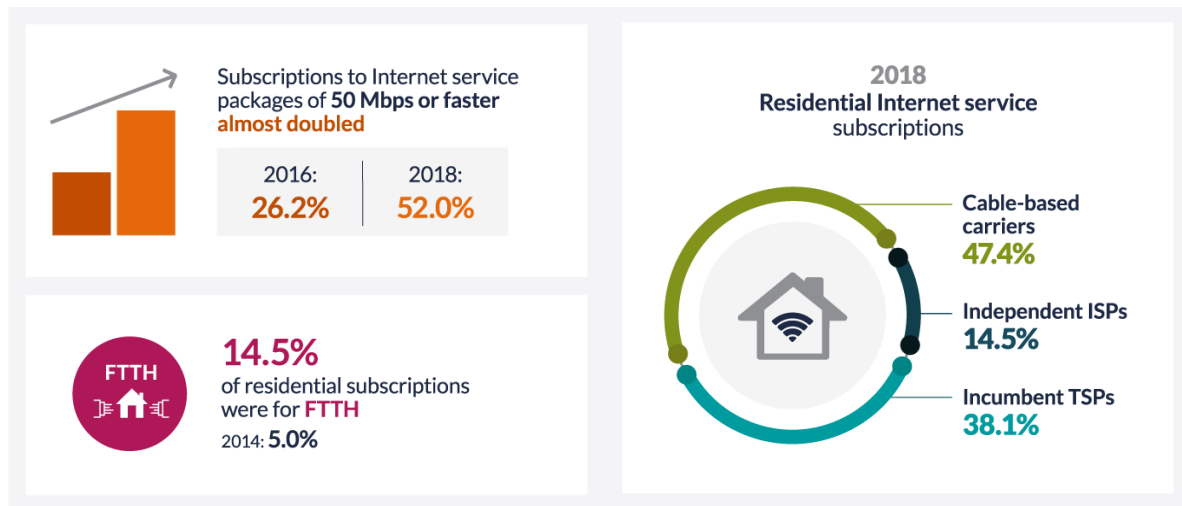


Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

As mentioned above, more Canadians are subscribing to Internet access services. Canadian households continue to use more data, subscribe to faster and larger packages, and allocate more money to Internet services.

Subscriptions

Infographic 9.3 Points of interest in residential Internet service subscriptions, 2018



Source: CRTC data collection

Independent ISPs are defined as ISPs that are not cable-based carriers or incumbent TSPs and include other facilities-based carriers as well as wholesale-based service providers.

Other facilities-based carriers are facilities-based providers that are not incumbent TSPs or cable-based carriers, mainly consisting of fixed-wireless and satellite-based service providers.

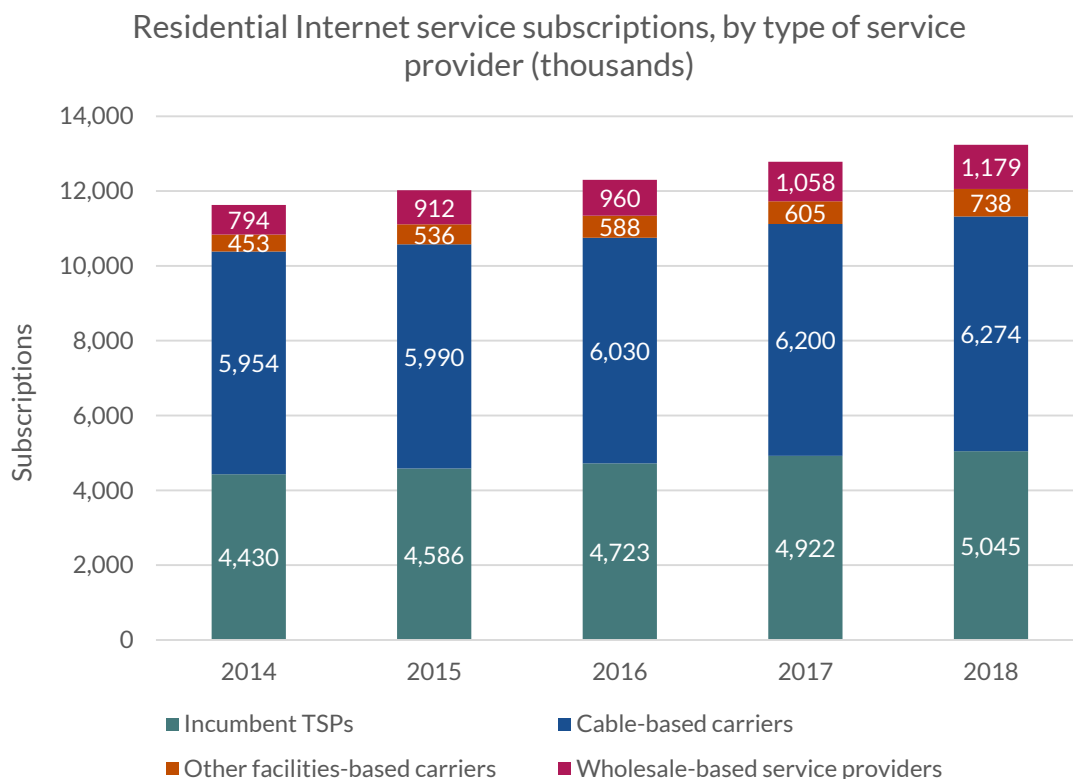
Wholesale-based service providers or non-facilities-based service carriers refers to companies that generally acquire telecommunications services from other providers and either resell those services or create their own network from which to provide services to their customers

In 2018, residential subscriptions exceeded 13 million (88.8% of the 14.9M households), a 3.5% increase from 2017, which is more than twice the population growth rate.⁵ Cable-based carriers and incumbent TSPs had an 85.5% share of the market by subscriptions while wholesale-based service providers and other facilities-based carriers continued to increase their share of the market, reaching 8.9% and 5.6% of subscriptions, respectively, up from 6.8% and 3.9% in 2014.

Year over year growth rates of Internet subscriptions were approximately 2 to 4 times higher than population growth rates from 2014 to 2018. Overall, during this period, Internet subscriptions grew on average 3.3% per year, while the population grew on average by 1.2% per year during the same period.

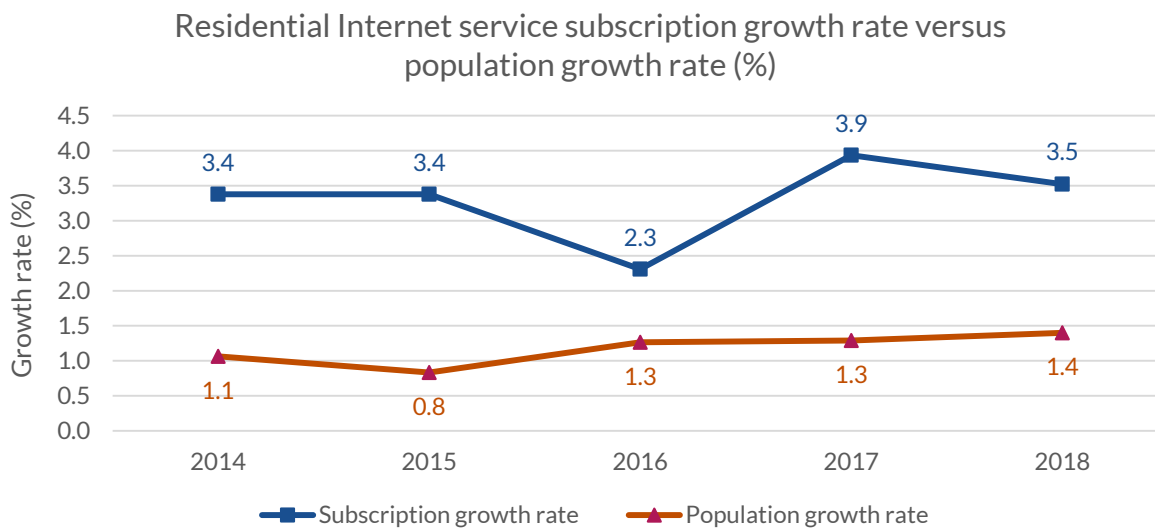
⁵ The population growth rate was 1.4% from 2017 to 2018, according to Statistics Canada [Table 17-10-0009-01 - Population estimates, quarterly](#)

Figure 9.1 Residential Internet service subscriptions, by type of service provider (thousands)



Source: CRTC data collection

Figure 9.2 Residential Internet service subscription growth rate versus population growth rate (%)



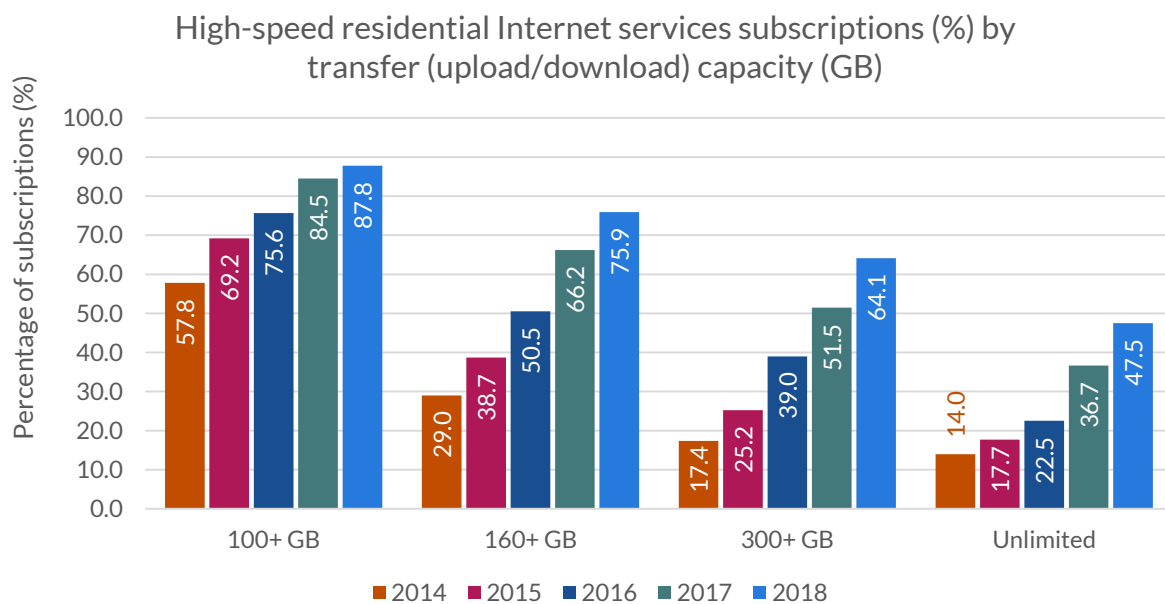
Source: CRTC data collection and Statistics Canada population estimates [Table 17-10-0009-01 - Population estimates, quarterly](#)

Canadians continued to subscribe to Internet services with higher monthly data allowances. In 2018, 47.5% (5.7 million) of all residential Internet subscriptions were for services with unlimited monthly data transfer limits. Average data use continued to increase concurrently, with a 25.3% increase in average combined download/upload data usage since 2017, reaching 209.5 GB per month in 2018.

In 2018, Canadian households paid approximately \$76 million in Internet overage charges which is 0.8% of total residential Internet service revenues; this is down from the approximately \$94 million paid in 2017. Approximately 2.3% of subscribers went over their usage limit in 2018, which is down from 3.6% in 2017.

All information in this section regarding usage of gigabytes per month, and subscriptions by advertised speed and advertised download capacity, is from the larger ISPs representing approximately 90% of total residential high-speed Internet service subscriptions in 2018.

Figure 9.3 High-speed residential Internet service subscriptions (%), by transfer (upload/download) capacity (GB)



Source: CRTC data collection

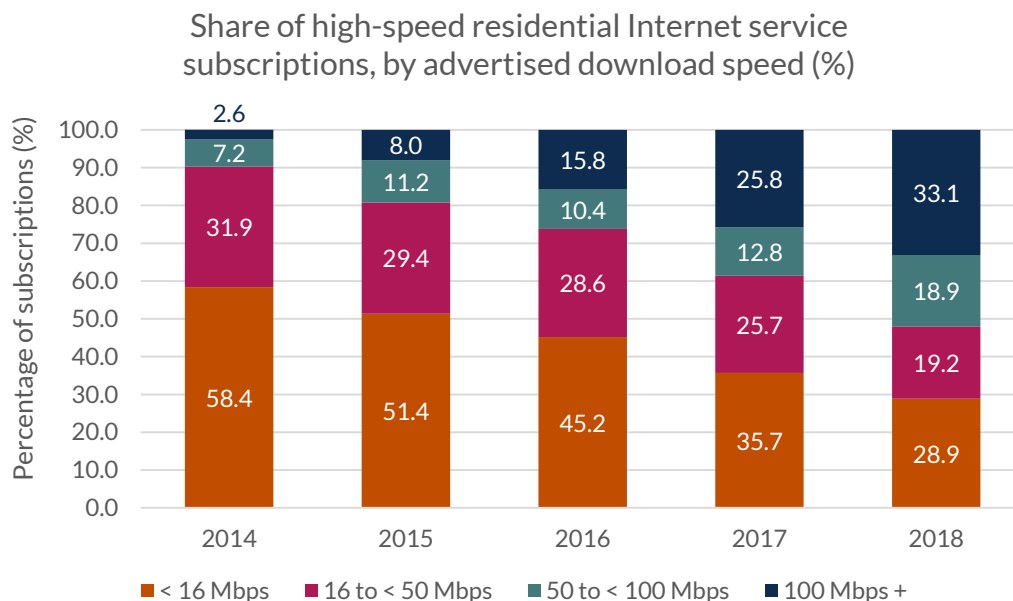
Plans with unlimited data upload were categorized according to their download limit.

In 2018, 49.5% of high-speed residential Internet service subscriptions were for a service that met the Commission’s target speeds of 50 Mbps download and 10 Mbps upload, compared to 36.4% in 2017, showing that Canadians are increasingly subscribing to faster Internet services.

Subscriptions to services meeting these speeds (50/10 Mbps), and with unlimited monthly data transfer, increased to 38.6% of total high-speed subscriptions from 28.1% in 2017.

Not only are Canadians increasingly subscribing to Internet services meeting the Commission’s target, they are also subscribing to even faster services in a growing number. The proportion of subscriptions to services offering speeds of 100 Mbps or faster grew more than ten times from 2.6% in 2014 to 33.1% in 2018, while less than a third of the subscriptions were for services offering speeds of less than 16 Mbps in 2018. As a result, the weighted average download speed of residential subscriptions grew by 88.9% from 2017 to 2018 to reach 126.0 Mbps.

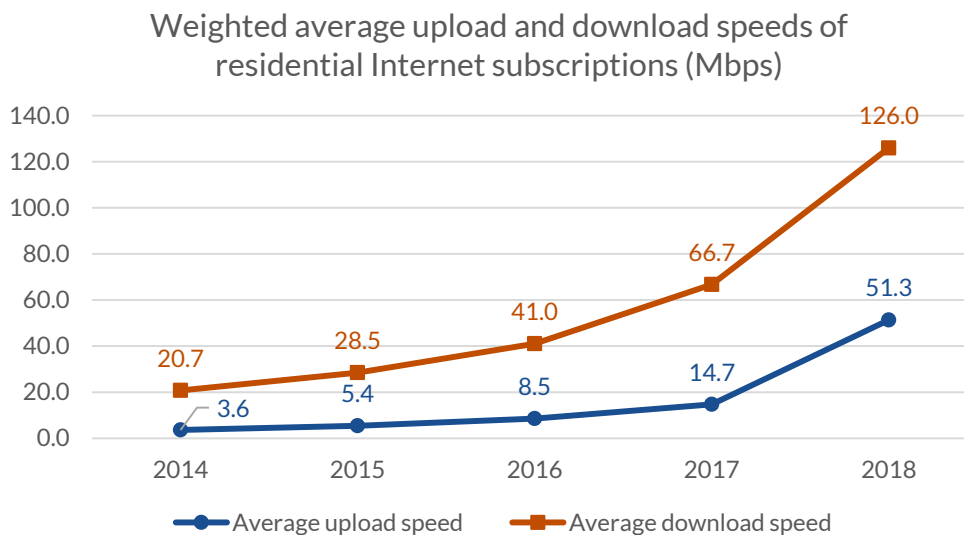
Figure 9.4 Share of high-speed residential Internet service subscriptions, by advertised download speed (%)



Source: CRTC data collection

This figure indicates that, over time, high-speed services have accounted for a larger share of subscriptions. 88.6% of Canadian households subscribed to some form of high-speed Internet service in 2018. “High-speed” refers to 256 Kbps or faster.

Figure 9.5 Weighted average upload and download speeds of residential Internet subscriptions (Mbps)

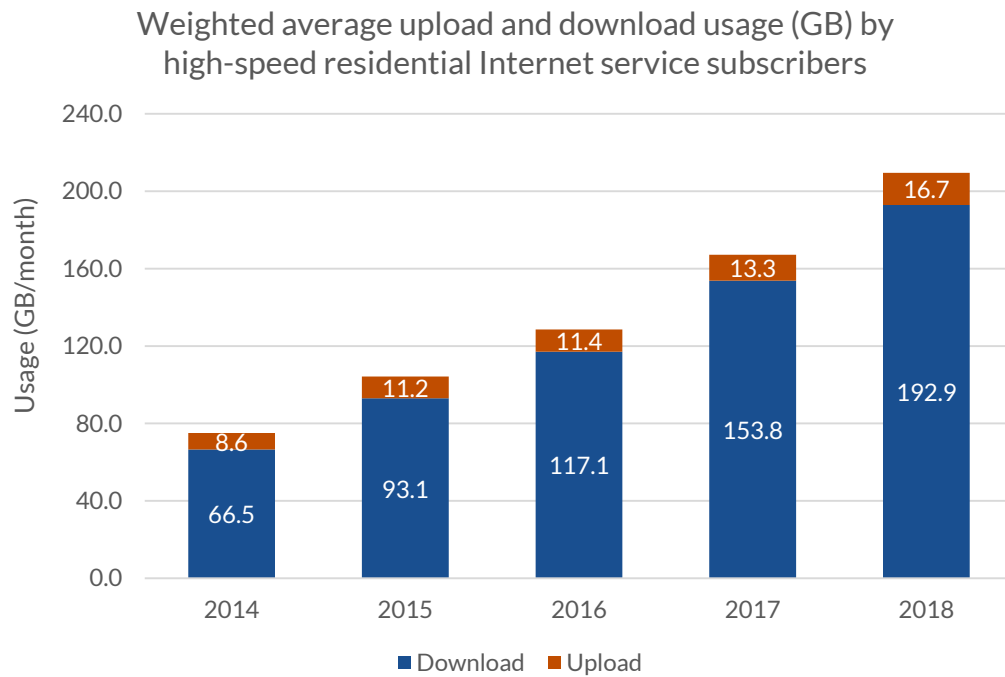


Source: CRTC data collection

All information in this section regarding weighted average upload and download speeds is from the largest ISPs. They reported approximately 84% of total residential high-speed Internet service subscriptions in 2018.

While Canadians subscribed to faster services, they also consumed more data. The average amount of data downloaded by residential Internet service subscribers increased by 25.4% between 2017 and 2018 to 192.9 GB per month, and by an average of 30.5% annually from 2014 to 2018. Average upload amounts also increased by 24.9% in 2018, reaching an average of 16.7 GB per month. Increases from 2014 to 2018 resulted in nearly double the average uploaded data per subscriber and nearly triple the average downloaded data.

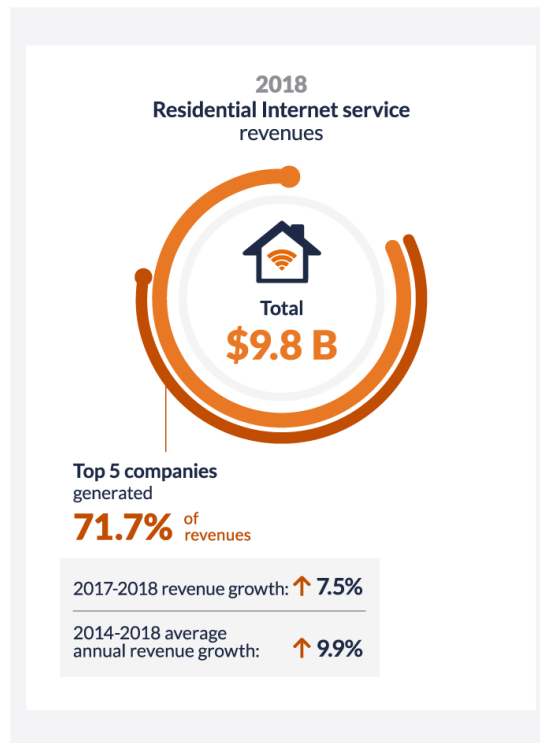
Figure 9.6 Weighted average upload and download usage (GB) by high-speed residential Internet service subscribers



Source: CRTC data collection

Revenues

Infographic 9.4 Points of interest in residential Internet service revenues, 2018



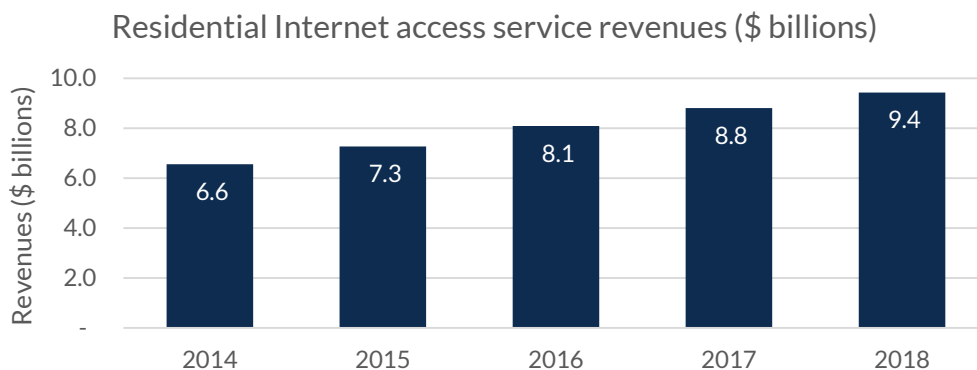
Source: CRTC data collection

Residential Internet revenues reached \$9.8 billion in 2018, with Internet access revenues representing over 96% of the total or \$9.4 billion in 2018.

The Internet service revenue share of the top five companies (Bell, Rogers, Shaw, TELUS and Videotron) decreased, from 73.3% in 2017 to 71.7% in 2018.

In the meantime, independent ISPs slowly increased their revenue share. Wholesale-based service providers' share grew from 5.6% in 2014 to 6.8% in 2018 and other facilities-based carriers' share grew from 4.1% in 2014 to 6.9% in 2018.

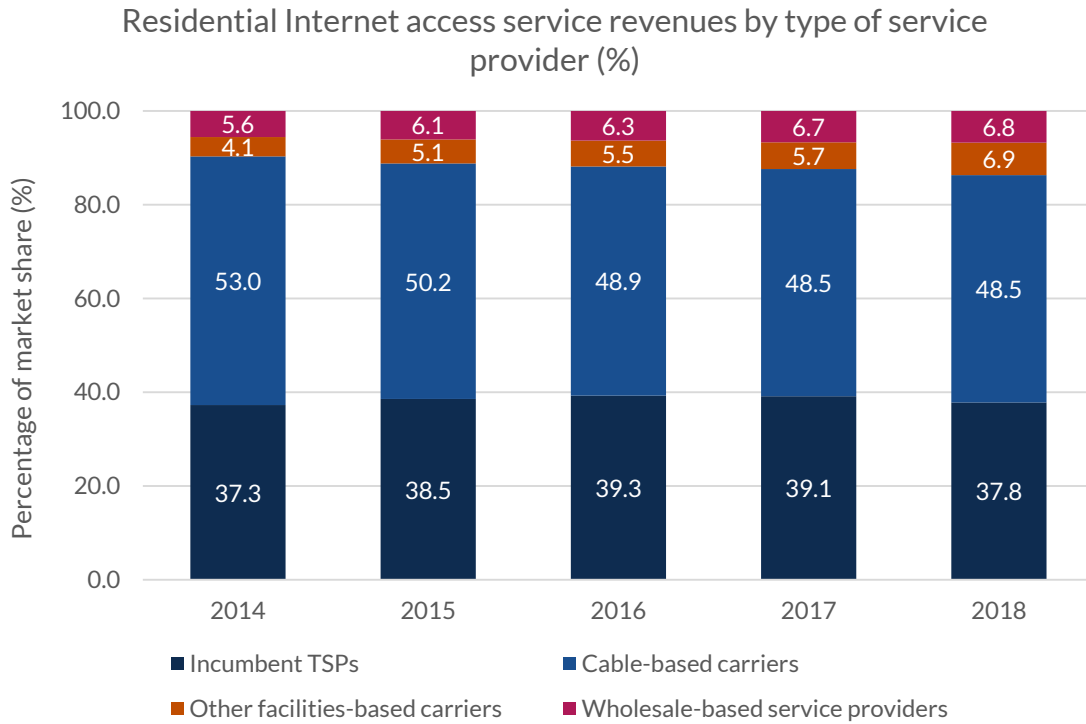
Figure 9.7 Residential Internet service revenues (\$ billion)



Source: CRTC data collection

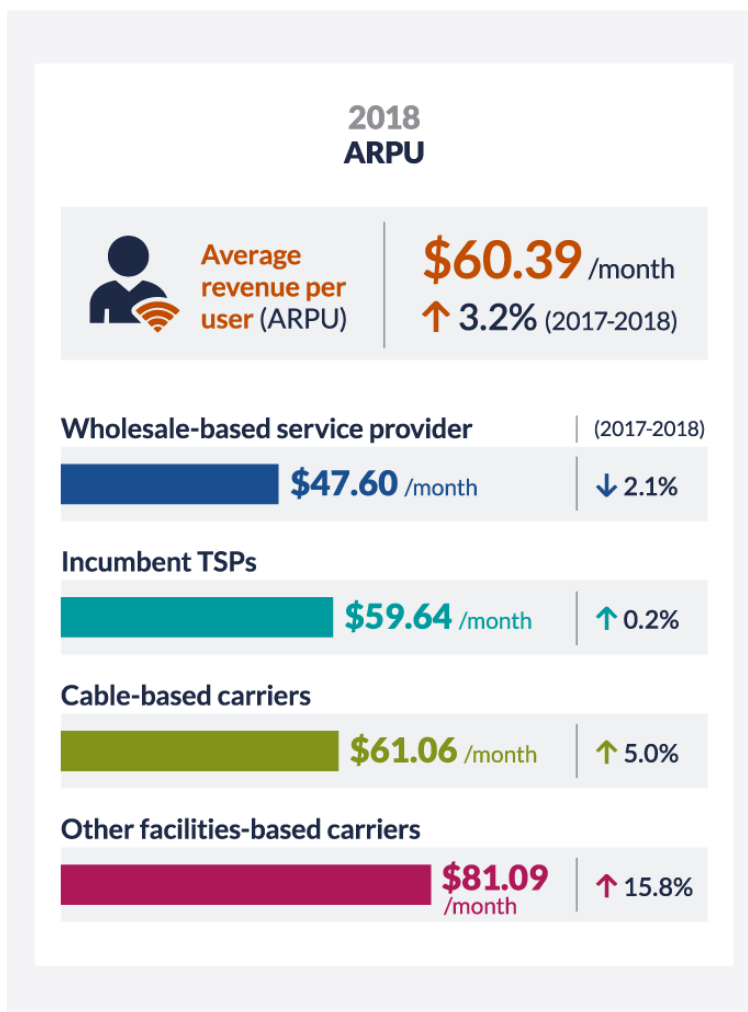
Independent ISPs continued to increase their share of residential Internet service revenues from 2014 to 2018 at the expense of incumbent TSPs' and cable-based carriers' share of the revenues. Wholesale-based service providers and other facilities-based carriers were the only types of providers to increase their share of revenues from 2017 to 2018. Cable-based carriers continued to have the highest share of residential Internet service revenues.

Figure 9.8 Residential Internet service revenue shares, by type of service provider (%)



Source: CRTC data collection

Infographic 9.5 Points of interest related to ARPU, 2018



Source: CRTC data collection

Other facilities-based carriers are facilities-based providers that are not incumbent TSPs or cable-based carriers, and mainly consist of fixed-wireless and satellite-based service providers.

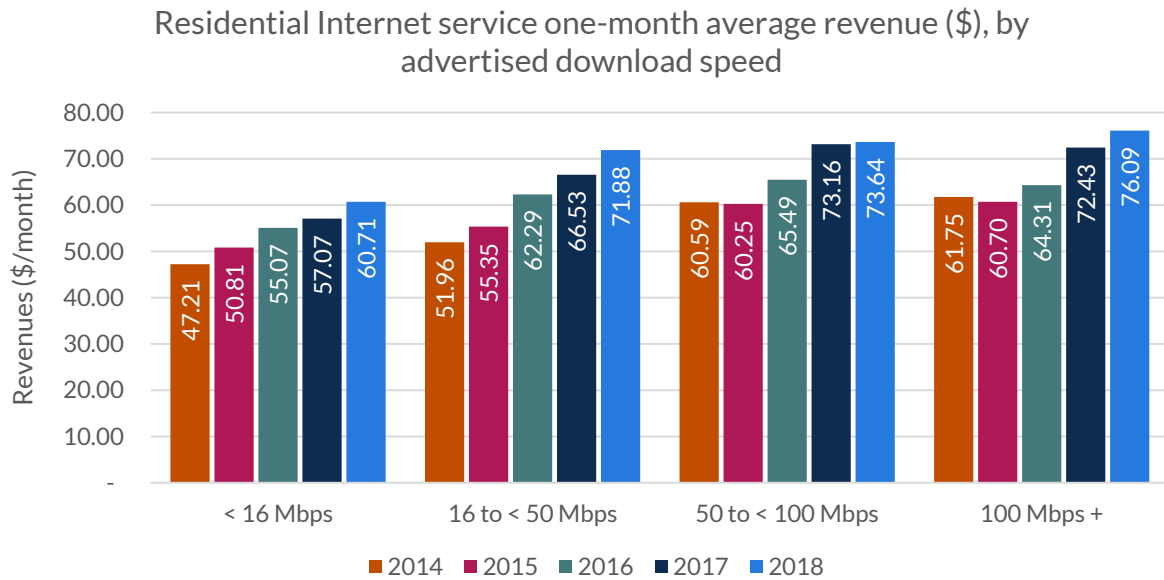
Wholesale-based service providers consistently reported the lowest average revenue per user (ARPU), while the highest ARPU was attributed to the other facilities-based carrier category, which consists mainly of fixed wireless and satellite-based service providers. The ARPU for incumbent TSPs and cable-based carriers were \$59.64 and \$61.06, respectively.

The industry-wide ARPU increased by 3.2% from 2017 to 2018, with an average growth rate of 6.1% from 2014 to 2018.

ARPU may vary from Figure 9.9 below, which uses data from only the larger providers. These providers hold 90% of all high-speed residential Internet service subscriptions. ARPU is calculated based on whole-year revenues and on year-end subscription data, not data from a particular month. It also includes data from dial-up services.

Per subscriber revenues increased rapidly for the increasingly popular higher-speed Internet service packages. For instance, one-month average reported revenues for Internet service packages with download speeds of 50 Mbps and faster increased by 3.5% from 2017. This is especially impactful in the marketplace, as these packages represent 52.0% of the market, as shown in Figure 9.4. Meanwhile, packages with download speeds under 16 Mbps (28.9% of the market share) have seen one-month average revenues increase by 6.4%. The average revenues generated per subscriber with services offering speeds between 16 and 50 Mbps increased by 8.0% from 2017 to 2018. These services represented 19.2% of the Internet service market in 2018.

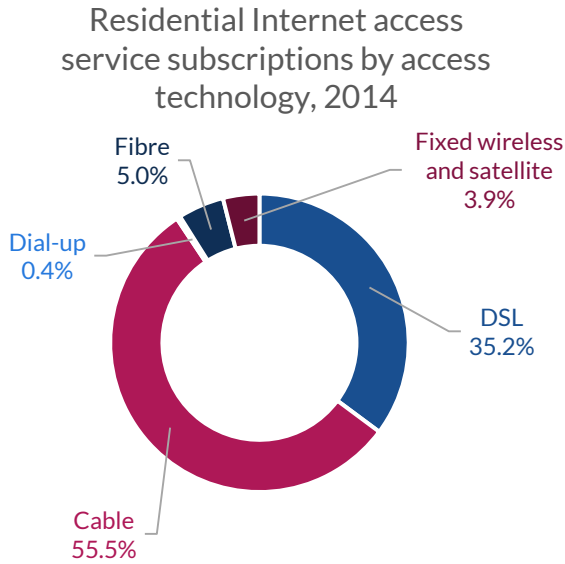
Figure 9.9 Residential Internet service one-month average revenue (\$), by advertised download speed



Source: CRTC data collection

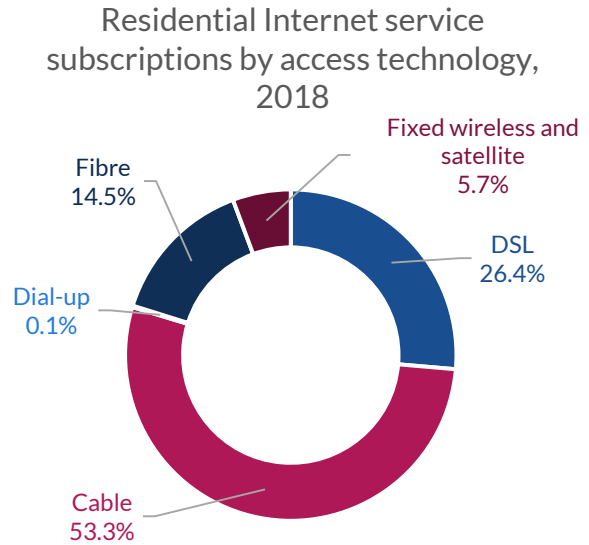
As part of their efforts to compete with cable-based carriers, incumbent TSPs continued to build FTTH networks and promote fibre-based Internet services. This resulted in a significant increase in their share of fibre-based Internet service subscriptions, which went from 5.0% in 2014 to 14.5% in 2018.

Figure 9.10 Residential Internet access service subscriptions by access technology, 2014 (%)



Source: CRTC data collection

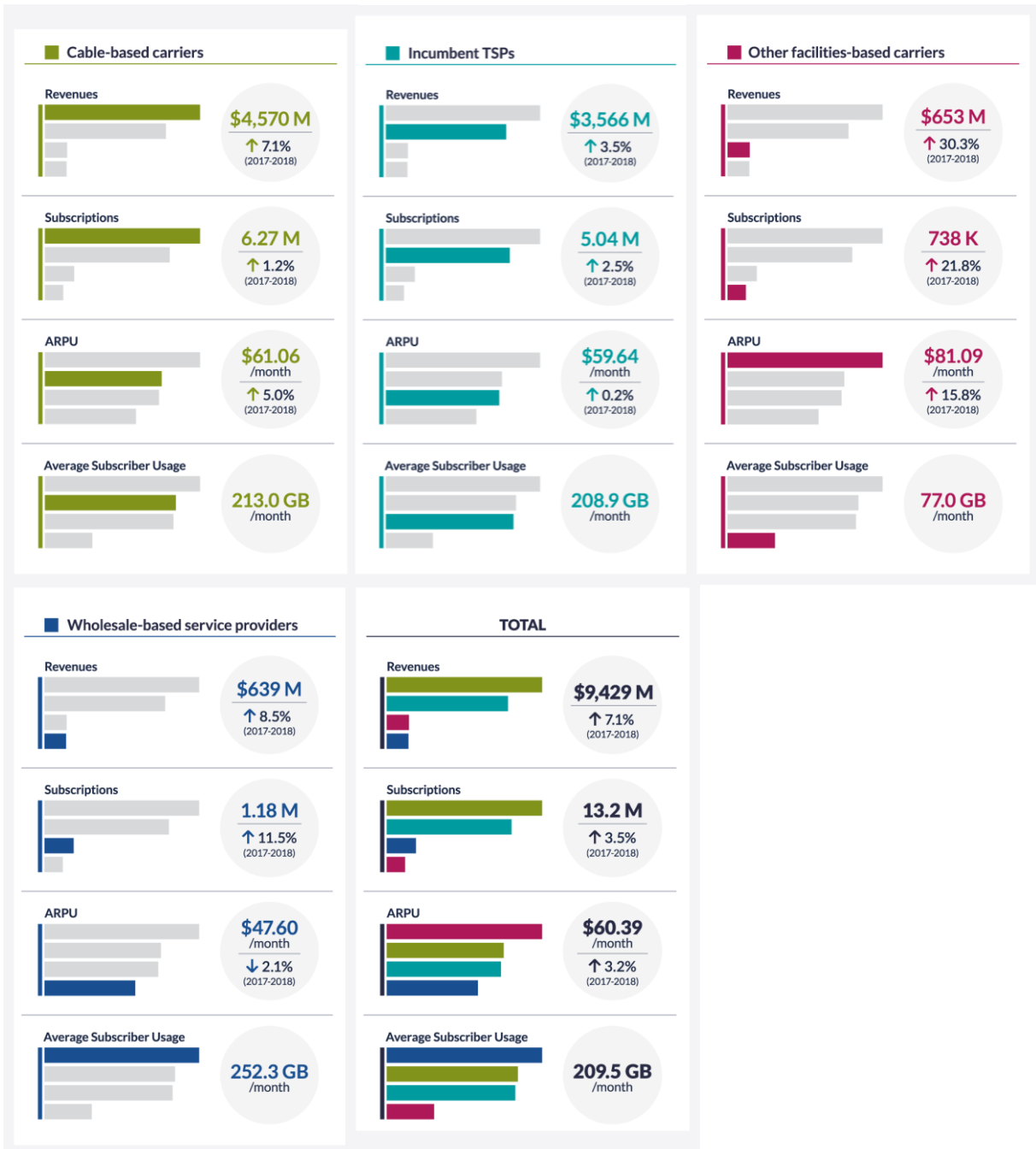
Figure 9.11 Residential Internet service subscriptions by access technology, 2018 (%)



Source: CRTC data collection

Market composition

Infographic 9.6 Residential Internet service market composition summary, 2018



Source: CRTC data collection

Independent ISPs have been reporting steady growth in the Canadian telecommunications market as their market share by revenues and subscriptions continued to rise, providing Canadians with alternatives to traditional facilities-based providers when selecting an internet service provider.

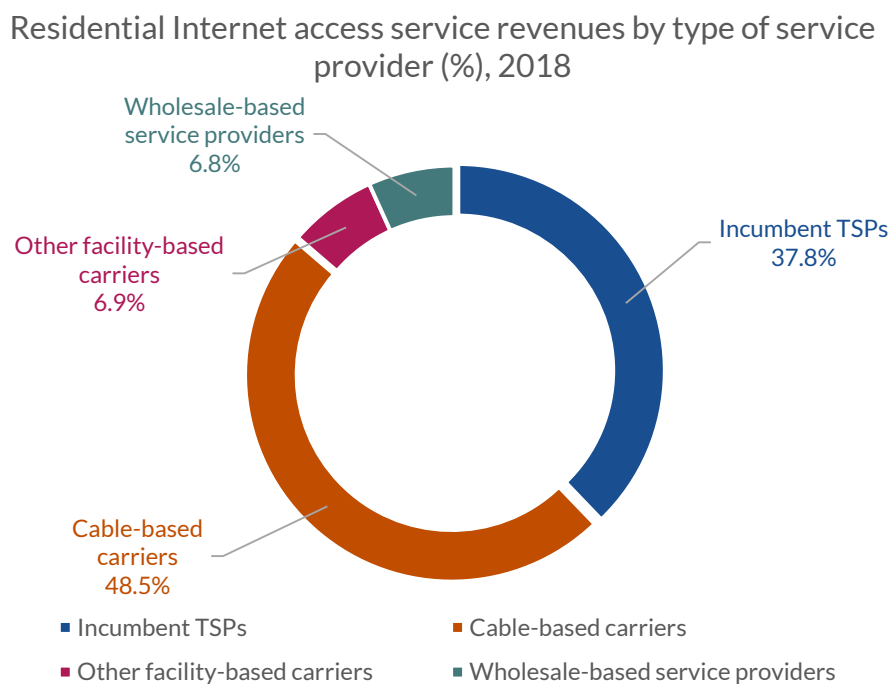
Wholesale-based service providers reported the lowest ARPU of \$47.60, 20.2% lower than the ARPU of incumbent TSPs and 22.0% lower than the ARPU of the cable-based carriers, while other facilities-based carriers had the highest ARPU of \$81.09, 34.3% higher than the overall average of \$60.39.

The overall monthly average data usage per subscriber increased by 25.3% from 2017. Subscribers of wholesale-based service provider Internet services experienced much higher data usage compared to subscribers of Incumbent TSP and cable-based carrier Internet services, a difference of at least 40GB/month. Subscribers of other facilities-based carrier Internet services had the lowest monthly data usage of 77.0 GB.

Interestingly, wholesale-based service providers reported the lowest ARPU while also having the highest monthly average data usage, meaning that, on average, wholesale-based service providers receive the least revenue per gigabyte.

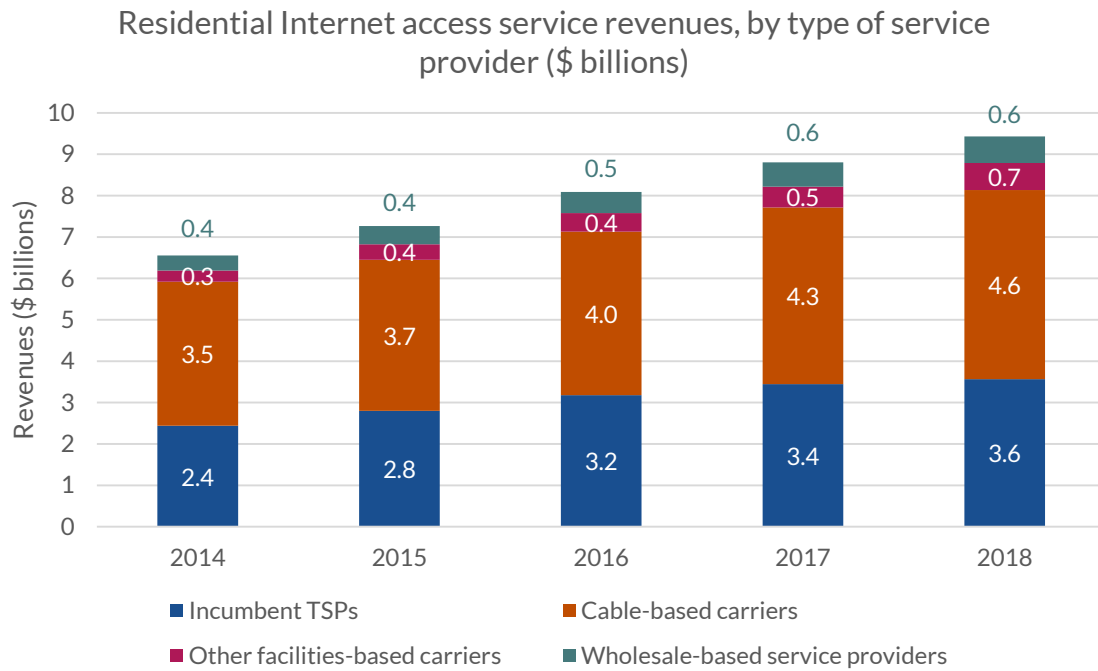
In 2018, residential Internet access service revenues totaled \$9.4 billion. These revenues for wholesale-based service providers and other facilities-based carriers continued to grow, increasing their share in the residential Internet service market. They accounted for 6.8% (\$0.6 billion) and 6.9% (\$0.7 billion) of this total, respectively. Although revenues for incumbent TSPs and cable-based carriers grew as well (3.5% and 7.1% increase, respectively), both of their market shares continue to see slight declines in recent years.

Figure 9.12 Residential Internet access service revenues, by type of service provider (%), 2018



Source: CRTC data collection

Figure 9.13 Residential Internet access service revenues, by type of service provider (\$ billion)

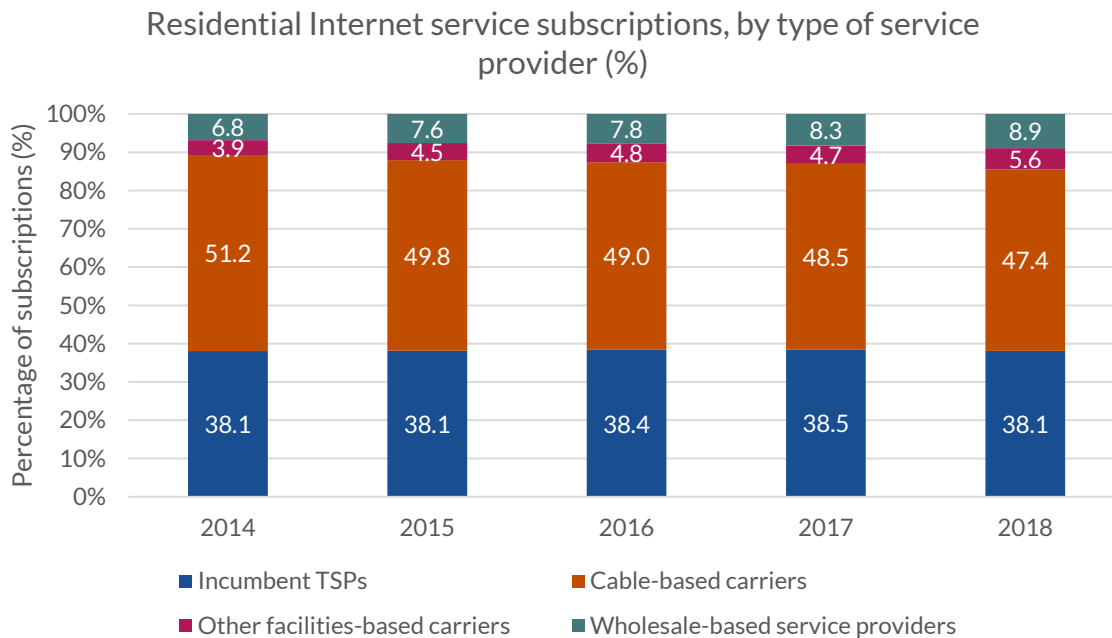


Source: CRTC data collection

More Canadians are subscribing to Internet access services. Residential Internet access subscriptions grew by 3.5% to over 13 million subscribers in 2018. Subscription numbers grew for all service provider types with the largest increase being reported by other facilities-based carriers, whose subscription numbers increased by 21.8% from 2017 to 2018.

Although incumbent TSPs and cable-based carriers had the vast majority of the market by subscription (85.5%), their market share has been on the decline since 2016. By contrast, wholesale-based service providers and other facilities-based carriers have experienced an increase in their share of this market.

Figure 9.14 Residential Internet access service subscriptions, by type of service provider (%)



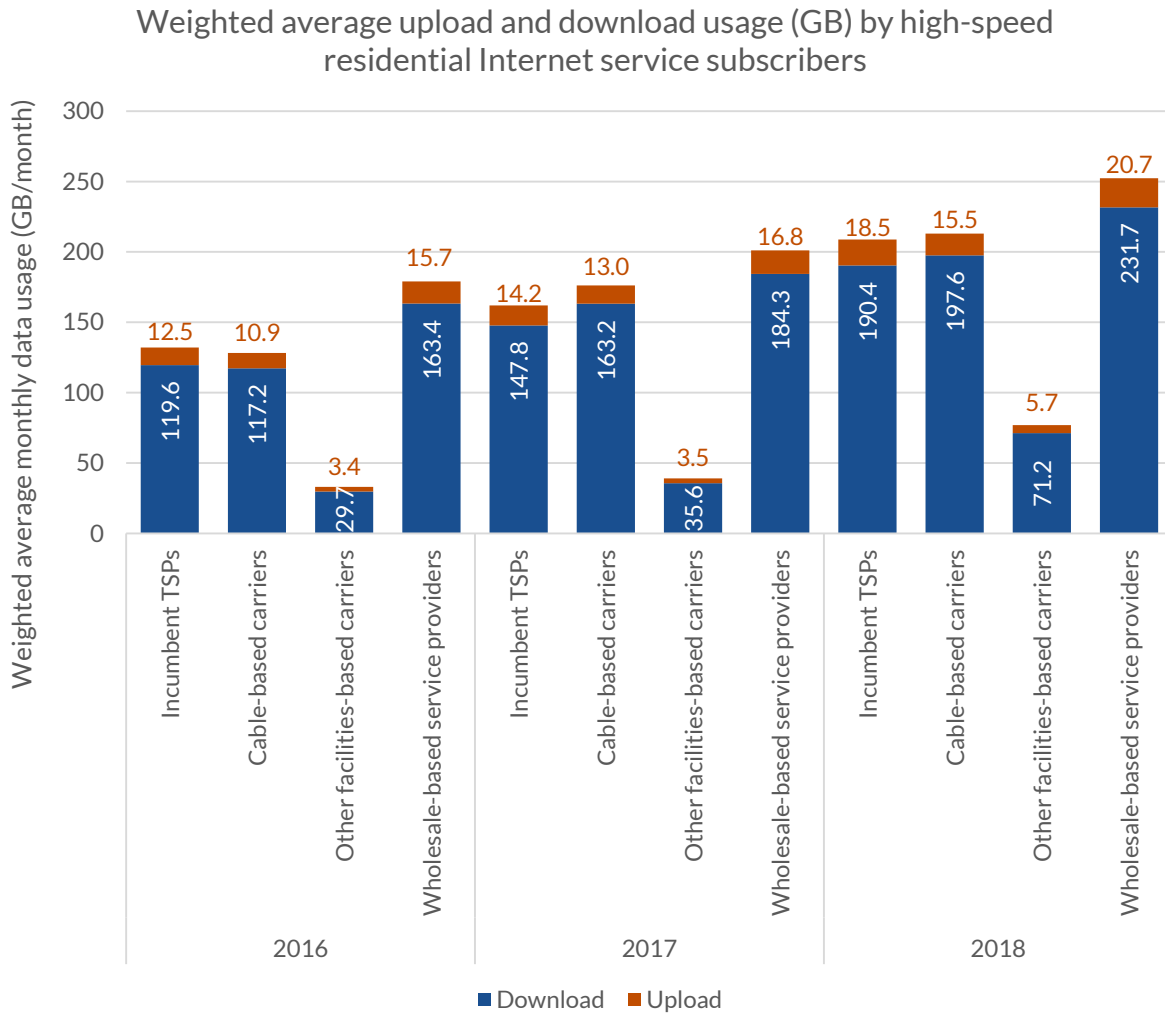
Source: CRTC data collection

Canadians are consuming more and more data each year. The industry weighted average for data usage in 2018 was 192.9GB/month download and 16.7GB/month upload, up 25.4% and 24.9% respectively.

Year to year, users of wholesale-based service provider Internet services have been consuming much more data than users of any other service provider type. Wholesale-based service providers had much higher weighted average download and upload usage compared to the industry average, at 231.7GB/month download and 20.7GB/month upload.

Low data usage for other facilities-based carrier Internet services can be attributed to the capacity limitations of technologies such as fixed wireless and satellite

Figure 9.15 Weighted average upload and download usage (GB) by high-speed residential Internet service subscribers



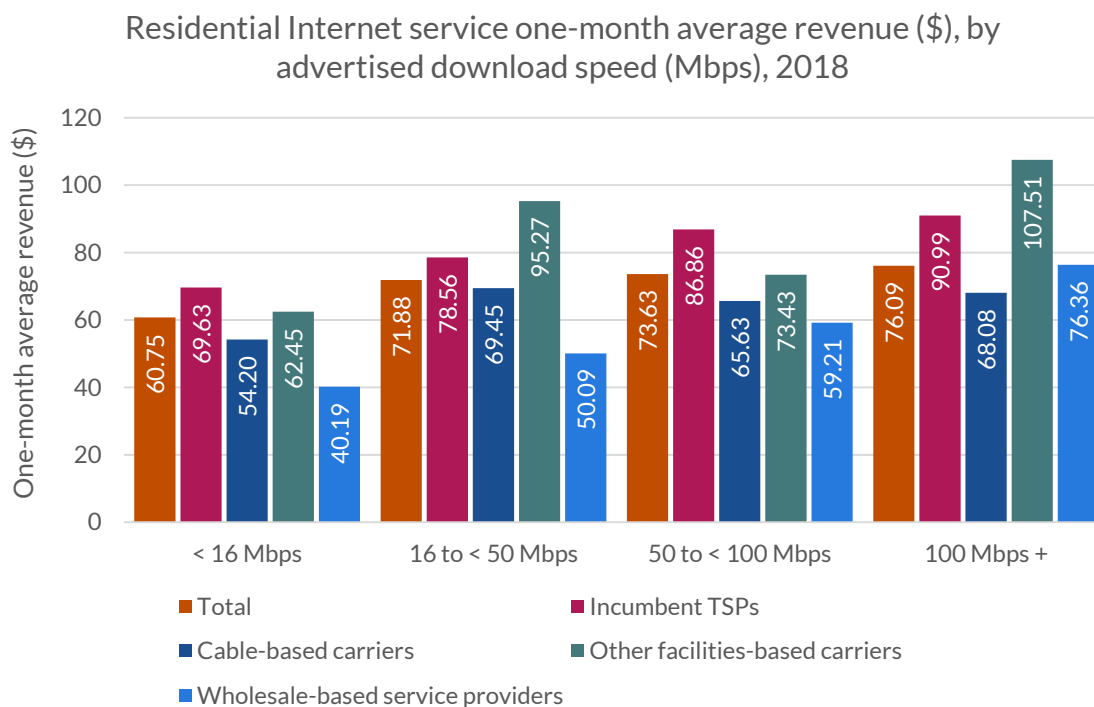
Source: CRTC data collection

Other facilities-based carriers are facilities-based providers that are not incumbent TSPs or cable-based carriers mainly consist of fixed-wireless and satellite-based service providers.

As Canadians continue to use more data, they are subscribing to Internet service packages that offer faster speeds and higher transfer limits, allocating more money towards these Internet services.

Subscriptions to Internet services with download speeds between 50 Mbps and 100 Mbps made up 18.9% of this sector in 2018. Wholesale-based service providers reported the lowest one-month average revenue of \$59.21 at this advertised download speed category, while incumbent TSPs reported the highest, at \$86.86. It is interesting to note that the one-month average revenues for wholesale-based service providers were found to be far below the overall average across all download speeds (with the exception of speeds of 100 Mbps and above), while the one-month average revenues for incumbent TSPs were above the overall average across all speed categories.

Figure 9.16 Residential Internet access service one-month average revenue (\$), by advertised download speed (Mbps), 2018

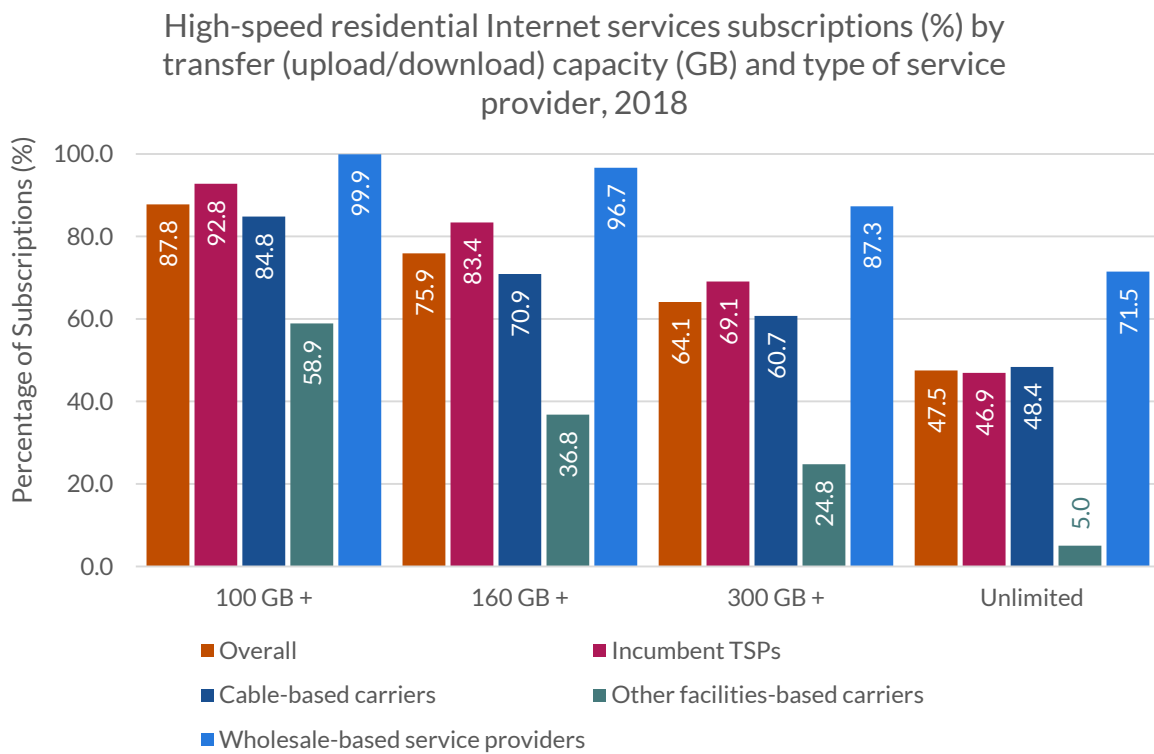


Source: CRTC data collection

Higher-capacity Internet services are becoming much more popular and are poised to take a greater share of the subscription base going forward. As seen in Figure 9.3, 87.8% of all residential Internet subscriptions were for services offering transfer limits of 100GB or more while almost half (47.5%) were for services offering an unlimited transfer limit. Incumbent TSPs and cable-based carriers made up 43.4% of the unlimited transfer limit subscriptions whereas independent ISPs accounted for the rest.

Although wholesale-based service providers make up less than 5% of all unlimited capacity subscriptions, 71.5% of all their residential Internet subscriptions were for services with unlimited transfer limits, the highest of all service types, with cable-based carriers trailing at 48.4% and incumbent TSPs at 46.9%. Only 5.0% of all subscriptions to Internet services provided by other facilities-based carriers were unlimited capacity subscriptions.

Figure 9.17 High-speed residential Internet service subscriptions (%), by transfer (upload/download) capacity (GB) and type of service provider, 2018

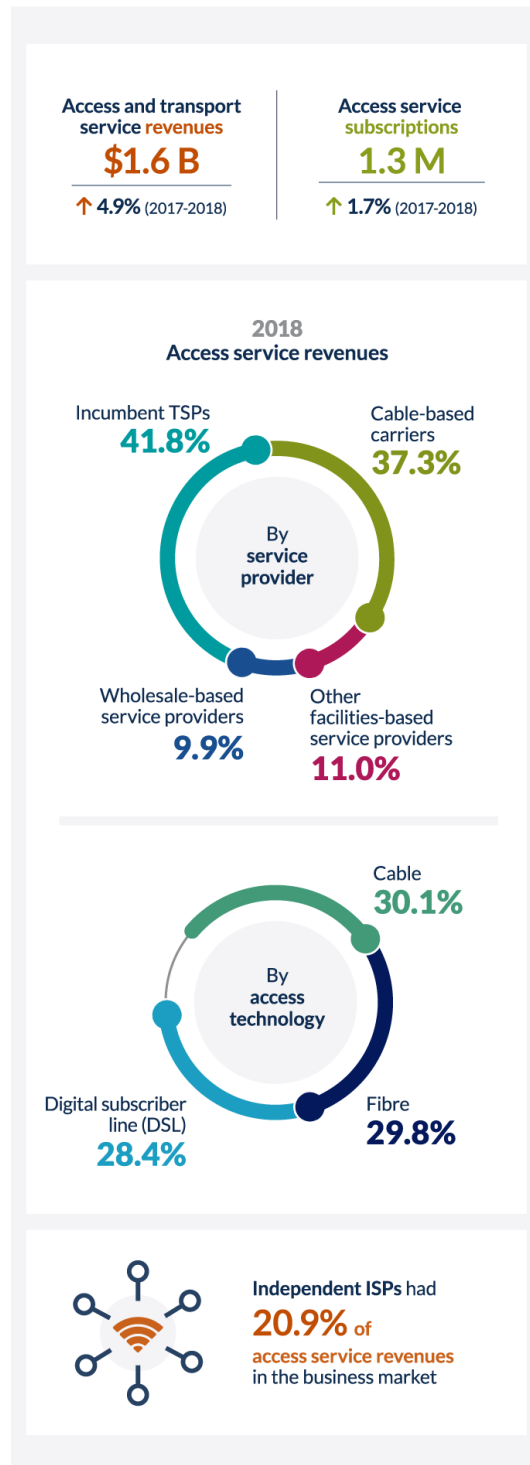


Source: CRTC data collection

Plans with unlimited data upload were categorized according to their download limit.

ii. Business market

Infographic 9.7 Overview of business Internet access market, 2018

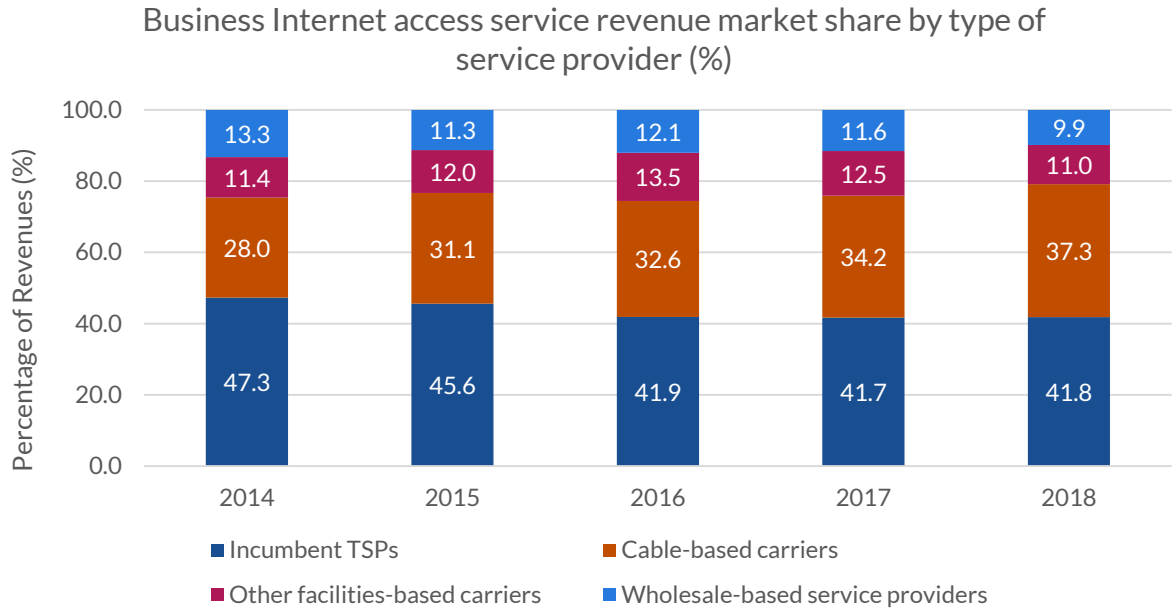


Source: CRTC data collection

Revenues

Independent ISPs, which are not affiliated with Canadian incumbent TSPs or cable-based carriers, received 20.9% of the access service revenues while having only 11.5% of the subscribers in 2018. Canadian businesses paid \$3.5 million in Internet overage charges, with 1.4% of subscriptions exceeding their monthly limits in an average month.

Figure 9.18 Business Internet access service revenue market share, by type of service provider (%)



Source: CRTC data collection

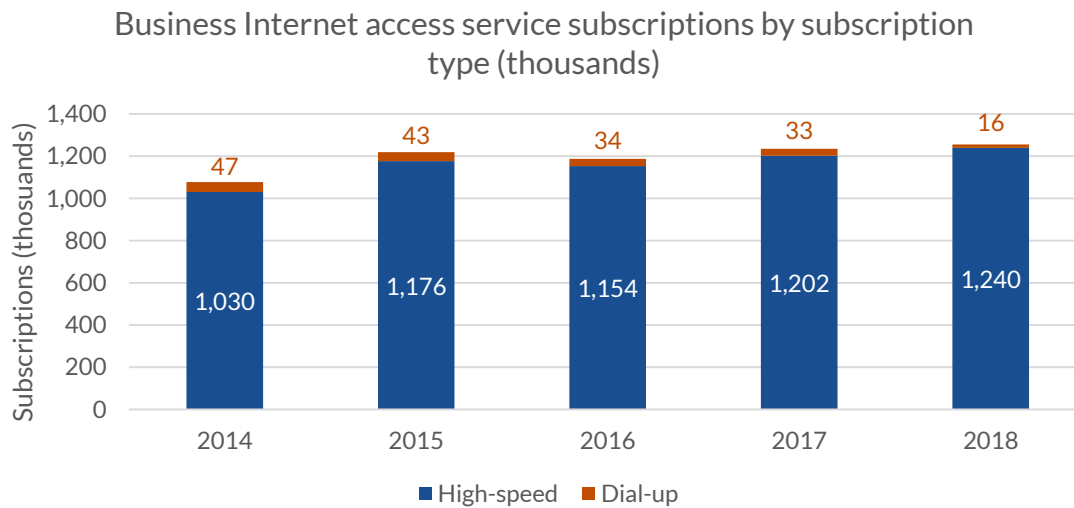
Part of the increase in cable-based carriers' revenues is due to a reclassification of revenues starting in 2015. Due to a change in company reporting, 2016 figures for wholesale-based service providers, utility telcos⁶, and other carriers, as well as for incumbent TSPs, may not be comparable to those from previous years.

⁶ Utility telcos are providers of telecommunications services whose market entry, or whose corporate group's market entry, into telecommunications services was preceded by a group-member company's operations in the electricity, gas, or other utility business.

Subscriptions

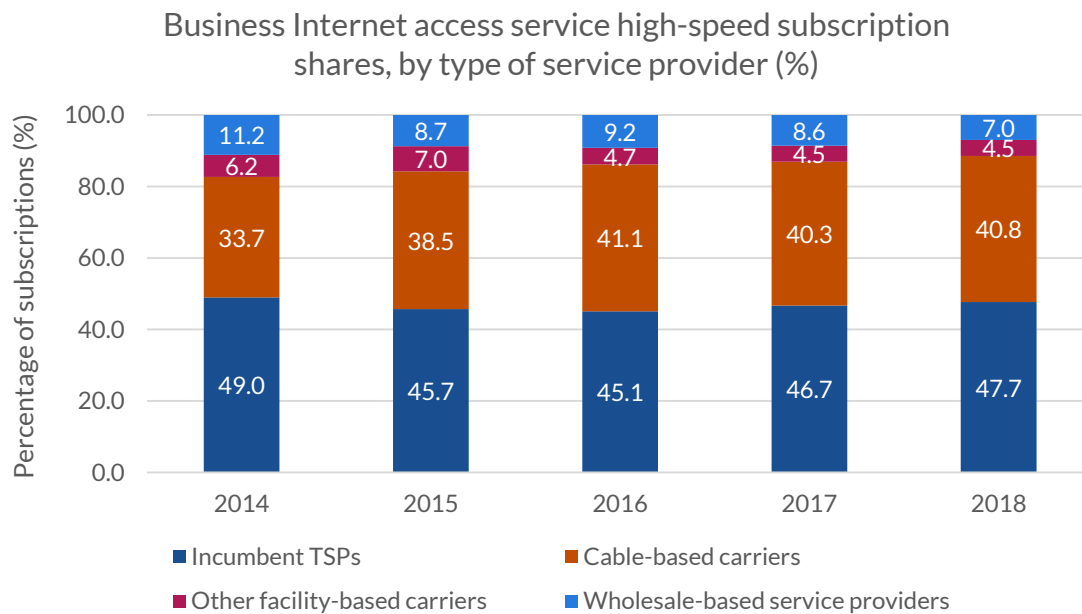
From 2014 to 2018, growth in the number of subscriptions to business access services was strong. It occasionally exceeded residential subscription growth rates (sometimes by a large margin), except in 2016, when changes in company reporting resulted in a change in results.

Figure 9.19 Business Internet access service subscriptions by subscription type (thousands)



Source: CRTC data collection

Figure 9.20 Business Internet access service high-speed subscription shares, by type of service provider (%)

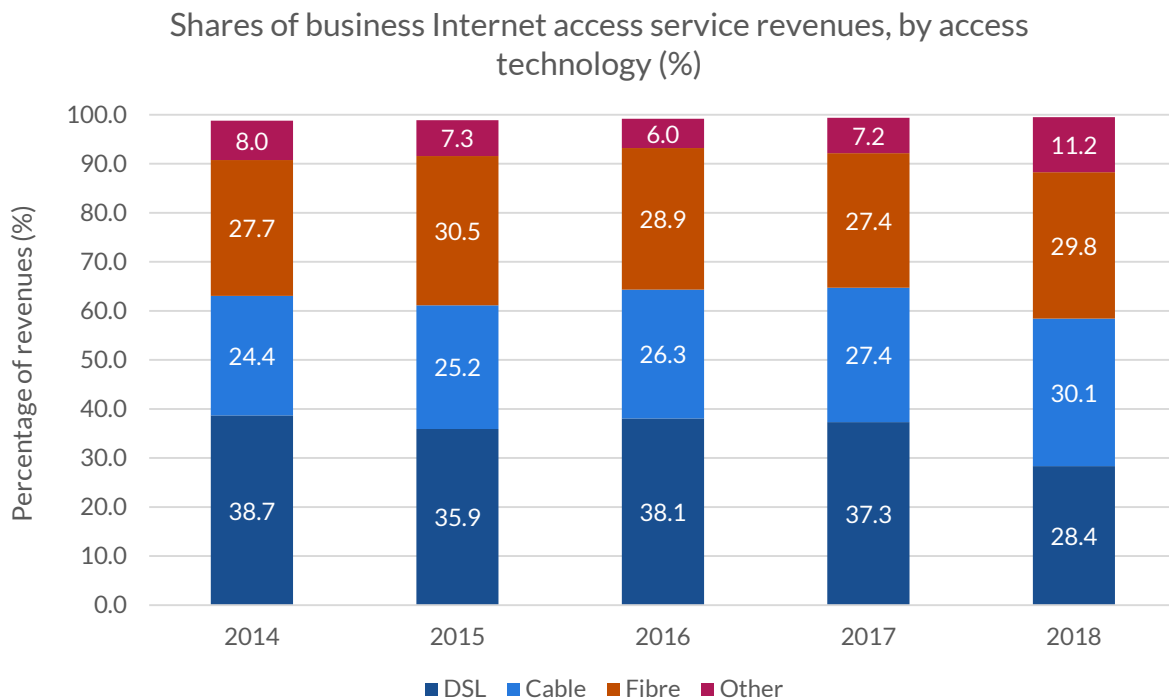


Source: CRTC data collection

Technology

Cable-modem-based Internet access service consistently showed increases in market share over the period from 2014 to 2018. These increases made serving businesses over existing DOCSIS (Data Over Cable Service Interface Specification) cable networks an increasingly important part of the business of cable-based carriers. Other technologies, such as fixed wireless and satellite, had only a minimal share of the business market.

Figure 9.21 Shares of business Internet access service revenues, by access technology (%)



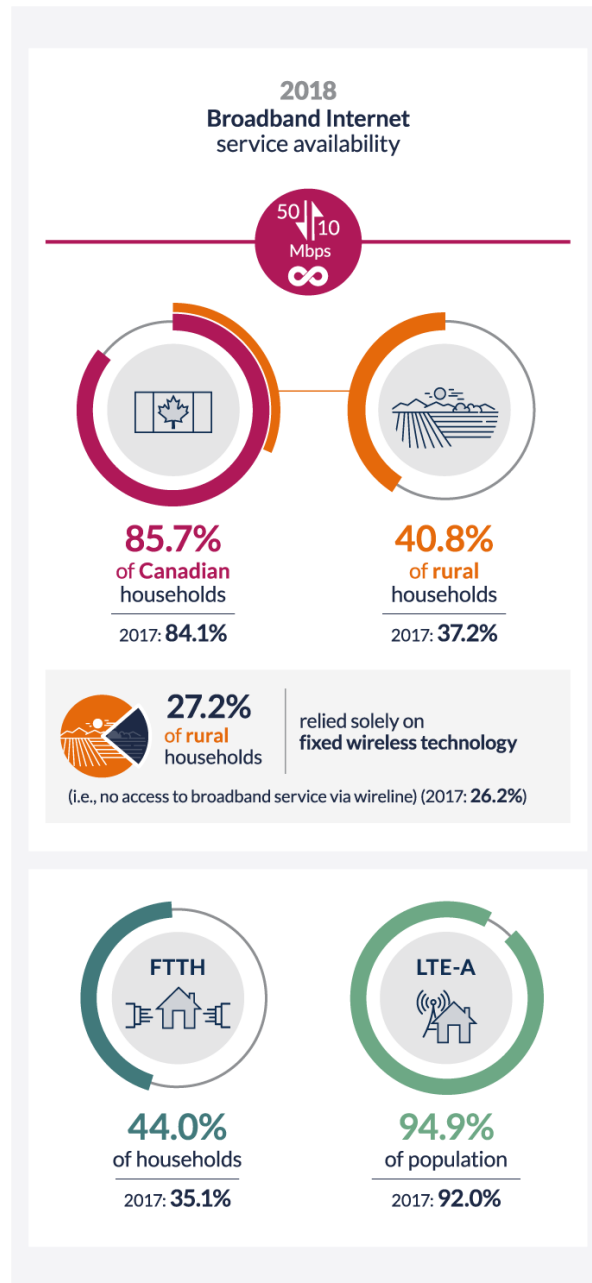
Source: CRTC data collection

Business Internet access service revenue is derived from services provided using a variety of access technologies. The “Other” segment refers to other technologies, such as fixed wireless and satellite technologies.

Dial-up service revenues were not included as they accounted for less than 1% of total business Internet revenues from 2014-2018. Therefore, the business Internet access revenue percentages combine to under 100%. “Fibre” refers to Fibre-to-the-premises (FTTP).

iii. Broadband service availability

Infographic 9.8 Overview of broadband Internet service availability, 2018



Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census data

Broadband deployment improved since 2017. Rural broadband availability of speeds 25 Mbps and higher and 50Mbps and higher saw the greatest improvements, growing from 65.6% to 72.1% for 25 Mbps and higher, and from 39.2% to 43.0% for 50 Mbps and higher. The Commission’s target of 50 Mbps download, 10 Mbps upload, and unlimited data transfer capacity was available to 97.7% of the population in urban areas, an increase from 96.6% in 2017, and 40.8% of the population in rural areas, an increase from 37.2% in 2017.

According to the Broadband Measurement Project, the majority of broadband service offerings in Canada met or exceeded their advertised speeds, regardless of the access technology used. More details of this project and the results of the first phase can be found on the CRTC website, in the [Broadband Measurement Project](#) section.

Unless otherwise noted, broadband service availability figures exclude wireless mobile technology. “Satellite access services” in this section refer to direct-to-home (DTH) satellite, and not to the technology used to connect communities to the Internet.

National availability

Table 9.1 Key telecommunications availability indicators (% of population for mobile services and % of households for Internet services)

Type of Service	Subtype	2016	2017	2018
Mobile broadband	HSPA+	99.4	99.4	99.5
	LTE	98.5	99.0	99.3
	LTE-A	83.0	92.0	94.9
Wireline broadband	DSL	77.0	72.3	70.4
	Cable modem	84.7	83.7	84.2
	FTTH	27.5	35.1	44.0
Wireline and fixed wireless	Total	98.4	98.7	98.8
Universal service objective	50 Mbps download 10 Mbps upload unlimited data transfer option	84.3	84.1	85.7
BDU services	IPTV	75.2	77.4	79.1
	Digital satellite	National	National	National

Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Notes: The declines in the availability of DSL (digital subscriber line) in 2016 to 2018 were due to the deployment of fibre technology replacing DSL equipment in some areas, with improvements in company reporting also contributing. The increase in cable modem availability in 2016 is attributable mainly to the change to the pseudo-household⁷ methodology. The vast majority of areas that had 50/10 Mbps service also had unlimited monthly data transfer options. Mobile availability is depicted as a percentage of population.

Fibre-based Internet service availability continued to increase, going from 35.1% in 2017 to 44.0% in 2018. These FTTH deployments occurred mainly in large urban areas. Incumbent TSPs used their fibre infrastructure to make gigabit service available to over 6.0 million households, while cable-based carriers used mainly DOCSIS 3.1 technology to make gigabit service available to over 7.1 million households. However, in general, fibre-based gigabit services have far faster upload speeds than their DOCSIS-based counterparts.

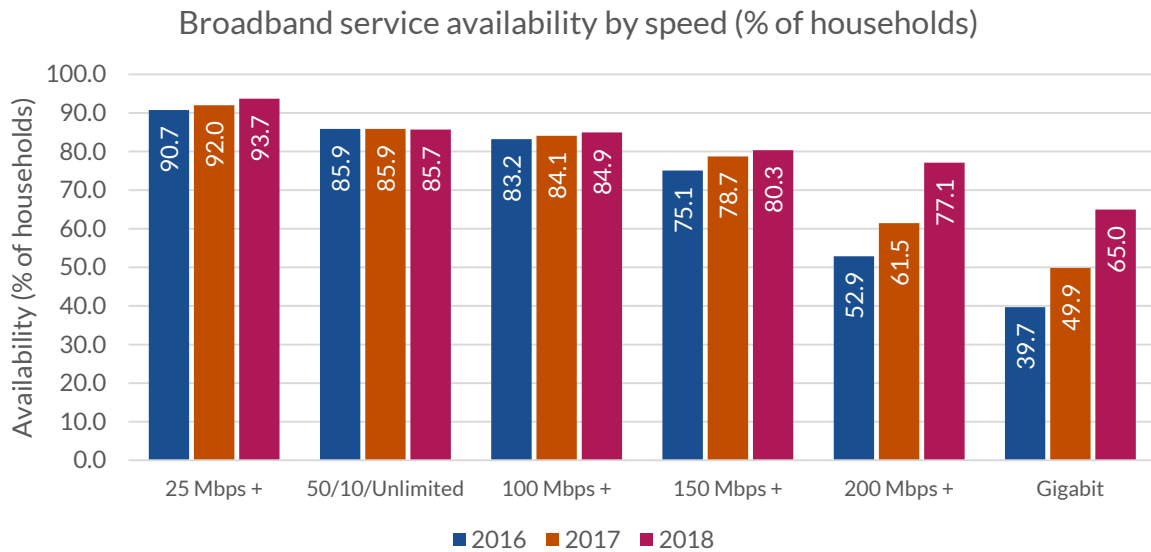
Incumbent TSPs and other non-traditional television providers continued to increase the availability of IP technology-based television service (IPTV), proving a source of competition to traditional cable-based systems, while leveraging their broadband infrastructure to provide services outside of Internet and legacy phone service.

⁷ Pseudo-households are points representing the population in an area. These points are placed along roadways within each area, and the population of the area, determined by Statistics Canada, is distributed among these points. Additional data regarding addresses and the position of dwellings is used to guide this distribution. The use of pseudo-households aims to improve the accuracy of the availability indicators over the use of the assumption that the population within an area is located at the centre of the area.

Services at speeds meeting or exceeding the Commission’s target of 50 Mbps download and 10 Mbps upload with an option for unlimited monthly data transfer were available to 85.7% of Canadian households. However, the availability varied greatly between urban and rural areas, with only 40.8% of rural households having access to this kind of service, versus 97.7% in urban areas. Subscriptions to a 50/10 Mbps service with unlimited monthly data transfer increased to 29.0% of Canadian households in 2018, compared to 21.1% in 2017.

The total footprint for all areas with access to broadband service speeds between 25 Mbps and above and 150 Mbps and above saw improvement while availability of broadband service speeds of 200 Mbps and above, and a gigabit saw dramatic increase in 2018.

Figure 9.22 Broadband service availability by speed (% of households)



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

The availability of broadband services at higher speeds has been expanding in Canada. This graph excludes broadband services provided through satellite and mobile technologies.

Gigabit service is any service with a downstream data rate at or above 940 Mbps.

Availability of broadband by province and territory

Availability continued to vary by province when it comes to higher-speed broadband services. Saskatchewan, Prince Edward Island, and the North had less coverage at the 50 Mbps level while British Columbia, Quebec, and Ontario led the way in terms of availability of 50 Mbps service.

Overall, gigabit broadband availability improved in 2018 with British Columbia and Alberta seeing the biggest improvements. Gigabit service was available to 73.7% of households in British Columbia in 2018, a huge increase from 17.4% in the previous year. From 2017 to 2018, households in Alberta also saw substantial growth, growing from 6.0% to 38.1%. During this same period, availability of gigabit service in Canada grew 30.1%, from 49.9% to 65.0%.

The vast majority of areas that had broadband service had access to speeds of 5 Mbps or faster, with the exception of Nunavut, which had far less coverage at 5 Mbps or faster. In fact, only 49.7% of households in Nunavut had access to speeds of at least 5 Mbps, and none had access to speeds of 16 Mbps or faster.

Table 9.2 Broadband service availability, by speed and province/territory (% of households), 2018

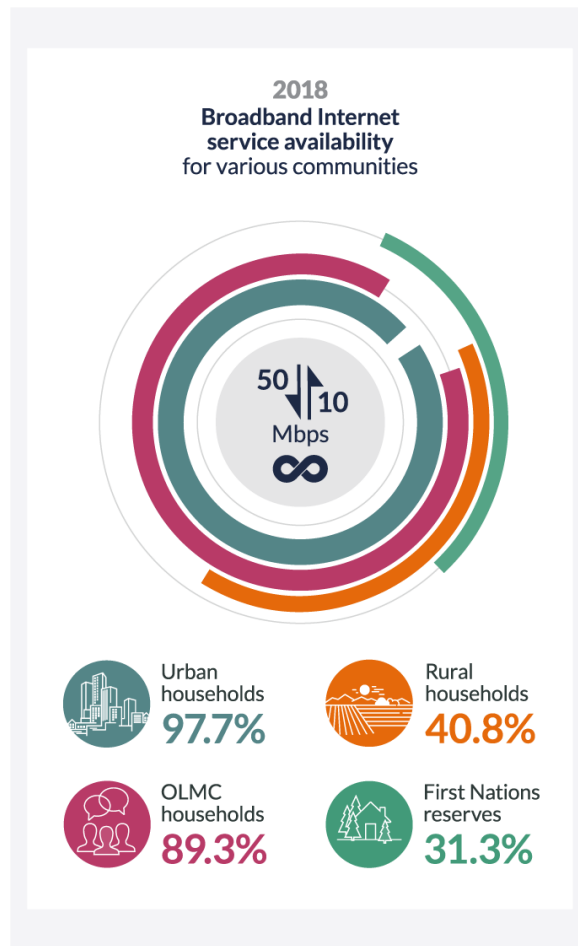
Province/Territory	5 Mbps +	25 Mbps +	50 Mbps +	50/10 Mbps and Unlimited Data Transfer	100 Mbps +	Gigabit
British Columbia	98.1%	96.1%	93.2%	92.6%	93.1%	73.7%
Alberta	99.7%	97.7%	85.1%	84.9%	82.0%	38.1%
Saskatchewan	97.1%	85.4%	57.1%	54.7%	57.1%	0.0%
Manitoba	98.2%	95.6%	72.3%	71.6%	71.4%	9.0%
Ontario	98.4%	94.3%	87.7%	87.2%	86.2%	77.3%
Quebec	98.1%	94.2%	91.0%	90.1%	88.5%	68.9%
New Brunswick	94.6%	90.6%	81.1%	81.1%	81.0%	81.0%
Nova Scotia	93.7%	79.8%	78.9%	78.0%	78.0%	74.2%
Prince Edward Island	92.8%	85.4%	60.2%	60.2%	60.2%	56.0%
Newfoundland and Labrador	90.3%	80.1%	71.2%	71.2%	71.2%	59.2%
Yukon	90.5%	60.8%	60.8%	0.0%	60.8%	0.0%
Northwest Territories	97.7%	61.8%	61.8%	0.0%	53.7%	0.0%
Nunavut	49.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Canada	97.9%	93.7%	86.5%	85.7%	84.9%	65.0%

Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Because satellite service has a national footprint, it is excluded from this table.

Availability of broadband in various communities

Infographic 9.9 Points of interest in broadband Internet service availability for various communities, 2018



Source: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

For the purposes of this report, the official language minority population is defined in terms of the first official language spoken metric as defined within the Official Languages Act, using data from the 2016 Census. In all provinces and territories except Quebec, the official language having minority status is French. The presence of official language minority populations within a 25km area of an official minority language school was used to model and map OLMCs.

First Nations reserve areas, representing total population and dwellings on reserves according to Statistics Canada, were used in the analysis, as such, it may differ from other official sources.

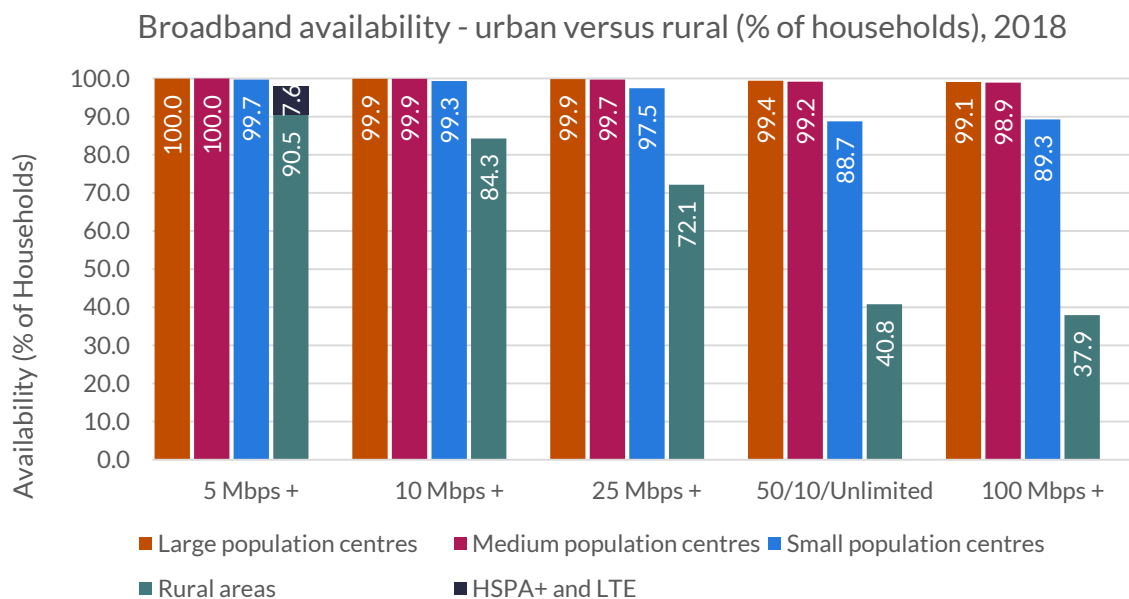
As previously stated, services at speeds meeting or exceeding the Commission’s target of 50 Mbps download and 10 Mbps upload with an option for unlimited monthly data transfer were available to 85.7% of Canadian households. However, rural and small centre populations continued to trail behind the urban population in terms of availability of these broadband services, with only 40.8% of rural households having access to these, and small population centres having 88.7% availability. This is in contrast to the near-ubiquitous availability of such services in medium and large centres. Although there is a considerable gap in availability of 50/10/unlimited service between urban and rural, this divide is shrinking.

In 2018, 89.3% of the OLMC population across Canada had access to 50/10/unlimited Internet service with OLMC's in British-Columbia and Quebec leading with 97.1% and 92.6% availability, respectively.

Availability of 50/10/unlimited service in First Nations reserves was behind rural areas with only 31.3% having access to this service. This service was not accessible to First Nations reserves in Saskatchewan, Newfoundland and Labrador, Yukon, and Northwest Territories.

Advancements in the deployment of rural broadband were mainly in the 25+ Mbps and 50+ Mbps categories, increasing from 65.6% to 72.1% availability for 25 Mbps or faster and from 39.2% to 43.0% availability for 50 Mbps or faster. This is due mainly to continued deployments of LTE-based fixed wireless technology. Deployments in lower-speed categories did not increase as appreciably, due to being centred mainly on already-built areas with slower service speeds.

Figure 9.23 Broadband service availability – urban versus rural (% of households), 2018



Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

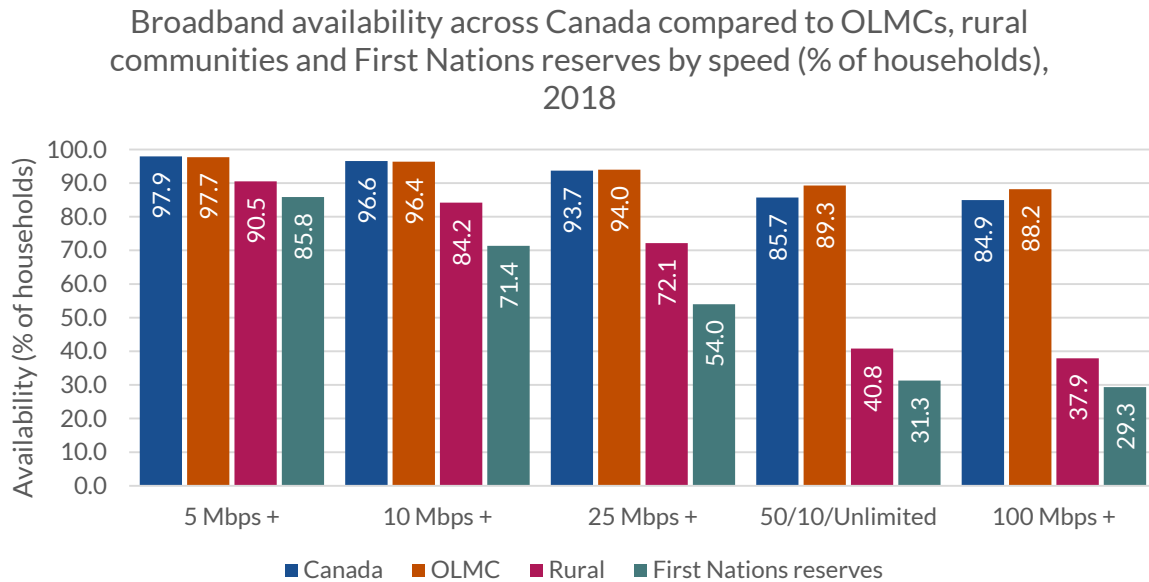
Small population centres are considered to have populations of between 1,000 and 29,999. Medium population centres are considered to have populations of between 30,000 and 99,999. Large population centres are considered to have populations greater than 100,000. Rural areas have populations of less than 1,000, or fewer than 400 people per square kilometre.

The HSPA+ and LTE bars show the additional effect that inclusion of these technologies would have on the following categories: HSPA+ and LTE for 1.5+ Mbps service availability, and LTE for 5+ Mbps service availability.

Because satellite service has a national footprint, it is excluded from this figure.

Broadband availability was nearly ubiquitous nationally as well as in OLMC populations at speeds of 25 Mbps and above in 2018. Broadband services at this speed bracket was not as prevalent in rural areas and First Nations reserves. While less than half of households in rural areas and First Nations reserves had broadband services available at speeds 50 Mbps and above.

Figure 9.24 Broadband availability across Canada compared to OLMCs, rural communities and First Nations reserves by speed (% of households), 2018

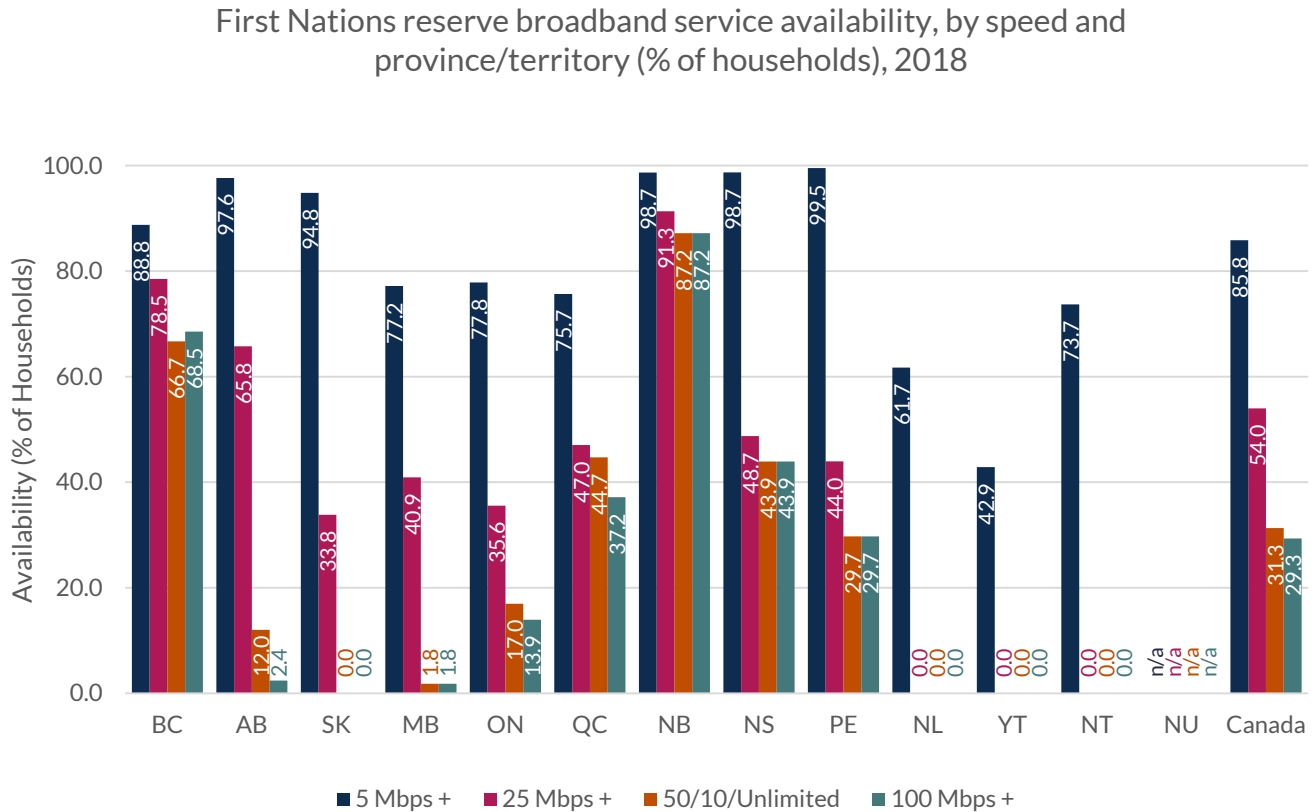


Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

In 2018, 85.8% of households in First Nations reserves were able to access broadband Internet services with a speed of at least 5 Mbps. Availability decreases to about half of the households at speeds of 25 Mbps or faster and to less than a third at speeds of 50 Mbps or faster.

Availability varied significantly across provinces and territories, with households in First Nations reserves in New Brunswick and British Columbia having the highest availability of Internet services at speeds of 50 Mbps or faster (87.2% and 69.1%, respectively), while these services were not yet available to households in First Nations reserves in the North, Newfoundland and Labrador as well as Saskatchewan.

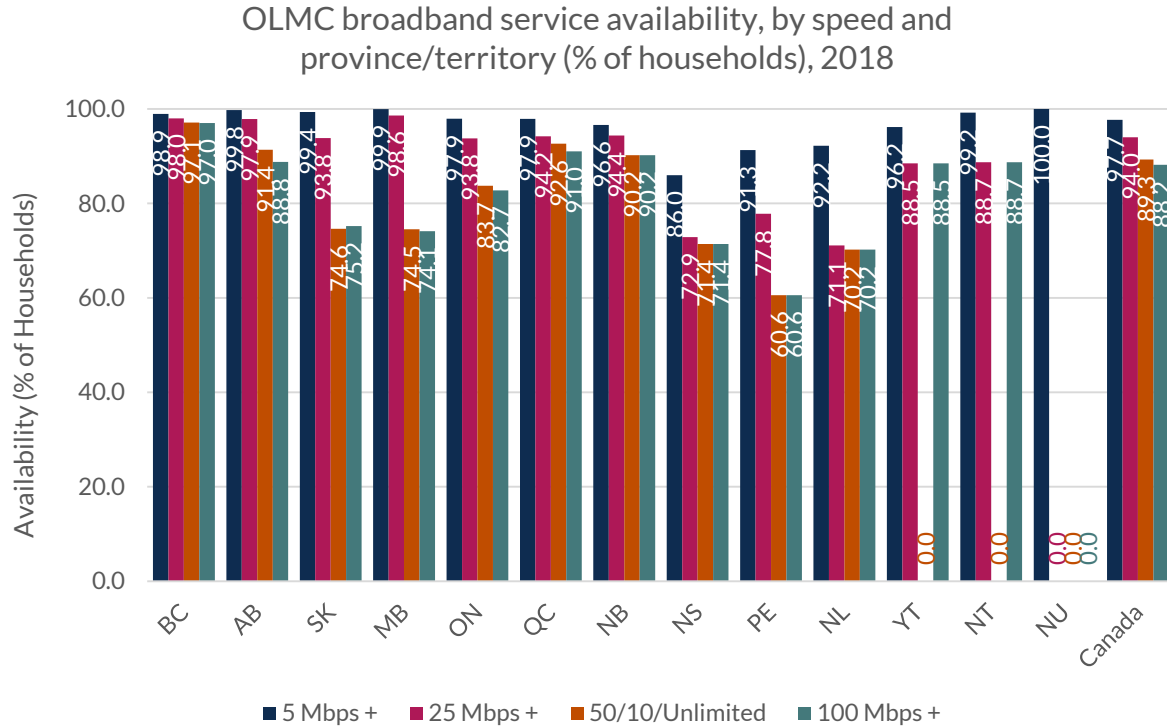
Figure 9.25 First Nations reserve broadband service availability, by speed and province/territory (% of households), 2018



Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

Broadband Internet services were almost universally available to all official language minority communities (OLMCs) in 2018. British Columbia and Quebec had the highest percentage of coverage of speeds greater than 50 Mbps while Nova Scotia, Prince Edwards Island, and Nunavut had the lowest, where broadband services with speeds of at least 25 Mbps were not yet available to households in OLMCs in Nunavut.

Figure 9.26 OLMC broadband service availability, by speed and province/territory (% of households), 2018




Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

In 2018, the Commission's target of 50 Mbps download, 10 Mbps upload, and unlimited capacity was available to 85.7% of all households in Canada with medium and large urban populations having nearly complete coverage and less than half (40.8%) of households in rural areas having coverage. While 31.3% of households in First Nations reserves had access to Internet services meeting the Commission's target speed and unlimited data transfer, 89.3% of households in OLMCs had access to such services.

Table 9.3 Availability of Internet services with speeds of 50/10Mbps and unlimited data, by population size and province/territory (% of households), 2018

Province/Territory	All	Large Population Centres	Medium Population Centres	Small Population Centres	Rural	First Nations Reserves	OLMCs
British Columbia	92.6	99.9	99.8	93.5	58.4	66.7	97.1
Alberta	84.9	99.5	98.7	89.8	21.1	12.0	91.4
Saskatchewan	54.7	98.5	98.7	43.2	1.7	0.0	74.6
Manitoba	71.6	98.8	100.0	73.8	12.7	1.8	74.5
Ontario	87.2	99.1	98.5	93.2	29.5	17.0	83.7
Quebec	90.1	99.8	99.8	92.0	59.2	44.7	92.6
New Brunswick	81.1	99.7	99.5	99.9	63.4	87.2	90.2
Nova Scotia	78.0	99.9	n/a	98.4	51.6	43.9	71.4
Prince Edward Island	60.2	n/a	100.0	100.0	31.4	29.7	60.6
Newfoundland and Labrador	71.2	99.8	n/a	86.0	46.1	0.0	70.2
Yukon	0.0	n/a	n/a	0.0	0.0	0.0	0.0
Northwest Territories	0.0	n/a	n/a	0.0	0.0	0.0	0.0
Nunavut	0.0	n/a	n/a	0.0	0.0	n/a	0.0
Canada	85.7	99.4	99.2	88.7	40.8	31.3	89.3

Sources: Innovation, Science and Economic Development Canada (ISED) and CRTC data collection

For the following maps, the data is available for export through the Cartovista Data panel using the Export button ; the Data panel is available on the bottom left-hand side of the map. Detailed instructions on how to use Cartovista maps are available on the [Cartovista website](#).

Map 9.3 Fixed broadband service availability, 2018

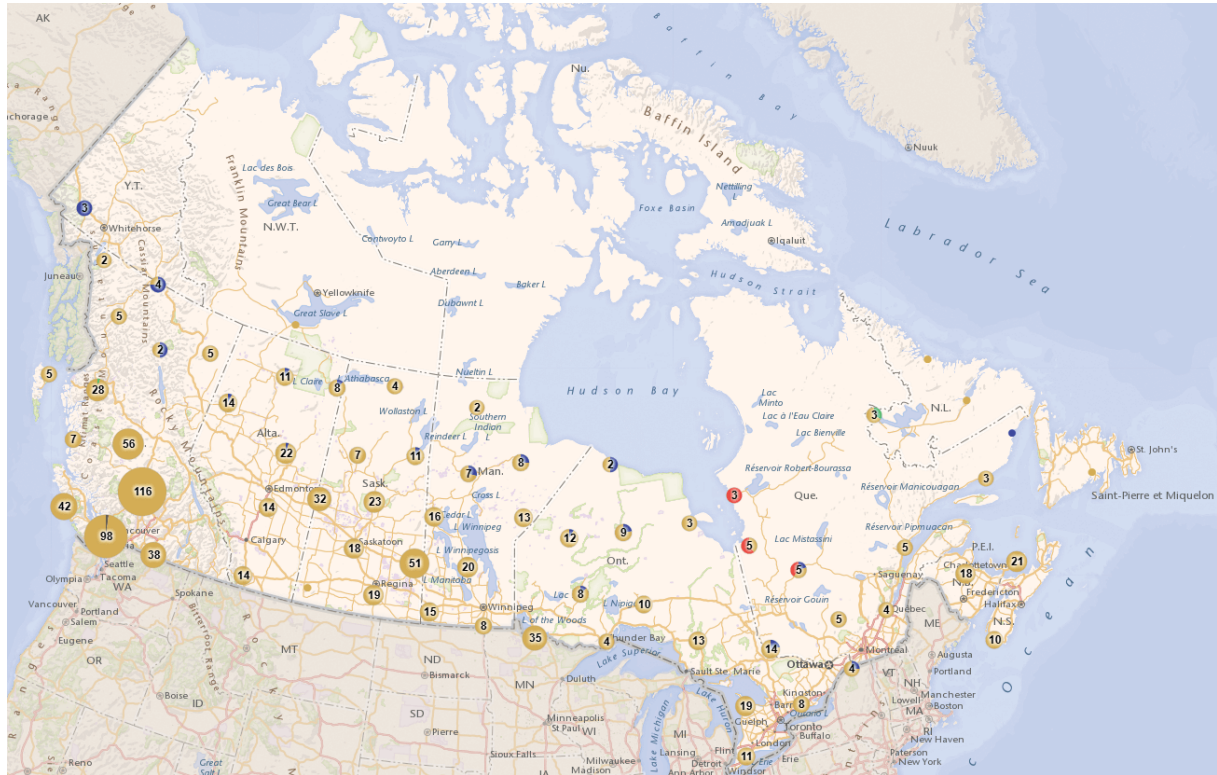


Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map shows where the stated speed is available to 75% of dwellings (households) in each four square kilometre area. The [interactive map for the national fixed broadband service availability](#) is also available online.

Map 9.4 Broadband and mobile service availability in First Nations reserves, 2018



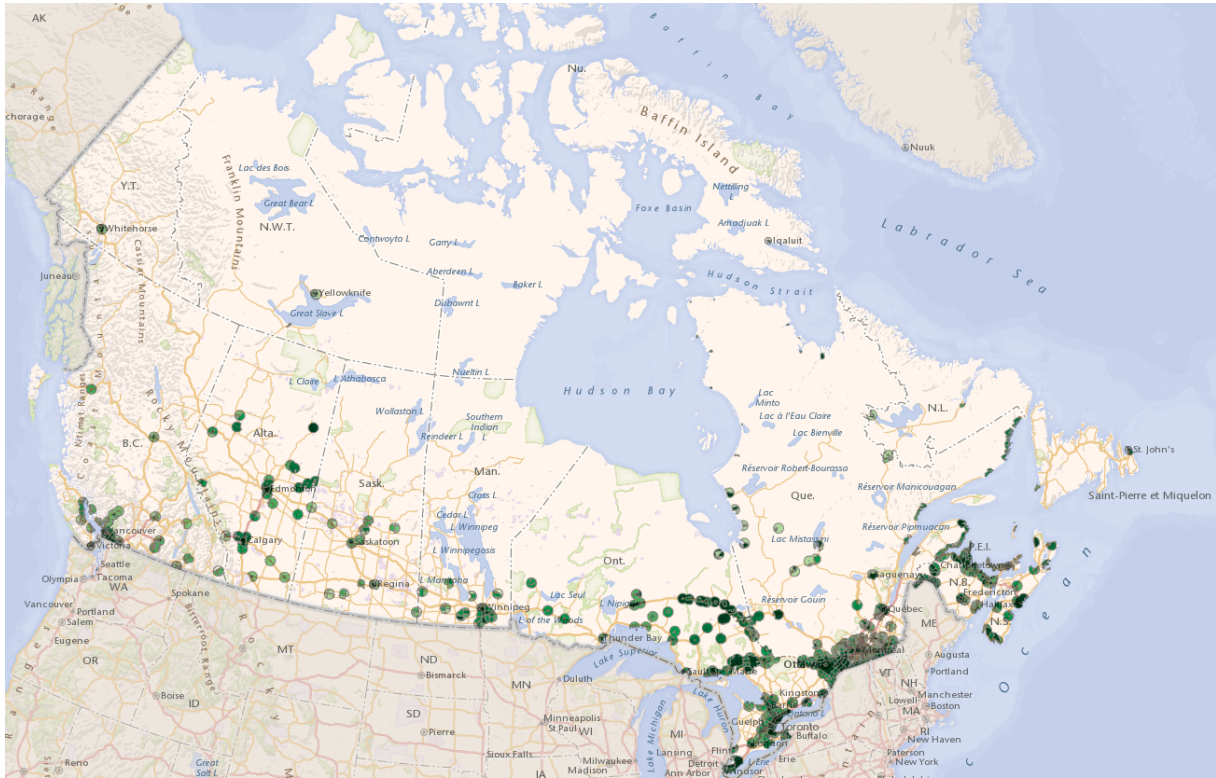
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map displays areas across Canada where First Nations reserve areas are present. The colour and number inside each circle represents the specific type of reserve where First Nations reserve areas are present and the number of reserves in each area. Broadband availability within each census subdivision is available as part of the data set. Zoom into the map to update the tooltip with the broadband availability or review the Data Panel at the bottom of the map for full details. The [interactive map for the number of reserve areas](#) is also available online.

Census population and/or dwellings are not available for some reserves. In these cases, the population and/or dwellings field will show as zero and the coverage is estimated based upon pseudo-household point count.

Map 9.5 Broadband and mobile service availability in OLMCs, 2018



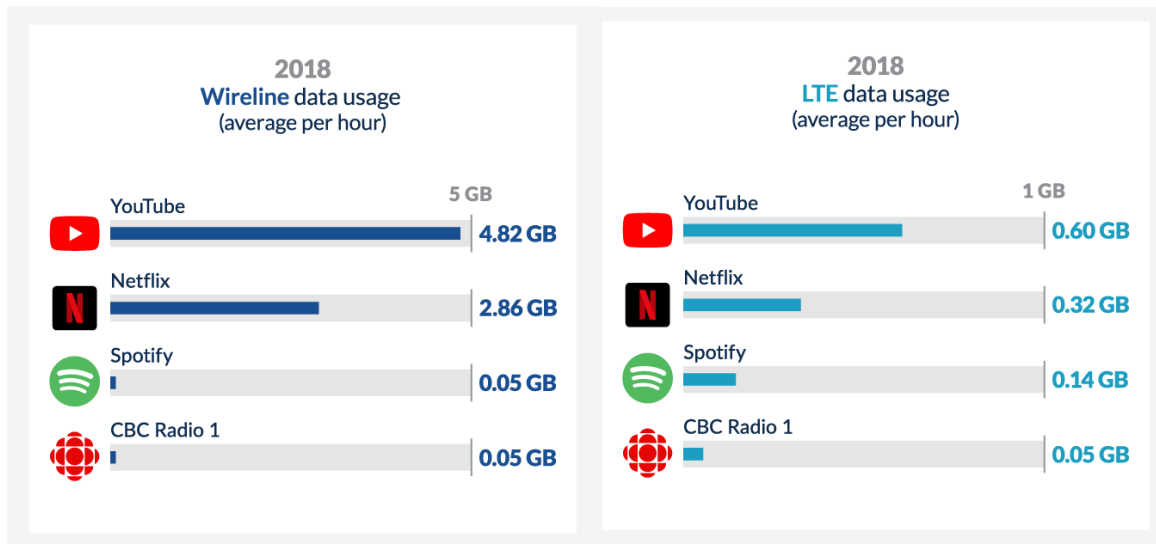
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map displays areas across Canada where OLMCs are present. The blue circles are OLMCs, modeled as areas within 25km of an official language minority school. The [interactive map for OLMCs](#) is also available online.

iv. Broadband applications

Infographic 9.10 Overview of data usage by popular broadband applications, 2018



Source: CRTC Broadband measurement

Data usage

In Telecom Regulatory Policy 2016-496, the Commission established criteria to measure the successful achievement of the universal service objective, which included the availability of a fixed broadband Internet access service with at least 50 Mbps download, at least 10Mbps, as well as the option for unlimited data allowance (50/10/Unlimited).

Canadians are increasingly relying on their Internet service to receive news, share information, communicate with others, do business, and for educational and entertainment purposes.

They are using the following types of services with growing frequency: audio and video streaming, online gaming, live video conferencing, teleworking, and accessing and transferring large data files on the cloud.

The data consumption rates for these services can vary from 50 Mb per hour for audio services to 5 GB per hour for 4K video streaming.

With the number of devices connected to the home network growing, consuming more data, having an Internet service of at least 50/10/Unlimited may be necessary for Canadian households to allow multiple users to simultaneously access these types of services and to effectively participate in the digital economy and society.

Streaming services

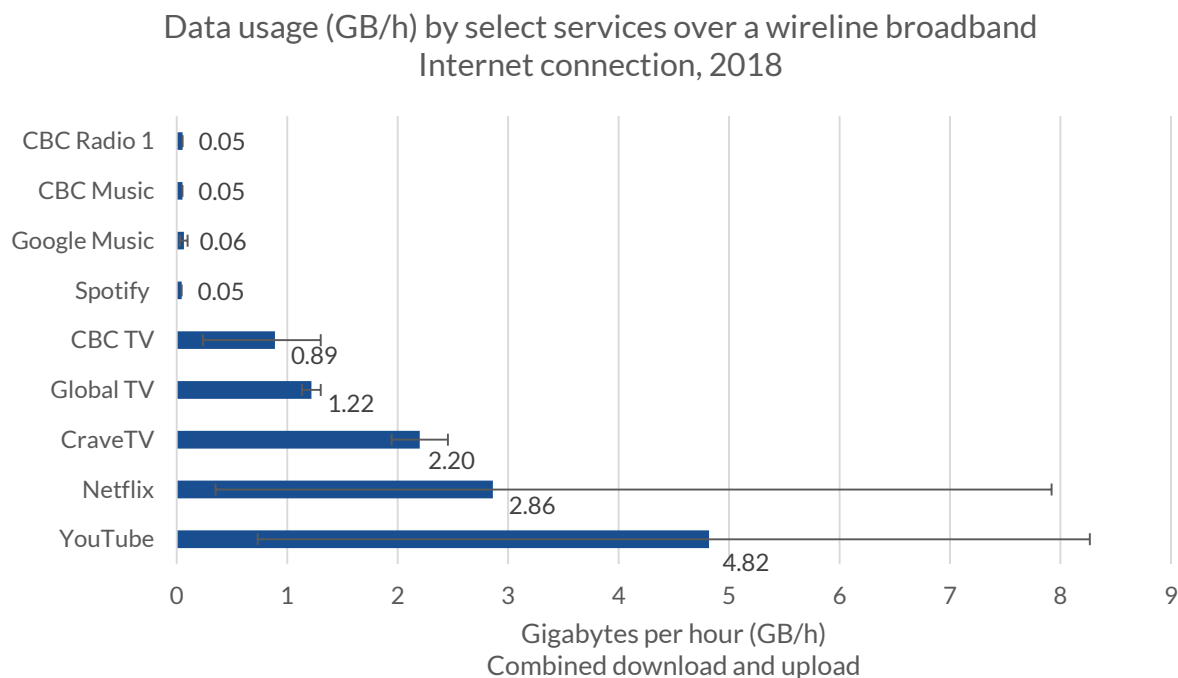
Streaming services over the Internet consume data at different bitrates. The bitrates are measured in megabits per second (Mbps) or gigabytes per hour (GB/hr). Generally, video streaming services consume data at higher bitrates than audio streaming services because the video stream contains more information.

Usually, a higher bitrate can also enable a higher-quality audio or video stream. However, depending on the end-user device, a higher-quality stream may be indistinguishable from a lower-quality stream. For example, on a smartphone, an ultra-high-definition (UHD) video stream may not show a perceivable difference when compared to a lower-resolution video stream due to the relatively small screen size.

The rates at which streaming services consume data can vary significantly. While some services allow the user to manually control their quality and how much data they use, other services are set automatically. See the Methodology section below for more details.

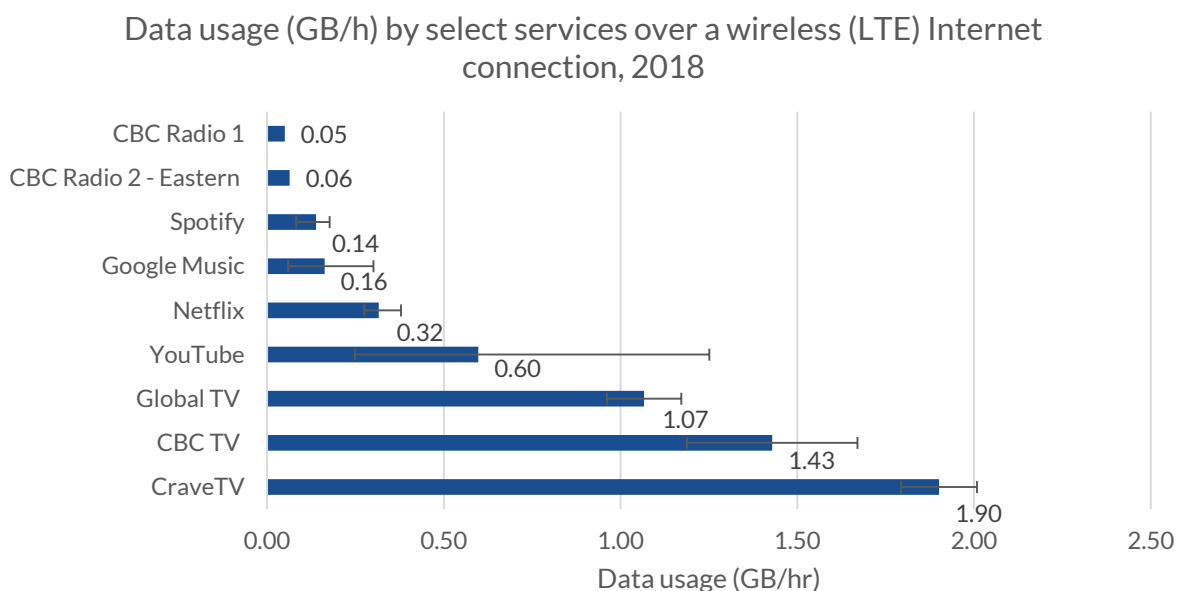
Figure 9.27 and Figure 9.28 illustrate the average and the range of the amount of data some streaming services can use on an hourly basis over wireline (broadband) and wireless (LTE) Internet connections, respectively.

Figure 9.27 Data usage (GB/h) by select services over a wireline broadband Internet connection, 2018



Source: CRTC broadband measurement

Figure 9.28 Data usage (GB/h) by select services over a wireless (LTE) Internet connection, 2018



Source: CRTC broadband measurement

v. Methodology

Broadband measurement: methodology

To collect data for this sub-section, the CRTC used a test environment that aims to replicate how a typical consumer would utilize online streaming and real-time communications services. The services were accessed by a typical wireline residential broadband service, and a national LTE cellular data network, using mainstream off-the-shelf consumer electronics: Android- and iOS-based tablets and phones, smart TVs, Windows-based laptop and desktop computers, and various set-top streaming devices. A web browser was used to access the streaming services on the PCs, and official applications were used on the other devices.

To measure the data consumed by these services on the wireline connection, a specially-configured Windows-based computer was inserted between the Internet connection and the local network. Using data traffic measurement tools, all data flowing between the test device and the Internet was captured for analysis. For the LTE connection, readily available applications, as well as integrated capabilities within the phones' operating systems were used to measure the data traffic.

The maximum bitrates of the wireline and LTE Internet connections were tested, and found to be significantly higher than the maximum observed bitrates of the streaming services tested (i.e. the Internet connections did not limit the bitrate of the streams in any way). To ensure accuracy, multiple measurements were taken for each service and quality level (where this setting was available), and background data usage (i.e. the usage of background apps and services, other than the one being tested) was minimized.

Broadband measurement: observations

The streaming services deliver their data in different patterns, some with single large bursts with gaps in between, and others with more continuous data. The measurements were conducted over sufficient periods of time such that a representative average could be obtained. It should also be noted that most services can modify their burst size dynamically thus making the average rate an important factor in determining the data rate requirement for most services.

In a typical consumer scenario, the available bandwidth at any given moment can vary for numerous reasons, including resource sharing between multiple devices on a home network or moving between different coverage areas on a mobile network. Although the end-user's Internet connection is one factor in determining the quality and stability of a stream, other factors can include network congestion, server load, network/server latency, and end-user device capability. In addition, many services can dynamically and automatically adjust their quality (and therefore the amount of data consumed) based on several factors that contribute to a stable audio and/or video stream to the end-user.

Due to the limited number of samples and the diversity of network configuration and equipment, the reported values in this section should be viewed as average-case estimates, not worst-case limits.

Internet usage: methodology

All information in the residential fixed Internet section regarding usage of gigabytes per month, and subscriptions by advertised speed and advertised download capacity, is from data collected through surveying the larger ISPs. These larger ISPs are assigned forms which report details of the residential Internet access high-speed plans that they provide and offer. These ISPs accounted for approximately 90% of the total number of residential high-speed Internet service subscriptions in 2018.

Assignment of forms/surveys is based on the size of the entity. As such, to reduce regulatory burden, small ISPs are not required to submit this information.

Broadband service availability: methodology

Broadband service availability is calculated using information provided by ISPs. For 2013 to 2015, locations were considered to be serviced if their dissemination block⁸ representative point fell within an area of broadband service coverage. As of 2016, ISED pseudo-households⁹ are used, along with 2016 census demography. Thus, among other factors, newer, more accurate information about the extent of deployment may have slightly reduced coverage in some areas.

Broadband service availability data may not take into account capacity issues or issues regarding line of sight¹⁰.

Mobile service availability: methodology

Between 2013 and 2017, locations were considered to be serviced if the representative point for their dissemination block fell within an area of mobile service coverage.

For 2018, ISED pseudo-households were used along with 2016 census demography. Pseudo-households are points representing the population in an area. These points are placed along roadways within each area, and the population of the area, as determined by Statistics Canada, is distributed among these points. Additional data regarding addresses and the position of dwellings is used to guide this distribution. The use of pseudo-households aims to improve the accuracy of the availability indicators rather than making an assumption that the population within an area is located at the centre of that area.

Official language minority communities

To identify official language minority communities (OLMCs) in Canada, a number of different criteria can be used. These include identifying the first language learned at home, the language spoken at home, and the language of education.

For the purposes of this report, the official language minority population is defined in terms of the first official language spoken metric as defined within the [Official Languages Act](#), using data from the 2016 Census. In all provinces and territories except Quebec, the official language having minority status is French.

The presence of official language minority populations within a 25km area of an official minority language school was used to model and map OLMCs.

As a means of mapping OLMCs and calculating the availability of 50/10 Mbps unlimited service, a method of OLMC population placement was chosen that concentrates on areas within 25 km of official language minority schools to represent the locations of the communities. This methodology, which was

⁸ A dissemination block is an area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which population and dwelling counts are disseminated. Dissemination blocks cover all the territory of Canada.

⁹ Pseudo-households are points representing the population in an area. These points are placed along roadways within each area, and the population of the area, determined by Statistics Canada, is distributed among these points. Additional data regarding addresses and the position of dwellings is used to guide this distribution. The use of pseudo-households aims to improve the accuracy of the availability indicators over the use of the assumption that the population within an area is located at the centre of the area.

¹⁰ The information in this section does not take into account upload speeds unless noted.

developed by Canadian Heritage, was used to assign OLMC populations to areas and to calculate 50/10 Mbps unlimited availability to OLMC communities.

First Nations reserve areas

The analysis of broadband availability and availability of 50/10 Mbps unlimited service was based upon First Nations reserve areas, representing total population and dwellings on reserves according to the Statistics Canada census data and, as such, it may differ from other official sources.

Statistics Canada uses census subdivisions to represent different areas in Canada. Census subdivisions are municipalities or areas that can be equated to municipalities for statistical purposes.

The different census subdivisions used by Statistics Canada were assessed. Those that represent First Nations reserve areas were used in the data analysis and mapping of this population.

Population areas

Small population centres are considered to have populations of between 1,000 and 29,999. Medium population centres are considered to have populations of between 30,000 and 99,999. Large population centres are considered to have populations greater than 100,000. Rural areas have populations of less than 1,000, or fewer than 400 people per square kilometre.

Definitions

Average revenue per user (ARPU) is a measure of revenue generated per subscriber. This is calculated by dividing the whole-year total revenue by the average number of subscribers from the current and previous year. The number of subscribers is taken from year end data.

Cable-based carriers are former cable monopolies that also provide telecommunications services (e.g. wireline voice, Internet, data and private line, and wireless services). Examples of cable-based carriers include Rogers, Shaw, and Videotron.

A **dissemination block** is an area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which population and dwelling counts are disseminated. Dissemination blocks cover all the territory of Canada.

The **estimated number of households in Canada** is calculated by dividing the [4th quarter population estimate for Canada by Statistics Canada](#) by the population to dwelling ratio. In turn, the population to dwelling ratio is calculated by dividing the [population of Canada by the number of households found in the Statistics Canada Census 2016](#).

Fibre-to-the-home (FTTH) refers to fibre optic communication delivery system where fibre extends from a concentrator, remote or central office to a residence.

Fibre-to-the-premises (FTTP) is the equivalent of FTTH but refers to fibre extending to a business instead of a residence.

An **Incumbent Telecommunications Service Provider (TSP)** is a company that provides local telecommunications services on a monopoly basis prior to the introduction of competition. Examples of incumbent TSPs include Bell, SaskTel and TELUS. They also include small incumbent TSPs such as Sogetel and Execulink.

An **independent Internet service provider (ISP)** refers to ISPs that are not cable-based carriers or incumbent TSPs.

Official Language Minority Population refers to English speaking population in Quebec and French-speaking population in the rest of Canada. More than two million Canadians belong to an official language minority community.

Other facilities-based carriers refers to providers of telecommunications services that are not incumbent providers but which own and operate telecommunications networks. Examples of other facilities-based carriers include Xplornet and Allstream Business.

Pseudo-households refers to points representing the population in an area. These points are placed along roadways within each area, and the population of the area, determined by Statistics Canada, is distributed among these points. Additional data regarding addresses and the position of dwellings is used to guide this distribution.

The use of pseudo-households aims to improve the accuracy of the availability indicators over the use of the assumption that the population within an area is located at the centre of the area.

Wholesale-based service providers or non-facilities-based service carriers refers to companies that generally acquire telecommunications services from other providers and either resell those services or create their own network from which to provide services to their customers. A company that owns a small number of facilities but has the vast majority of its operations on leased facilities may also be classified as non-facilities-based. Examples of wholesale-based service providers and non-facilities-based carriers include Distributel and TekSavvy.

A **reserve** refers to land set aside by the federal government through the Indian Act or through treaties for the use of a specific band or First Nation. The band council has "exclusive user rights" to the land, but the land is "owned" by the Crown. The Indian Act states that this land cannot be owned by individual band members.



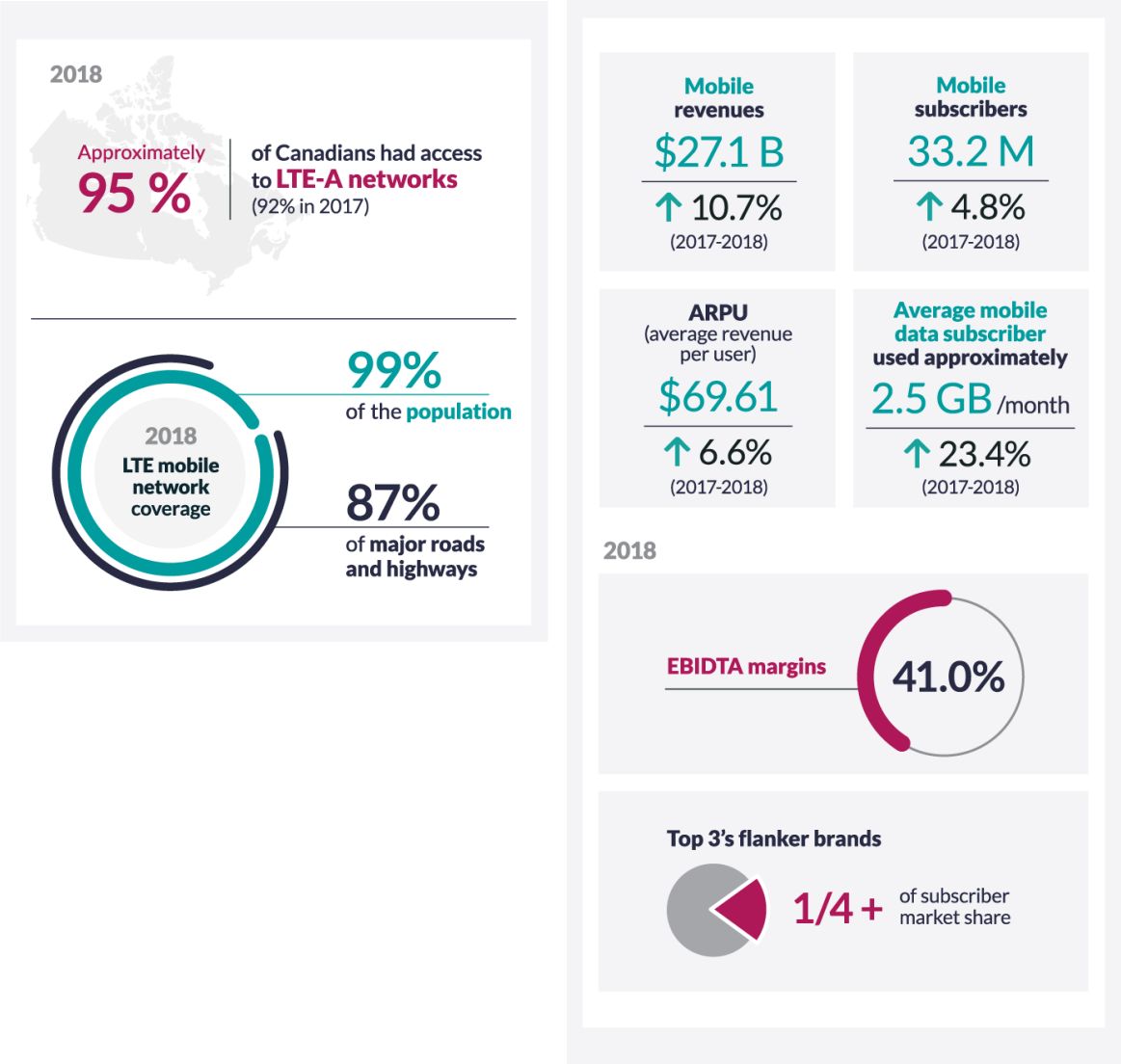
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Retail Mobile Sector



Retail Mobile Sector

Infographic 10.1 Highlights of the retail mobile sector, 2018



Source: CRTC data collection

The retail mobile market remained the largest telecommunications market sector, with revenues of \$27.1 billion in 2018, a growth of \$2.63 billion (10.7%), over 2017 revenues. These revenues represented over 55% of all retail telecommunications revenues in 2018. The sector was one of two telecommunications retail sectors, the other being fixed Internet, that reported revenue growth in 2018 – all other sectors reported declines. In 2018, subscribers increased by 4.8% over the prior year to 33.2 million, and average revenue per user (ARPU) increased by 6.6% to \$69.61. Earnings before interest, taxes, depreciation and amortization (EBITDA) margins reached 41.0% in 2018.

Mobile networks covered approximately one fifth of Canada’s geographic land mass and reached 99% of Canadians in 2018, while the penetration rate reached 89.2%. Advanced wireless networks such as Long-Term Evolution (LTE) and LTE-Advanced (LTE-A) which deliver even higher speeds than previous-generation networks, were available to approximately 99% and 95% of Canadians, respectively. At the

end of 2018, LTE networks covered 87% of Canada's major roads and highways,¹ leaving almost approximately 14,700 kilometres without LTE coverage.

Over the past decade, some progress has been made in fostering a more competitive mobile industry through a combination regulatory initiatives including

- the auctions of licences for advanced wireless services (AWS) in the AWS-3 bands (1755-1780 megahertz [MHz] and 2155-2180 MHz);
- the auctions of licences in the 700 MHz, 2500 MHz, and 2300 MHz bands as well as the personal communications services (PCS)-G block (1865-1870 MHz and 1945-1950 MHz); and
- additional AWS-3 spectrum auctions (1755-1780 and 2155-2180 MHz)
- other government initiatives, such as the introduction of mandatory roaming and tower sharing, wholesale roaming rate regulation and the Wireless Code (which took effect in 2013 and was subsequently reviewed in 2017).

During this same period, Canadians' mobile usage and options evolved. New service providers entered the market, and Canadians now have more choices than ever before. For example, Canadians can now choose alternative pricing and promotional offerings, unlimited provincial and nationwide long-distance services, unlimited national and international texting services, and faster mobile networks.

To measure the level of competitiveness in this sector, the retail mobile sector analysis presents data segmented between Bell Group, Rogers and TELUS (referred to hereafter as Top 3),² the Top 3's flanker brands³ and other service providers (referred to hereafter as other providers).⁴

Throughout this section, the Top 3's flanker brands are a subset of the Top 3.

¹ In Telecom Regulatory Policy 2018-377, the Commission established that its definition of major transportation roads corresponded to Statistics Canada's [street rank codes 1 through 3](#).

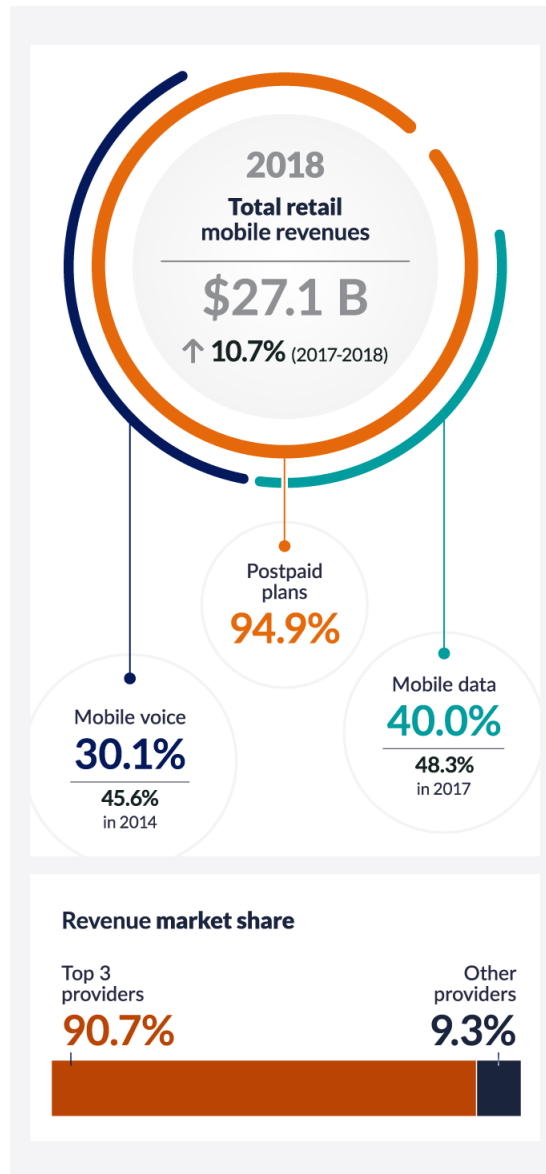
² The Top 3 mobile service providers, in terms of revenues and subscribers, are the Bell Group, Rogers and TELUS. The Bell Group includes Bell Canada, Bell Mobility, Bell MTS, KMTS, Latitude Wireless, NorthernTel, Limited Partnership, Northwestel Mobility and Télébec, Limited Partnership. In 2017, MTS Inc.'s figures were included with those of the Bell Group. From 2013 on, Public Mobile's figures were included with those of TELUS. In 2015, Data & Audio Visual Enterprises Wireless Inc.'s (i.e. Mobilicity) figures were included with those of Rogers.

³ The Top 3's flanker brands include brands such as Fido, Koodo and Virgin Mobile.

⁴ Other providers include SaskTel, small incumbent telecommunications service providers (TSPs), certain resellers and the remaining new entrants (Freedom Mobile, Videotron and Bragg Communications [Eastlink]).

i. Revenues

Infographic 10.2 Highlights of the retail mobile revenues, 2018



Source: CRTC data collection

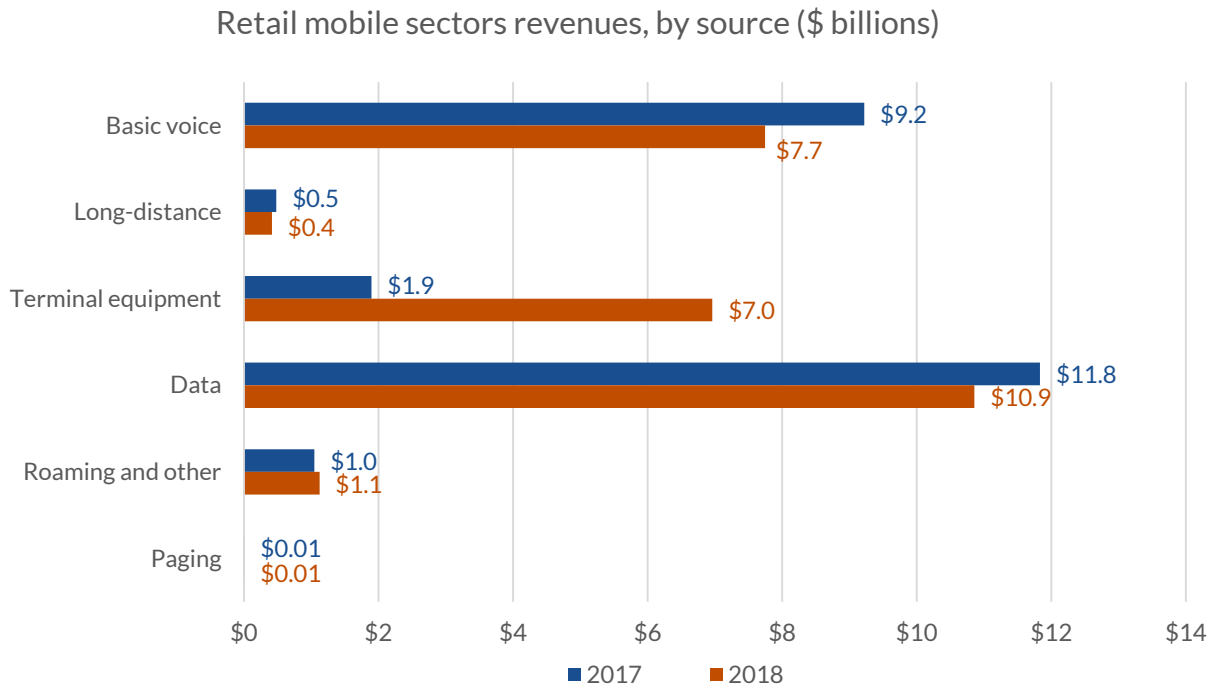
Revenues in the mobile service sector continued to account for the largest portion of telecommunications sector revenues, totalling \$27.1 billion in 2018. Compared to the previous year, this was an increase of 10.7% above the five-year cumulative average growth rate of 6.7%. The Top 3 captured 91% of these revenues, leaving 9% to be divided among the remaining providers. Although the Top 3 lost about 1% in total revenue market share from 2014 to 2018, they were still able to retain about 91% through internal growth and acquisitions. High-level market share data for 2014 to 2018 can be found on open data.

The strong revenue growth reported in 2018 was a direct result of the implementation of new international financial reporting standards (IFRS)⁵ that changed the way in which providers recognized mobile revenues derived from contracts with customers. This change in reporting resulted in terminal equipment revenues growing from \$1.9 billion in 2017 to \$7.0 billion in 2018, an increase of 267.2%. The year-over-year impacts of these reporting changes between 2017 and 2018, can be seen found in Figure 10.1 on open data.

Revenues from mobile data services have been one of the main drivers for sustained and strong revenue growth in this sector; in 2018, however, mobile data revenues recorded a loss of 8.2% for the first time ever. Mobile voice revenues continued to fall at a rapid pace. Overall, basic voice and long distance combined, revenues have decreased by 15.8% in 2018 and, on average, by 3.8% annually over the five-year period from 2014 to 2018.

⁵ IFRS 15 came into effect January 1, 2018 for all Canadian publicly accountable enterprises. Under the new accounting standards, revenues are recognized upon control of goods or services.

Figure 10.1 Retail mobile sector revenues, by source (\$ billions)

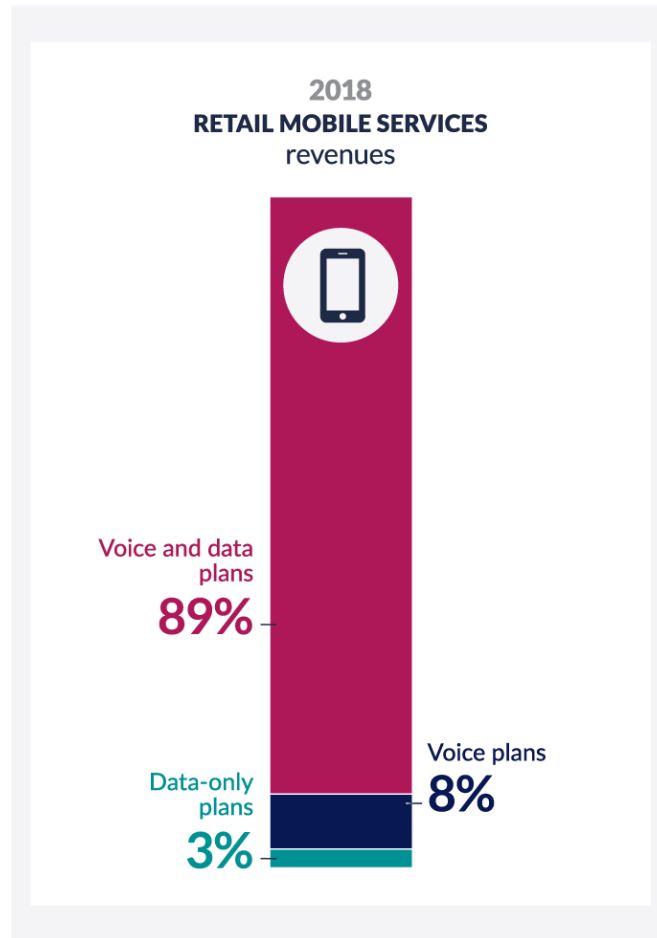


Source: CRTC data collection

Since the majority of mobile data service revenues were derived from postpaid subscribers, companies continued to promote larger data buckets to attract new customers and acquire existing users from their competitors.

Various mobile and paging service revenue components for the 2014 to 2018 period can be accessed on open data.

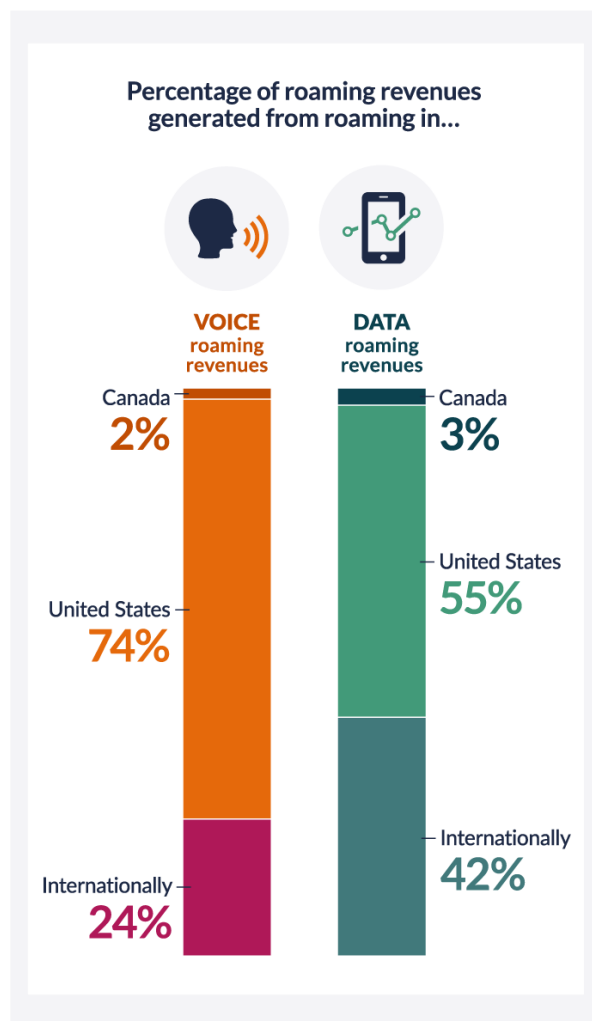
Infographic 10.3 Retail mobile revenues composition by type of plan, 2018



Source: CRTC data collection

In 2018, 89% of mobile services revenues were derived from customers who subscribed to voice and data plans; this serves as a proxy to compare the levels of smartphone and regular cell phone adoption, as well as evidence of increased demand for data services. Those with voice-only plans generally own regular cell phones, which are mainly used for voice services and have limited data capabilities. Use of these phones may indicate a segment of society that is either less inclined to embrace the digital economy or has yet to do so.

Infographic 10.4 Retail mobile roaming revenues, 2018



Source: CRTC data collection

Roaming⁶ revenues, which represent approximately 4% of total retail mobile revenues, were largely generated from subscribers who used mobile services in the United States. Approximately 74% of voice roaming revenues and 55% of data roaming revenues were derived from users roaming in the United States, with very few revenues generated from within Canada. Short Message Service (SMS) and Multimedia Messaging Service (MMS) revenues were excluded from the data revenue component of this figure.

⁶ Mobile providers extend their coverage to include areas where they do not have facilities by making arrangements with other providers who do in order to offer service to their end users. When a subscriber uses the facilities of another provider, the subscriber is said to be “roaming.”

Competitive lens/landscape

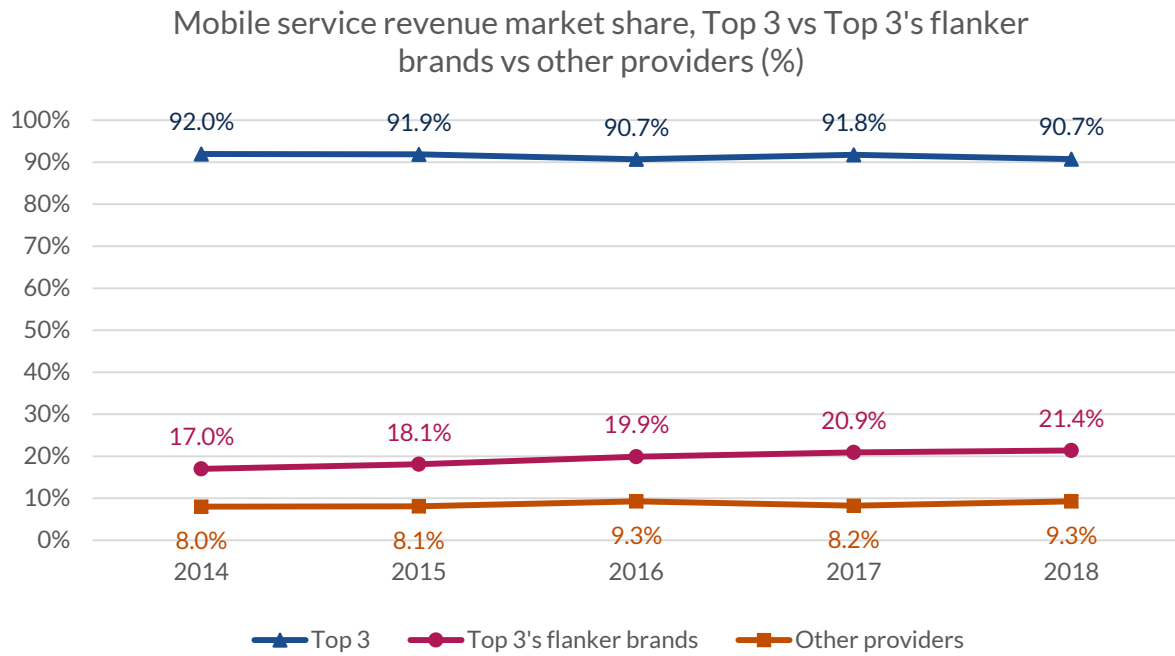
Infographic 10.5 Retail mobile revenues market share of Top 3 vs other service providers, 2018

	Providers		
	Top 3	Top 3's flanker brands	Other
Revenue market share	90.7%	21.4%	9.3%
Revenue growth rates	9.4%	13.2%	24.5%
Revenues generated from postpaid plans	97.1%	Not available	90.7%

Source: CRTC data collection

The Top 3 market their mobile services through primary and flanker brands. By marketing their services through various market segments, they are able to differentiate their service offerings. Generally, the Top 3's flanker brands and the new entrants have targeted the more value- and price-conscious consumers. Isolating the Top 3's flanker brands and comparing their data to that of the other providers' may provide a better comparison of the two groups' abilities to compete for revenue market share.

Figure 10.2 Mobile service revenue market share, Top 3 vs Top 3's flanker brands vs other providers (%)



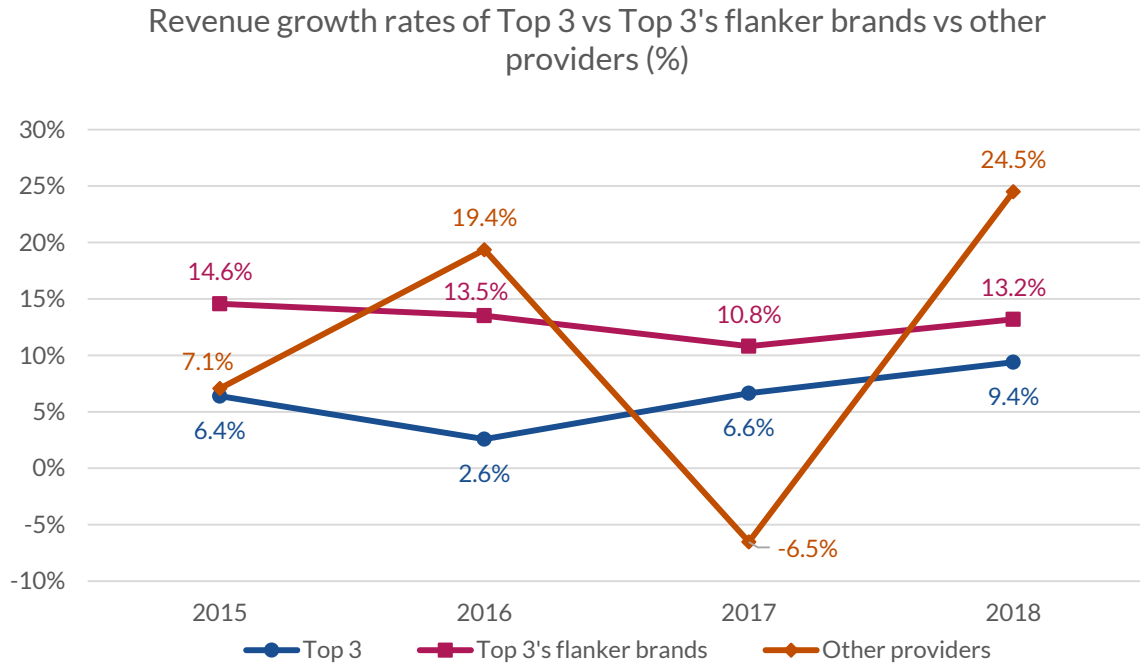
Source: CRTC data collection

In 2017, MTS Inc. figures were included within the Bell Group due to Bell Mobility's acquisition of MTS during the first quarter of 2017.

The market shares of the Top 3 (Bell Group, Rogers and TELUS) include the shares of their flankers.

As seen in Figure 10.3 below, all groups of competitors reported solid revenue growth rates in 2018 with the other providers reporting an exceptional growth rate of 24.5% in 2018, a sharp reversal from the negative 6.5% rate that they reported in 2017. Overall, the strong revenue growth for this sector can be attributed to the new reporting standards and to the increasing rate of subscriptions for mobile services.

Figure 10.3 Revenue growth rates of Top 3 vs Top 3's flanker brands vs other providers (%)

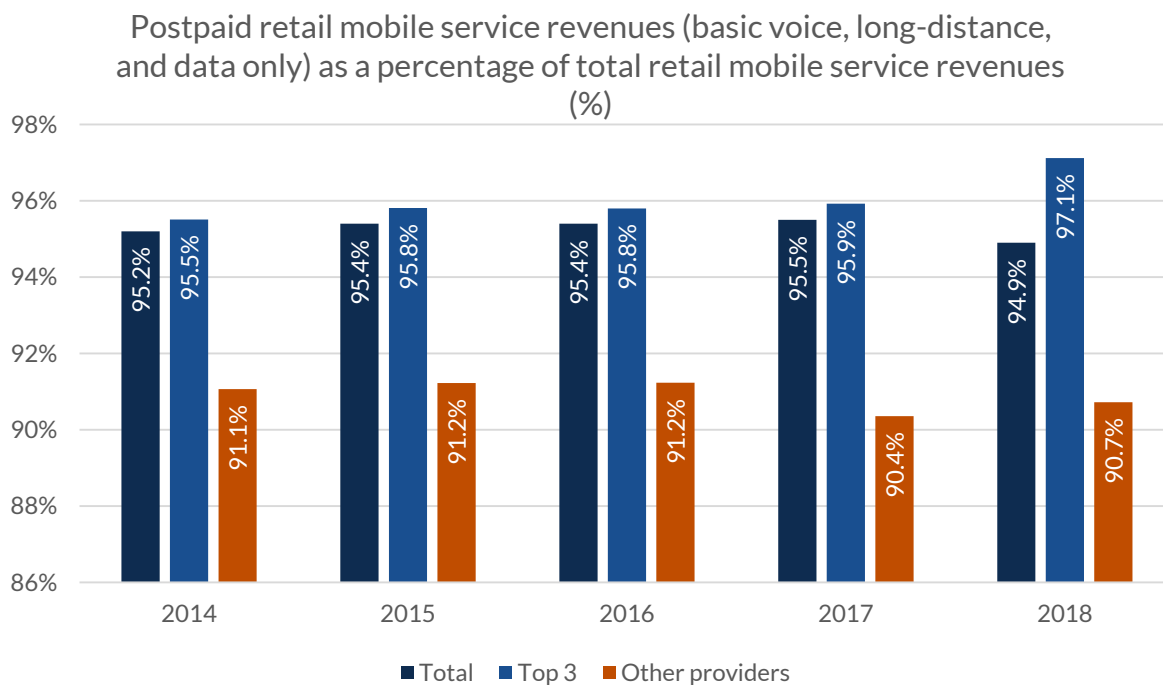


Source: CRTC data collection

In 2017, MTS Inc. figures were included within the Bell Group due to Bell Mobility's acquisition of MTS during the first quarter of 2017.

In 2018, approximately 95% of mobile revenues were derived from postpaid plans and almost all data plans were postpaid. As data revenues continue to be most lucrative service component, there is a strong incentive for providers to compete for postpaid subscribers because of higher revenues per subscriber and lower churn rates. Figure 10.4 compares the percentage of revenues derived from certain postpaid retail mobile services (basic voice, long-distance, and data only) by both the Top 3 and other providers.

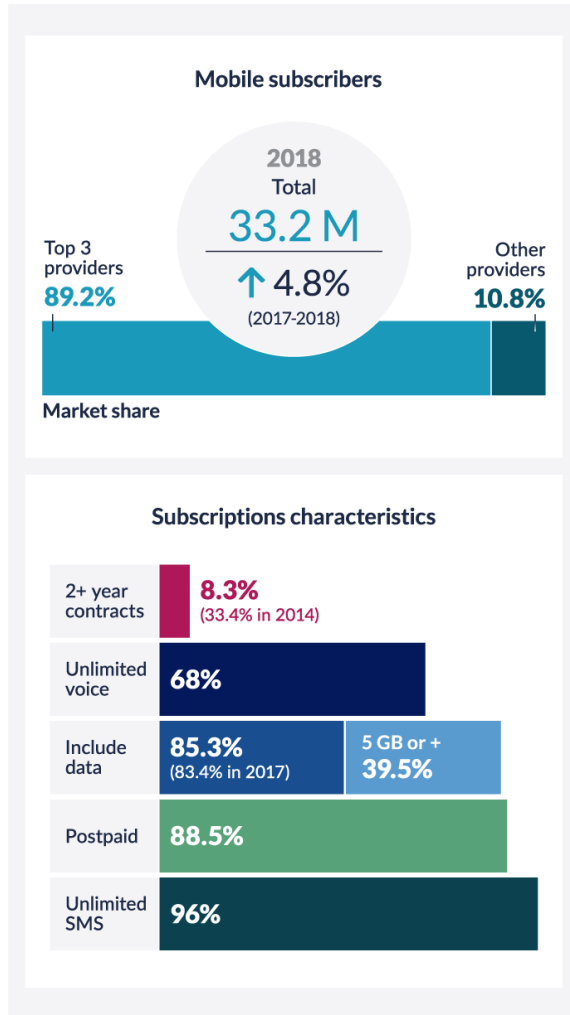
Figure 10.4 Postpaid retail mobile service revenues (basic voice, long-distance, and data only) as a percentage of total retail mobile revenues (%)



Source: CRTC data collection

ii. Subscriber data

Infographic 10.6 Characteristics of retail mobile subscriptions, 2018

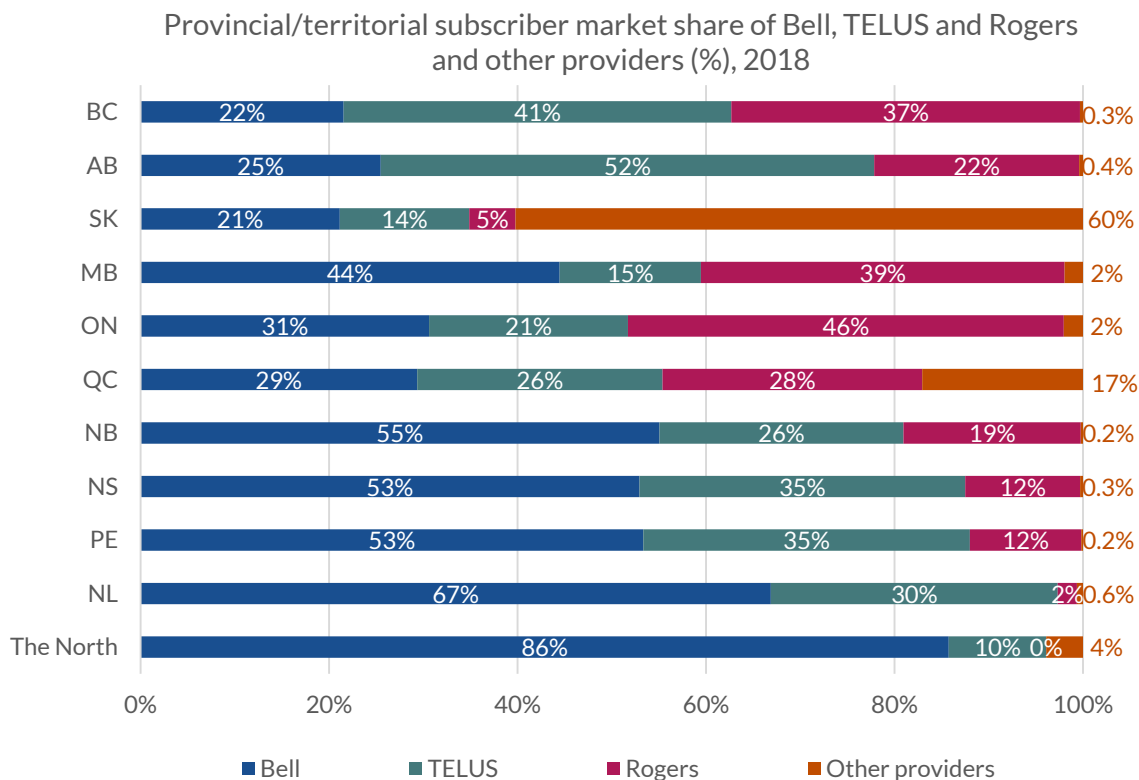


Source: CRTC data collection

In 2018, mobile subscribers grew by 4.8% to reach 33.2 million subscribers. This growth rate was more than two times slower than the revenue growth rate of 10.7%, indicating greater revenues per subscriber for 2018.

At the national level, the Top 3 continued to hold the majority (89.2%) of the subscriber market share, while their competitors divided the remainder (10.8%); however, there were regional differences. The Top 3's market share varied among the provinces and territories. Collectively, they held the majority share in all territories as well as in all provinces except for Saskatchewan, where the other service providers held 60% of the market share (a decrease from the 66% they held in 2014). Provincial and territorial market share data can be found on open data.

Figure 10.5 Provincial/territorial subscriber market share of Bell, TELUS, Rogers and other providers (%), 2018



Source: CRTC data collection

The figure above displays the market shares held by the major wireless service providers (WSPs), excluding Freedom Mobile and Eastlink/Bragg, in Canada's provinces and in the North (Northwest Territories, Nunavut and Yukon). Other providers include (but are not limited to) SaskTel, TBayTel and Videotron.

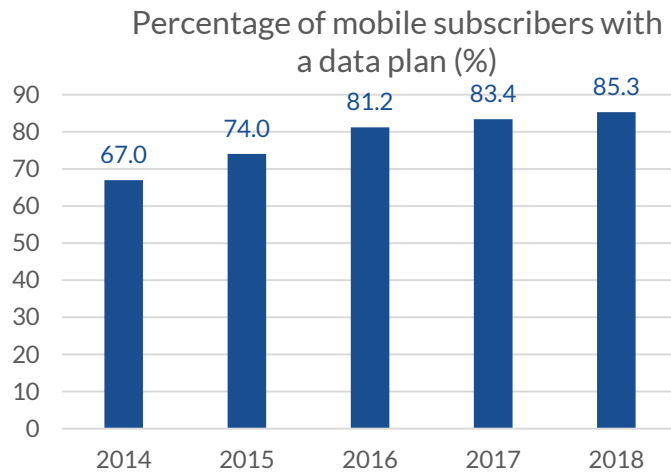
In 2018, approximately 40% of all subscribers who subscribed to a data plan resided in Ontario. This figure closely aligns with the population distribution by province. Additional information with respect to the number of subscribers with a data plan and the distribution of data subscribers in each region of the country can be found on open data.

The appetite for mobile data services continued to grow in 2018. Approximately 40% of data subscribers had a plan with 5 or more gigabytes (GB) of data, while 64% of all subscribers had unlimited voice minutes and 96% had unlimited text messages. In comparison, these figures were 31%, 57% and 99%, respectively, in 2017.

Following the implementation of the [Wireless Code](#) in 2013, the percentage of postpaid plans under contracts of more than two years' duration declined significantly, decreasing from 33.4% in 2014 to 7.2% in 2017. In 2018, however, this figure increased to 8.3%. Since business accounts were exempt from the Wireless Code, many of the accounts reported to have contracts exceeding two years' duration reflect business accounts that were still under contract. The number of subscribers with one- to two-year contract terms remained unchanged at 49% both in 2017 and 2018. Additional details can be found via open data.

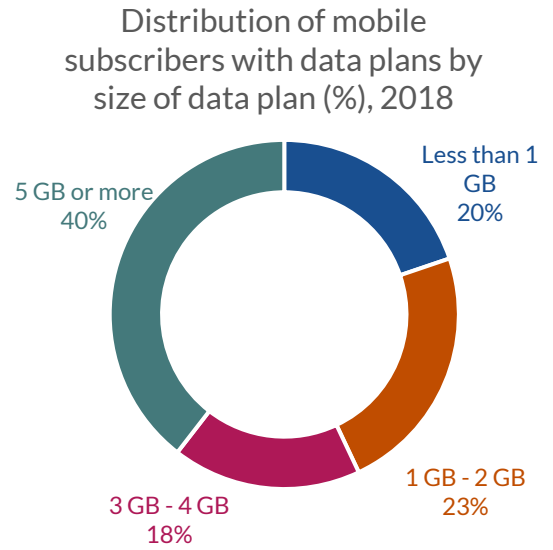
Due to the reporting requirements for each reporting group, only those companies that provided the data were included in the subscribers with a data plan statistics. Consequently, Figure 10.6 represents over 90% of total mobile subscribers. It illustrates the percent of subscribers with a data plan as well as the increasing appetite for data plans, subscriptions for which have steadily increased from 67% in 2014 to 85.3% in 2018. Figure 10.7 shows the distribution of data plan subscribers (excluding data-only plans) by plan size.

Figure 10.6 Percentage of mobile subscribers with a data plan (%)



Source: CRTC data collection

Figure 10.7 Distribution of mobile subscribers with data plans by size of plan (%), 2018



Source: CRTC data collection

Competitive lens/landscape

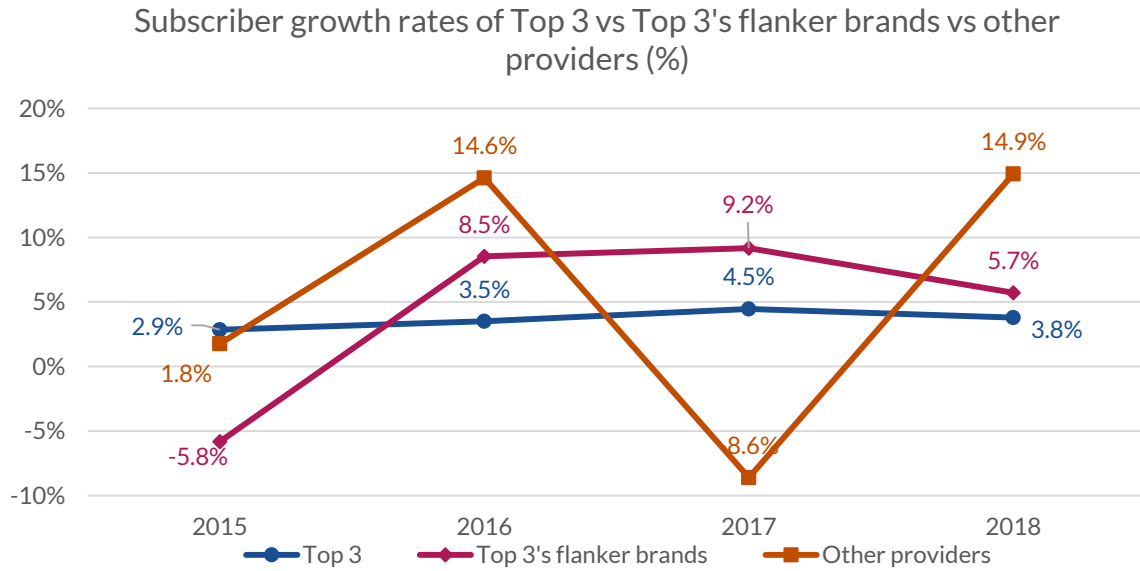
Infographic 10.7 Retail mobile subscribers market share of Top 3 vs Top 3's flanker brands vs other service providers, 2018

	Providers			Providers	
	Top 3	Top 3's flanker brands		Other	All
Subscriber growth rates	3.8%	5.7%	Subscriber growth rates	14.9%	4.8%
Mobile subscriber market share	89.2%	27.2%	Mobile subscriber market share	10.8%	100%
Subscribers with postpaid plans	88.8%	Not available	Subscribers with postpaid plans	86.7%	88.5%
Subscribers with data plans	85.0%	Not available	Subscribers with data plans	91.7%	85.3%
Data subscribers whose plans included 5 GB or more of data	36.5%	Not available	Data subscribers whose plans included 5 GB or more of data	59.1%	39.5%

Source: CRTC data collection

The other providers' subscriber growth outpaced that of the Top 3. As a collective group, the other providers reported a 14.9% increase in subscribers in 2018, their highest reported growth rate in the past four years. As for data subscribers whose plans included 5 GB or more of data, the Top 3 reported an increase from 28.1% of such subscribers in 2017 to 36.5% in 2018; however, the other providers reported an increase of only 3% during this same period.

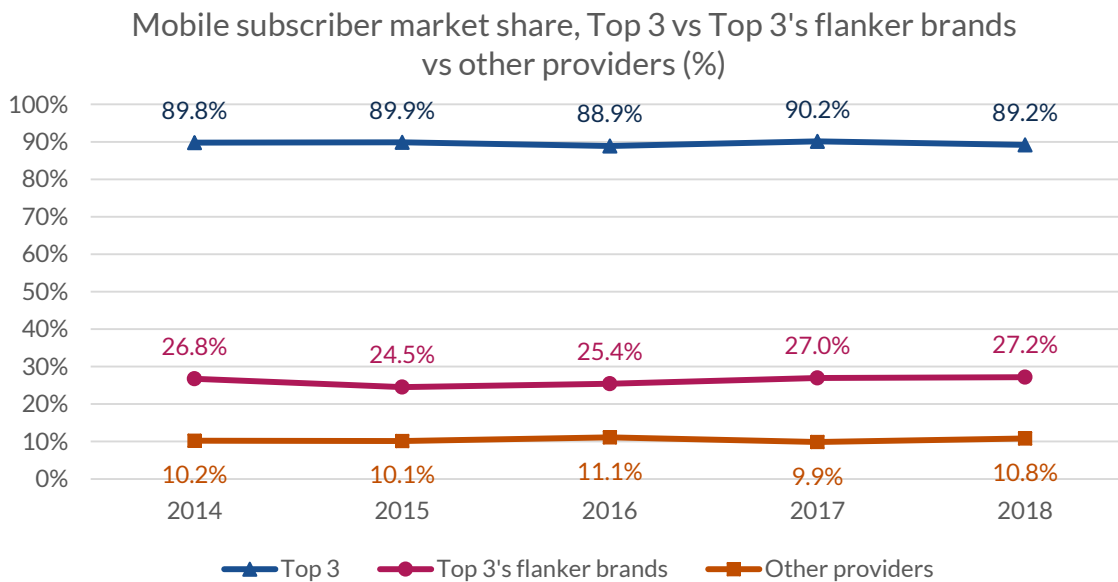
Figure 10.8 Subscriber growth rates of Top 3 vs Top 3's flanker brands vs other providers (%)



Source: CRTC data collection

From 2015 to 2018, the Top 3's subscriber market share did not change significantly. However, a comparison between the Top 3's flanker brands and the other service providers offers insight into how the Top 3 have marketed, packaged and positioned their flanker brands to compete in the marketplace. From 2015 to 2018, the Top 3's flanker brands held approximately one quarter of the subscriber market share, between double and triple that held by the other providers.

Figure 10.9 Mobile subscriber market share, Top 3 vs Top 3's flanker brands vs other providers (%)

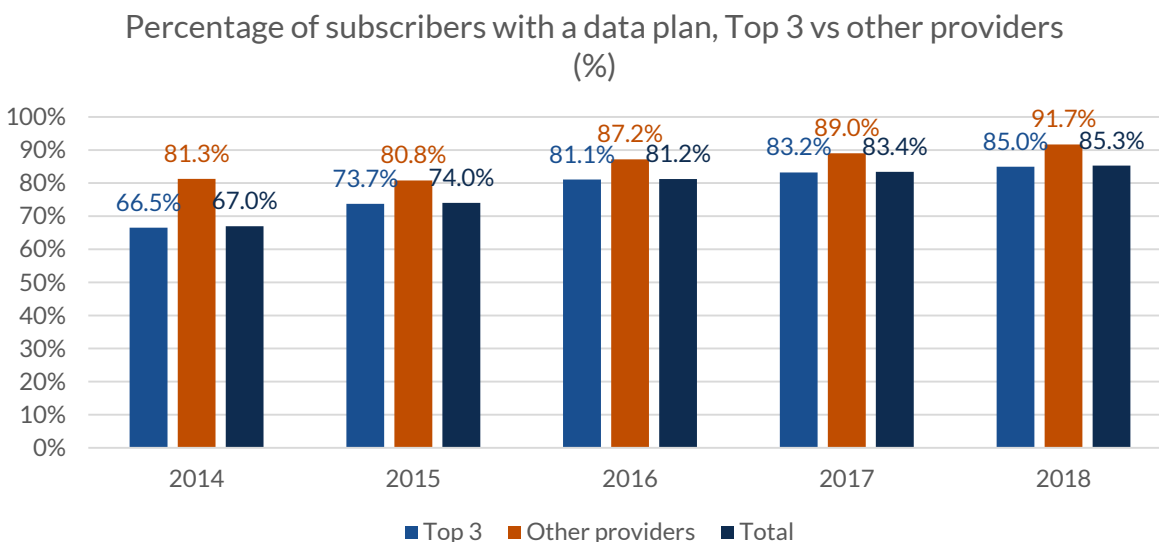


Source: CRTC data collection

The market shares of the Top 3 include the shares of their flankers.

Both the Top 3 and the other providers have consistently and successfully positioned their plans to encourage their customers to favour postpaid subscriptions over prepaid ones. Consequently, the percentage of postpaid subscribers increased to 88.5% in 2018, compared to 85.5% in 2014. The shift from prepaid to postpaid subscriptions resulted in higher overall revenues and higher revenues per subscriber.

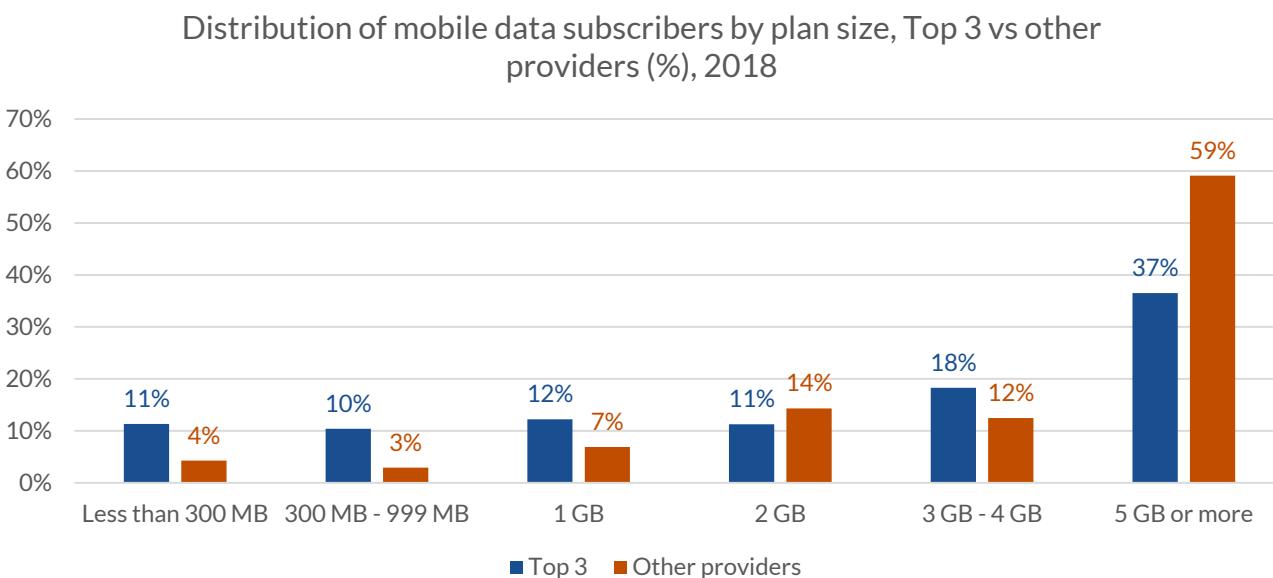
Figure 10.10 Percentage of subscribers with a data plan, Top 3 vs other providers (%)



Source: CRTC data collection

The figure below compares the distribution of data plan subscribers (excluding data-only plans), by plan size and by whether they have subscribed to plans offered by the Top 3 or by other providers.

Figure 10.11 Distribution of mobile data subscribers by plan size, Top 3 vs other providers (%), 2018

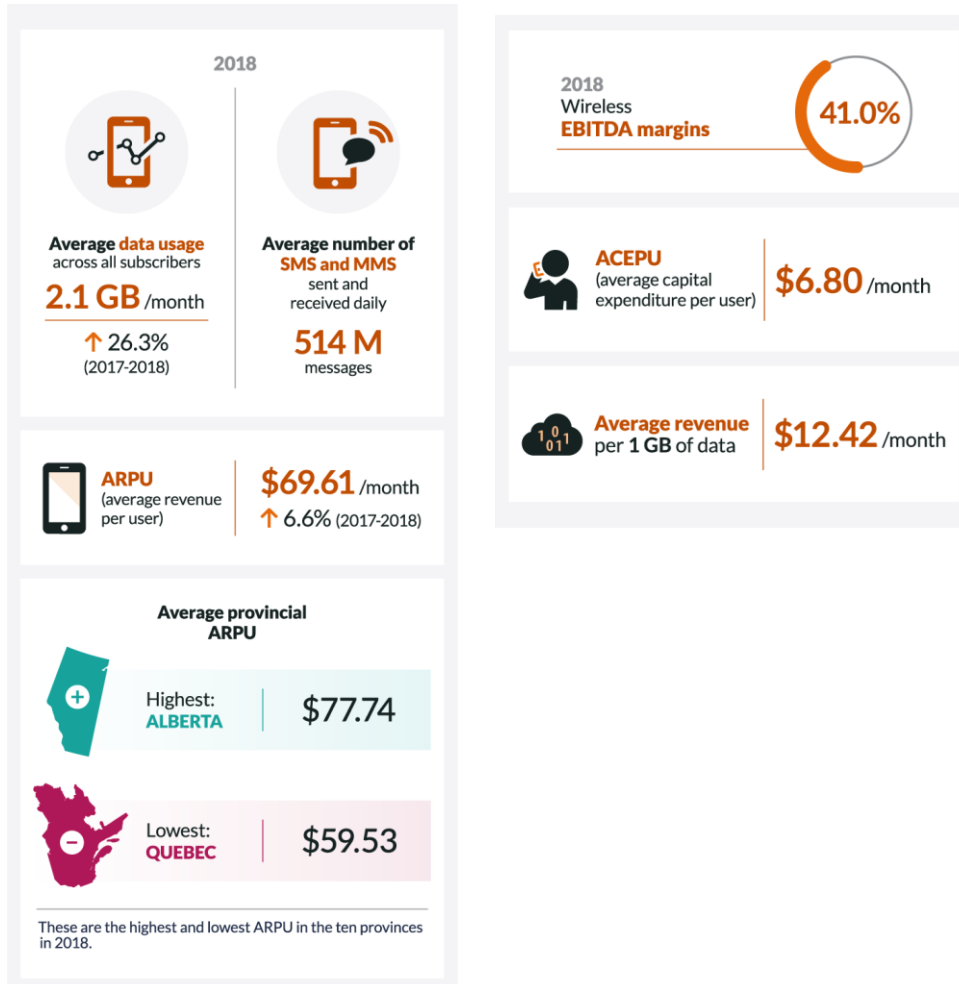


Source: CRTC data collection

iii. Other performance indicators

In addition to revenue and subscriber metrics, there are other indicators such as ARPU,⁷ data usage, investments⁸ and penetration rates that can help measure financial performance and assess the level of competition in the mobile sector.

Infographic 10.8 Highlights of retail mobile financial performance, 2018



Source: CRTC data collection

Average capital expenditure per user (ACEPU) was computed by using only data from companies who supplied both capital expenditure and subscriber data, excluding spectrum expenditures. An end-of-year subscriber figure was used in the computation rather than an average number of subscribers during the year.

⁷ The mobile service ARPU was calculated by dividing total annual mobile service revenues by the average number of subscribers during the year. The result was then divided by twelve to obtain a monthly result. The average number of subscribers was determined by halving the sum of the number of subscribers at the beginning and end of the year.

⁸ Average capital expenditure per user was computed by using only data from companies who supplied both capital expenditure and subscriber data, excluding spectrum expenditures.

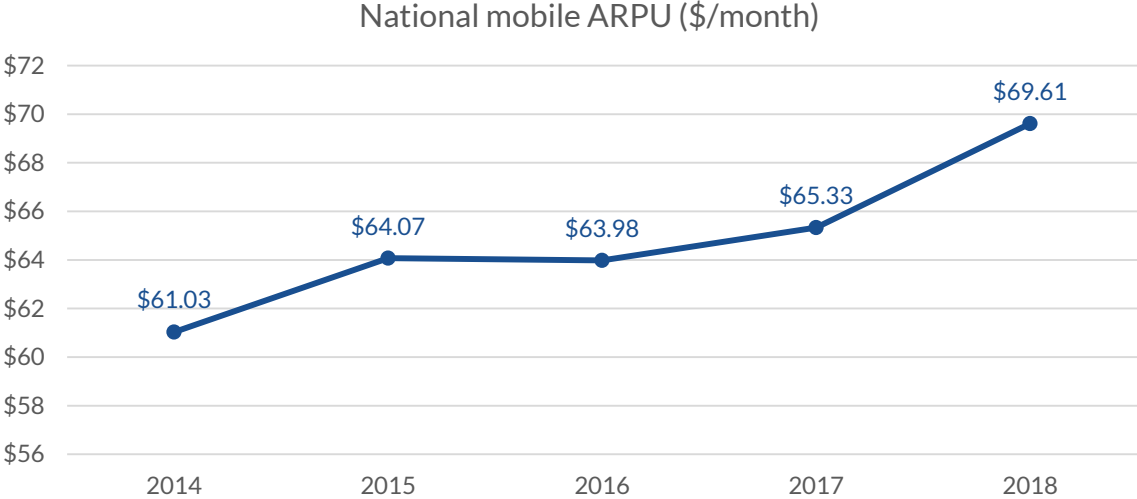
⁹ This was the highest reported ARPU in the ten provinces.

¹⁰ This was the lowest reported ARPU in the ten provinces.

The increase in data demand and usage from 2014 to 2018 vastly outpaced the revenues derived from data service, which resulted in lower revenues per GB per month. The average revenue per 1 GB of data usage per month has been declining since this metric was first reported in 2015. Only companies that provided both data traffic and revenues were included in the calculation.

ARPU is a useful measure of the revenues that mobile providers receive per subscriber. Conversely, from a consumer perspective, it is a measure of consumers' expenditures on wireless services. From 2014 to 2018, the national ARPU increased from \$61.03 to \$69.61 per month, an average increase of 3.3% per year. Provincial and territorial ARPU data for these years can be accessed on open data.

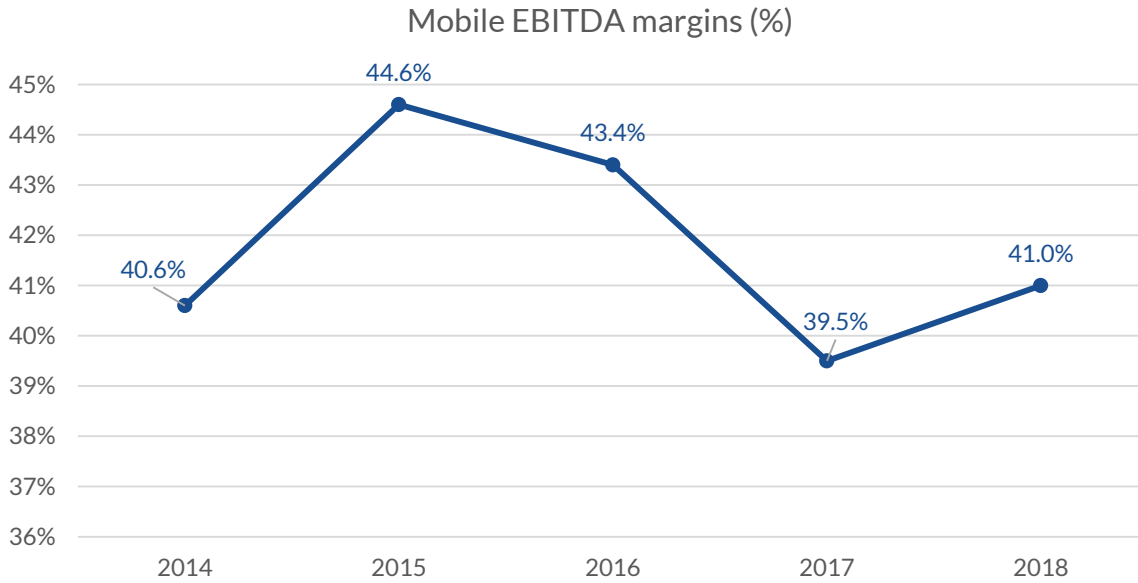
Figure 10.12 National mobile ARPU (\$/month)



Source: CRTC data collection

EBITDA¹¹ margins, a proxy for measuring the operating profitability of the mobile sector, were calculated for 2014 to 2018 and presented in the figure below. While not all companies generated such high margins, the Top 3's EBITDA figures were heavily weighted in the calculation due to their 91% revenue market share in the mobile sector.

Figure 10.13 Mobile EBITDA margins (%)

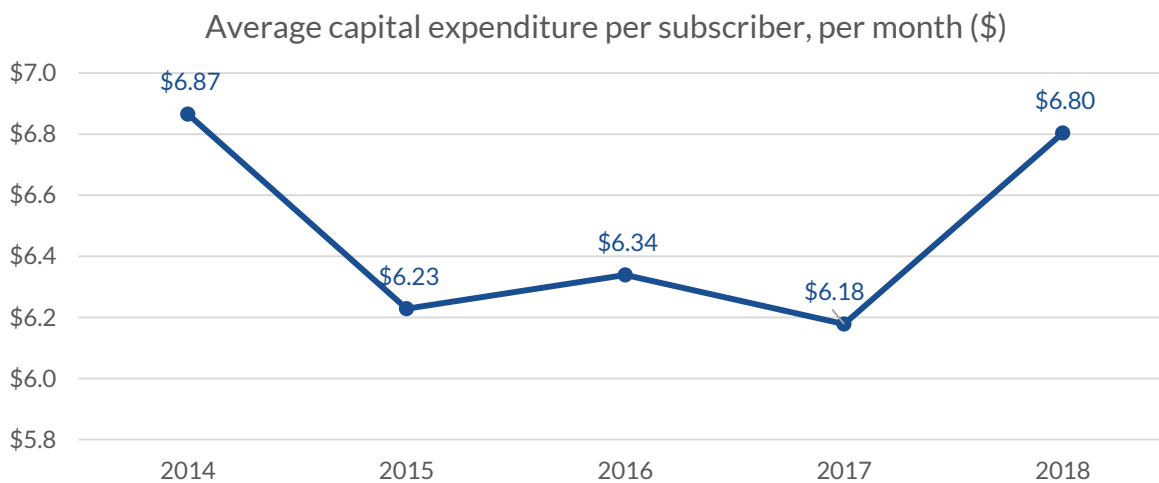


Source: CRTC data collection

¹¹ Only TSPs with at least 80% of their total revenues garnered by telecommunications services were considered in the calculation of EBITDA margins.

Investments in infrastructure are necessary for mobile providers to expand their network coverage, offer higher broadband speeds and create network efficiencies. Total wireless capital expenditures can be found in the Telecommunications Overview section or can be accessed on open data. The chart below displays the average monthly capital investments associated with each mobile subscriber for each year from 2014 to 2018.

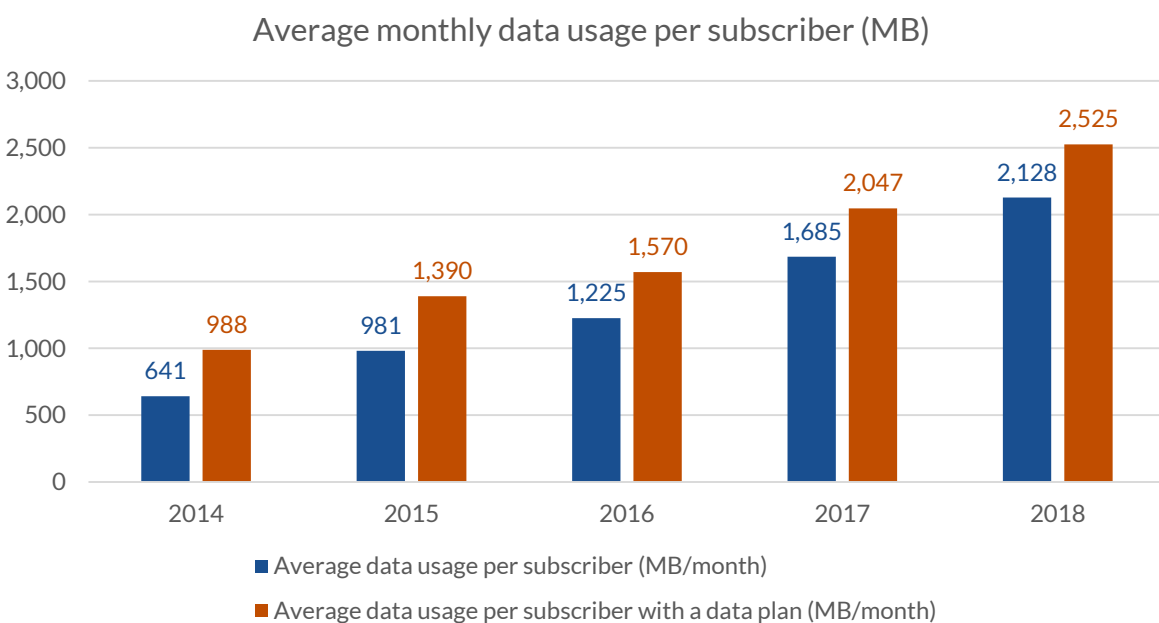
Figure 10.14 Average capital expenditure per subscriber, per month (\$)



Source: CRTC data collection

In 2018, Canadians consumed more mobile data, evidenced by the averages for data use per subscriber, shown in Figure 10.15. The average monthly data usage for all subscribers and subscribers with a data plan was 2,128 MB per month and 2,525 MB per month, respectively.

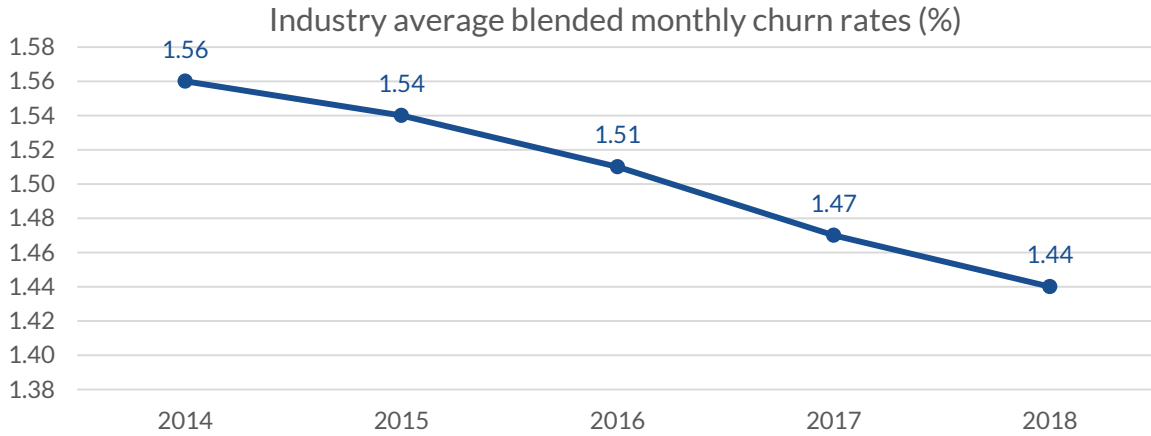
Figure 10.15 Average monthly data usage per subscriber (MB)



Source: CRTC data collection

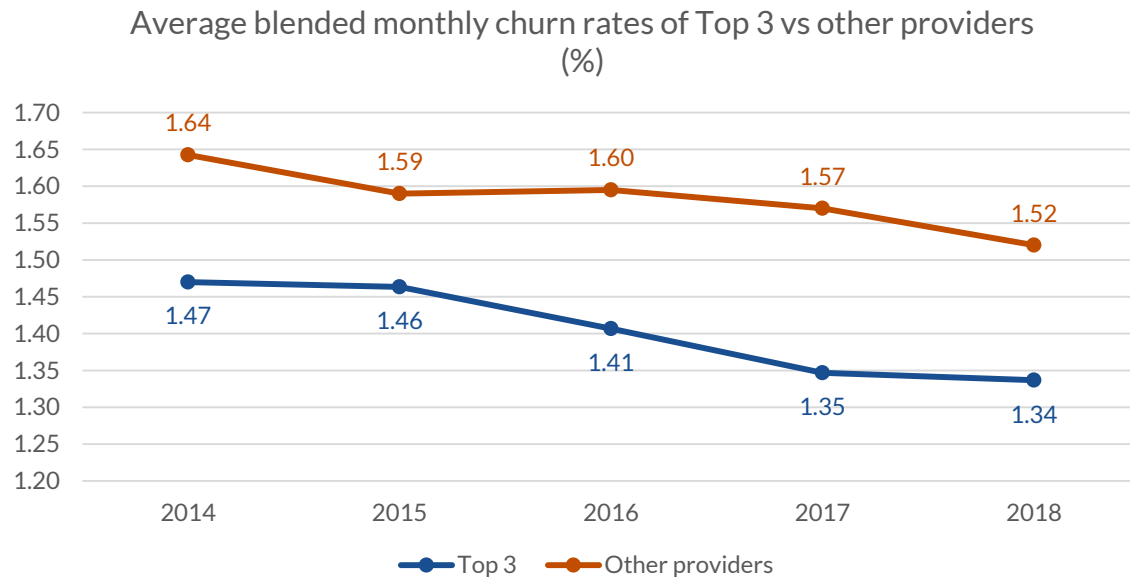
The average churn rate is a measure of subscriber turnover. A high churn rate suggests that customers are leaving their existing mobile providers for a number of reasons, including dissatisfaction with the service, pricing issues or a desire to take advantage of competitive offers. Conversely, low churn rates suggest that Canadians are not switching providers, which could indicate either that customers see value in remaining with their current provider or that there is a lack of incentives motivating subscribers to change from one provider to another.

Figure 10.16 Industry average blended monthly churn rates (%)



Source: CRTC data collection

Figure 10.17 Average blended monthly churn rates of Top 3 vs other providers (%)



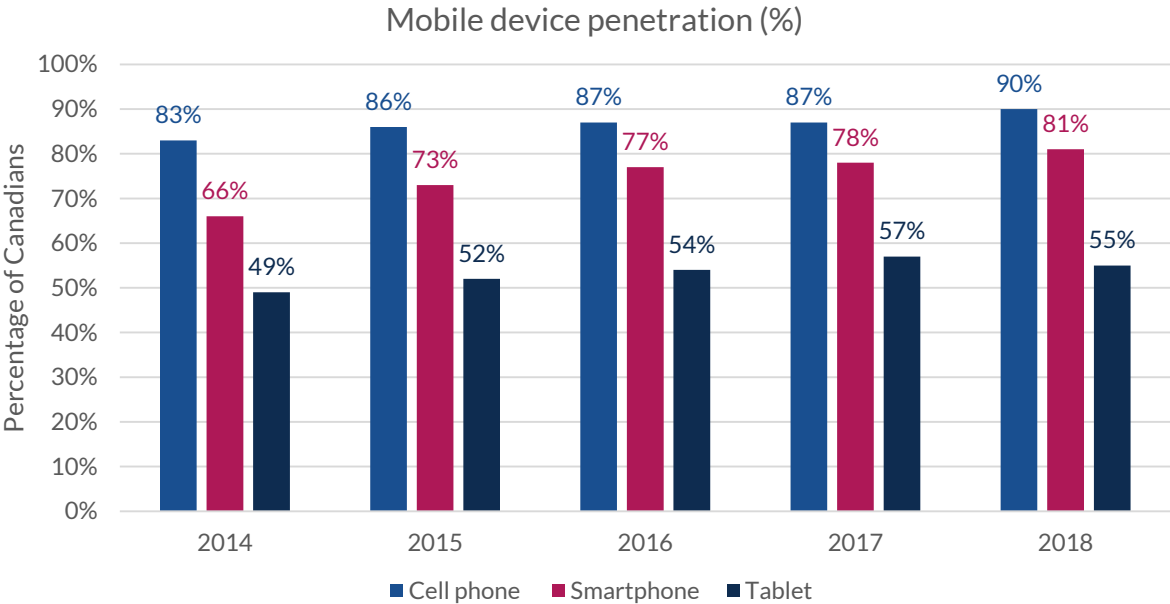
Source: CRTC data collection

SMS/MMS allows for the transmission of text, pictures, videos, and other media between mobile subscribers. Each year from 2014 to 2018, the average number of messages sent and received was consistently above 500 million messages per day (an average of 514 million per day). Additional details can be found on open data.

Smartphones, tablets and other mobile devices that provide access to the Internet are continually increasing demand for wireless capacity. The following tables and charts illustrate how Canadians are adapting to a digital communication system.

Figure 10.18 shows the percentages of Canadians, 18 years of age and older, who owned regular cell phones, smartphones, and tablets, from 2014 to 2018. In this figure, smartphones are a subset of cell phones. The use of smartphones and tablets increases the volume of network data traffic.

Figure 10.18 Mobile device penetration (%)



Source: Media Technology Monitor, fall 2018 (Respondents: Canadians aged 18+)

The table below shows the percentage of Francophones and Anglophones in Canada who owned cell phones, smartphones and tablets from 2014 to 2018. In this table, smartphones are a subset of cell phones. Over this period, Francophones consistently owned these devices at a lower rate than Anglophones; however, the gap narrowed significantly in 2018.

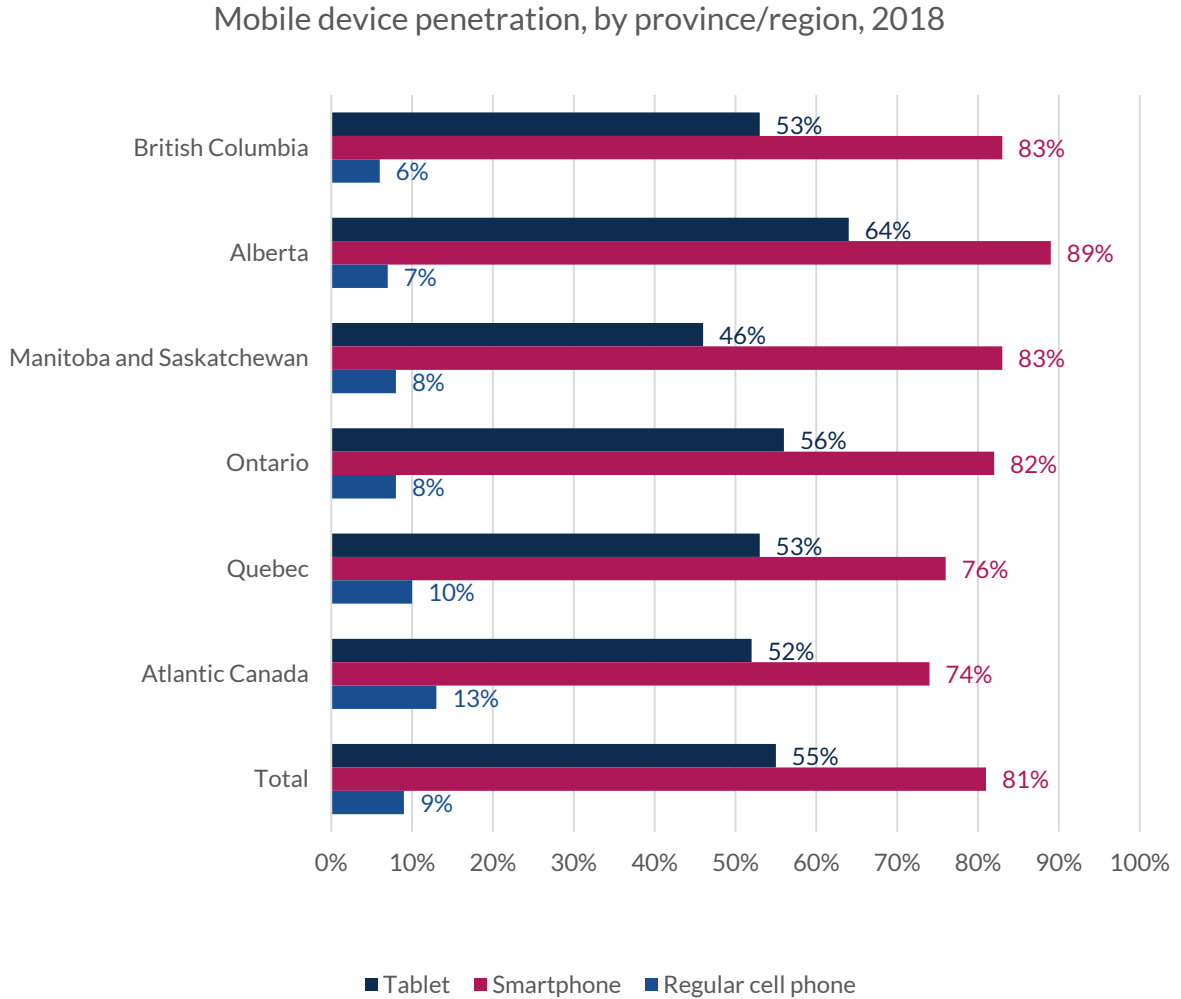
Table 10.1 Mobile device penetration by linguistic group (%)

Mobile device	2014		2015		2016		2017		2018	
	Franco	Anglo	Franco	Anglo	Franco	Anglo	Franco	Anglo	Franco	Anglo
Cell phone	75	86	78	89	81	89	86	87	87	90
Smartphone	54	69	61	77	68	80	75	79	86	82
Tablet	41	51	48	53	52	55	56	57	52	55

Source: Media Technology Monitor, fall 2018 (Respondents: Canadians aged 18+)

As seen in Figure 10.19 below, Canadians who reside in the western provinces were generally more likely to adopt smartphones than Canadians who reside in the eastern provinces, although adoption rates were high throughout Canada.

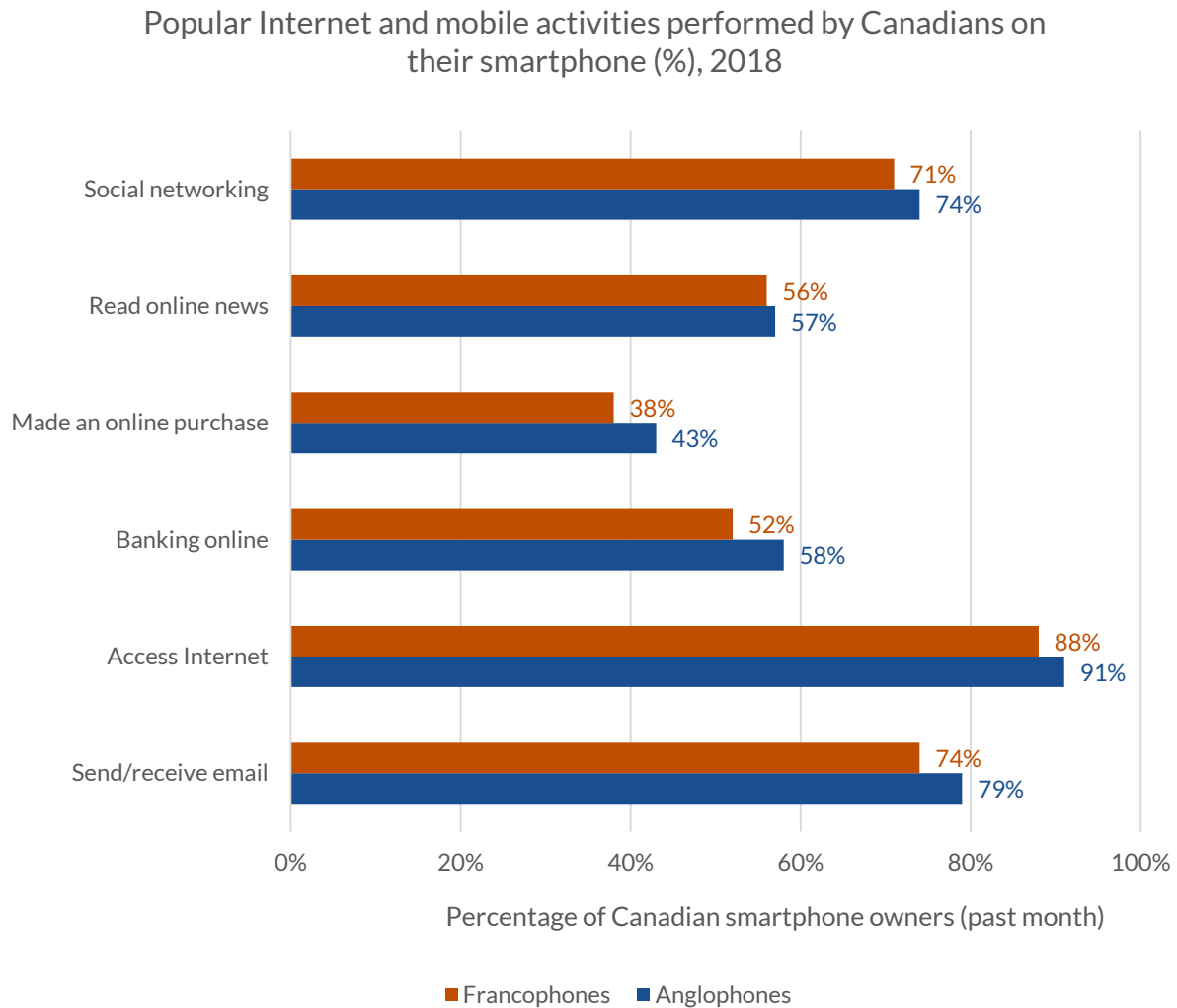
Figure 10.19 Mobile device penetration, by province/region, 2018



Source: Media Technology Monitor, fall 2018 (Respondents: Canadians aged 18+)

Figure 10.20 shows some of the common activities that Francophones and Anglophones carried out using their smartphones. On average, Francophones were marginally less inclined than Anglophones to use smartphones for these activities.

Figure 10.20 Popular Internet and mobile activities performed by Canadians on their smartphone (%), 2018

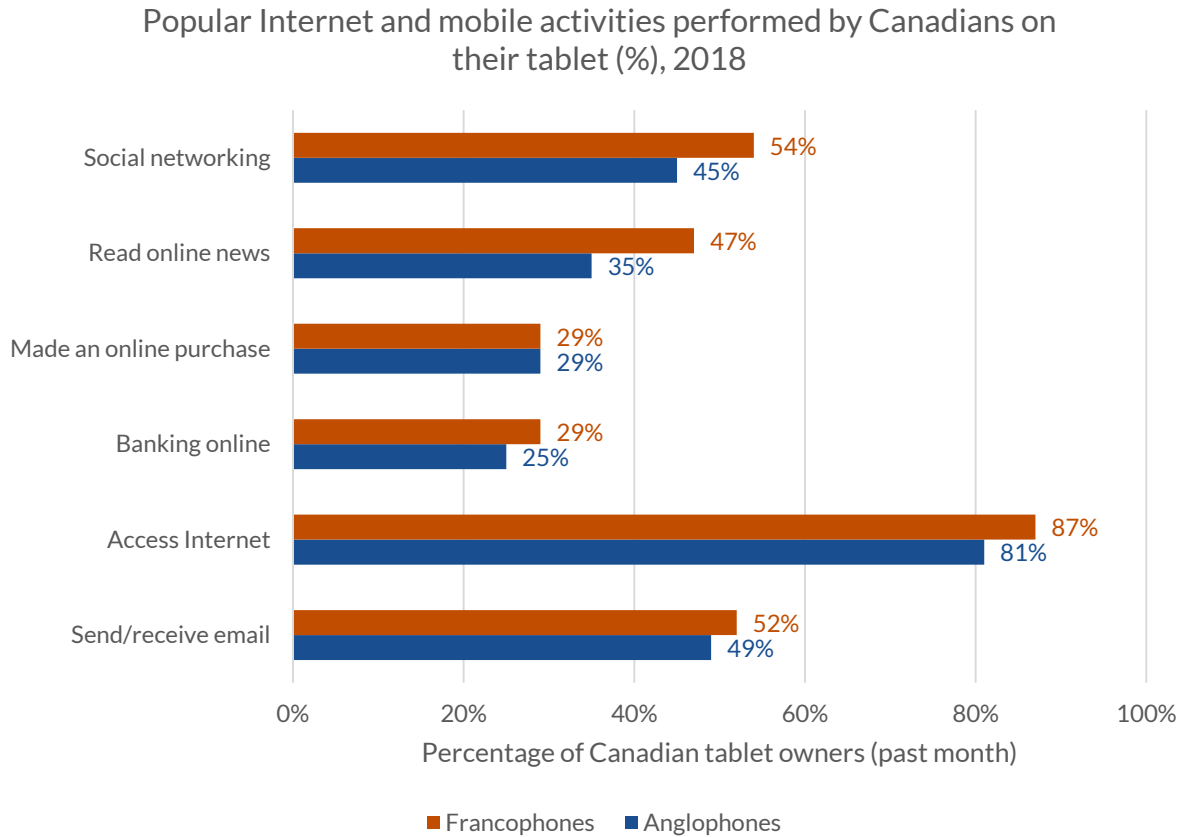


Source: Media Technology Monitor, fall 2018 (Respondents: Canadians aged 18+)

“Past month” refers to last 30 days at the time of the survey.

Figure 10.21 shows some of the common activities that Francophones and Anglophones carried out in 2018 using their tablets. In contrast to smartphone use, Francophones are more inclined than Anglophones to use tablet technologies in all activity categories except that of making an online purchase, which is an activity they are equally inclined to perform on a tablet.

Figure 10.21 Popular Internet and mobile activities performed by Canadians on their tablet (%), 2018



Source: Media Technology Monitor, fall 2018 (Respondents: Canadians aged 18+)

“Past month” refers to last 30 days at the time of the survey.

Competitive lens/landscape

This section presents some key metrics that are closely monitored and analyzed by the industry to assess competitiveness in the marketplace. These metrics showcase the financial health and performance of the two group of providers at the national level, since showing regional and provincial data would present confidentiality and disclosure concerns.

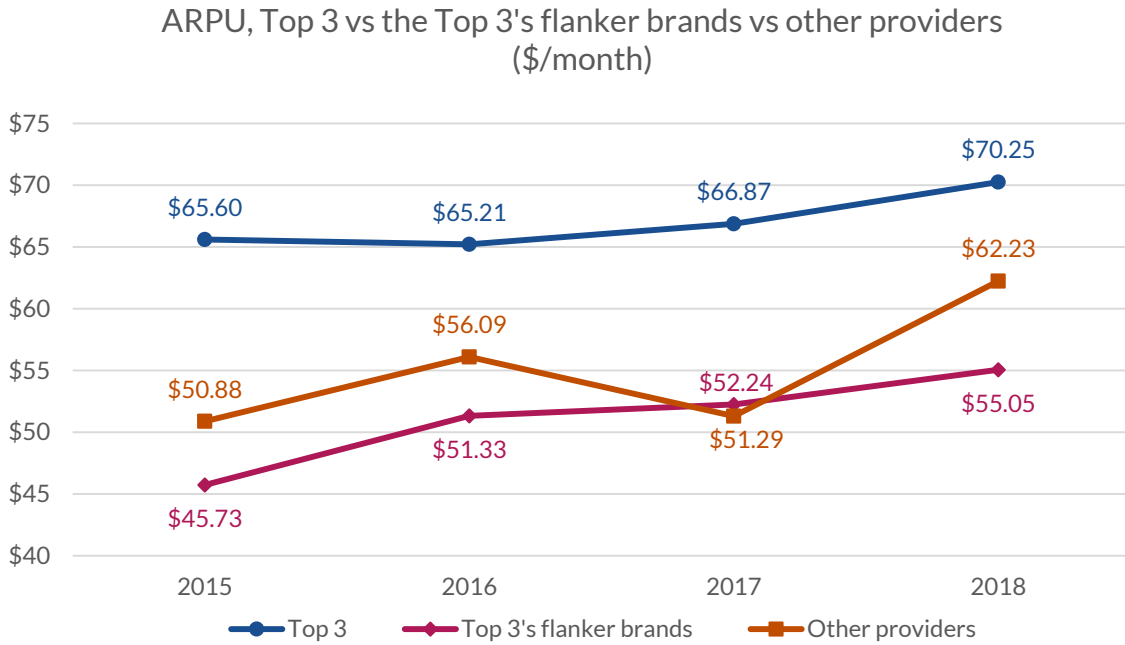
Infographic 10.9 Retail mobile financial performance metrics of Top 3 vs other providers, 2018

	Providers		
	Top 3	Other	All
Average revenue per user	\$70.25	\$62.23	\$69.61
Average blended churn rates	1.34%	1.52%	1.44%
Average capital expenditure per user (ACEPU)	\$6.30	\$11.18	\$6.80
Capital intensity	8.7%	18.7%	9.6%
Average data usage	2.0 GB	2.6 GB	2.1 GB
Average revenue per 1 GB of data	\$13.59	\$5.61	\$12.42

Source: CRTC data collection

The Top 3 had approximately 90.7% of revenue market share and 89.2% subscriber market share in 2018. As seen in Figure 10.22, the Top 3 consistently reported higher ARPUs than their competitors, although their flanker brands had very similar ARPUs to those reported by the competitors.

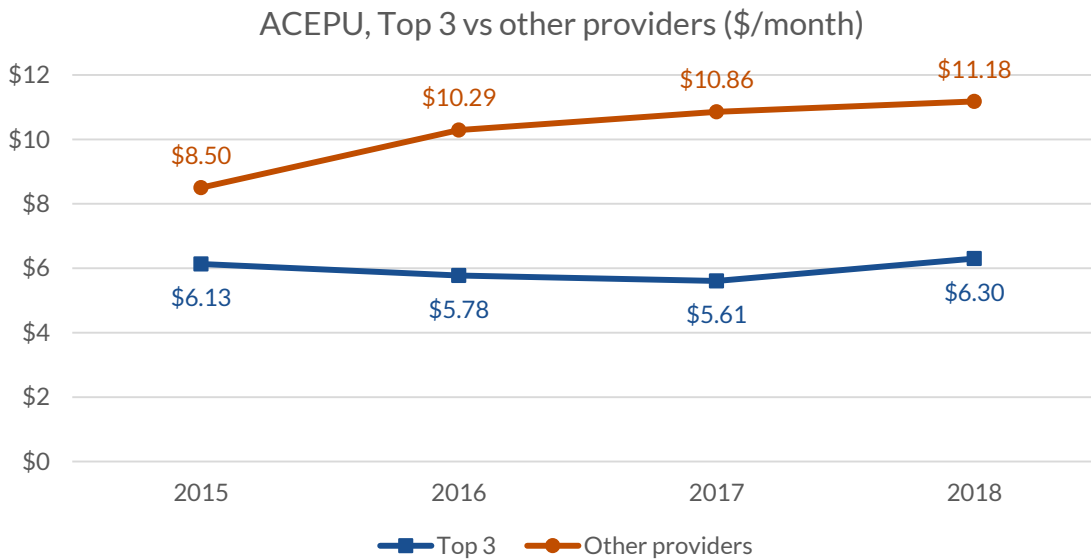
Figure 10.22 ARPU, Top 3 vs the Top 3's flanker brands vs other providers (\$/month)



Source: CRTC data collection

As seen in Figure 10.23 below, the other service providers had a much higher ACEPU than that of the Top 3 in 2018.

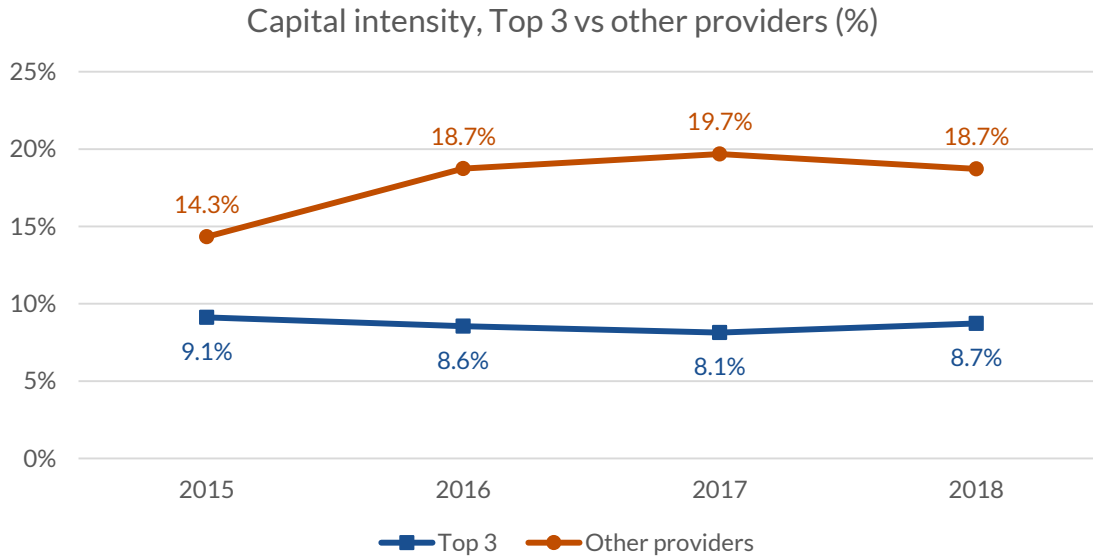
Figure 10.23 ACEPU, Top 3 vs other providers (\$/month)



Source: CRTC data collection

Capital intensity measures the ratio of capital investments made to revenues generated in a given year. Figure 10.24 below reveals that the Top 3 reinvested at a lower rate than the other providers by more than 2.1 times in 2018.

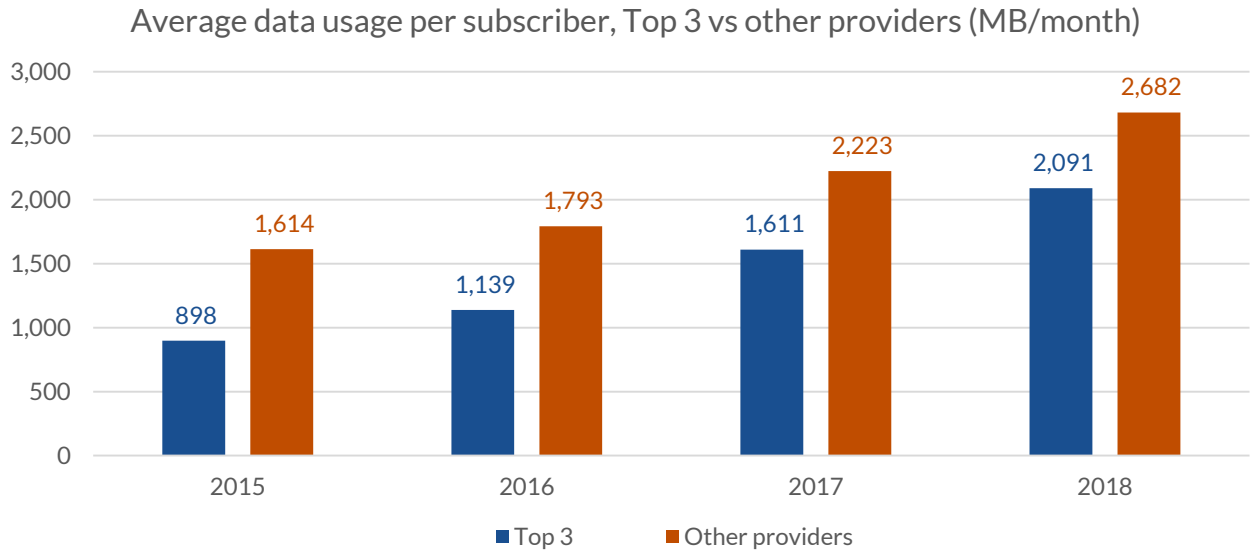
Figure 10.24 Capital intensity, Top 3 vs other providers (%)



Source: CRTC data collection

The other providers' subscribers used, on average, more data than those of the Top 3's subscribers. A subscriber base that consumes more data while generating less ARPU would likely have a direct impact on capital intensity and profitability.

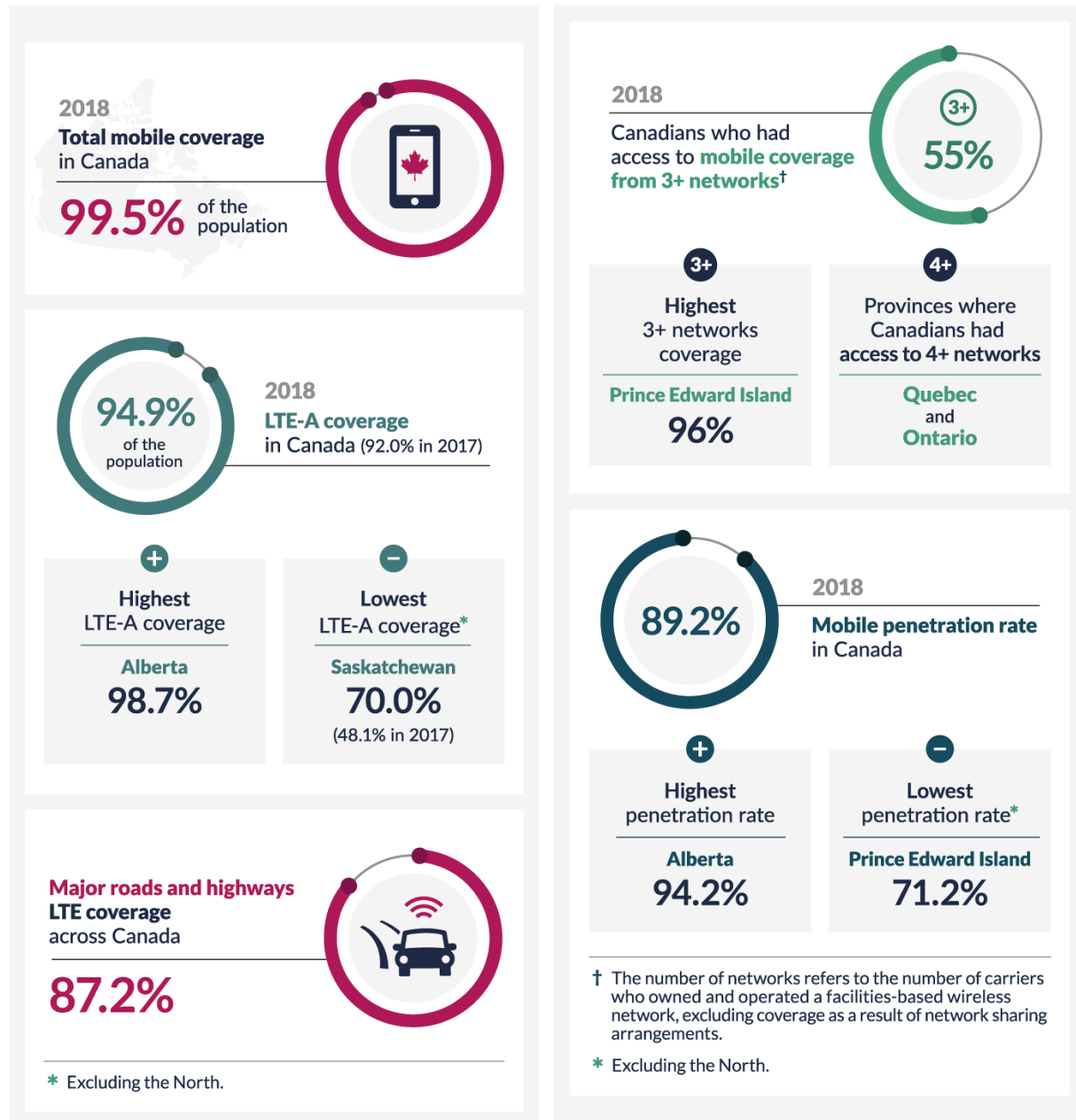
Figure 10.25 Average data usage per subscriber, Top 3 vs other providers (MB/month)



Source: CRTC data collection

iv. Coverage/availability details

Infographic 10.10 Highlights of mobile coverage, 2018



Source: CRTC data collection

For over a decade, more than 99% of Canadians have had access to mobile services, provided using various network technologies. However, the coverage availability by technologies such as HSPA+, LTE and LTE-A, varied significantly among the provinces and the North. For example, more than 98% of Albertans but only 70% of Saskatchewanians had access to LTE-A in 2018. Access to mobile services reflects, among other things, the investments made by the industry to provide coverage across the country, to foster innovation and to create a more competitive marketplace.

The availability of technologies such as LTE and LTE-A generally results in faster download and upload speeds and lower latency. This enhances the consumer experience, especially for consumers using data-intensive applications.

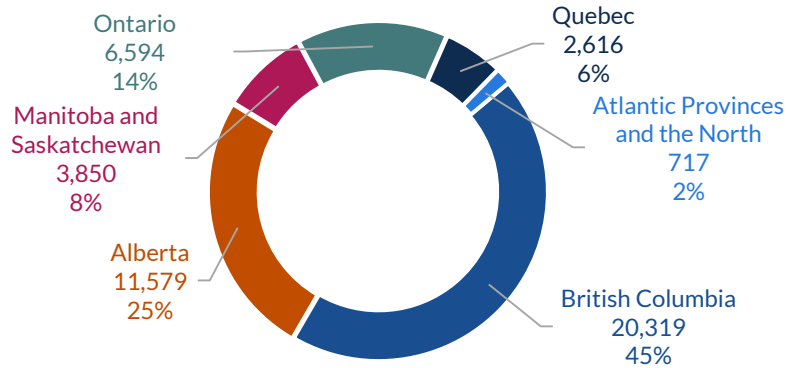
As for networks, in 2018, on average, Canadians in most provinces had access to two or three facilities-based networks; however, those in the North generally had access to only one network. In 2018, 96% of Prince Edward Islanders had a choice of at least three facilities-based networks¹², while only 3% of Saskatchewanians had access to the same number of facilities-based networks. Coverage availability by the number of facilities-based networks, by province, can be found on open data.

The penetration rate represents the number of subscribers as a percentage of the population. This metric reflects, among other things, the saturation and maturity of the marketplace, service providers' ability to successfully market and sell their services, a population's willingness to adopt mobile communications and the potential for future growth. Penetration rates by province and territory can be found in open data.

WiFi hotspots are an important service that telecommunications service providers (TSPs) use to differentiate their services from each other and to extend their brands. Hotspots are locations where Internet access is offered to the public via 802.11 WiFi technology. In 2018, there were 46,609 hotspots available throughout the country and only 2.0% (934) of them required paid access.

Figure 10.26 Number of free WiFi hotspots in Canada, by region, 2018

Number of free WiFi hotspots in Canada, by region, 2018



Source: CRTC data collection

“Free” is defined as there being no charge for at least 30 minutes of access (even if this access requires being a paid customer at the location).

Only hotspots provided by the major TSPs are included in the figure above. It does not include hotspots that only provide access to a TSP's existing customers. It may exclude independently-run free hotspots provided by hotels, restaurants and other public facilities.

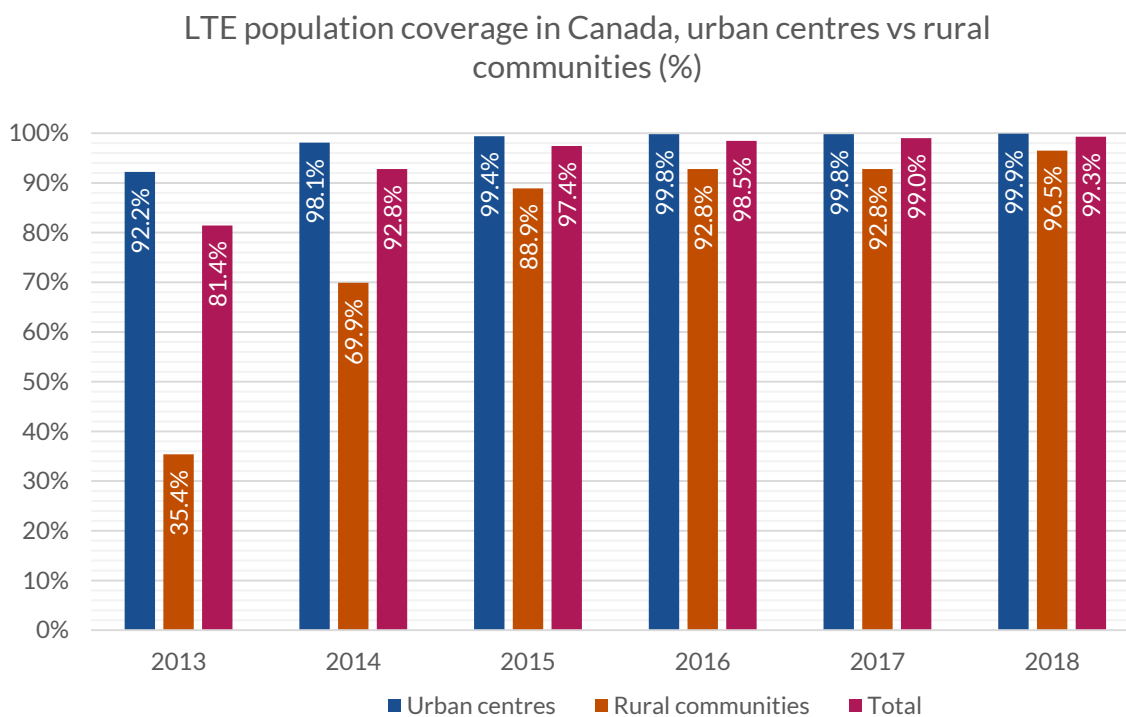
Data for Atlantic Provinces and the North has been aggregated to protect confidentiality.

¹² The number of networks refers to the number of carriers who owned and operated a facilities-based wireless network, excluding coverage as a result of network sharing arrangements. This is a measure of facilities-based competition and does not illustrate the number of companies who marketed and offered mobile services in any particular province/territory or nationally.

Over 99% of Canadians have access to LTE networks, but this availability varies by location. Canadians living in urban centres and in the provinces have greater access to these networks than those living in rural communities and or the territories, as is evident in Figure 10.27 and Figure 10.28, below.

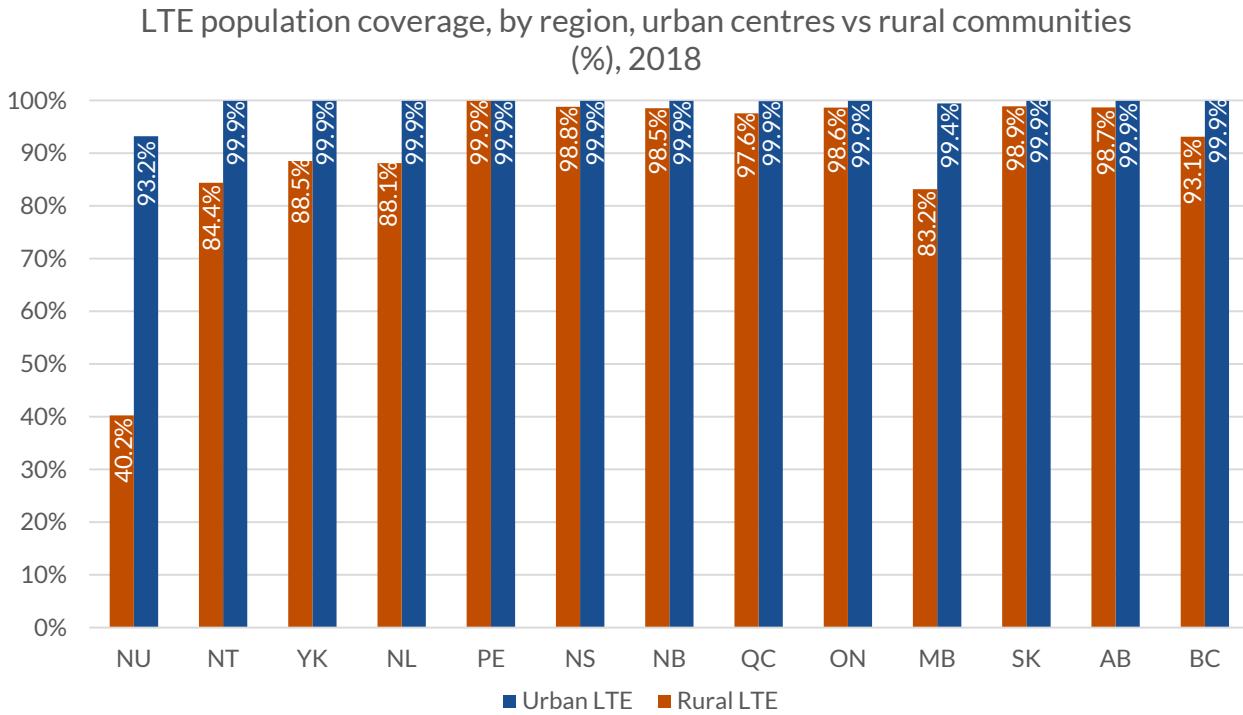
In 2013, LTE was available to over 92% of Canadians living in urban centres compared to only 35.4% in rural communities; it took over five years for LTE to reach nearly the same access availability in both urban centres and rural communities. As carriers continue to invest in their networks, more people will have access to advanced mobile networks regardless where one lives.

Figure 10.27 LTE population coverage in Canada, urban centres vs rural communities (%)



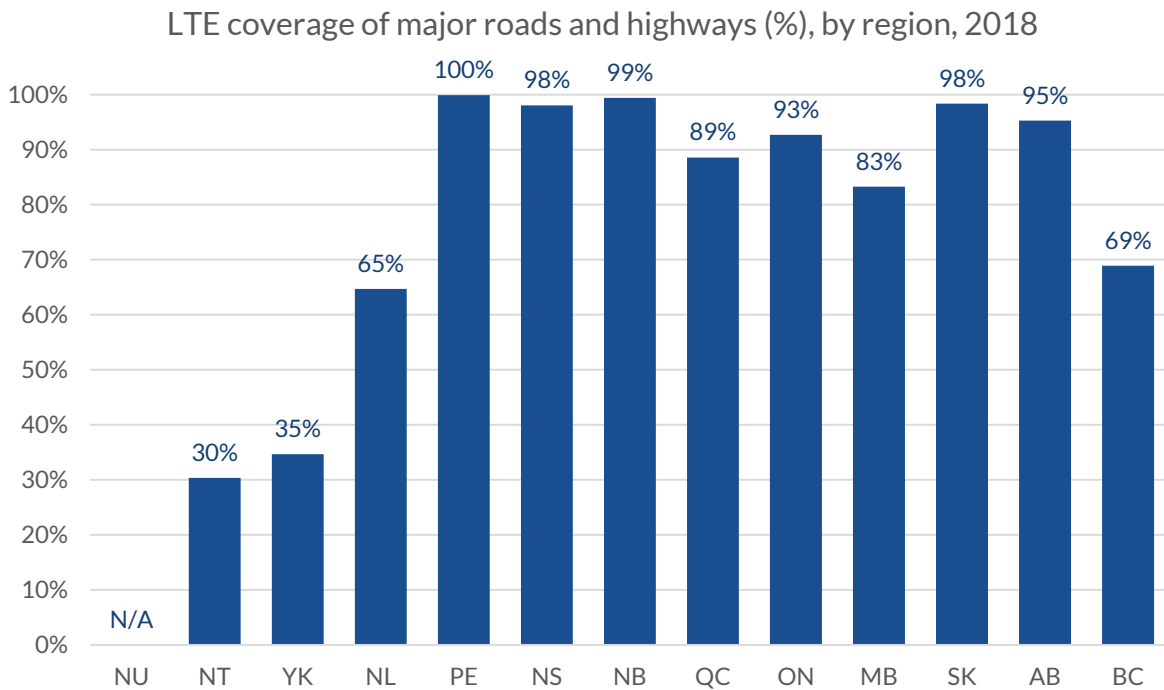
Source: CRTC data collection

Figure 10.28 LTE population coverage, by region, urban centres vs rural communities (%), 2018




Source: CRTC data collection

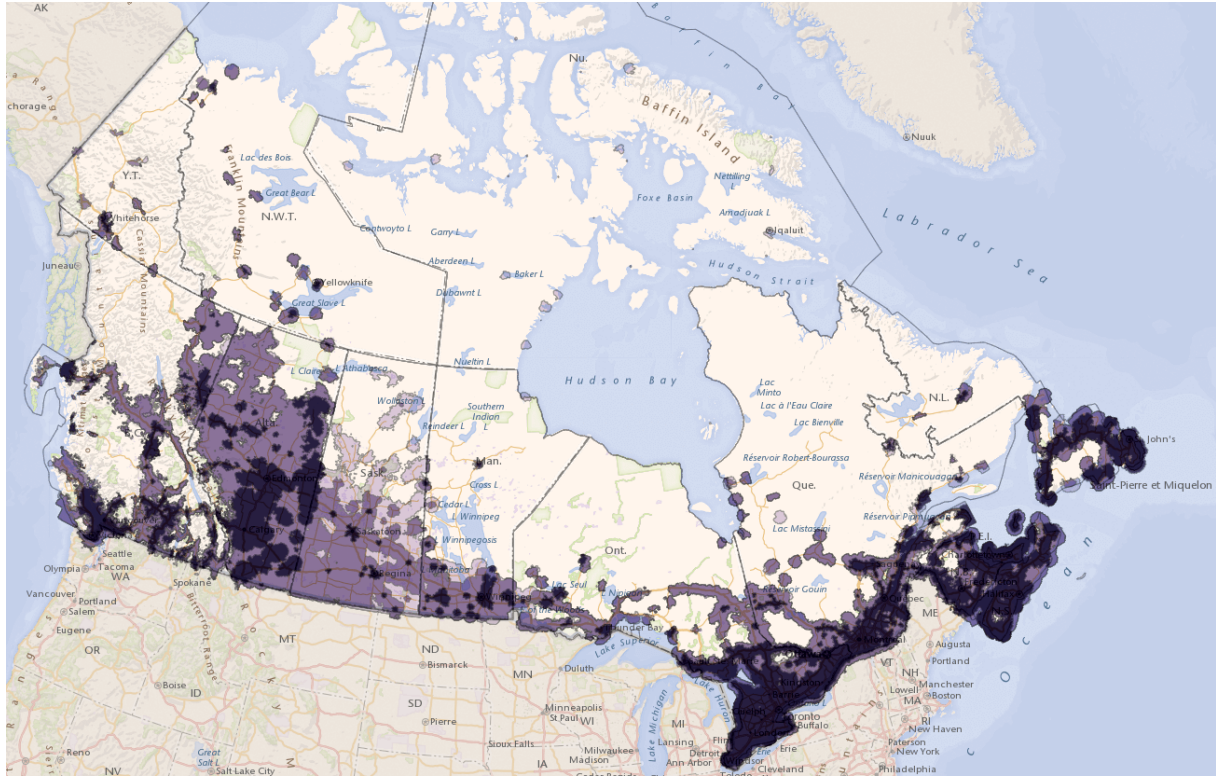
Figure 10.29 LTE coverage of major roads and highways (%), by region, 2018



Source: CRTC data collection

For the following maps, the data is available for export through the Cartovista Data panel using the Export button ; the Data panel is available on the bottom left-hand side of the map. Detailed instructions on how to use Cartovista maps are available on the [Cartovista website](#).

Map 10.1 Expansion of LTE coverage, 2013-2018



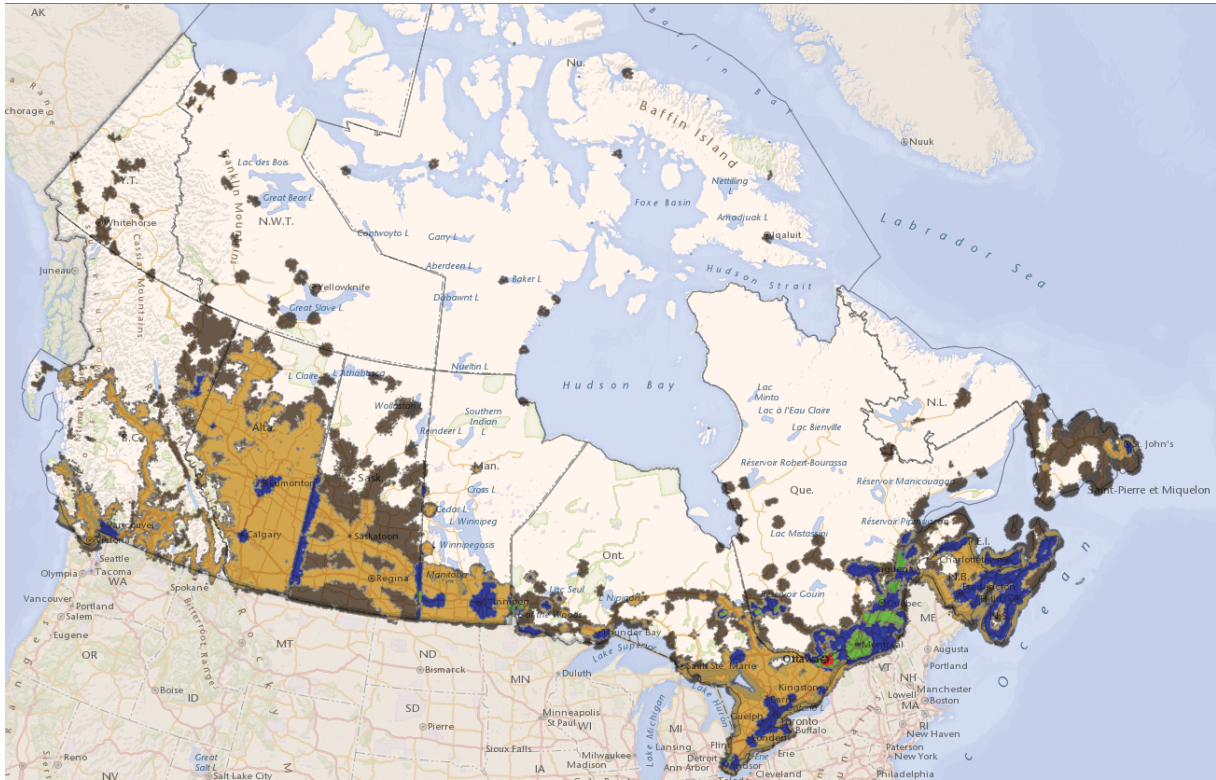
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map shows the LTE coverage in Canada from 2013 to 2018.

The [interactive map for the expansion of LTE coverage](#) is also available online.

Map 10.2 LTE service coverage by number of facilities-based networks, 2018



Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map shows the number of LTE networks by area. The number of LTE networks refers to the number of carriers who owned and operated a facilities-based wireless network, excluding coverage as a result of network sharing arrangements. This is a measure of facilities-based competition and does not illustrate the number of companies who marketed and offered mobile services in any particular province/territory or nationally.

The [interactive map for LTE service coverage by number of facilities-based networks](#) is also available online.

Map 10.3 Major roads with and without LTE service, 2018



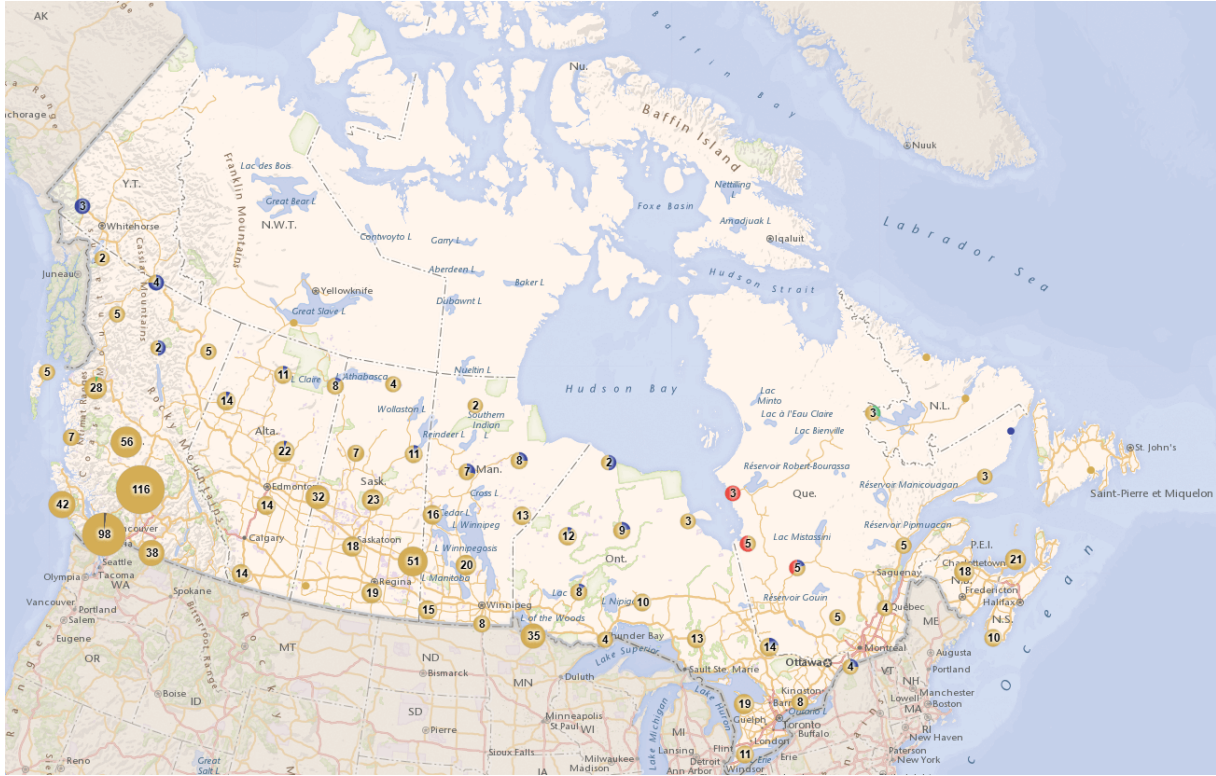
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and Statistics Canada Road Network File, 2018

Note: This map shows the LTE coverage of major roads. A major road is a road classified by Statistics Canada as having a street rank code of 1 (Trans-Canada highway), 2 (National highway system), or 3 (Major highways).

The [interactive map for major roads with and without LTE service](#) is also available online.

Map 10.4 Broadband and mobile service availability in First Nations reserves, 2018



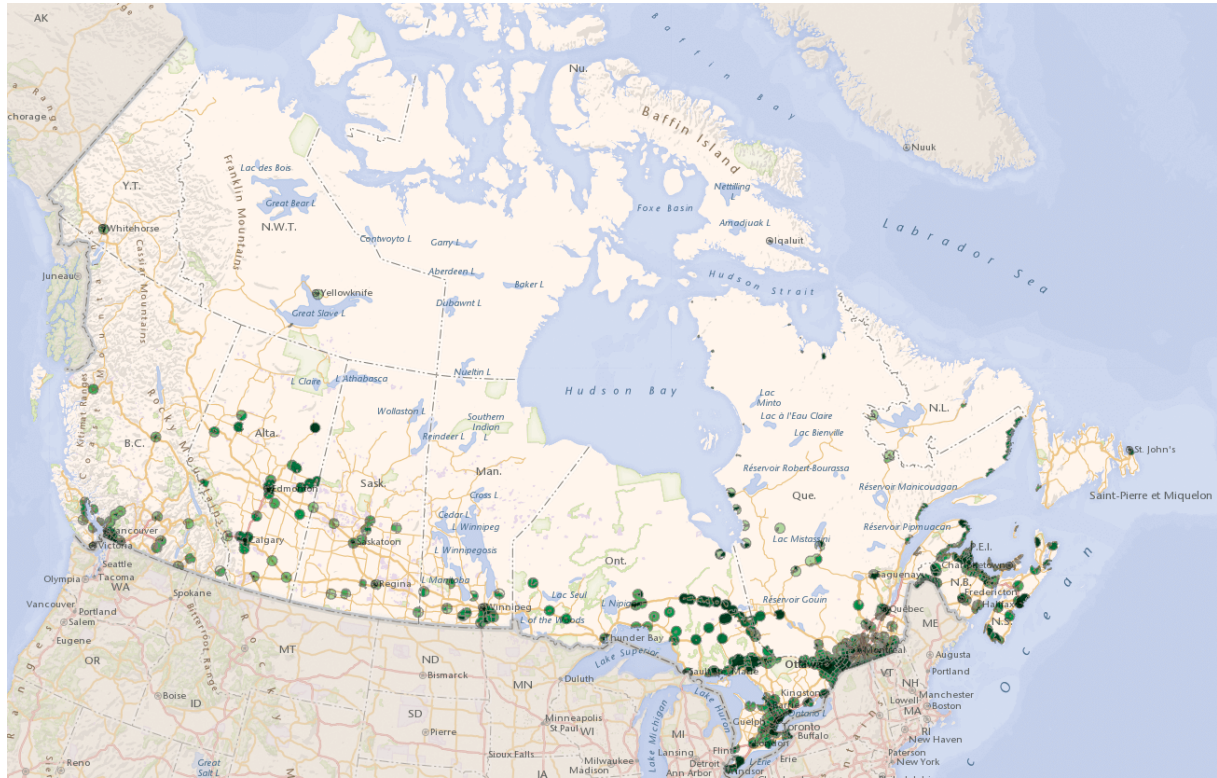
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map displays areas across Canada where First Nations reserve areas are present. The colour and number inside each circle represents the specific type of reserve where First Nations reserve areas are present and the number of reserves in each area. Broadband availability within each census subdivision is available as part of the data set. Zoom into the map to update the tooltip with the broadband availability or review the Data Panel at the bottom of the map for full details. The [interactive map for the number of reserve areas](#) is also available online.

Census population and/or dwellings are not available for some reserves. In these cases, the population and/or dwellings field will show as zero and the coverage is estimated based upon pseudo-household point count.

Map 10.5 Broadband and mobile service availability in OLMCs, 2018



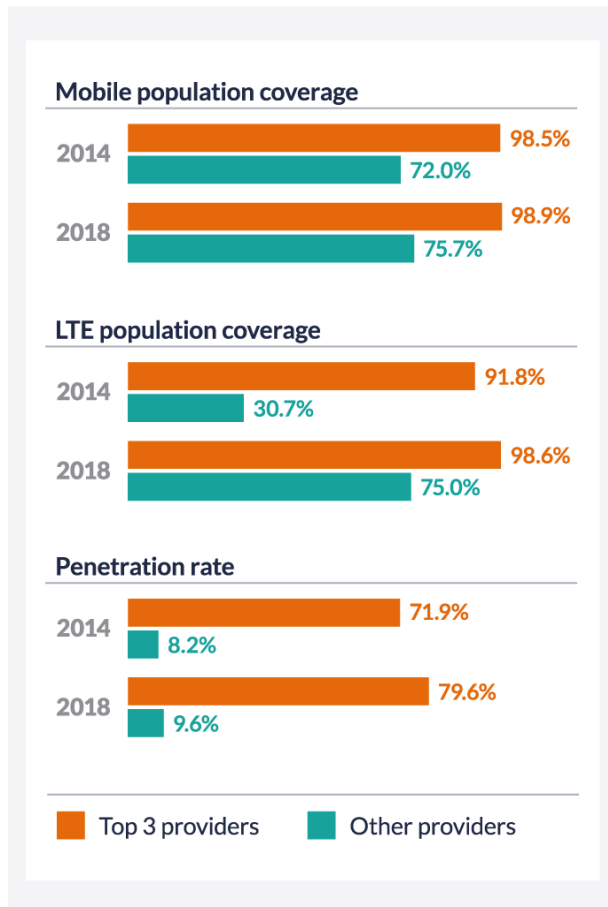
Download data: [MapInfo](#), [KML](#)

Source: Innovation, Science and Economic Development Canada (ISED), CRTC data collection and 2016 Census, Statistics Canada

Note: This map displays areas across Canada where OLMCs are present. The blue circles are OLMCs, modeled as areas within 25km of an official language minority school. The [interactive map for OLMCs](#) is also available online.

Competitive lens/landscape

Infographic 10.11 Mobile coverage, Top 3 vs other service providers, 2014 vs 2018

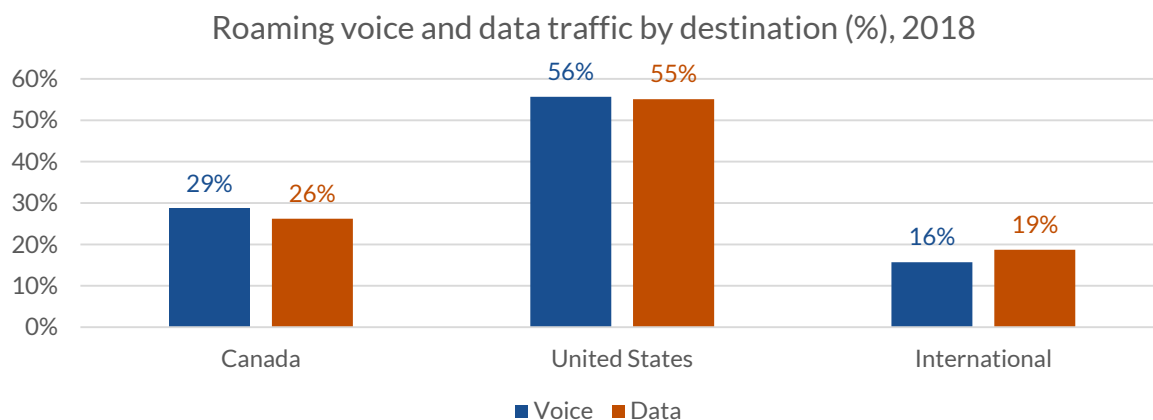


Source: CRTC data collection

Generally, the Top 3 and the other providers try to extend their service coverage across Canada in a cost-efficient manner by entering into sharing arrangements for support structures, antenna sites and networks as well as by establishing roaming arrangements. Roaming arrangements enable subscribers to have access to service outside their mobile service provider’s home network, while network sharing arrangements also share the cost of building an extensive nationwide network. If a subscriber is outside its service provider’s network and is connected to another WSPs’ network, then the subscriber is said to be “roaming”.

Figure 10.30 below show the percentage of voice minutes and data traffic (excluding SMS and MMS traffic), derived from roaming in Canada, in the United States and internationally.

Figure 10.30 Roaming voice and data traffic by destination (%), 2018

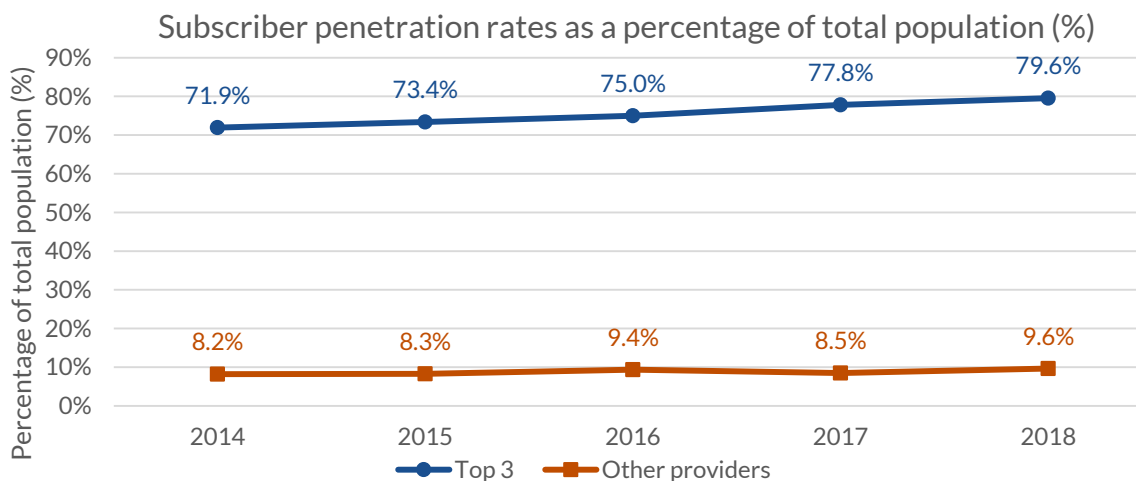


Source: CRTC data collection

Canada’s wireless service market is dominated by the Top 3. They provide significantly more coverage and achieve higher subscriber penetration rates than the other providers in almost every province and territory, Saskatchewan being a notable exception. In 2018, the Top 3 and other providers offered coverage to 98.9% and 75.7% of the population respectively. There was also a similar disparity between the two groups with respect to Canada-wide LTE coverage. For LTE, the Top 3 and other providers offered coverage to 98.6% and 75.0% of the population respectively.

The disparity between the Top 3 and other providers was also evident in penetration rates. From 2014 to 2018, the Top 3’s subscriber base grew from 71.9% of the population to 79.6%, while the other service providers’ base increased at slightly a faster pace, from 8.2% of the population to 9.6% over the same five-year period.

Figure 10.31 Subscriber penetration rates as a percentage of total population (%)



Source: CRTC data collection

v. Methodology

Media Technology Monitor (MTM)

MTM measures Canadians' media technology adoption and use at two points in time to monitor changes in media penetration and use over the year. Telephone interviews are conducted with a regionally representative sample of Canadians who have a landline telephone service and those who rely solely on cell phone service. The fall survey includes 8,000 Canadian adults (4,000 Anglophones and 4,000 Francophones). Of those 8,000 respondents, 2,976 have also completed an online survey introduced in the fall. An independent sample of 4,000 Canadians (2,000 Anglophones and 2,000 Francophones) is surveyed in the spring.

www.mtm-otm.ca

The CMR uses data collected from the fall survey unless stated otherwise.

Top 3 mobile service providers

Throughout the mobile section, the Top 3 refers to Bell (Bell Group), Telus and Rogers; this includes the statistics of its flanker brands even where the Top 3 and its flanker brands are reported side by side for comparison.

Coverage availability

Between 2013 and 2017, locations were considered to be serviced if the representative point for their dissemination block fell within an area of mobile service coverage.

For 2018, ISED pseudo-households were used along with 2016 census demography. Pseudo-households are points representing the population in an area. These points are placed along roadways within each area, and the population of the area, as determined by Statistics Canada, is distributed among these points. Additional data regarding addresses and the position of dwellings is used to guide this distribution. The use of pseudo-households aims to improve the accuracy of the availability indicators rather than making an assumption that the population within an area is located at the centre of that area.

Urban centres and rural communities

Urban centres, also known as small/medium/large population centres, are defined as follows: small centres have populations between 1,000 and 29,999, medium centres have populations between 30,000 and 99,999, and large centres have populations greater than 100,000. For the purposes of this report, data for urban centres reports the average of small/medium/large centres.

Rural communities are defined as areas with a population of less than 1,000 or a density of 400 or fewer people per square kilometre.

Distribution of data subscribers by size of data plans

The size of data plans were reported in absolute terms and therefore, specific plan sizes that were not defined and fell between two data plan sizes were reported at the discretion of the reporting carriers. For data plans less than 1 GB, this would include subscribers with data up to 0.999 GB (1,023 MB), but less than 1 GB (1,024 MB); subscribers with 1 GB – 2 GB of data, this would include subscribers with at least 1 GB up to 2 GB; 3 GB – 4 GB would include subscribers with at least 3 GB up to 4 GB; 5 GB or more would include subscribers with at least 5 GB.

Definitions

Average revenue per user (ARPU) is a measure of revenue generated per subscriber. This is calculated by dividing the whole-year total revenue by the average number of subscribers from the current and previous year. The number of subscribers is taken from year end data.

Churn rates are a measure of subscriber turnover represented as an average monthly blended rate of postpaid and prepaid subscribers.

Earnings before interest, taxes, depreciation and amortization (EBITDA), or Operating Margin is a metric used to measure financial performance. It is expressed as a percentage of total revenues.

HSPA/HSPA+/LTE/LTE-A: High-Speed Packet Access (HSPA) and Long-Term Evolution (LTE) are the protocols or standards used for communications between a mobile phone and cell towers in mobile networks. HSPA is also referred to as 3G (third generation) cellular while LTE is referred to a 4G (fourth generation) cellular. HSPA+, or evolved High-Speed Packet Access, is a form of HSPA that uses technical measures to provide faster transmission speeds. LTE is the current standard that is now widely deployed in most mobile networks, while LTE-Advanced (LTE-A) is an enhancement of the LTE standard.

Major transportation roads were defined by the Commission in Telecom Regulatory Policy 2018-377 as roads that correspond to Statistics Canada's street rank codes 1 through 3.

Other service providers include SaskTel, other small incumbent TSPs (telecommunications service providers), certain resellers, and the remaining new entrants (Freedom Mobile, Videotron and Bragg Communications [Eastlink]).

The **top three mobile service providers (Top 3)**, in terms of revenues and subscribers, consists of the Bell Group, Rogers and TELUS. The Bell Group includes Bell Canada, Bell Mobility, Bell MTS, KMTS, Latitude Wireless, NorthernTel Limited Partnership, Northwestel Mobility and Télébec, Limited Partnership. In 2017, MTS Inc.'s figures were included with those of the Bell Group. In 2015, Data & Audio Visual Enterprises Wireless Inc.'s (i.e. Mobilicity) figures were included with those of Rogers. From 2013 on, Public Mobile's figures were included with those of TELUS. Throughout this section, the Top 3's flanker brands are a subset of the Top 3.

Top 3's flanker brands include brands such as Fido, Koodo and Virgin Mobile.