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Communications Monitoring Report 2018

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Communications Monitoring Report 2018

Communications Services in Canadian Households: Subscriptions and Expenditures 2012-2016

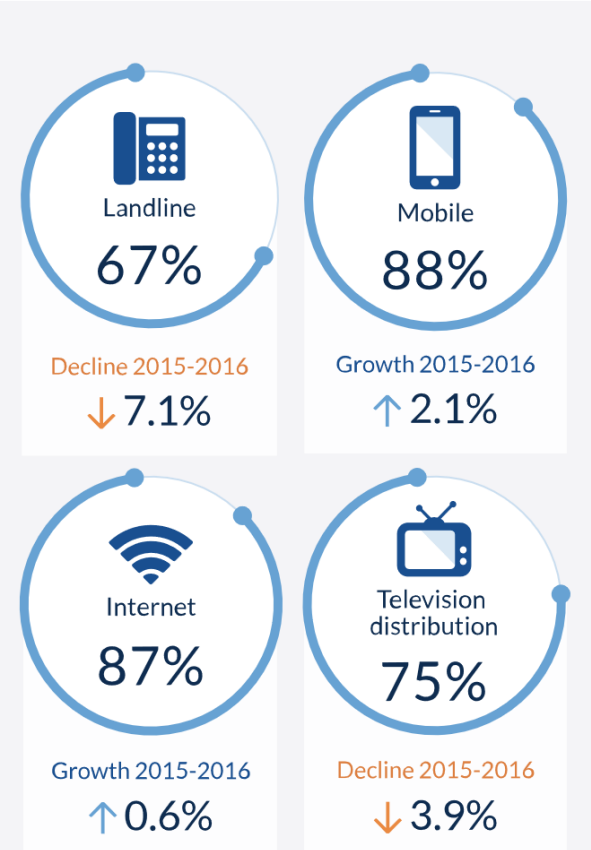
Communications Services in Canadian Households: Subscriptions and Expenditures 2012-2016

This snapshot provides an overview of adoption of communications technologies by Canadian households from 2012-2016, and illustrates household communications expenditure trends. The data presented here is drawn from Statistics Canada's Survey of Household Spending[1] and CRTC sources. Additional data on Canada's communications industry is found in the Commission's 2017 Communications Monitoring Report (CMR).

i. Quick Facts

Infographic 1.1

Subscriptions



Expenditures

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 2016:

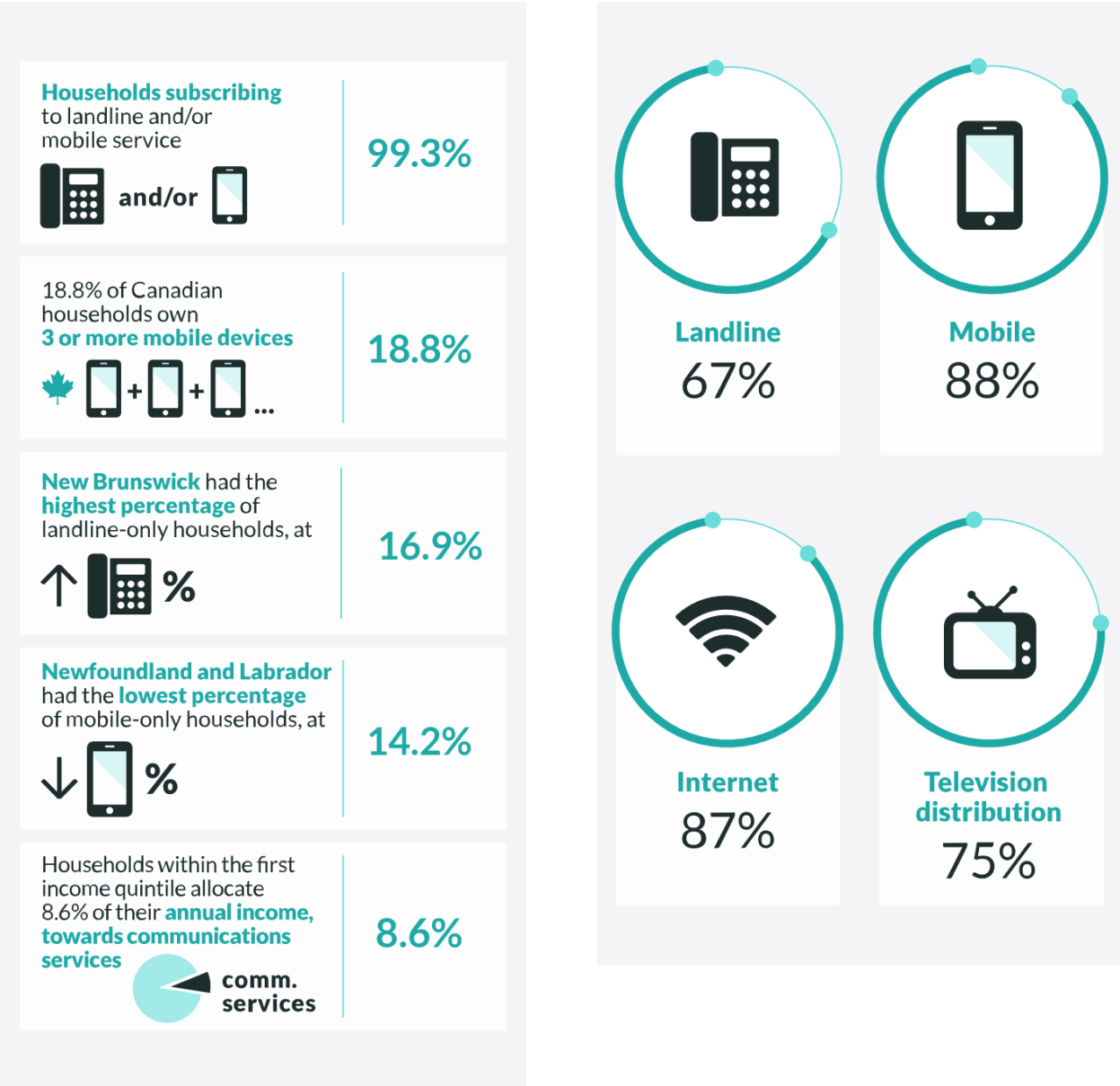
> *Canadian households continued to abandon landline telephone service in favour of mobile service, with almost a third subscribing to mobile service only.*[2]
>
> *Household subscriptions to television distribution services*[3] *slowly declined, with about 3 in 4 households subscribing, while the percentage of households with Internet service slowly increased, passing 87%.*
>
> *Canadian households spent an average of $222.83 per month for their communications services, an increase of $4.41 (2.02%) from 2015. In comparison, the average annual inflation rate in Canada was 1.4% in 2016, according to Statistics Canada.*
>
> *Canadian households continued to spend more per month on mobile services ($92.08) and television distribution services ($53.75) than on Internet services ($49.50) and landline services ($27.50).*

[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.

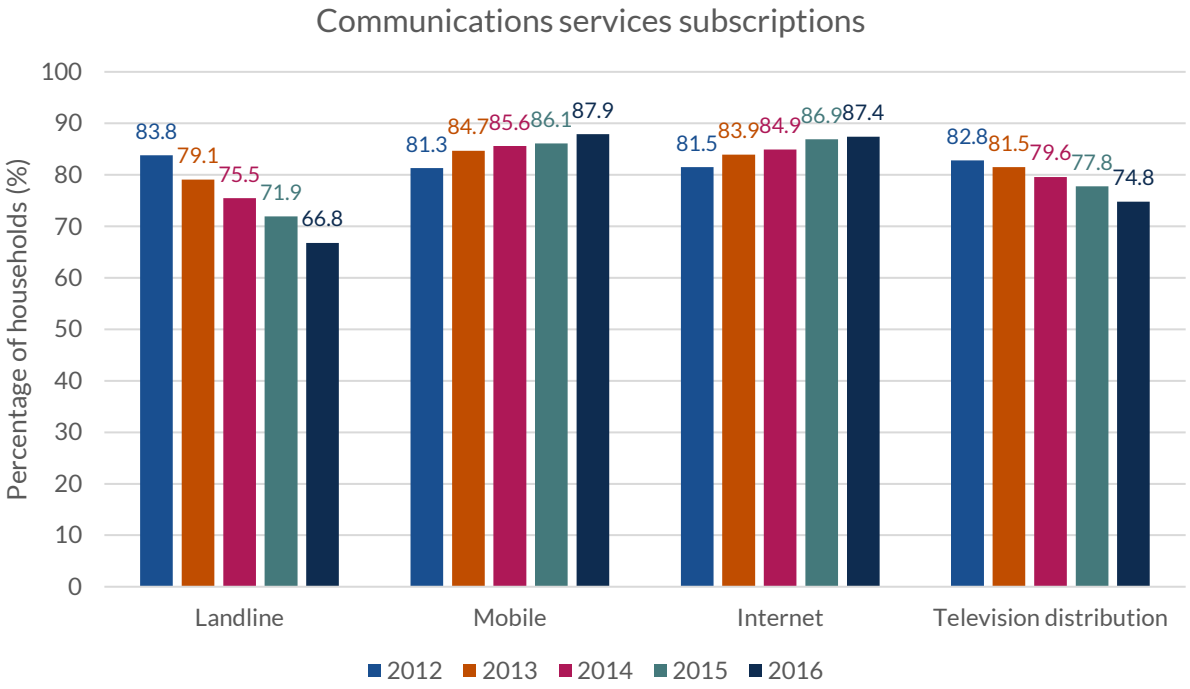
ii. What communications services do Canadian households use?

Infographic 1.2 - Subscriptions



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 section reports Canadian adoption patterns by service type, income, and province.

Figure 1.1 Household communications services subscriptions



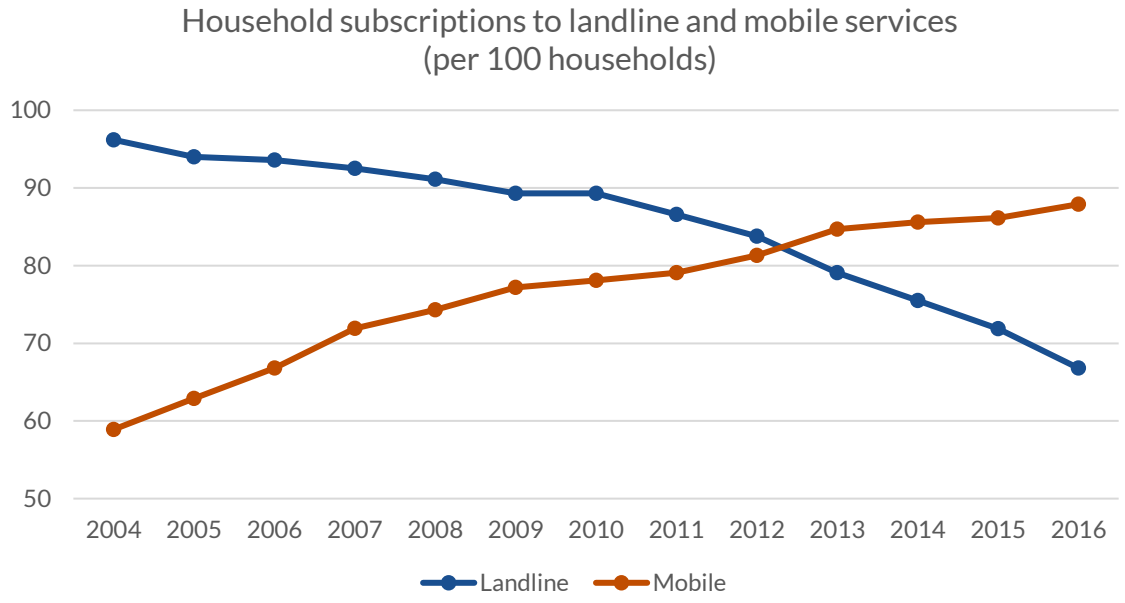
Source: Landline, mobile, and Internet subscription data from Statistics Canada, custom request for a breakdown of Table 11-10-0223-01. TV subscription data from CRTC data collection
Download source on Open Data

Mobile and landline subscriptions

In 2016, slightly more households subscribed to mobile services (87.9%) than Internet services (87.4%). Nearly all Canadian households (99.3%) subscribed to either mobile or landline service in 2016 (Table 1.1), and households owned on average 1.6 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 2016, almost a third (32.5%) of Canadian households were mobile-only households, and 11.4% were landline-only.

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

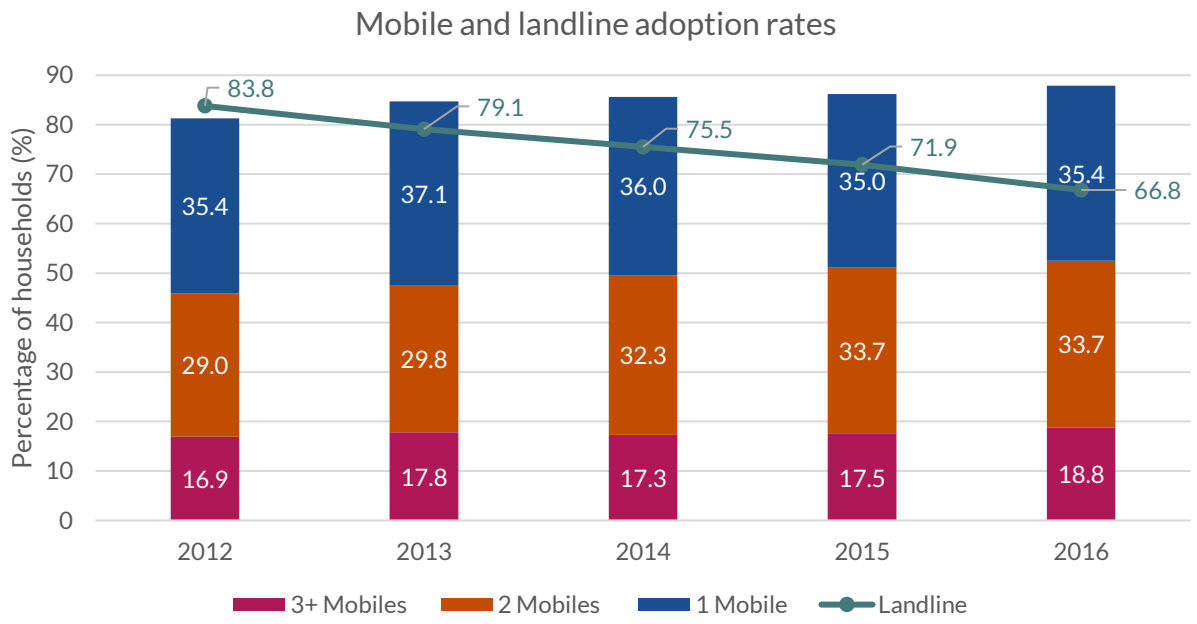


Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01
Download source on Open Data

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 1.1 shows how rapidly Canadian households have embraced mobile phones. In 2004, landline-only households (40.0%) far outpaced their mobile-only counterparts (2.7%). Landline and mobile penetration data show alternating trends over the last decade. Take up of mobile services surpassed landline services in 2012 when the latter dropped 5.6%, which is exceptionally fast considering the annual decline in landline penetration between 2004 and 2016 was 3.0%. On the other hand, mobile subscribers increased at a rapid pace of 4.2% during 2012, causing both services penetration trend to ultimately reverse.

In 2016, 32.5% of Canadian households subscribed to mobile services only and 11.4% of households subscribed to landline services only. As mobile and landline service take-up fluctuated, revenues reflected the change. Throughout 2012 to 2016, mobile revenues increased 4.5% annually (2017 CMR, Table 5.5.1) and landline revenues decreased by 5.6% annually (2017 CMR, Table 5.2.1). 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 15.2% each year between 2012 and 2016 (2017 CMR, Table 5.5.2). From 2015 to 2016 alone, average data usage per subscriber increased 24.9% (2017 CMR, Table 5.5.6), generating greater revenues per subscriber in addition to an increase in mobile subscriptions. For more insight on consumer spending habits, refer to the Canadian communications service expenditures section below.

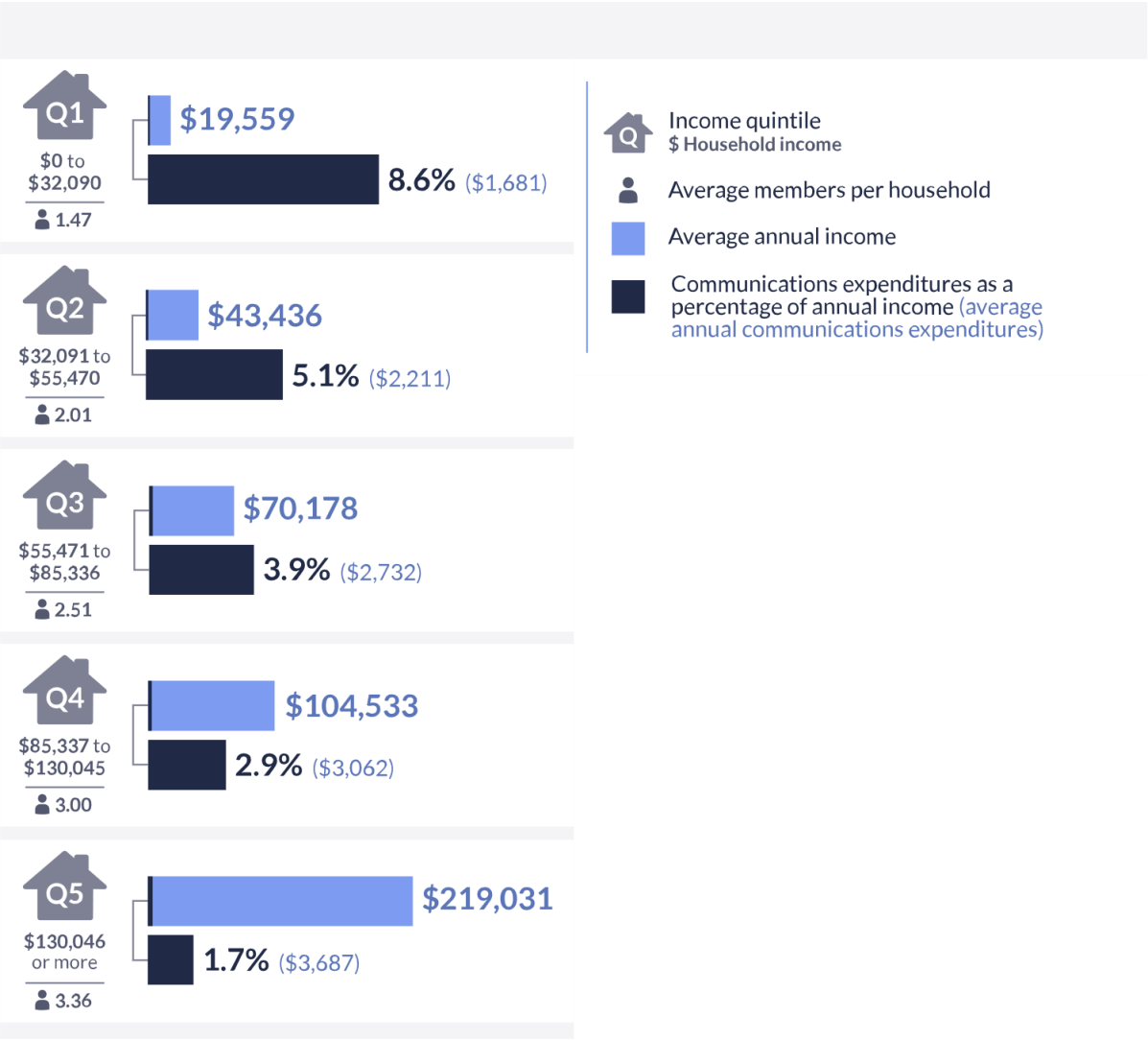
Figure 1.3 Mobile and landline adoption rates



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0228-01
Download source on Open Data

Subscriptions by income quintile

Infographic 1.3 – Subscriptions



Download source on Open Data

The data on telephone subscriptions by income quintile (see Table 1.2) illustrate different consumption patterns in higher- and lower-income households. While more than 99% of Canadian households have telephone service, just 3% of Canada's highest-income households rely solely on a landline, compared to almost 30% of the lowest-income households. 40% of low-income households subscribe to mobile service only, as do about a quarter of the highest-income households.

In 2016, of the five income quintiles, households in the third quintile changed their telephony habits the most. Their exclusive use of mobiles increased at a rate of 31.4%, while landline-only households in this income quintile decreased at a rate of 28.1%. The fourth income quintile changed their telephony habits the most when it came to using a landline exclusively, showing a decreasing rate of 42.4% in 2016.

Financial resources appear to play a role in whether households subscribe to both mobile and landline services, or only one of the two. 27.1% of households in the highest-income quintile subscribed to only one of landline or mobile service in 2016, compared to 69.5% in the lowest-income quintile.

Subscriptions by province

Subscriptions by population

In 2016, 98.5% of Canadians were covered by long-term evolution (LTE) networks, and most provinces had over 95% coverage. Saskatchewan and the North had the least coverage, at 86.2% and 63.5%, respectively (2017 CMR, Table 5.5.15). Even then, Saskatchewan had one of the highest penetration rates[4] (83.8%), incomparable to that of the North with the lowest penetration rate of 64.5% (2017 CMR, Table 5.5.15). Although LTE coverage is largely available in most regions, Alberta led in terms of mobile penetration with 91.5% of the population subscribing to mobile services (2017 CMR, Table 5.5.15). Prince Edward Island led in terms of coverage but had the lowest penetration rate of the provinces (72.4%), demonstrating that the availability of a network in a certain region has limited impact on the penetration rate.

Subscriptions by household

While a majority of Canadians had access to LTE networks, and 87.9% of these individuals subscribed to mobile services, Eastern provinces (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador) and Quebec continued to have more landline service subscribers than Western provinces (Manitoba, Saskatchewan, Alberta, and British Columbia) and Ontario (see Table 1.3). Furthermore, there were more mobile-only households in the four Western provinces and Ontario than in Quebec and the Eastern provinces, even though LTE was available to a greater percentage of population in Eastern provinces (2017 CMR Table 5.5.15). New Brunswick had the highest percentage of landline-only households (16.9%), and the lowest percentage of households with mobile service (82.5%). Households in Newfoundland and Labrador were the most reliant upon landlines – 85.1% had landlines and just 14.2% had mobile service only. In contrast, 38.1% of Alberta households relied on mobile service alone, and only 61% had landlines. Overall, the sizable coverage of almost 96% of Canadians, with two or more networks, grants Canadians the flexibility and options when making communications services subscription decisions.

Internet subscriptions and computer ownership

98% of Canadians households have access to fixed broadband internet access and more than 87%[5] of Canadians households have a home Internet subscription. In 2016, Internet use from home increased slightly in all income quintiles except the fifth quintile, an overall average increase of 0.6%, (see Table 1.4). The vast majority of high-income households subscribed to Internet services in 2016, compared to less than two thirds of the lowest-income households. Internet use from home in the first income quintile is 22.2 percentage points lower than the overall average of 87.4% and 17.5 percentage points lower than in the second income quintile.

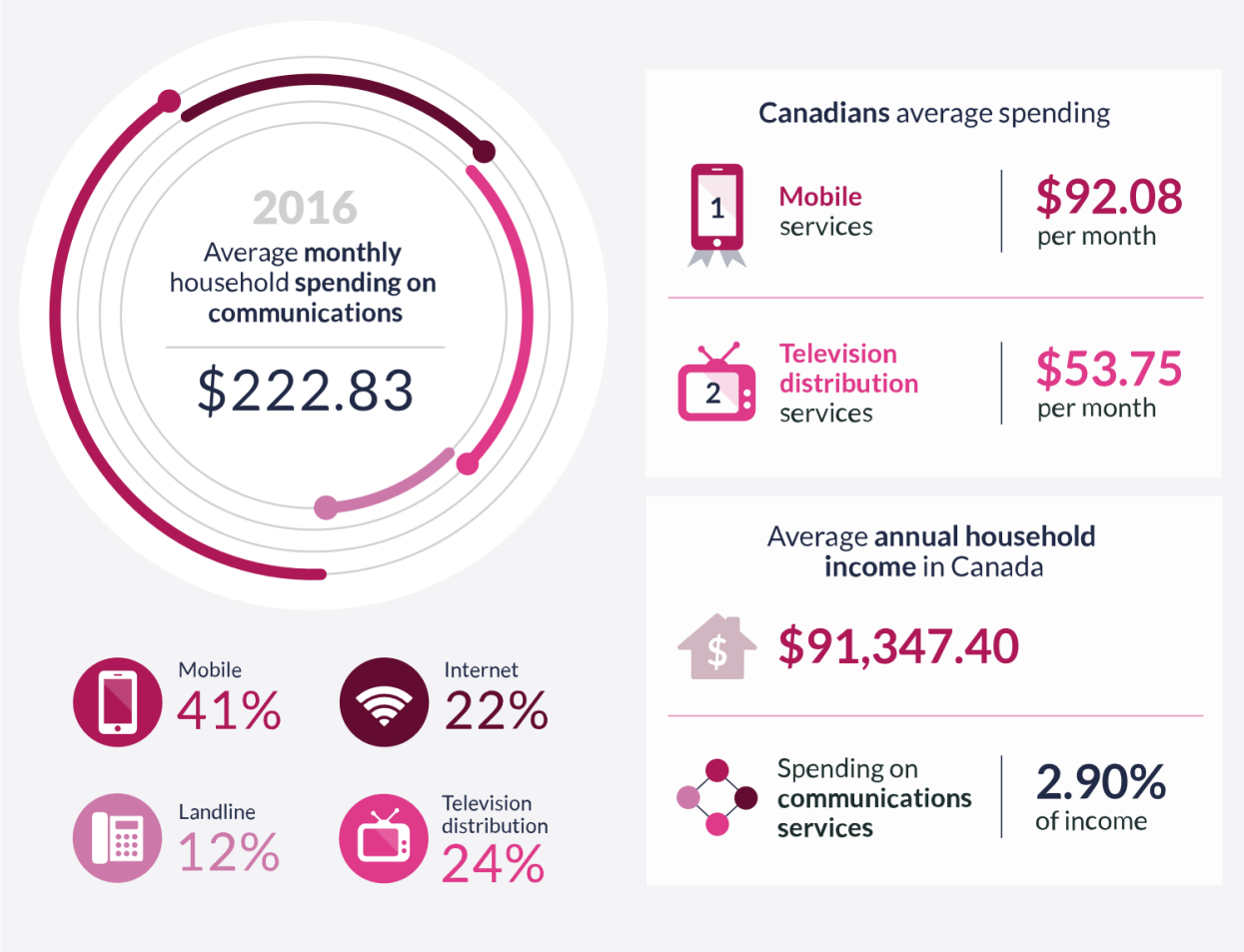
With mobile devices such as smartphones and tablets, Canadians can access the Internet from nearly any location. However, home computers still play an important role for Canadians. As Table 1.4 shows, most Canadian households have home computers (84.1%).

Overall, slightly more households owned mobile phones (87.9%) than home computers (84.1%) in 2016. This trend is more pronounced in the lower income quintiles. For example, 85.6% of Canadian households in the second income quintile owned mobile phones (see Table 1.2), compared to 78% of households that owned home computers. Home computer ownership for all income quintiles declined by 0.4% between 2015 and 2016. The only growth in home computer ownership in the household is seen in the first income quintile, where it increased by 3.2%.

[4] Penetration rates represent the number of subscriptions divided by the population.
[5] Includes all Internet services without regards to speed.

iii. What do Canadian households spend on communications services?[6]

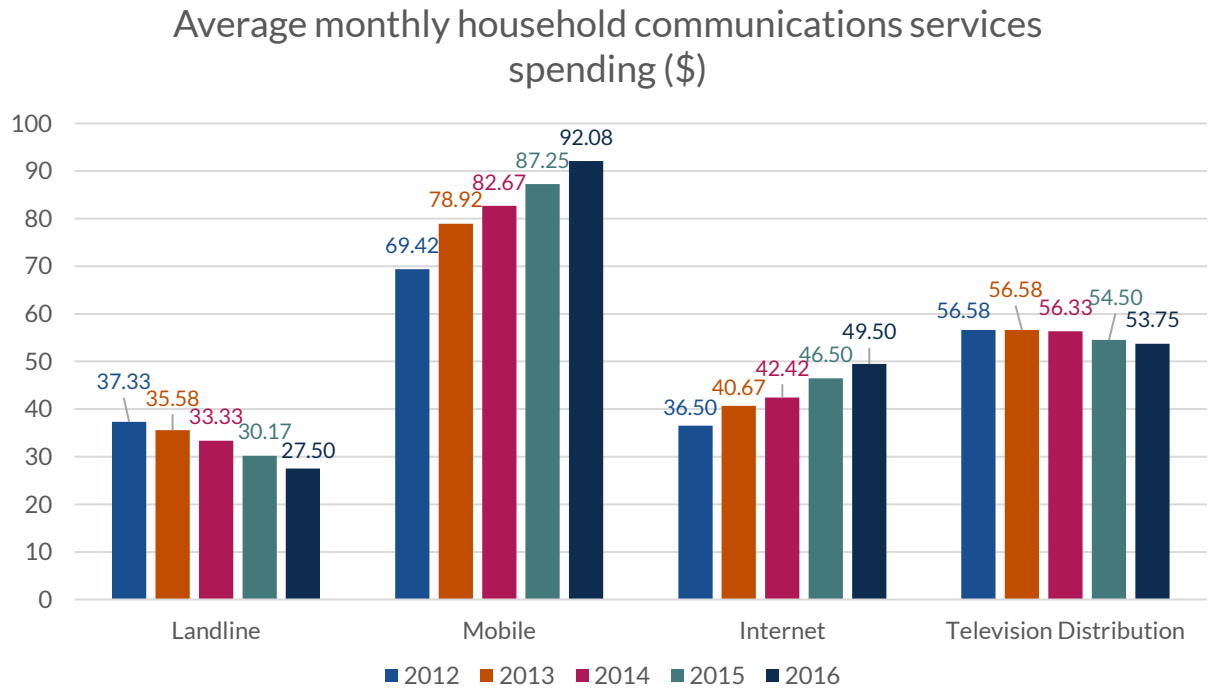
Infographic 1.4



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' expenditure habits.

[6] 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
Download source on Open Data

Data on communications services spending provides insights on how communications services affect the household budget, but there are limitations when using expenditure data to assess adoption and spending patterns. The data do not reflect consumption of free services, such as over-the-air television and radio services, that remain valuable to many Canadians. The data presented here report average expenditures and so take into account all households, including those that do not subscribe to any services. As a result, the average expenditures may over-report 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)[7], 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). With mobile services, households may have several subscriptions. The data presented here do not allow for analysis of individual expenditures on communications services.

Statistics Canada reported that the average annual household income before taxes in Canada in 2016 was $91,347, and income increased in all income quartiles. The changing income ranges reflect changes in the economy as well as yearly inflation. In 2016, the Canadian provincial average annual household income before taxes ranged from $73,404 (Prince Edward Island) to $129,102 (Alberta).

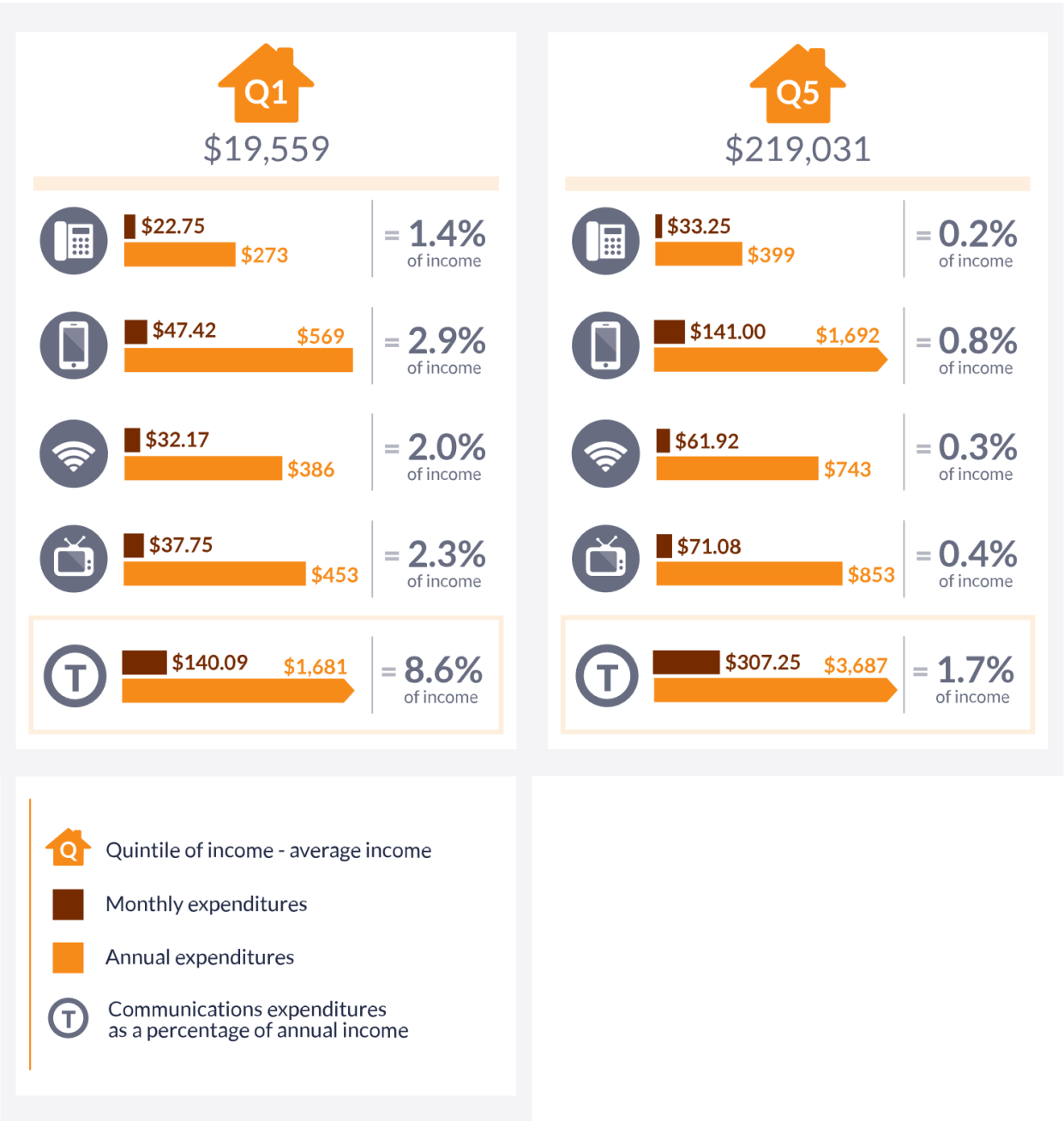
Throughout 2016, the average Canadian household spent $222.83 per month on communications services, an increase of $4.41 (2.02%) from 2015 (see Table 1.5). As in 2015, Internet and mobile services drove household expenditure growth and telecommunications industry revenues (see Figure 1.4). Also in 2016,

[7] 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 on Internet services continued to lead in terms of annual growth (6.5%), followed by expenditures on mobile services (5.5%). These increases occurred as consumers shifted to services offering higher Internet speeds and more mobile data (see section 5.3 in the 2017 CMR for more details on Internet services and section 5.5 for more details on mobile services).

Expenditures by income quintile

Infographic 1.5



See Table 1.6 for data of all quintiles.

In 2016, consistent with previous years, household expenditures on communications services represented 8.6% of the average income of households in the first quintile, two percentage points more than their average expenditures on recreation8 (6.6%) and slightly more than their average expenditures on clothing (8.0%).

While there is considerable variance between the average amount spent by Canadians in each income quintile, households tend to devote a larger amount of their communications service budget to either mobile or television distribution services. On average, household spending on television distribution services decreased by 1.4% from 2015 to 2016, while average household spending on landline telephone services decreased by 8.8% during the same period. Similar to previous years, household spending on mobile, Internet, and overall communications services continued to grow in 2016.

Overall, households spent the most on mobile services ($92.08 per month on average; see Figure 1.4). On average, for all income quintiles, spending on landline services declined from 2012 to 2016 at a compound annual growth rate (CAGR) of -7.4%. However, average expenditures on Internet services for all income quintiles show the largest growth (6.5%) between 2015 and 2016, and the highest 2012 to 2016 CAGR (7.9%) (Table 1.5).

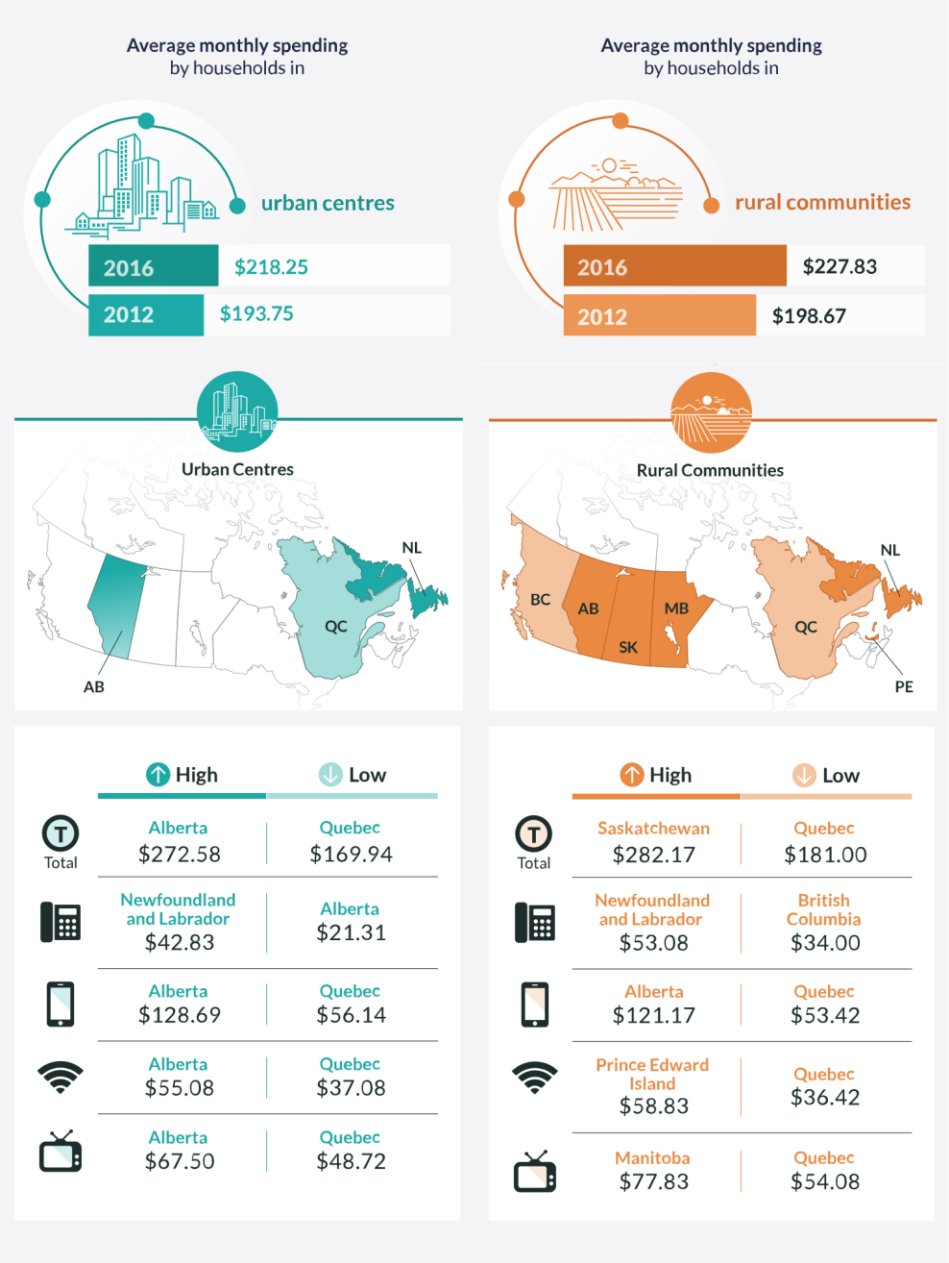
Households in the highest income quintiles spent more on communications services than those in the lower quintiles. Household expenditures increased across all quintiles between 2015 and 2016, with those in the third income quintile increasing the most (3.5%).

Even though total spending on communications services by lower-income households was less than that by higher-income households, as shown in Table 1.7, expenditures on communications services took up a significantly larger percentage of their annual incomes.

[8] Includes all leisure and recreational activities (i.e. sports, travel, etc.)

Average monthly expenditures by location - urban centres[9] vs. rural communities[10]

Infographic 1.6



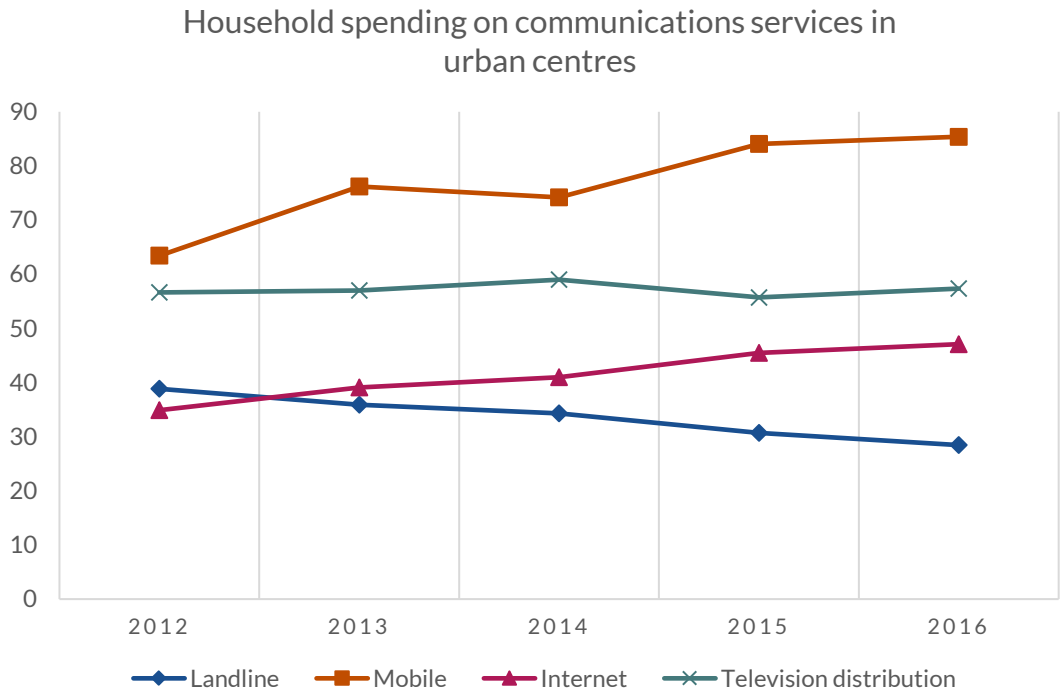
Download source on Open Data

[9] 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 purpose of this report, urban centres data reports the average of small/medium/large centres.

[10] 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.

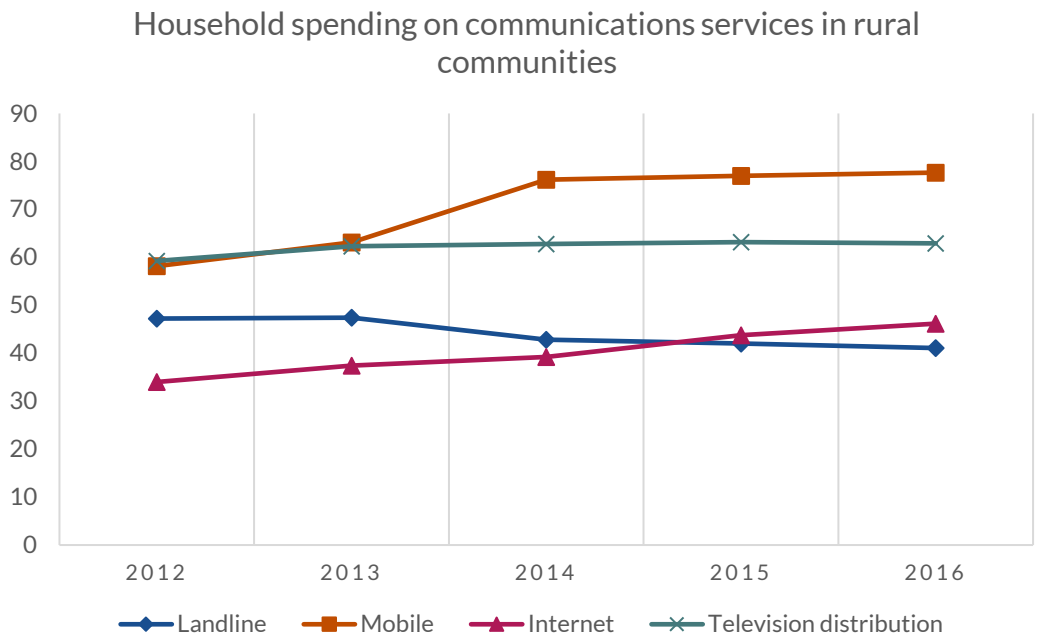
As seen in Figure 1.5 and Table 1.5, expenditures on mobile and Internet services increased from 2012 to 2016, landline service expenditures decreased, and television distribution service expenditures remained relatively stagnant. Internet expenditures in urban centres surpassed landline service expenditures in 2012, whereas in rural communities (see Figure 1.6), this occurred in 2014. Further, mobile service expenditures were fairly similar to television distribution service expenditures in rural communities during 2012 and 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
Download source on Open Data

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



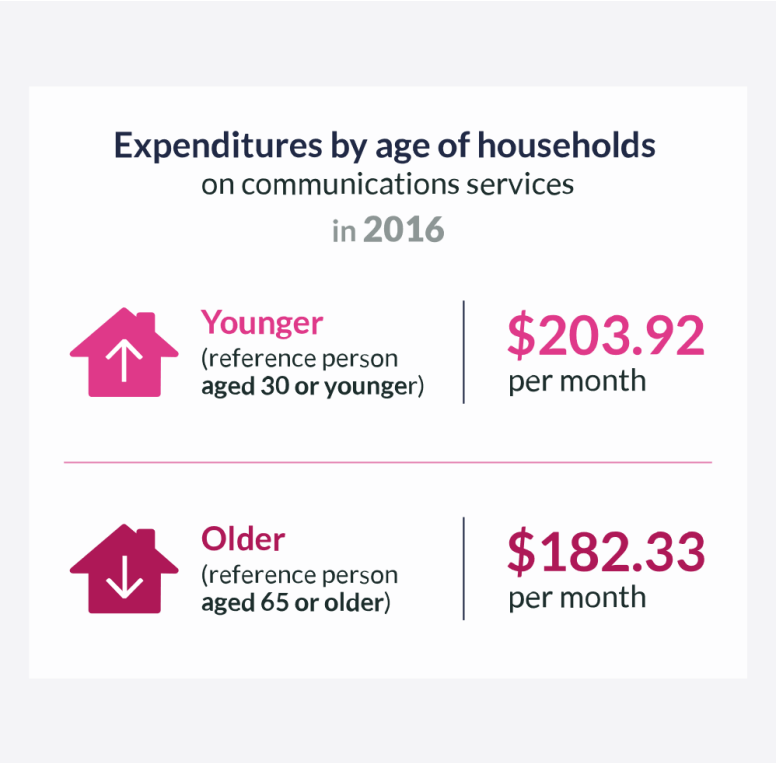
Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01
Download source on Open Data

Although households in urban centres spent the most on mobile services, those in rural communities had an overall higher total spending of $227.83 per month on communications services from 2012 to 2016. Urban centre household expenditures trailed closely at $218.25. The slight 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 the least on all services except for landline in both urban and rural communities (see Table 1.8 and Table 1.9). On the other hand, Alberta residents in urban centres spent the most on all services except for landline services. Overall, the highest total monthly service spending in urban centres and in rural communities was in Alberta ($272.58) and Saskatchewan ($282.17), respectively.

Expenditures by age

Infographic 1.7



Data on household spending by age is segmented based on the age of the household's reference person[11], a person who typically handles financial matters in the home. Households whose reference person is aged 40 to 54 spent the most on communications services ($257.75 per month), while those with reference persons aged 65 years or over spent the least ($182.33 per month).

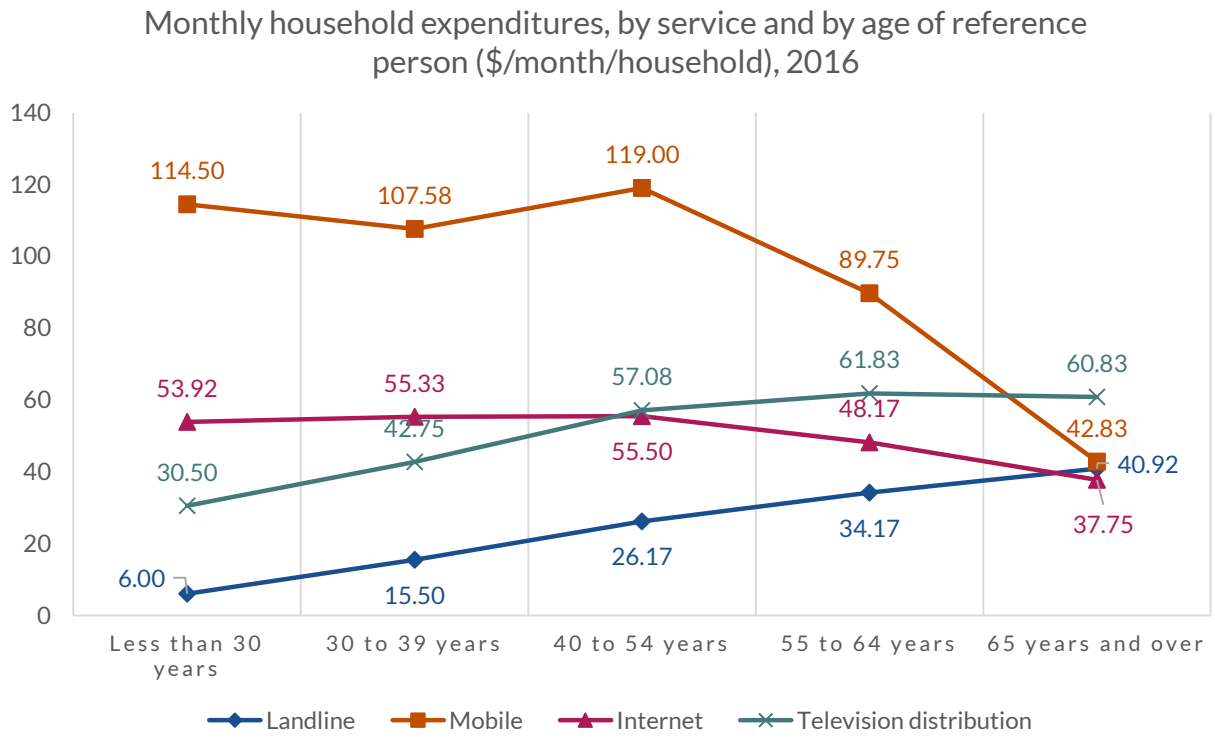
In all but the oldest households, Canadians' smallest communications expense is for landline services (Figure 1.7), the services with the biggest age-related differences in household expenditures. Although landline subscriptions are declining annually (as seen in Figure 1.2), landlines remain important for Canada's older households. While younger households spent just $6.00 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 almost seven times that amount ($40.92 per month).

This difference between age groups is also reflected through their usage habits. Older households (whose reference person 65 years or over) spend the most on television distribution services, and the least on Internet services. Typically, the younger generation (whose reference person under 30 years old), which watches an average 20.5 hours of TV per week, spends on average $30.50 a month on television distribution services. This spending is approximately 50% lower than the oldest generation, which watches on average 42.8 hours per week and spends $60.83 per month on TV (2017 CMR, Table 4.2.11). Figure 1.8 is comparable to Figure 1.7 showing how the trend for mobile, Internet, and landline are fairly similar for both expenditures and percentage of users per age group.

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

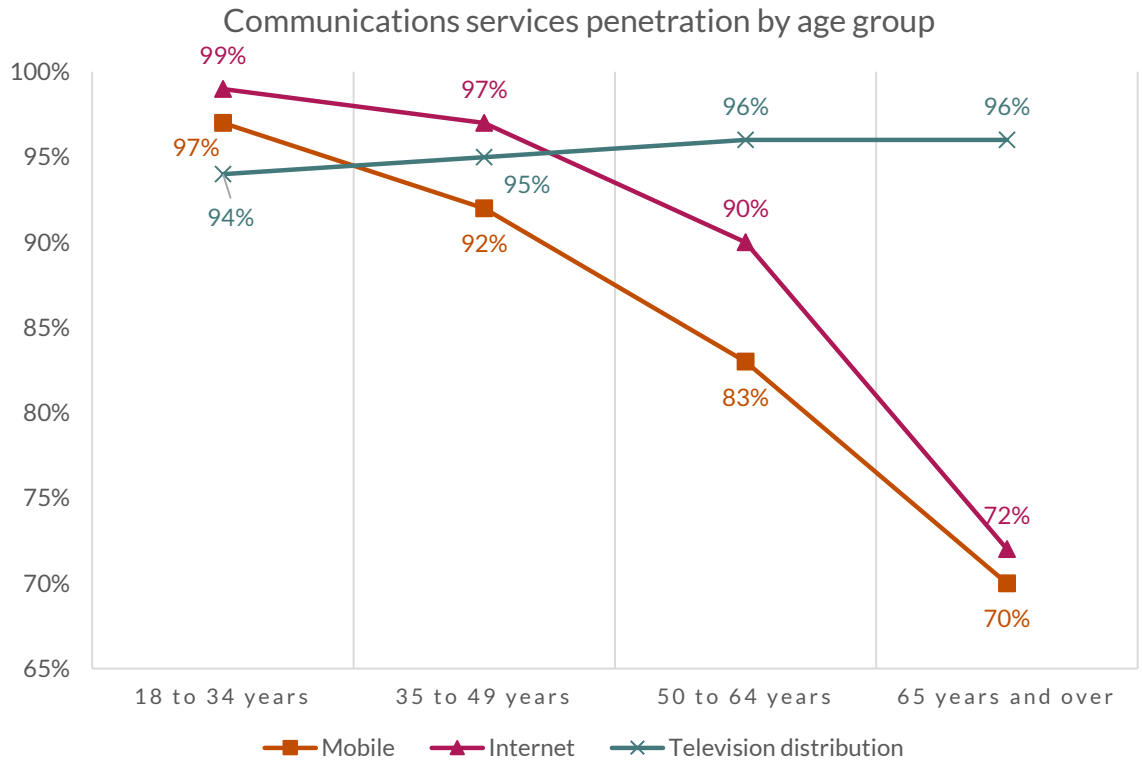
Figure 1.7 illustrates stark differences in spending between the youngest and oldest households. The youngest households tend to spend much more on Internet and mobile services than their older counterparts. 97% of the surveyed youngest generation used mobile services and allocated a very large portion of their spending towards it ($114.50 per month). A similar pattern is visible with Internet services. The correlation between spending and usage suggests that different services hold varying levels of importance to each generation and that these individuals spend more on services that they tend to use the most.

Figure 1.7 Monthly household expenditures, by service and by age of reference person 2016



Source: Statistics Canada's Survey of Household Spending, Table: 11-10-0227-01
Download source on Open Data

Figure 1.8 Communication services penetration by age group[12]



Source: Media Technology Monitor, Fall 2016 (respondents: Canadians aged 18+)
Download source on Open Data

[12] Note: there was a total number of 1801 respondents in Fall 2016, and respondents may differ from those from 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. Appendices

Table 1.1 Canadian landline and mobile service subscribers per 100 households

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

Source: Statistics Canada's Affordability Study (2004-2007) and Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01 (2008-2016)

Table 1.2 Canadian landline and mobile service subscribers per 100 households, by income quintile

Service	Year	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles	CAGR of average of all quintiles (2012-2016)
Landline	2012	74.6	80.3	82.8	87.4	92.4	83.5	
	2013	65.2	75.0	82.2	84.7	87.5	78.9	
	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	-5.4%
	2016	58.2	65.3	63.6	70.6	76.1	66.8	
	Growth 2015-2016 (%)	-8.5	-4.8	-11.8	-4.7	-6.0	-7.2	
Mobile	2012	61.7	75.1	85.9	91.0	93.4	81.4	
	2013	66.8	79.7	88.5	92.9	96.4	84.9	
	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	1.9%
	2016	68.7	85.6	92.7	96.2	96.4	87.9	
	Growth 2015-2016 (%)	-1.7	6.6	3.1	2.4	-0.3	2.0	
Landline and/or mobile	2012	97.4	99.5	99.7	99.8	99.7	99.2	
	2013	97.5	99.7	99.7	99.6	100.0	99.3	
	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	0.0%
	2016	98.2	99.5	99.6	99.6	99.8	99.3	
	Growth 2015-2016 (%)	-0.4	0.5	0.1	-0.2	0.0	0.0	
Landline only	2012	35.7	24.4	13.8	8.8	6.3	17.8	
	2013	30.7	20.0	11.2	6.7	3.6	14.4	
	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	-10.5%
	2016	29.5	13.9	6.9	3.4	3.4	11.4	
	Growth 2015-2016 (%)	2.8	-25.7	-28.1	-42.4	9.7	-16.7	
Mobile only	2012	22.8	19.2	16.9	12.4	7.3	15.7	
	2013	32.3	24.7	17.5	14.9	12.5	20.4	
	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	20.0%
	2016	40.0	34.2	36.0	29.0	23.7	32.6	
	Growth 2015-2016 (%)	14.3	12.5	31.4	12.8	26.1	19.4	

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 1.3 Landline and mobile service subscribers per 100 households, by province, 2016

Province	Landline	Mobile	Landline and/or mobile	Landline only	Mobile only
British Columbia	63.0	90.0	99.1	9.1	36.1
Alberta	61.0	92.7	99.1	6.4	38.1
Saskatchewan	64.4	90.5	99.5	9.0	35.1
Manitoba	68.2	86.0	99.0	13.0	30.8
Ontario	64.5	89.7	99.4	9.7	34.9
Quebec	74.4	82.6	99.4	16.8	25.0
New Brunswick	84.8	82.5	99.4	16.9	14.6
Nova Scotia	69.8	86.8	99.0	12.2	29.2
Prince Edward Island	75.7	85.3	99.6	14.3	23.9
Newfoundland and Labrador	85.1	84.8	99.3	14.5	14.2
All of Canada	**66.8**	**87.9**	**99.3**	**11.4**	**32.5**

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

Table 1.4 Home computer ownership and Internet use from home per 100 households, by income quintile

Technology	Year	Household income less than $32,090 (first quintile)	Household income from $32,091 to $55,470 (second quintile)	Household income from $55,471 to $85,336 (third quintile)	Household income from $85,337 to $130,045 (fourth quintile)	Household income over $130,046 (fifth quintile)	Average for all quintiles
Home computer	2012	62.1	76.3	90.5	93.9	97.4	84.0
	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
	Growth 2015-2016 (%)	3.2	-2.0	0.0	-2.0	-0.4	-0.4
Internet use from home	2012	55.9	72.4	87.6	93.1	98.5	81.5
	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
	Growth 2015-2016 (%)	1.2	0.7	0.5	0.7	-0.1	0.6

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

Table 1.5 Average five-year monthly household spending on communications services, by service and by income quintile ($/month/household)

Service	Year	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles	CAGR of average of all quintiles (2012-2016)
Landline	2012	31.75	34.83	35.67	39.33	44.83	37.33	-7.4%
	2013	29.08	33.50	36.08	38.17	41.00	35.58	
	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	
	Growth 2015-2016 (%)	-10.8%	-5.0%	-7.0%	-14.5%	-7.9%	-8.8%	
Mobile	2012	34.58	50.00	68.75	83.67	110.17	69.42	7.3%
	2013	42.42	55.92	77.25	91.75	127.00	78.92	
	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	
	Growth 2015-2016 (%)	8.4%	6.2%	12.5%	5.1%	0.7%	5.5%	
Internet	2012	22.00	31.50	40.67	42.17	46.25	36.50	7.9%
	2013	25.58	35.25	42.08	48.00	52.42	40.67	
	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	
	Growth 2015-2016 (%)	5.2%	4.8%	4.2%	7.9%	9.0%	6.5%	
Television distribution	2012	39.50	49.50	54.67	63.58	75.75	56.58	-1.3%
	2013	37.00	49.33	57.67	64.58	74.50	56.58	
	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	
	Growth 2015-2016 (%)	-2.8%	2.1%	-5.3%	1.4%	-1.9%	-1.4%	
Total	2012	127.83	165.83	199.75	228.75	277.00	199.83	2.8%
	2013	134.08	174.00	213.08	242.50	294.92	211.75	
	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	
	Growth 2015-2016 (%)	1.0%	3.0%	3.5%	2.3%	0.6%	2.0%	
CAGR of total services	**2012-2016**	**2.3%**	**2.7%**	**3.3%**	**2.8%**	**2.6%**	**2.8%**	

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

Table 1.6 Expenditure per service and by income quintile as a percentage of average annual income

Metric	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Average of all quintiles
Average income	$19,559	$43,436	$70,178	$104,533	$219,031	$91,347
Landline	1.4%	0.7%	0.5%	0.3%	0.2%	0.6%
Mobile	2.9%	1.8%	1.6%	1.3%	0.8%	1.7%
Internet	2.0%	1.4%	0.9%	0.7%	0.3%	1.1%
Television distribution	2.3%	1.5%	0.9%	0.7%	0.4%	1.2%
Total communications expenditures	**8.6%**	**5.1%**	**3.9%**	**2.9%**	**1.7%**	**4.4%**

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

Table 1.7 Household spending on communications services as a percentage of annual income, by income quintile, 2016

Year	Characteristics	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	All quintiles
2012	Minimum household income threshold	$0	$27,876	$48,427	$74,033	$111,640	**Less than $27,875**
	Maximum household income threshold	$27,875	$48,426	$74,032	$111,639	n/a	**More than $111,640**
	Average annual income	$17,312	$37,937	$60,559	$90,855	$179,659	**$77,269**
	Average members per household	1.47	2.10	2.57	2.90	3.34	**2.48**
	Communications expenditures as a percentage of average annual income	8.4%	4.7%	3.6%	2.8%	1.7%	**2.8%**
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%**

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

Table 1.8 Household average monthly household communications services expenditure in rural communities, 2012-2016

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

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

Table 1.9 Household average monthly communications services expenditure in urban centres, 2012-2016

Region	Service	2012	2013	2014	2015	2016
Can.	Landline	38.83	35.89	34.31	30.72	28.44
Can.	Mobile	63.42	76.22	74.19	84.06	85.39
Can.	Internet	34.89	39.11	41.00	45.47	47.08
Can.	Television distribution	56.61	57.00	59.00	55.72	57.33
N.L.	Landline	48.29	43.67	42.83	41.00	42.83
N.L.	Mobile	76.50	83.83	91.83	99.17	110.71
N.L.	Internet	37.46	42.04	42.63	46.67	48.71
N.L.	Television distribution	62.75	61.63	67.92	61.96	64.42
P.E.I.	Landline	39.67	43.63	43.50	45.92	39.58
P.E.I.	Mobile	56.92	64.38	71.25	68.79	84.13
P.E.I.	Internet	34.92	39.96	45.67	47.13	51.92
P.E.I.	Television distribution	58.71	61.08	63.75	58.17	58.58
N.S.	Landline	45.22	43.44	39.00	40.31	39.08
N.S.	Mobile	64.28	71.75	62.69	76.72	91.25
N.S.	Internet	36.53	40.00	43.36	47.64	52.11
N.S.	Television distribution	64.03	59.00	65.58	57.67	60.28
N.B.	Landline	41.69	40.86	36.22	36.22	36.78
N.B.	Mobile	63.03	64.22	69.25	77.08	82.92
N.B.	Internet	38.17	40.94	41.14	46.17	46.92
N.B.	Television distribution	57.25	58.50	59.47	55.39	57.83
Que.	Landline	34.03	33.08	34.25	28.97	28.00
Que.	Mobile	41.08	43.47	46.06	51.11	56.14
Que.	Internet	33.22	35.17	32.83	35.50	37.08
Que.	Television distribution	46.39	45.75	47.64	47.83	48.72
Ont.	Landline	43.58	40.92	36.94	33.86	33.61
Ont.	Mobile	60.47	79.39	70.47	82.31	76.83
Ont.	Internet	37.06	39.89	45.08	49.36	46.28
Ont.	Television distribution	59.72	60.47	62.56	57.67	60.44
Man.	Landline	36.28	36.47	34.92	30.92	25.67
Man.	Mobile	69.78	78.19	79.89	89.53	85.06
Man.	Internet	35.61	38.78	38.69	43.92	46.69
Man.	Television distribution	64.47	59.69	57.83	59.44	55.00
Sask.	Landline	41.47	36.56	34.92	30.64	29.17
Sask.	Mobile	80.22	87.11	88.28	102.39	109.31
Sask.	Internet	31.58	33.86	35.53	42.17	44.92
Sask.	Television distribution	64.33	67.83	67.19	64.33	64.22
Alta.	Landline	35.81	32.81	30.67	25.22	21.31
Alta.	Mobile	97.25	118.67	110.11	135.94	128.69
Alta.	Internet	33.97	42.36	44.89	51.64	55.08
Alta.	Television distribution	65.14	65.03	66.11	65.86	67.50
B.C.	Landline	33.97	28.39	30.11	27.86	22.00
B.C.	Mobile	67.11	90.50	87.25	94.14	96.17
B.C.	Internet	33.33	40.75	43.03	47.47	53.08
B.C.	Television distribution	54.33	58.64	61.64	55.19	58.08

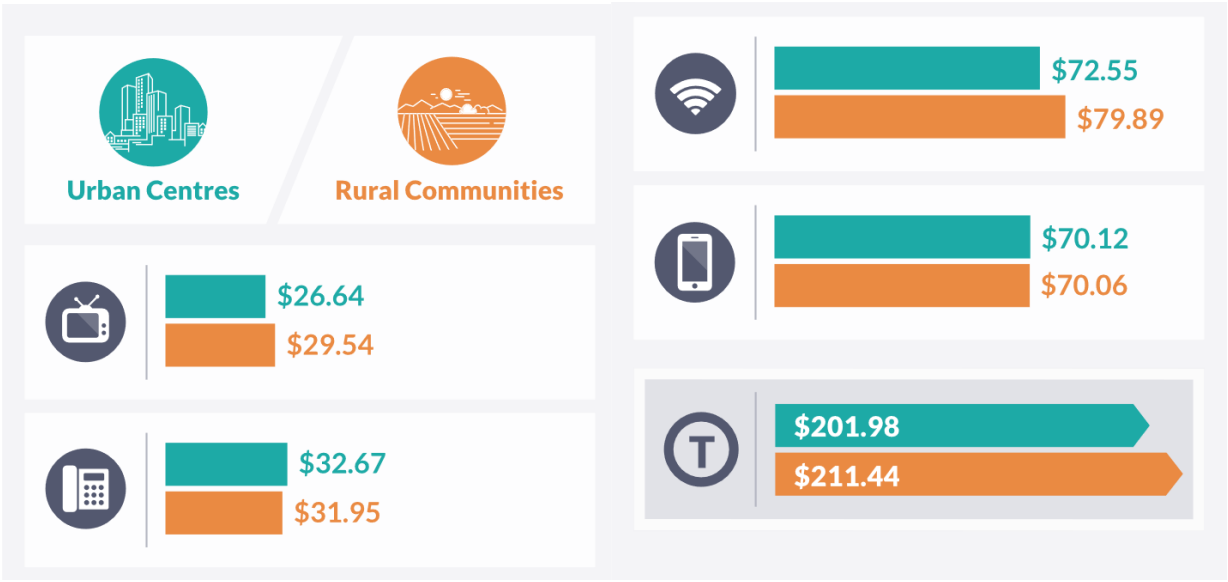
Source: Statistics Canada's Survey of Household Spending, custom request for a breakdown of Table 11-10-0223-01

Communications Monitoring Report 2018

2017 Communications Services Pricing in Canada

2017 Communications Services Pricing in Canada

Infographic 2.1 Average reported monthly price of communications services in Canada



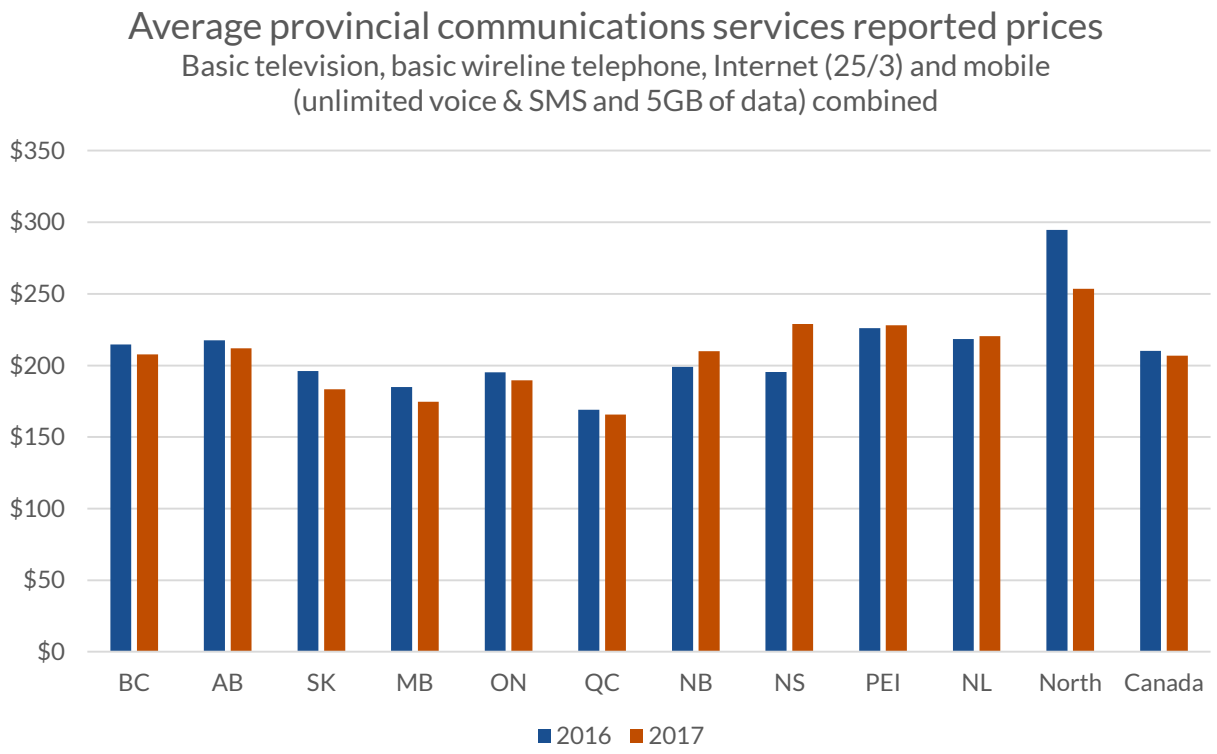
2017 Combined average price in Canada: $207, a 1.6% decrease from 2016
Source: CRTC data collection

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 television[13], basic wireline telephone[14], 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, 2017[15].

Based on the prices of basic television, basic wireline telephone, internet (25/3)[16] and wireless (unlimited voice & SMS and 5GB of data) [17], the average, nation-wide monthly reported price for the four services combined (hereafter, combined price) in 2017 was an average of $207, 1.6% lower than in 2016. This decrease is attributable mainly to lower average prices for mobile services (specifically, plans that include unlimited voice and SMS, and 5 GB of data) across Canada as well as lower Internet service prices in the North.[18]

[13] 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.
[14] Basic wireline phone service refers to single-line, local telephone service operating over a managed network, (ie. 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 purpose of this report.
[15] See Appendix for methodology and Table 2.2 for a list of the rural communities.
[16] Internet is represented by the category of service which 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 3 monitored packages.
[17] Mobile is represented by the plan which includes unlimited voice and SMS, and 5 GB of Internet data.
[18] The North refers to Nunavut, Northwest Territories, and Yukon.

Figure 2.1 Average combined reported prices for communications services by province/region, 2016 vs. 2017



Source: CRTC data collection

Across Canada, except in the Atlantic provinces,[19] average prices decreased slightly or remained constant from 2016 to 2017. The most notable decrease was in the North, where average combined prices decreased by 16%. In the Atlantic provinces, the average combined price increases are largely attributable to a number of providers now offering Internet service at minimum speeds higher than 25/3 Mbps, thereby raising the reported price of services meeting these speeds. Quebec, Manitoba and Saskatchewan continued to report the lowest average combined prices.

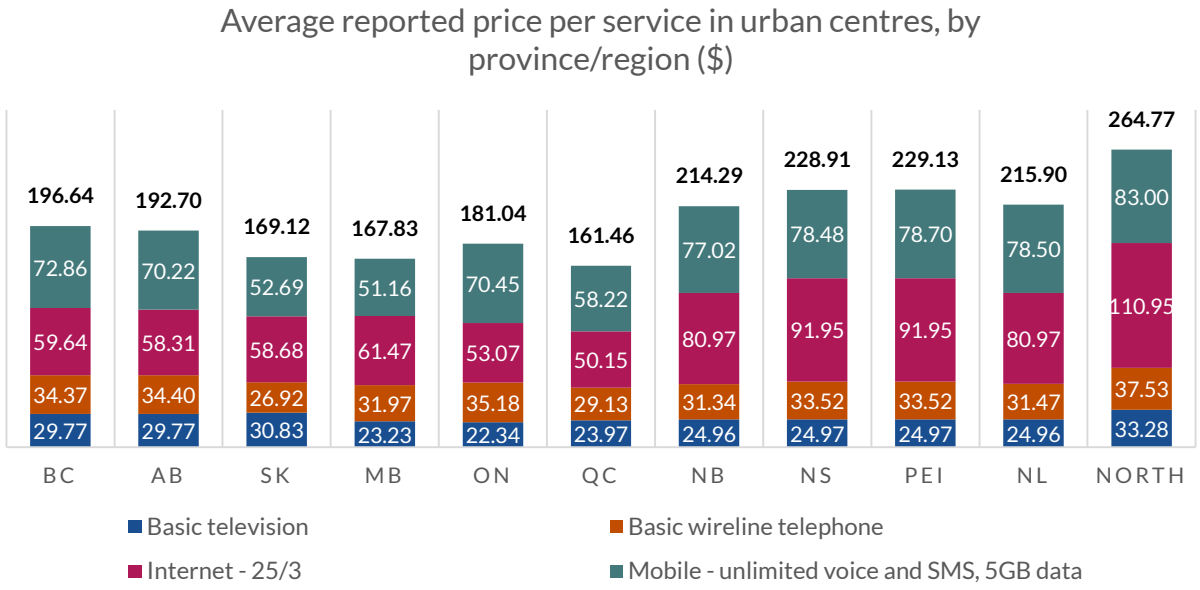
In 2017, the average combined price in urban areas tended to be slightly lower than in rural communities. Nationally, it was $202 for urban locations and $211 for rural locations, a difference of about 5% – though there are significant provincial and regional differences.

[19] The Atlantic provinces include New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador.

Urban centres

Average combined prices in urban centres ranged from $161 in Quebec to $265 in the North.[20] Provincial/territorial price differences are, to a large degree, due to regional differences in average prices for Internet service, which ranged from $50 in Quebec to $111 in the North.

Figure 2.2 Average reported price per service in urban centres, by province/region ($)



Source: CRTC data collection

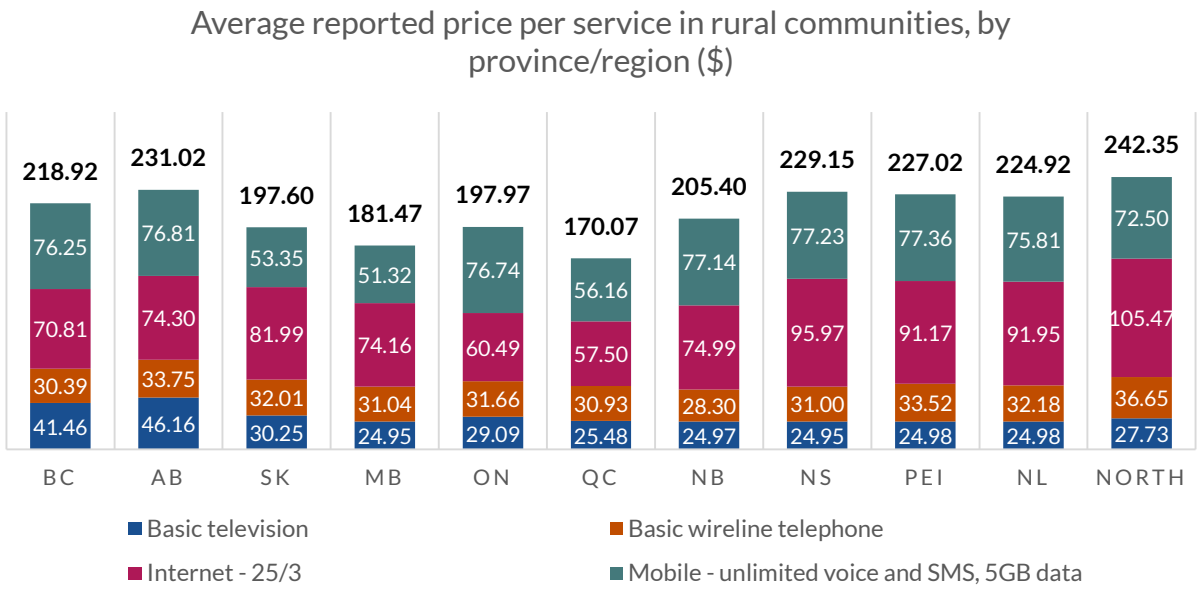
Average prices in the North were higher than in the provinces for the four services individually and combined, and average combined prices were the lowest in Quebec. Provinces where a major regional service provider was present had the lowest average combined prices (in ascending order): Quebec, Manitoba and Saskatchewan. Slightly higher average combined prices were observed in Ontario, Alberta and British Columbia. Service providers in the Atlantic provinces reported higher average combined prices than those in the western provinces, although Internet service plans there often include unlimited data, which may explain the higher prices.

[20] Some services were not available in all three territories.

Rural communities

The average combined price in rural communities ranged from $170 in Quebec to $242 in the North, a difference of $72.

Figure 2.3 Average reported price per service in rural communities, by province/region ($)



Source: CRTC data collection

The highest average prices for Internet ($105) and basic wireline voice services ($37) were in the North, while Alberta had the highest average price for basic television service ($46) and Prince Edward Island had the highest average price for mobile ($77).

As observed for urban prices, the lowest average combined prices were found in Quebec, Manitoba and Saskatchewan. In rural Ontario, New Brunswick and British Columbia, these prices were in the middle. In Newfoundland and Labrador, Prince Edward Island, Nova Scotia and Alberta, they were slightly higher, and within $7 of each other.

Urban versus rural comparison

On a national basis, average combined prices in rural communities were 5% higher than in urban centres; however, this varies by region. Alberta had the widest gap between these prices in urban centres and rural communities, where they were, on average, 20% ($38) higher. On average, in British Columbia, Alberta and Saskatchewan, prices in urban centres were 16% lower than in rural communities. This gap between average prices in rural communities and urban centres narrows going east; in Manitoba, Ontario and Quebec, prices in urban centres were, on average, 7% lower than in rural communities. On average, pricing was consistent in the Atlantic provinces.

The North, however, faces a different reality: average combined prices in northern rural communities were 8% ($22) lower than those in northern urban areas, due mainly to the presence of satellite Internet access service, which usually isn't available in urban areas, and is offered at a lower price.

i. Television distribution services

In 2017, the lowest prices for basic television[21] service ranged from $14 to $25, depending on the area in which the service was offered. Generally, the areas with the lowest prices had 3 or more competitors offering services.

A basic television package usually contains 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 licenced 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 as, for example (2/3), it means that there were 2 to 3 providers reporting for the area.

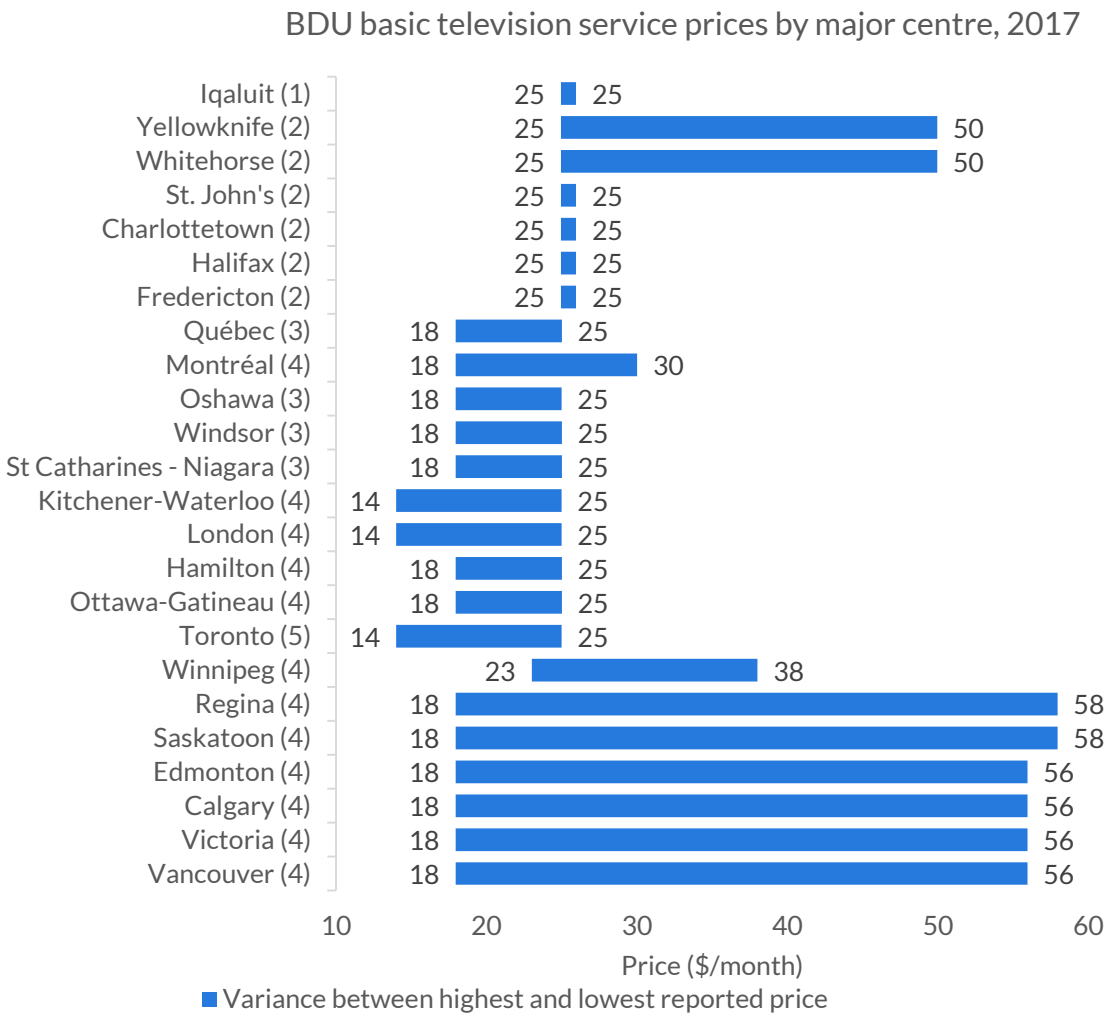
[21] In its Regulatory Policy (2015-96), following the Let's Talk TV proceeding, the Commission required licenced distributors to offer a $25.00 or lower priced entry-level service offering as of March 1st 2016, and full pick and pay as of December 2016.

Urban centres

In urban centres throughout Canada, $25 television distribution service packages were offered by licensed Broadcasting Distribution Undertakings (BDUs,)[22] as mandated in Broadcasting Regulatory Policy 2015-96. In the North and in the Atlantic provinces, the lowest price was $25, while in the rest of Canada basic television services were offered for $18, and even $14 in Toronto, London and Kitchener-Waterloo.

In the markets where basic television service was offered at the lowest price, 4 or more competitors were present and they included Internet Protocol television (IPTV)[23] service providers.

Figure 2.4 BDU basic television service prices by major centre, 2017



Source: CRTC data collection

[22] Providers of subscription television service to Canadians by redistributing programming from conventional over-the-air television and radio stations. 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).

[23] 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.

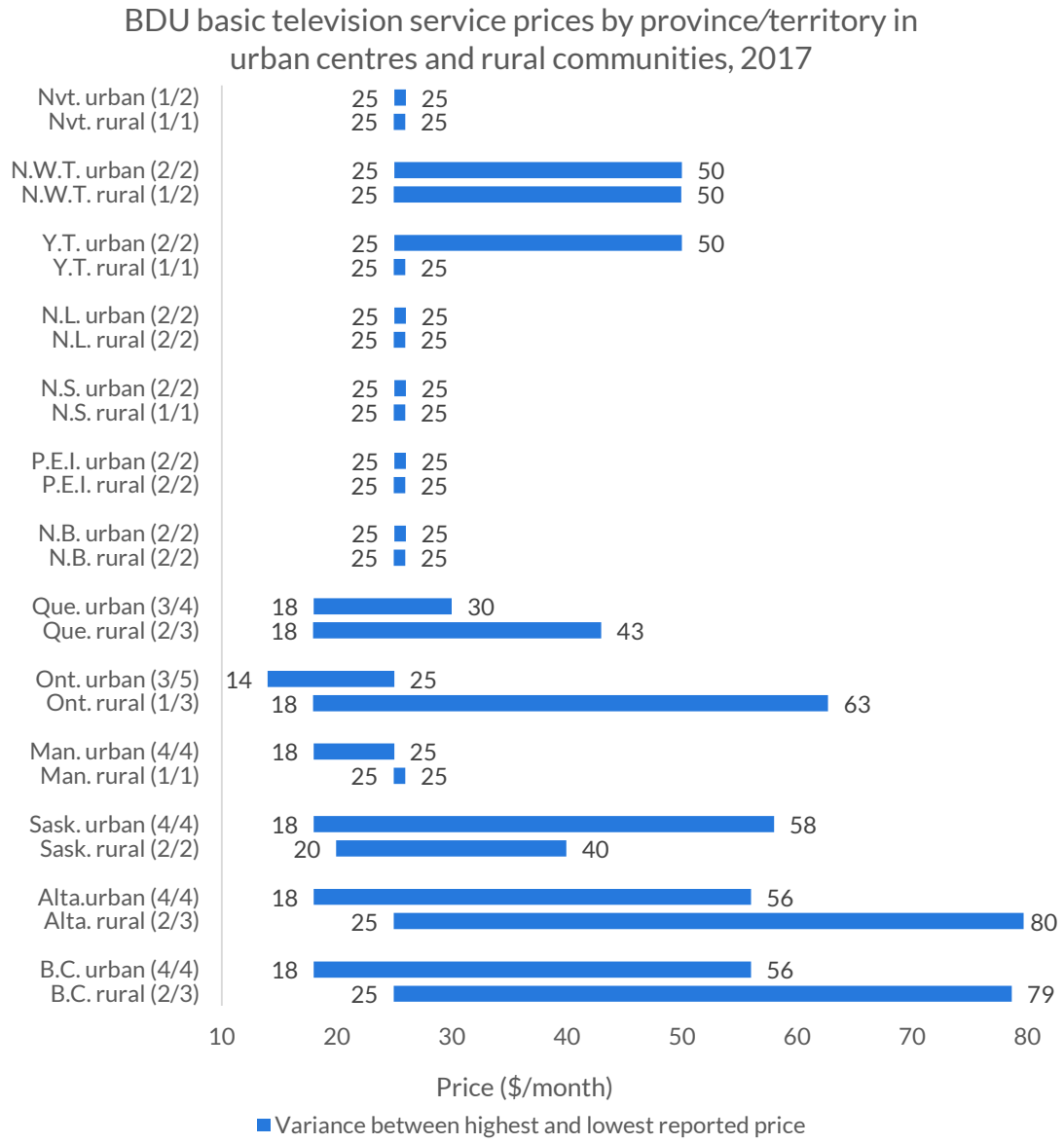
Rural communities vs. urban centres

In 2017, prices for basic television service were usually lower in areas with 3 or more service providers reporting. The lowest price in urban centres was in Ontario, at $14.

The lowest price in rural communities was $18, in Ontario and Quebec, followed by $20 in Saskatchewan. In the rest of Canada, the lowest price in rural communities was $25.

Overall, there was no difference between the lowest price in rural communities and the lowest price in urban centres in the North, the Atlantic provinces and in Quebec, while the difference ranged from $2 (Saskatchewan) to $7 (Manitoba, Alberta and British Columbia) elsewhere in Canada.

Figure 2.5 BDU basic television service prices by province/territory in urban centres and rural communities, 2017



Source: CRTC data collection

ii. Local wireline telephone services

Local wireline telephone service was available across Canada for approximately $30, while in certain areas the service was available for under $25.

Basic local telephone service[24] 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 displays 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 as, for example (2/3), it means that there were 2 to 3 providers reporting for the area.

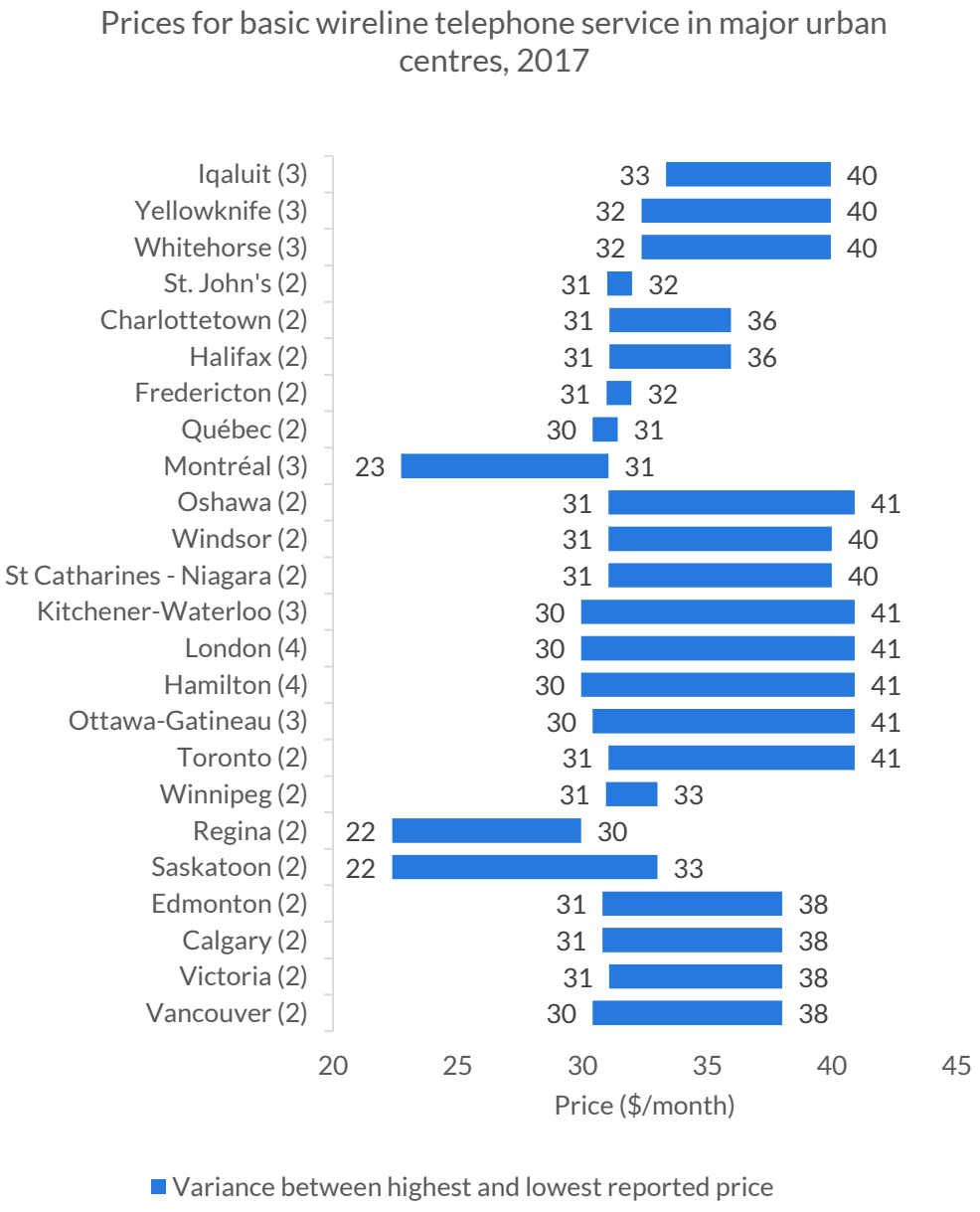
[24] Only access-dependent services were included in the analysis.

Urban centres

Overall, prices for basic wireline telephone service in urban centres ranged between approximately $30 and $40 per month. In Montréal, Regina and Saskatoon, they were approximately $10 lower (between $22 and $33).

The lowest price in urban centres was reported in Regina and Saskatoon ($22), while the lowest price in the North was $10 higher ($32), in Whitehorse and Yellowknife.

Figure 2.6 Prices for basic wireline telephone service ($/month) and number of companies providing this service in major urban centres, 2017



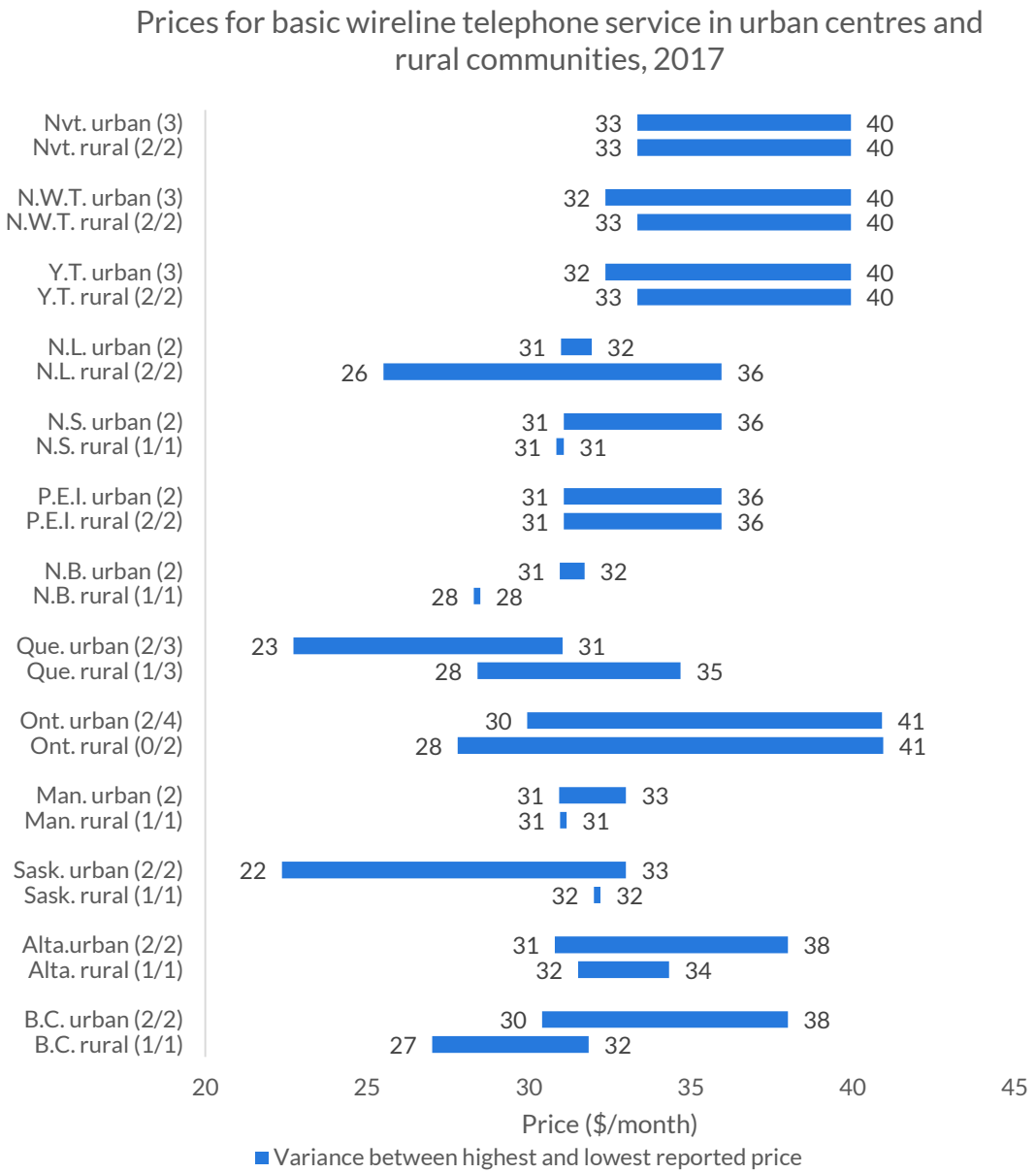
Source: CRTC data collection

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 $30 per month. The lowest prices were in Saskatchewan and Quebec urban centres ($22 and $23 respectively) followed by rural communities in Newfoundland and Labrador and British Columbia ($26).

Overall, prices in urban centres ranged from $22 in Saskatchewan to $41 in Ontario, while prices in rural communities ranged from $26 in Newfoundland and Labrador to $41 in Ontario.

Figure 2.7 Prices for basic wireline telephone service ($/month) and number of companies providing this service in urban and rural communities, by province/territory, 2017



Source: CRTC data collection

iii. Internet services

Consistent with previous years, urban households generally had access to lower Internet service prices in 2017 and had a greater number of Internet service providers (ISPs) to choose from compared with rural households. On average, rural communities had access to 4 ISPs, while urban centres had access to 8.

In 2017, ISPs were asked to report the price of services meeting the service objective target, 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 2 to 3 providers reporting for the area.

Urban centres

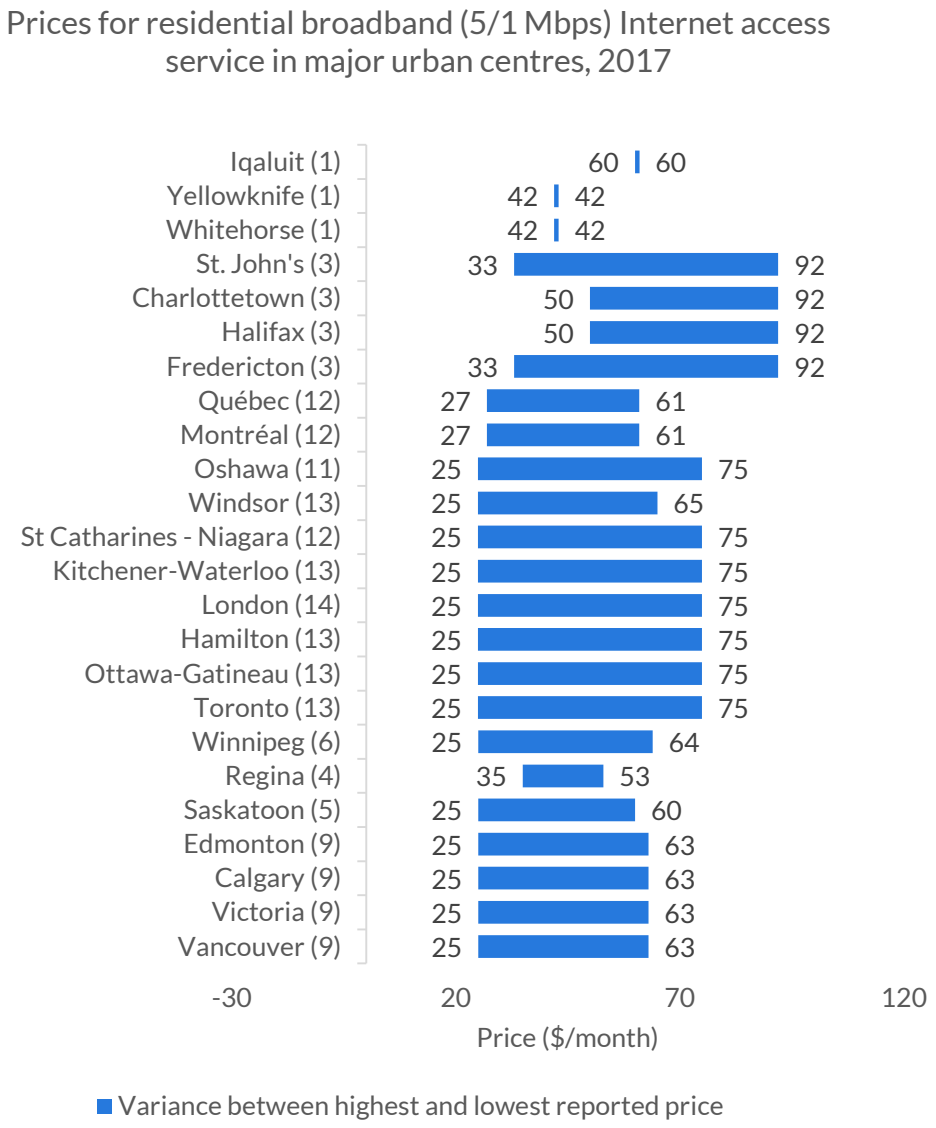
Urban centres in Ontario and Quebec had more ISPs than those in western Canada, followed by the Atlantic provinces. The territories had the fewest options for ISPs.

5/1 Mbps service

In urban centres, 5/1 Mbps Internet service was available for $25 per month in British Columbia, Alberta, Saskatchewan and Ontario, with the exception of Regina ($35), while in Quebec, the Atlantic provinces and the North the lowest price varied from $27 to $60.

The lowest-priced 5/1 Mbps service option reported was provided with unlimited data transfer by 2 to 3 ISPs in the Atlantic provinces, Manitoba and Saskatchewan, and by 5 to 7 ISPs in British Columbia, Alberta, Ontario and Quebec. 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.

Figure 2.8 Prices for of residential broadband (5/1 Mbps) Internet access service and number of companies providing this service in major urban centres, 2017



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

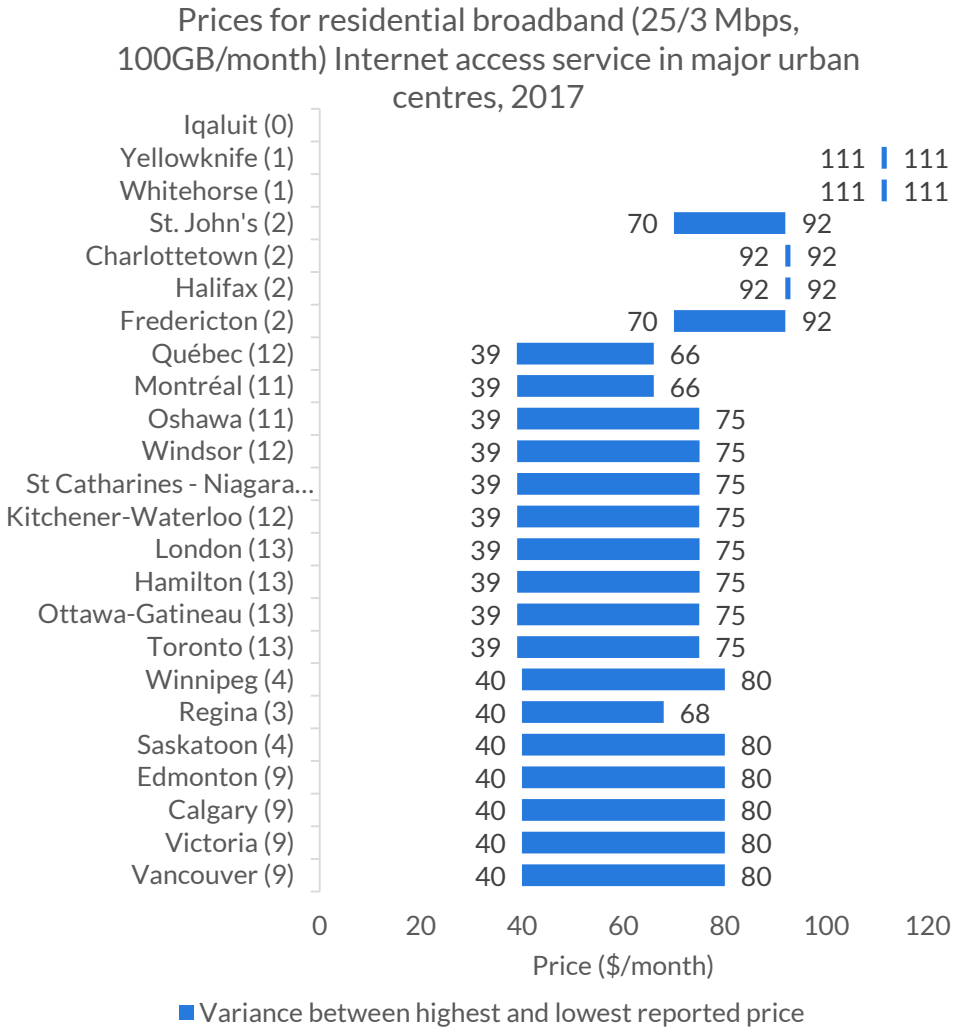
25/3 Mbps service with at least 100 GB of monthly data transfer

Internet service with a download speed of 25 Mbps and upload speed of 3 Mbps or more was available for about $40 across urban centres in Canada, except in the Atlantic provinces and in the North. The lowest price was $39, throughout urban centres in Quebec and Ontario.

The lowest-cost 25/3 Mbps service option reported was provided with unlimited data transfer by 2 providers in most of the Atlantic provinces, Manitoba and Saskatchewan, and by 4 or 5 providers in British Columbia, Alberta, Ontario and Quebec. 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 with data transfer limits tended to include at least 175 GB, while in many areas up to 400 GB were included by some ISPs.

Figure 2.9 Prices for residential broadband (25/3 Mbps, 100 GB/month) Internet access service and number of companies providing this service in major urban centres, 2017

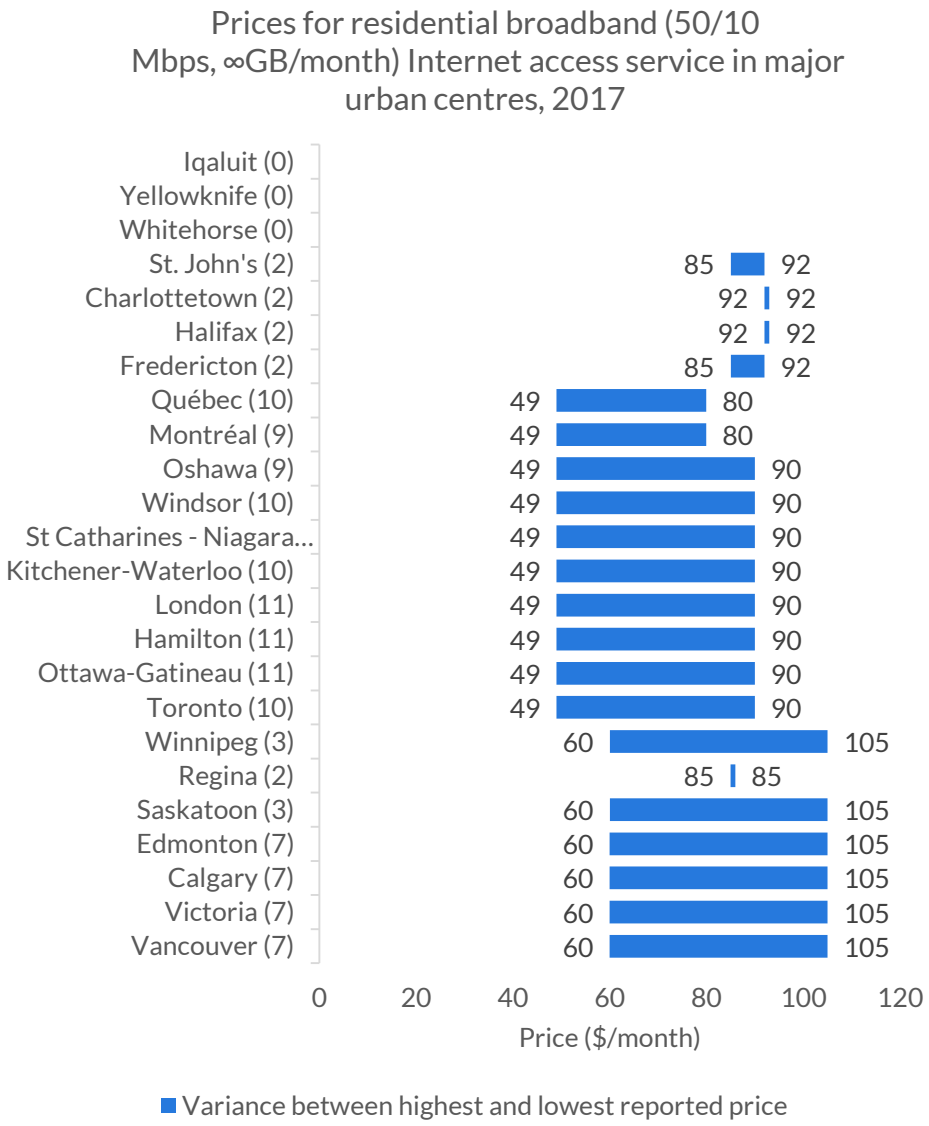


Source: CRTC data collection

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 $49 to $90 in Ontario and Quebec, and from $60 to $105 in the other provinces. This regional difference is also seen in the average price, which is lower in Ontario and Quebec than in other areas.

Figure 2.10 Prices for of residential broadband (50/10 Mbps, unlimited GB/month) Internet access service and number of companies providing this service in major urban centres, 2017



Source: CRTC data collection

Rural communities versus urban centres

Canadians living in rural communities generally have fewer ISPs to choose from than subscribers living in urban centres. Of all the rural areas examined, the median number of available ISPs was 4, and the average was also 4. The median for urban areas was 9, the average 8.

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 service, in 89% of rural communities for 25/3 Mbps service and in 63% 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 181 GB for 25/3 and 5/1 Mbps services) than in urban areas (an average of 224 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 these areas for 25/3 Mbps service.

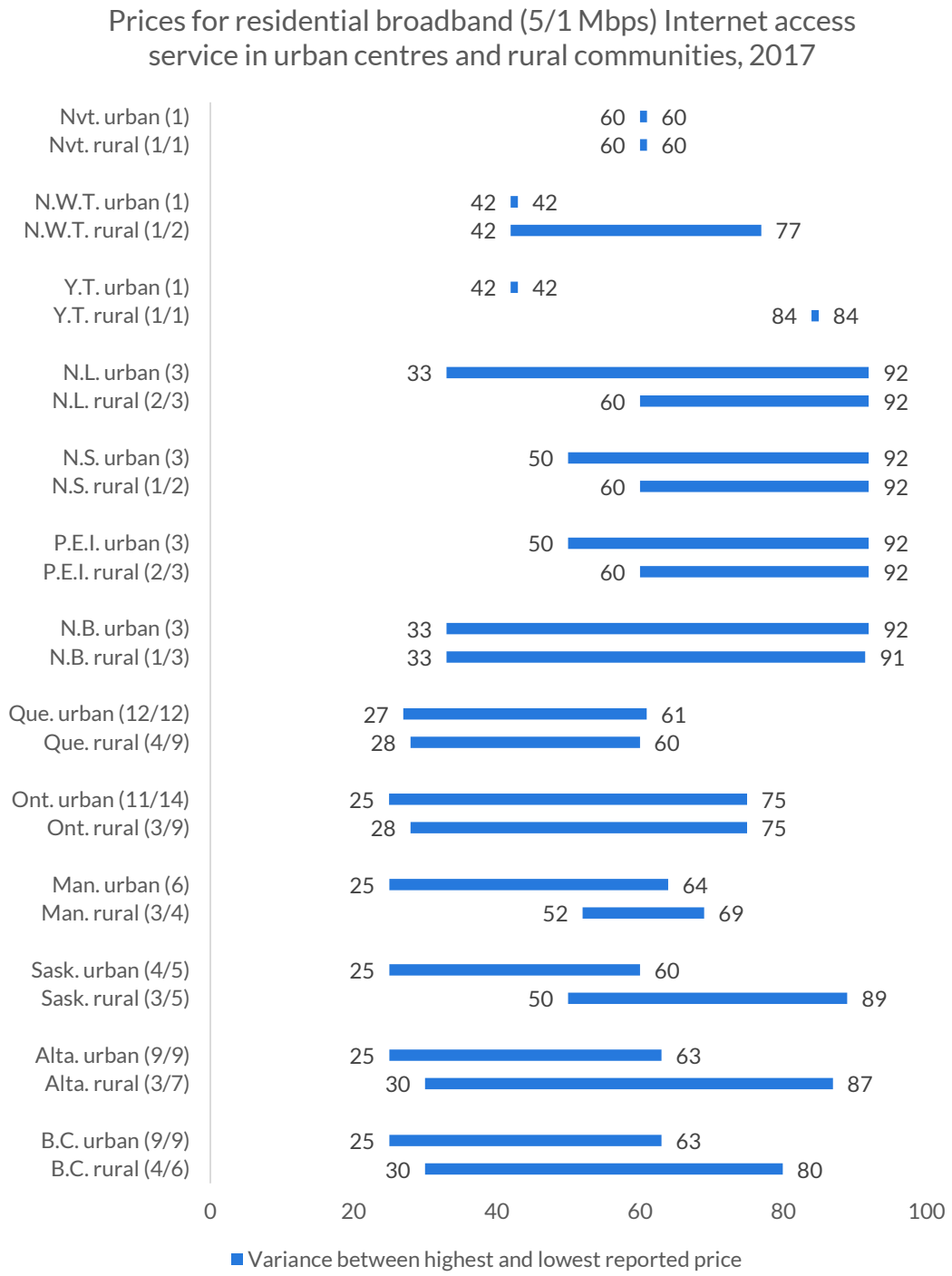
5/1 Mbps service

The lowest price for 5/1 Mbps service in urban centres was $25, in Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, while the lowest price for the same service in rural communities was $28, in Quebec and Ontario.

The areas with the largest difference in prices between rural communities and urban centres were Newfoundland and Labrador and Manitoba (a $27 difference), followed by Saskatchewan (a $25 difference).

Quebec and Ontario had the highest number of ISPs reporting service offerings, the lowest prices in rural communities ($28) and the smallest difference between the lowest price in rural communities and urban centres ($1 and $2, respectively) across all provinces.

Figure 2.11 Prices for residential broadband (5/1 Mbps) Internet access service and number of companies providing this service in urban centres and rural communities, 2017



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

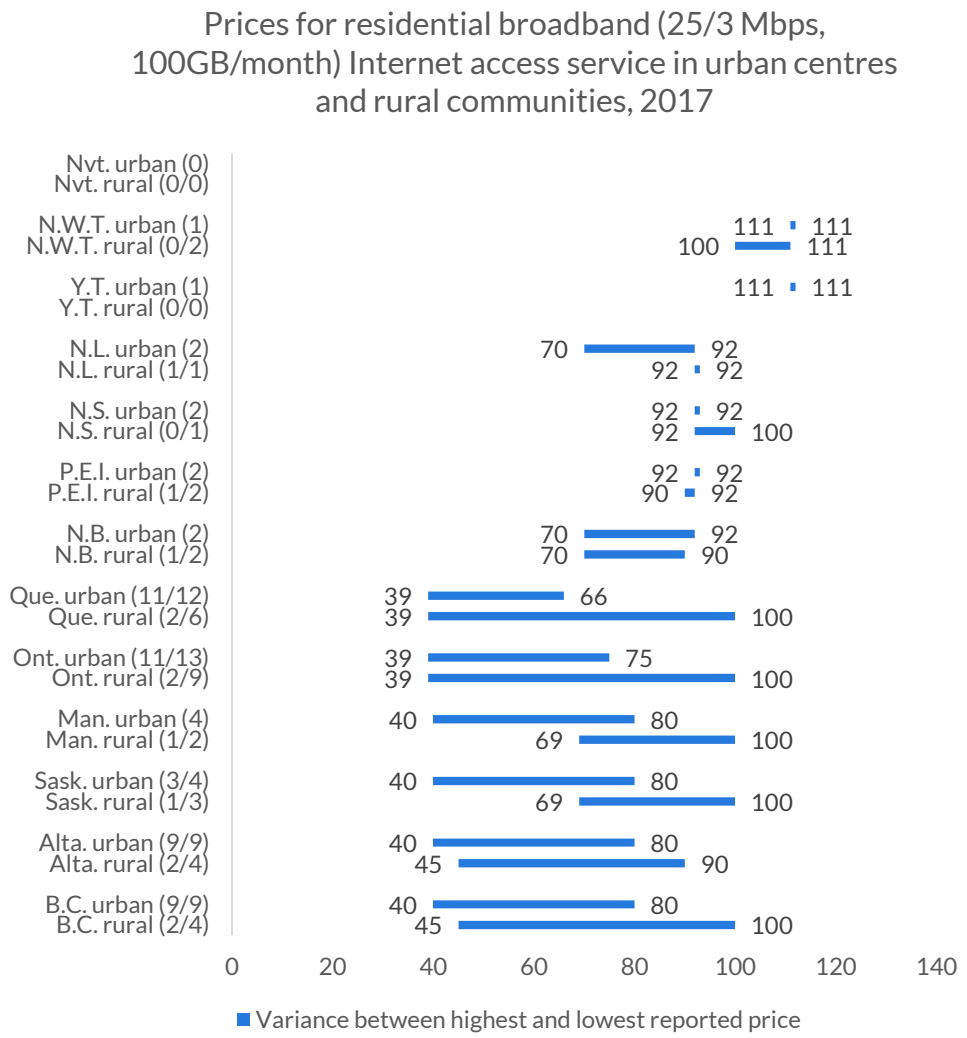
25/3 Mbps service with at least 100 GB of monthly data transfer

Prices for 25/3 Mbps service varied from $39 to $111. The lowest price in urban areas was $39, in Quebec and Ontario, while in the North, where the service was available, prices ranged from $100 to $111 per month.

In rural communities, prices for this service ranged from $39 in Quebec and Ontario to $111 in the North, where the service was available.

Similar to 5/1 Mbps service prices, prices for 25/3 Mbps service were typically higher in rural areas. The difference in prices between rural communities and urban areas ranged from $0 in Quebec and Ontario, where there was the greatest number of ISPs reporting service offerings, to $29 in Manitoba and Saskatchewan.

Figure 2.12 Prices for residential broadband (25/3 Mbps, 100 GB/month) Internet access service and number of companies providing this service in urban centres and rural communities, 2017



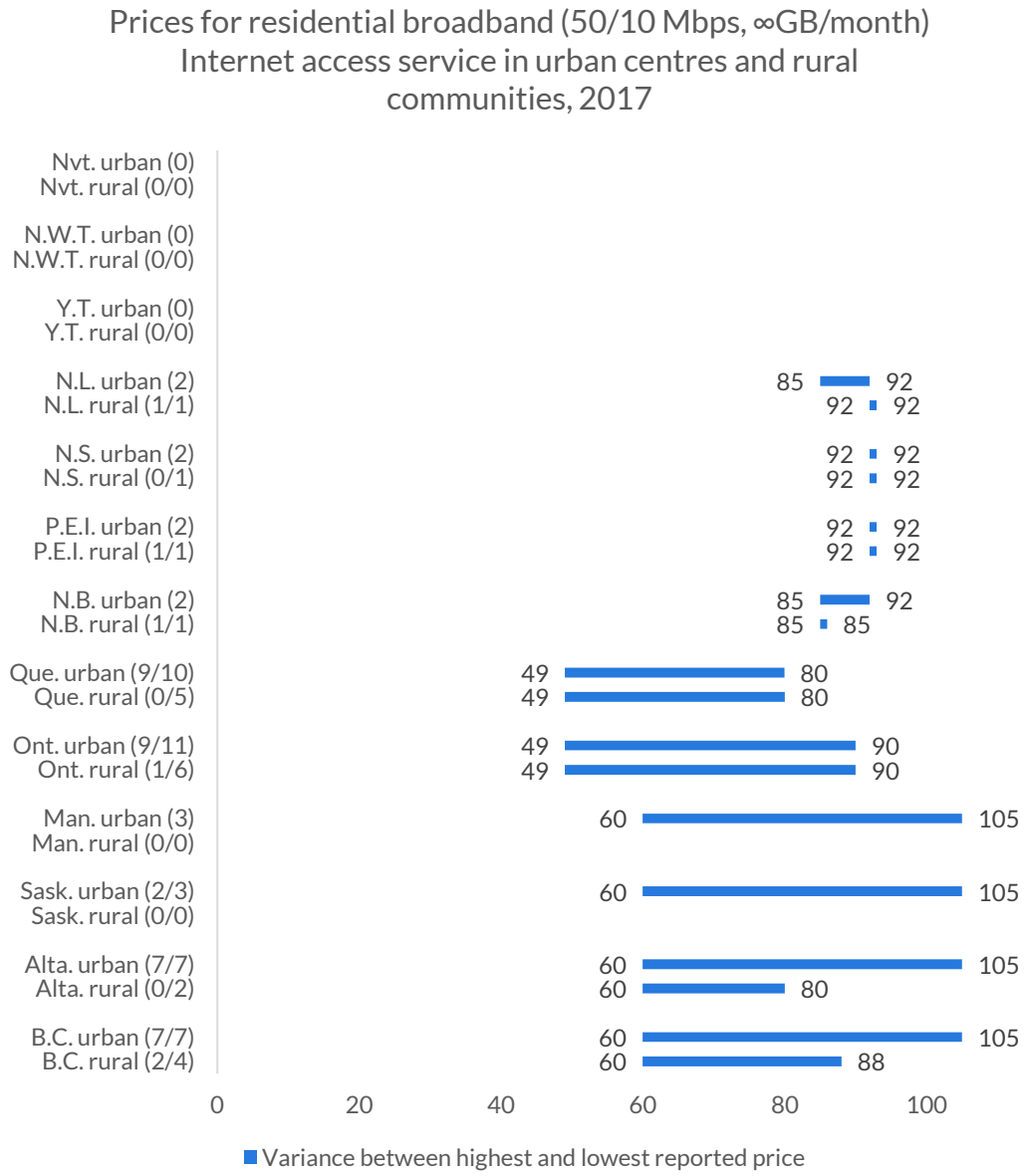
Source: CRTC data collection

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 $49 in Quebec and Ontario to $105 in Manitoba, Saskatchewan, Alberta and British Columbia.

Consistent with the trends observed with the lower-speed offerings, the lowest prices were in the areas with the most reported service offerings, namely Quebec and Ontario. These two provinces also had consistent pricing between rural communities and urban centres, while the largest differences in pricing between urban centres and rural communities were in Manitoba, Saskatchewan, Alberta and British Columbia (a $45 difference).

Figure 2.13 Prices for residential broadband (50/10 Mbps, unlimited GB/month) Internet access service and number of companies providing this service in urban centres and rural communities, 2017



Source: CRTC data collection

iv. Mobile services

In 2017, each studied market had 2 or more wireless service providers (WSPs), with urban centres in Ontario leading with 5 WSPs.

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 level 2, 3, and 4 baskets.

- The **level 1** service basket represents 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 encompasses low- to mid-tier types of plans that provide customers with at least 450 minutes of voice service, 300 SMS, and 1 GB of Internet data per month.
- The **level 3** service basket comprises plans representative of a 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.

Similar to 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 displays 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 2 to 3 providers reporting for the area.

Urban centres

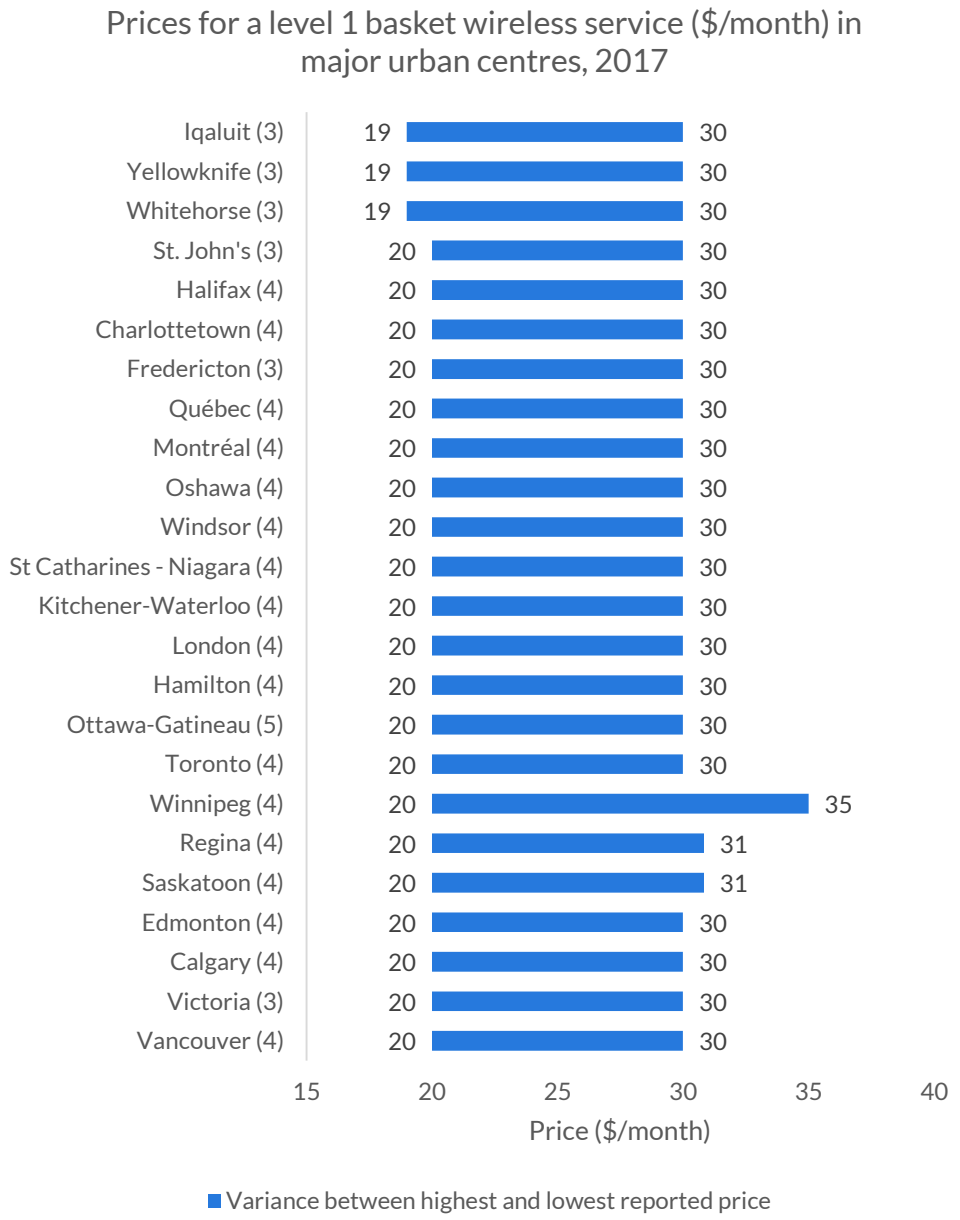
Urban centres with four or more WSPs generally had the largest difference between the lowest and highest prices reported, as well as the lowest reported prices in three of the four service baskets. The difference between the lowest and highest prices across all service baskets in any given urban centre ranged from a low of $5 to a high of $36. The price differences that were most pronounced were found in the level 4 service basket. The average price differences between lowest and highest reported prices for the level 1, 2, 3, and 4 service baskets were $10, $14, $21, and $30, respectively.

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

Level 1 services were available for approximately $20 across Canada. Prices were lowest in the North, at $19, while in the rest of Canada, $20 was the lowest price.

Prices for level 1 services had limited variations within urban centres. Prices within most cities ranged from $20 to $30, while the widest variation ($15) was in Winnipeg, where prices ranged from $20 to $35.

Figure 2.14 Prices for a level 1 service ($/month) and number of companies providing the service in major urban centres, 2017



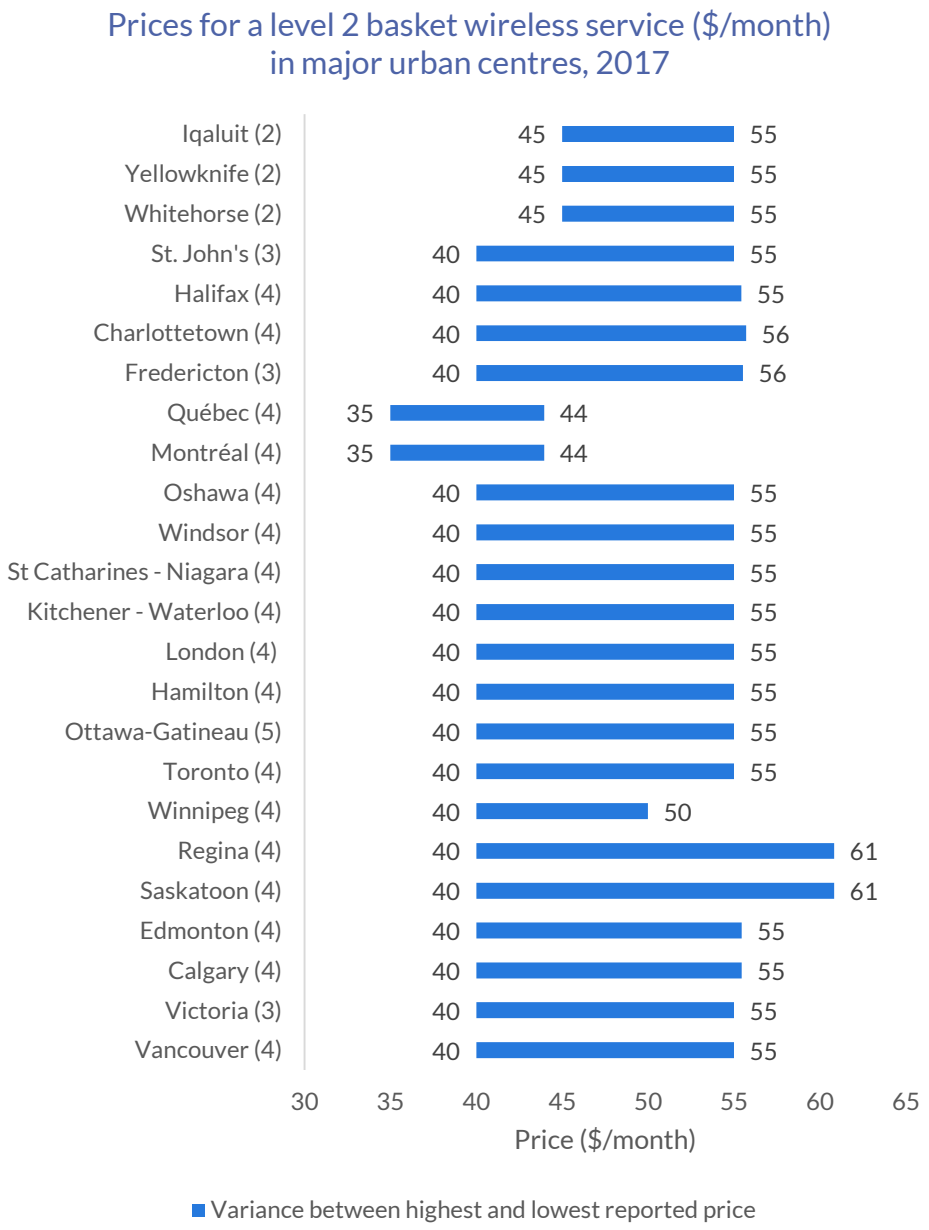
Source: CRTC data collection

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 $35 in Québec and Montréal to $45 in Iqaluit, Yellowknife and Whitehorse. In all the provinces, level 2 services were available at a price point of $40 or lower, while in the North, prices started at $45.

Overall, prices varied from $35 to $61, while in most areas the difference in prices was about $15.

Figure 2.15 Prices for a level 2 service ($/month) and number of companies providing the service in major urban centres, 2017



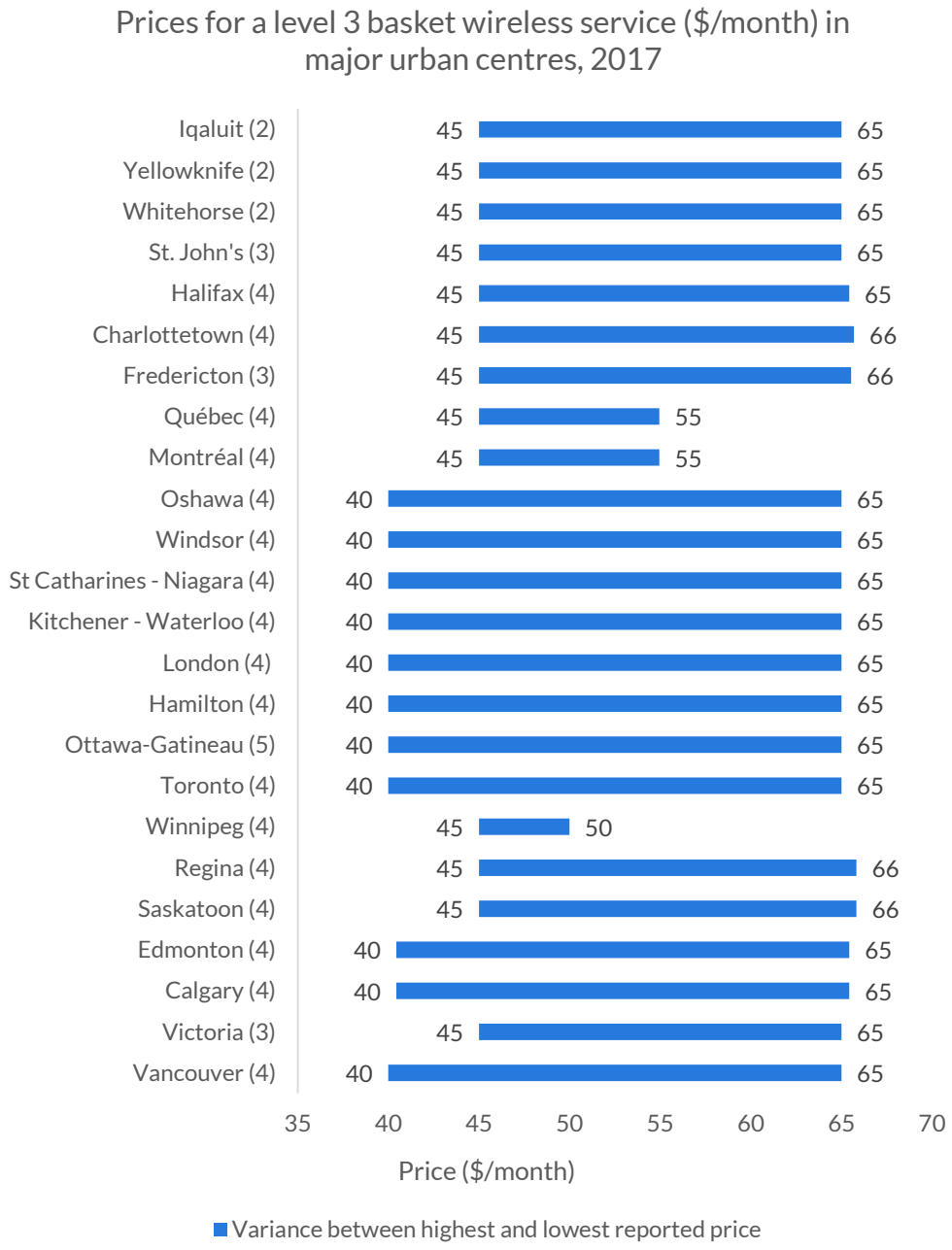
Source: CRTC data collection

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

In urban centres, level 3 services were available for $45 or less. The lowest price was $40, in cities in Ontario as well as Edmonton, Calgary and Vancouver.

Prices ranged from $40 to $65 and 3 or more service providers reported offerings in each urban centre, except in the North.

Figure 2.16 Prices for a Level 3 service ($/month) and number of companies providing the service in major urban centres, 2017



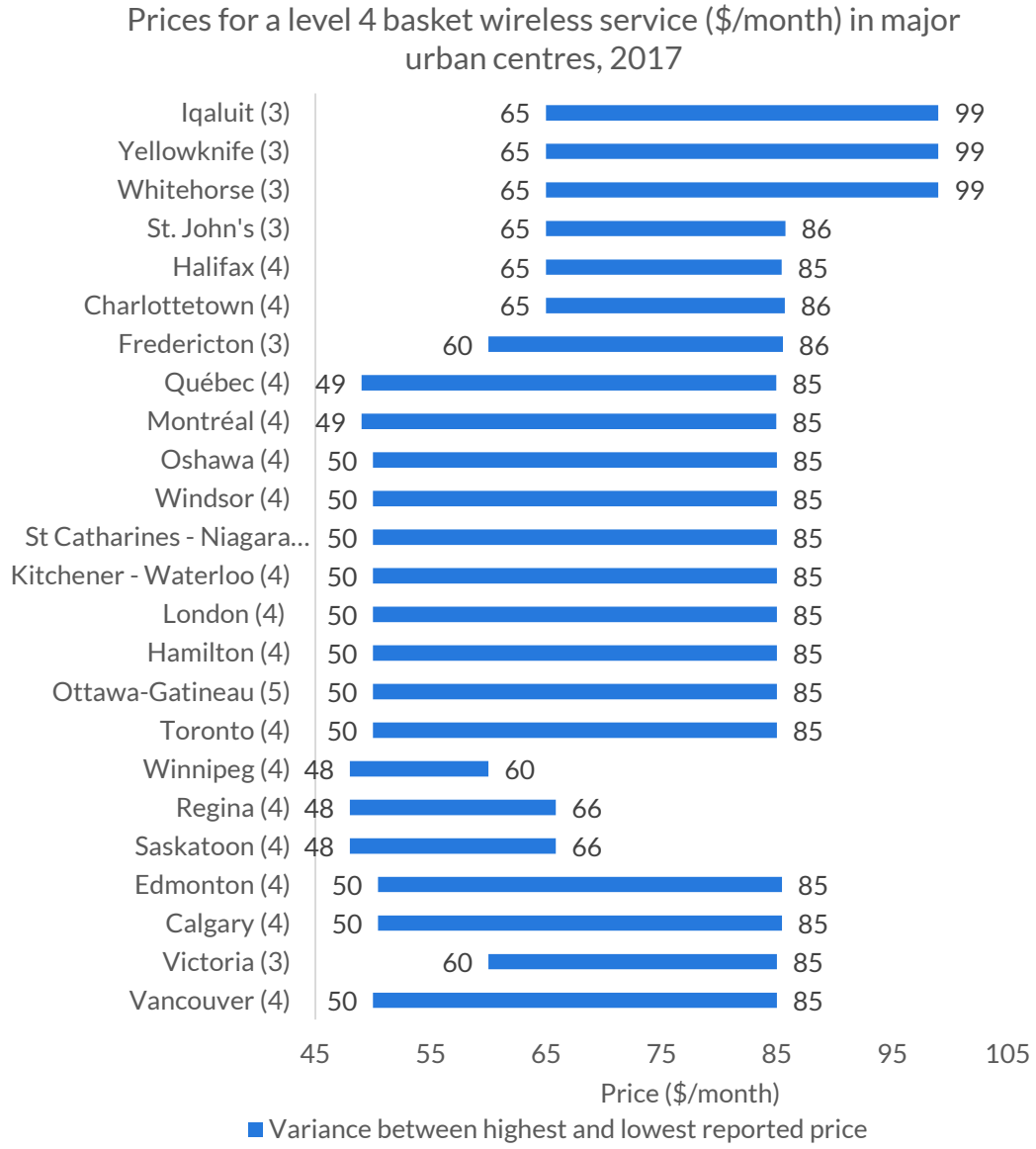
Source: CRTC data collection

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

The lowest price in urban centres ranged from $48 in Manitoba and Saskatchewan, with Québec not far behind at $49, to $65 in the North and the Atlantic provinces (although there was a service offering at $60 in Fredericton).

Pricing was the most consistent in Manitoba and Saskatchewan, where service offerings ranged from $48 to $66. Overall, prices for level 4 services ranged from $48 to $99, with the largest difference observed in Québec and Montréal, where prices ranged from $49 to $85 (a difference of $36).

Figure 2.17 Prices for a level 4 service ($/month) and number of companies providing the service in major urban centres, 2017



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 4 service basket, for which the average lowest and highest prices were slightly lower in rural communities. Within the level 4 service basket, rural communities in several Atlantic Canada provinces and the three territories had access to reported lower prices compared to urban centres.

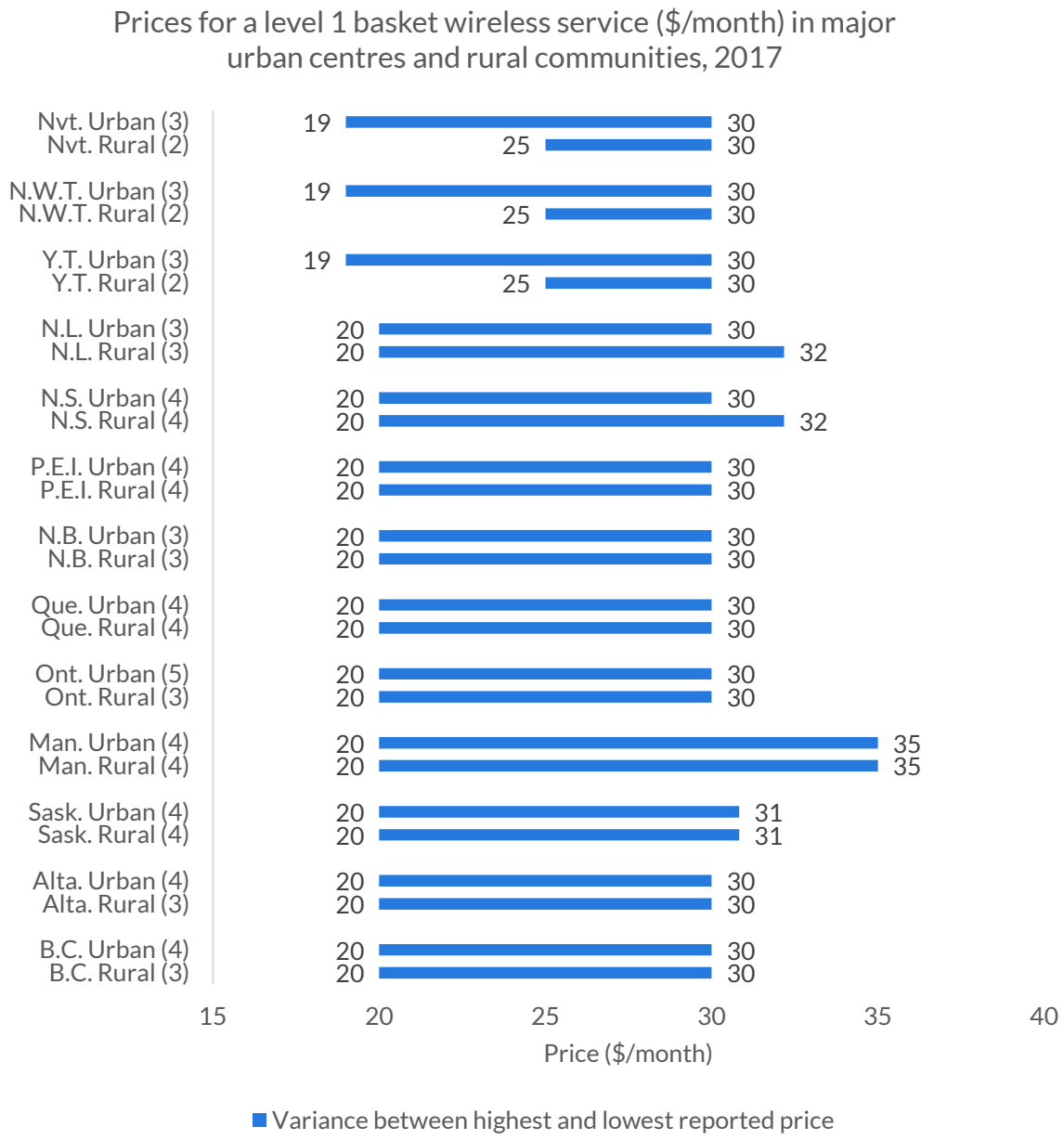
The average differences between the lowest and highest prices were slightly lower in rural communities than in urban centres for the level 3 and 4 service baskets, while the level 1 and 2 service baskets reported the same average price differences. The average price differences between the lowest and highest prices for level 1, 2, 3, and 4 service baskets were $10, $14, $19, and $25, 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 the North, where prices were $6 higher in rural communities ($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 $19, offered in the North.

Figure 2.18 Prices for a level 1 service ($/month) and number of companies providing the service in urban centres and rural communities, 2017



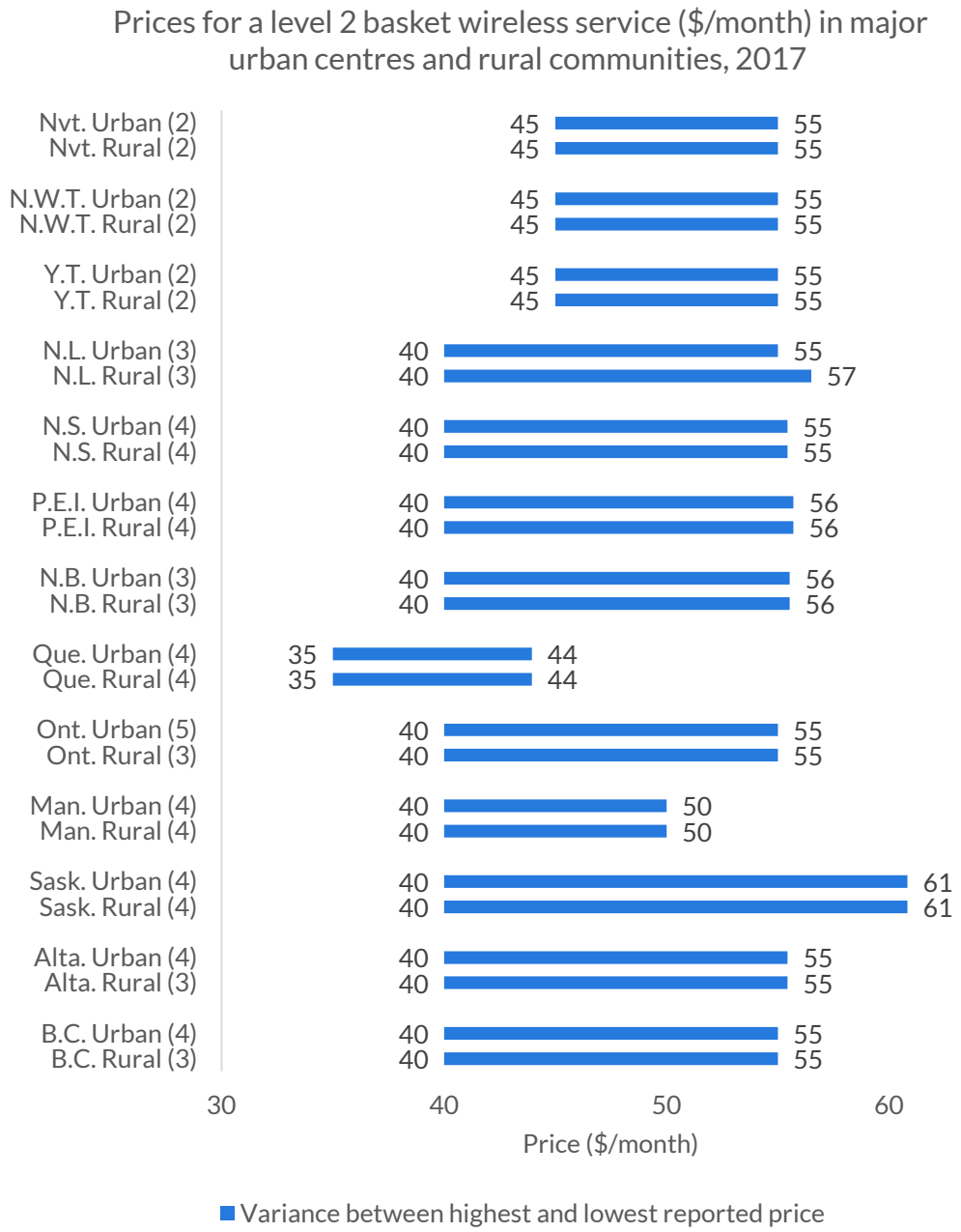
Source: CRTC data collection

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.

The lowest price for a level 2 service was in Quebec ($35), followed by all the other provinces ($40) and the North ($45).

Figure 2.19 Prices for a level 2 service ($/month) and number of companies providing the service in urban centres and rural communities, 2017



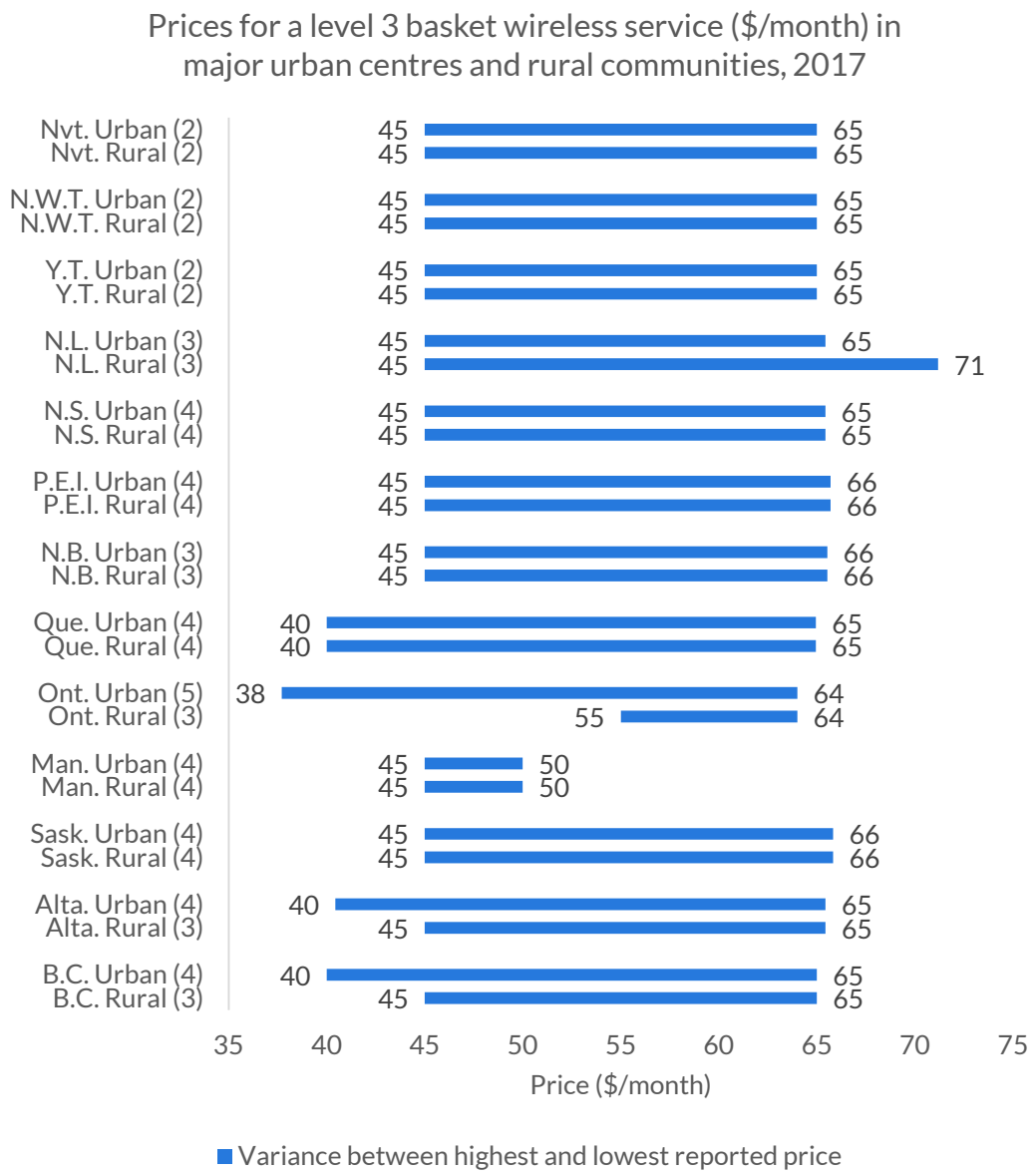
Source: CRTC data collection

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, where the lowest price in urban centres was $27 lower than the lowest price in rural communities. In other provinces, the difference between the lowest prices in urban centres compared to rural communities ranged from $0 (the North, the Atlantic provinces, Quebec, Manitoba and Saskatchewan) to $5 (Alberta and British Columbia).

In rural communities, prices for level 3 services ranged from $40 in Quebec to $55 in Ontario, while in most provinces and in the territories, prices started at $45.

Figure 2.20 Prices for a level 3 service ($/month) and number of companies providing the service in urban centres and rural communities, 2017



Source: CRTC data collection

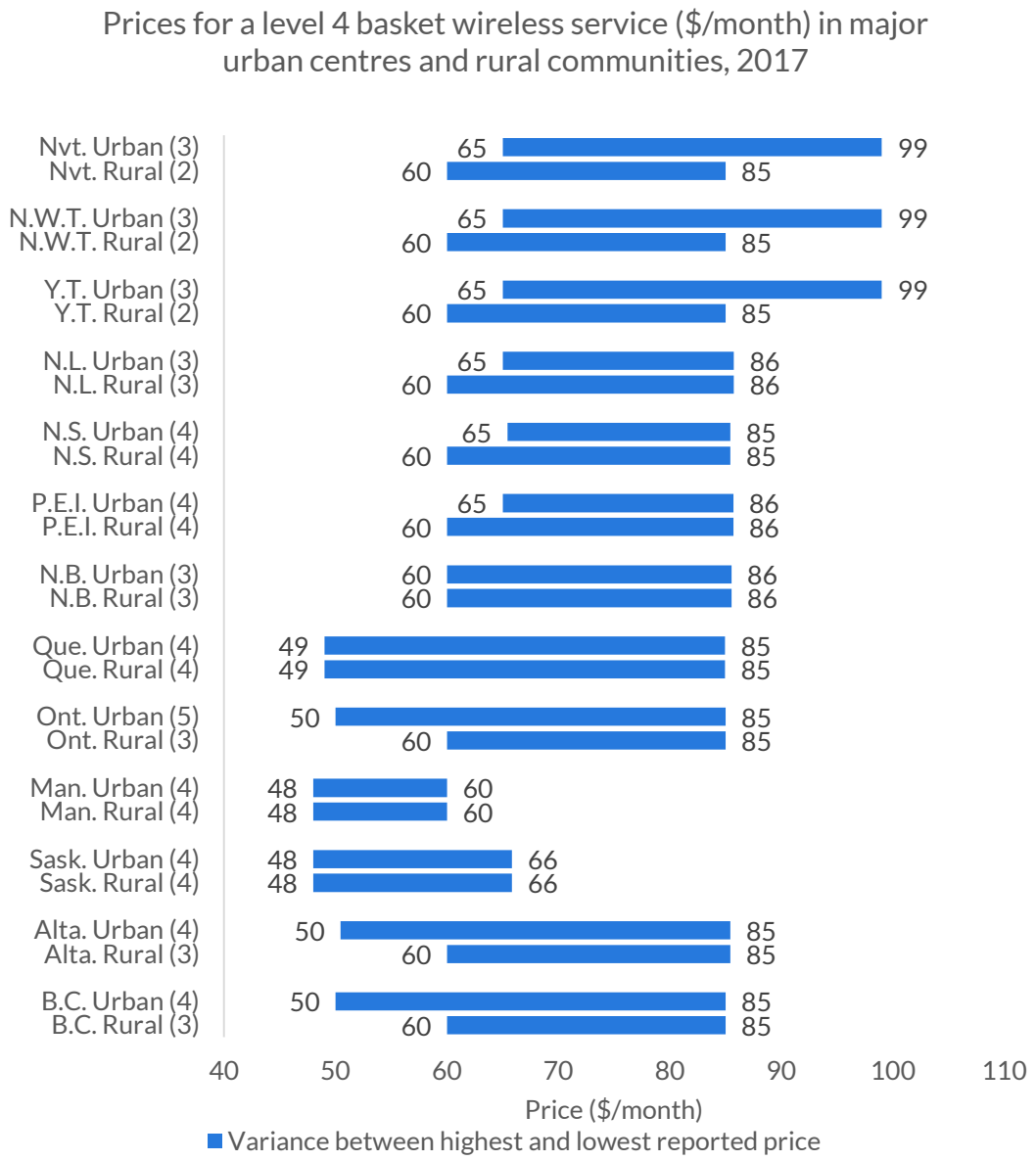
Level 4 services – unlimited voice and SMS, 5 GB of Internet data

The differences in prices for level 4 services between urban centres and rural communities varied from $0 in New Brunswick, Quebec, Manitoba and Saskatchewan to $10 in Ontario, Alberta and British Columbia, while in the other provinces and in the territories, the difference was $5.

While services are generally more expensive in rural communities, the opposite was the case in the North, Newfoundland and Labrador, Nova Scotia and Prince Edward Island, where lower prices for level 4 services were available in rural communities compared to urban centres.

The lowest prices for level 4 services in rural communities ranged from $48 in Manitoba and Saskatchewan to $60 in the North, the Atlantic provinces, Ontario, Alberta and British Columbia.

Figure 2.21 Prices for a level 4 service ($/month) and number of companies providing the service in urban centres and rural communities, 2017



Source: CRTC data collection

v. Appendix

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. Catherines-Niagara
	Windsor
	Oshawa
Quebec	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		Rock Island
	Evansburg		Saint-Honoré (Témiscouata)
	Glendon	**New Brunswick**	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		Wedgeport
	La Broquerie	**Newfoundland and Labrador**	Burin
	Norway House		Harbour Main
	Pine Falls		New Harbour
	Southport	**Yukon**	Dawson City
Ontario	Bayfield		Mayo
	Ripley	**Northwest Territories**	Fort Simpson
	Bancroft		Fort Smith
	Echo Bay	**Nunavut**	Cape Dorset
	Emsdale		Igloolik

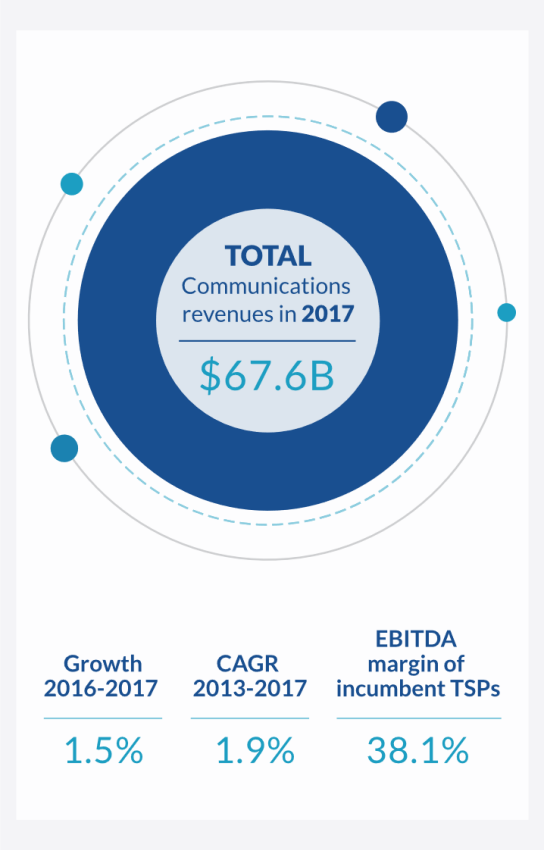
Communications Monitoring Report 2018

Communications Industry Overview: Telecommunications and Broadcasting

Communications Industry Overview: Telecommunications and Broadcasting

i. Overview

Infographic 3.1



Source: CRTC data collection

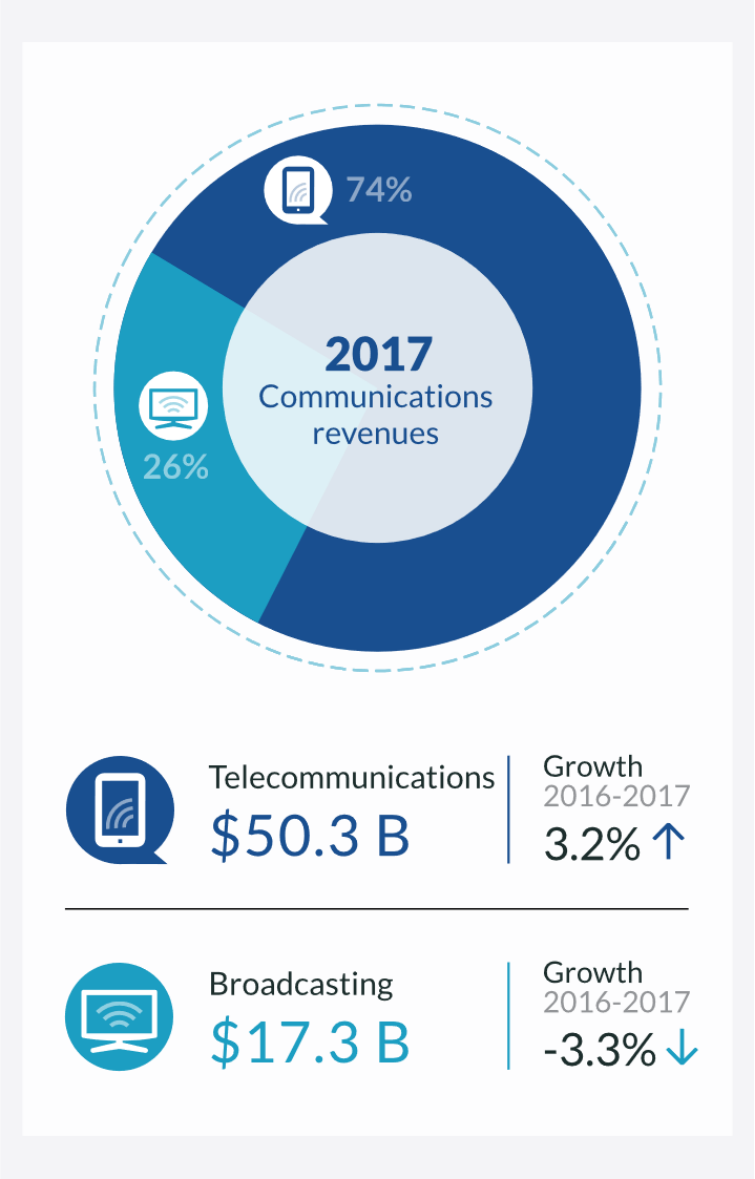
This section gives an overview of the communications industry from 2013 to 2017, and highlights pertinent revenue trends and key industry characteristics. The communications industry encompasses both the broadcasting and telecommunications market sectors. The data presented in this section is retrieved from CRTC sources.

In 2017, the communications industry made a total of $67.6 billion in revenues.[25] This represents an overall growth of 1.5% from 2016, and an average annual growth of 1.9% since 2013. Additionally, it is worth noting that EBITDA [earnings before interest, taxes, depreciation and amortization] margins of incumbent telecommunications service providers (TSPs) dropped for the first time since 2014, to 38.1% (from 39.1% in 2016). 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 2018 *Communications Monitoring Report (CMR)*.

[25] Broadcasting data includes reported revenues for commercial services and the Canadian Broadcasting Corporation (CBC), but excludes non-commercial and over-the-top (OTT) service data.

ii. Revenues

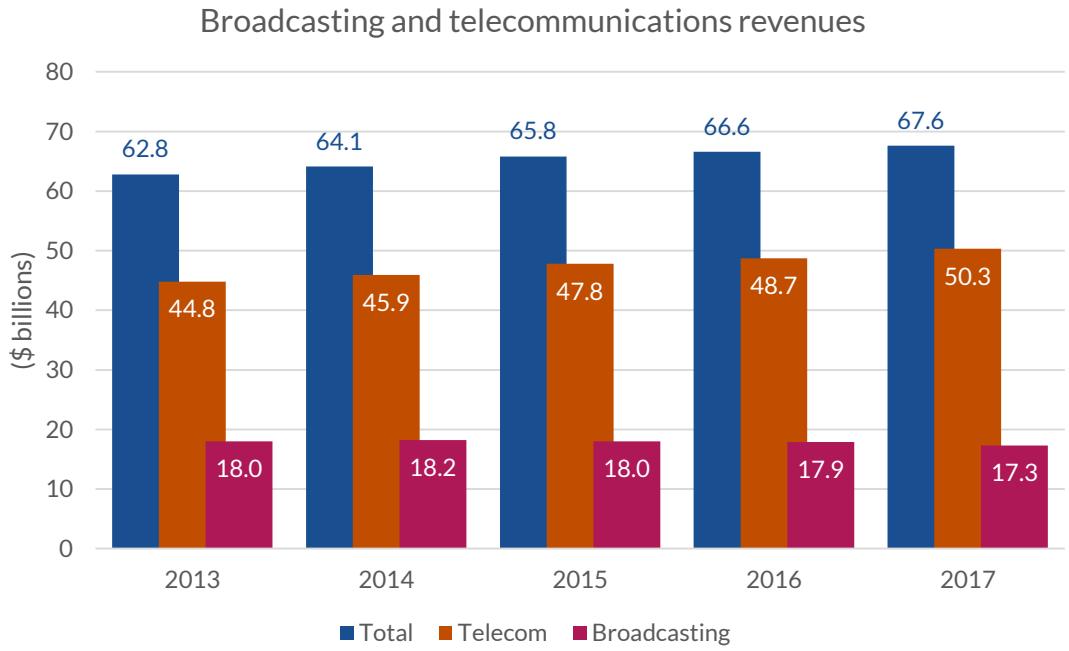
Infographic 3.2



Source: CRTC data collection

Revenues are one of the principal means by which to measure the performance of the communications industry. In 2017, communications revenues reached $67.6 billion, see Figure 3.1. Overall, telecommunications revenues consistently increased over the five-year period from 2013 to 2017, which is reflected in total communications revenues' year-over-year growth. Broadcasting revenues, however, gradually decreased from 2014 to 2017 (see Figure 3.2).

Figure 3.1 Broadcasting and telecommunications revenues

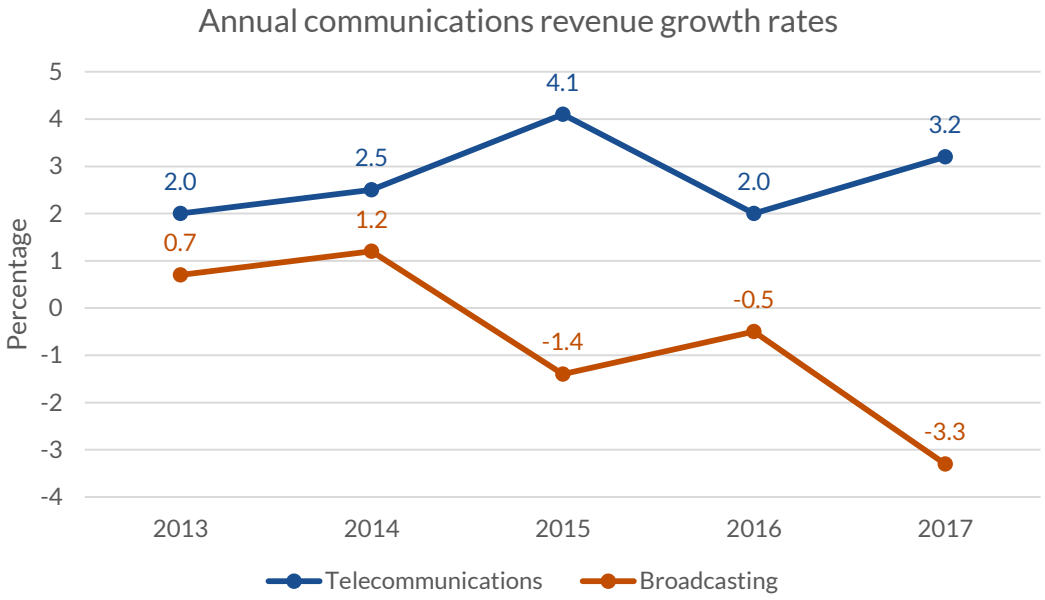


Source: CRTC data collection

This figure shows revenues from 2013 to 2017 for TSPs and broadcasters (including all Canadian Broadcasting Corporation (CBC) revenues and broadcasting distribution undertakings (BDU) revenues).

As seen in the figure above, total revenues increased each year from 2013 to 2017. From 2014 to 2017, the growth came exclusively from the Telecommunications sectors.

Figure 3.2 Annual communications revenue growth rates



Source: CRTC data collection

Annual revenue growth rates are an indicator of overall broad trends in the communications industry. This graph shows annual revenue growth rates for the telecommunications and broadcasting sectors from 2013 to 2017.

Revenue growth rates followed a similar pattern in both sectors from 2013 to 2014; however, revenue patterns began following opposing trends in 2014. For instance, in 2017, broadcasting revenue growth rates dropped to -3.3%, whereas telecommunications revenue growth rates rose to 3.2%.

Infographic 3.3

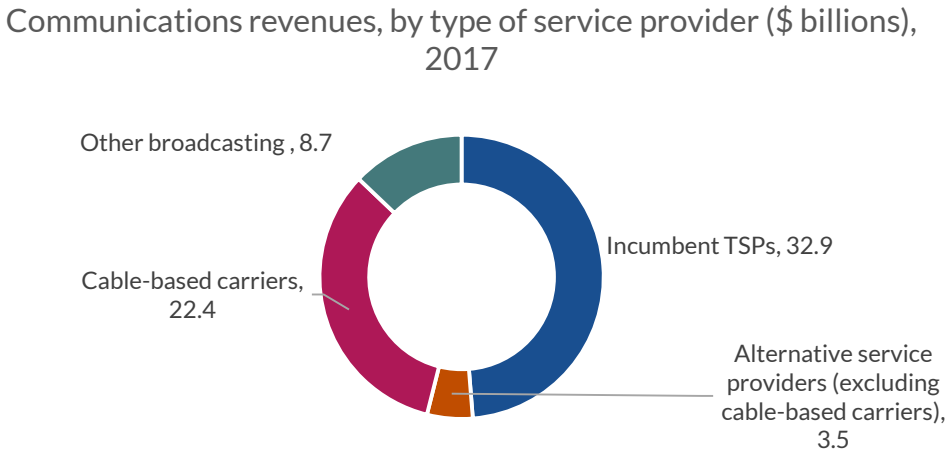
Source: CRTC data collection[26] [27] [28]

This infographic excludes revenues generated from discretionary and on-demand television services as well as direct-to-home (DTH) BDU (satellite television) services, because those services are licensed as national services. Those services generated $4.4 billion and $2.0 billion, respectively, in 2017. 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 $37 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. Ontario accounted for 40% of national revenues, leading the country with the highest revenues.

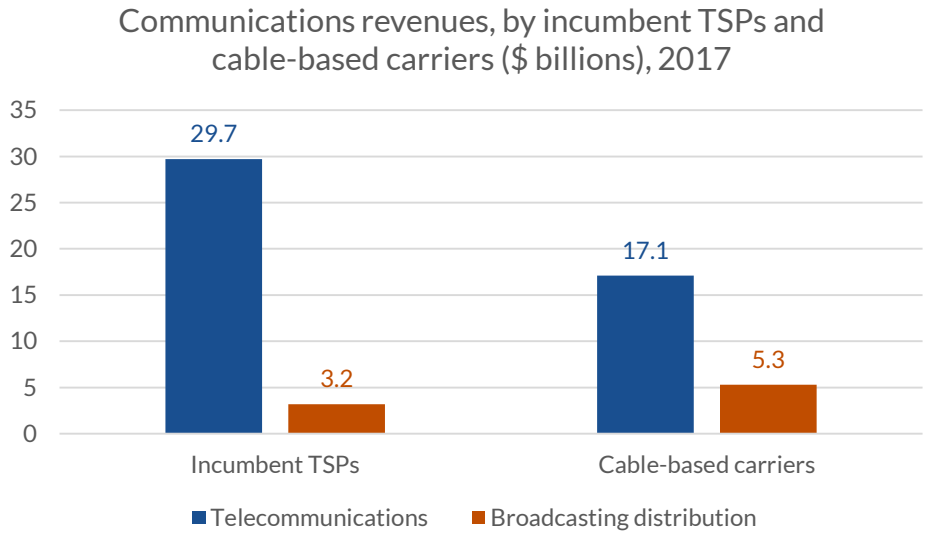
[26] The Atlantic provinces include New Brunswick, Newfoundland and Labrador, Nova Scotia and Prince Edward Island.
[27] The North refers to the Northwest Territories, Nunavut and Yukon.
[28] The Prairies include Alberta, Manitoba and Saskatchewan.

Figure 3.3 Communications revenues, by type of service provider ($ billions), 2017



Source: CRTC data collection

Figure 3.4 Composition of communications revenues, by incumbent TSPs and cable-based carriers ($ billions), 2017



Source: CRTC data collection

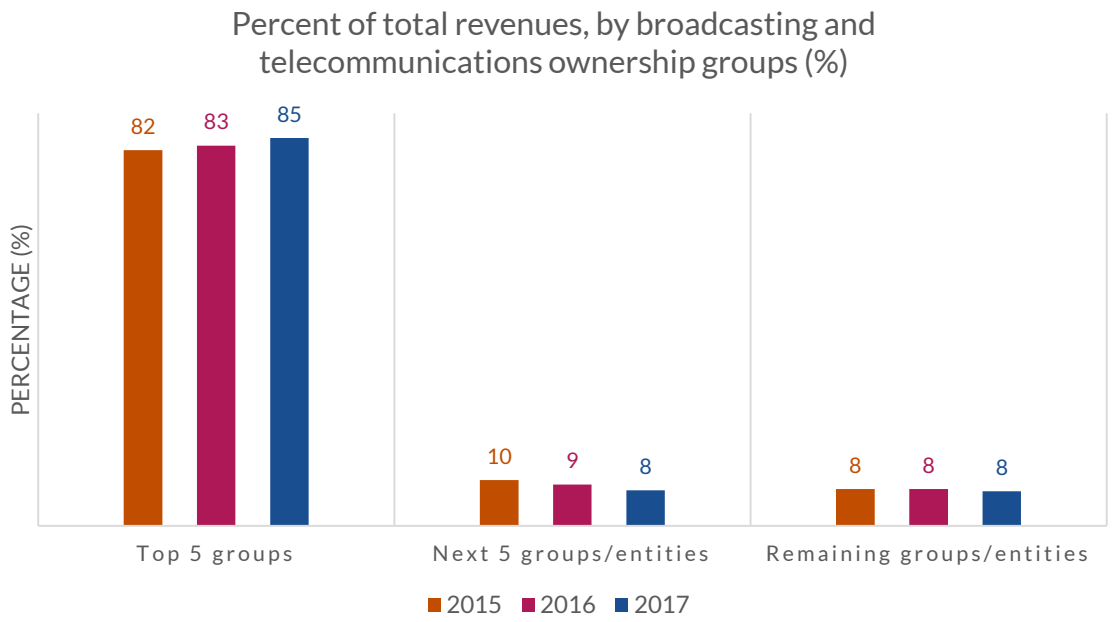
Data includes all communications revenues (wireline and wireless). **Incumbent TSPs** are companies which provided local telecommunications services on a monopoly basis prior to the introduction of competition. **Cable-based carriers** are the former cable monopolies currently providing telecommunications services.

Figure 3.4 compares revenues of the two major types of service providers. Incumbent TSPs and cable-based carriers held the largest portion of total communications revenues (see Figure 3.3). However, the breakdown by sector shows that more than 75% of revenues come from telecommunications services.

From 2013 to 2017, revenues from cable-based carriers and incumbent TSPs, as a percentage of total communications revenues, remained more or less stable at approximately 33% and 49%, respectively. During that period, cable-based carriers' telecommunications revenues increased on average by 5.5% annually, from $13.8 to $17.1 billion. However, during the same period, resellers had the highest growth, with revenues increasing on average by 7.5% annually, from $1.5 billion in 2012 to $2.0 billion in 2017. BDU revenues for cable-based carriers and other broadcasting providers continued to decrease year over year, with an average five-year decline of 3.5% and 1.4%, respectively.

iii. Financial performance

Figure 3.5 Share of total revenues, by broadcasting and telecommunications ownership group (%)

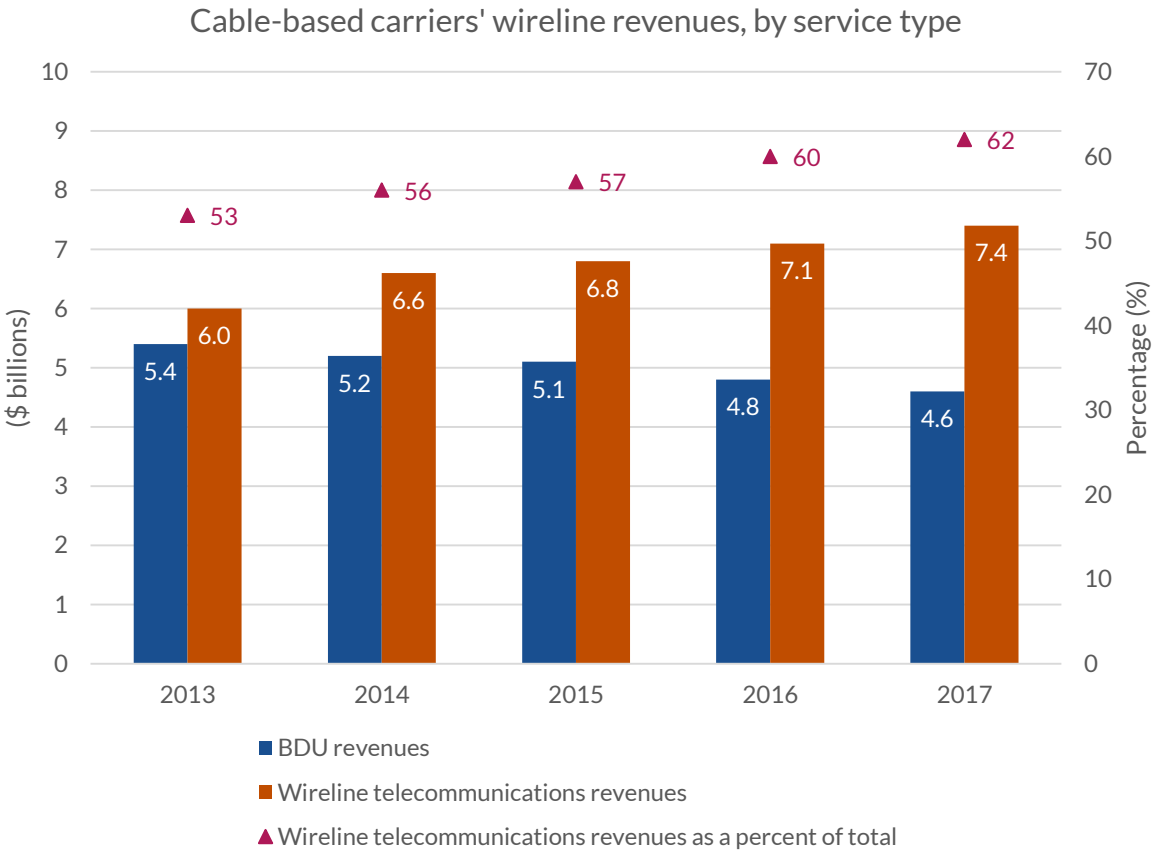


Source: CRTC data collection

Canada's communications services market is dominated by a small number of large ownership groups. The top five groups (Bell, Quebecor, Rogers, Shaw, and TELUS) accounted for approximately 85% of total industry revenues. The next five largest groups/entities accounted for approximately 8%, and all remaining groups/entities accounted for 8%. 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%.

Revenues from the top five ownership groups accounted for approximately 85% of total communications revenues in 2017, compared to 81% in 2013. Of these groups of companies, two are incumbent TSP groups (Bell and TELUS) and three are cable carrier groups (Rogers, Shaw, and Quebecor).

Figure 3.6 Cable-based carriers' wireline revenues, by service type

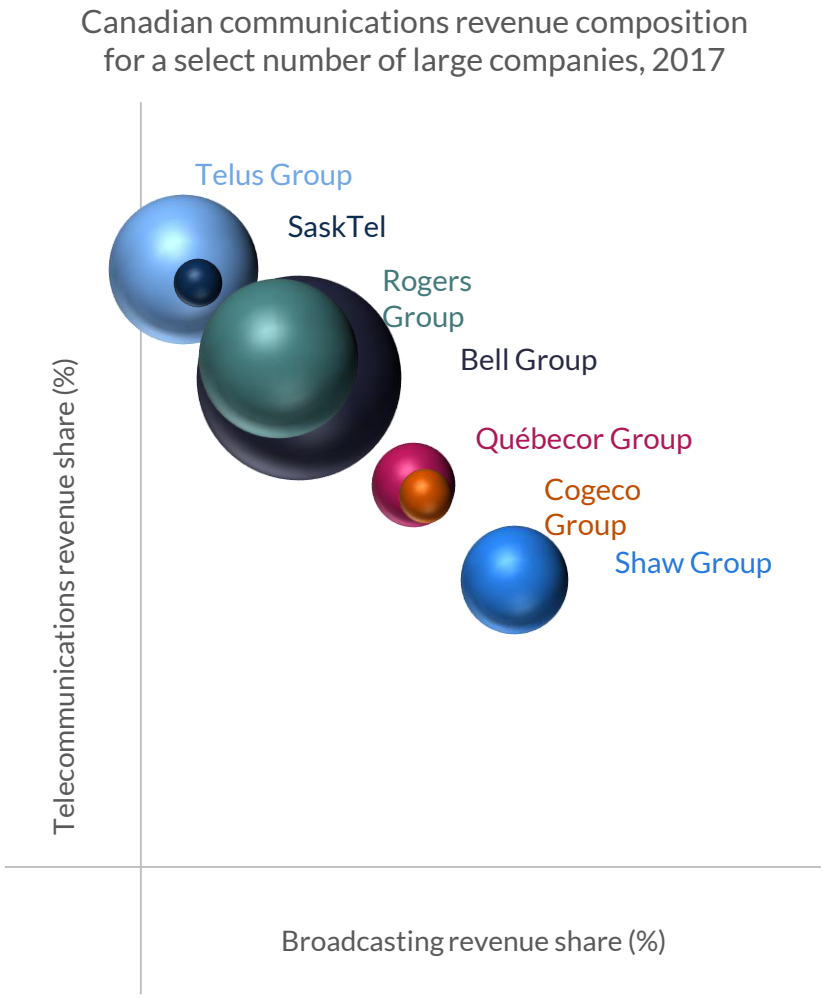


Source: CRTC data collection

This bar graph compares cable-based carriers' wireline revenues from two principal 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 2013 and 2017. This graph excludes revenues from satellite based BDU services and mobile services.

As illustrated, cable-based carriers' wireline telecommunications services are generating an increasingly important share of total revenues. In 2017, wireline telecommunications revenues represented the largest portion (62%) of cable-based carriers' total revenues.

Figure 3.7 Canadian communications revenue composition for select large groups/companies, 2017

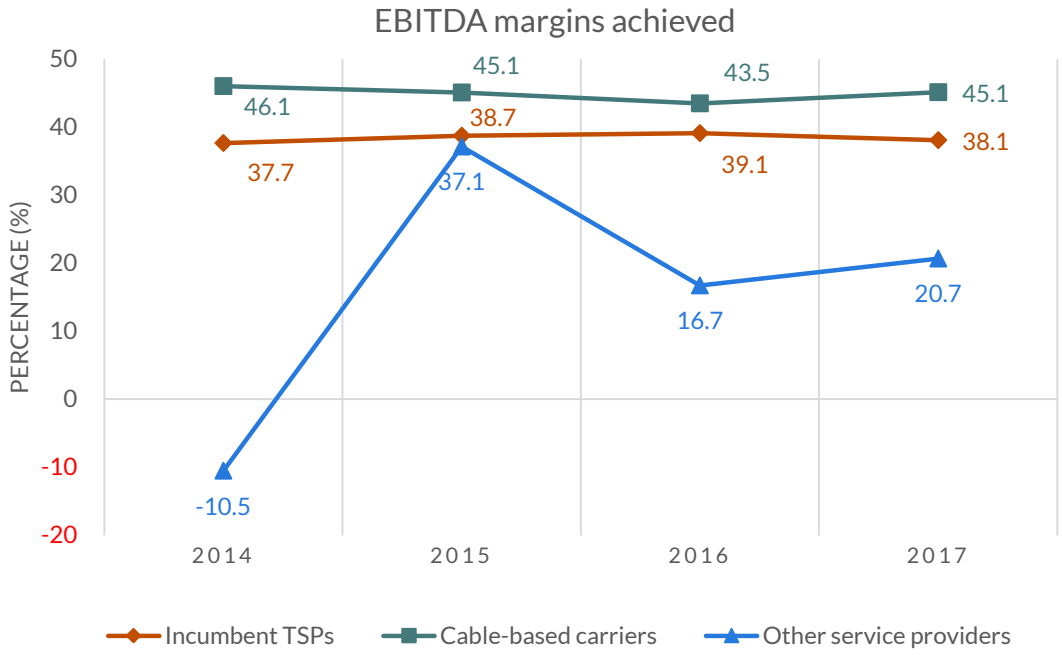


Source: CRTC data collection

Many of Canada's largest communications service providers offer telecommunications services as well as broadcasting services. This graph plots the total revenues of these providers by size (the larger the circle, the greater the company's revenue) and by industry (proximity to an axis indicates a larger share of revenue derived from that industry service).

As seen in Figure 3.7, the Bell Group holds the largest portion of revenues overall, followed by the Rogers Group. The Telus Group has the highest portion of revenues on the telecommunications front and the Shaw Group takes the lead in broadcasting revenue shares.

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



Source: CRTC data collection

This graph shows earnings before interest, taxes, depreciation, and amortization (EBITDA) margins for cable-based carriers, incumbent TSPs, and other service providers (including resellers and other alternative facilities-based service providers) for BDU and telecommunications services for the period from 2014 to 2017. 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 an extreme jump 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; it 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.

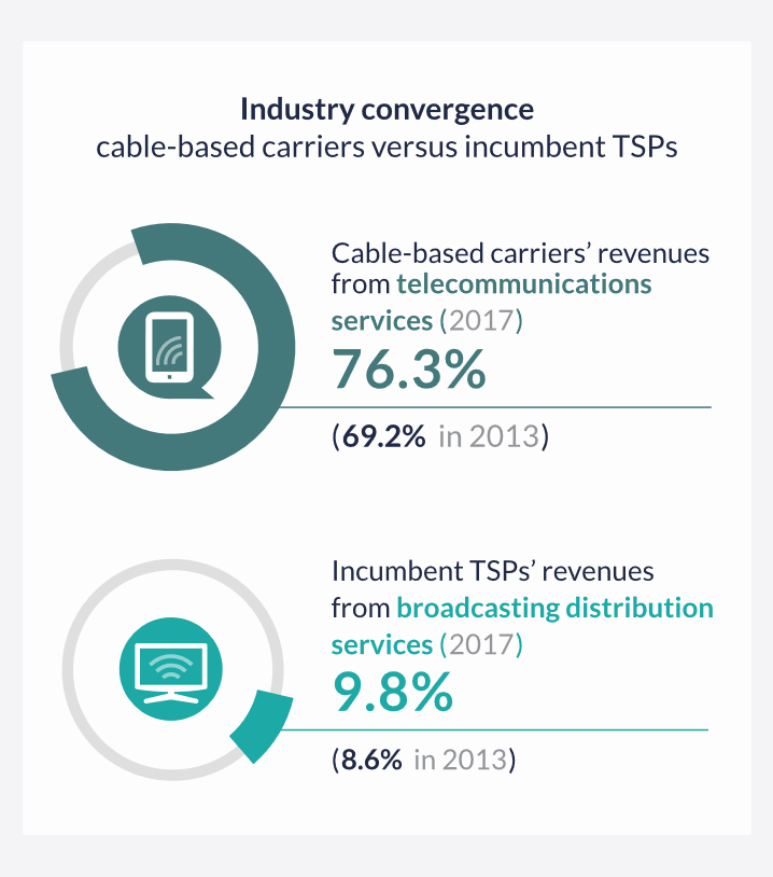
Extraordinary accounting items can include a gain or loss from a sale of assets, a write-off and other non-recurring items.

In 2017, EBITDA margins for other service providers stabilized. EBITDA margins increased for cable-based carriers and decreased for incumbent TSPs for the first time in three years.

iv. Industry characteristics

The communications industry is made up of telecommunications and broadcasting services and each sector outputs a certain degree of revenues. Service providers' revenues are divvied up according to the sector and the largest portion tends to come from telecommunications services. 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 Infographic 3.4, telecommunications services continue to earn cable-based carriers a majority of their revenues, which gradually increase year after year (see Open Data). Telecommunications services include local telephone, long distance, Internet, data and private line, and wireless services. On the contrary, the portion of incumbent TSPs' revenues from broadcasting services decreased in 2017 for the first time in the previous five years. Overall, the figure illustrates one measure of the state of convergence in the industry between 2013 and 2017.

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		
	2015	2016	2017	2015	2016	2017
10	3	3	3	59	60	62
9	0	0	0	0	0	0
8	7	7	6	30	29	29
7	0	2	2	0	0	0
6	2	2	1	0	0	0
5	17	18	16	1	2	1
4	27	35	29	1	1	1
3	39	43	73	4	5	4
2	45	42	47	2	1	1
1	220	212	218	3	2	2

Source: CRTC data collection

The table above shows that three communications service providers 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, and generated 62% of communications revenues. In contrast, 218 providers that offered only one service generated 2% of communications revenues.

The communications industry is still highly integrated, with the vast majority of revenues generated by companies operating in eight or more sectors.

v. Consumer voices

Infographic 3.5

Source: CRTC data collection

The latest reported CRTC complaints data shows that the number of telecommunications-related complaints received decreased by 5% when compared to previous year, while broadcasting-related complaints decreased by 22%. Data on complaints to the CCTS[29] can be found in the Telecommunications Overview.

Table 3.2 Number of broadcasting-related contacts received by the CRTC, by type of issue

Type of contact	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Broadcasting-related contacts	18,272	14,652	14,269	12,898	10,123
Broadcasting-related complaints	12,202	9,778	9,579	8,317	6,879

For the 12-month period from 1 September to 31 August.

Table 3.3 Number of telecommunications-related contacts received by the CRTC, by type of issue

Type of contact	2013	2014	2015	2016	2017
Telecommunications-related contacts	25,153	27,077	23,453	18,243	16,805
Telecommunications-related complaints	18,624	19,818	16,613	11,724	11,142

For the 12-month period from 1 January to 31 December.

[29] CCTS refers to the Commission for Complaints for Telecom-television Services

Table 3.4 Number of communications-related contacts received by the CRTC, by type of issue

Type of contact	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Electronic commerce-related submissions (Spam Reporting Centre)	N/A	264,821	291,145	373,943	343,799
Telecommunications-related complaints (Unsolicited Telecommunications Rules)	113,641	107,293	129,984	79,417	95,978

For the 12 month period from 1 April to 31 March.

The Spam Reporting Centre (SRC) began collecting data in July 2014.

For detailed information on Unsolicited Telecommunications Rules (UTR) complaints, see the National Do Not Call List (DNCL) report.

Source: CRTC correspondence tracking system, Spam Reporting Centre, and Unsolicited Telecommunications Rules database

Contacts refers *to the* total number of cases (comments, questions, complaints, campaigns, and petitions) that were assigned to and dealt with by Client Services across Canada. **Complaints** refers to a consumer lodging a complaint, expecting feedback and resolution. **Submissions** refers to the total number of submissions and reports from Canadians sent to the Spam Reporting Centre.

The CRTC tracking system counts multiple communications from the same client regarding the same complaint as separate units; therefore, the number of actual complaints received may be slightly lower.

Communications Monitoring Report 2018

Telecommunications Overview

Telecommunications Overview

The Telecommunications Overview provides a glimpse into various aspects of telecommunications in Canada. Section i: The competitive landscape provides a description of the entities supplying telecommunications services; Section ii: Telecommunications sectors provides revenue details for the six sectors (local and access, long distance, data, private line, fixed Internet and mobile); Section iii: Financial performance reports various metrics such as capital expenditures and earnings before interest, taxes, depreciation and amortization; Section iv: Retail revenue growth sources provides insight into the sources of revenue growth; Section v: Consumer voices highlights customer contacts and Section vi: Sector summaries provides summaries of the six sectors, with longer-form descriptions available in subsequent sections of the 2018 *Communications Monitoring Report* (for retail fixed Internet and retail mobile).

Unless otherwise noted, the first three sections deal with total revenues (retail plus wholesale), while Section vi: Sector summaries deals with retail revenues (except for the wholesale section).

i The competitive landscape

Total Canadian telecommunications revenues reached $50.3 billion in 2017 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 4.1

Sector	2017 total revenues	Growth 2016-2017
Local and access	$7.1 B	↓ 2.4%
Long distance	$1.5 B	↓ 14.5%
Data	$3.2 B	↓ 0.3%
Private line	$1.3 B	↓ 4.9%
Fixed Internet	$11.5 B	↑ 7.0%
Mobile	$25.8 B	↑ 5.4%
TOTAL telecom-munications revenues	$50.3 B	↑ 3.2%

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 in two broad categories: Incumbent telecommunications service providers (TSPs), i.e. the companies which provided local telecommunications services on a monopoly basis prior to the introduction of competition, and alternative service providers, which encompasses 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 resellers, 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 see Table 4.9 in the appendix for more details.

Infographic 4.2

Type of TSP	2017 total revenue share (%)
Large incumbent TSPs	58.2%
Small incumbent TSPs	1.0%
Cable-based carriers	34.0%
Other service providers	3.2%
Resellers	3.6%

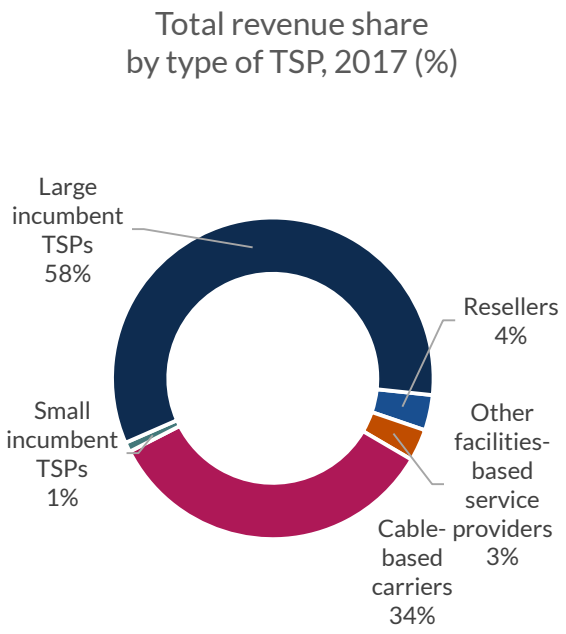
Source: CRTC data collection

Grouping companies in order to include their affiliates, the five largest providers of telecommunications services accounted for 87% of total revenues in 2017. These company groups are Bell, Quebecor, Rogers, Shaw and TELUS, and 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 as revenues grow, 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 the growth of the revenue share of Canada's largest providers.

Generally, since 2013, the incumbent TSPs' (large and small) share of revenues has been declining by about one percentage point per year, to 59% in 2017.

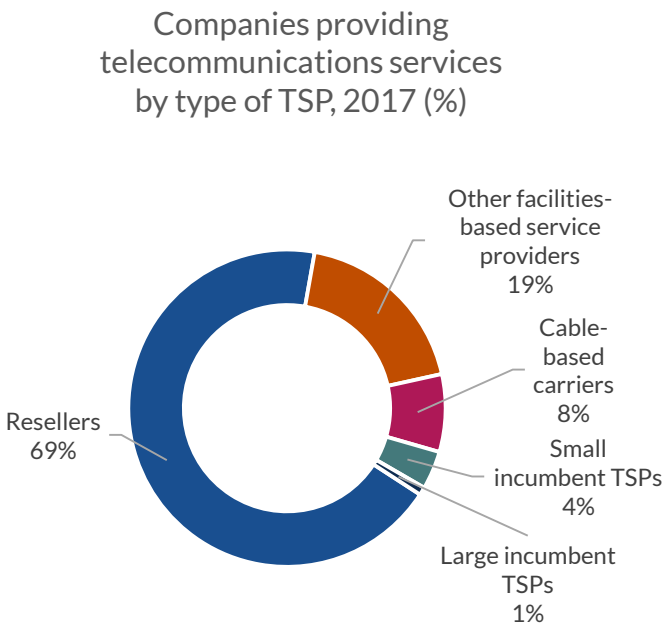
While the large incumbent TSPs represented only 1% of the number of telecommunications providers[30] in 2017, they generated 58% of revenues. The cable-based carriers made up 8% of the total number of companies and generated 34% of revenues. With relatively low barriers to entry, especially in the long distance sector, resellers comprised nearly 69% of service providers while generating only 4% of revenues.

Figure 4.1 Total revenue share by type of TSP, 2017 (%)



Source: CRTC data collection

Figure 4.2 Companies providing telecommunications services by type of TSP, 2017 (%)



Source: CRTC data collection

[30] 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:

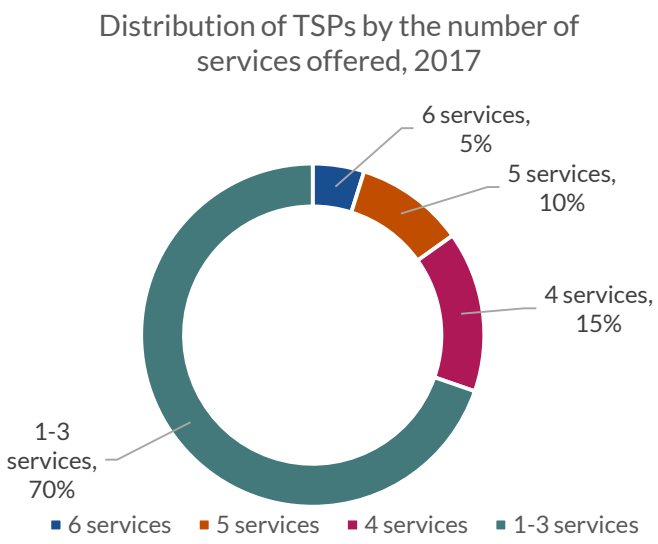
Infographic 4.3 Telecom sectors and revenue shares

Type	Sub-type	Sector	2013 total revenue share (%)	2017 total revenue share (%)
Wireline	Wireline voice	**Local and access**	**18.7**	**14.1**
		Long distance	5.3	3.0
	Wireline data	Data	5.0	6.3
		Private line	5.6	2.5
		Fixed Internet	**18.2**	**22.9**
Mobile	Mobile voice and data	**Mobile**	**47.2**	**51.2**

Source: CRTC data collection

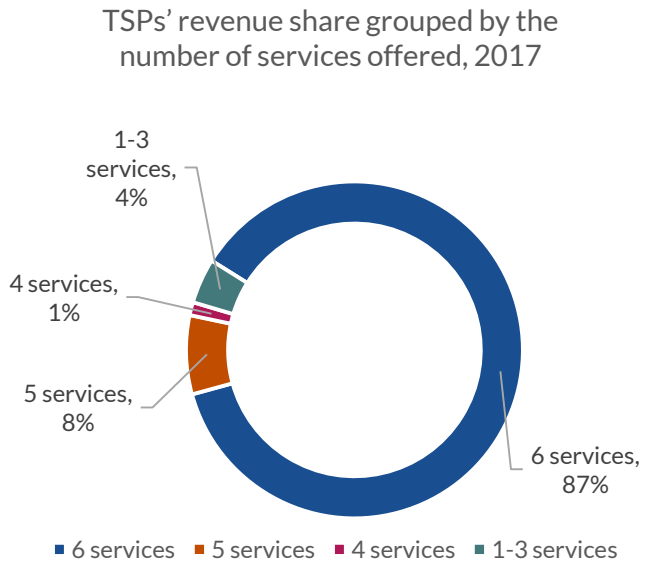
In 2017, eight companies offered services in all six telecommunications sectors, accounting for 86% of total telecommunications revenues in Canada. These large, facilities-based entities tend to offer a wider array of services than their smaller counterparts. At the other end of the spectrum, companies providing one to three services generally offered Internet access, local, or long distance phone services. These smaller entities, often resellers, represented 70% of the number of TSPs, but garnered 4% of telecommunications revenues in 2017.

Figure 4.3 Distribution of TSPs by the number of services offered, 2017



Source: CRTC data collection

Figure 4.4 TSPs' revenue share grouped by the number of services offered, 2017



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 4.4

Category	Description of service	Type of TSP	2017 total revenue share (%)
 Retail	Services provided directly to the end-user	Retail services are generally provided by all TSPs	92
 Wholesale	Services provided by one TSP to another, then to the end-user	Wholesale services are provided by facilities-based TSPs	8

Source: CRTC data collection

Retail revenues accounted for 92% of total telecommunications revenues in 2017, a percentage that remained constant over the 2013-2017 period. 95% of mobile revenues were generated from retail services, compared to 89% for wireline, numbers that have remained virtually unchanged since 2013.

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 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 retails 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 4.1 Percentage of telecommunications revenues generated by forborne services

Sector	2013	2014	2015	2016	2017
Local and access	78	79	80	82	83
Long distance	99	98	98	98	98
Fixed Internet	97	97	96	97	97
Data	91	96	96	96	96
Private line	71	71	71	72	72
Mobile	100	100	100	100	100
Overall	94	94	95	95	96

Source: CRTC data collection

Since 2013, approximately 96% of telecommunications revenues have been generated from forborne services. In 2017, the percentage of revenues derived from forborne services ranged from a low of 83% in local and access to a high of 100% in mobile.

Revenues – Canadian ownership

Section 16 of the *Telecommunications Act* addresses the eligibility of Canadian companies to operate as telecommunications common carriers.

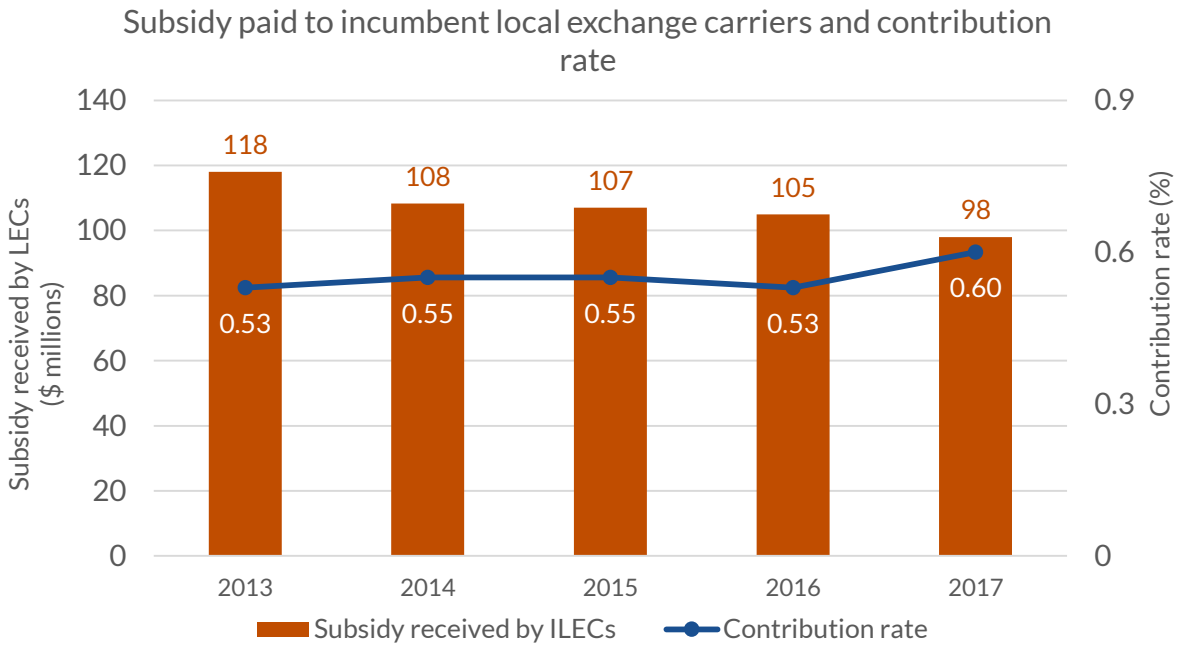
Subject to certain exceptions, section 16 requires that telecommunications companies that own or operate telecommunications transmission equipment and have Canadian telecommunications revenues greater than $5 billion (i.e. 10% of total Canadian telecommunications revenues) be Canadian-owned and controlled.

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 $50.3 billion in 2017.

Revenues – Contribution

The total amount of subsidies paid to local exchange carriers (LECs) was $98 million in 2017, down from $105 million (7.1%) in 2016.

Figure 4.5 Subsidy paid to incumbent local exchange carriers and contribution rate



Sources: CRTC data collection and decisions

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 other parts of an incumbent LEC's territory. HCSAs are often remote areas or rural areas. In 2017, 32 companies received subsidies (unchanged from 2016).

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

Infographic 4.5

Metric	Category	2013	2017
Capital expenditures ($ billions)	Wireline	$6.9 B	$9.7 B
	Mobile	$2.0 B	$2.3 B
Capital intensity (%)	Mobile providers	9.8%	9.1%
	Incumbents TSPs	33.0%	42.8%
	Cable-based carriers and other facilities-based services	26.8%	47.2%
EBITDA margin (%)	Wireline	32.9%	37.0%
	Mobile	43.3%	$39.5 M
Investment in spectrum ($ millions)	Mobile	$277.4 M	$442.4 M

Source: CRTC data collection

Capital expenditures and capital intensity

Capital expenditures, or CAPEX, are major investments made primarily to maintain or upgrade telecommunications networks. In 2017, TSPs with over $100 million in revenues spent $12.1 billion on capital expenditures, $9.7 billion of which was spent on wireline networks.

While wireline capital expenditures grew at an annual rate of 9% over the 2013-2017 period, the large incumbent TSPs' share of CAPEX declined from 71% in 2013 to 60% in 2017, as the cable-based carriers' share correspondingly increased from 28% in 2013 to 38% in 2017.

Capital intensity (the ratio of capital expenditures to revenues) was on the rise for the incumbent TSPs and cable-based carriers, going from about 30% in 2013 to 45% in 2017. In contrast, mobile providers were in the 10% range over the 2013-2017 period.

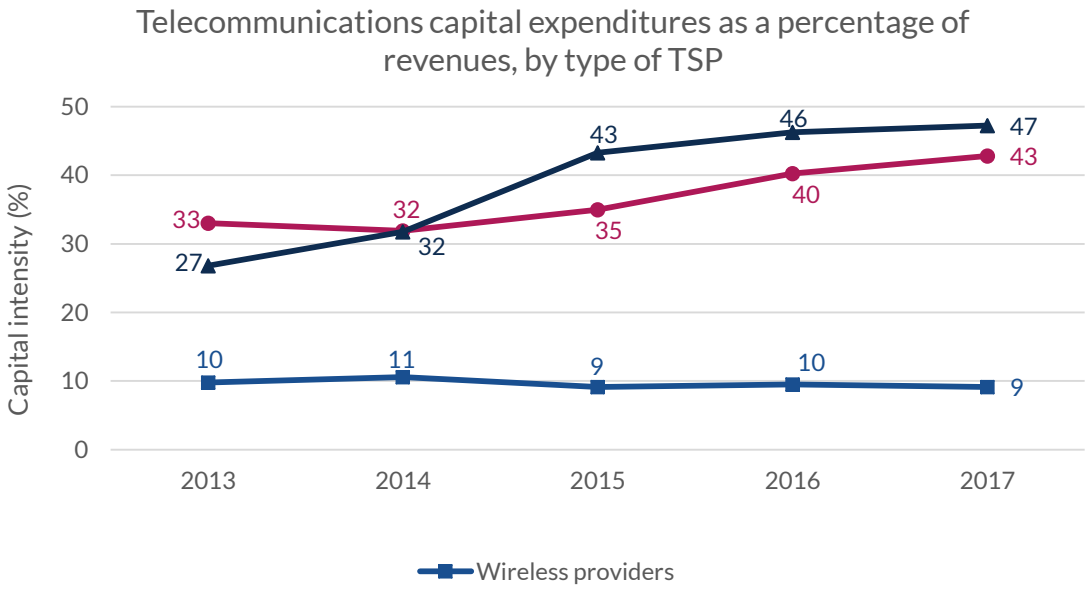
At 40%, capital intensity for telecommunications in 2017 was second only to utilities at 79.2% (and well above the all-industries average of 6.6%) due to the requirement to maintain and upgrade extensive network infrastructure.

Infographic 4.6 Capital intensity for industries with the highest capital intensity ratios for 2017

Industry	Capital intensity (%)
Utilities	79.2
Telecommunications	**40.0**
Mining, quarrying, and oil and gas extraction	27.8
Educational, health care and social assistance services	26.1
Transportation and warehousing	16.2
Arts, entertainment and recreation	15.8
Real estate and rental and leasing	11.7
Information and cultural industries	10.5
Agriculture, forestry, fishing and hunting	8.7
Accommodation and food services	4.0
Average of all industries	**6.6**

Source: CRTC data collection and Statistics Canada Tables 34-10-0035-01 and 33-10-0007-01

Figure 4.6 Telecommunications capital expenditures as a percentage of revenues, by type of TSP



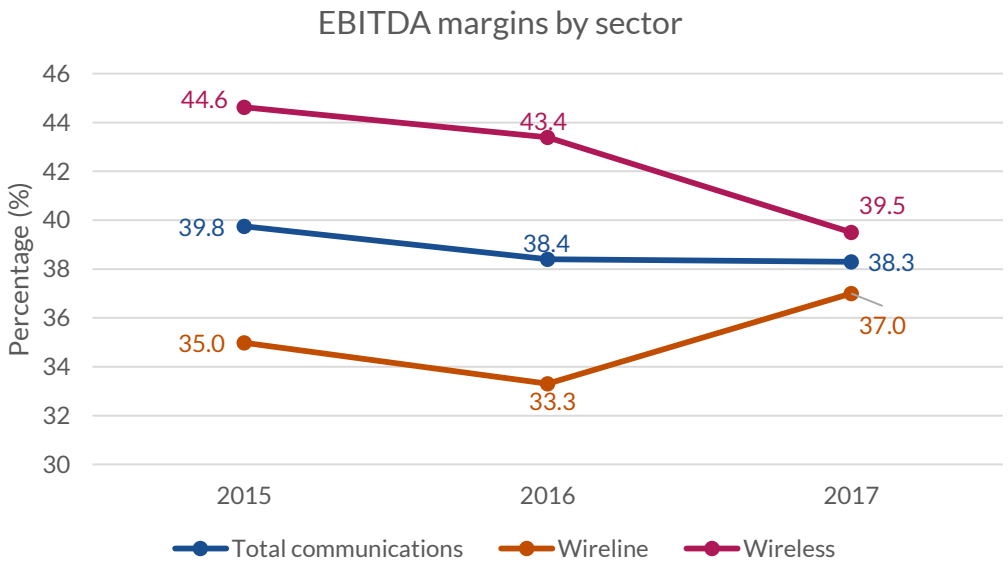
Source: CRTC data collection

Earnings before interest, taxes, depreciation and amortization (EBITDA)

EBITDA margins (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 2014-2017 period, margins for mobile services were consistently above those for wireline, with the difference widening slightly to 10% as mobile margins reached 41% in 2017.

Figure 4.7 EBITDA margins by provider type (%)



Source: CRTC data collection

Over the 2014-2017 period, EBITDA margins were quite stable at 45% for the cable-based carriers and 38% for the incumbents.

Investment in spectrum

Annual investments in spectrum from 2013 to 2016 were $0.28 billion, $5.26 billion, $2.96 billion, and $0.15 billion, respectively (to reduce regulatory burden, only TSPs with revenues over $100 million were surveyed). The amounts reported in 2013 reflect investments made mainly by satellite carriers. Investments made from 2014 to 2016 reflect investments made by mobile carriers to acquire AWS-3 (advanced wireless services), 700 megahertz (MHz), and 2500 MHz spectrum.

iv Retail revenue growth sources

Total Canadian telecommunications revenues reached $50.3 billion in 2017, growing by 3.2%, slightly faster than the five-year average annual growth rate of 2.9%. Total retail telecommunications revenues, which represent the vast majority of the telecommunications revenues, totaled $46.3 billion in 2017, growing 3.6% from 2016 to 2017, and 3.0% annually on average from 2013 to 2017.

Infographic 4.7

Sector (2017)	Fixed Internet	Mobile
Retail revenues	$11.0 B	$24.5 B
Retail revenue growth	7.7%	5.3%
Retail subscribers	14.0 M	31.7 M
Retail subscriber growth	3.9%	3.1%

Source: CRTC data collection

In terms of retail revenues, the sources of revenue growth in 2017, and over the 2013-2017 period, were the fixed Internet and mobile sectors, which grew by 7.7% and 5.3%, respectively, in 2017. These sectors accounted for 77% of retail revenues in 2017, compared to 68% in 2013.

Sources of retail revenue growth – Fixed Internet and mobile

Fixed Internet revenues continued to grow as Canadians subscribed to Internet services that contained more data in their monthly allowance.

In 2017, fixed Internet and mobile revenue growth exceeded subscriber growth. Average mobile revenue per subscriber increased from $59.97 in 2013 to $65.33 in 2017 as subscribers used (and paid for) more data, while average residential fixed Internet revenue per subscriber increased from $44.50 in 2013 to $58.49 in 2017.

Additional data and descriptions for fixed Internet and mobile can be found in Sector summaries.

v Consumer voices

In 2016-2017, CRTC Client Services and the Commission for Complaints for Telecom-television Services (CCTS) logged 35,000 communications with Canadians regarding telecommunications services. Of these, 48% were with the CRTC and 52% were with the CCTS. Common reasons for contacting the CRTC in 2017 were related to mobile services (25%), Internet services (22%) and telemarketing (22%). Mobile service billing errors were the subject of 46% of complaints received by the CCTS in 2016-2017, followed by Internet access issues (31%) and local telephone issues (20%).

Infographic 4.8

Mobile and Internet services were the subject of the most contacts when combining CRTC and CCTS data:

- Mobile services were the subject of **36% of all logged communications** with the CRTC and the CCTS.
- Internet services were the subject of **27% of all logged communications** with the CRTC and the CCTS.

Source: CRTC data collection, CCTS

What is the CCTS? The CCTS is an independent organization dedicated to resolving customer complaints about telecommunications and television services. Its structure and mandate were approved by the CRTC. The CCTS handles complaints about most telecommunications services provided to individuals and small businesses, including home telephone, mobile, Internet, and VoIP services. The CCTS is also responsible for administering the Wireless Code. Additional information on the CCTS can be found at www.ccts-cprst.ca

Table 4.2 Number of telecommunications-related contacts received by the CRTC by type of issue and subject, 2017

Subject	CRTC policies/ decisions	Billing/rates	Quality of service	Provision of service	Terms of service	Other	Total
Telecommunications services	1,505	1,151	1,258	214	264	123	4,515
Mobile services	895	1,196	1,236	151	726	39	4,243
Internet services	1,234	581	1,119	478	228	40	3,680
Telemarketing	3,579	7	4	0	0	69	3,659
Incumbent TSPs	63	167	120	12	78	1	441
Competitive local exchange carriers	23	30	30	5	30	2	120
VoIP services	22	11	18	12	6	0	69
Alternative providers of long distance service	10	12	8	2	8	0	40
Pay telephone services	6	11	16	4	0	1	38
Total	**7,336**	**3,166**	**3,809**	**878**	**1,340**	**275**	**16,805**

Source: CRTC correspondence tracking system

Table 4.3 Summary of issues raised in telecommunications complaints handled by the CCTS (2016-2017)

Service	Billing error	Contract dispute	Service delivery	Credit management	Total
Mobile	3,826	2,907	1,368	442	8,543
Internet	2,156	2,009	1,454	144	5,763
Local telephone	1,356	1,491	815	104	3,766
Long distance	204	79	80	5	368
Directory assistance	6	1	-	-	7
White page directories	1	-	-	-	1
Operator services	-	-	-	-	-
Total	**7,549**	**6,487**	**3,717**	**695**	**18,448**

Source: CCTS annual report

vi Sector summaries

Retail mobile sector

Infographic 4.9

Mobile– Retail	2013	2017
Revenues ($ billions)	$20.2 B	$24.5 B
Subscribers (millions)	28.4 M	31.7 M
Annual revenue growth (%)	3.4%	5.3%
Revenue CAGR 2013-2017 (%)	n/a	4.9
Canadians with access to LTE-A (%) 2016, 2017	83% (2016)	92%
Major roads and highways covered by LTE (%)	n/a	86%
Subscribers with data plans (%)	62%	83%
Average monthly data usage (GB)	0.96 GB (2014)	2.0 GB
Monthly ARPU ($)	$59.97	$65.33
Blended prepaid/postpaid average churn rate of Canada's Top 3 mobile service providers (%)	1.6%	1.3%

Source: 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 numbers of customers that have cancelled service in a month by the total number of subscribers for that service provider.

Table 4.4 Retail mobile and paging service revenue components ($ millions)

Component	2013	2014	2015	2016	2017	Growth (%) 2016-2017	CAGR[31] (%) 2013-2017
Basic voice	8,818.7	8,665.5	8,689.0	8,834.3	9,219.7	4.4	1.1
Long distance	1,160.3	880.4	656.1	547.0	481.9	-11.9	-19.7
Paging	18.4	17.3	12.6	11.1	8.9	-19.5	-16.6
Terminal equipment (including handheld devices)	1,501.5	1,673.7	2,129.8	1,911.1	1,896.1	-0.8	6.0
Data	7,546.1	8,672.6	10,034.9	10,980.5	11,832.4	7.8	11.9
Roaming and other	1,152.8	1,035.7	1,001.9	960.0	1,047.2	9.1	-2.4
Data, roaming, and other – Subtotal	8,698.8	9,708.3	11,036.8	11,940.4	12,879.6	7.9	10.3
Total	**20,197.7**	**20,945.2**	**22,524.3**	**23,243.9**	**24,486.2**	**5.3**	**4.9**

Source: CRTC data collection

With revenues of $24.5 billion, and a 5.3% growth rate compared to 2016, mobile wireless remained the largest sector, representing over 52% of all retail telecommunications revenues in 2017.

Mobile subscribers reached 31.7 million in 2017, with mobile networks covering approximately one-fifth of Canada's geographic land mass and reaching 99% of Canadians. In 2017, advanced wireless networks such

[31] Compound annual growth rate

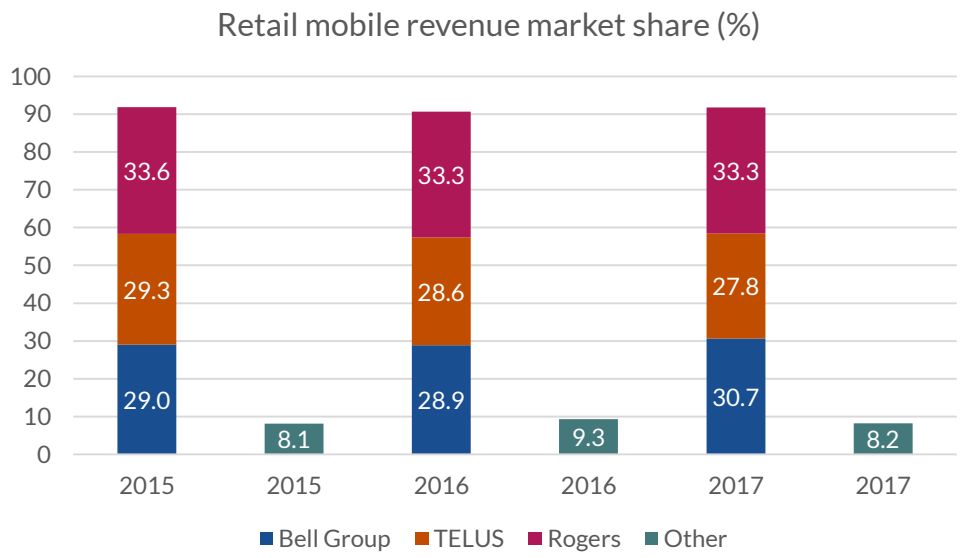
as long-term evolution – advanced (LTE-A) delivered higher speeds than previous generation networks. LTE-A was available to approximately 92% of Canadians, compared to 83% in 2016. In 2017, LTE was available to 99% of Canadians, compared to 98.5% in 2016.

Average monthly data usage per data subscriber was over 2.0 GB, compared to 0.96 GB in 2014. From 2016 to 2017, there was a 30% increase in data usage.

In 2017, the average revenue per user (ARPU) reached $65.33 per month, compared to $59.97 in 2013. In 2017, Alberta recorded the highest monthly ARPU at $73.60, while the lowest ARPU was in Quebec, at $56.07.

The mobile sector continued to be dominated by the three largest mobile service providers ("the Top 3"), and increasingly so. In 2017, these entities accounted for 92% of retail mobile revenues, compared to 90% in 2015 and 91% in 2016. The Top 3 held the majority revenue share in each province/territory except for Saskatchewan, where the other providers captured 62% of the sector, a decrease from 68% in 2013. The Top 3 consists of the Bell Group,[32] Rogers and TELUS.

Figure 4.8 Retail mobile revenue market share (%)



Source: CRTC data collection

Other mobile providers include SaskTel, Freedom Mobile, Videotron, and Bragg Communications and resellers.

More data on mobile and other telecommunications services can be found in Open Data.

[32] 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 4.10

Retail fixed Internet	2013	2017
Retail fixed Internet revenues ($ billions)	$7.7 B	$11.0 B
Retail fixed Internet subscribers (millions)	12.3 M	14.0 M
Revenue (%)	7.3%	7.7%
Revenue CAGR 2013-2017 (%)	n/a	9.2%
Households with access to 50/10 Mbps speeds with an unlimited data option (%)	n/a	84%

Residential fixed Internet	2013	2017
Households with a fixed Internet subscription (%)	80%	86%
Average download speed (GB)	15.6 GB	68.3 GB
Subscribers to 50+ Mbps service (%)	5.0%	38.6%
Average monthly data usage (GB)	50.8 GB	166.2 GB
Monthly ARPU ($)	$44.50	$58.49

Source: CRTC data collection

Table 4.5 Retail Internet service revenues ($ millions)

Type	Subtype	2013	2014	2015	2016	2017	Growth (%) 2016-2017	CAGR (%) 2013-2017
Residential	Access	5,938	6,554	7,265	8,091	8,804	8.8	10.3
	Applications, equipment, and other Internet-related services	160	162	210	289	314	8.5	18.3
	Total	6,098	6,716	7,475	8,380	9,118	8.8	10.6
Business	Access and transport	1,243	1,320	1,394	1,442	1,502	4.1	4.8
	Applications, equipment, and other Internet-related services	384	378	380	356	347	-2.6	-2.5
	Total	1,626	1,698	1,774	1,798	1,849	2.8	3.3
All	**Total**	**7,725**	**8,414**	**9,249**	**10,178**	**10,967**	**7.7**	**9.2**

Source: CRTC data collection

More Canadians (86%) 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 2017, fixed Internet was the fastest-growing sector, with revenues growing by 7.7% and subscriptions growing by 3.9%. From 2013 to 2017, fixed Internet grew by an average annual rate of 9.2%.

In 2017, Internet services were provided by a variety of Internet service providers (ISPs), including incumbent TSPs and cable-based carriers, fixed wireless service providers, and resellers. Residential

subscribers reached 12.8 million, a 3.9% increase from 2016 and approximately three times higher than the population growth rate. Cable-based carriers and incumbent TSPs accounted for the majority of subscribers (87%) while other entities accounted for (13%) up from 10% in 2013.

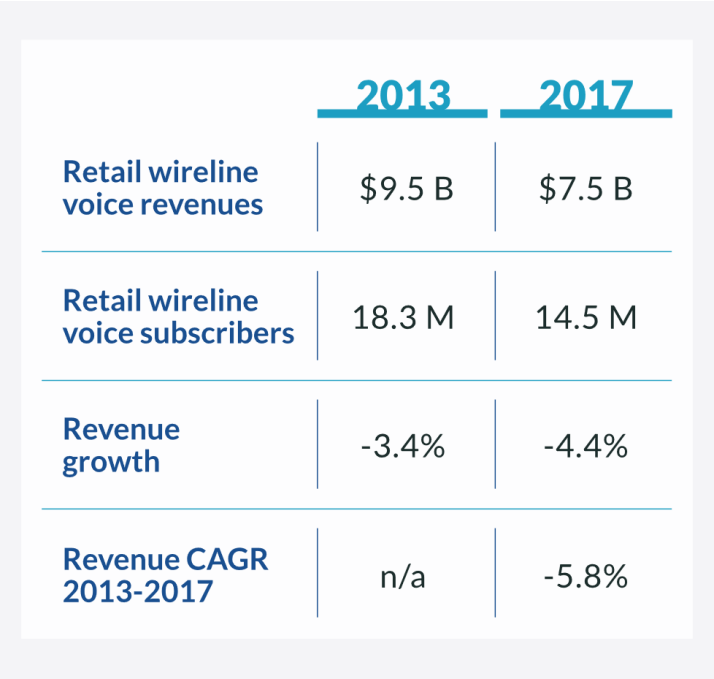
Canadians are increasingly subscribing to faster Internet services. Subscriptions to services with download speeds slower than 16 Mbps represented 68% of the total in 2013 compared to 35% in 2017, while subscriptions to services including speeds of 50 Mbps and higher increased from just 5% of residential high-speed subscriptions in 2013 to 39% in 2017.

Canadians are also using more data. The average monthly data amounts downloaded by residential subscribers increased by 36% annually from 2013 to 2017, and by 31% from 2016 to 2017 to 153GB per month. Average upload amounts also increased by 14.8% in 2017, reaching 13GB per month

Fibre deployment continued in 2017, increasing the availability of fibre to the home to 35% of households from 28% in 2016. These deployments were mainly in large urban areas.

Retail wireline voice sector

Infographic 4.11



Source: CRTC data collection

Table 4.6 Local and long distance retail revenues ($ millions)

Metric	2013	2014	2015	2016	2017	Growth (%) 2016-2017	CAGR (%) 2013-2017
Gross local revenues	7,661	7,441	7,146	6,635	6,474	-2.4	-4.1
Less: Contribution	118	108	107	105	98	-7.1	-4.5
Retail local revenues	7,544	7,333	7,039	6,529	6,376	-2.3	-4.1
Long distance revenues	1,949	1,755	1,506	1,287	1,095	-15.0	-13.6
Total local and long distance retail revenues	**9,493**	**9,088**	**8,545**	**7,817**	**7,471**	**-4.4**	**-5.8**

Source: CRTC data collection

In 2017, the retail wireline voice sector reported $7.5 billion in revenues, with approximately a 6% annual decline since 2013. Local revenues (excluding contribution) accounted for 85% of retail wireline revenues in 2017. Long distance revenues were $1.1 billion, declining by an average annual rate of 14% since 2013.

From 2013 to 2017, residential wireline voice revenues per line decreased by $2.97 to $36.28 per month, while business revenues decreased by $6.28 to $52.38 per month.

The incumbent carriers accounted for approximately 63% of retail wireline revenues in the residential sector and 81% in the business sector, dropping slightly since 2013 as the revenue shares for the cable-based providers increased over the same period.

While the introduction of access-independent VoIP services[33] has opened the wireline voice sector to non-traditional providers, access-independent VoIP has failed to show subscriber growth in recent years. There were approximately 600,000 subscribers to access-independent VoIP in 2017, representing 4% of retail local telephone lines. This percentage has remained constant since 2013.

There were approximately 45,000 payphones in 2017, generating an average of $430 in annual revenues per unit, compared to 85,000 payphones generating $560 per unit in 2013. The number of payphones dropped by 12,000 or 21% in 2017 from 2016, while the average revenue per phone increased by $45 or approximately 12%.

[33] Access-independent VoIP services are VoIP services delivered through the public Internet as opposed to a dedicated or managed network.

Retail data and private line sector

Infographic 4.12

Source: CRTC data collection

Table 4.7 Data and private line retail revenues ($ millions)

Sector	Subsector	2013	2014	2015	2016	2017	Growth (%) 2016-2017	CAGR (%) 2013-2017
Data	Data protocols	1,917	1,952	1,920	1,870	1,864	-0.3	-0.7
	Other	832	857	779	731	694	-5.0	-4.4
	Total	2,749	2,809	2,699	2,600	2,558	-1.6	-1.8
Private line	Total	834	784	754	738	721	-2.3	-3.6
Total	**Total**	**3,583**	**3,593**	**3,453**	**3,339**	**3,279**	**-1.8**	**-2.2**

Source: CRTC data collection

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, 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 data[34]. Legacy services make up less than 1% of revenues. The Other subcategory 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.

Although incumbent TSPs accounted for only approximately 15% of the entities providing data and private line services, they captured 65% of retail revenues.

[34] See telecommunications glossary for definitions and examples: https://crtc.gc.ca/eng/dcs/glossaryt.htm

Wholesale

Infographic 4.13

Source: CRTC data collection

Table 4.8 Wholesale telecommunications revenues by sector ($ millions)

Type	Sub-type	Sector	2013	2014	2015	2016	2017	Growth (%) 2016-2017	CAGR (%) 2013-2017
Wireline	Voice	Local and access	704	646	603	615	599	-2.6	-4.0
		Long distance	433	414	423	458	407	-11.2	-1.5
		Subtotal	1,137	1,060	1,026	1,073	1,006	-6.3	-3.0
	Non-voice	Internet	434	481	556	589	558	-5.3	6.5
		Data	525	576	604	600	634	5.6	4.8
		Private line	657	628	615	593	546	-8.0	-4.5
		Subtotal	1,616	1,685	1,776	1,782	1,737	-2.5	1.8
	All	Wireline	2,753	2,745	2,801	2,855	2,743	-3.9	-0.1
Mobile	All	Mobile	953	1,038	1,123	1,200	1,277	6.4	7.6
All	**Total**	**Total**	**3,706**	**3,783**	**3,925**	**4,055**	**4,020**	**-0.9**	**2.1**

Source: CRTC data collection

Wholesale services are services provided by one TSP to another, usually when the latter doesn't have facilities of its own.

In 2017, the wholesale telecommunications sector was worth $4 billion, of which 32% was for the provision of mobile services and 68% for wireline services. Wholesale mobile services are an increasingly important part of the telecommunications landscape. From 2013 to 2017, wholesale

mobile revenues increased at an average annual rate of 7.6%, compared to a decrease of 0.1% for wholesale wireline revenues.

Independent ISPs frequently depend on access services offered 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.

Wholesale voice revenues declined, on average, by 3.0% annually from 2013 to 2017, whereas wireline non-voice revenues increased, on average, by 1.8% annually during the same period.

With 70% of wholesale revenues, the incumbent TSPs had the largest share of the wholesale sector, which they have maintained since 2013 – although their share has decreased slightly, due in part to ownership changes. The majority of wholesale revenues come from mobile roaming.

vii Appendix

Table 4.9 Types of TSPs, descriptions and examples

Type of TSP (alphabetical order)	Description	Examples (partial list)
Alternative service provider	Any entity that is not an Incumbent TSP.	Rogers, Shaw, Videotron, Distributel, TekSavvy
Cable-based carrier	The former cable monopolies currently providing telecommunications services.	Rogers, Shaw, Videotron
Facilities-based service provider	Any entity which has its own facilities.	Rogers, Shaw, Videotron, Bell Canada, SaskTel, TELUS,
Fixed wireless service provider	An 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.	Xplornet, Corridor Communications
Incumbent local exchange carrier	Incumbent entities providing local voice services.	Bell Canada, SaskTel, TELUS, Sogotel, Execulink Telecom
Incumbent TSP	Companies providing local telecommunications services on a monopoly basis prior to the introduction of competition.	
• **Large incumbent TSP**	Large incumbent providers 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.	Bell Canada, SaskTel, TELUS
• **Small incumbent TSP**	Small incumbent providers 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.	Sogetel, Execulink Telecom
Other facilities-based service provider	Other facilities-based service providers include utility providers (such as electricity or gas) and carriers that own physical transmission facilities.	Zayo, Hydro One Telecom
Reseller	Resellers, or non-facilities-based service providers, 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.	Distributel Communications, TekSavvy Solutions, and Verizon Canada
Telecommunications service provider (TSP)	Any entity providing telecommunications services.	
Wireless service provider (WSP)	Any entity providing wireless services.	Rogers, Shaw, Videotron Bell Canada, SaskTel, TELUS
Wireline service provider	Entities providing wireline services.	Rogers, Shaw, Videotron Bell Canada, SaskTel, TELUS
Independent ISP	Non-Incumbent, non-cable-based carriers providing Internet services	TekSavvy, Xplornet, Distributel, Verizon Canada

Communications Monitoring Report 2018

Retail Fixed Internet Sector and Broadband Availability

Retail Fixed Internet Sector and Broadband Availability

Infographic 5.1

- 2017 revenues **totaled $11 billion**, a 7.7% increase from 2016 (residential revenues were up 8.8%, and business revenues were up 2.8%)
- From 2013 to 2017 revenues grew on average by **9.2% per year**
- **86% of households** subscribed to Internet service, with subscriptions up 3.9% compared to 2016
- Monthly data usage by high-speed Internet service subscribers **increased by 30%** from 2016 to 2017.
- Residential average revenue per subscriber was **up 5.5%** from 2016, to **$58.49 per month**
- FTTH Internet service is now available to **35% of households**, with 11% of households subscribing.
- Revenue composition:
  - Residential access: **$8.8 billion** (80% of the sector by revenue).
  - Residential applications, equipment, and other Internet-related services: **$0.3 billion** (3% of the sector).
  - Business access and transport: **$1.5 billion** (14% of the sector).
  - Business applications, equipment and other Internet-related services: **$0.3 billion** (3% of the sector).

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.

In 2017, the retail fixed Internet sector (hereafter, Internet sector) was the fastest-growing sector of all telecommunications sectors. Revenues grew by 7.7%, while subscriptions grew by 3.9% compared to the previous year. From 2013 to 2017, revenues for this sector grew at an average annual rate of 9.2%. The vast

majority of revenues (80% or $8.8 billion) were generated by residential access services followed by business access and transport services (14% or $1.5 billion). Other types of revenues, such as revenues derived from equipment sales and rentals, as well as Internet applications, represented the balance and comprised only a minor part of telecommunications service providers' (TSPs) revenues.

More Canadians are subscribing to Internet services, 86% of households subscribed to these services in 2017. Canadians continued to use more data; subscribe to faster, larger packages; and allocate more money to Internet services.

Business Internet revenues grew at a much slower pace than residential revenues. However, more Canadian businesses subscribed to Internet service packages, with subscriptions increasing by 4.2%.

Fibre deployment continued, improving the availability of fibre–to-the-home (FTTH) Internet services from 29% to 35%. These deployments were mainly in large urban areas.

Internet service providers (ISPs) are categorized in three main groups: incumbent TSPs,[35] cable-based carriers[36] and other service providers.[37]

[35] Examples of incumbent TSPs include Bell, SaskTel and TELUS. They also include small incumbent TSPs such as Sogetel and Execulink.
[36] Examples of cable-based carriers include Rogers, Shaw, and Videotron.
[37] The "Other service providers" category maybe be further divided into "other carriers," such as Xplornet and Allstream Business, and "resellers," such as Distributel and TekSavvy.

i. Residential market

Infographic 5.2

- **86% of households** subscribed to Internet services in 2017, up from 84% in 2016.
- The residential market represented **83%** of Internet sector **revenues**.
- The residential market represented **91%** of Internet sector **subscriptions**.
- Independent ISPs had **13% of residential subscriptions** in 2017
- The average download speed for services that Canadians subscribe to **continued to rise**, with the weighted average **reaching 68 Mbps** in 2017, far faster than the 15 Mbps average in 2013.
- Percentage of **subscriptions to Internet service packages** with unlimited monthly data transfer went from 12% in 2013 to **37% in 2017**.
- Average monthly data use by high-speed residential **Internet service subscribers increased by 30%** from 2016, to **166 GB**.
- Average revenue per subscriber reached **$58.49**, a 5.5% increase over 2016.
- FTTH-based subscriptions accounted for **12% of residential Internet service** subscriptions.

Source: CRTC data collection

As mentioned above, more Canadians are subscribing to Internet access services. Canadians households continue to use more data, subscribe to faster, larger packages, and allocate more money to Internet services.

Subscriptions

Infographic 5.3

- Independent ISPs accounted for **13% of Internet service subscriptions**, versus 49% for cable-based carriers and 39% for incumbent TSPs.
- Subscriptions to Internet service packages with speeds of 50 Mbps or higher **doubled from 19%** of total subscriptions in 2015 **to 39%** in 2017. The percentage of households subscribing to these packages **rose from 16% to 33%** during the same period.
- **12% of residential subscriptions** were for fibre-based Internet service (FTTH), compared to only 3% in 2013.

Source: CRTC data collection

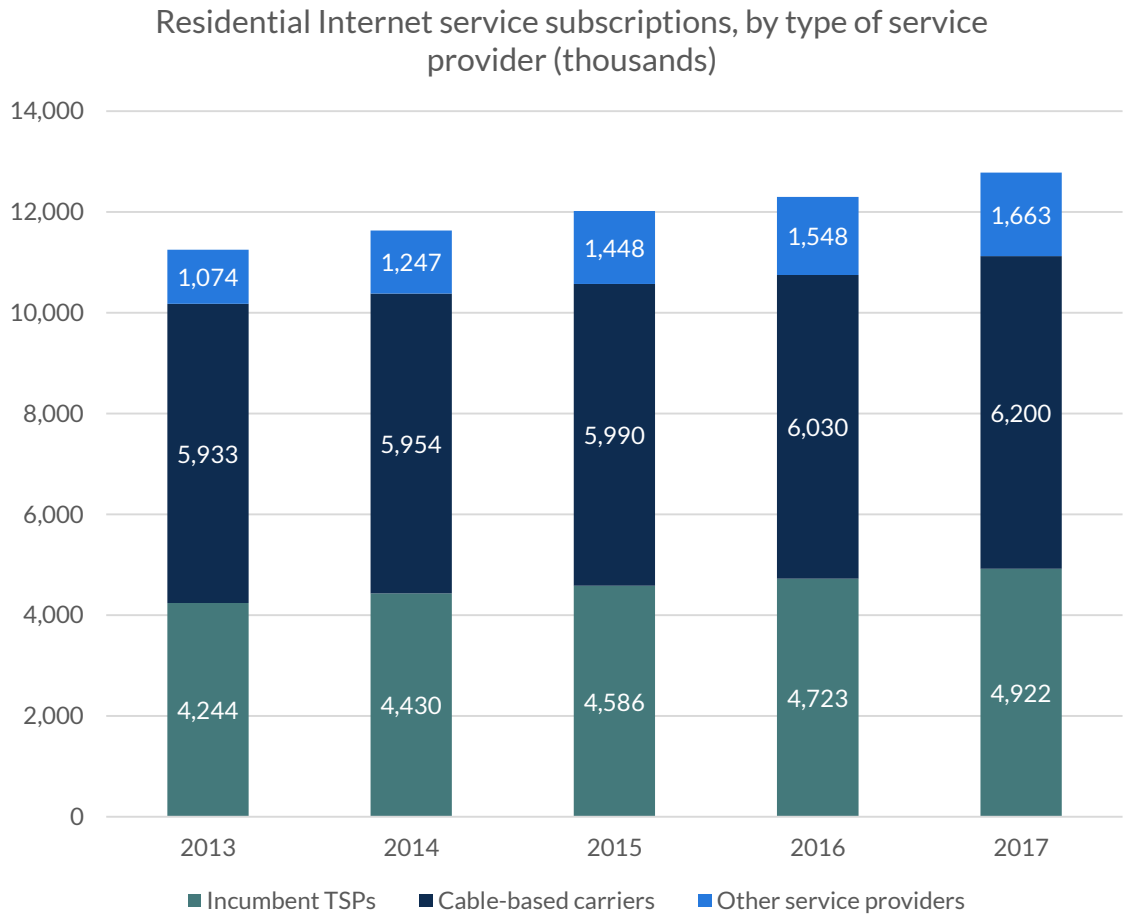
Independent ISPs are defined as ISPs that are not cable-base-carriers or incumbent TSPs. Subscriber market shares are calculated from exact amounts although the percentages have been rounded and therefore exceed 100%.

In 2017, a variety of ISPs provided Internet services, including traditional telephone and cable companies, fixed wireless service providers, and resellers. Residential subscriptions reached 12.8 million (86% of the 14.8M households), a 3.9% increase from 2016, which is approximately 3 times higher than the population growth rate[38]. Cable-based carriers and incumbent TSPs had the vast majority of the market by subscriptions (87%). Other entities continued to increase their subscribers, reaching 13%, up from 10% in 2013.

Growth rates in Internet subscriptions were approximately 2 to 4 times higher than population growth rates from 2013 to 2017.

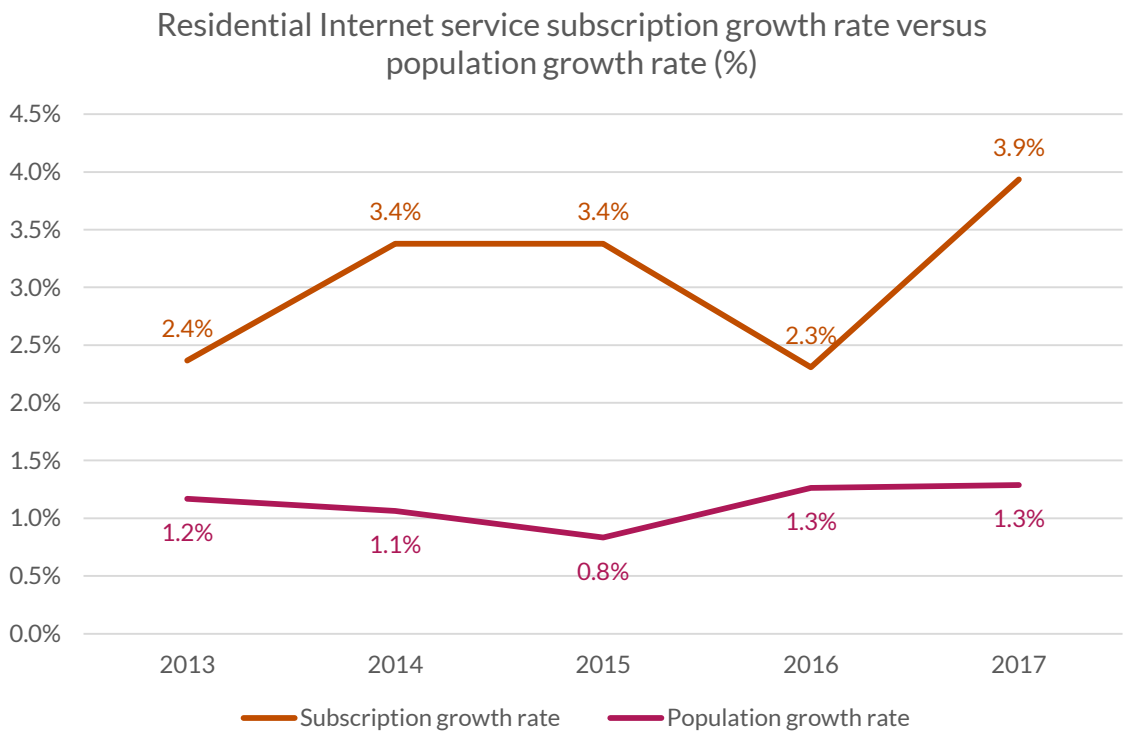
[38] The population growth rate was 1.3% from 2016 to 2017, according to Statistics Canada Table 17-10-0009-01 - Population estimates, quarterly

Figure 5.1 Residential Internet service subscriptions, by type of service provider (thousands)



Source: CRTC data collection

Figure 5.2 Residential Internet service subscription growth rate versus population growth rate



Source: CRTC data collection and Statistics Canada population estimates[39]

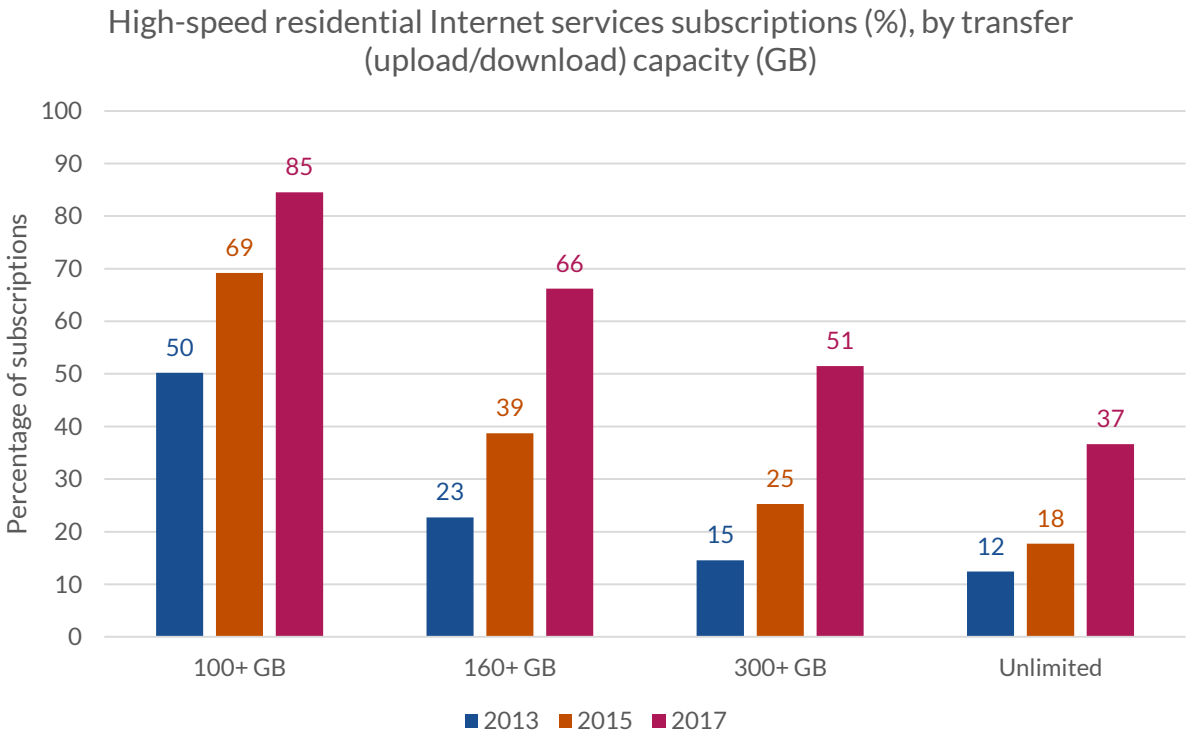
Canadians continued to subscribe to Internet services with higher monthly data allowances. In 2017, while most subscriptions (51%) included monthly data transfer limits of 300 gigabytes (GB) or more, approximately 2% of subscribers had transfer limits below 20 GB. Average data use continued to increase concurrently, with a nearly 30% increase in average combined download/upload data usage since 2016, reaching 166.2 GB per month in 2017.

In 2017, Canadian households paid approximately $94 million in Internet overage charges, which represents roughly 1% of total residential Internet service revenues, and is down from the approximately $100 million paid in 2016. Less than 5% of subscribers went over their limit in 2017, consistent with 2016 levels.

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 87% of total residential high-speed Internet service subscriptions in 2017.

[39] Statistics Canada. Table 17-10-0009-01 - Population estimates, quarterly

Figure 5.3 High-speed residential Internet service subscriptions, by transfer (upload/download) capacity (GB)



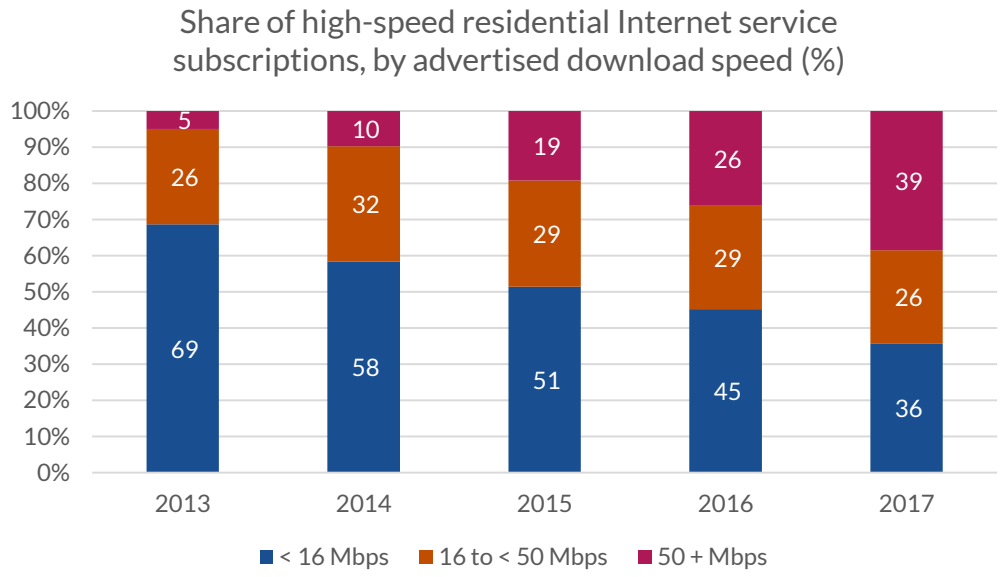
Source: CRTC data collection

Plans with unlimited data upload were categorized according to their download limit.

In 2017, 36% 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 23% in 2016. Subscriptions to services meeting these speeds (50/10 Mbps), and with unlimited monthly data transfer, more than doubled to 28% of total high-speed subscriptions from 14% in 2016.

While the majority of Canadians did not subscribe to an Internet service meeting the Commission's target speeds of 50 Mbps downstream and 10 Mbps upstream (50/10 Mbps service), they were increasingly subscribing to faster Internet services. Services with speeds slower than 16 Mbps went from 69% of high-speed residential Internet service subscriptions in 2013 to 36% in 2017, while subscriptions to services including speeds of 50 Mbps and higher went from just 5% of high-speed residential Internet service subscriptions in 2013 to 39% in 2017.

Figure 5.4 Share of high-speed residential Internet service subscriptions, by advertised download speed (%)



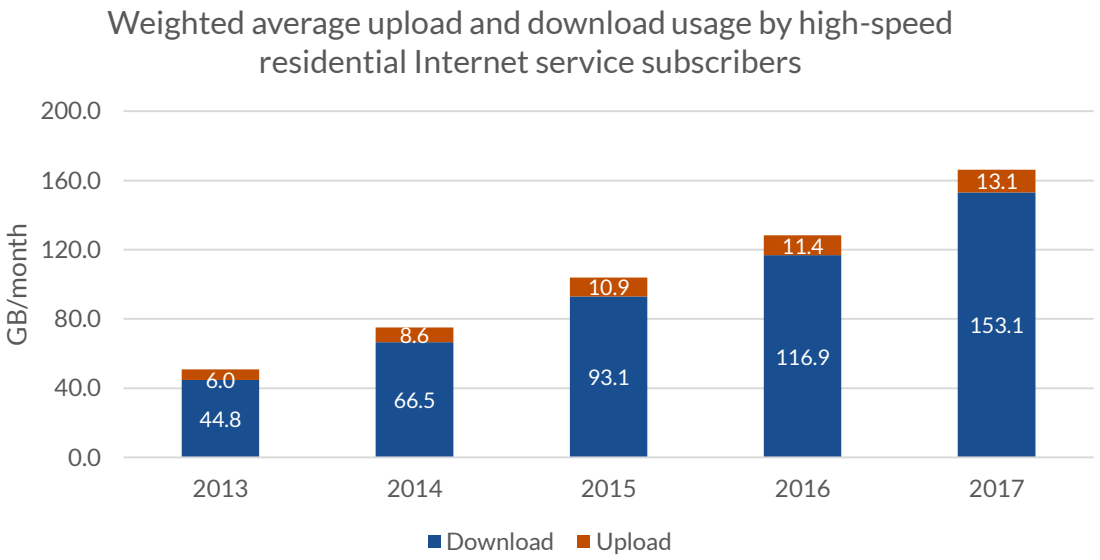
Source: CRTC data collection

This table indicates that, over time, faster-speed services have accounted for a larger share of subscriptions. 85.9% of Canadian households subscribed to some form of high-speed Internet service in 2017. High speed refers to 256 Kbps or faster.

In 2017, gigabit services, defined as those with speeds of 940 Mbps and faster, accounted for 1.2% of subscriptions, and generated an average of $83.65 in one-month revenue, which is far below the reported lowest price for most packages for this type of service. This may be due to promotional activity and bundling. All of the reported gigabit services had unlimited data allowances.

While Canadians subscribed to faster services, they also consumed more data. The average amount of data downloaded by residential Internet service subscribers increased by 31% between 2016 and 2017 to 153GB per month, and by an average of 36% annually from 2013 to 2017. Average upload amounts also increased by 15% in 2017, reaching an average of 13GB per month. These increases from 2013 to 2017, resulted in average uploaded data per subscriber doubling while average downloaded data tripled.

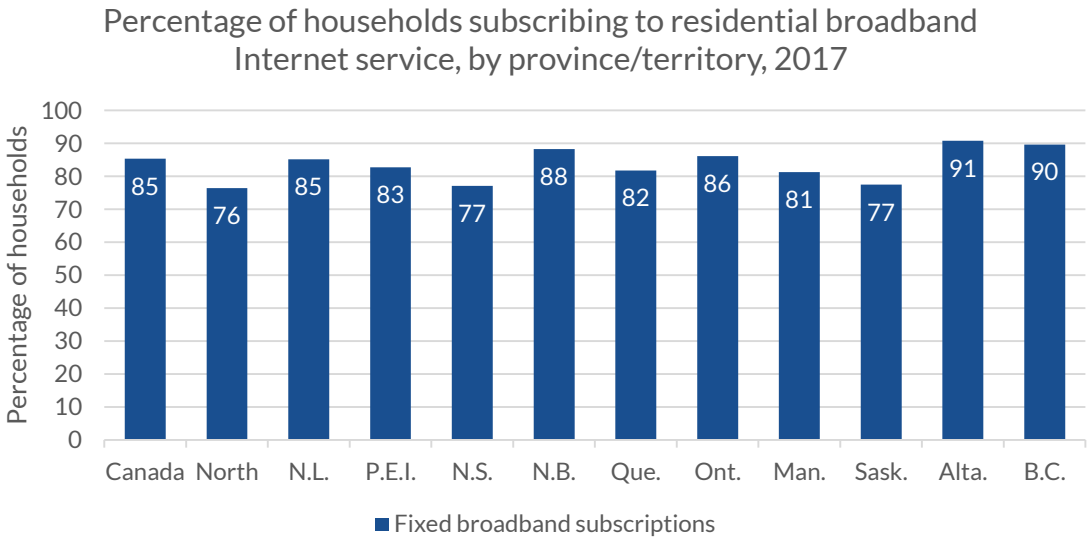
Figure 5.5 Weighted average upload and download usage (GB) by high-speed residential Internet service subscribers



Source: CRTC data collection

While 85% of households subscribed to broadband Internet service,[40] regional differences exist. British Columbia and Alberta led with around 90% of households subscribing to broadband Internet services, while Saskatchewan, Nova Scotia, and the North[41] trailed at around 77%.

Figure 5.6 Percentage of households subscribing to residential broadband Internet service, by province/territory, 2017



Source: CRTC data collection

[40] "Broadband" is defined as any Internet service that features an advertised download speed of at least 1.5 Mbps.
[41] "The North" refers to the Northwest Territories, Nunavut and Yukon.

Revenues

Infographic 5.4

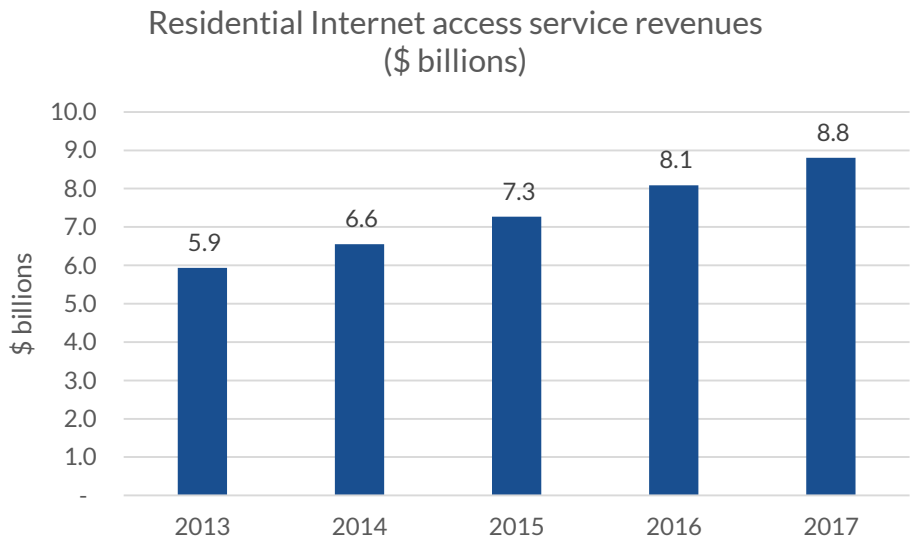
- 8.8% revenue growth, **10.3% average per year** since 2013.
- The top 5 companies generated **74% of revenues** in the residential Internet service market.

Source: CRTC data collection

The Internet service revenue share of the top five companies (Bell, Rogers, Shaw, TELUS and Videotron) declined slightly, from 74.8% in 2016 to 74.3% in 2017.

In the meantime, independent ISPs slowly increased their revenue share, growing from 8% in 2013 to 12% in 2017. This reflects their limited share of the residential Internet service market.

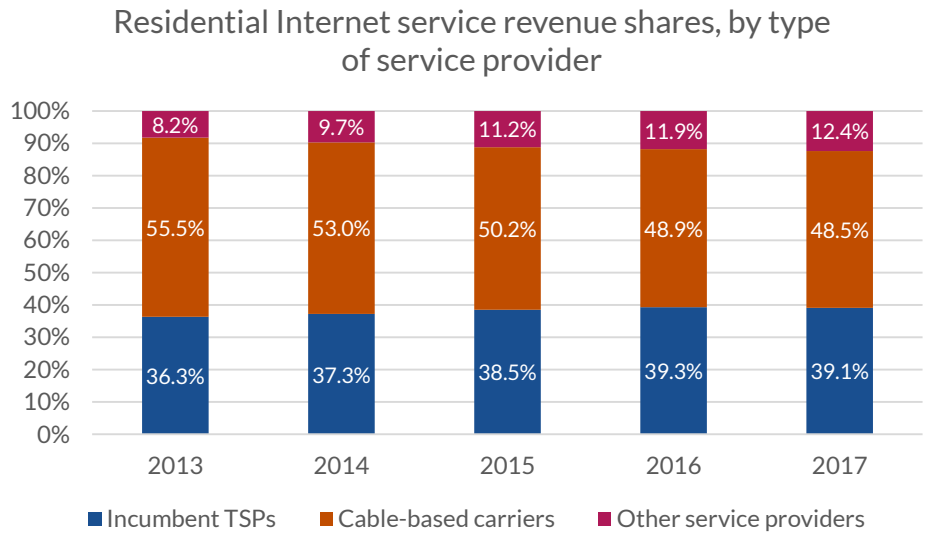
Figure 5.7 Residential Internet service revenues ($ billions)



Source: CRTC data collection

Independent ISPs and incumbent TSPs increased their share of residential Internet service revenues at the expense of the cable-based carriers' revenues from 2013 to 2017. The independent ISPs were the only type of provider to increase their share of revenues from 2016 to 2017. Cable-based carriers continued to have the highest percentage of residential Internet service revenues.

Figure 5.8 Residential Internet service revenue shares, by type of service provider (%)



Source: CRTC data collection

Infographic 5.5

- Average revenue per user (ARPU) reached **$58.49 per month** in 2017, a **5.5% increase** over 2016.
- Resellers' average revenue per user was **$48.62 per month** in 2017, compared to an industry average of $58.
- Facilities-based providers that are not incumbent TSPs or cable-based carriers had an **average revenue per user of $70.01 per month**.

Source: CRTC data collection

Facilities-based providers that are not incumbent TSPs or cable-based carriers mainly consist of fixed-wireless and satellite-based service providers.

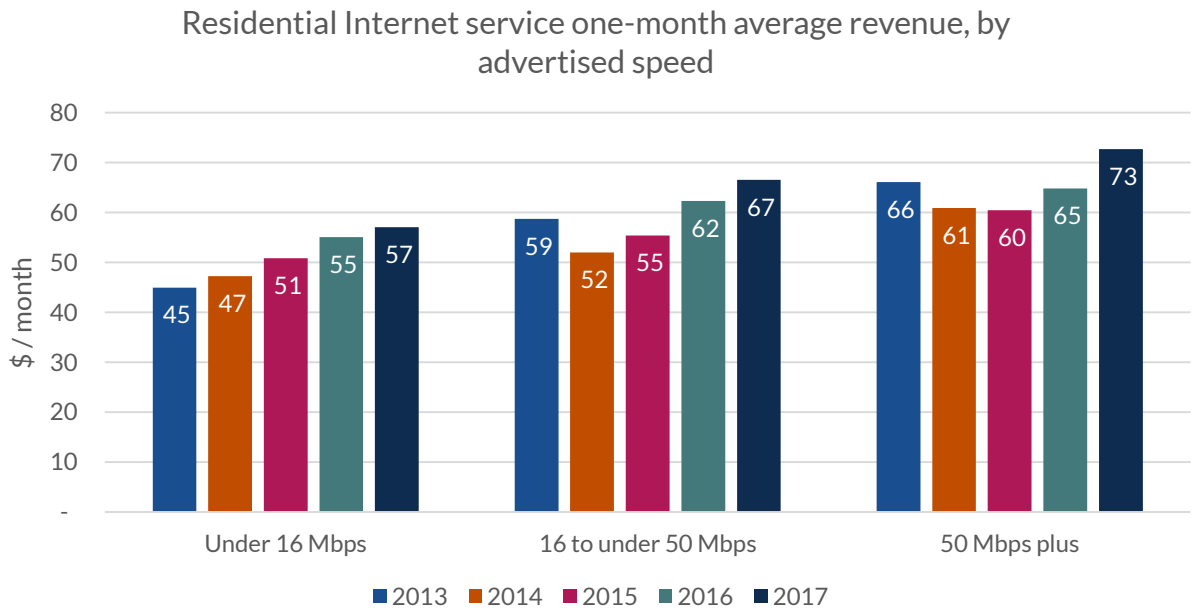
Resellers consistently reported the lowest average revenue per user (ARPU), while the highest ARPU was attributed to the other facilities-based TSP category, which consists mainly of fixed wireless and satellite-based service providers.

The industry-wide ARPU increased by 5.5% from 2016 to 2017, with an average growth rate of 7.1% from 2013 to 2017.

ARPU may vary from Figure 5.9 below, which uses data from only the larger providers, who hold 89% of all high-speed residential Internet service subscriptions. ARPU is calculated based whole-year revenues and on year-end subscription data, not data from a particular month. This table also contains 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 12% from 2016. This is especially impactful in the marketplace, as these packages represent 39% of the market, as shown in Figure 5.8. Meanwhile, packages with download speeds under 16 Mbps (36% of the market share) have seen one-month average revenues increase by 3.6%. The average revenues generated per subscriber with services offering speeds between 16 and 50 Mbps increased by 6.8% from 2016 to 2017. These services represented 26% of the Internet service market in 2017.

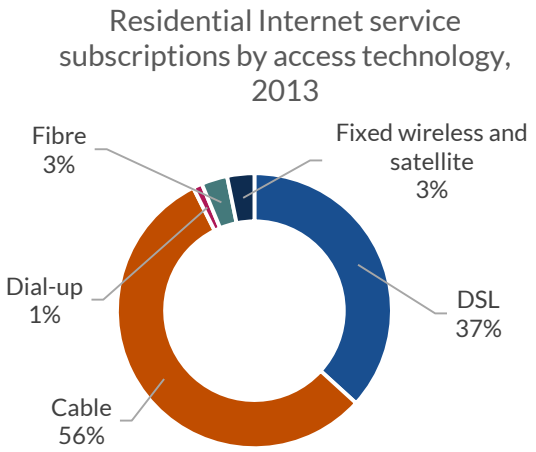
Figure 5.9 Residential Internet service one-month average revenue, by advertised download speed ($)



Source: CRTC data collection

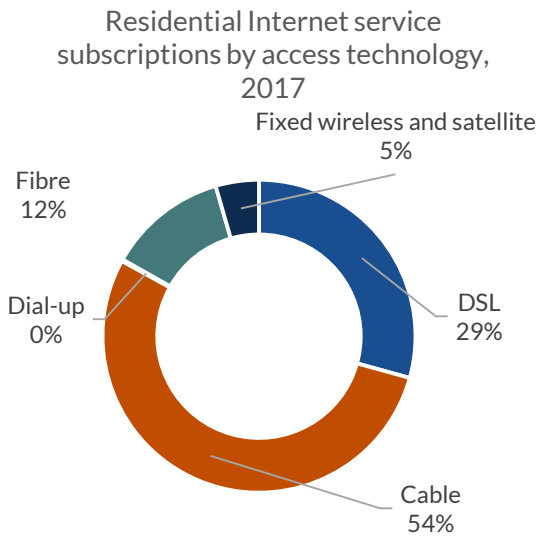
As part of their efforts to compete with cable-based carriers, incumbent TSPs continued to build fibre to the home (FTTH) networks and promote fibre-based Internet services. This resulted in a significant increase in their share of fibre-based Internet service subscriptions, which went from 3% in 2013 to 12% in 2017.

Figure 5.10 Residential Internet access service subscriptions by access technology, 2013 (%)



Source: CRTC data collection

Figure 5.11 Residential Internet access service subscriptions by access technology, 2017 (%)



Source: CRTC data collection

ii. Business market

Infographic 5.6

- Access and transport service revenues **grew by 4.1% to reach $1.5 billion** in 2017.
- Access service subscriptions **grew by 4.2% to reach $1.2 million** in 2017.
- Incumbent TSPs had the **largest share** of access service **revenues at 42%**, followed by cable-based carriers at 34%, and other service providers at 24%.
- Fibre service revenues made up **27% of access revenues**, with DSL at 37% and cable at 27%.
- Independent ISPs had **24% of the access service revenues** in the business market.

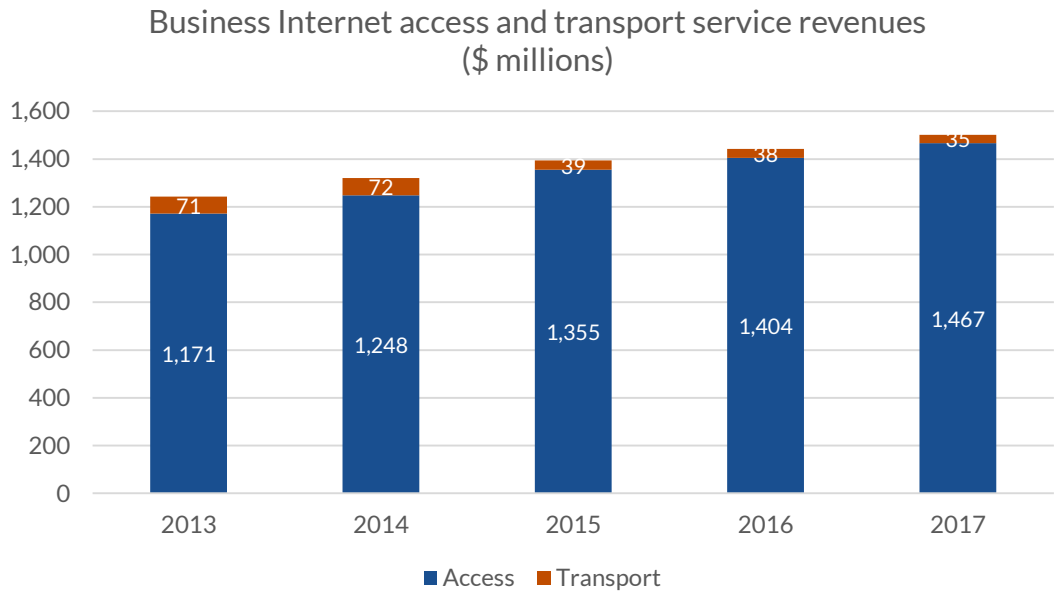
Source: CRTC data collection

Revenues

Independent ISPs, which are not affiliated with Canadian incumbent TSPs or cable-based carriers, had 24% of the access service revenues while having 13% of the subscribers in 2017. This may be due to a large proportion of independent ISP revenues coming from business information technology services providers that supply high-capacity connections to large enterprises.

Canadian businesses paid around $2.3 million in Internet overage charges, with only around 1% of subscriptions going over their monthly limits in an average month.

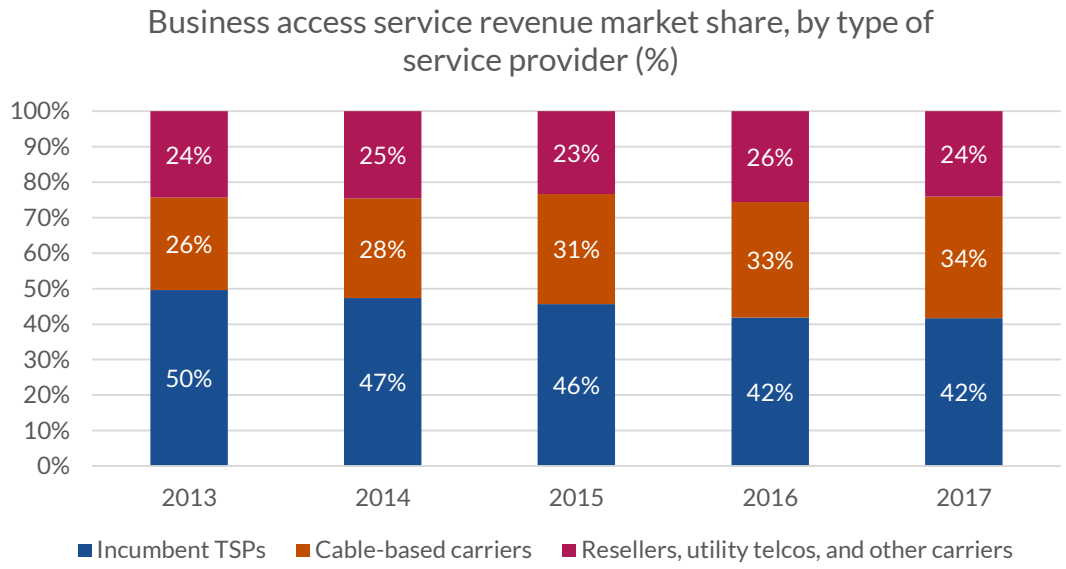
Figure 5.12 Business Internet access and transport service revenues, by type of service ($ millions)



Source: CRTC data collection

Due to a change in company reporting, transport service revenues starting in 2015 are not comparable to those from previous years.

Figure 5.13 Business Internet access service revenue market share, by type of service provider (%)



Source: CRTC data collection

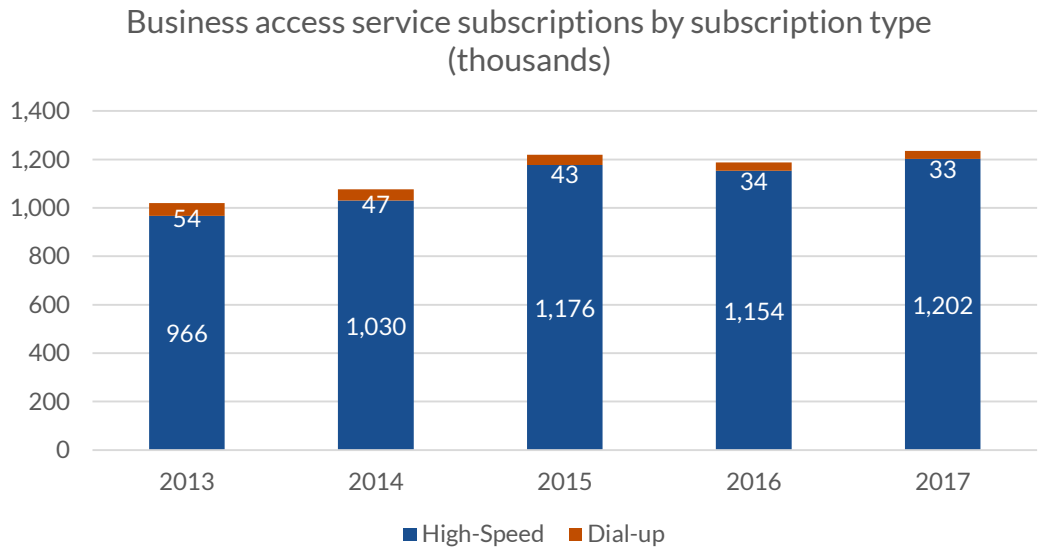
Part of the increase in cable-based carriers' revenues is due to a reclassification of revenues starting in 2015. Due to a change in company reporting, 2016 figures for resellers, utility telcos[42], and other carriers, as well as for incumbent TSPs, may not be comparable to those from previous years.

[42] 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

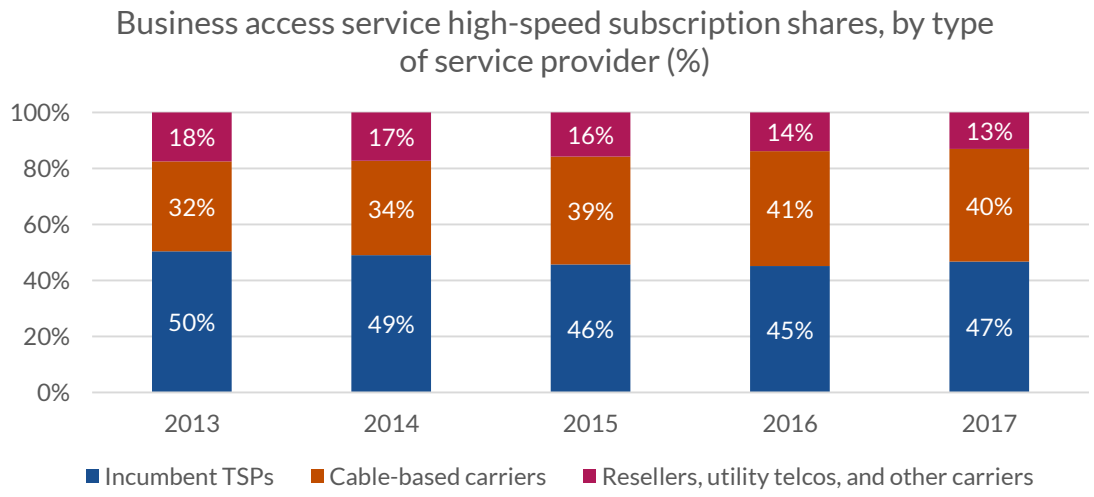
From 2013 to 2017, the growth in the number of subscriptions to business access services was strong, and exceeded residential subscription growth rates (sometimes by a large margin), except for 2016, when changes in company reporting resulted in a change in results.

Figure 5.14 Business Internet access service subscriptions by subscription type (thousands)



Source: CRTC data collection

Figure 5.15 Business Internet access service high-speed subscription shares, by type of service provider (%)



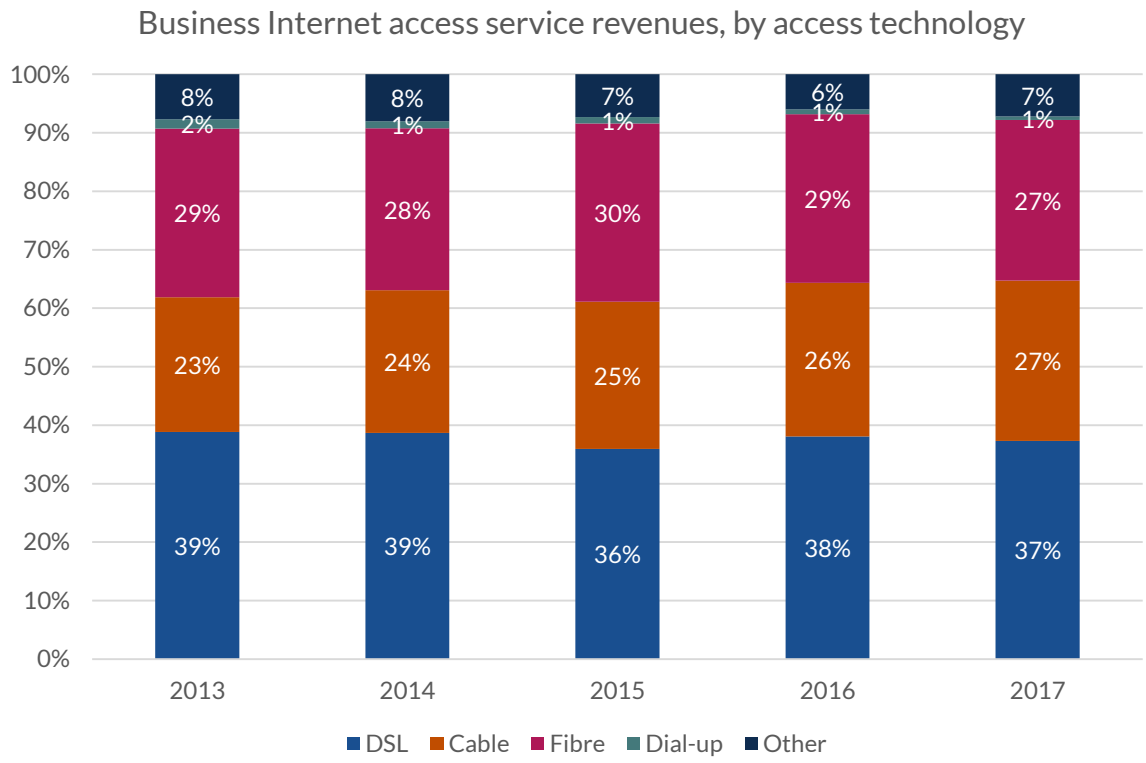
Source: CRTC data collection

Due to a change in company reporting in 2015 for cable-based carriers and in 2016 for resellers, utility telcos, and other carriers, figures may not be comparable to those from previous years.

Technology

Cable-modem-based Internet access service consistently showed increases in market share over the period from 2013 to 2017. 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 5.16 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. "Fibre" refers to Fiber-to-the-premises (FTTP).

iii. Broadband service availability

Infographic 5.7

- **50/10 Mbps service** with unlimited data transfer was available to **84% of Canadian households** (unchanged from 2016).
- FTTH was available to **35% of households**, up from 28% in 2016.
- LTE-Advanced availability **grew from 83%** of population in 2016 **to 92%** in 2017.
- **26% of rural households** relied solely on fixed wireless technology for broadband access and **didn't have access to broadband service via wireline** (cable, DSL, or fibre). This is an **improvement from 31%** in 2016. Satellites have nationwide coverage, but due to capacity limitations, could only serve up to 2% of households.
- **66%** of rural households could get a service with a **download speed of 25 Mbps or higher, up from 60%** in 2013.

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

Broadband deployment improved since 2016 in some ways, but availability in sparsely populated areas did not improve as much as more dense areas, except for Long-Term Evolution (LTE)-Advanced coverage. Also, among other factors, newer, more accurate information about the extent of deployment reduced coverage in some areas.

Broadband service availability is calculated using information provided by ISPs. For 2013 to 2015, locations were considered to be serviced if their dissemination block representative point fell within an area of broadband service coverage. As of 2016, ISED pseudohouseholds[43] are used, along with 2016 census demography. Broadband service availability data may not take into account capacity issues or issues regarding line of sight.[44]

[43] Pseudohouseholds 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 pseudohouseholds 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.

[44] The information in this section does not take into account upload speeds unless noted.

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 (e.g. satellite link transport).

Table 5.1 Key telecommunications availability indicators (% of households)

Type of service	Subtype	2015	2016	2017
Mobile broadband	3G/3G equivalent	99	99	99
	HSPA+	99	99	99
	LTE	97	98	99
	LTE-Advanced		83	92
Wireline broadband	DSL	82	77	72
	Cable modem	82	84	84
	Fibre to the home (FTTH)	22	28	35
Wireline and fixed wireless	Total	98	98	99
Universal service objective-level	50 Mbps download 10 Mbps upload Unlimited data transfer option	-	84	84
BDU services	IPTV	70	75	77
	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 and 2017 were due to the deployment of fibre technology, with improvements in company reporting also contributing. The increase in cable modem availability in 2016 is attributable mainly to the change to the pseudohousehold 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.

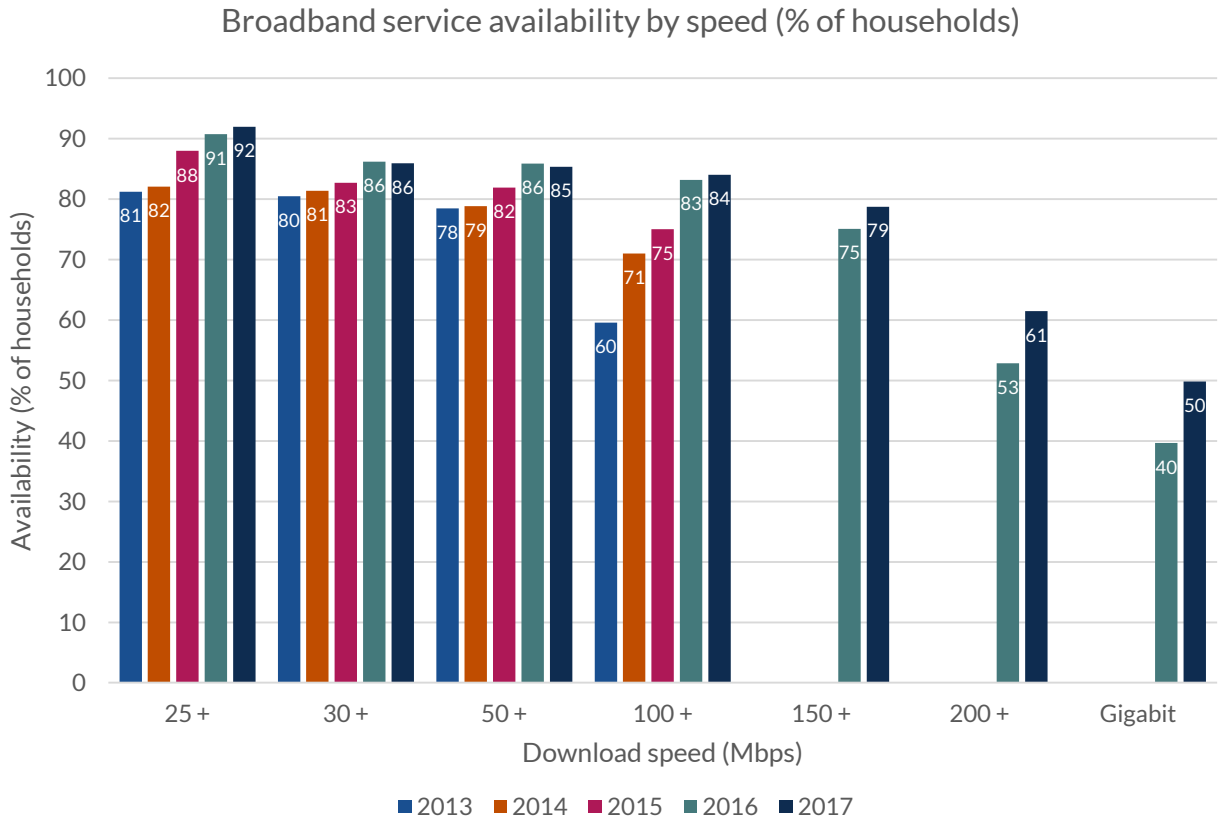
Fibre-based Internet service availability continued to increase, going from 28% in 2016 to 35% in 2017. Incumbent TSPs used their fibre infrastructure to make gigabit service available to over 3.9 million households, while cable-based carriers used mainly DOCSIS 3.1 technology to make gigabit service available to over 6.6 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. These FTTH deployments occurred mainly in large urban areas.

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 84% of Canadian households. However, the availability varied greatly between urban and rural areas, with only 37% of rural households having access to this kind of service, versus 97% in urban areas. Subscriptions to a 50/10 Mbps service with unlimited monthly data transfer more than doubled to 24% of Canadians households, compared to 11% in 2016.

The total footprint for all areas with access to broadband service speeds of 30 Mbps and above and 50 Mbps and above did not increase in 2017, but slightly declined due to more precise information filed with the Commission (e.g. the use of precise coverage instead of modeling).

Figure 5.17 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.

Increases in speed categories at and above 50 Mbps in 2015 were due in part to the consideration of the effects of line bonding (using more than one line to provide service) on DSL.

Increases in broadband service availability by speed categories in 2016 were due partly to the higher accuracy of the pseudohousehold methodology. The increase in availability due to migration to the pseudohousehold methodology is as follows (in percentage points): 0.7 for 1.5 to 4.9 Mbps, 1.0 for 5 to 9.9 Mbps, 1.4 for 10 to 15 Mbps, 1.7 for 16 to 24.9 Mbps, 1.8 for 25 to 29.9 Mbps, 2.7 for 30 to 49.9 Mbps, 2.9 for 50 to 99.9 Mbps and 3.6 for 100+ Mbps.

Gigabit service is any service with a downstream data rate at or above 940 Mbps.

Availability continued to vary by province when it comes to higher-speed broadband services. Saskatchewan and the North had less coverage at the 50 Mbps level. British Columbia, Quebec and Ontario led the way in terms of availability of 50 Mbps service.

The vast majority of areas within the provinces and territories that had broadband service had it at 5 Mbps or faster, with the exception of Nunavut, which had virtually complete coverage at 1.5 Mbps speeds, but far less at 5 Mbps or faster. In fact, only 29.9% of households in Nunavut had access to speeds of at least 5Mbps and none had access to 10Mbps or higher speeds.

Table 5.2 Broadband service availability, by speed and province/territory (% of households), 2017

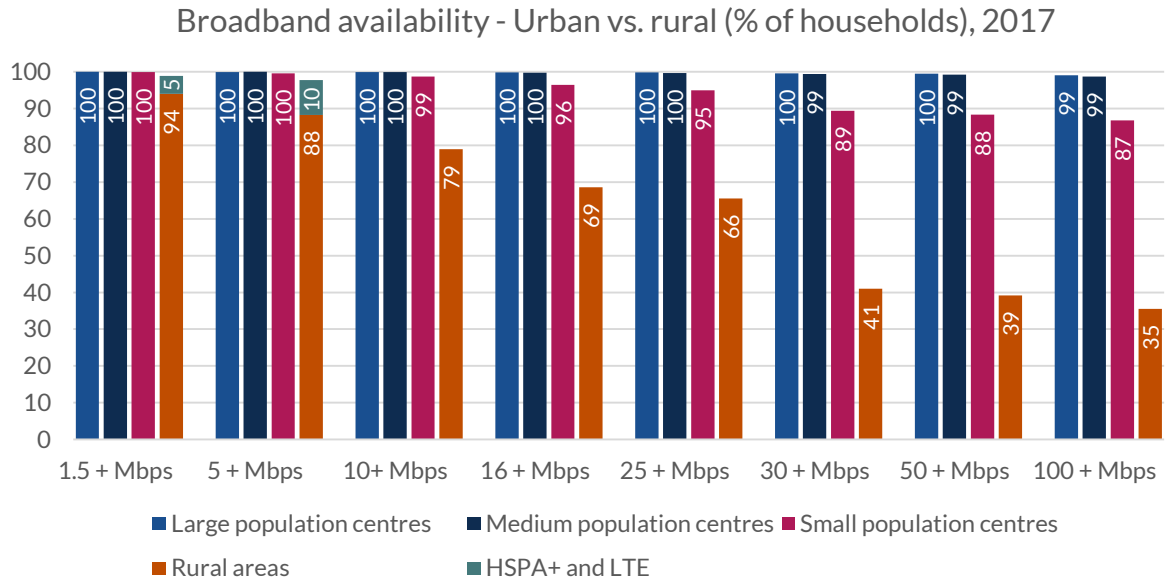
Province/territory	5 + Mbps	10 + Mbps	16 + Mbps	25 + Mbps	50 + Mbps	50/10 Mbps and unlimited data transfer
British Columbia	97.6	96.7	94.5	94.3	92.8	91.0
Alberta	99.2	98.1	95.9	94.4	82.8	80.3
Saskatchewan	94.6	87.1	77.1	75.3	53.5	45.4
Manitoba	98.0	96.1	94.9	94.6	70.9	69.8
Ontario	98.3	96.4	94.5	93.5	87.4	86.9
Quebec	98.1	96.2	93.3	92.5	88.9	88.5
New Brunswick	94.3	91.9	91.9	91.9	81.2	81.2
Nova Scotia	87.4	83.4	79.1	79.1	78.7	77.8
Prince Edward Island	93.4	87.7	87.7	87.7	59.8	59.8
Newfoundland and Labrador	89.0	80.8	80.7	78.1	70.9	70.9
Yukon	90.5	84.2	60.8	60.8	60.8	0.0
Northwest Territories	97.7	93.6	53.7	53.7	53.7	0.0
Nunavut	29.9	0.0	0.0	0.0	0.0	0.0
Canada	**97.5**	**95.4**	**92.8**	**92.0**	**85.4**	**84.1**

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

New Brunswick and Saskatchewan have arrangements to provide broadband services at 1.5 Mbps via satellite under terms and conditions similar to those for wireline services. On Prince Edward Island, HSPA+ [high-speed packet access plus] is available to households without access to other types of broadband services under terms and conditions equivalent to those for wireline services. Since satellite service has a national footprint, it is excluded from this table.

Rural and small centre populations continued to trail in the availability of advanced broadband services, with only 39% of rural households having access to services with download speeds of 50 Mbps or faster, and small population centres having 88% availability. This is in contrast to near-ubiquitous availability of such services in medium and large centres.

Figure 5.18 Broadband service availability – Urban vs. rural (% of households), 2017



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

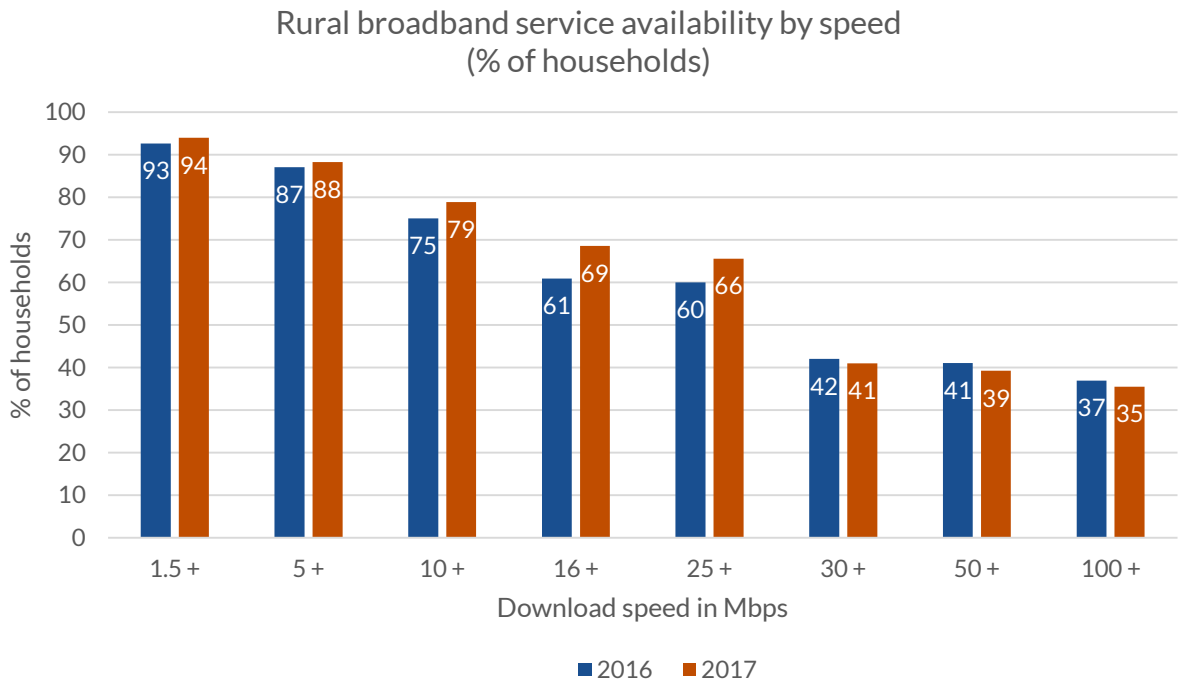
Small population centres are considered to have populations of between 1,000 and 29,999. Medium population centres are considered to have populations of between 30,000 and 99,999. Large population centres are considered to have populations greater than 100,000. Rural areas have populations of less than 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.

Satellite services are excluded since they have a national footprint.

Advancements in the deployment of rural broadband were mainly in the 16+ Mbps and 25+ Mbps categories, going from 61% to 69% for 16 Mbps or higher availability, and from 60% to 66% for 25 Mbps for higher. This is due mainly to continued deployments of LTE-based fixed wireless technology. Deployment in lower-speed categories did not increase as appreciably, due to deployment being centred mainly on already built areas with slower service speeds. Due to the filing of more precise data replacing previously used coverage models, the availability of some service speeds decreased slightly in 2017.

Figure 5.19 Rural broadband service availability by speed (% of households)



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

iv. Broadband applications

Infographic 5.8

	Average data usage/overage fees for wireline (per hour)	Average data usage/overage fees for LTE (per hour)	Average wireline overage fees (per hour)	Average LTE overage fees (per hour)
Netflix	2.74 GB	0.33 GB	$6.50	$18.05
YouTube	**2.95 GB**	**0.77 GB**	**$7.02**	**$42.37**
CBC Radio 1	0.05 GB	0.04 GB	$0.12	$2.30
Spotify	0.19 GB	0.09 GB	$0.44	$5.06

Source: CRTC Broadband measurement

Note: Wireline overage fees are calculated based on the average of overage rates published on wireline service providers' websites in June 2018

Wireless overage fees are calculated based on the average of overage rates published on wireless service providers' websites in June 2018

Data usage

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.

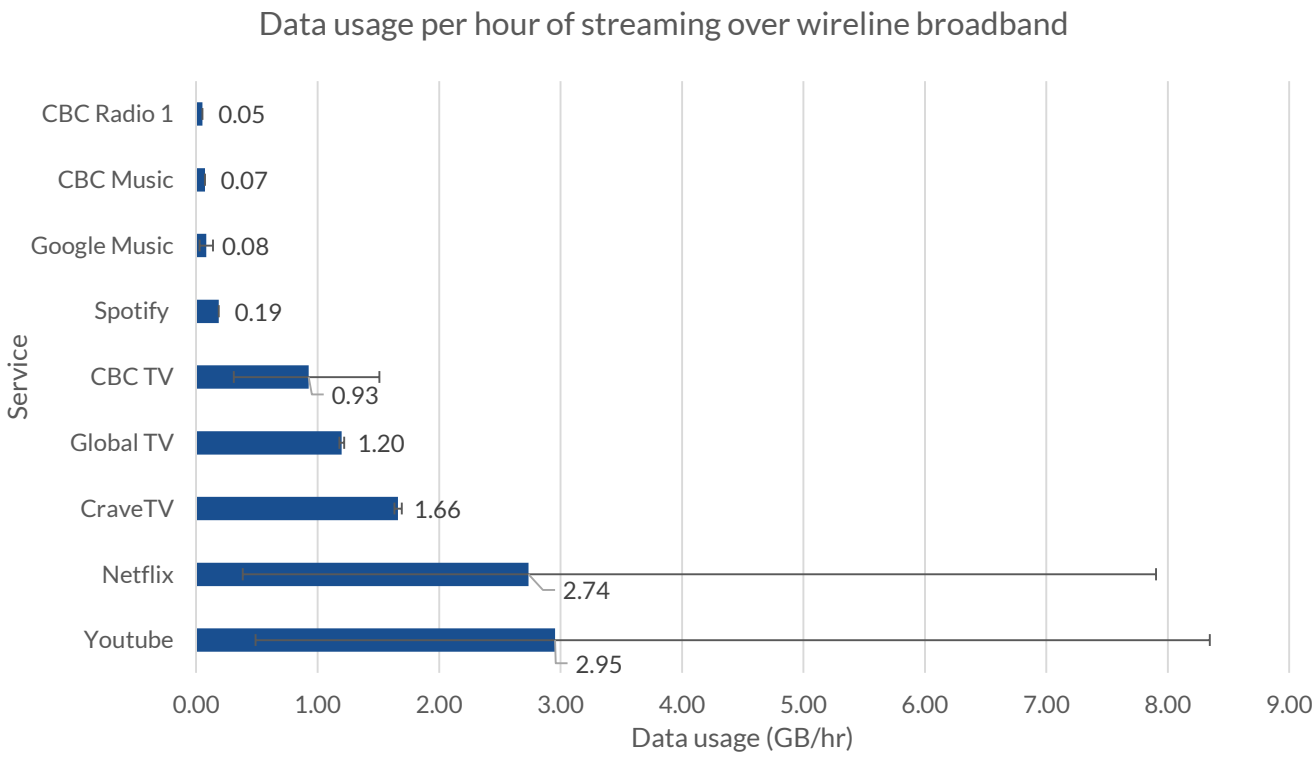
Usually, a higher bitrate can also enable a higher-quality audio or video stream. However, depending on the end-user device, a higher-quality stream may be indistinguishable from a lower-quality stream. For example, on a smartphone, an ultra-high-definition (UHD) video stream may not show a perceivable difference when compared to a lower-resolution video stream due to the relatively small screen size.

Figure 5.20 and Figure 5.21 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.

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 methodology and observations below for more details.

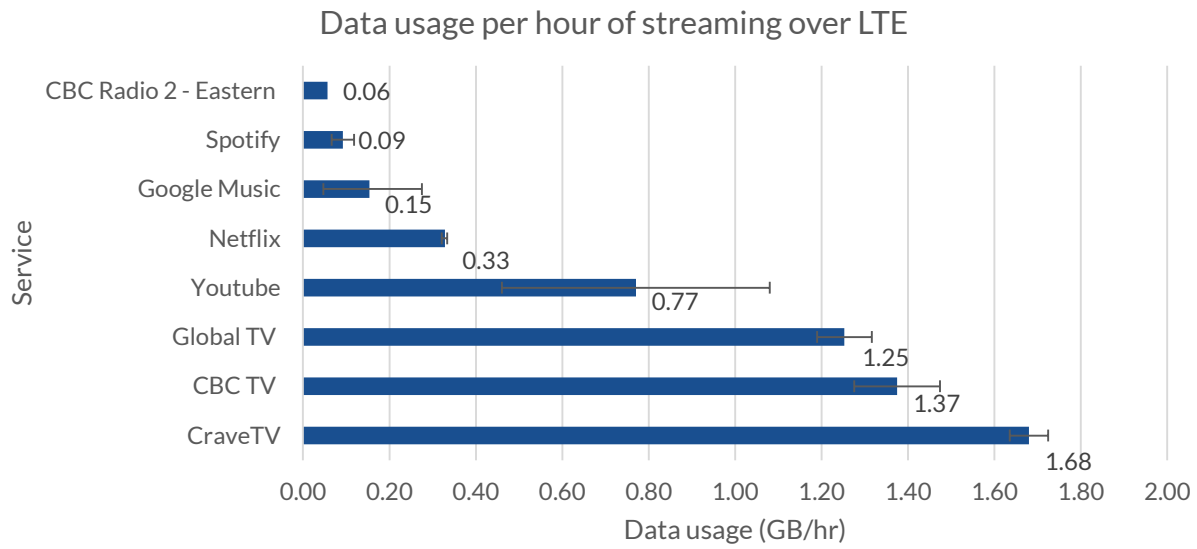
Figure 5.20 Data usage (GB/h) by select services over a wireline broadband Internet connection



Source: CRTC Broadband measurement

Note: Overage fees are calculated based on the average of overage rates published on wireline service providers' websites in June 2018

Figure 5.21 Data usage (GB/h) by select services over a wireless (LTE) Internet connection



Source: CRTC Broadband measurement

Note: Overage fees are calculated based on the average of overage fee rates published on wireless service providers' websites in June 2018

Limited services and data overage fees

When a customer with an Internet data plan with a data cap exceeds their monthly usage limit, overage fees are applied.

Generally, usage limits are significantly lower and overage fees higher for wireless data plans compared with wireline broadband Internet plans. Currently, the average overage fee per GB is $2.38 for wireline broadband Internet services and $55.00 for mobile wireless services.

To address bill shock associated with mobile wireless overage fees, the Wireless Code requires service providers to suspend data overage fees once they reach $50 within a single monthly billing cycle, unless the account holder or authorized user expressly consents to pay additional charges.

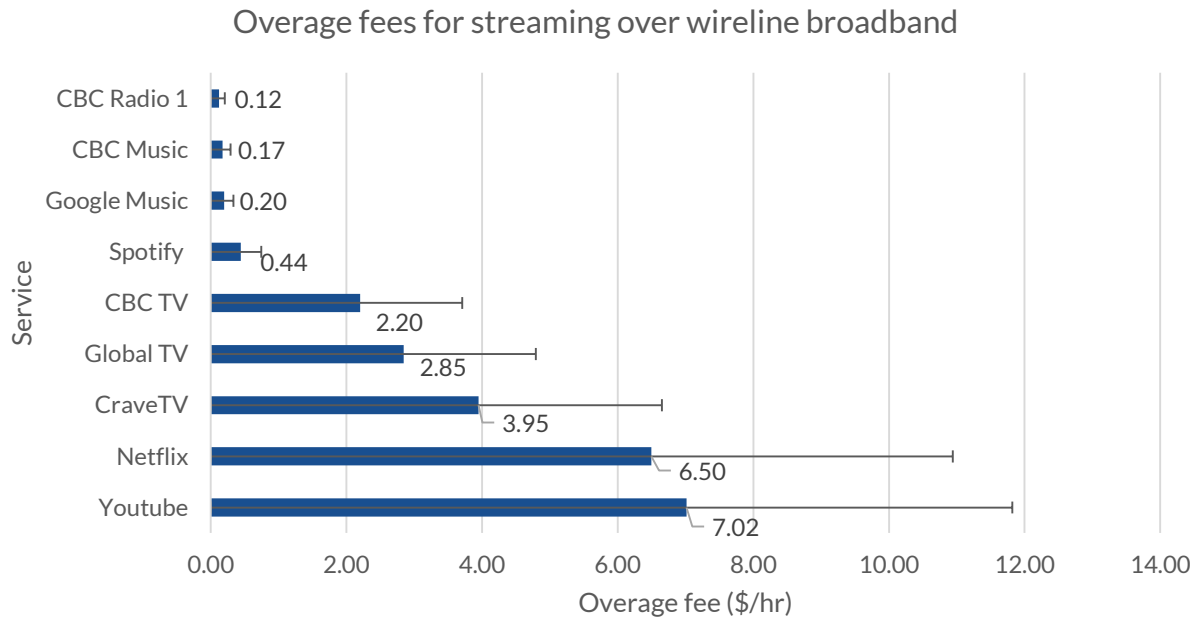
Figure 5.22 and Figure 5.23 below illustrate how overage fees (average and range) can translate to the usage cost of some services ($/hr) over wireline and wireless Internet plans, respectively.

When reading the charts below, it is important to note that customers incur overage fees only if they exceed their plan limits. Customers can avoid paying any overage fees if they use less than the maximum amount of data included in their plan each month. Service providers offer plans with various limits and, in some cases, it may be in the consumer's best interest to change to a plan with a higher limit if they continue to exceed their usage limit each month.

Since many wireline plans include unlimited data usage, Figure 5.22 shows the lower range as zero.

The "Wireless code data overage cap" line in Figure 5.23 illustrates how much of each service a customer could use, after they hit their plan limit, before hitting the overage cap.

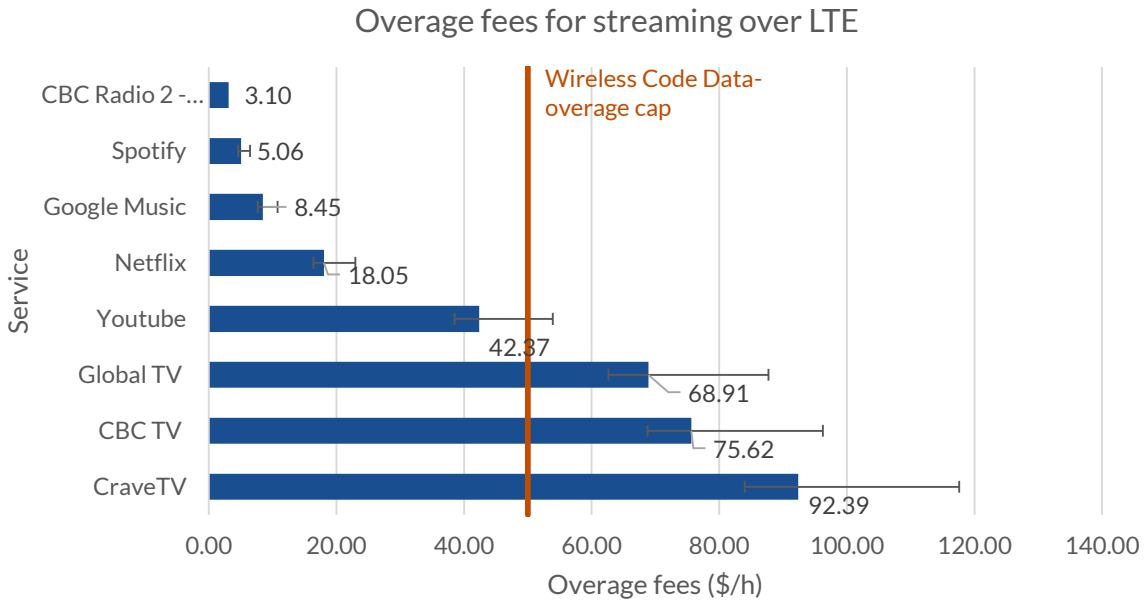
Figure 5.22 Overage fees incurred by select streaming services' data usage over a wireline broadband Internet connection



Source: CRTC Broadband measurement

Note: Overage fees are calculated based on the average of overage fee rates published on wireline service providers' websites in June 2018

Figure 5.23 Overage fees incurred by select streaming services' data usage over a wireless (LTE) Internet connection



Source: CRTC Broadband measurement

Note: Overage fees are calculated based on the average of overage fee rates published on wireless service providers' websites in June 2018

Unlimited services and fair/acceptable-use policies

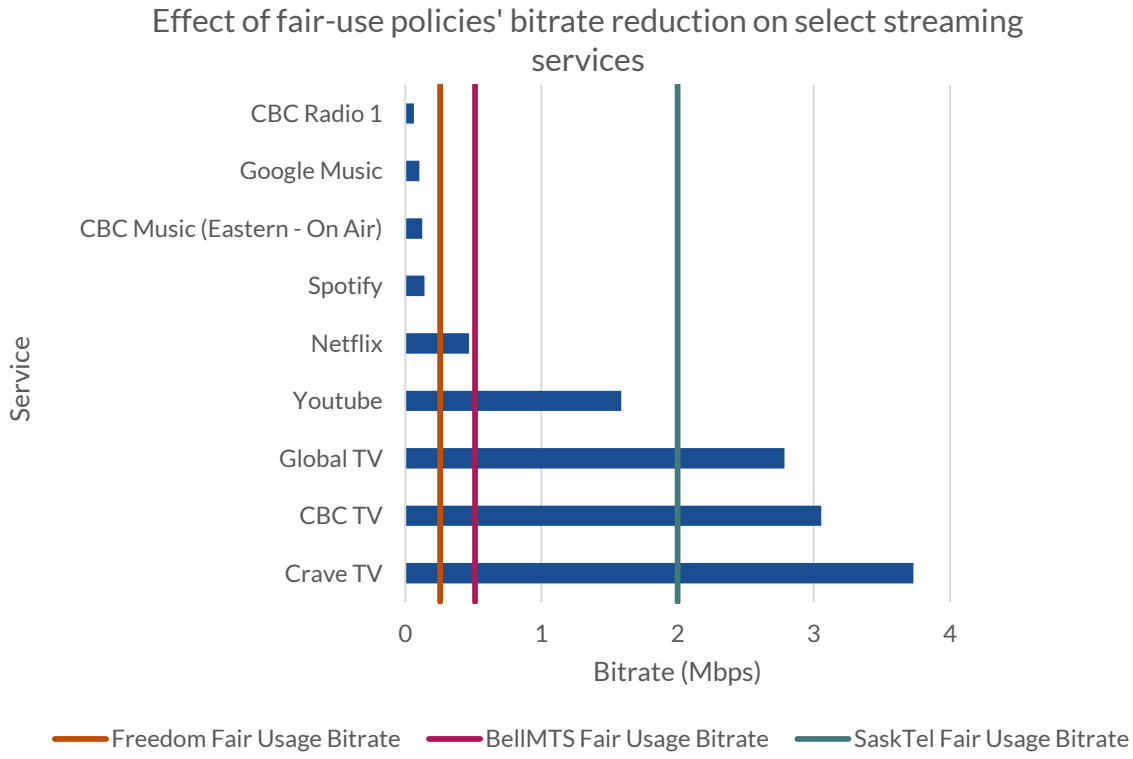
For unlimited wireless plans, the Wireless Code prohibits a service provider from applying overage charges and from putting any limit on the use of such a service purchased on an unlimited basis, unless these limits are clearly explained in the fair-use policy.

For such plans, the fair-use policy may reduce the data connection bitrate once a specified limit has been reached until the monthly billing cycle renews. Bitrate reduction to the end-user usually results in a service degradation so that basic services (e.g. email, web browsing) continue to work, but other services requiring faster connections (e.g. streaming services) are disrupted.

Figure 5.24 compares the average bitrate requirements of some services to some fair-use-policy bitrates for unlimited wireless plans. Generally, if a service's bitrate requirement exceeds the fair-use-policy threshold, the service will be degraded or disrupted, or become unusable.

When reading the chart below, it is important to note that customers can avoid triggering bitrate reductions by not exceeding the usage limits specified in their plans.

Figure 5.24 Effect of fair-use policies' bitrate reduction on select streaming services



Source: CRTC Broadband measurement

Methodology and Observations of 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 (apps) 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; in other words, 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.

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 due to numerous reasons, including resource sharing between multiple devices on a home network or moving around to/from 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.

Communications Monitoring Report 2018

Retail Mobile Sector

Retail Mobile Sector

Infographic 6.1

- Mobile revenues reached **$24.5 billion** in 2017, a **5.3% increase** from the previous year.
- There were **31.7 million** mobile subscribers in Canada in 2017, a 3.1% increase from the previous year.
- Average revenue per user (ARPU) in 2017 was **$65.33, a 2.1% increase** from the previous year.
- EBITDA margins remained strong in 2017 at **39.5%.**
- Approximately **92% of Canadians had access** to LTE-Advanced network services in 2017, compared to 83% in 2016.
- LTE mobile networks covered **99% of the population and over 86% of major roads and highways** in Canada.
- The average mobile data subscriber used **over 2 GB of data per month** in 2017, a **30% increase** from the previous year.
- The Top 3's flanker brands held **more than one fifth** of the subscriber market share in 2017.

Source: CRTC data collection

The retail mobile market remained the largest telecommunications market sector, with revenues of $24.5 billion in 2017, a growth of 5.3%, or $1.24 billion, over 2016 revenues. These revenues represented over 52% of all retail telecommunications revenues in 2017. The sector was one of only two telecommunications sectors, along with fixed Internet, that reported revenue growth in 2017 – all other sectors reported declines. Subscribers grew to 31.7 million, up 3.1% from 2016, average revenue per user (ARPU) increased by 2.1% to $65.33 in 2017, and EBITDA [earnings before interest, taxes, depreciation and amortization] margins remained strong in 2017 at just below 40%.

Mobile networks covered approximately one fifth of Canada's geographic land mass and reached 99% of Canadians in 2017, while penetration rate reached 85.7%. 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 92% of Canadians, respectively. At the end of 2017, LTE networks covered 86% of Canada's major roads and highways,[45] leaving almost 16,000 kilometres without LTE coverage.

[45] In Telecom Regulatory Policy 2018-377, the Commission established that Statistics Canada's street rank codes 1 through 3 corresponded to the Commission's definition of major transportation roads.

Over the past decade, there has been some progress made in fostering a more competitive mobile industry as a result of a combination of initiatives such as

- the AWS-3[46] spectrum auction,
- the auctions of 700 megahertz (MHz), 2500 MHz, 2300 MHz, and PCS-G[47] blocks
- additional AWS-3 spectrum auctions (1755-1780 and 2155-2180 MHz)
- other government initiatives to address the competitive landscape in the mobile sector, such as
    - mandating roaming and tower sharing,
    - wholesale roaming rate regulations,
    - the introduction of the Wireless Code in 2013, and
    - the review of the Wireless Code in 2017.

At the same time, Canadians' mobile usage continued to change, as did service provider offerings. New service providers offered Canadians more choices than ever before, alternative pricing and promotional offerings, innovative plans that introduced 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 the Top 3[48], the Top 3's flanker brands[49] and other service providers (hereafter, other providers).[50]

[46] Advanced Wireless Services

[47] Personal Communications Service – G block

[48] The Top 3 mobile service providers, in terms of revenues and subscribers, consists of the Bell Group, Rogers, and TELUS. Bell Group includes; Bell Canada, Bell Mobility, KMTS, Latitude Wireless, NorthernTel, Limited Partnership, Northwestel Mobility, and Telebec, Limited Partnership. As of 2013, Public Mobile's figures were included with those of TELUS. In 2015, Data & Audio Visual Enterprises Wireless Inc.'s (Mobilicity) figures were included with those of Rogers. In 2017, MTS Inc. figures were also included within the Bell Group. Throughout this section, the Top 3's flanker brands are included in the category of the Top 3.

[49] Top 3 flanker brands include brands such as Fido, Koodo and Virgin Mobile.

[50] 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]).

i. Revenues

Infographic 6.2

- Total retail mobile revenues reached **$24.5 billion, up 5.3%** in 2017.
- Mobile revenue market share: **Top 3 - 92%** vs. Other providers – 8%
- Mobile long distance revenues as a percentage of total mobile revenues: **2% in 2017, compared to 6%** in 2013.
- Mobile data revenues as a percentage of total mobile revenues: **48.3% in 2017, up 7.8%** from 2016.
- Percentage of revenues that were generated from postpaid plans in 2017: **95.5%**.

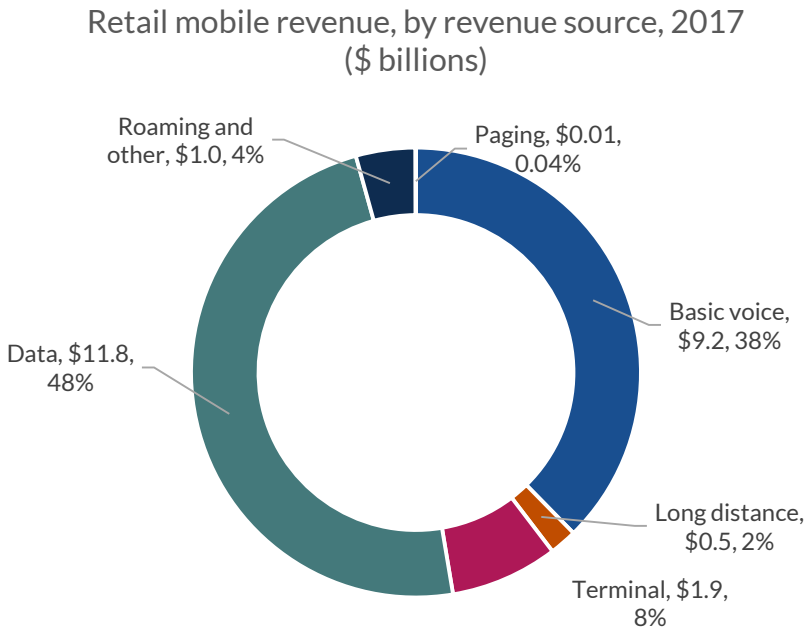
Source: CRTC data collection

Revenues in the mobile service sector, excluding paging service revenues, continued to account for the largest portion of telecommunications sector revenues in 2017 reaching $24.5 billion. This was an increase of 5.3% compared to previous year, slightly above the five-year cumulative average growth rate of 4.9%. The Top 3 captured 92% of these revenues, leaving 8% to be divided among the remaining competitors. Although the Top 3 lost about 1% in total revenue market share from 2013 to 2017, they were still able to retain about 92% of the revenue share from internal growth and through acquisitions. High-level market share data for 2013 to 2017 can be found on open data.

Not all services in the mobile sector experienced strong growth. Mobile long distance revenues continued to fall at a rapid pace. They dropped by 11.9% in 2017 and, on average, 19.7% annually over the five-year period from 2013 to 2017.

Demand for mobile data services has been one of the main drivers for sustained and strong revenue growth in this sector. In 2017, mobile data revenues made up 48.3% of all service revenues, compared to 37.3% in 2013.

Figure 6.1 Retail mobile sector revenues, by source, 2017 ($ billions)



Source: CRTC data collection

Since the majority of mobile data service revenues were derived from postpaid subscribers, companies continued to promote and incent larger data buckets to attract new customers and acquire existing users from their competitors.

Various mobile and paging service revenue components for the 2013 to 2017 period can be accessed via open data.

Infographic 6.3

- In 2017, percentage of mobile service revenues from:
  - Voice: 8% vs.
  - **Voice and data: 89%** vs.
  - Data-only plans: 3%.

Source: CRTC data collection

In 2017, 89% of revenues were derived from customers who subscribed to voice and data plans; this serves as a gauge to compare between the level of smartphone and regular cell phone adoption, as well as the 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, and may indicate a segment of society that is either less inclined or have yet to embrace the digital economy.

Infographic 6.4

- In 2017, percentage of voice roaming revenues generated from roaming in:
  - **Canada: 2%,**
  - United States: 70%, and
  - Internationally: 28%.
- In 2017, percentage of data roaming revenues generated from roaming in:
  - **Canada: 3%,**
  - United States: 61%, and
  - Internationally: 35%.

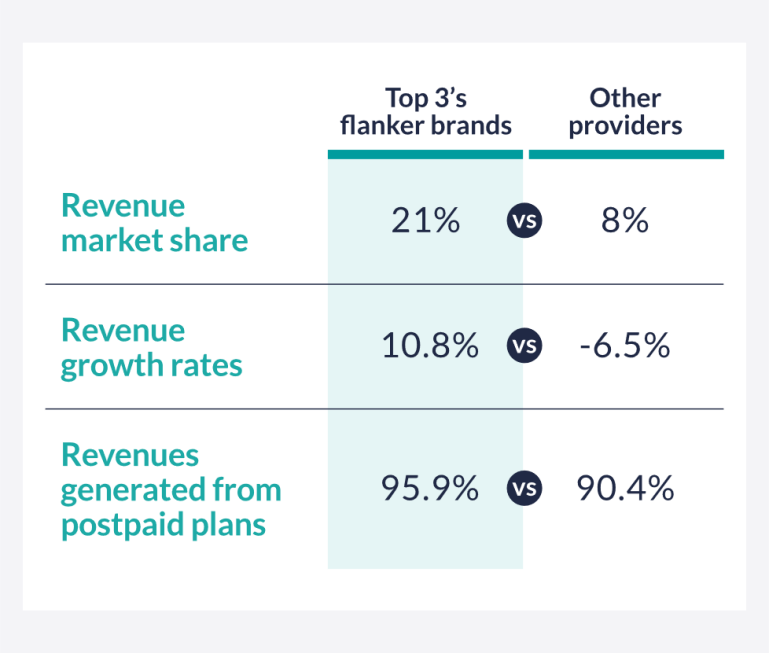
Source: CRTC data collection

Roaming[51] revenues were largely generated from subscribers who used mobile services in the United States. Approximately 70% of voice roaming revenues and 61% 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.

[51] Mobile providers extend their coverage area to areas where they do not have facilities by making arrangements with other providers that do have facilities in those areas 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

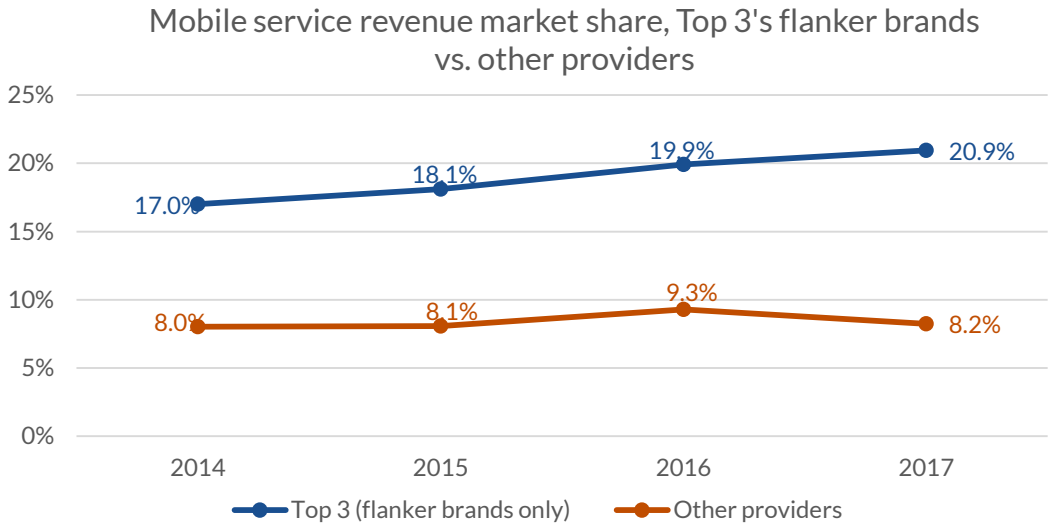
Infographic 6.5



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 service offerings. Generally, the Top 3's flanker brands and the new entrants have targeted the more value- and price-conscious consumers. Isolating and comparing only the Top 3's flanker brands to the other providers' data may provide a better comparison of the two groups' abilities to compete for revenue market share against one another.

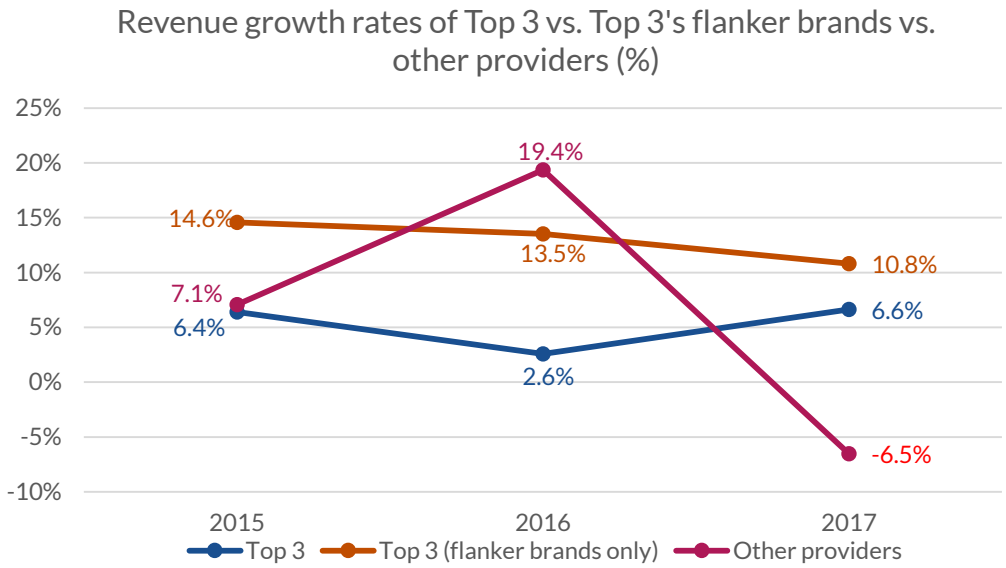
Figure 6.2 Mobile service revenue market share, Top 3's flanker brands vs. other providers



Source: CRTC data collection

As seen in Figure 6.3 below, the other providers reported a negative revenue growth of 6.5% in 2017, which was due mainly to Bell Mobility's acquisition of MTS during the first quarter of 2017. The acquisition caused a shift in mobile revenues from the other providers to the Top 3 category. As a result, the Top 3 recorded a slightly larger increase in the revenue growth rate, while the other providers posted a negative 6.5% growth rate (this would have otherwise been a positive growth rate). The figure also compares the revenue growth rate of the Top 3's flanker brands against the other providers and the Top 3.

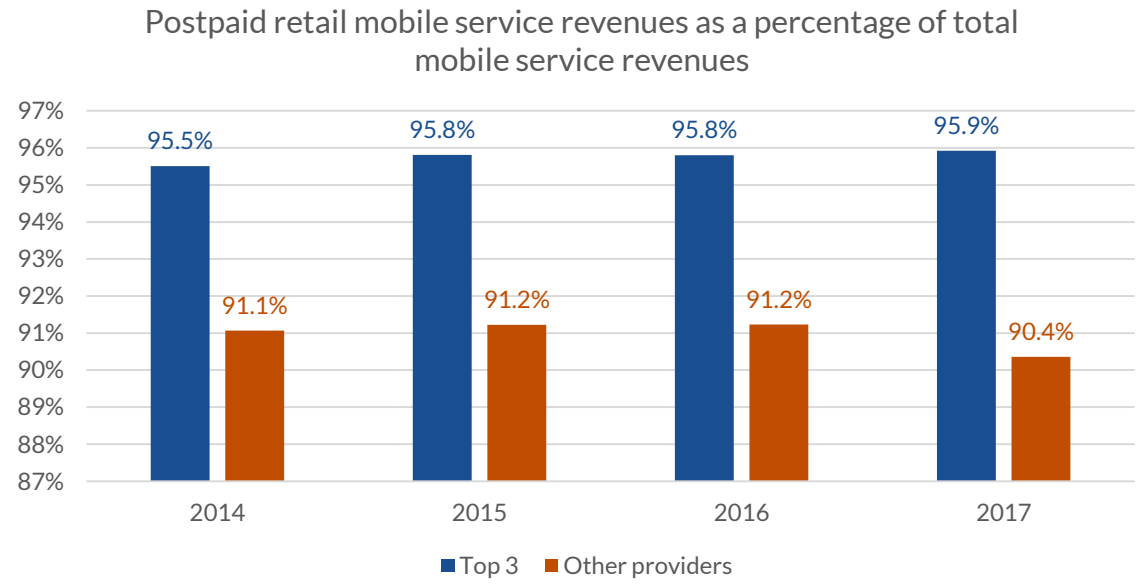
Figure 6.3 Revenue growth rates of Top 3 vs. Top 3's flanker brands vs. other providers



Source: CRTC data collection

More than 95% of mobile revenues came from postpaid plans and, not surprisingly, almost all data plans were sold under a postpaid plan. Since data revenues continue to be the largest and fastest growing service component, there are many incentives for providers to compete for the more lucrative postpaid subscribers such as higher revenues per subscriber and lower churn rates. Figure 6.4 illustrates the percentage of revenues derived from postpaid retail mobile services (basic voice, long distance, and data) by the other providers relative to the Top 3.

Figure 6.4 Postpaid retail mobile service revenues (basic voice, long distance, and data) as a percentage of total retail mobile revenues



Source: CRTC data collection

ii. Subscriber data

Infographic 6.6

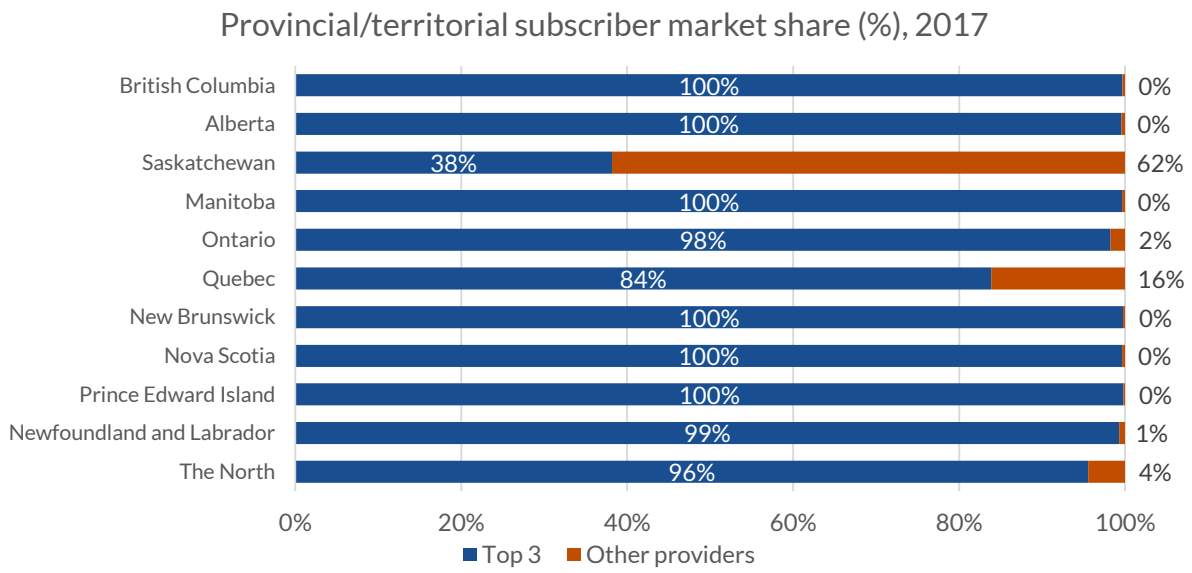
- Number of subscribers: **31.7 million** in 2017, an **increase of 3.1%** compared to 2016
- Mobile subscriber market share: Top 3 - 90% vs. **other providers – 10%**
- Percentage of subscribers who subscribed to a postpaid plan in 2017: **88%**
- Percentage of subscribers who subscribed to a plan that included data in 2017: **83%, an increase of 2.7%** compared to 2016
- Percentage of data subscribers who subscribed to a plan with 5 GB or more of data: **31%**
- Percentage of mobile subscribers who subscribed to a voice plan with unlimited voice minutes: **62%**
- Percentage of mobile subscribers who subscribed to a messaging plan with unlimited SMS: **99%**
- Percentage of mobile subscribers with plans that had a contract duration greater than two years: **7.2% in 2017 vs. 56.4% in 2013**

Source: CRTC data collection

In 2017, mobile subscribers grew by 3.1% to reach 31.7 million subscribers, almost two times slower than the revenue growth rate of 5.4%. This points to greater revenues per subscriber for 2017.

At the national level, the Top 3 continued to hold the majority of the subscriber market share at 90%, with remaining 10% divided among their competitors. However, there were regional differences. The Top 3's market share varied among province/territory, but collectively, they held the majority share in each province/territory except for Saskatchewan, where the other service providers held 62% of the market share, a decrease from 68% in 2013. Provincial and territorial market share data can be found via open data.

Figure 6.5 Provincial/territorial subscriber market share (%), 2017



Source: CRTC data collection

The figure above displays the market shares held by the major 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.

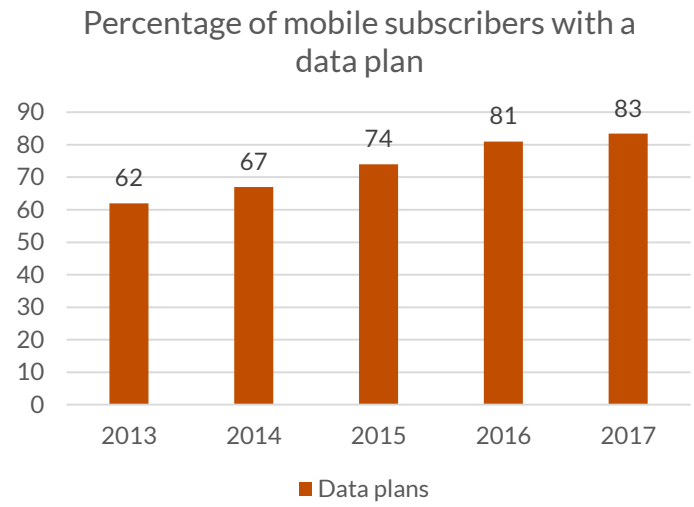
In 2016 and 2017, approximately 40% of all subscribers who subscribed to a data plan resided in Ontario. This figure closely aligns with the population distribution by province. Additional information with respect to the number of subscribers with a data plan and the distribution of data subscribers in each region of the country in 2016 and 2017 can be found via open data.

The appetite for mobile services continued to grow in 2017. More than 60% of all data subscribers subscribed to a plan with 2 GB or more of data, compared to 54% in 2016, while 57% of subscribers had unlimited voice minutes and 99% had unlimited text messages, compared to 56% and 98%, respectively, in 2016.

With the implementation of the Wireless Code in 2013, the percentage of postpaid plans under contracts of more than two years declined significantly. While customers can still sign contracts more than two years in length, no cancellation fees can be incurred after 24 months. Since business accounts were exempt from the code, many of the accounts reported in the greater than 2 years category reflect business accounts that were still under contract. However, the number of subscribers with contracts between 1 and 2 years in length rose to 49% in 2017 from 45% in 2016. Additional details can be found via open data.

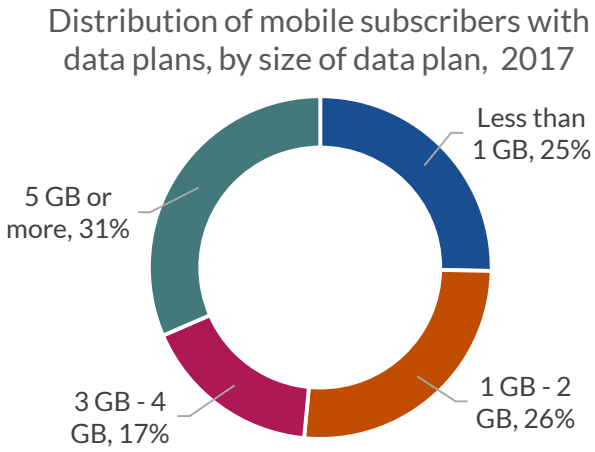
Because the level of detail required differs from each group of reporting entities, only those who provided a certain level of detail were included in subscriber plan-specific data. As a result, the figures reported in the bar chart below represents over 90% of total mobile subscribers. The figures show the percentage of subscribers with a data plan and illustrates the increasing appetite for data plans as the number steadily increased from 62% in 2013 to 83% in 2017.

Figure 6.6 Percentage of mobile subscribers with a data plan



Source: CRTC data collection

Figure 6.7 Distribution of mobile subscribers with data plans, by size of plan, 2017

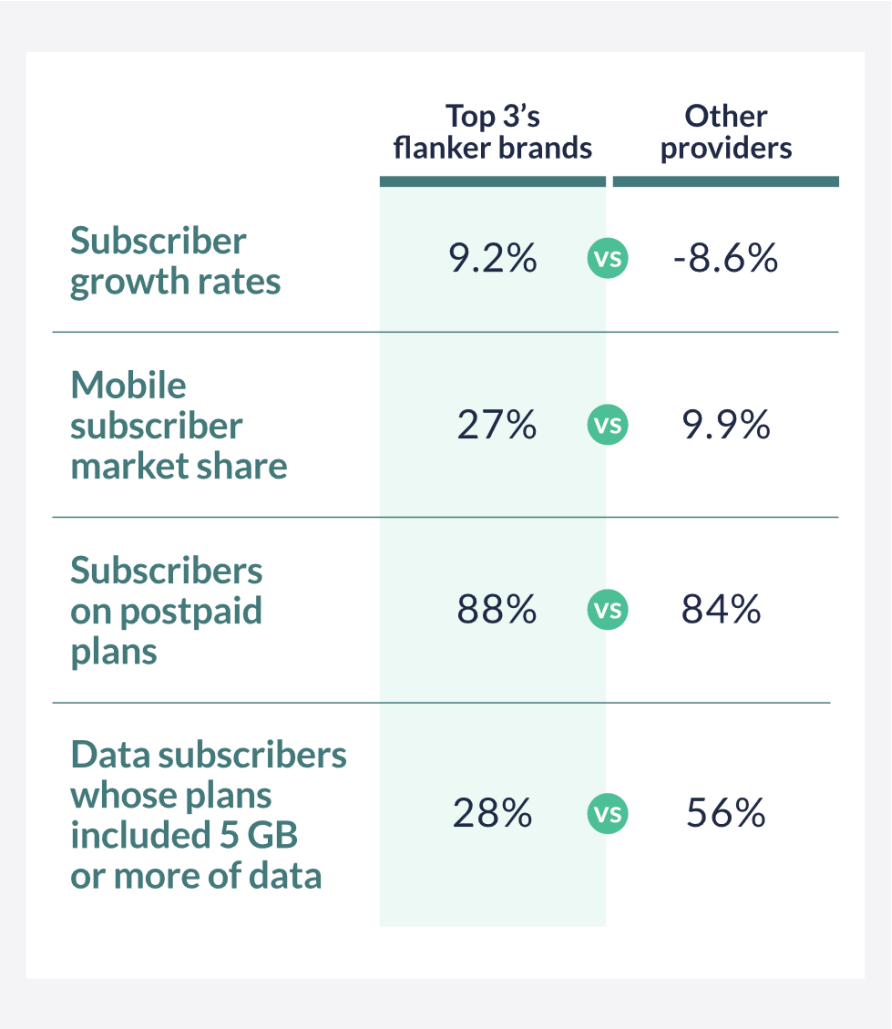


Source: CRTC data collection

Figure 6.6 above shows the percent of subscribers who subscribed to any sort of data plan, while Figure 6.7 above shows the distribution of subscribers with a data plan, excluding data-only plans, by the size of the plan.

Competitive lens/landscape

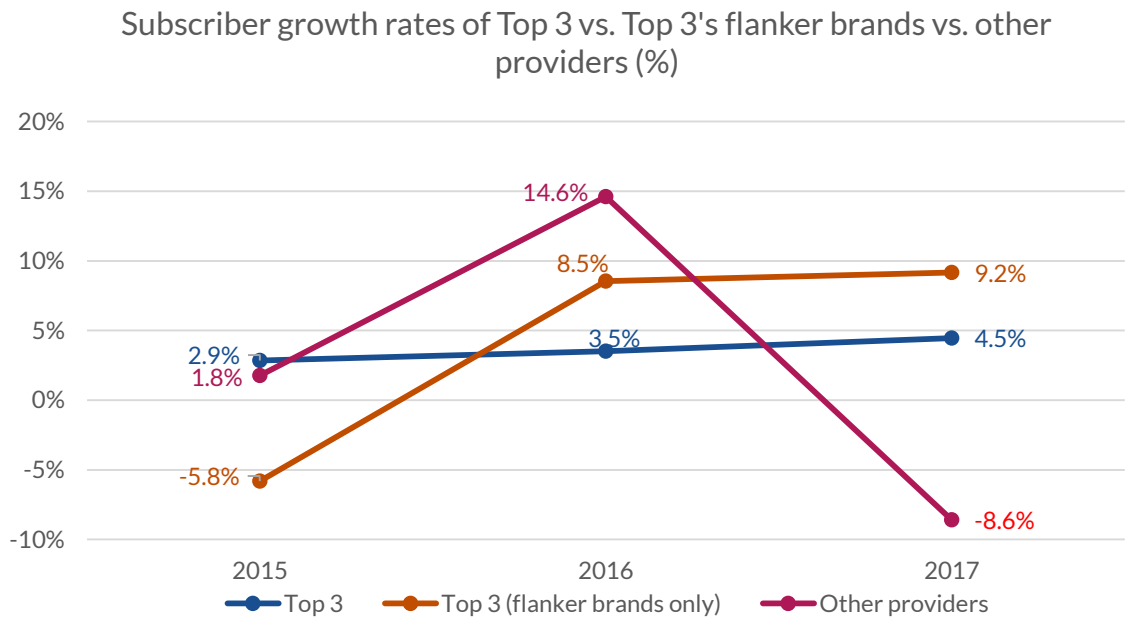
Infographic 6.7



Source: CRTC data collection

The Top 3's subscriber growth outpaced that of the other providers. As a collective group, the Top 3 reported a strong 4.5% increase in subscribers in 2017, their highest growth rate reported in three years. One of the main contributors to this growth was Bell Mobility's acquisition of MTS.

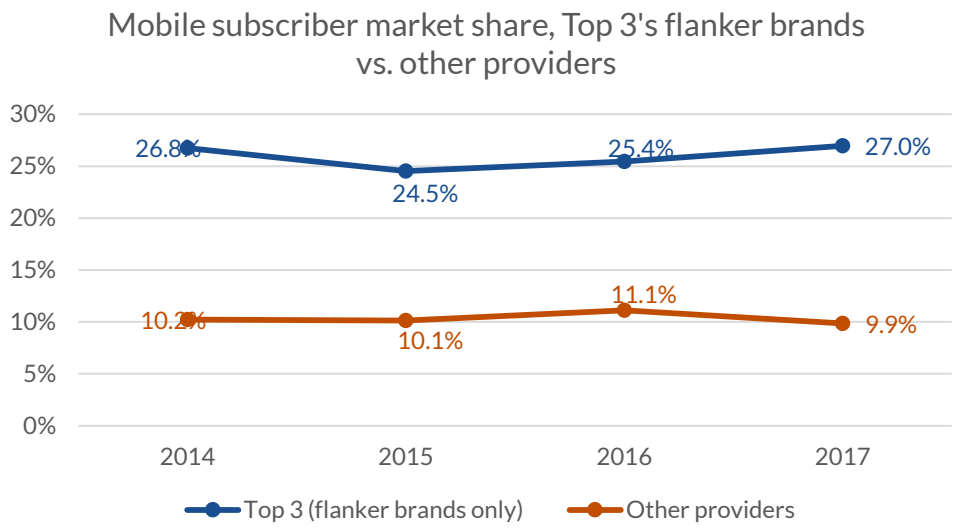
Figure 6.8 Subscriber growth rates of Top 3 vs. Top 3's flanker brands vs. other providers



Source: CRTC data collection

From 2014 to 2017, the Top 3's subscriber market share did not change significantly; however, the 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 brand plans to compete in the marketplace. From 2014 to 2017, the Top 3's flanker brands garnered approximately one quarter of the subscriber market share, almost 3 times that of the other providers.

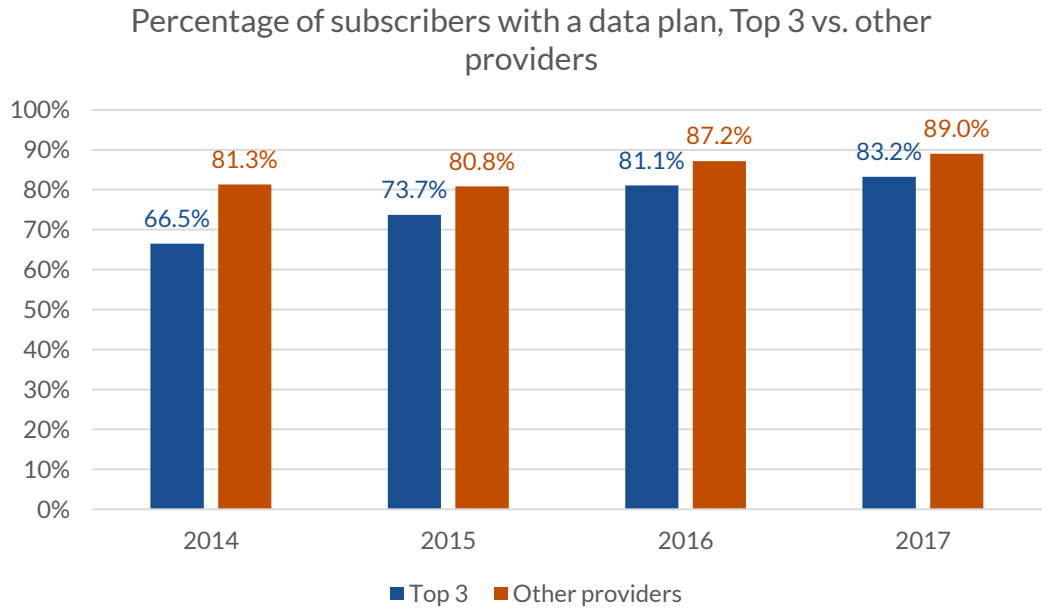
Figure 6.9 Mobile subscriber market share, Top 3's flanker brands vs. other providers



Source: CRTC data collection

Both the Top 3 and the other providers have consistently and successfully positioned their plans to encourage their customers to favour postpaid instead of pre-paid subscriptions. As a result, in 2017, 88% of all subscribers were reported as postpaid subscribers, compared to 83% in 2013. The shift from prepaid to postpaid subscribers resulted in higher overall revenues and higher revenues per subscriber.

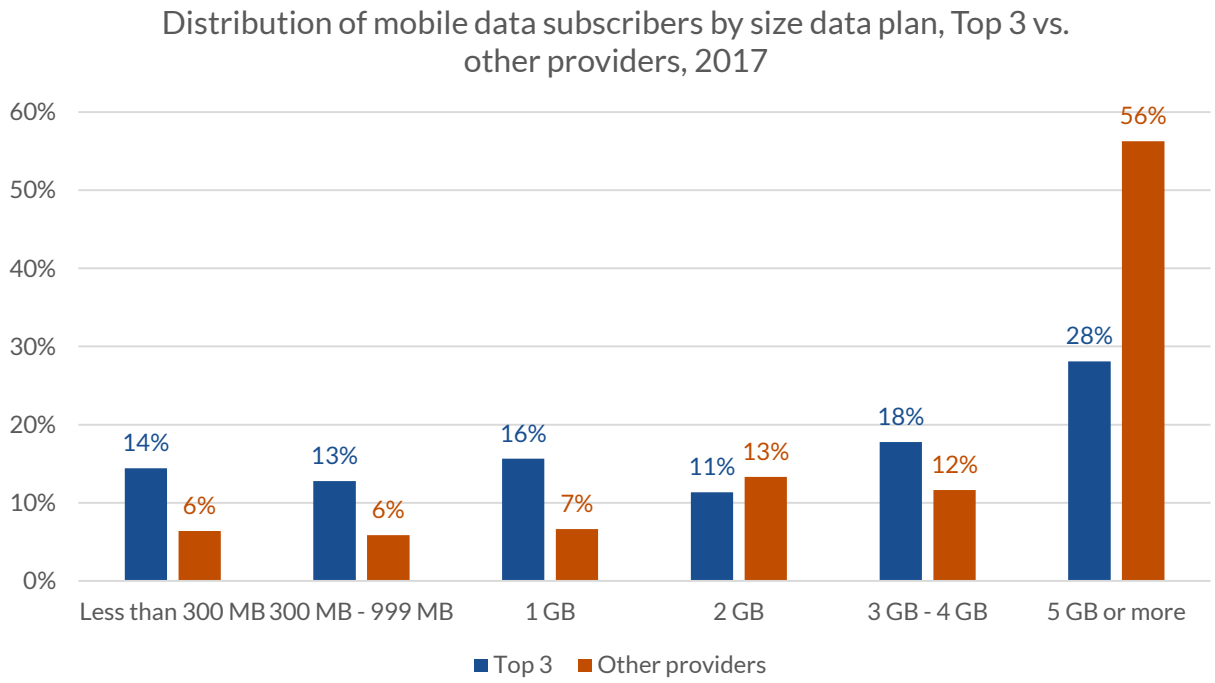
Figure 6.10 Percentage of subscribers with a data plan, Top 3 vs. other providers



Source: CRTC data collection

The chart below compares the distribution of subscribers with a data plan, excluding data-only plans, by size of the plan and by the Top 3 versus other providers. Both the Top 3 and other providers' total data subscriber base is represent separately.

Figure 6.11 Distribution of mobile data subscribers by size of plan, Top 3 vs. other providers, 2017



Source: CRTC data collection

iii. Other performance indicators

In addition to revenue and subscriber metrics, there are other indicators such as average revenue per user/subscriber (ARPU),[52] data usage, investments and penetration rates that can help measure financial performance and assess the level of competition in the mobile sector.

Infographic 6.8

- In 2017, the ARPU was **$65.33/month, an increase of 2.1%** compared to 2016.
  - Highest average[53] provincial ARPU: **Alberta $73.60**
  - Lowest average[54] provincial ARPU: **Quebec $56.07**
- Wireless EBITDA margins: **39.5%**
- Average capital expenditures per user (ACEPU): **$6.20/month**
- Average data usage across all subscribers: **1.6 GB/month, an increase of 37.5%** compared to 2016.
- Average revenue per 1 GB of data per month: **$16.80**
- Lowest blended prepaid and postpaid churn rate ever reported: **1.1% by TELUS**
- Average number of SMS and MMS sent/received daily: **513 million messages**

Source: CRTC data collection

Average capital expenditure per user 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.

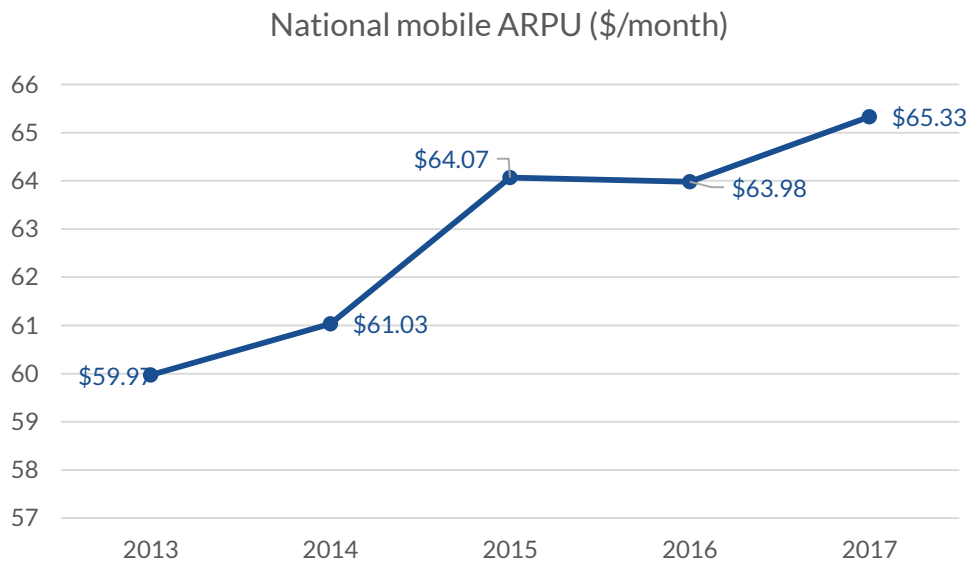
[52] The average mobile service revenue per subscriber was calculated by dividing total annual mobile service revenues by the average number of subscribers during the year. The result was then divided by twelve to obtain a monthly result. The average number of subscribers was determined by dividing the sum of the number of subscribers at the beginning and at the end of the year by two.
[53] This was the highest reported ARPU in the ten provinces.
[54] This was the lowest reported ARPU in the ten provinces.

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, and taking advantage of competitive offers and pricing issues. 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 competing incentives to motivate subscribers to move their mobile services from one provider to another.

The increase in data demand and usage from 2014 to 2017 vastly outpaced the revenues derived from data service, which resulted in lower revenues per gigabyte (GB) per month. The average revenue per 1 GB of data usage per month has been declining since 2015 when this metric was first reported. 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 2013 to 2017, the national ARPU increased from $59.97 to $65.33 per month, or by an average annual rate of 2.2%. Provincial and territorial ARPU data for these years can be accessed via open data.

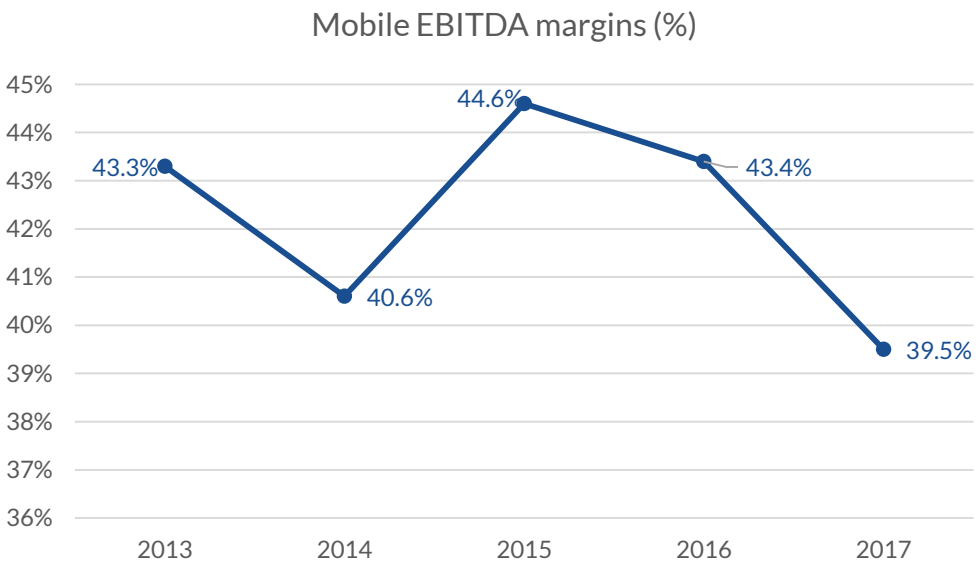
Figure 6.12 National mobile ARPU ($/month)



Source: CRTC data collection

As a proxy for measuring the operating profitability of the mobile sector, EBITDA margins for 2013 to 2017 were calculated and presented in the chart below. While not all companies generated such high margins, the Top 3's EBITDA figures were heavily weighted in the calculation due to their 92% revenue market share in the mobile sector.

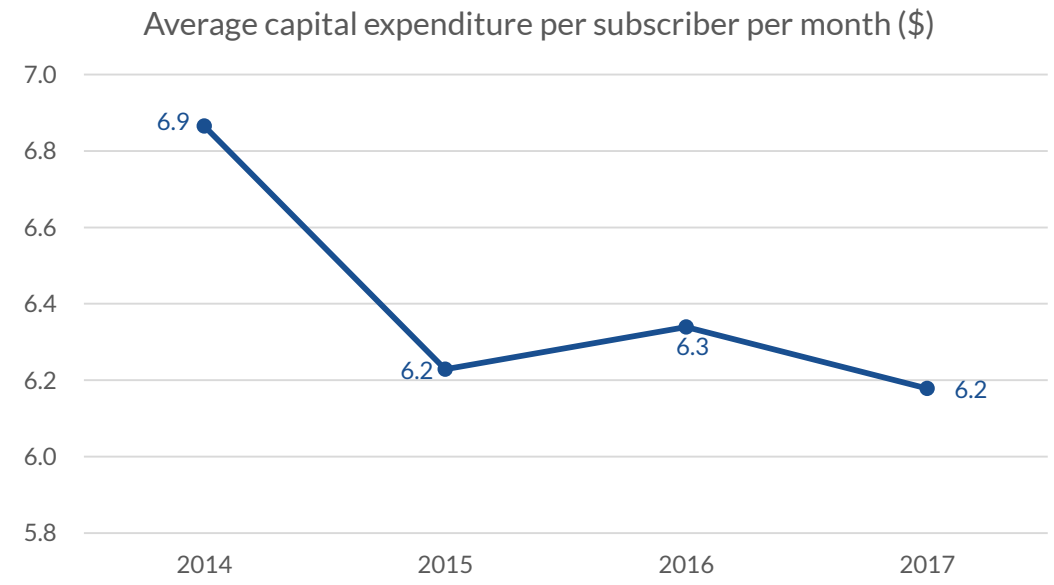
Figure 6.13 Mobile EBITDA margins (%)



Source: CRTC data collection

Investments in infrastructure are necessary for mobile providers to expand their network coverage, higher broadband speeds and create network efficiencies. Total wireless capital expenditures can be found in the Telecommunications Overview section or can be accessed via open data. The chart below displays the average capital investments associated with each mobile subscriber in each year from 2014 to 2017.

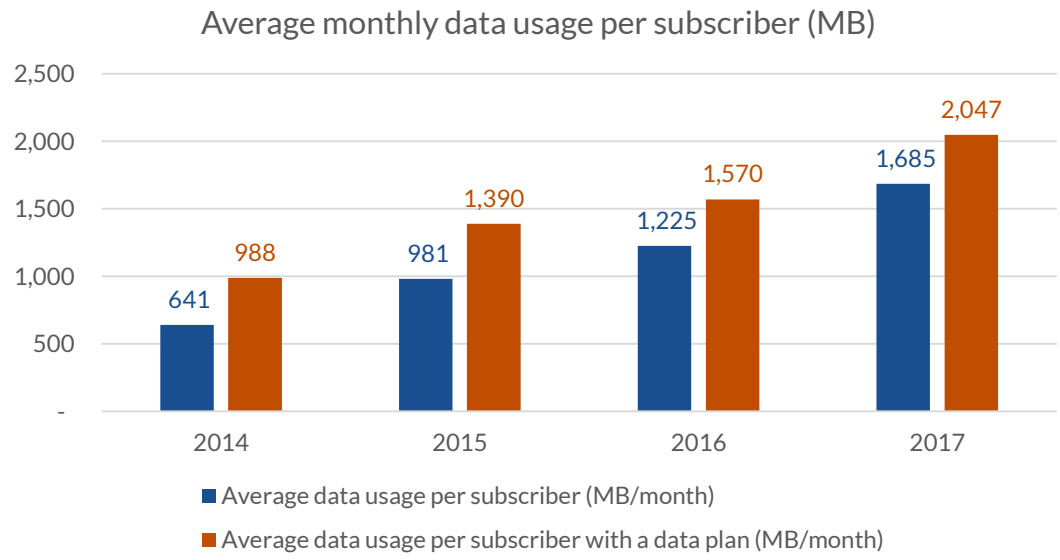
Figure 6.14 Average capital expenditure per subscriber per month ($)



Source: CRTC data collection

In 2017, Canadians demanded more mobile data, as was evident in the average data use per subscriber numbers shown in Figure 6.15. The average monthly data usage across all subscribers and subscribers with a data plan was 1.6 GB per month and 2.0 GB per month, respectively.

Figure 6.15 Average monthly data usage per subscriber (MB)



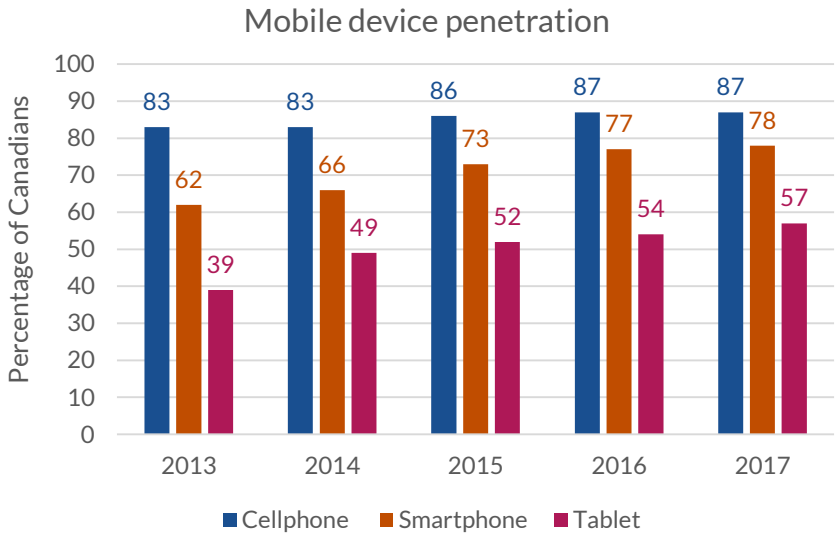
Source: CRTC data collection

SMS/MMS allows for the transmission of text, videos pictures, etc. between mobile subscribers. Each year from 2014 to 2017, the average daily number of SMS/MMS sent/received was consistently over 500 million messages (average of 513M). Additional details can be found via 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 6.16 shows the percentage of Canadians, 18 years of age and older, who owned regular cell phones, smartphones, and tablets, from 2013 to 2017. In this figure, smartphones are a subset of cell phones. The use of smartphones and tablets increases the volume of data traffic on the network.

Figure 6.16 Mobile device penetration



Source: MTM Fall 2017 (Respondents: Canadians aged 18+)

This table shows the percentage of Francophones and Anglophones in Canada who owned cell phones, smartphones and tablets, from 2013 to 2017. Cell phone owners include people who own either a regular cell phone or a smartphone. Over this period, Anglophones consistently owned cell phones, smartphones, and tablets at a higher rate than Francophones; however, the gap narrowed significantly in 2017.

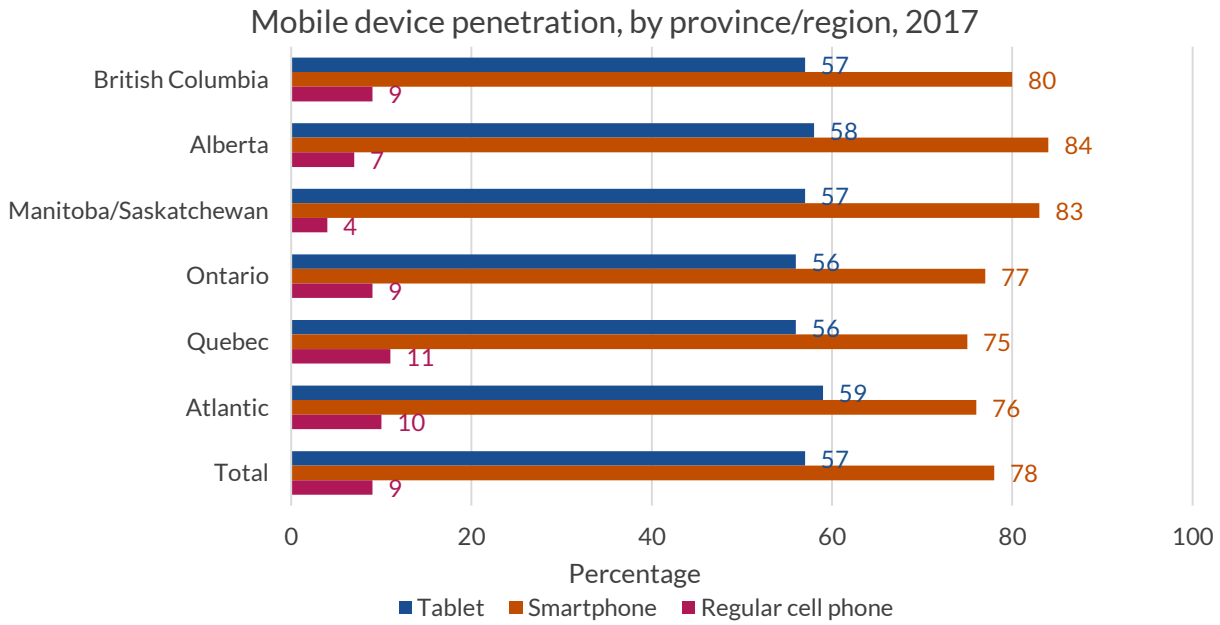
Table 6.1 Mobile device penetration, by linguistic group (%)

Mobile device	2013		2014		2015		2016		2017	
	Anglo	Franco	Anglo	Franco	Anglo	Franco	Anglo	Franco	Anglo	Franco
Cell phone	86	74	86	75	89	78	89	81	87	86
Smartphone	66	49	69	54	77	61	80	68	79	75
Tablet	42	30	51	41	53	48	55	52	57	56

Source: MTM Fall 2017 (Respondents: Canadians aged 18+)

As seen in Figure 6.17 below, Canadians who reside in the western provinces were generally more likely to adopt smartphones and tablets than Canadians who reside in the eastern provinces, although adoption rates were high throughout Canada.

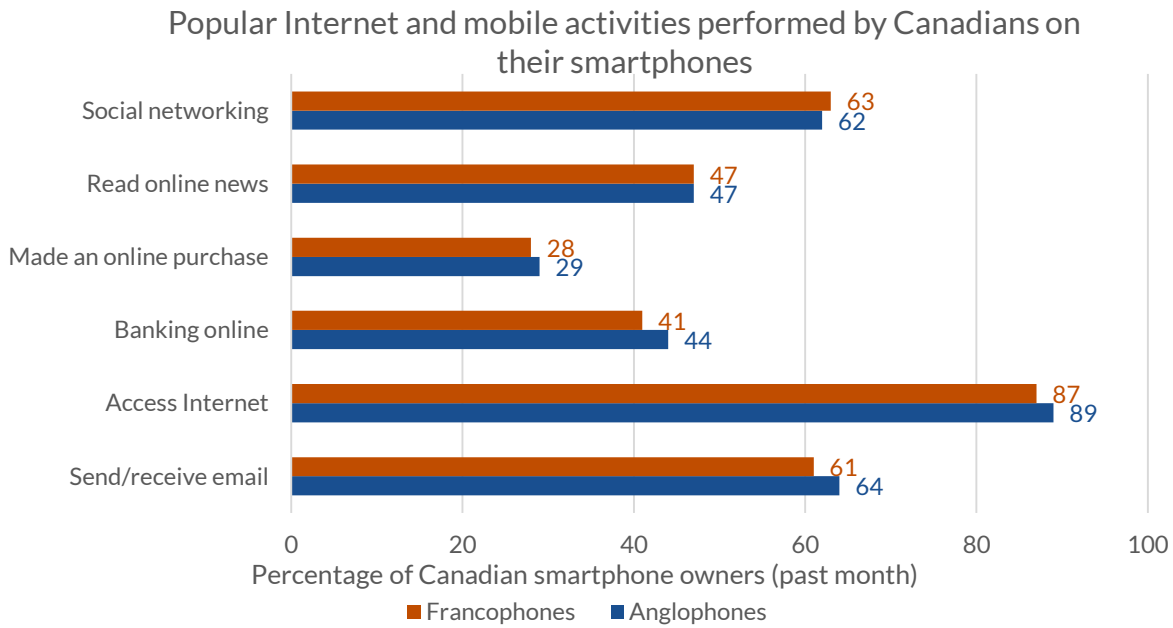
Figure 6.17 Mobile device penetration, by province/region, 2017



Source: MTM Fall 2017 (Respondents: Canadians aged 18+)

Figure 6.18 shows some of the popular activities that Francophones and Anglophones carried out using their smartphones. Generally, Anglophones were slightly more inclined than Francophones to use smartphone technologies, with the exception of engaging in social networking with their devices.

Figure 6.18 Popular Internet and mobile activities performed by Canadians on their smartphones, 2017

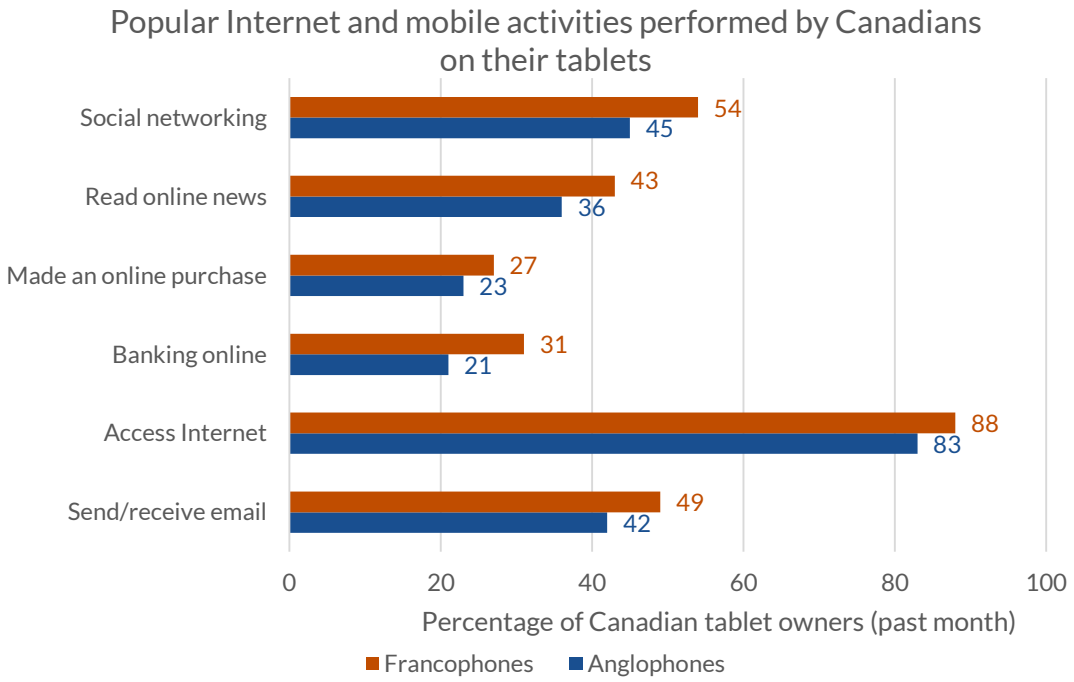


Source: MTM Fall 2017 (Respondents: Canadians aged 18+)

"Past month" refers to last 30 days at the time of the survey.

Figure 6.19 shows some of the popular activities that Francophones and Anglophones carried out in 2017 using their tablets. Unlike smartphone use, Francophones are more inclined than Anglophones to use tablet technologies in all activity categories.

Figure 6.19 Popular Internet and mobile activities performed by Canadians on their tablets, 2017



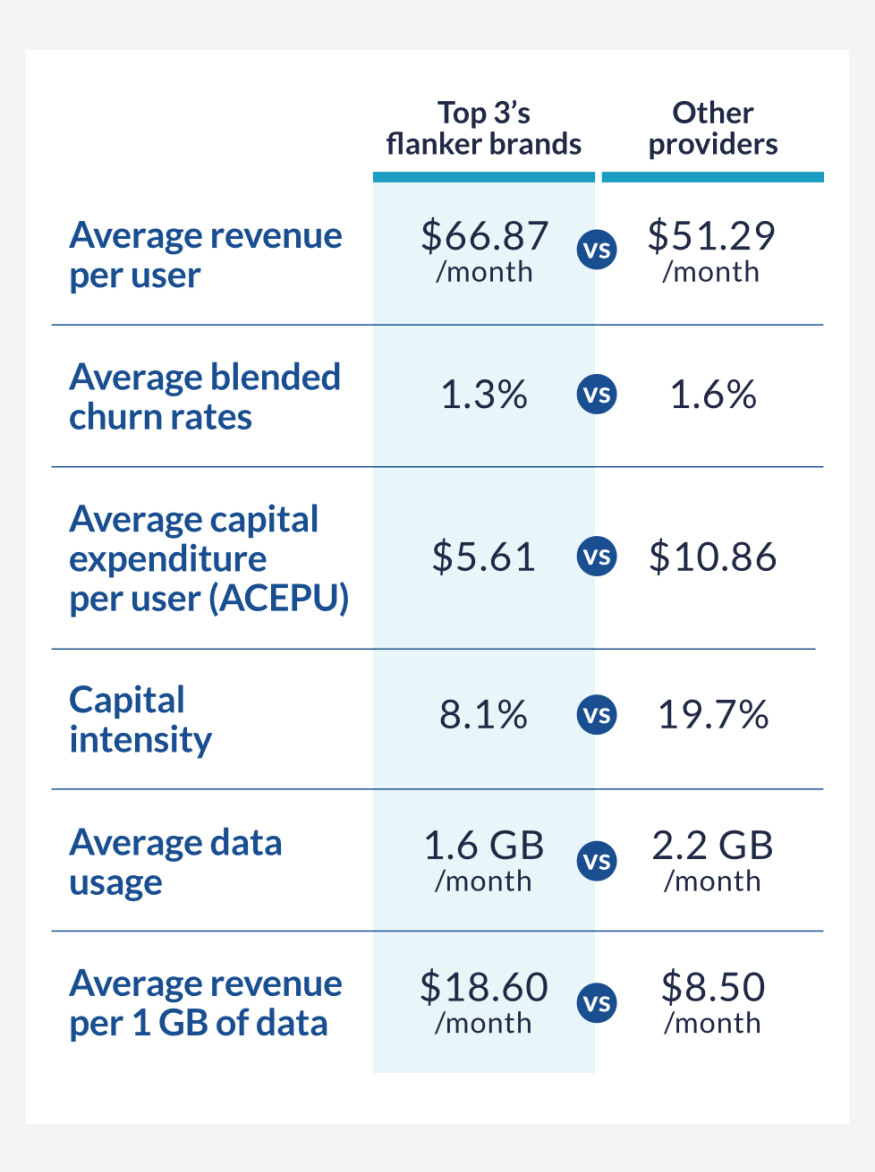
Source: MTM Fall 2017 (Respondents: Canadians aged 18+)

"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.

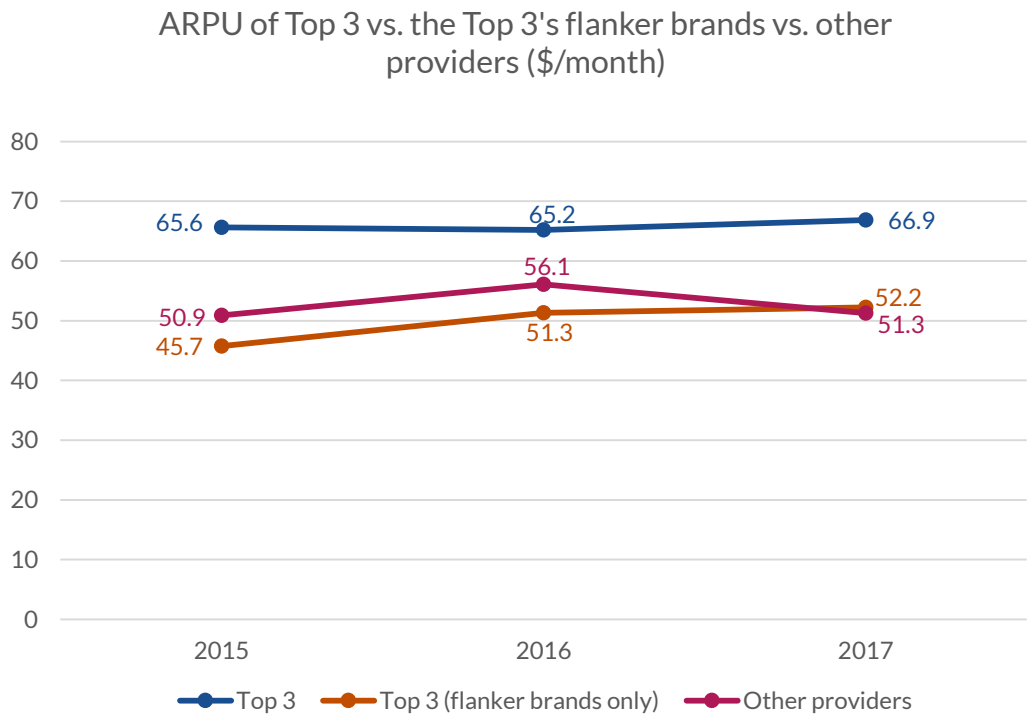
Infographic 6.9



Source: CRTC data collection

The Top 3 had over 90% of revenue and subscriber market share in 2017. As seen in Figure 6.20, the Top 3 consistently reported higher ARPUs than their competitors, although their flanker brands had very similar ARPUs to those reported by the competitors.

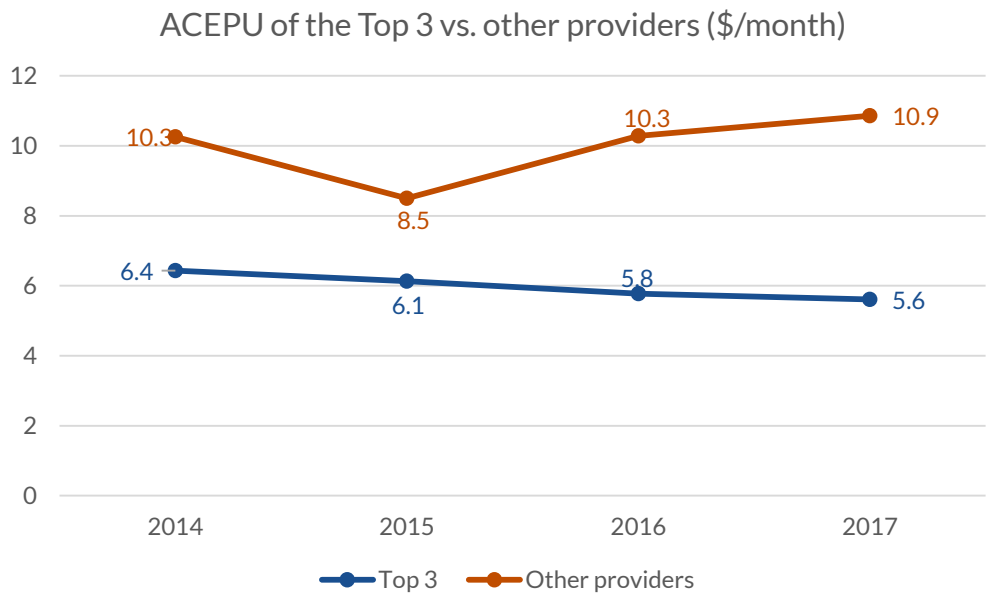
Figure 6.20 ARPU of Top 3 vs. the Top 3's flanker brands vs. other providers ($/month)



Source: CRTC data collection

One can argue that with a more mature network, economies of scale, experience, larger subscriber base and the ability to leverage existing telecommunication infrastructure, the average capital expenditure per user (ACEPU) of the Top 3 will inherently be smaller than that of the other providers, which must generally spend more on infrastructure as they continue to expand and improve their existing mobile networks. As seen in Figure 6.21 below, the other service providers had a much higher ACEPU than that of the Top 3 in 2017, and the gap appears to be widening.

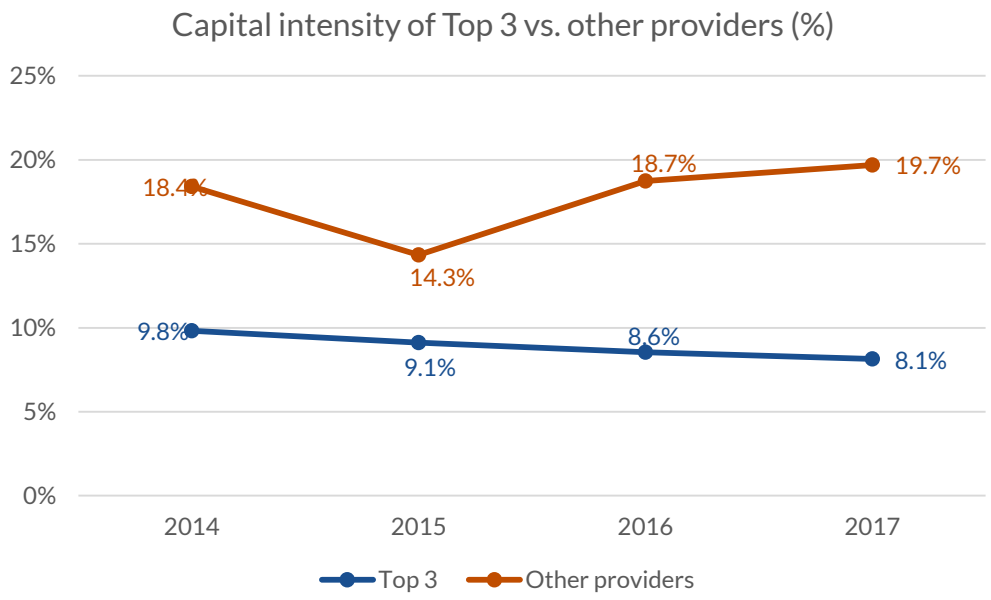
Figure 6.21 ACEPU of Top 3 vs. other providers ($/month)



Source: CRTC data collection

Capital intensity measures the ratio of capital investments made to revenues generated in a given year. Figure 6.22 below reveals that the Top 3 reinvested at a lower rate than the other providers by more than 2.4 times in 2017.

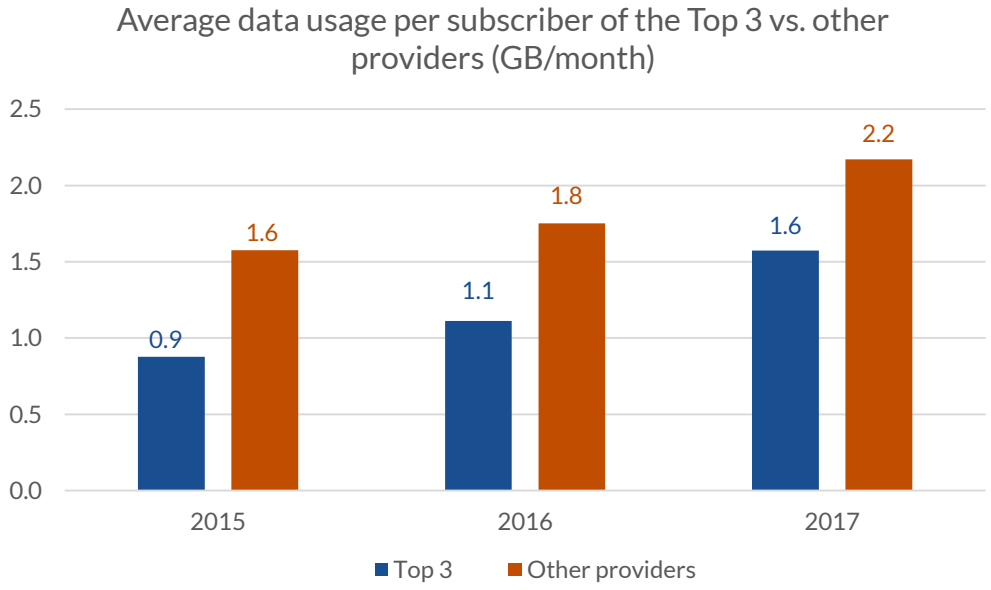
Figure 6.22 Capital intensity of Top 3 vs. other providers



Source: CRTC data collection

The other providers' subscribers used, on average, more data than 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 6.23 Average data usage per subscriber of the Top 3 vs. other providers (GB/month)



Source: CRTC data collection

iv. Coverage/availability details

Infographic 6.10

- Total mobile coverage in Canada: **99.4%** of the population
- LTE-A coverage in Canada: **92%** in 2017 of the population vs. 83% in 2016
- Highest LTE-A population coverage: **Alberta 97.2%**
- Lowest LTE-A population coverage (excluding the North): **Saskatchewan 48.1%**
- Percentage of Canadians who had access to network coverage of three providers: **54%**
- Highest percentage of population covered by three or more networks: **Prince Edward Island 95%**
- Provinces where Canadians had access to four or more network providers: **Quebec and Ontario**
- Mobile penetration rate in Canada: **85.7%**
- Highest penetration rate: **Alberta 91.6%**
- Lowest penetration rate (excluding the North): **Prince Edward Island 71.3%**

Source: CRTC data collection

For over a decade, more than 99% of Canadians have had access to mobile services, regardless of the type of network technology deployed. However, coverage availability by technologies such as HSPA+,[55] LTE and LTE-A, by percentage of population for each province and the North varied significantly depending on location. In 2017, more than 97% of Albertans had access to LTE-A, while only 48% of people in Saskatchewan had access to it. 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, which translates to an enhanced consumer experience, especially for those who use data-intensive applications.

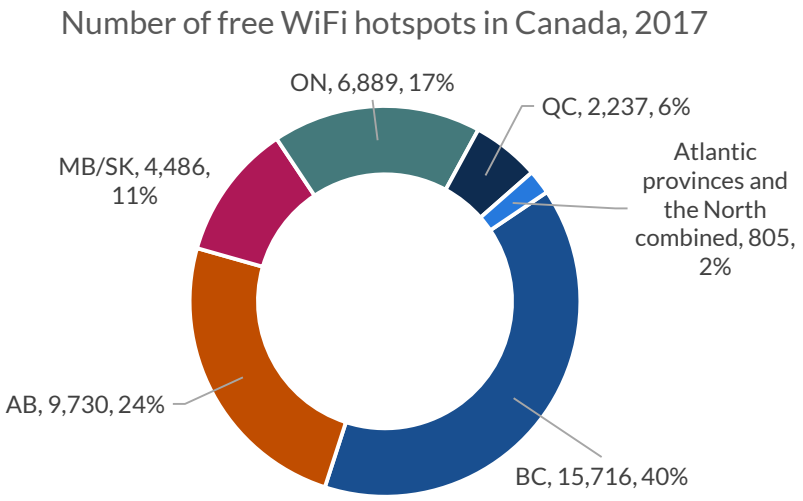
[55] Evolved High-Speed Packet Access

When it comes to service provider choices, Canadians had, on average, access to two or three facilities-based service providers in most provinces in 2017, but generally, only one provider in the North. In 2017, 95% of Prince Edward Islanders had a choice of at least three network providers, while only 3% of Saskatchewanians had access the same number of facilities-based service providers. The availability of three or more providers is an illustration of the differences between provinces and territories, and large metropolitan cities and small rural towns all across Canada. Coverage availability by the number of facilities-based service providers, by province, can be found in 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 brand. Hotspots are locations where Internet access via 802.11 WiFi technology is provided to the public. In 2017, there were 40,775 hotspots available throughout the country and only 2% (912) of them required paid access.

Figure 6.24 Number of WiFi hotspots in Canada, 2017



Source: CRTC data collection

"Free" is defined as having no charge for at least 1/2 hour of access, even if access requires being a paid customer at the location. Major providers in western Canada have moved towards providing free hotspots, as shown in the above chart.

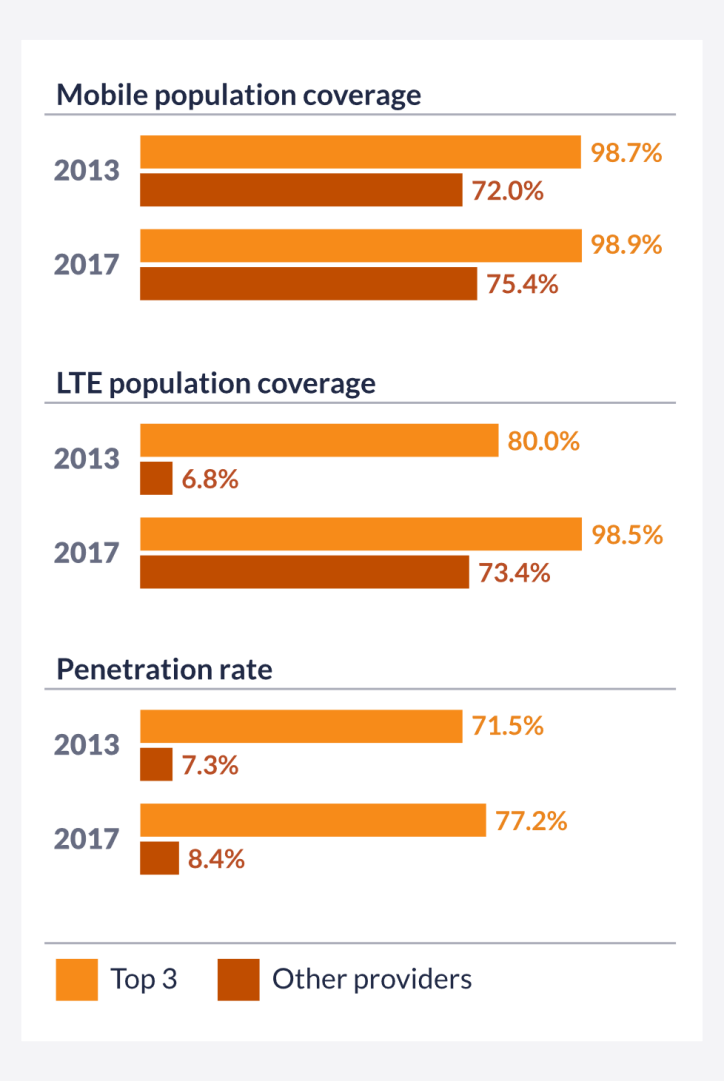
Only hotspots provided by the major TSPs are included; this figure may exclude independently run free hotspots provided by hotels, restaurants and other public facilities.

Data for the Atlantic provinces and the North is not reported individually due to the confidentiality of the data.

This chart does not include hotspots that provide access only to a TSP's existing customers.

Competitive lens/landscape

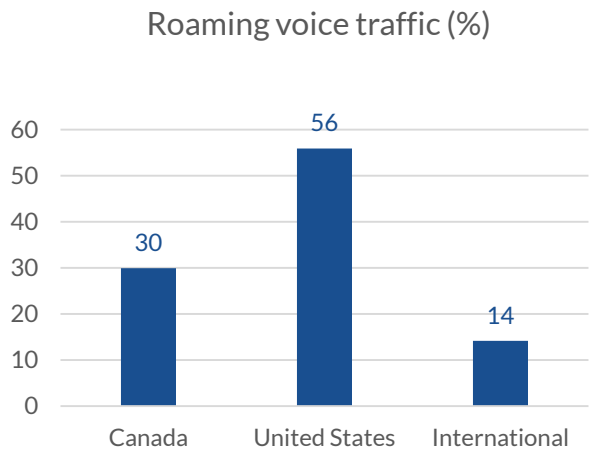
Infographic 6.11



Source: CRTC data collection

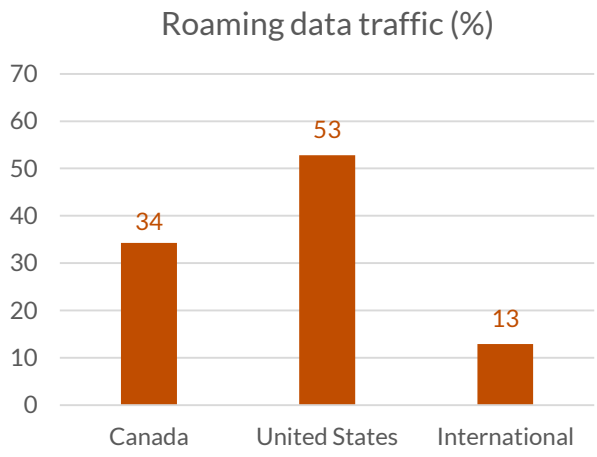
Generally, the Top 3 and other providers try to extend their service coverage across Canada in a cost-efficient manner by entering into sharing arrangements for support structures, antenna sites and networks and by establishing roaming arrangements. Roaming arrangements enable subscribers to have access to service outside their mobile service provider's home network, while network sharing arrangements alleviate the cost to build an extensive nation-wide network. When a subscriber is outside its service provider's network and is connected to the network of another WSP, the subscriber is said to be "roaming". Figure 6.25 and Figure 6.26 below show the percentage of voice minutes and data traffic, excluding MMS and SMS, derived from roaming within Canada, in the United States, and internationally.

Figure 6.25 Roaming voice traffic by destination, 2017



Source: CRTC data collection

Figure 6.26 Roaming data traffic by destination, 2017

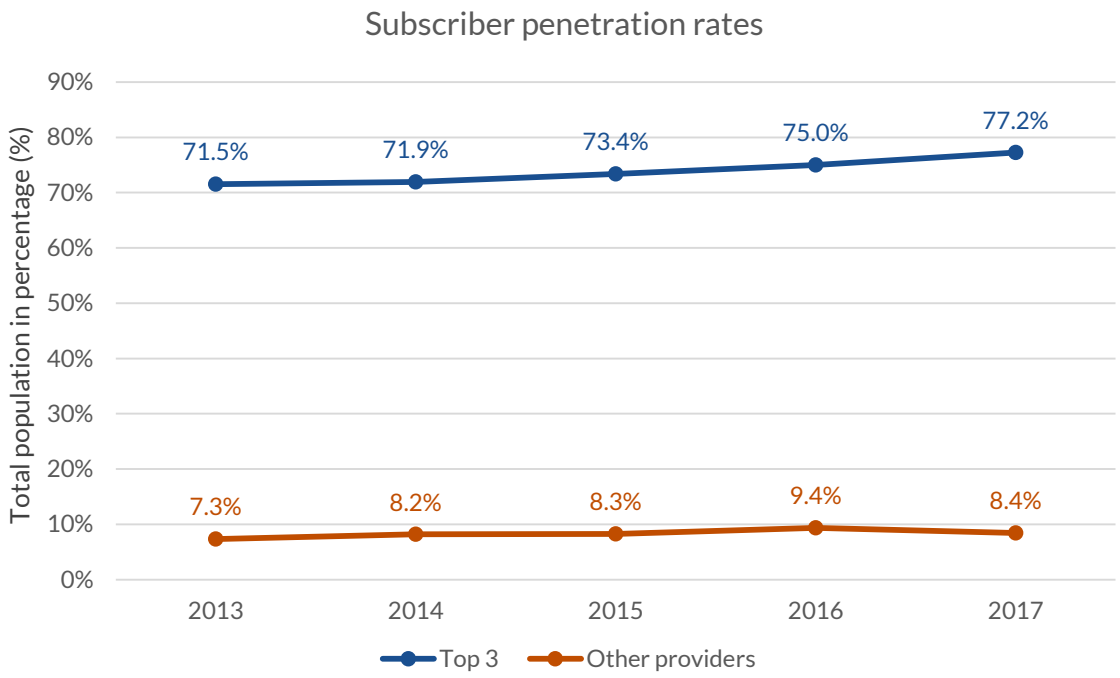


Source: CRTC data collection

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 except Saskatchewan. In 2017, the Top 3 had over 98.9% of national coverage compared to 75.4% by the other providers. There was a clear disparity between the two groups with respect to Canada-wide LTE coverage. The Top 3 had 98.5% LTE coverage compared to only 73.4% by the other providers.

The disparity between the Top 3 and other providers was also evident in penetration rates. From 2013 to 2017, the Top 3's subscriber base grew from 72% of the population to 77%, while the other service providers' base increased at slightly a faster pace, from 7% of the population to 8% over the same five-year period.

Figure 6.27 Subscriber penetration rates, in percentage of total population



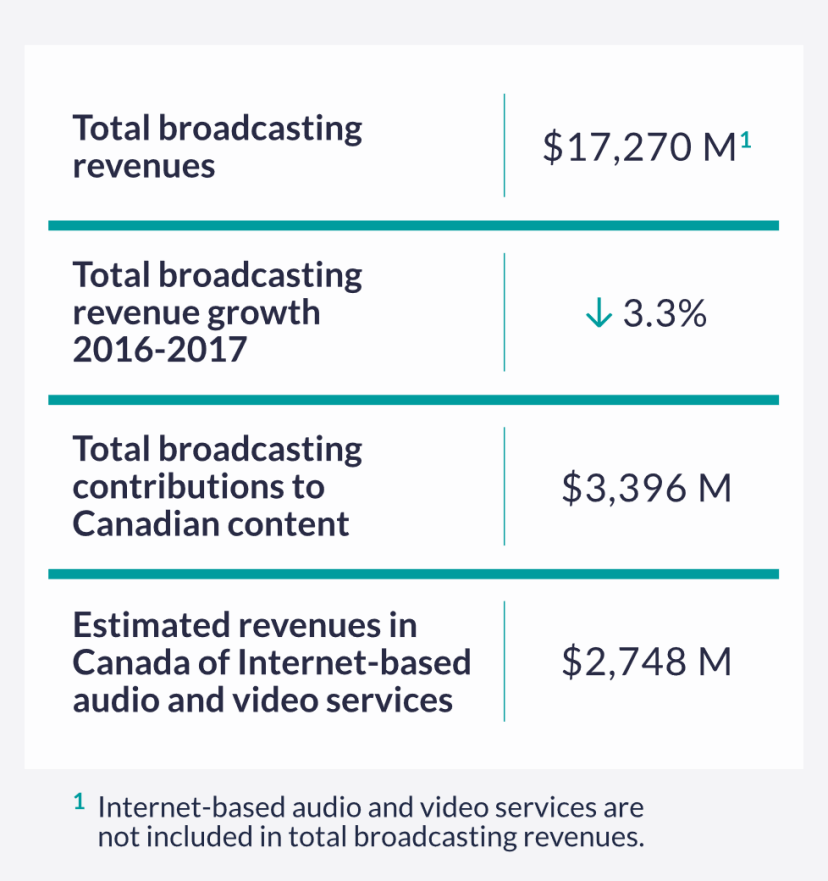
Source: CRTC data collection

Communications Monitoring Report 2018

Broadcasting Overview

Broadcasting Overview

Infographic 7.1



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

Internet-based audio and video services are not included in total broadcasting revenues.

Total broadcasting revenues include revenues from private commercial and CBC conventional television, discretionary and on-demand television, private commercial and CBC 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.

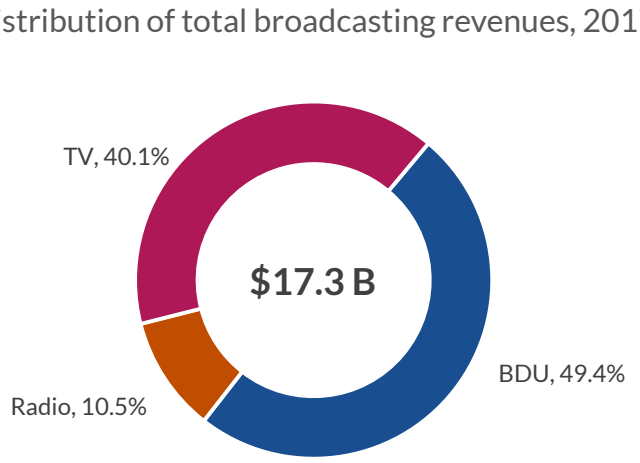
The Broadcasting Overview provides a glimpse into various aspects of broadcasting in Canada. The Canadian broadcasting sector consists of radio (private and CBC), conventional television (private and CBC), discretionary and on-demand television services (pay, pay per view (PPV), video-on-demand (VOD) and specialty services) and broadcasting distribution undertakings (BDUs), such as cable, satellite and IPTV distributors.

In 2017, broadcasting services generated total revenues of $17.3 billion, a 3.3% decrease compared to 2016, and contributed approximately $3.4 billion or about 20% of total revenues to Canadian content across radio and television through their respective funding mechanisms.

BDUs generated the largest portion of the $17.3 billion total revenues, reporting $8.5 billion in 2017, almost half of the total broadcasting revenues, followed by television services ($6.9 billion, 40%) and radio stations ($1.8 billion, 11%).

In comparison, the revenues in Canada of Internet-based audio and video services were estimated to total $2.7 billion[56], less than a sixth of the revenues of the traditional broadcasting services.

Figure 7.1 Distribution of total broadcasting revenues, 2017



Source: CRTC data collection

[56] The Internet-based services' $2.7B of estimated revenues are in addition to the $17.3B of revenues of the traditional broadcasting services.

i. Revenues and financial performance

Infographic 7.2

Radio Service	2017 total revenues	Growth 2016-2017	PBIT/ EBITDA
Private commercial radio	$1.5 B	↓ 1.9%	18.7% (PBIT)
CBC radio	$0.3 B	1.6%	6.1% (EBITDA)

Broadcasting distribution Service	2017 total revenues	Growth 2016-2017	PBIT/ EBITDA
IPTV	$2.0 B	10.3%	7.7% (EBITDA)
Cable	$4.6 B	↓ 4.1%	18.6% (EBITDA)
DTH	$2.0 B	↓ 8.9%	28.1% (EBITDA)

Television Service	2017 total revenues	Growth 2016-2017	PBIT/ EBITDA
Private conventional television stations	$1.6 B	↓ 4.1%	↓ 6.3% (PBIT)
CBC conventional television stations	$0.9 B	↓ 20.4%	7.1% (EBITDA)
Discretionary television services	$4.0 B	↓ 1.26%	25.1% (PBIT)
On-demand television services	$0.3 B	↓ 0.4%	10.9% (PBIT)

Source: CRTC data collection

National direct-to-home (DTH) refers to satellite service providers, IPTV to Internet protocol television, PBIT to profit before interest and taxes and EBITDA to earnings before interest, taxes depreciation and amortization.

In 2017, television distribution via cable was still generating the most revenue at $4.6 billion, followed by discretionary services at $4.0 billion. Both of these type of services also reported strong profitability, with an EBITDA of 18.6% for cable services and a PBIT of 25.1% for discretionary services. In fact, all categories of broadcasting services were profitable in 2017, except for private conventional television stations, which collectively reported a -6.3% PBIT.

While all but one type of service were profitable in 2017, most services saw their revenues decline. The apparent decrease in revenues of CBC television, down 20.4% ($241 million) compared to 2016, was mainly a result of a change in CBC's reporting methodology to exclude digital revenues and parliamentary

appropriations related to digital activity. Part of the decrease was also attributable to a decrease in conventional television advertising revenues.

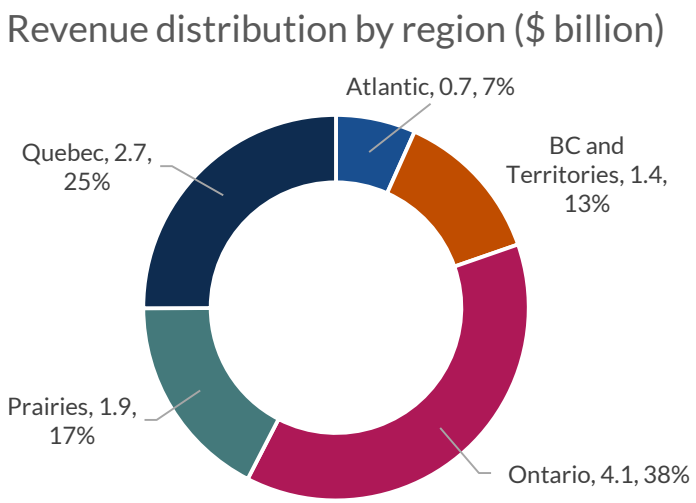
The majority of radio revenues came from commercial services (84%), which include both AM and FM radio stations broadcasting in English, French and ethnic languages. Although radio services have been declining in revenues, on average 88%[57] of Canadians still use radio each month.

Consistent with previous years, the majority of TV revenues came from discretionary services (59%), which relied on subscriber revenues to generate most (65%) of their revenues.

Finally, among broadcasting distribution undertakings (BDUs), IPTV still leads in terms of growth, reporting a 10.3% growth in revenues compared to 2016, while DTH services are still the most profitable distribution services with a 28.1% EBITDA in 2017.

In terms of the regional distribution of revenues, the most populous provinces, Ontario and Quebec, lead with 38% and 25% of broadcasting revenues in 2017 respectively, while according to the 2016 Census[58] their population represented 38% and 23% of the Canadian population.

Figure 7.2 Revenue distribution by region ($ billion)



Source: CRTC data collection

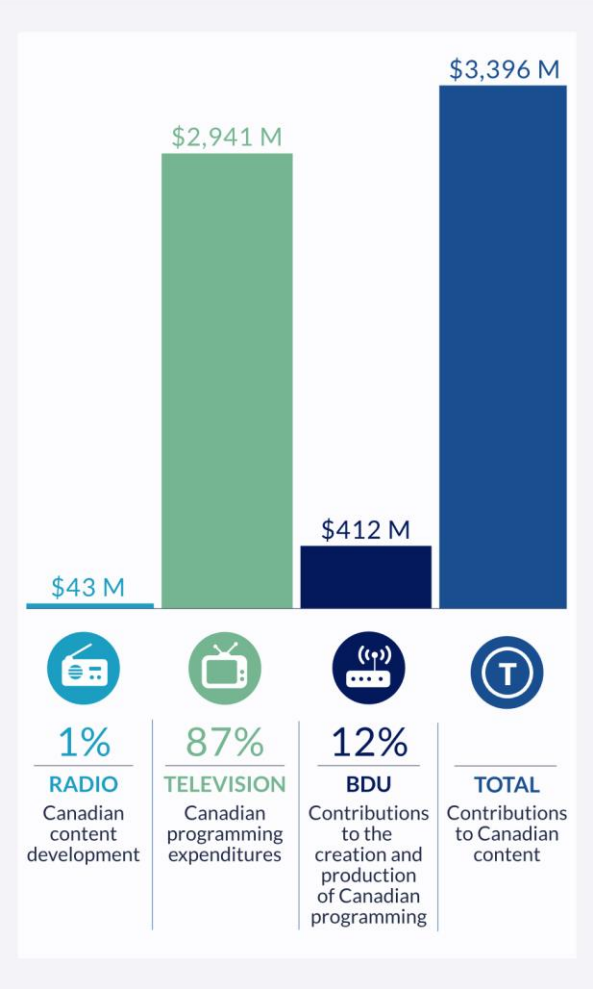
Excludes revenues generated from discretionary and on-demand television services, as well as DTH distribution services, because those services are licensed as national services.

[57] Source: MTM 2017 fall survey
[58] Population and Dwelling Count Highlight Tables, 2016 Census

ii. Contributions to Canadian content

Commercial radio stations typically contribute to Canadian content development (CCD) initiatives to support the development and promotion of Canadian musical and spoken word content for broadcast, while television services contribute portions of their broadcasting revenues to Canadian programming expenditures (CPE) and broadcasting distributing undertakings (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.

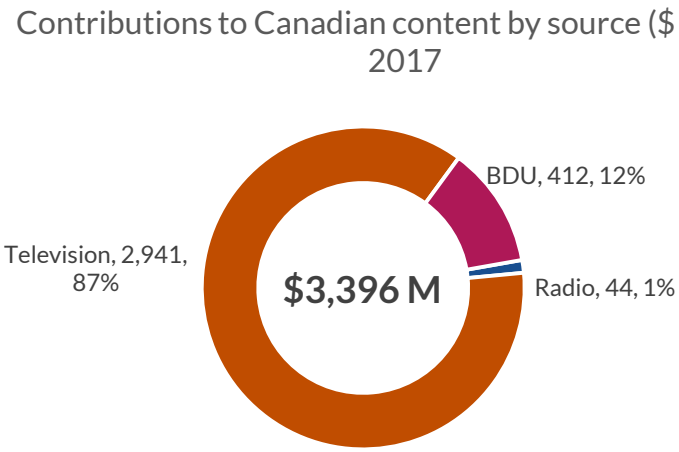
Infographic 7.3



Source: CRTC data collection, 2017 broadcasting year

In 2017, broadcasters contributed a total of $3,396 million towards Canadian content. CPE represented the vast majority (87%) of the contributions to Canadian content, followed by contributions from BDUs (12%) and CCD (1%).

Figure 7.3 Contributions to Canadian content by source ($ million), 2017

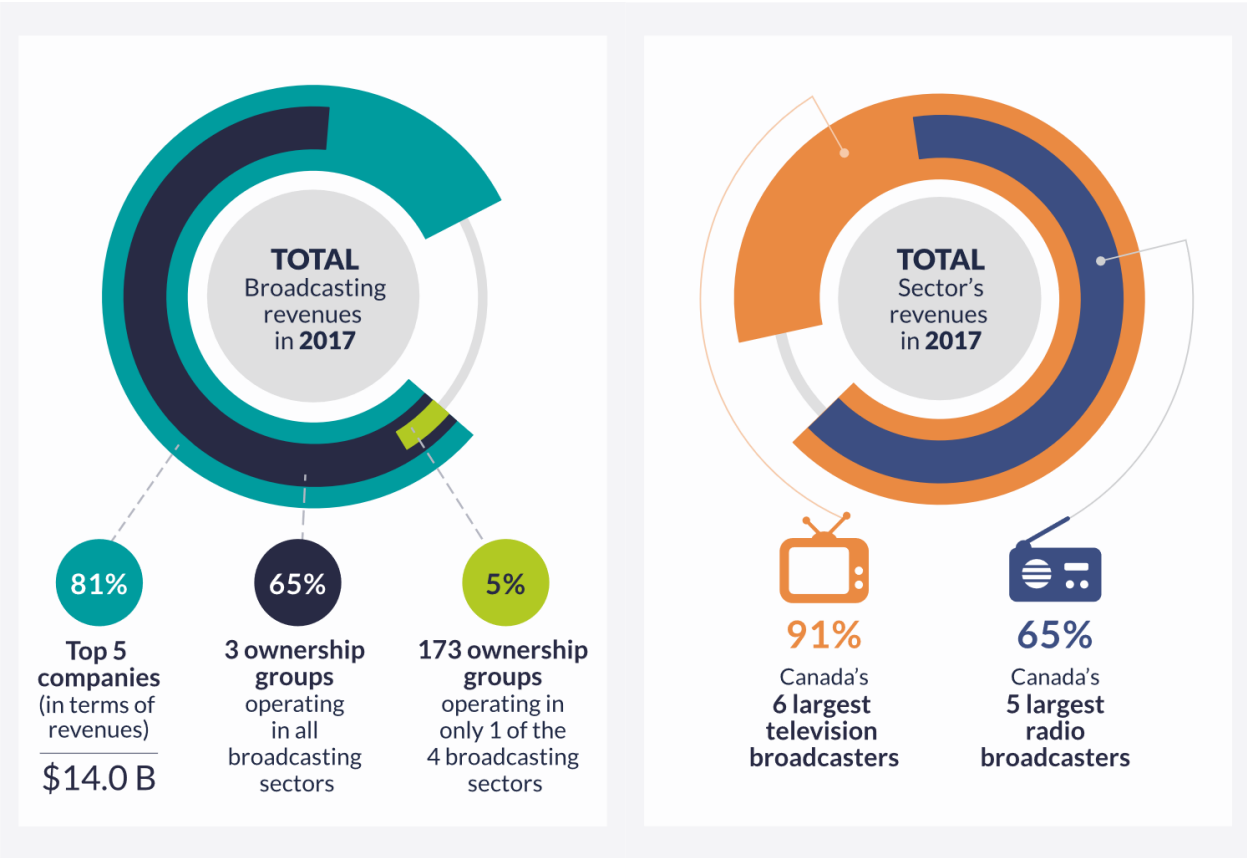


Source: CRTC data collection

In addition to these contributions, Canadian broadcasters also support Canadian content in a variety of ways such as: exhibition of Canadian content, copyright and other programming expenditures as well producing Canadian radio programming.

iii. Industry characteristics

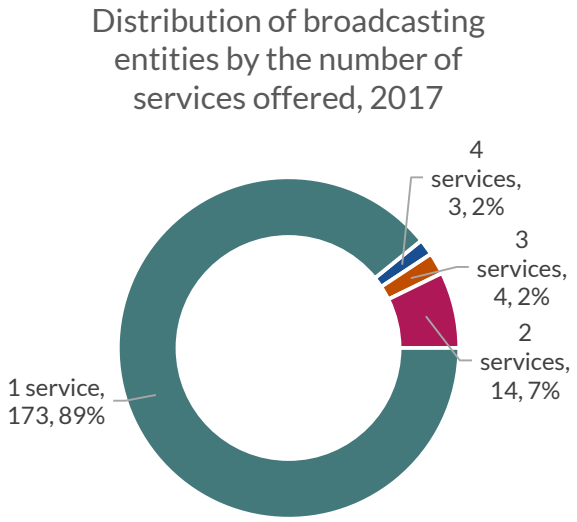
Infographic 7.4



Source: CRTC data collection

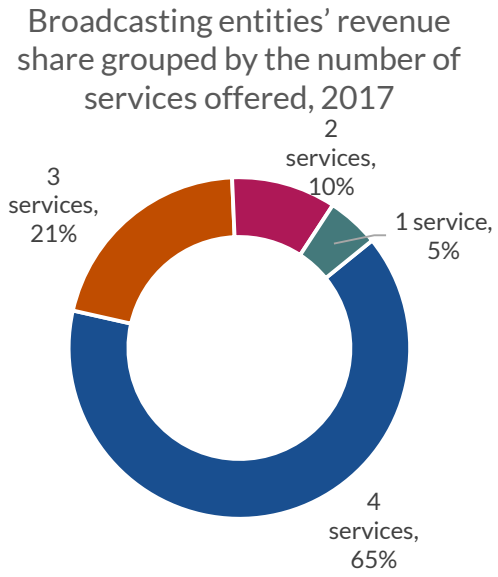
In 2017 as in previous years, the broadcasting industry was largely dominated by a few entities. Together the top 5 entities generated approximately 81% of total broadcasting revenues. Entities operating radio stations, conventional television stations, discretionary/on-demand services and broadcasting distribution undertakings generated 65% of broadcasting revenues in 2017, while entities operating only one type of these services accounted for 5% of total broadcasting revenues.

Figure 7.4 Distribution of broadcasting entities by the number of services offered, 2017



Source: CRTC data collection

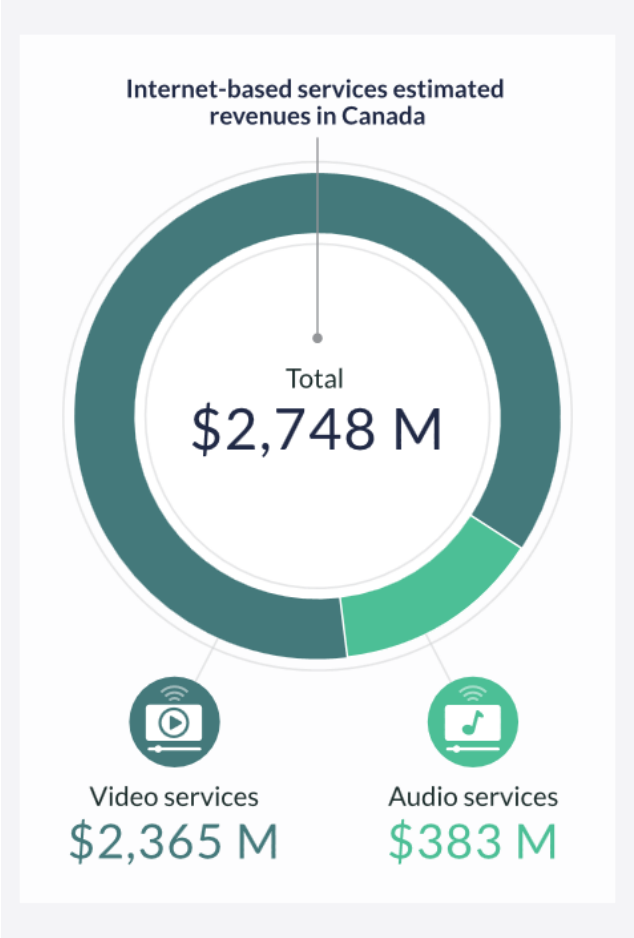
Figure 7.5 Broadcasting entities' revenue share grouped by the number of services offered, 2017



Source: CRTC data collection

iv. Internet-based audio and television services estimated revenues

Infographic 7.5

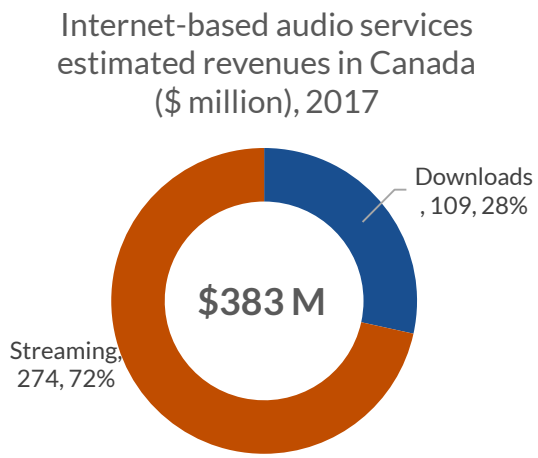


Source: Revenue estimates from Ovum

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 $2.7 billion in Canada in 2017, surpassing 2017 radio revenues ($1.7B) and representing 16% of the total traditional broadcasting revenues.

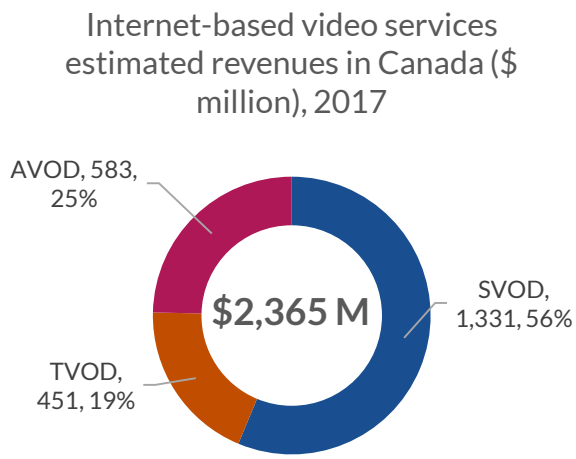
Estimated revenues from Internet-based video content come in majority from subscription-based video-on-demand (SVOD) services such as Netflix, Amazon Prime Video and Crave TV, while streaming leads in terms of estimated revenues in the Internet-based audio content sector.

Figure 7.6 Internet-based audio services estimated revenues in Canada ($ million), 2017



Source: Revenue estimates from Ovum

Figure 7.7 Internet-based video services estimated revenues in Canada ($ million), 2017



Source: Revenue estimates from Ovum

Subscription video-on-demand (SVOD) refers to an Internet-based service model in which a client pays a subscription fee to gain access to a library of content. Examples of SVOD services are Club illico, Crave and Netflix.
Transactional video-on-demand (TVOD) 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) 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.

Even though Internet-based services are becoming more popular, a great majority of Canadians continue to use traditional TV and radio services. More specifically, in 2017, on average 94% of Canadians watched traditional television and 88% listened to radio in any given month. These penetration figures are far higher than those for their Internet-based counterparts, which stood at 63% for Internet television and 59% for streaming music content on YouTube.

Further details on Internet-based audio and video services, as well as methodology, can be found in the Radio and Television sections of this report.

Communications Monitoring Report 2018

Radio Sector

Radio Sector

Infographic 8.1

- The **712 private commercial radio stations** reporting in 2017 generated **$1.5 billion in revenues** (down 1.9% from 2016) and **a profit** before interest and taxes (PBIT) margin of **18.7%**.
- In 2017, the **67 Canadian Broadcasting Corporation (CBC) radio stations** reported a total of **$295 million in revenues, up 1.6% over the previous year**, and an **EBITDA margin** of **6.1%**.
- **Indigenous radio stations** revenues reached **$17.5 million** in 2017, **growing 16.8%** over the previous year, while the reported **PBIT margin** stood at **-1.5%**.
- Revenues from **Internet-based audio services** were estimated at **$383 million** in 2017, a **25.9% increase** from 2016.
- On average, **Canadians 18+** listened to **15 hours of radio per week** in 2017, a **decrease of 1.7%** from 2016.
- There were **109 radio station licensees** in 2017, 19 of which reported revenues over **$10 million**.
- **Contributions to Canadian content development (CCD)** initiatives **totaled $43.5 million** in 2017, a **6.7% decrease** from 2016.
- In 2017, a **total of 9 radio ownership transactions** resulted in **$30 million in tangible benefits**.

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

In 2017, private commercial and CBC radio stations reported $1.8 billion in revenues, the vast majority of which (84%) were for private commercial radio stations. In comparison, Internet-based audio services

generated estimated revenues of $383 million in the same year, which is equal to 21% of the revenues reported by traditional radio stations (private commercial and CBC combined).

In 2017, on average, Canadians 18+ tuned in to 15 hours of radio content per week. This weekly tuning was supplemented, on average, by an additional 7.2 hours of audio streaming content, for a total of 22.2 hours of audio listening each week. These levels are the highest observed for the period from 2013 to 2017.

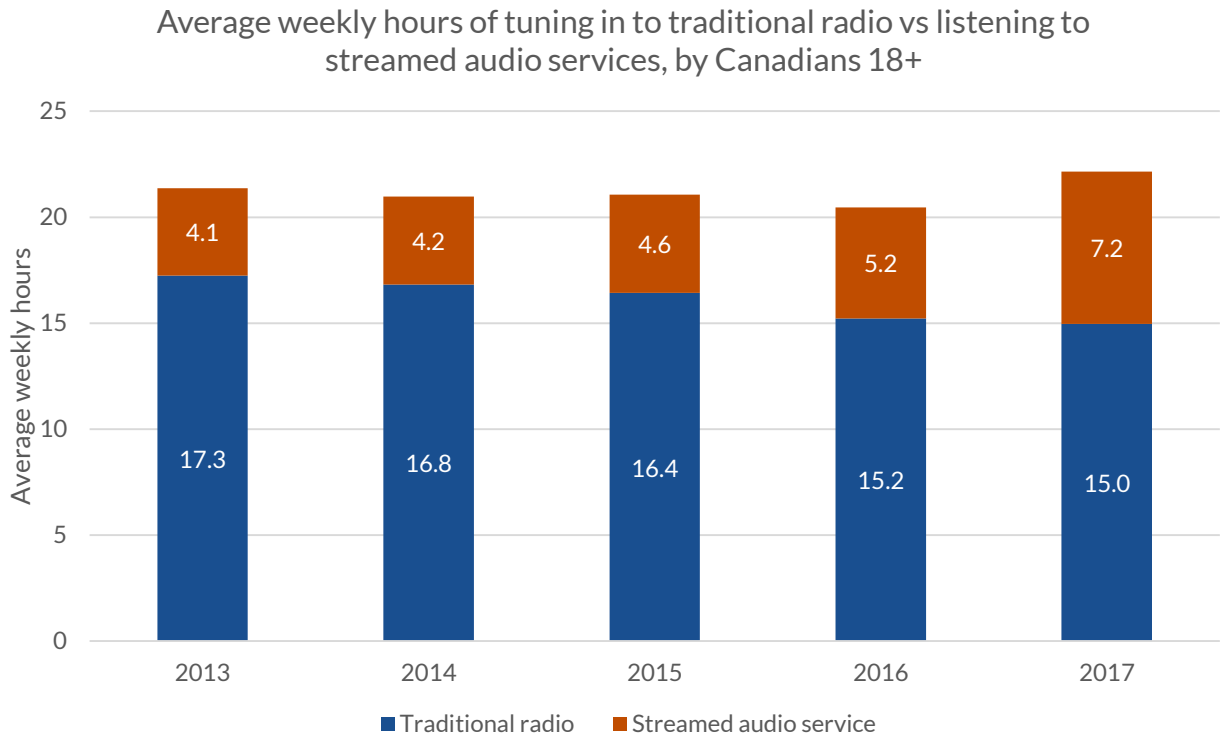
In 2017, the five largest radio operators, operating 282 commercial radio stations, reported 65% of total commercial radio revenues.

i. Audience measurement

The average weekly number of hours that Canadians 18+ spent listening to traditional radio decreased slightly from 15.2 in 2016 to 15.0 in 2017, while the average weekly number of hours spent listening to streamed audio services grew from 5.2 in 2016 to 7.2 in 2017, a 38% increase. As such, the average weekly number of hours spent listening to all audio services increased from 20.4 in 2016 to 22.2 in 2017, the highest level of listening during the 2013-2017 period.

This demonstrates that Canadians are listening to increased amounts of audio content. Further, 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.

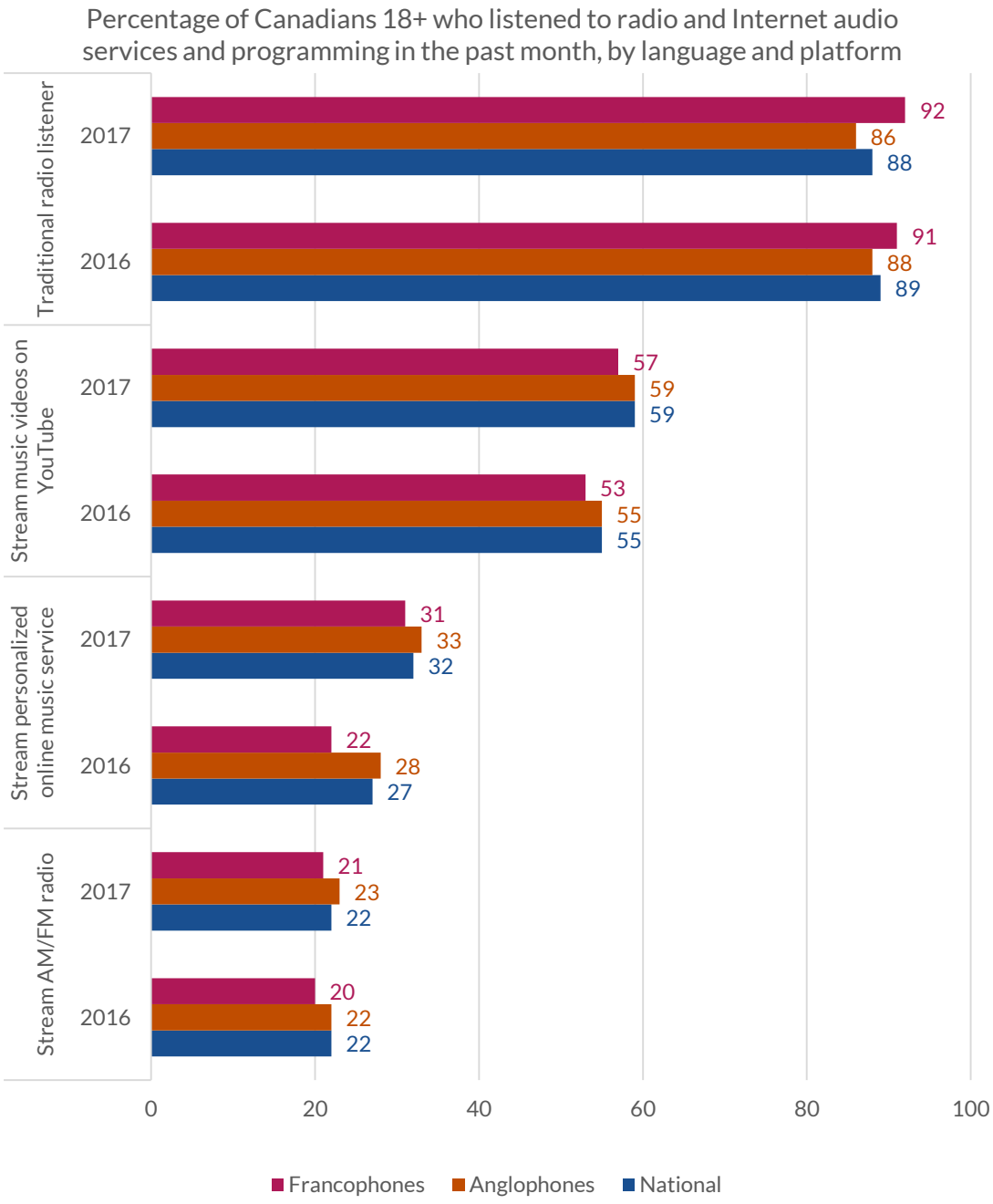
Figure 8.1 Average weekly hours of tuning in to traditional radio vs listening to streamed audio services, by Canadians 18+, 2013-2017



Source: Numeris Radio Diary, Fall surveys, Mo-Su 5a-1a, 18+, total Canada
Note 1: Fall 2016 Online Radio Diary (ORD) introduced
Note 2: MTM, Fall 2013-2017 (respondents: Canadians 18+). MTM data includes all types of audio streaming including AM/FM radio using Internet.

In 2017, 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 18+ reported having listened to the radio in any given month. While streaming music videos on YouTube and listening to personalized online music services continued their rise in popularity in 2017, reaching 59% and 32%, respectively, of Canadians 18+, both types of online services have yet to reach as many Canadians as traditional radio. However, these online services surpass satellite radio in terms of penetration. In 2017, 17% of Canadians reported having a satellite radio subscription, an increase of 1% percentage point from 2016.

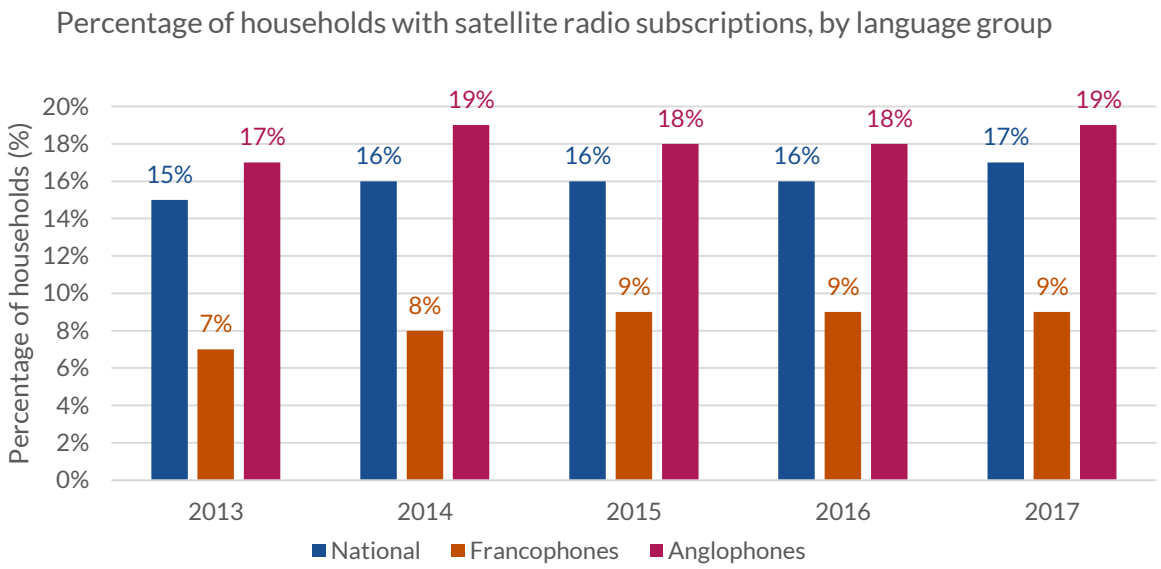
Figure 8.2 Percentage of Canadians 18+ who tuned in to radio and listened to Internet audio services and programming in the past month, by language and platform



Source: MTM, Fall 2016-2017 (respondents: Canadians 18+)

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

Figure 8.3 Percentage of households with satellite radio subscriptions, by language group

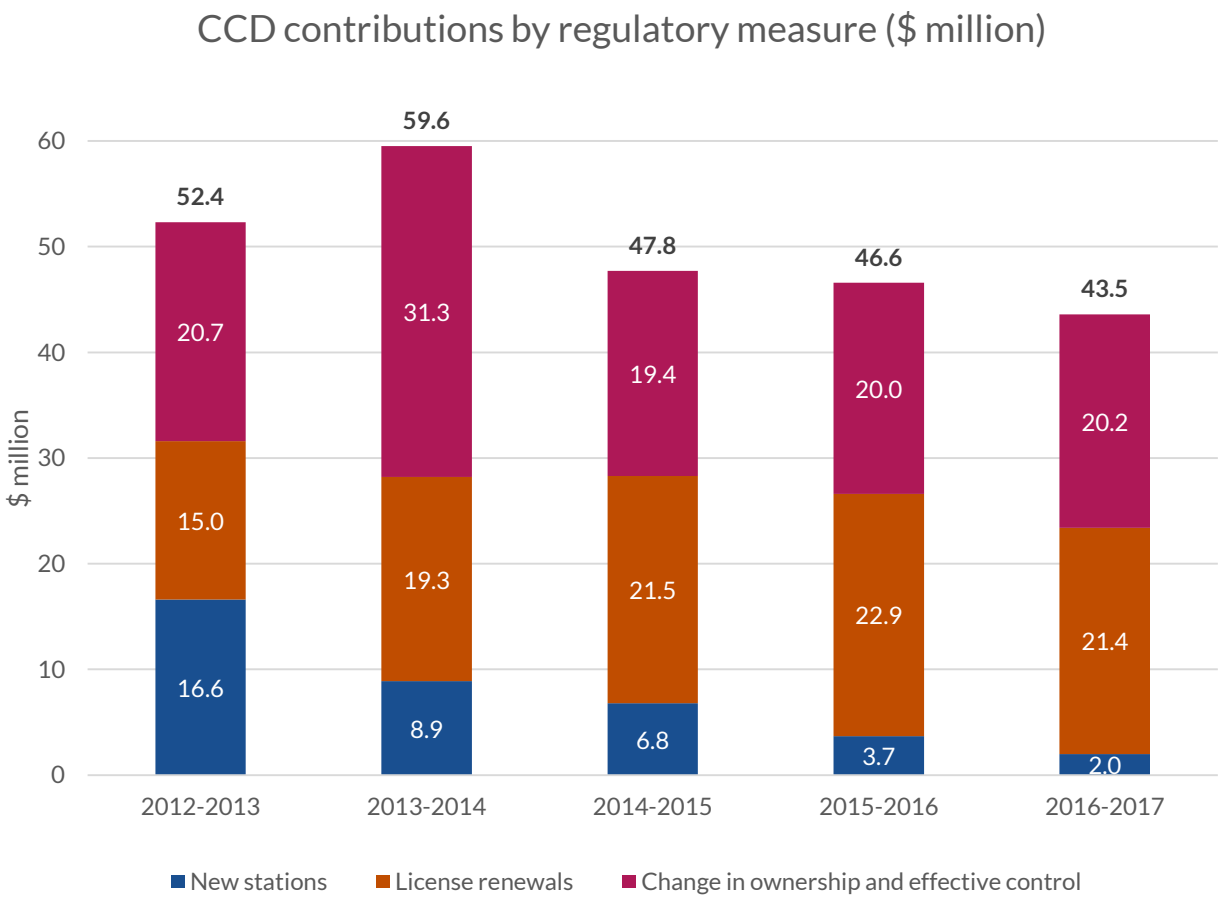


Source: MTM, Fall 2013-2017 (respondents: Canadians 18+)

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. In 2017, CCD contributions, including tangible benefits contributions, totaled $43.5 million, a 6.74% decrease from the previous year. There are three sources of CCD contributions: new stations during their first licence terms (4.5% of total CCD contributions), stations for which the licences have been renewed (49.1% of total CCD contributions), and stations for which there has been a change in ownership and effective control (46.4% of total CCD contributions).

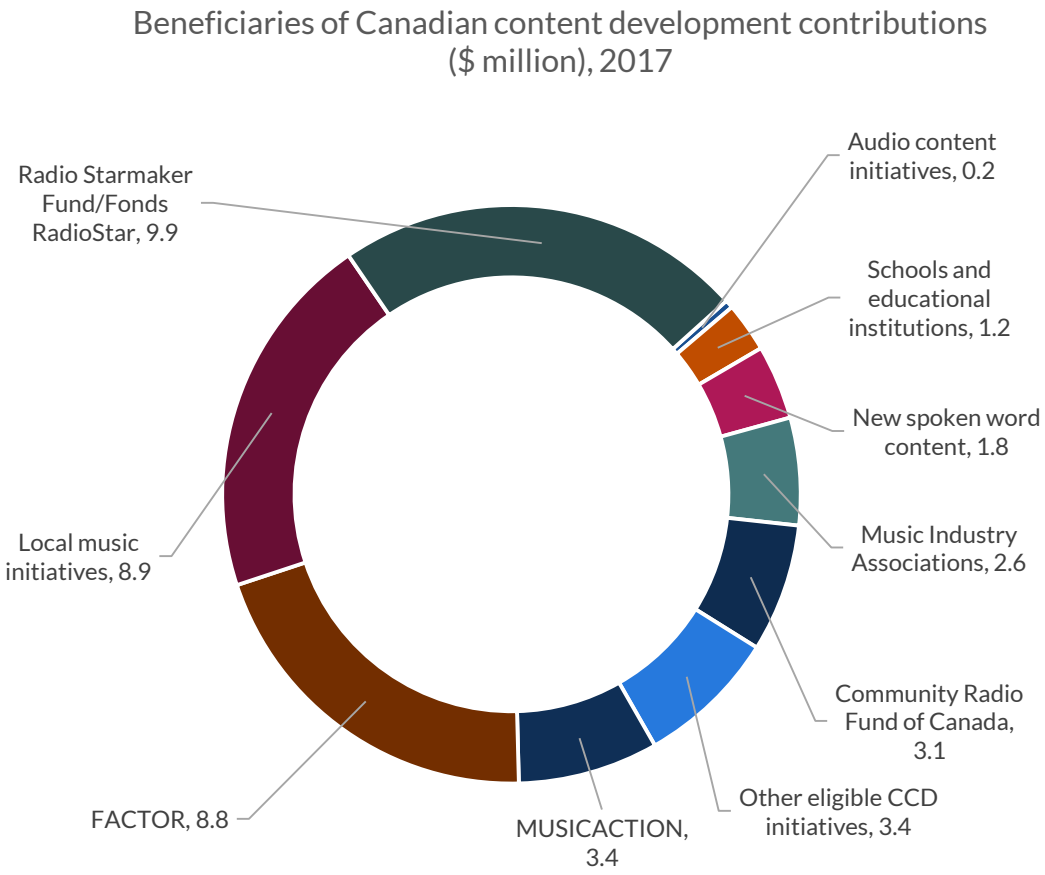
Figure 8.4 CCD contributions by regulatory measure ($ million)



Source: CRTC data collection

In 2017, combined, the Radio Starmaker and RadioStar funds were the leading recipients of CCD contributions, receiving a total of $9.9 million (representing 23% of total CCD contributions). Next were local initiatives ($8.9 million) and FACTOR ($8.8 million). Together, these three recipients received 63% of all CCD contributions in 2017. MUSICACTION, received approximately $3.4 million in CCD contributions, the equivalent of 39% of the funds that FACTOR received.

Figure 8.5 Beneficiaries of Canadian content development contributions ($ million), 2017



Source: CRTC data collection

iii. Tangible benefits

In 2017, the Commission approved 9 ownership transactions for both English- and French-language services resulting in total tangible benefits of $30 million.

Table 8.1 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 2013 to 31 December 2017

Language of services	Metric	2013	2014	2015	2016	2017	Total
English	Number of transactions	4	9	6	4	8	**31**
	Value of transaction ($M)	756.7	257.7	55.1	1.4	260.4	**1,331.3**
	Tangible benefits ($M)	52	15.5	4	0.8	15.6	**87.9**
French	Number of transactions	1	0	6	4	1	**12**
	Value of transactions ($M)	357.7	0	54.6	9.4	239.5	**661.2**
	Tangible benefits ($M)	25	0	3.9	0.6	14.4	**43.9**

Sources: CRTC decisions and administrative approvals

The 2013 BCE/Astral ownership transaction (see Broadcasting Decision 2013-310), resulted in $71.5 million in tangible benefits. Approximately $46.5 million of this amount was committed to English-language initiatives and $25 million to French-language initiatives. In its decision, the Commission directed BCE to divest itself of 10 radio services. These divestitures are expected to generate not less than $11 million in additional tangible benefit commitments from other purchasers. In December 2013, the Commission approved the sale of 3 radio stations (CFQX-FM Selkirk and CHIQ-FM Winnipeg, Manitoba, and CKCE-FM Calgary, Alberta) to the Jim Pattison Broadcast Group Limited Partnership (Pattison). Pattison has committed $1.8 million in tangible benefits initiatives.

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 English- and French-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 English- and French-language recipients, the Sirius XM transaction is listed under the English and French sections, and its value is equally divided in each section.

iv. Commercial Radio

Infographic 8.2

2017	Commercial	AM stations	FM stations
Number of reporting stations	712	121	591
Revenues	$1,520 M	$273 M	$1,247 M
2016-2017 Revenue growth	↓ 1.9%	↓ 4.0%	↓ 1.5%
Local advertising revenues*	64%	73%	63%
National advertising revenues*	34%	25%	36%
PBIT margin	18.7%	6.0%	21.4%
Tuning share	93.9%	15.8%	78.1%

* % of total revenues

2017	ENG language stations	FRA language stations	Third language stations
Number of reporting stations	589	98	25
Revenues	$1,214 M	$258 M	$48 M
2016-2017 Revenue growth	↓ 2.3%	↓ 1.2%	2.7%
Local advertising revenues*	64%	59%	88%
National advertising revenues*	34%	39%	5%
PBIT margin	18.7%	18.9%	16.1%
Tuning share	73.8%	20.2%	n/a

* % of total revenues

Source: CRTC data collection, Numeris

In 2017, 712 reporting commercial radio stations reported $1.5 billion in revenues, a 1.9% decrease from 2016. This decrease is slightly higher than the annual average 1.6% decrease in revenues from 2013 to 2017. However, the overall profitability margin of those commercial radio stations remained steady, at 18.7%, compared to 18.6% for 2016.

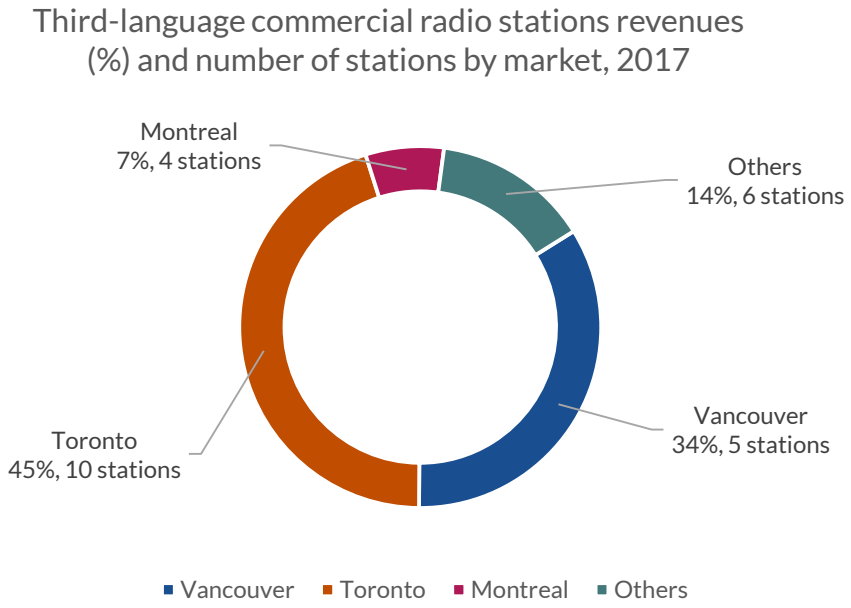
The 591 reporting FM commercial stations reported revenues of $1.2 billion in 2017, equal to 82% of all commercial radio revenues. FM stations surpassed AM stations in terms of profitably, reporting a PBIT margin of 21.4%, compared to 6.0% for AM stations.

FM commercial stations relied less on local advertising revenues and more on national advertising revenues than AM stations. Whereas FM stations generated 63% 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 English-, French- and third-language stations. What

sets third-language radio stations apart from English- and French-language radio stations is revenue composition: third-language stations generated 88% of their revenues from local advertising, compared to 64% and 59% for English- and French-language stations, respectively. In addition, third-language stations are mainly concentrated in major markets, and have a limited presence outside of those markets.

Figure 8.6 Third-language commercial radio stations revenues (%) and number of stations by market, 2017



Source: CRTC data collection

Market composition

In 2017, the five largest radio ownership groups in Canada garnered 65% of total commercial radio revenues. The two largest groups, BCE (105 stations) and Rogers (54 stations) garnered close to 40% of total radio revenues from 2014 to 2017.

Infographic 8.3

2017	Number of reporting stations	Revenues	Share of total commercial radio revenues
BCE	105	$373 M	25%
ROGERS	54	$220 M	14%
corus.	39	$115 M	8%
Newcap RADIO	71	$159 M	10%
cogeco	13	$105 M	8%
T	282	$970 M	65%

2017	ENG language stations revenues	FRA language stations revenues
BCE	$280 M	$93 M
ROGERS	$220 M	
corus.	$115 M	
Newcap RADIO	$159 M	
cogeco	n/a	n/a
T	$773 M	$93 M

2017	ENG Tuning share in the English-language market	FRA Tuning share in the French-language market
BCE	18%	23%
ROGERS	13%	
corus.	12%	
Newcap RADIO	9%	
cogeco	n/a	32%
T	52%	54%

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

For 2017, 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 English-language market, they together held 55% of the tuning, with BCE leading at 18%, followed by Rogers at 13% and Corus at 12%. In the French-language market, Cogeco and BCE together held 54% of weekly average tuning hours in 2017, with Cogeco leading at 32%, followed by BCE at 23%.

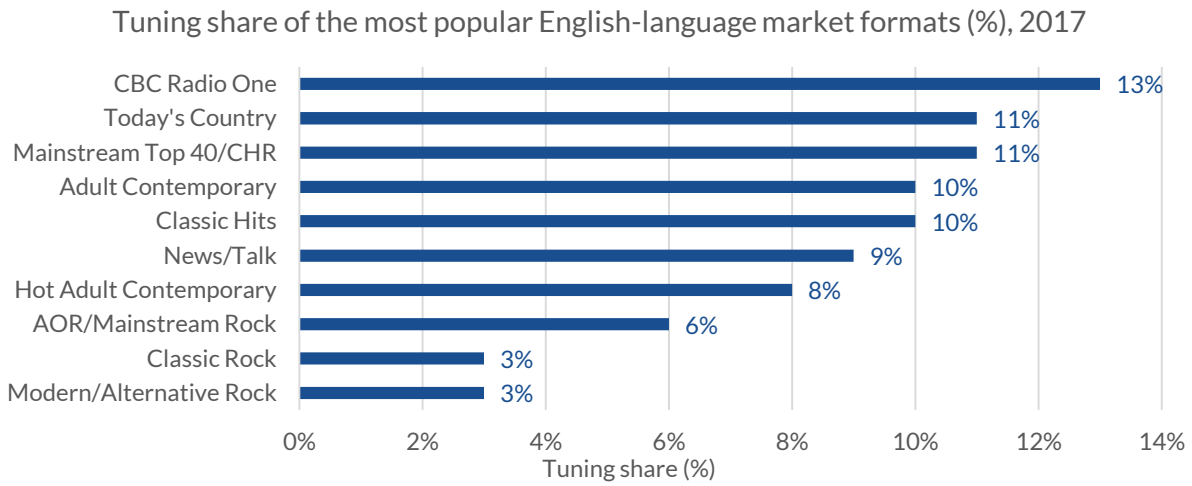
Formats

In 2017, radio tuning in the English language market was more fragmented than in the French language market.

The top 3 formats in the English-language market garnered approximately 44% of the tuning share, with talk radio (CBC Radio One) and news/talk formats leading with 22%, followed by the Country and Top 40 formats, each garnering approximately 11% of the tuning share.

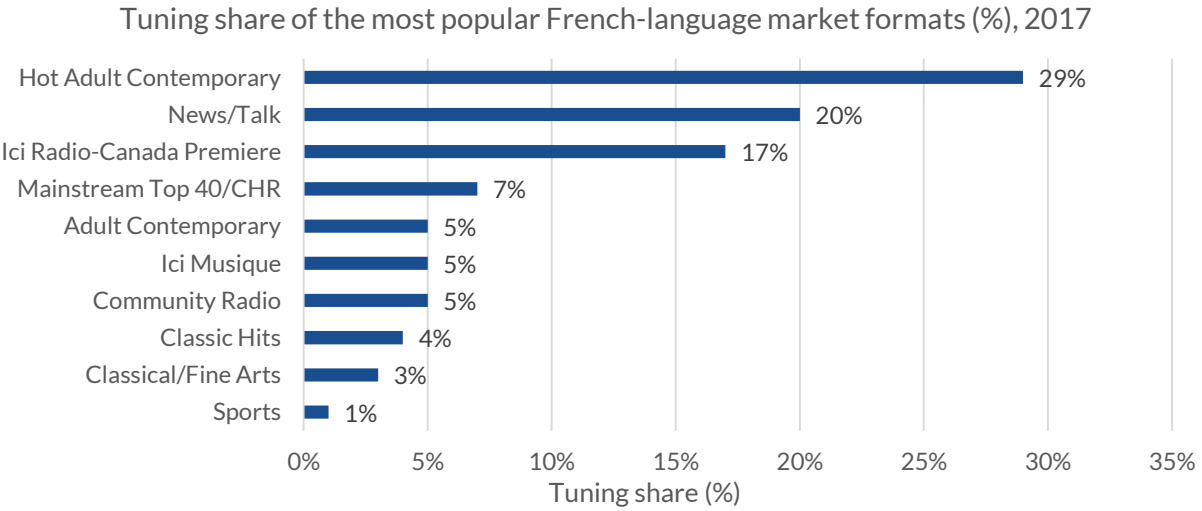
The top 3 formats in the French-language market garnered approximately 73% of the tuning share, with the talk formats (News/talk and Radio Canada première combined) leading with 37%, followed by the Hot adult contemporary format at 29% and Mainstream Top 40/CHR at 7%.

Figure 8.7 Tuning share of the most popular English-language market formats (%), 2017



Source: Numeris Radio Diary, 2017 Fall survey, Mo-Su 5a-1a, 12+.

Figure 8.8 Tuning share of the most popular French-language market formats (%), 2017



Source: Numeris Radio Diary, 2017 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.

v. CBC Radio

Infographic 8.4

Source: CRTC data collection, Numeris

The Canadian Broadcasting Corporation (CBC) is Canada's public broadcaster. Its 14 AM stations and 53 FM stations reported revenues of $295 million in 2017, an increase of 1.6% from 2016. This growth is mainly attributed to a similar rise in parliamentary appropriations which represent 97% of the CBC's revenues.

Beginning in 2014, national advertising sales for CBC stations have represented a modest source of income. At its height in 2015, it represented 0.5% of the public broadcaster's total revenues. In 2017, the CBC ceased receiving revenues from national advertising sales (notwithstanding revenues of $82,000).

CBC Radio One and its French counterpart ICI Radio-Canada Premiere are popular talk radio services. It is the most popular English-language radio format with 13% of English tuning shares while the French-language service has 17% of French audience tuning shares. Together, they represent 13.1% of all weekly average radio tuning hours. These talk radio formats generate 80.5% of CBC's tuning across the four networks.

vi. Non-Commercial Radio

Infographic 8.5

2017	Number of reporting stations	Revenues	Average revenues per station
Campus	48	$11.0 M	$229,000
Community	112	$33.9 M	$303,000
Indigenous	32	$17.5 M	$548,000
Religious	29	$9.3 M	$321,000
TOTAL	221	$71.8 M	$325,000

2017	2016-2017 Revenue growth	2013-2017 Average annual revenue growth rate	Advertising revenues as a % of total
Campus	↓ 0.6%	4.5%	7%
Community	↓ 4.5%	1.2%	46%
Indigenous	16.8%	2.3%	28%
Religious	↓ 3.1%	4.9%	32%
TOTAL	0.8%	2.4%	34%

2017	Government/ Corporate grants as a % of total	PBIT margin	Tuning share
Campus	16%	3.3%	0.3%
Community	18%	4.3%	1.7%
Indigenous	19%	↓ 1.5%	0.3%
Religious	5%	5.0%	0.3%
TOTAL	16%	2.8%	2.7%

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 2017, there were 221 reporting non-commercial radio stations, falling under four categories: campus, community, Indigenous and religious. Total reported revenues of these stations in 2017 was $71.8 million, with community stations garnering almost half of those revenues (47%), while Indigenous stations garnered almost one quarter (24%).

Over 50% of Indigenous radio station revenues are derived from alternative sources and fundraising activities. In 2017, advertising revenues represented 28% of total revenues (89% of which were from local advertising) and government grants represented 19% of total revenues. Based on average revenues per station, of all non-commercial radio stations, Indigenous radios generate the most revenues per station. Conversely, their profitability margin is the lowest of all non-commercial radio stations.

Campus radio station revenues are mainly derived from alternative sources and fundraising activities. In 2017, government grants represented 16% of those stations' revenues, while advertising revenues represented 7% (96% of which were from local advertising).

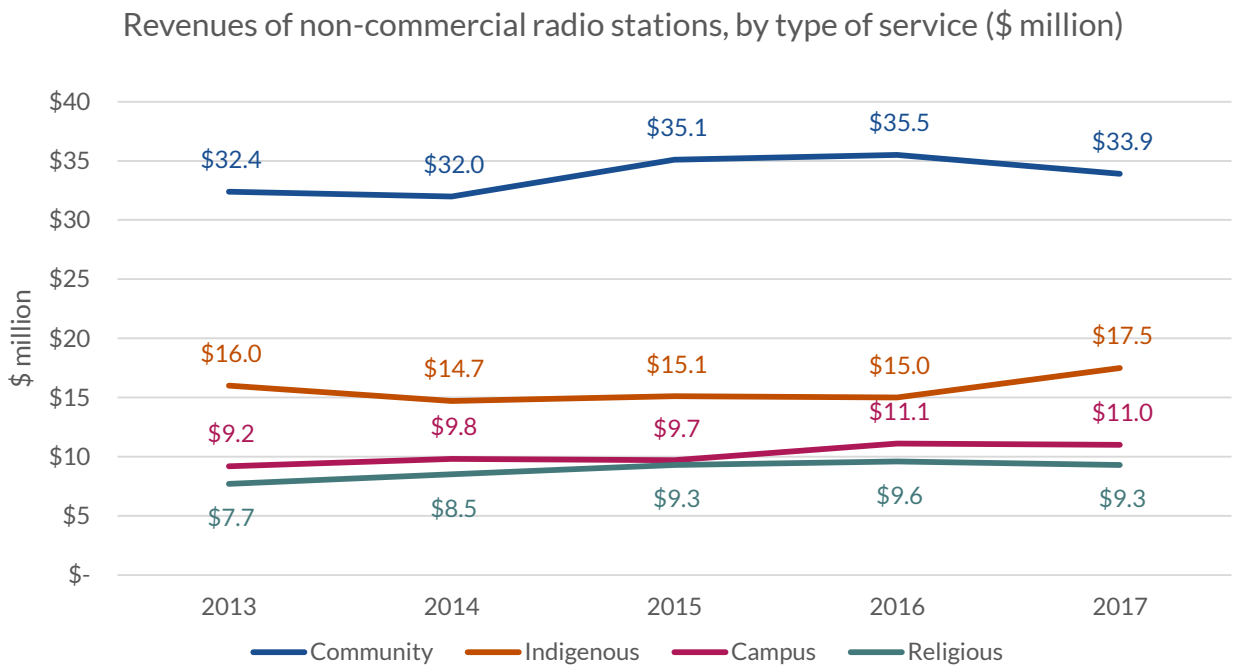
Although their mandates are similar, community radio stations differ from campus radio stations in regard to revenue sources. In 2017, advertising revenues represented 46% of community station revenues, with 79% coming from local advertising. Government grants represented 18% of community station revenues.

As is the case for other non-commercial radio stations, in 2017, alternative sources of funding were an important revenue source for religious radio stations (54% of total revenues). Advertising revenues represented 32% of total revenues (98% of which were from local advertising). Syndicated production sales represent 9% and government grants represented 5% of religious radio station revenues.

From 2013 to 2017, of all types of non-commercial radio stations, religious radio stations reported the highest average annual growth in revenues (4.9%), followed by campus radio stations (4.5%), and Indigenous radio stations (2.3%).

Revenues

Figure 8.9 Revenues of non-commercial radio stations, by type of service ($ million)



Source: CRTC data collection

Although the number of stations decreased slightly from 2013 to 2017 (from 228 to 221 stations), revenues increased on average by 2.4% per year over the same period. Total revenues for each type of non-commercial radio station in 2017 were similar to that for the period 2013-2017, with community radio stations having the greatest share of total non-commercial radio revenues (community radio stations, 47%; campus radio stations, 15%; Indigenous radio stations, 24%, and religious radio stations, 13%).

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 2017, revenues from government/corporate grants represented just over 16% of total revenues. These contributions decreased at a rate of 4.1% each year from 2013 to 2017. Revenues from syndicated productions represented a negligible amount of total revenues.

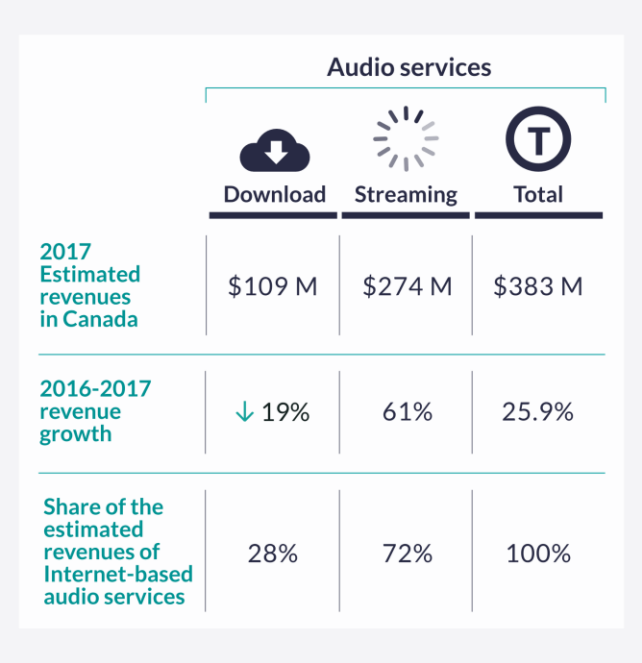
Advertising revenues represented approximately 34% of total revenues. Advertising revenues can be broken down based on local and national advertising revenues. Non-commercial radio stations share the distinction of being hyperlocal, with 84% of their total advertising revenues coming from local advertising revenues (compared to 65% 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 adverting, or that is done in exchange for a subscription fee (for example, Spotify).

Infographic 8.6



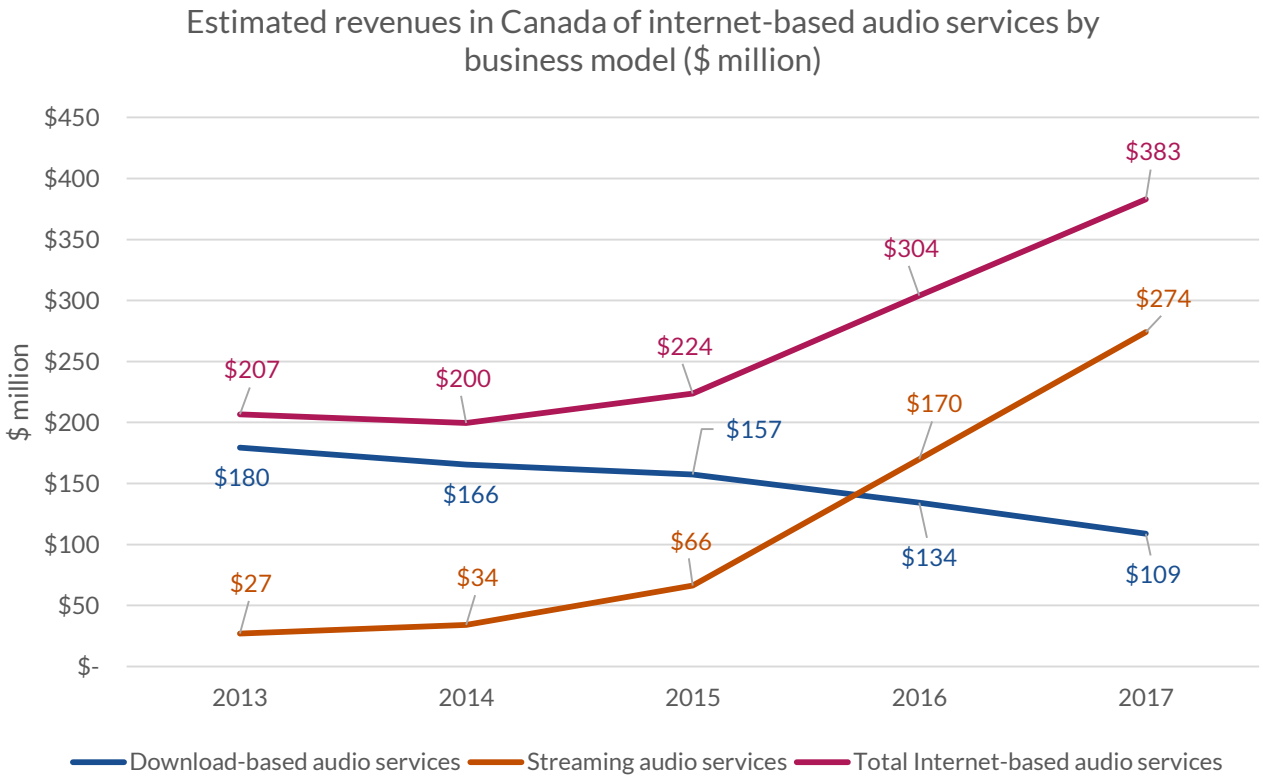
Source: Revenue estimates from Ovum

Estimated revenues in Canada for Internet-based audio services grew by 25.9% from 2016 to 2017, reaching $383 million. Compared to the $1.8 billion in revenues of Commercial and CBC radio stations, Internet-based audio services still only represent 21% of the regulated radio sector revenues.

Whereas estimated revenues of streaming audio services increased, those of download-based audio services declined. In 2017, streaming audio services garnered 72% of the estimated Internet-based revenues in 2017, while download-based services garnered 28%.

In 2013, the revenues of Internet-based audio services were driven by download-based audio services, which garnered 87% of estimated revenues. Since then, download-related revenues declined on average by 18.8% each year, while revenues garnered by streaming-based services rapidly increased over the same period, with an average year-over-year growth of 78.4%. Streaming services garnered estimated revenues of $274 million in 2017, suggesting that Canadians are shifting from downloading audio content to streaming such content.

Figure 8.10 Estimated revenues in Canada of internet-based audio services by business model ($ million)



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 2016 and 2017. 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 2017, 1,121 radio services and audio services were authorized to broadcast in Canada, which includes 9 more over-the-air radio services compared to 2016. 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 2017.

Table 8.2 Type and number of radio services and audio services authorized to broadcast in Canada, by language of broadcast

	English-language		French-language		Other languages		All languages	
Type of station	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
CBC Radio/Radio Canada	53	53	35	35	0	0	88	88
CBC/SRC Radio network licenses	2	2	2	2	0	0	4	4
Private commercial AM stations	105	104	9	6	14	18	128	128
Private commercial FM stations	484	481	93	93	20	23	597	597
Private commercial AM and FM network licences	0	0	1	1	0	0	1	1
Religious (music and spoken word)	45	47	4	6	1	1	50	54
Community	59	61	65	68	3	3	127	132
Community Developmental	2	3	1	1	0	0	3	4
Campus Community-based	42	42	5	5	0	0	47	47
Campus Instructional	0	0	0	0	0	0	0	0
Indigenous stations	43	43	5	5	3	3	51	51
Other (tourist/traffic, etc.)	3	7	2	2	0	0	5	9
Total number of over-the-air radio services	**838**	**843**	**222**	**224**	**41**	**48**	**1,101**	**1,115**
Satellite subscription radio service	2	2	0	0	0	0	2	2
Specialty audio (commercial/non-profit, regional/national)	2	2	0	0	5	5	7	7
Pay audio	0	0	0	0	2	2	2	2
Total number of radio and audio services	**842**	**847**	**222**	**224**	**48**	**55**	**1,112**	**1,126**

Source: CRTC internal database, as of 31 December 2017

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. Other languages include Indigenous-language services and third-language services.

Table 8.3 Number of public/community-based and private radio services authorized to broadcast over-the-air in Canada, by province and language of broadcast, 2017

Province/territory	English-language		French-language		Other languages		Total	
	Public/ community	Private	Public/ community	Private	Public/ community	Private	Public/ community	Private
British Columbia	35	104	3	0	1	8	**39**	**112**
Alberta	12	103	5	0	0	5	**17**	**108**
Saskatchewan	14	43	2	0	0	0	**16**	**43**
Manitoba	10	34	3	0	0	1	**13**	**35**
Ontario	68	212	14	4	2	17	**84**	**233**
Quebec	16	7	64	90	2	7	**82**	**104**
New Brunswick	8	25	13	5	0	0	**21**	**30**
Nova Scotia	16	31	6	0	0	1	**22**	**32**
Prince Edward Island	1	5	1	0	0	0	**2**	**5**
Newfoundland and Labrador	13	18	1	0	0	0	**14**	**18**
The North	10	5	2	0	0	0	**12**	**5**
Canada	**203**	**587**	**114**	**99**	**5**	**39**	**322**	**725**

Source: CRTC internal database

This table shows the number of radio services approved by the Commission. Non-commercial, tourist information and emergency radio services, as well as rebroadcasting transmitters, are excluded. Other languages include Indigenous-language services and third-language services. All are not necessarily in operation.

The North refers to Northwest Territories, Nunavut and Yukon.

Table 8.4 Number of new over-the-air radio stations licensed categorized by language, licence category, type of service, and licensing process

Category	Sub-category	2013	2014	2015	2016	2017	Total
Language	English-language	20	24	10	10	6	**70**
	French-language	5	2	3	2	2	**14**
	Third-language	0	3	1	3	0	**7**
	Total	**25**	**29**	**14**	**15**	**8**	**91**
Licence category	Commercial	12	20	7	4	0	**43**
	Community	7	6	2	6	2	**23**
	Campus	0	1	1	0	0	**2**
	Indigenous	0	2	1	5	6	**14**
	Other	6	0	3	0	0	**9**
	Total	**25**	**29**	**14**	**15**	**8**	**91**
Type	Stand-alone digital	0	0	0	0	0	**0**
	Digital radio	0	0	0	0	0	**0**
	AM frequency	0	2	1	2	1	**6**
	FM frequency	25	27	13	13	7	**85**
	AM to FM conversions (included in FM)	(5)	(0)	(2)	(0)	(1)	**(8)**
	Total	**25**	**29**	**14**	**15**	**8**	**91**
Process	Competitive	0	5	1	2	8	**16**
	Non-competitive	25	24	13	13	0	**75**
	Total	**25**	**29**	**14**	**15**	**8**	**91**

Source: CRTC decisions issued from 1 January 2013 to 31 December 2017

This table shows the number of stations licensed by language, licence category, type of service, and the process used in granting the licence.

Under "Licence category," "Other" includes not-for-profit stations, such as those operated in English and in French by the CBC/SRC, and Environment Canada.

ix. Programming of High Standard

The *Broadcasting Act* sets out that programming provided by broadcasting undertakings should be of high standard. In addition to the CRTC, two bodies deal with complaints relating to the programming provided by broadcasters – the Canadian Broadcast Standards Council (CBSC) and Advertising Standards Canada (ASC) The CRTC also deals with issues that are outside the parameters of the codes administered by the CBSC.

Canadian Broadcast Standards Council

The CBSC is an independent organization created by the Canadian Association of Broadcasters (CAB) to administer codes established by Canada's private broadcasters. The CBSC's membership includes more than 790 private-sector radio and television stations, specialty services, pay services, and networks across Canada. Membership includes broadcasters broadcasting in English, French, and third languages. For more information, visit www.cbsc.ca.

The CBSC administers specific codes of broadcast conduct and provides a means of recourse for members of the public regarding the application of the standards set out in the following codes:

- the *Canadian Association of Broadcasters Code of Ethics*;
- the CAB's *CAB Violence Code*;
- the CAB's *Equitable Portrayal Code*; and
- the *Radio Television Digital News Association of Canada Code of Journalistic Ethics*.

Advertising Standards Canada

ASC is a national, not-for-profit advertising self-regulatory body that responds to complaints by consumers and special interest groups regarding advertising with respect to all media subject to the Canadian Code of Advertising Standards, the principal instrument of advertising self-regulation. ASC also undertakes pre-clearance functions in five industry categories, which consist of reviewing advertisements based on applicable legislation, regulations, and/or industry codes and guidelines. Additional information on ASC can be found at: www.adstandards.com/en/.

Table 8.5 Number of radio-related contacts received by the CRTC, by type of issue

Period	CRTC – policies/ decisions	Quality of service/ delivery	Programming	Loudness	Other	Total
2013-2014	1,535	146	1,024	11	197	**2,913**
2014-2015	1,184	89	865	11	136	**2,285**
2015-2016	1,027	157	515	14	90	**1,803**
2016-2017	774	248	480	7	90	**1,599**

Source: CRTC correspondence tracking system

For the 12-month period from 1 September to 31 August.

Table 8.6 Number of radio complaints received and number of radio complaints referred to the Canadian Broadcast Standards Council (CBSC), by subject matter

	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	
Subject Matter	**Complaints received**	**Referrals to the CBSC**	**Complaints received**	**Referrals to the CBSC**	**Complaints received**	**Referrals to the CBSC**	**Complaints received**	**Referrals to the CBSC**	**Complaints received**	**Referrals to the CBSC**
Abusive comment	47	22	57	15	43	3	58	4	24	1
Adult content	8	1	6	1	11	2	5	0	1	0
Alcohol advertising	3	0	3	0	0	0	0	0	0	0
Gender portrayal	0	0	4	1	4	0	0	0	0	0
Offensive comment	573	449	432	130	414	117	198	33	304	108
Offensive language	42	12	46	13	38	7	33	4	16	2
Total	**673**	**484**	**548**	**160**	**510**	**129**	**294**	**41**	**345**	**111**

Source: CRTC correspondence tracking system

For the 12-month period from 1 September to 31 August.

Together, the CRTC and the CBSC receive and address a range of complaints regarding radio and subscription radio services. This table shows the number of complaints received by the CRTC—and referred to the CBSC—regarding various issues across diverse market sectors for the 2012-2013 through 2016-2017. No complaints were received for satellite radio from 2012-2013 to 2016-2017.

The CRTC's correspondence tracking system counts multiple communications from the same client regarding the same complaint as separate units. Consequently, the actual number of complaints received is likely to be slightly lower than the figures indicated.

The category "Abusive comment" includes complaints alleging hatred or contempt incited on air against one of the groups identified in the Television Broadcasting Regulations, 1987 or the Specialty Services Regulations, 1990. (In 2017, the Specialty Services Regulations, 1990, were replaced by the Discretionary Services Regulations.)

The category "Offensive comment" includes complaints alleging offensive humour, or other comments that do not fall under the "abusive comment" provision in CRTC regulations.

The category "Offensive language" includes complaints alleging offensive language in song lyrics or in spoken word programming.

Table 8.7 Radio complaints handled by the Canadian Broadcast Standards Council in 2017 by language and national origin

Category	Sub-category	Radio	Subscription radio (satellite)	Total
Language of Broadcast of program	English	205	3	**208**
	French	1,459	0	**1,459**
	Third languages	2	0	**2**
	Other	5	0	**5**
	Total	**1,671**	**3**	**1,674**
National origin of program	Canadian	1,654	2	**1,656**
	Foreign	8	0	**8**
	Other	9	1	**10**
	Total	**1,671**	**3**	**1,674**

Source: CBSC, 2016-2017 annual report

The category "Other" in each case refers to complaints for which there was not enough information for the CBSC to determine either the language of broadcast or the origin of the program.

Table 8.8 Complaints handled by Advertising Standards Canada

Statistic	2013	2014	2015	2016	2017
Total number of complaints	1,310	1,274	1,774	1,639	1,808
Complaints about radio advertisements	84	64	94	82	81
Radio complaints as percentage of total (%)	6%	5%	5%	5%	4%

Source: ASC complaint reports

This table shows the number of complaints handled by ASC relating to advertisements on radio as a percentage of the total number of complaints handled. In 2017, 4% of those complaints related to radio advertisements.

x. Methodology

Media Technology Monitoring (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 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

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 where different methodologies apply. The total revenues of Subscription-based digital streaming, advertisement-based digital streaming, and video (audio) streams are added to determine total streaming audio services revenues.

- Subscription-based digital streaming services (such as Spotify) 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 on the estimated number of subscribers. The estimated average monthly subscription revenue per subscriber is then multiplied by the subscriber estimate.
- Advertisement-based digital streaming and video streams revenues 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.

NEW TO FALL 2016: Online Radio Diary (ORD) was implemented in all radio diary markets[59]. 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 previous years with high precision.

[59] Diary markets are defined as markets other than Calgary, Edmonton, Montréal, Toronto and Vancouver.

Communications Monitoring Report 2018

Television Sector

Television Sector

Infographic 9.1

- **Television revenues**, excluding Internet-based video services, **totaled $6.9 billion** in 2017 (a **decline of 5%** compared to 2016), representing **40.1% of total broadcasting revenues**.
  - **Private conventional television stations** generated **$1.6 billion** in revenues in 2017, a **4.1% decrease** compared to 2016.
  - Revenues of **CBC conventional television stations** totaled **$0.9 billion** in 2017, a **20.4% decrease** compared to 2016.
  - **Discretionary and on-demand services** generated **$4.4 billion** in revenues, **down 1.2%** from 2016.
- According to Ovum estimates, revenues in Canada of **Internet-based video services** reached **$2.4 billion** in 2017, **growing on average by 28.9% per year** from 2013 to 2017.
- In 2017, there were **793 television services authorized for distribution** in Canada, of **which 447 (56%) were Canadian**.
- On average, **Canadians 18+** watched **27 hours per week of traditional television** in 2017.
- **Television services** reported **$2.9 billion in Canadian programming expenditures** in 2017.
  - **News expenditures** represented **24% of that amount**. Spending on news **declined on average by 2.9% per year** from 2013 to 2017.
  - **Expenditures on programs of national interest** totaled **$671 million**, a **4% increase** from 2016.
- There were **76 ownership groups operating television services** in 2017. The **top five groups reported 89%** of revenues.
- From 2013 to 2017, discretionary services experienced growth both in **subscriber and advertisement revenues**, reporting an **average annual growth of 2.6% and 0.6%** respectively.
- In 2017, **a single transaction of a value of $1.5 million** generated **$100,000 in tangible benefits**.

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

In 2017, private commercial conventional television stations and Canadian Broadcasting Corporation (CBC) conventional television stations combined with discretionary and on-demand services generated $6.9 billion in revenues and spent approximately $2.9 billion in Canadian programming expenditures (CPE). Discretionary services reported the majority of both the revenues (59%) and CPE (59%). In comparison, according to estimates from Ovum, revenues of Internet-based video services operating in Canada reached $2.4 billion, a 21.3% increase from 2016.

Canadians 18+ tuned in on average to 27 hours of content per week among the approximately 800 television services authorized for distribution in Canada in 2017. In addition to tuning to traditional television, Canadians 18+ watched 3.4 hours of Internet television on average per week, for a total of 30.4 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 2017. The top five groups also garnered 92% of the audience tuning shares in the English-language market and 82% of audience tuning shares in the French-language market, according to 2017 Numeris data (Canadians, 2+).

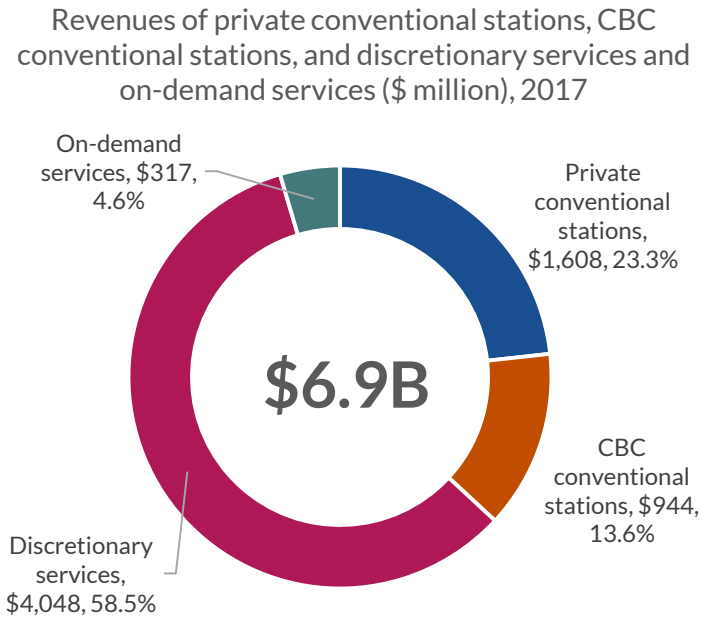
i. Sector Overview

Types of services

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

Discretionary services generated the largest portion of the television revenues with $4 billion (59%) reported in 2017, followed by private conventional stations at $1.6 billion (23%), CBC conventional stations at $944 million (14%), and on-demand services at $317 million (5%).

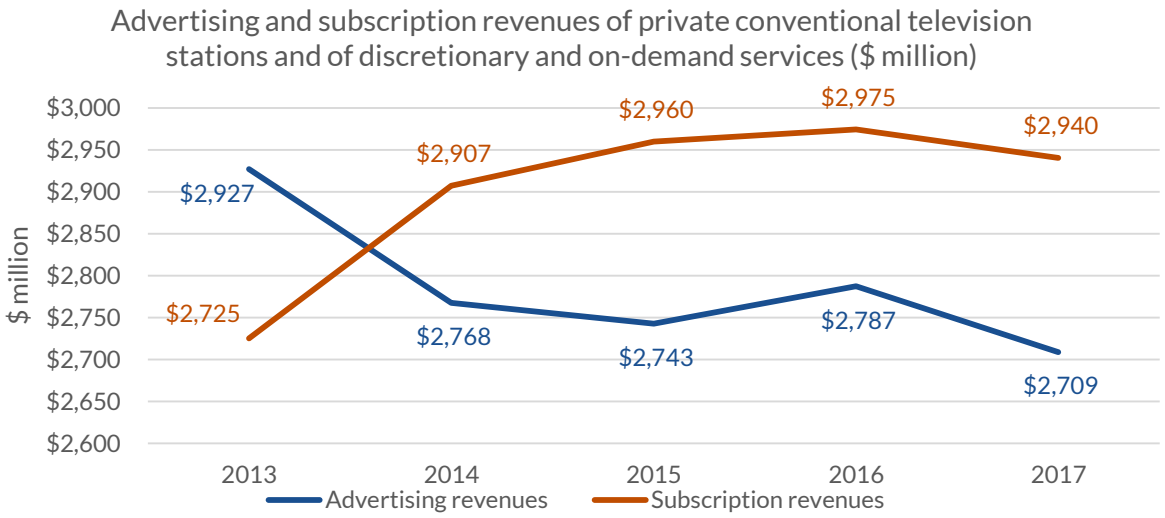
Figure 9.1 Revenues of private conventional stations, CBC conventional stations, discretionary services and on-demand services ($ million), 2017



Source: CRTC data collection

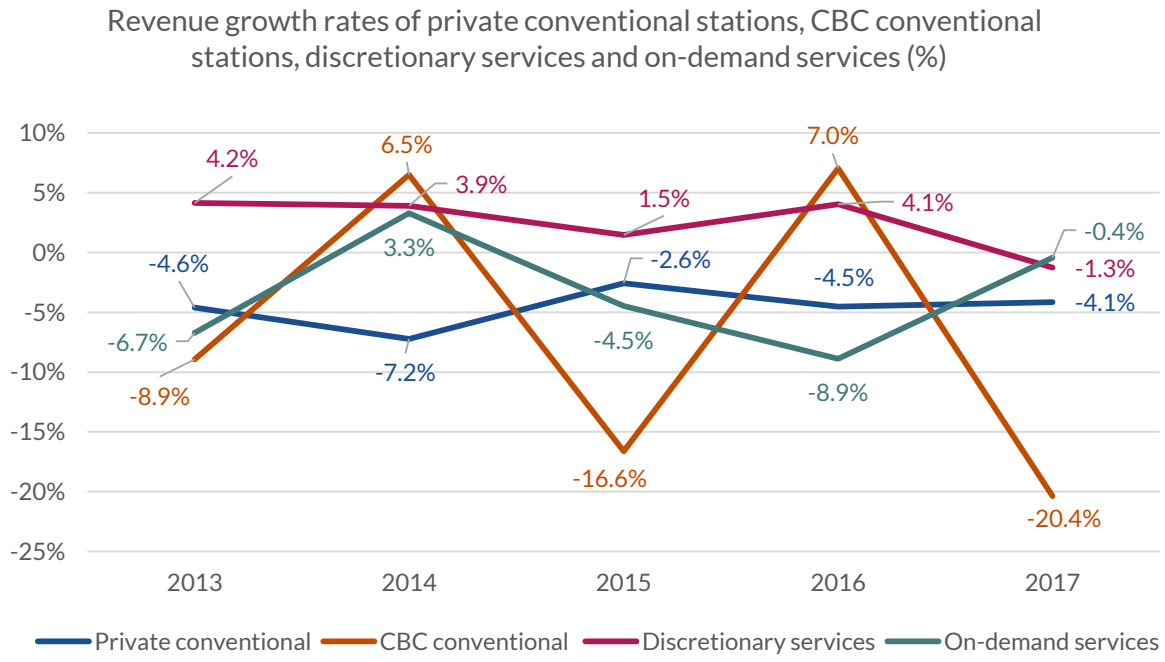
There was a slow decline in television revenues from 2013 to 2017: on average, total television revenues decreased annually by 1.38%. However, during the same period, discretionary services reported an average annual revenue growth of 2.0%, driven by specialty services, largely due to the more robust subscription revenues (compared to advertising revenues).

Figure 9.2 Advertising and subscription revenues of private conventional television stations and of discretionary and on-demand services ($ million)



Source: CRTC data collection

Figure 9.3 Revenue growth rates of private conventional stations, CBC conventional stations, discretionary services and on-demand services (%)



Source: CRTC data collection

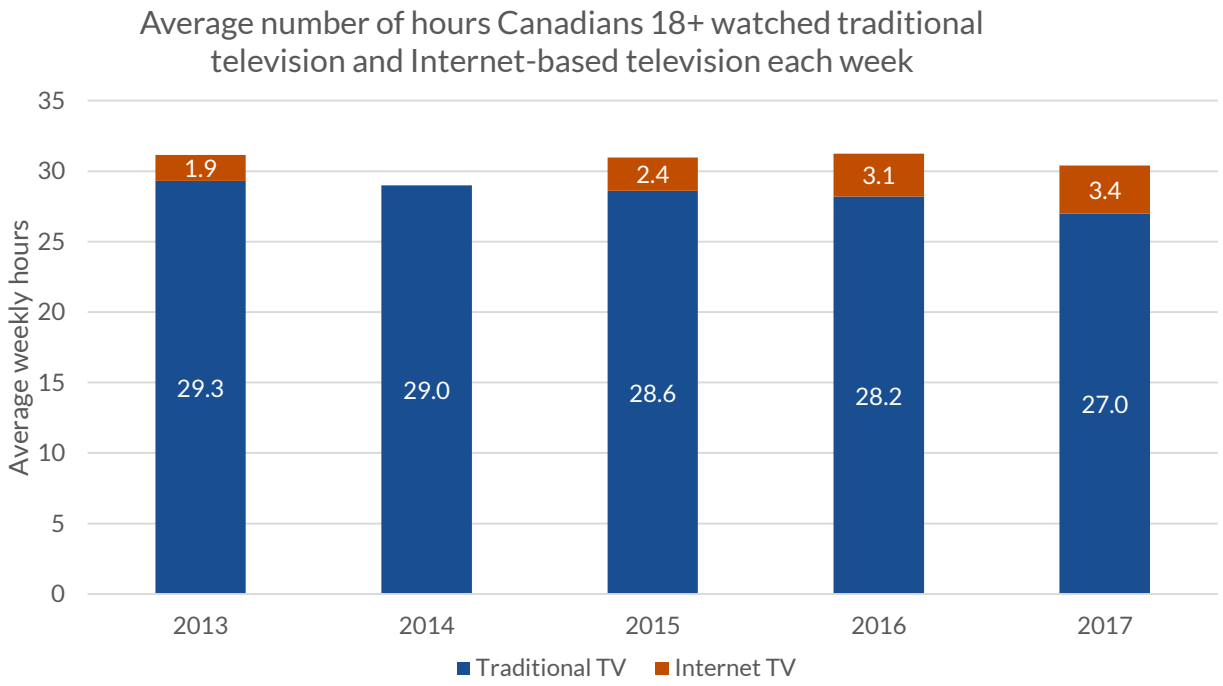
While the traditional television sector is seeing its revenues decrease, its revenues still far exceed the estimated revenues of Internet-based video services in Canada which totaled $2.3 billion in 2017, representing approximately a third of the revenues of the traditional television sector.

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 2017, Canadians 18+ watched on average a total 30.4 hours of television per week, with traditional television representing 89% of the viewing and Internet-based television only 11%.

Figure 9.4 Average number of hours Canadians 18+ watched traditional television and Internet-based television each week



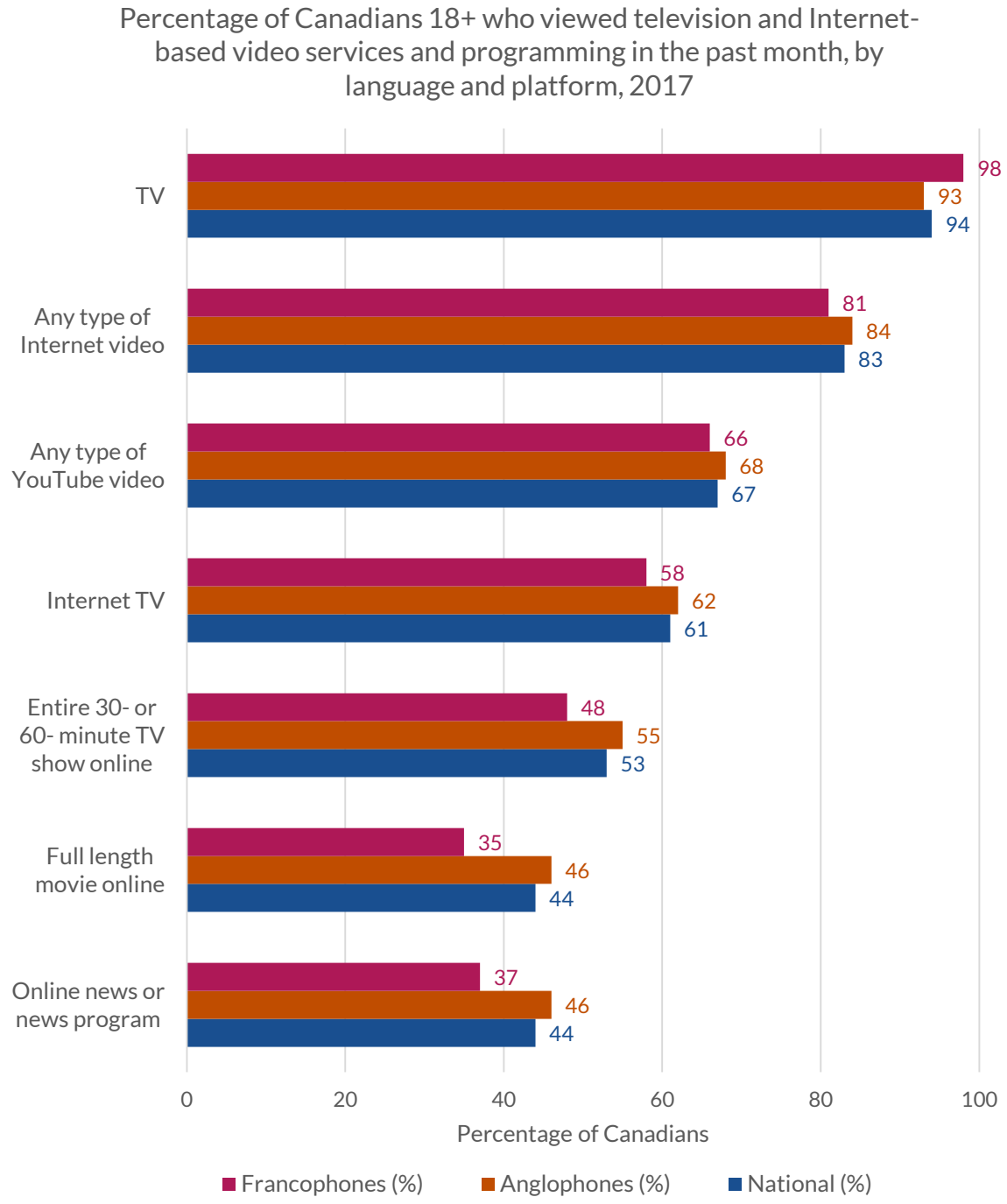
Source: Numeris, MTM (respondents: Canadians 18+)

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

Although the viewership for Internet-based video services is growing, the number of hours that Canadians 18+ spend watching traditional television is still almost 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 month in 2017, 94% of Canadians 18+ watched traditional television while 83% watched video content on the Internet during the same period.

Figure 9.5 Percentage of Canadians 18+ who viewed television and Internet-based video services and programming in the past month, by language and platform, 2017



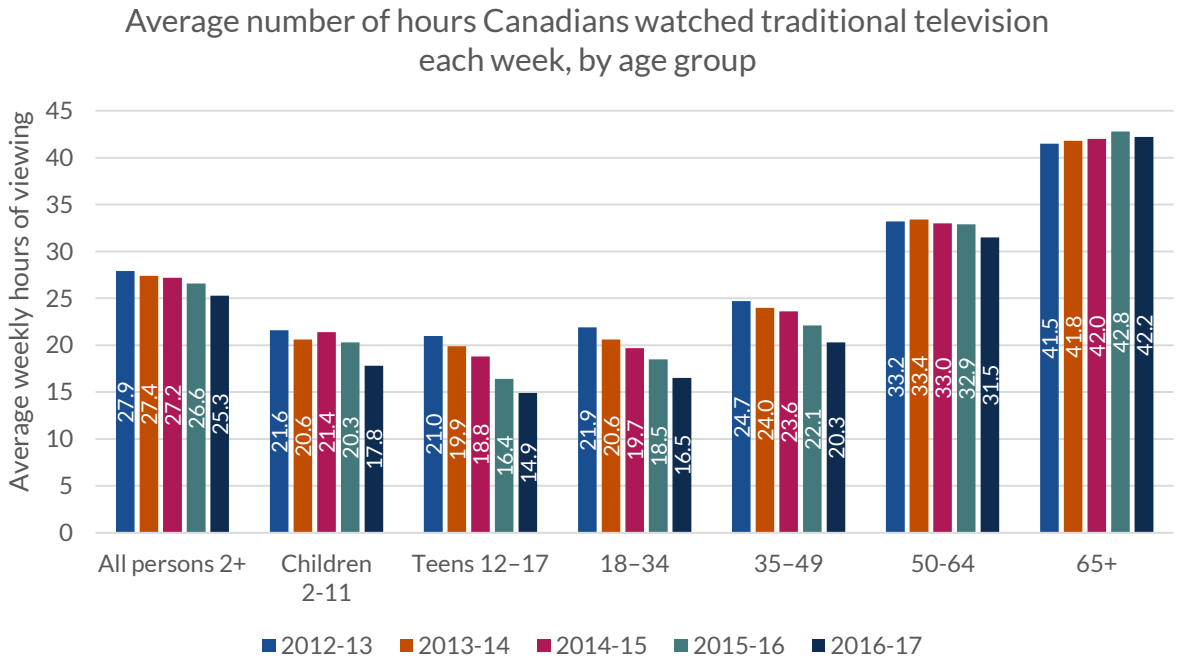
Source: MTM, Fall 2017 (respondents: Canadians aged 18+)

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

Traditional television

In 2017, Canadians 2+ watched an average of 25.3 hours per week[60] of traditional television, a 1.3 hour decrease compared to 2016 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 17.8 hours of television per week.

Figure 9.6 Average number of hours Canadians watched traditional television each week, by age group



Source: Numeris

From 2012-13 to 2016-17, average weekly hours of traditional television viewing decreased on average by 2.4% annually. This decrease is more pronounced in the teen and the 18-34 age groups while the 65+ age group slightly increased their television viewing during the same period.

[60] Canadians 18+ watched on average 27 hours of television per week (Figure 9.4)

Language markets and program categories

In 2016-2017, 46% of the average weekly viewing hours of English- and third-language content went to Canadian programs in the English-language market, while 60% of the viewing hours of French-language content in the French-language market went to Canadian programs.

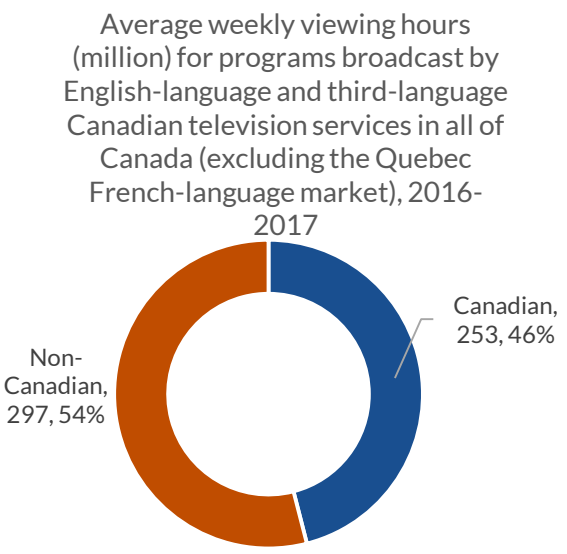
Canadian Programs

Viewing habits of Canadians have not changed much in the past year in regards to program categories for traditional television. This is true for both English- and French-language markets. "News" is the leading category in terms of viewing of Canadian programs in the English-language market and the second most watched category of Canadian programs in the French-language markets. In 2016-2017, Canadian programming in the news category garnered on average 26.7M hours of viewing per week in the French-language market and 76.5M hours of viewing per week in the English-language market.

Canadian and non-Canadian programs

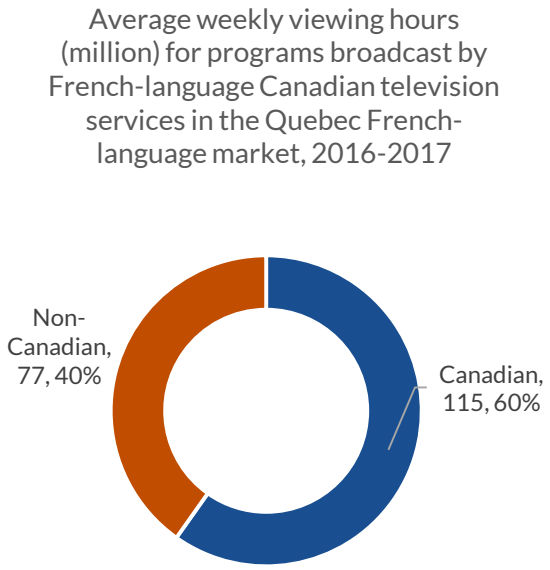
Combining Canadian and non-Canadian programs, the "Drama and comedy" category is the most popular in both markets garnering 36% of the viewing in English and 39% in French, when considering average weekly viewing hours for Canadian television services. The second-most watched program category in the English-language market is "Sports," with 19% of the viewing. In the French-language market, the second most watched category is "General entertainment and human interest/Reality" with 20.2% of the viewing.

Figure 9.7 Average weekly viewing hours (million) for programs broadcast by English-language and third-language Canadian television services in all of Canada (excluding the Quebec French-language market), 2016-2017



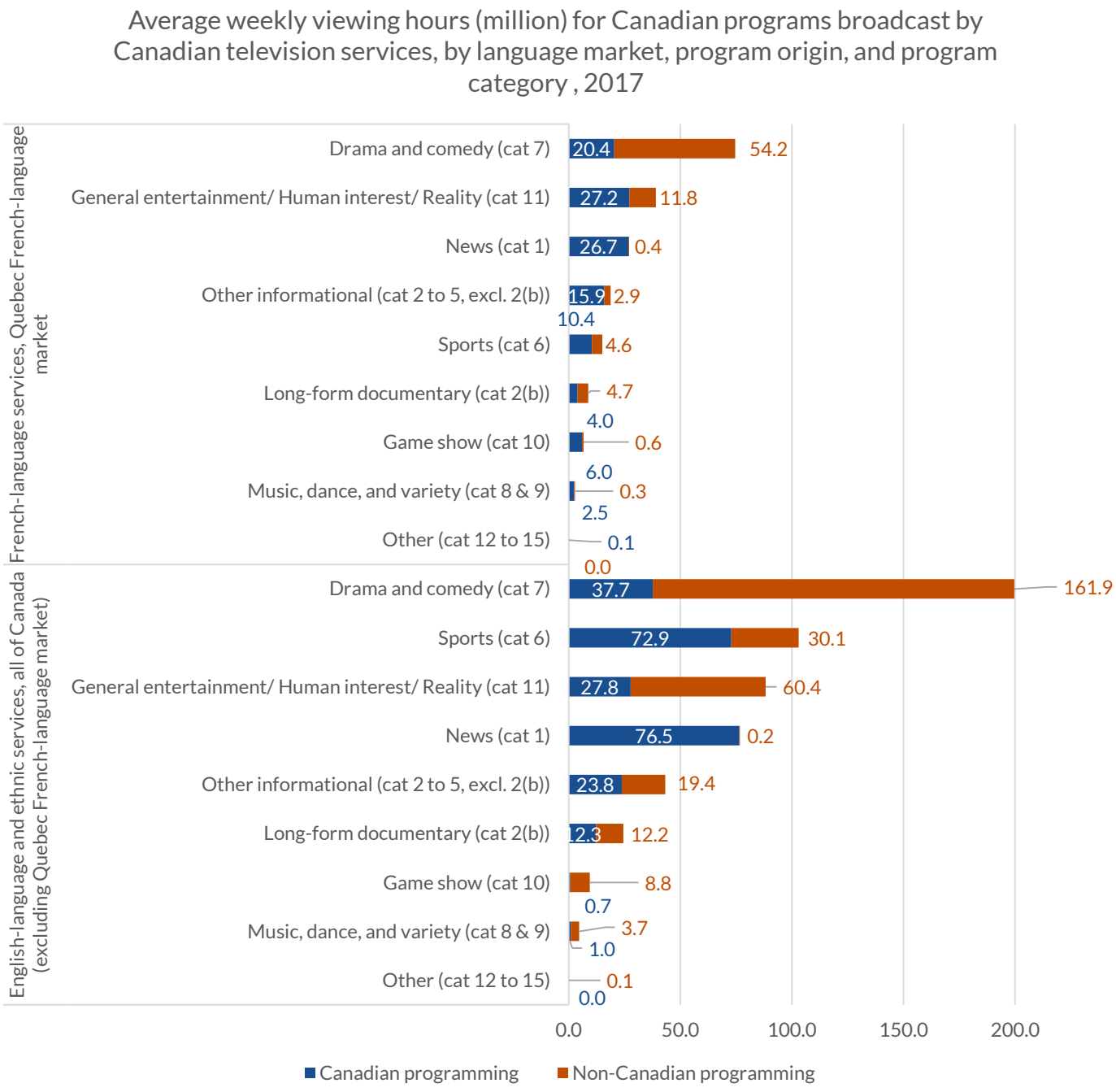
Source: Numeris (Canadians 2+)

Figure 9.8 Average weekly viewing hours (million) for programs broadcast by French-language Canadian television services in the Quebec French-language market, 2016-2017



Source: Numeris (Canadians 2+)

Figure 9.9 Average weekly viewing hours (million) for Canadian programs broadcast by Canadian television services, by language market, program origin, and program category, 2017



Source: Numeris (Canadians 2+)

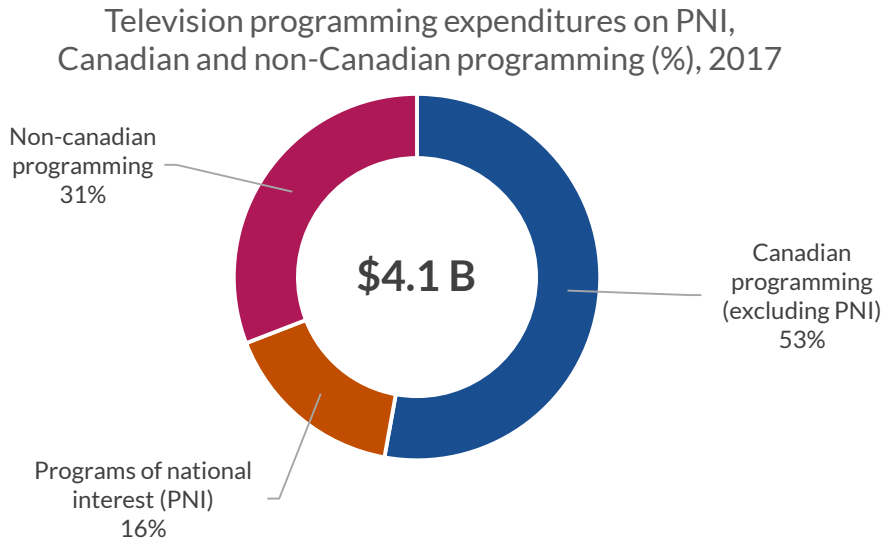
The above data is based on Canadian services with available data that incorporate country of origin and program genre.

Programming Expenditures

Canadian television services spent a total of $4.1 billion on programming expenditures in 2017 (4.7% decrease from 2016), with the vast majority (69%) going towards Canadian programming expenditures (CPE) and the programs of national interest (PNI) subcategory.

For every dollar of revenue broadcasters earned in 2017, $0.33 was spent on Canadian programming (excluding PNI), $0.10 was spend on PNI, and $0.19 on non-Canadian programming. Therefore, excluding VOD and PPV services as well as other public and not-for-profit conventional television stations, broadcasters spent $0.62 on programming expenses for every dollar of revenue earned.

Figure 9.10 Television programming expenditures on PNI, Canadian and non-Canadian programming (%), 2017



Source: CRTC data collection

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

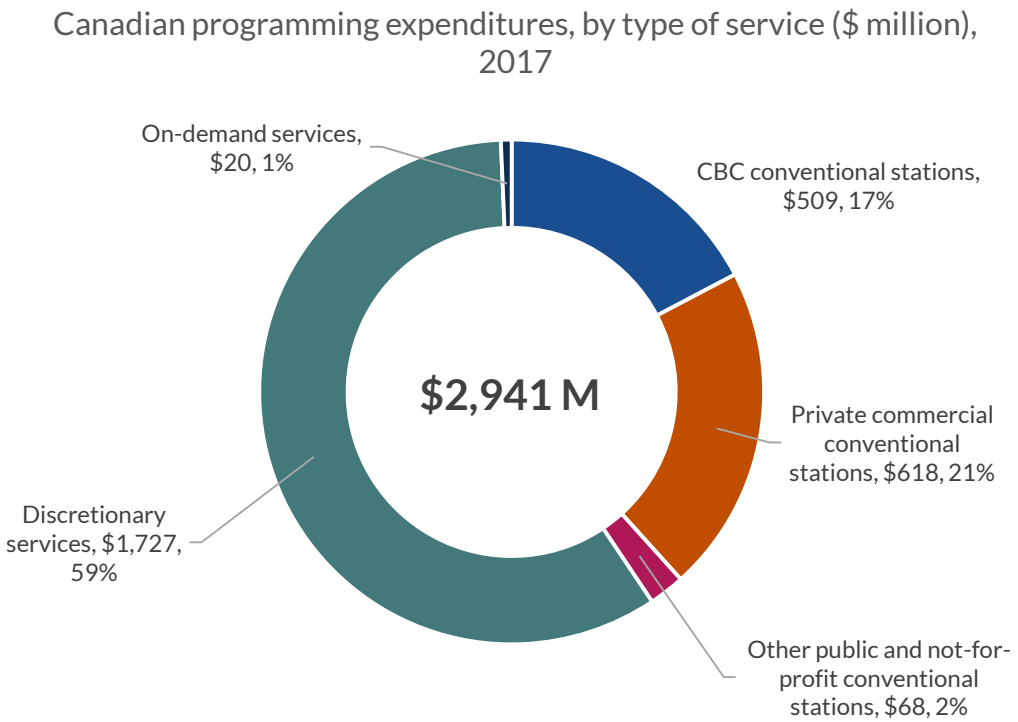
For the purposes of this report, PNI expenditures include expenditures in any of the following program categories:

- 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 $2.9 billion on CPE in 2017. Discretionary services led with CPE totaling $1.7 billion or 59% of the total. While CPE decreased by 4.0% from 2016 to 2017, in the past five years, it increased by 8.7%, growing from $2.7 billion in 2013 to $2.9 billion in 2017.

Figure 9.11 Canadian programming expenditures, by type of service ($ million), 2017

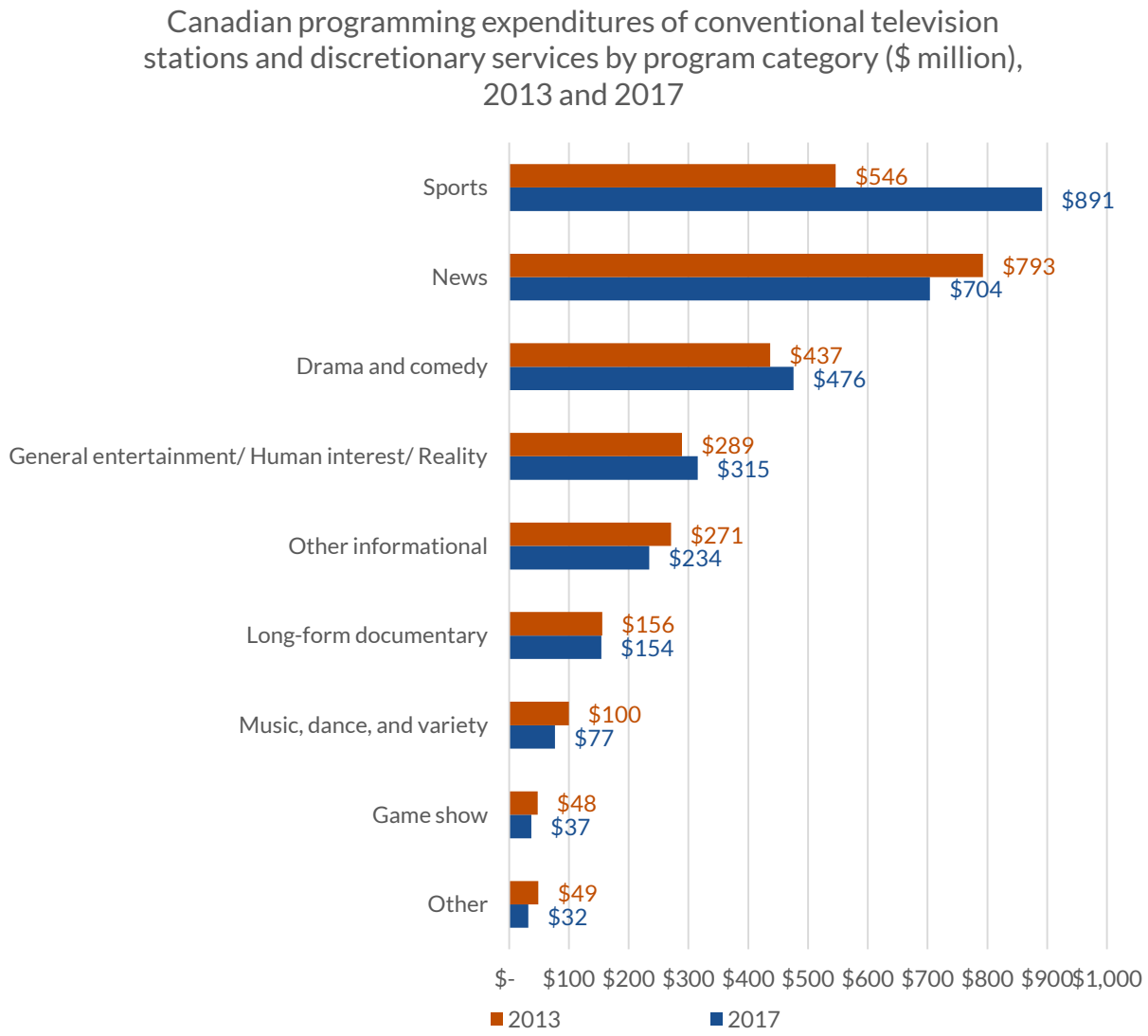


Source: CRTC data collection

From 2013 to 2017, CPE grew and “Sports” dethroned “News” as the category that represents the biggest share of total CPE (30% of total CPE). Expenditures in the “Sports” category increased by 63.1%, compared to 2013. Conversely, CPE on "News” saw a decline of 11.1% during the same period. It represented 24% of total CPE in 2017 compared to 29% in 2013.

Significant gains have been made in CPE in the “Drama and comedy” category (8.9% increase) and in the “General entertainment, human interest and reality” category (9.1% increase), while CPE on the “Long-form documentary” category was relatively stable (1.1% decline), during the 2013 to 2017 period.

Figure 9.12 Canadian programming expenditures of conventional television stations and discretionary services by program category ($ million), 2013 and 2017

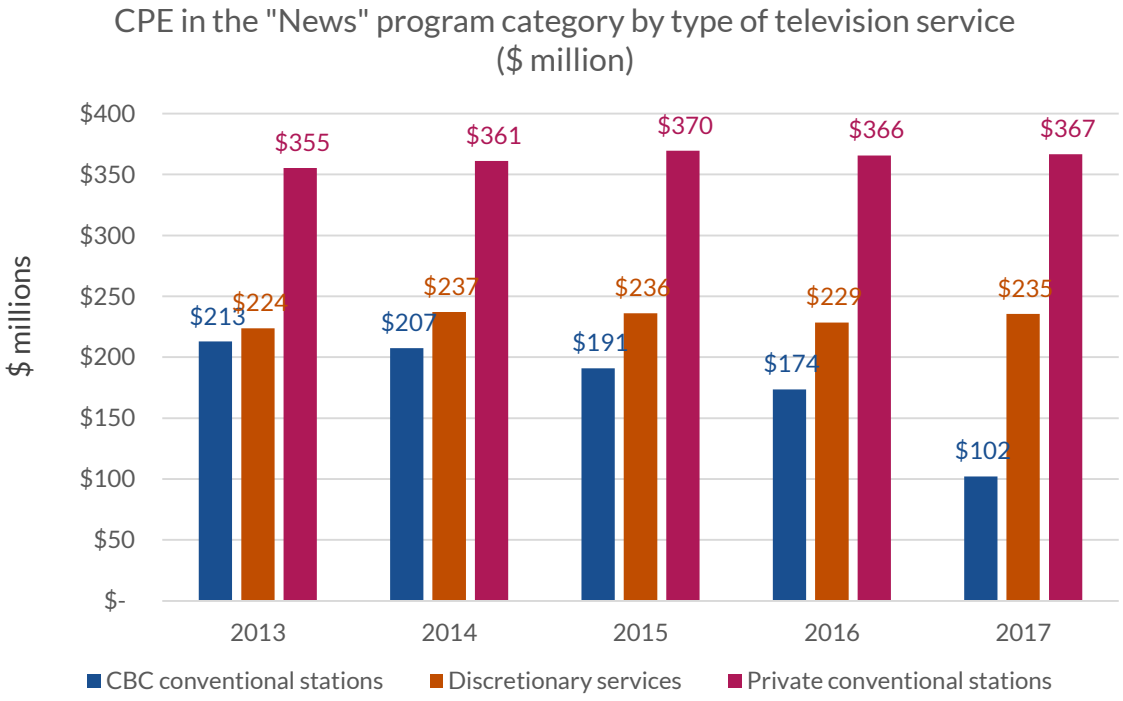


Source: CRTC data collection

News

Although expenditures from private commercial stations accounted for 21% of overall CPE, these stations contributed over half of the CPE in the "News" program category. In fact, expenditures on news have gone up for both private conventional stations and discretionary services (3% and 5% respectively) since 2013.

Figure 9.13 CPE in the "News" program category by type of television service ($ million)

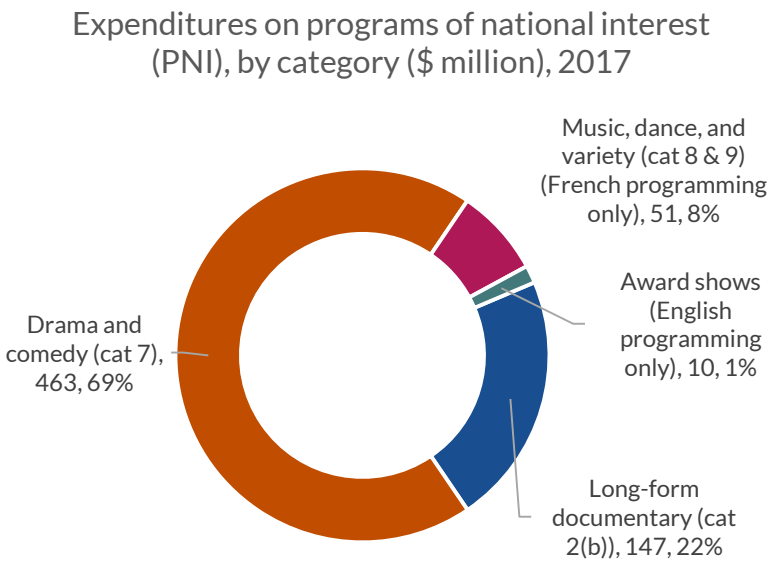


Source: CRTC data collection

PNI

In 2017, expenditures on programs of national interest totaled $671 million, a 4% increase from 2016. Similarly to 2016, the majority of the PNI went to the "Drama and comedy" category, followed by "Long form documentary".

Figure 9.14 Expenditures on programs of national interest (PNI), by category ($ million), 2017



Source: CRTC data collection

Programming expenditures of VOD and PPV 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 2017. The two largest broadcasters, BCE and Corus, garnered over half (52%) of the total television revenues and as well as over 70% of the tuning in the English-language market, while the five largest broadcasters generated over 89% of total revenues, reported 91% of the CPE and garnered over 92% of the tuning in the English-language market.

Infographic 9.2

2017	Television revenues	Share of total television revenues	CPE
BCE	$2,321 M	34%	$821 M
Corus. Shaw)	$1,251 M	18%	$385 M
CBC	$1,107 M	16%	$620 M
ROGERS	$1,030 M	15%	$526 M
QUEBECOR	$453 M	7%	$264 M
groupe vmedia	$72 M	1%	$36 M

2017	Tuning share	
	ENG language market	FRA language market
BCE	36.9%	17.3%
Corus. Shaw)	35.4%	8.9%
CBC	7.6%	18.3%
ROGERS	12.3%	
QUEBECOR		37.6%
groupe vmedia		8.4%

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

BCE leads in terms of revenues but it also spends the most in CPE with $821 million, followed by CBC ($620 million) and Rogers ($526 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 2017, a single ownership transaction of a value of $1.5 million generated $100,000 dollars for the English-language market.

Table 9.1 Value of television ownership transactions and corresponding tangible benefits from 1 January 2013 to 31 December 2017

Language	Metric	2013	2014	2015	2016	2017	Total
English-language services	Transactions	4	2	0	2	1	**9**
	Value ($M)	944.4	174.3	0	5.7	1.5	**1,125.9**
	Benefits ($M)	94.4	17.4	0	1	0.1	**113**
French-language services	Transactions	3	1	0	0	0	**4**
	Value ($M)	1,512.8	22.9	0	0	0	**1,535.7**
	Benefits ($M)	151.3	2.3	0	0	0	**153.6**

Source: CRTC internal database

Figures for 2013 include the BCE/Astral ownership transaction (see Broadcasting Decisions 2013-310 and 2014-62), which resulted in $188 million in tangible benefits. Approximately $130 million of that amount was allocated to French-language initiatives and $58.3 million to English-language initiatives.

In Broadcasting Decision 2013-310, the Commission directed BCE to divest itself of 11 specialty television services. Divestiture of these services generated $60.1 million in additional tangible benefits from other purchasers. Approximately $36.2 million of this amount was allocated to English-language initiatives and $23.9 million to French-language initiatives. The Commission further stipulated that BCE supplement any shortfall between the total amount of tangible benefits generated on the latter sale of Astral's 11 specialty television services and the $72.7 million of tangible benefits attributed to them under the BCE/Astral transaction. The 2013 figures have been restated, increasing tangible benefits resulting from the BCE/Astral ownership transaction from $175.4 million to $188 million.

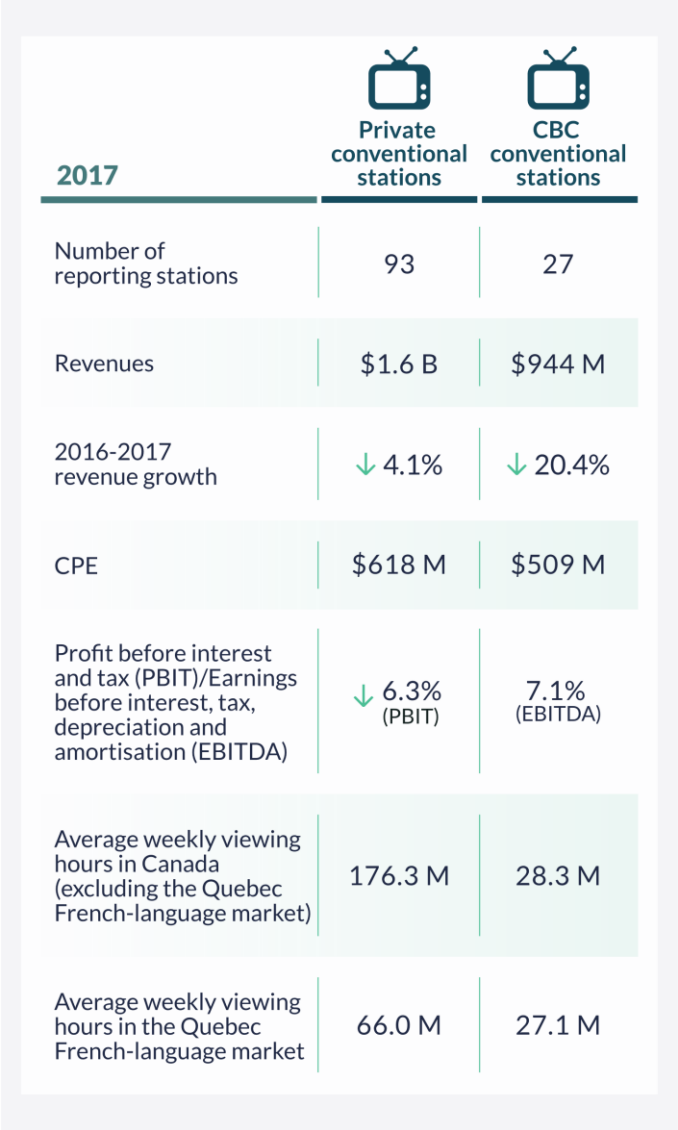
In Broadcasting Decisions 2013-737 and 2013-738, the Commission approved the divestiture of six of these services (Historia, Séries+, TÉLÉTOON Rétro, TELETOON/TÉLÉTOON, TELETOON Retro, and Cartoon Network) to Corus. Corus committed $40.5 million in tangible benefits: approximately $21.6 million to French-language initiatives and $18.9 million to English-language initiatives.

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

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

ii. Conventional television stations

Infographic 9.3



2017	Private conventional stations	CBC conventional stations
Number of reporting stations	93	27
Revenues	$1.6 B	$944 M
2016-2017 revenue growth	↓ 4.1%	↓ 20.4%
CPE	$618 M	$509 M
Profit before interest and tax (PBIT)/Earnings before interest, tax, depreciation and amortisation (EBITDA)	↓ 6.3% (PBIT)	7.1% (EBITDA)
Average weekly viewing hours in Canada (excluding the Quebec French-language market)	176.3 M	28.3 M
Average weekly viewing hours in the Quebec French-language market	66.0 M	27.1 M

Source: CRTC data collection, Numeris

In 2017, the combined revenues of private and CBC conventional television stations totaled $2.6 billion. These segments continue on a slow revenue decline averaging a 5.4% decrease per year from 2013, when they totaled $3.2B, to 2017.

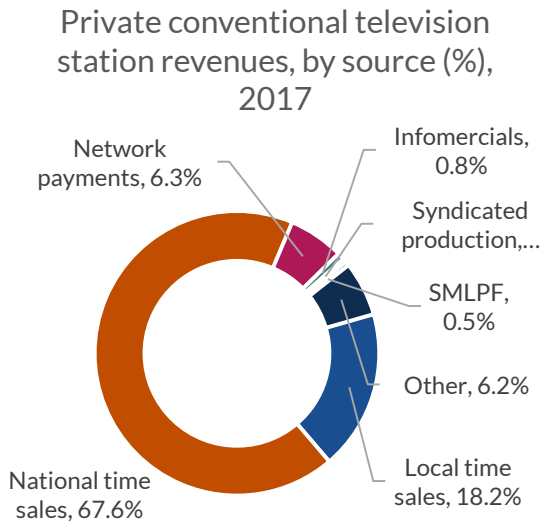
Average viewing hours for private conventional television stations totaled 304.5 million hours per week for the 2017 broadcast year, a 6.8% decrease over the 2016 level of 327 million hours per week.

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

Local and national advertising represent the vast majority of revenues for private conventional television stations. The majority of the decrease in these stations' revenues was observed in the advertising revenues. For CBC television stations, the observed decline in revenues from 2016 to 2017, was mainly a result of a change in CBC's reporting methodology to exclude digital media activities from its reporting. Part of the decrease was also attributable to a decrease in conventional television advertising revenues.

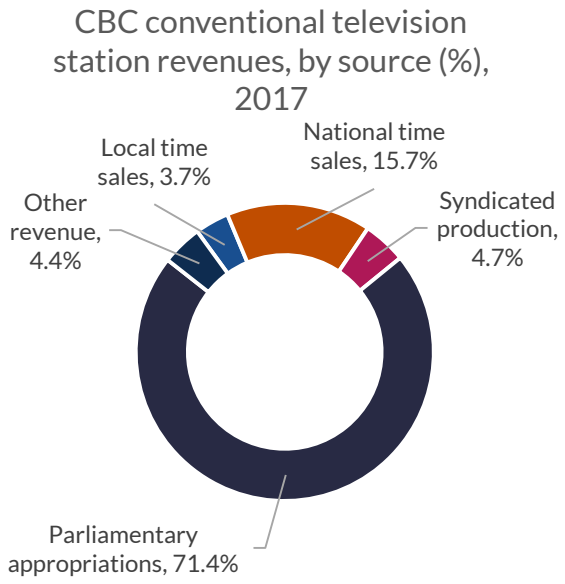
As previously stated, advertising constitutes the vast majority (86%) of the revenues of private conventional television stations, and represents 19% of revenues of CBC conventional stations. Parliamentary appropriations represented 71% of the revenues of CBC conventional television stations.

Figure 9.15 Private conventional television station revenues, by source (%), 2017



Source: CRTC data collection

Figure 9.16 CBC conventional television station revenues, by source (%), 2017



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;

"SMLPF" is the Small Market Local Programming Fund;

"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;

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

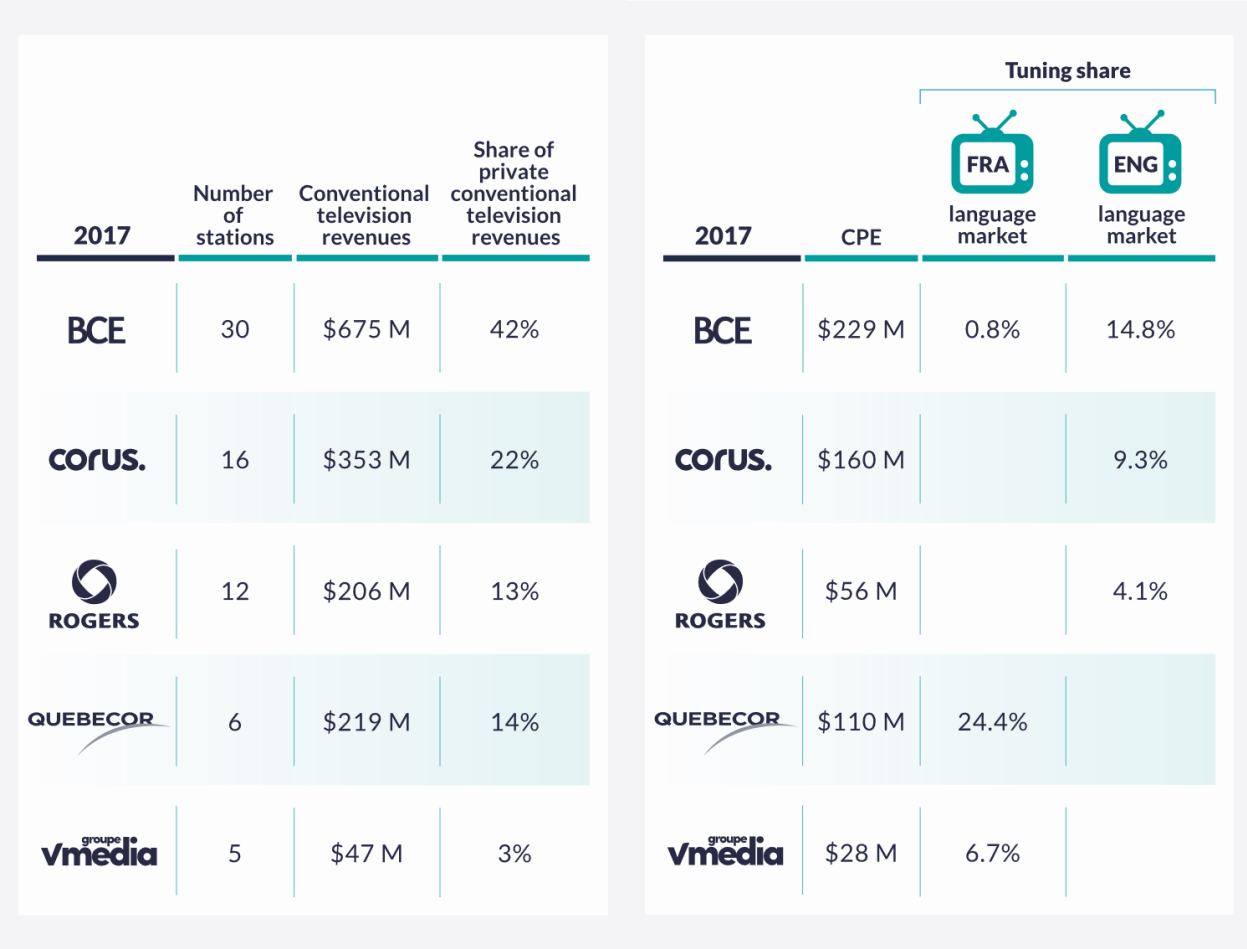
Private conventional television market composition

In 2017, the two largest broadcasters, BCE and Corus, garnered 64% of the total conventional television revenues and reported 63% of the CPE for conventional television stations with 46 of the 93 stations.

In comparison, the two largest French-language broadcasters combined reported 17% of the conventional television revenues with 11 television stations and accounted for 22% of the CPE for conventional television stations.

The five largest conventional television broadcasters combined represented 69 stations and reported 94% of the revenues in 2017.

Infographic 9.4 – Private conventional television stations of large ownership groups



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

iii. Discretionary & on-demand services

Infographic 9.5

Discretionary services

2017	Specialty services	Pay services	Total
Number of reporting services	265	6	271
Revenues	$3.7 B	$0.3 B	$4.0 B
2016-2017 Revenue growth	0.2%	↓ 14.7%	↓ 1.3%
CPE	$1.6 B	$0.1 B	$1.7 B
PBIT	25.6%	19.9%	25.1%
Average weekly viewing hours in Canada (excluding the Quebec French-language market)	n/a	n/a	336.7 M
Average weekly viewing hours in the Quebec French-language market	n/a	n/a	105.3 M

On-demand services

2017	Pay-per-view services	Video-on-demand services	Total
Number of reporting services	7	14	21
Revenues	$99.4 M	$217.6 M	$317.0 M
2016-2017 Revenue growth	13.2%	↓ 5.6%	↓ 0.4%
CPE	$6.6 M	$13.7 M	$20.2 M
PBIT	19.6%	6.9%	10.9%

Source: CRTC data collection, Numeris

Discretionary and on-demand services include specialty and pay (discretionary services) and pay-per-view (PPV) & video-on-demand (VOD) (on-demand services). In 2017, for the first time in the past five years, discretionary and on-demand services exhibited a negative growth compared to the previous year (-1.2%). Nevertheless, these services remain very profitable undertakings with a combined revenue of $4.4 billion and a profitability margin of 24.1% for 2017.

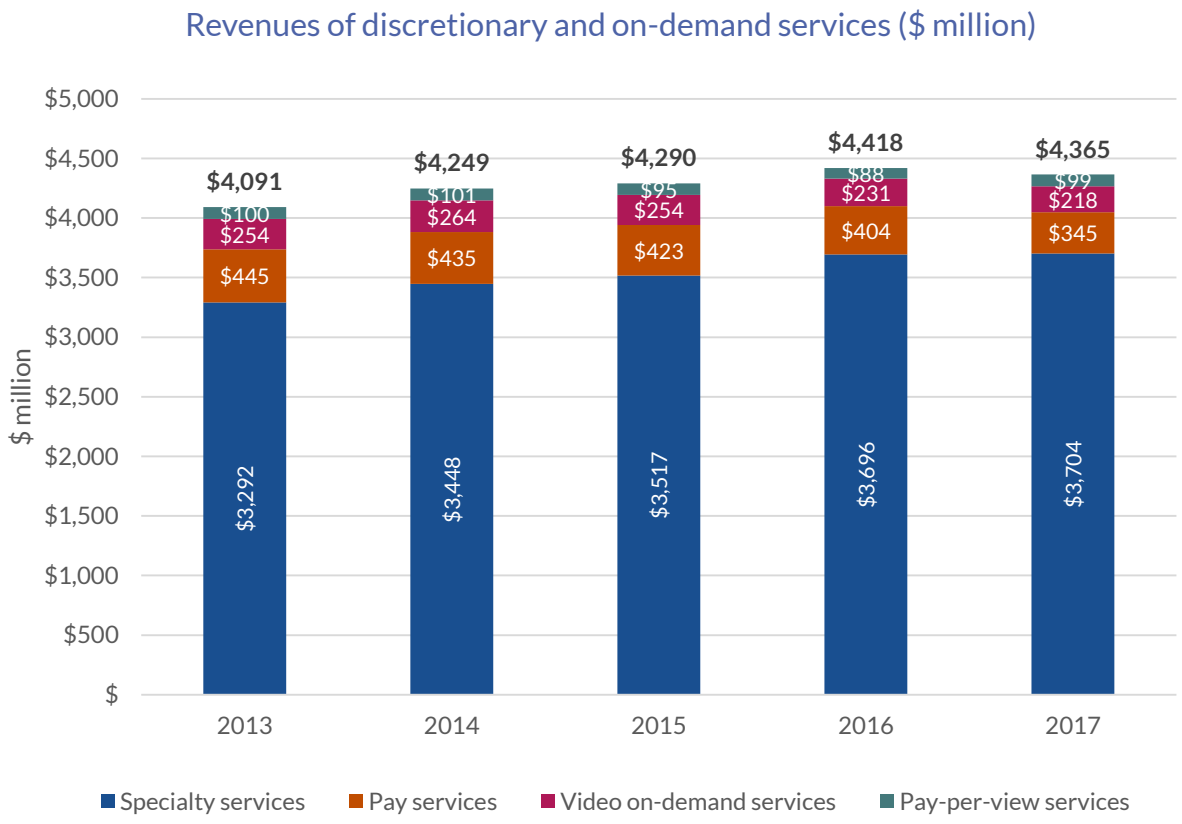
Discretionary and on-demand services are spearheaded by specialty services which represent close to 85% of the total revenue for the category. Their growth has been of 3% per year for the past five years with a profitability margin over the 25% mark for the past 5 years. There could be some signs of market saturation as growth for last year was of 0.21%. Examples of specialty services include Food Network, Sportsnet 360 and Canal D.

Revenues of pay services continue in the same declining trend of the past years with an income of $345 million. A negative growth of -14.7% compared to the previous year can be in part attributed to the closure of two services. This brings the total of reporting pay services to six. Examples of pay services include The Movie Network and Super Écran.

With revenues of $318 million in 2017, video-on-demand services are also in a declining trend. Revenues are decreasing at an average rate of 3.5% per year for the past five years. VOD services are numbered at 14, among these are Bell TV On Demand or Illico sur demande.

PPV services accounted for the smallest revenues in this category ($99 million, 2017) but the biggest growth in the past year (13.2%, compared to previous year). Many of the seven services saw growth in subscriber revenues. Notwithstanding last year's financial performances (PBIT 19.6%), this is a market segment that is trending towards a slow decline in revenues (-0.1% per year for the past five years). Examples of services include Shaw Pay-Per-View and Canal Indigo.

Figure 9.17 Revenues of discretionary and on-demand services ($ million)



Source: CRTC data collection

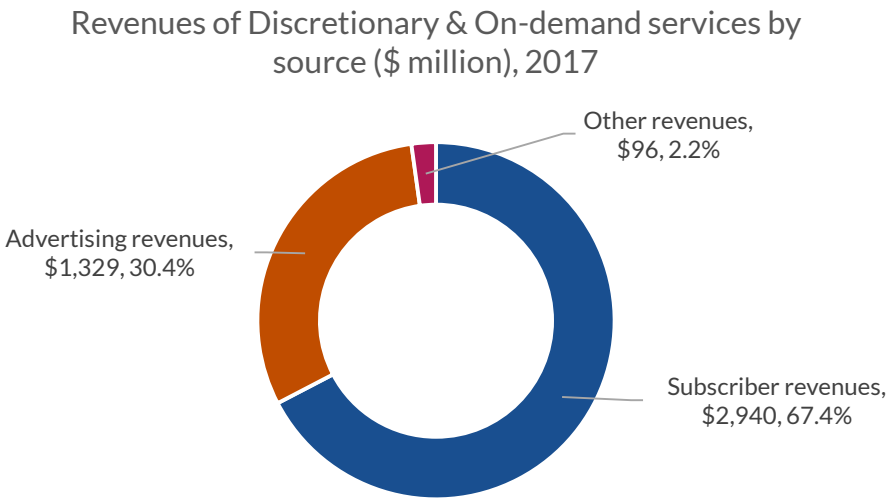
In 2017, subscriber revenues represented 67% of revenues while advertising revenues represented 30%. These proportions were similar in 2013. Subscriber revenue is comprised of terrestrial subscribers (52% of total revenues in 2017) and Direct-to-home subscribers (16% of total revenues). Advertising revenues are split between national ads (29% of total revenues 2017) and local ads (1% of total revenues).

Both subscriber and advertising revenues have grown in the past five years (1.9% per year for subscribers, 0.6% per year for ads). Subscriber and ad revenue growth is negative when compared to the previous year (-1.2% for subscriber revenue; -1.4% for ad revenue).

Subscriber and advertising revenues are growing at a slow rate.

Between 2013 and 2017, viewership for discretionary services declined by -1.6% per year, albeit with a more significant decline in the last year (-6.4%).

Figure 9.18 Revenues of discretionary & on-demand services by source ($ million), 2017



Source: CRTC data collection

Discretionary and on-demand service market composition

In 2017, 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 48% of the tuning in the English-language market.

While Rogers comes into third place in terms of discretionary service revenues with $771 million in 2017, it reported $460 million in CPE, placing it in second place, behind BCE which reported $590 million in CPE and $1,556 million in revenues.

Infographic 9.6 – Discretionary services of large ownership groups and the CBC

2017	Number of discretionary services	Revenues	Share of the revenues of discretionary services
BCE	32	$1,556 M	38%
Corus	44	$832 M	21%
Rogers	10	$771 M	19%
CBC	5	$164 M	4%
Quebecor	7	$184 M	5%
Vmedia	2	$24 M	0.4%

2017	CPE	Tuning share	
		FRA language market	ENG language market
BCE	$590 M	16.5%	22.1%
Corus	$226 M	8.9%	26.1%
Rogers	$460		8.2%
CBC	$112 M	4.9%	2.0%
Quebecor	$151 M	13.2%	
Vmedia	$8 M	1.7%	

Source: Public disclosure of aggregate annual returns for large ownership groups, Individual Discretionary and On-Demand Statistical and Financial Summaries, Numeris

In 2017, the four largest broadcasters garnered 82% of the total revenues for on-demand services and reported $14.2 million in CPE with 13 of the total 21 services.

Infographic 9.7 – On-demand services of large ownership groups

2017	Number of on-demand services	Revenues
BCE	6	$89.1 M
QUEBECOR	2	$49.2 M
ROGERS	2	$53.3 M
Shaw)	3	$65.8 M

2017	Share of the revenues of on-demand services	CPE
BCE	28%	$1.9 M
QUEBECOR	16%	$2.8 M
ROGERS	17%	$9.5 M
Shaw)	21%	

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. This market segment generated revenues totaling an estimated $2.4 billion in Canada in 2017. Considering that the traditional television sector generated $6.9 billion in revenues in 2017, Internet-based video services would represent approximately 35% of this total, comparable to the revenues of private and CBC conventional television stations combined.

Internet-based video services are segmented into three main distinct 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 (for example, Rogers NHL Live) and those where a user chooses amid a catalogue of content which is available regardless of viewing time (for example, 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 9.8

2017	2017 Estimated revenues in Canada	2016-2017 growth	Share of estimated revenues of Internet-based video services
SVOD	$1,331 M	26.3%	56%
TVOD	$451 M	8.7%	19%
AVOD	$583 M	21.2%	25%
TOTAL	**$2.4 B**	**21.3%**	**n/a**

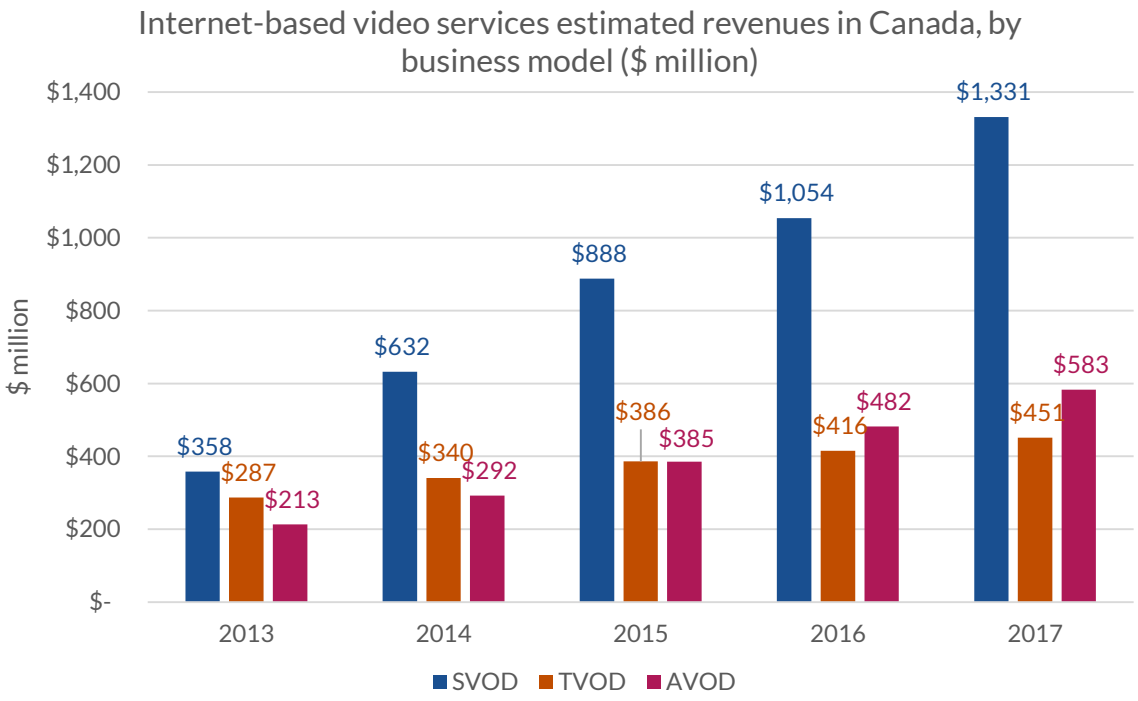
Source: Revenue estimates from Ovum

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 1.3% per year from 2013 to 2017, estimated revenues of Internet-based video services in Canada grew at an annual average rate of 28.9% during the same period.

SVOD services led Internet-based video services in terms of total revenues and growth. In 2017, SVOD services garnered 56% of total estimated Internet-based revenues, totaling $1.3B and grew on average by 38.8% per year from 2013 to 2017. AVOD and TVOD services came in second and third place, respectively, in terms of total estimated revenues and growth.

Figure 9.19 Internet-based video services estimated revenues in Canada, by business model ($ million)

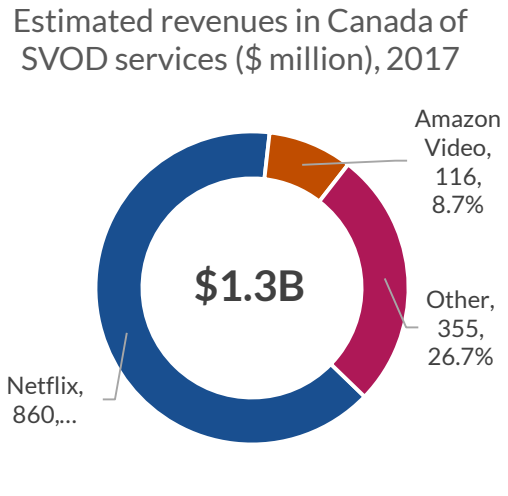


Source: Revenue estimates from Ovum

Similarly to the traditional broadcasting system, the Internet-based video services are led by a few services generating the majority of the revenues. In 2017, the top three services, Netflix, iTunes and YouTube, generated an estimated $1.3 billion in revenues or 55% of the total revenues of Internet-based video services. Interestingly, they each represent a different type of service.

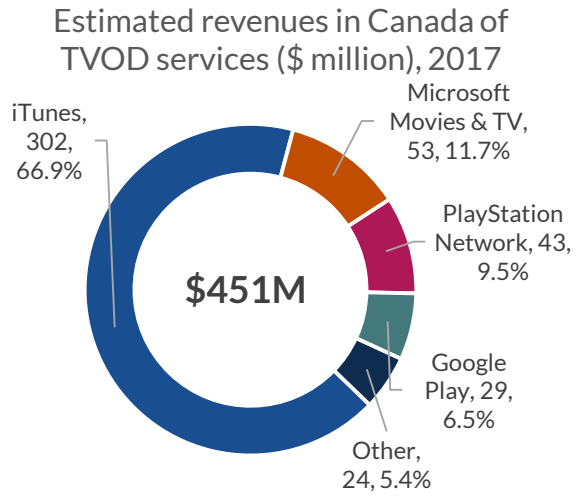
In 2017, unsurprisingly, Netflix represented the largest portion (65%) of SVOD revenues, followed by Amazon Video (9%), while iTunes represented 67% of the TVOD revenues and YouTube was estimated to garner 25% of the AVOD revenues.

Figure 9.20 Estimated revenues in Canada of SVOD services ($ million), 2017



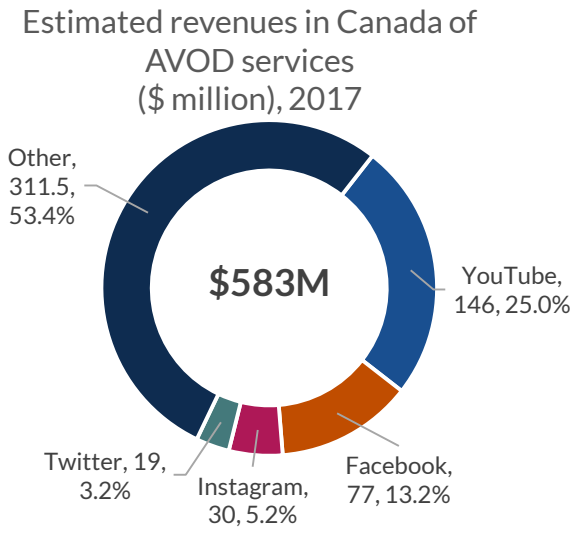
Source: Revenue estimates from Ovum

Figure 9.21 Estimated revenues in Canada of TVOD services ($ million), 2017



Source: Revenue estimates from Ovum

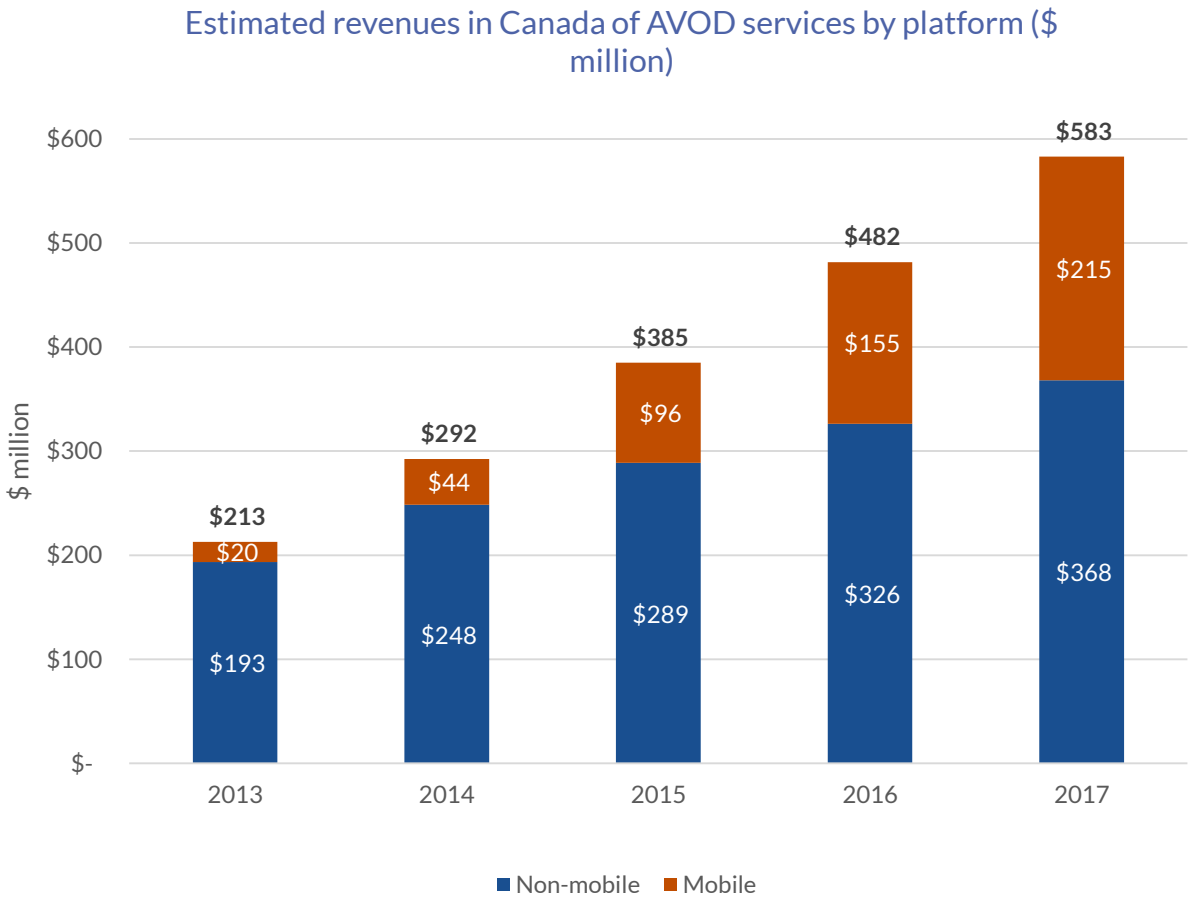
Figure 9.22 Estimated revenues in Canada of AVOD services ($ million), 2017



Source: Revenue estimates from Ovum

Mobile platforms are generating an increasing portion of revenues for AVOD services. As mobile usage grows, so are the AVOD revenues generated from mobile platforms. According to estimates, AVOD services generated 37% of their revenues from mobile platforms in 2017, up from barely 9% in 2013.

Figure 9.23 Estimated revenues in Canada of AVOD services by platform ($ million)



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 2017, a total of 793 services were authorized to broadcast in Canada, an increase of seven services over 2016. Discretionary services accounted for 34% of television services, while conventional and other services represented 19%.

Table 9.2 Number and type of television and video services authorized to broadcast in Canada, by language of broadcast

		English-language		French-language		Third-language		All languages	
Category	**Subcategory**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Canadian conventional television stations	CBC (owned and operated)	14	14	13	13	0	0	**27**	**27**
	Private commercial	67	67	20	20	6	6	**93**	**93**
	Religious included in private commercial	5	5	0	0	0	0	**5**	**5**
	Other religious	2	2	0	0	0	0	**2**	**2**
	Educational	4	4	3	3	0	0	**7**	**7**
Canadian discretionary services	Specialty Category A services	44	43	15	14	5	5	**64**	**62**
	Specialty Category B services	84	79	10	11	109	104	**203**	**194**
	Specialty Category C services	6	6	4	4	0	0	**10**	**10**
	Pay television services	6	4	2	2	0	0	**8**	**6**
	PPV services (Direct-to-home and terrestrial)	11	11	0	0	0	0	**11**	**11**
	VOD services	16	16	1	1	0	0	**17**	**17**
Other Canadian services	Community services	11	12	4	4	0	0	**15**	**16**
	House of Commons (CPAC)	1	1	1	1	0	0	**2**	**2**
Non-Canadian services	Authorized for distribution in Canada	138	144	24	25	165	177	**327**	**346**
Total	**Total**	**404**	**403**	**97**	**98**	**285**	**292**	**786**	**793**

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 services (i.e., specialty, pay, PPV, and VOD); 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. Specialty Category B services include only services that have been launched and have filed annual returns with the Commission. Pay television services include only pay services that launched as of 31 December 2012. VOD 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 broadcasting distribution

undertaking (BDU). Appendix 2 to Broadcasting Regulatory Policy 2018-1 sets out a complete list of non-Canadian programming services approved as of 20 December 2017. English-language services include those considered bilingual (English/French and English/Indigenous languages). Other Canadian services exclude community channels reported by BDU licensees.

Table 9.3 Number of Canadian public, community and educational services and private conventional television stations authorized to broadcast, by province and language of broadcast

	English-language		French-language		Third-language		Total	
Province/territory	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	7	11	1	0	0	1	**8**	**12**
Alberta	3	13	1	0	0	2	**4**	**15**
Saskatchewan	2	6	1	0	0	0	**3**	**6**
Manitoba	2	4	1	0	0	0	**3**	**4**
Ontario	7	22	3	0	0	2	**10**	**24**
Quebec	1	3	11	20	0	1	**12**	**24**
New Brunswick	2	4	1	0	0	0	**3**	**4**
Nova Scotia	3	3	0	0	0	0	**3**	**3**
Prince Edward Island	1	0	0	0	0	0	**1**	**0**
Newfoundland and Labrador	1	1	0	0	0	0	**1**	**1**
The North	2	0	0	0	0	0	**2**	**0**
Canada	**31**	**67**	**19**	**20**	**0**	**6**	**50**	**93**

Source: CRTC internal database

Nationally, Canadians have access to 93 private conventional television stations and 50 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 (24 stations each).

vi. Programming of high standard

The *Broadcasting Act* sets out that programming provided by broadcasting undertakings should be of high standard. In addition to the CRTC, two bodies deal with complaints relating to the programming provided by broadcasters – the Canadian Broadcast Standards Council (CBSC) and Advertising Standards Canada (ASC) The CRTC also deals with issues that are outside the parameters of the codes administered by the CBSC.

Canadian Broadcast Standards Council

The CBSC is an independent organization created by the Canadian Association of Broadcasters (CAB) to administer codes established by Canada's private broadcasters. The CBSC's membership includes more than 790 private-sector radio and television stations, specialty services, pay services, and networks across Canada. Membership includes broadcasters broadcasting in English, French, and third languages. For more information, visit www.cbsc.ca.

The CBSC administers specific codes of broadcast conduct and provides a means of recourse for members of the public regarding the application of the standards set out in the following codes:

- the *Canadian Association of Broadcasters Code of Ethics*;
- the CAB's *CAB Violence Code*;
- the CAB's *Equitable Portrayal Code*; and
- the *Radio Television Digital News Association of Canada Code of Journalistic Ethics*.

Advertising Standards Canada

ASC is a national, not-for-profit advertising self-regulatory body that responds to complaints by consumers and special interest groups regarding advertising with respect to all media subject to the Canadian Code of Advertising Standards, the principal instrument of advertising self-regulation. ASC also undertakes pre-clearance functions in five industry categories, which consist of reviewing advertisements based on applicable legislation, regulations, and/or industry codes and guidelines. Additional information on ASC can be found at: www.adstandards.com

Table 9.4 Number of television-related contacts received by the CRTC, by type of issue 2013-2017 broadcast years

Year	CRTC – policies/ decisions	Quality of service/delivery	Programming	Loudness	Other	Total
2013-2014	2,390	296	1,441	875	100	**5,102**
2014-2015	2,643	297	1,426	681	100	**5,147**
2015-2016	1,971	649	1,300	403	268	**4,591**
2016-2017	1,421	712	993	251	298	**3,675**

Source: CRTC Correspondence Tracking System

For the 12-month period from 1 September to 31 August.

This table summarizes the contacts received by the CRTC, which includes questions, comments, complaints, and other communications, broken down by the type of issue raised.

Table 9.5 Television programming complaints received by the CRTC and referred to the CBSC, by sector and issue, 2013-2017 broadcast years.

Market sector	Type of complaint	2013-2014		2014-2015		2015-2016		2016-2017	
		Complaints received	Referrals to CBSC	Complaints received	Referrals to CBSC	Complaints received	Referrals to CBSC	Complaints received	Referrals to CBSC
Conventional television	Abusive comment	23	8	16	1	25	4	8	0
	Adult content	84	14	76	12	33	5	14	2
	Alcohol advertising	13	1	16	1	10	0	3	0
	Gender portrayal	4	0	4	0	1	0	0	0
	Offensive comment	178	52	179	31	78	17	178	24
	Offensive language	62	8	57	16	42	4	28	3
	Television violence	67	13	64	6	20	0	9	0
	Total	**431**	**96**	**412**	**67**	**209**	**30**	**240**	**29**
Specialty services	Abusive comment	11	5	4	1	4	0	2	0
	Adult content	43	11	31	6	22	4	20	2
	Alcohol advertising	3	4	0	0	2	0	0	0
	Gender portrayal	4	2	0	0	0	0	0	0
	Offensive comment	62	24	60	24	19	1	55	10
	Offensive language	14	6	11	5	9	4	9	2
	Television violence	9	5	23	4	3	1	8	7
	Total	**146**	**57**	**129**	**40**	**59**	**10**	**94**	**21**
Pay and PPV services	Abusive comment	0	0	0	0	0	0	0	0
	Adult content	1	0	8	2	3	0	1	0
	Alcohol advertising	0	0	0	0	0	0	0	0
	Gender portrayal	0	0	0	0	0	0	0	0
	Offensive comment	1	0	1	1	0	0	0	0
	Offensive language	0	0	1	0	0	0	2	0
	Television violence	0	0	2	0	1	0	2	0
	Total	**2**	**0**	**12**	**3**	**4**	**0**	**5**	**0**
Total	**Total**	**579**	**153**	**553**	**110**	**272**	**40**	**339**	**50**

Source: CRTC Correspondence Tracking System

Together, the CRTC and the CBSC receive and address a range of complaints regarding conventional television stations and discretionary services. This table shows the number of complaints received by the CRTC—and the number referred to the CBSC—regarding various issues for the 2013–2014 through 2016–2017 broadcast years (i.e., 1 September to 31 August). Between April 2016 and March 2017, approximately 12.6% of the complaints relating to television received by the CRTC were referred to the CBSC.

The CRTC's Correspondence Tracking System counts multiple contacts from the same client regarding the same complaint as separate units. Consequently, the actual number of complaints received should be slightly lower than the figures indicated. The category "Abusive comment" includes complaints alleging hatred or contempt incited on air against one of the groups identified in the Television Broadcasting Regulations, 1987 or the Discretionary Services Regulations. The category "Offensive comment" includes complaints alleging offensive humour, or other comments that do not fall under the "abusive comment" provision in the regulations. The category "Offensive language" includes complaints alleging offensive language in song lyrics or in spoken word programming.

Table 9.6 Television-related complaints handled by the CBSC, by language of broadcast and origin of the program, 2017

Category	Subcategory	Conventional and specialty TV	Pay TV	Total
Language of broadcast	English	872	4	876
	French	238	3	241
	Third language	3	0	3
	Other	8	0	8
	Total	**1,121**	**7**	**1,128**
Origin of the program	Canadian	855	0	855
	Foreign	150	4	154
	Other	116	3	119
	Total	**1,121**	**7**	**1,128**

Source: CBSC, 2016-2017 annual report

The category "Other" in each case refers to complaints for which there was not enough information for the CBSC to determine either the language of broadcast or the origin of the program.

Table 9.7 Complaints relating to digital advertising and advertising on television, handled by the ASC, 2017

Statistics	2013	2014	2015	2016	2017
Total number of complaints	1,310	1,274	1,774	1,639	1,808
Complaints about television advertisements	528	500	671	652	716
Complaints about television advertisements as percentage of total complaints received	40%	39%	38%	40%	40%
Complaints about digital advertisements	240	289	348	439	410
Complaints about digital advertisements as percentage of total complaints received	18%	23%	20%	27%	23%

Source: ASC Ad complaints reports

vii. Methodology

Media Technology Monitoring (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 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

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 on 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 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.

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:

- 27 August 2012 to 25 August 2013, includes all persons 2+, Monday to Sunday, 2 a.m. to 2 a.m.
- 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.

Communications Monitoring Report 2018

Broadcasting Distribution

Broadcasting Distribution Sector

Infographic 10.1

	2017	2016-2017 Growth
BDU subscribers	10.7 M	↓ 1.9%
BDU revenues	$8.5 B	↓ 2.3%
BDU EBITDA margin	18.3%	N/A
Total BDU contribution to Canadian programming	$412 M	↓ 3.7%
Total affiliation payments reported by BDUs	$3.5 B	0.7%
Total affiliation payments to Canadian services	$3.1 B	1.6%
Percentage of households subscribing to BDUs	72.3%	n/a

Source: CRTC data collection

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

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.

In 2017, BDU revenues[61] stood at $8.5 billion and represented almost half of total broadcasting revenues. While revenues were down 2.3% compared to 2016, BDUs reported a combined earnings before interest, taxes and depreciation and amortization (EBITDA) margin of 18.3% in 2017. They also contributed over $400 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 72.3% of Canadian households.

[61] BDU revenues refer 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.

i. Revenues and financial performance

Infographic 10.2

2017	Revenues	2016-2017 revenue growth	Subscribers
Cable	$4,593 M	↓ 4.1%	6.1 M
IPTV	$1,985 M	10.3%	2.6 M
DTH	$1,959 M	↓ 8.9%	2.0 M
TOTAL	**$8,538 M**	**↓ 2.3%**	**10.7 M**

2017	2016-2017 subscriber growth	Average revenues by subscriber	EBITDA margin
Cable	↓ 2.9%	$62.32 /month	18.6%
IPTV	5.5%	$65.24 /month	7.7%
DTH	↓ 7.2%	$76.76 /month	28.1%
TOTAL	**↓ 1.9%**	**$65.85 /month**	**18.3%**

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, Crave and Club Illico.

Monthly revenues per subscriber 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.

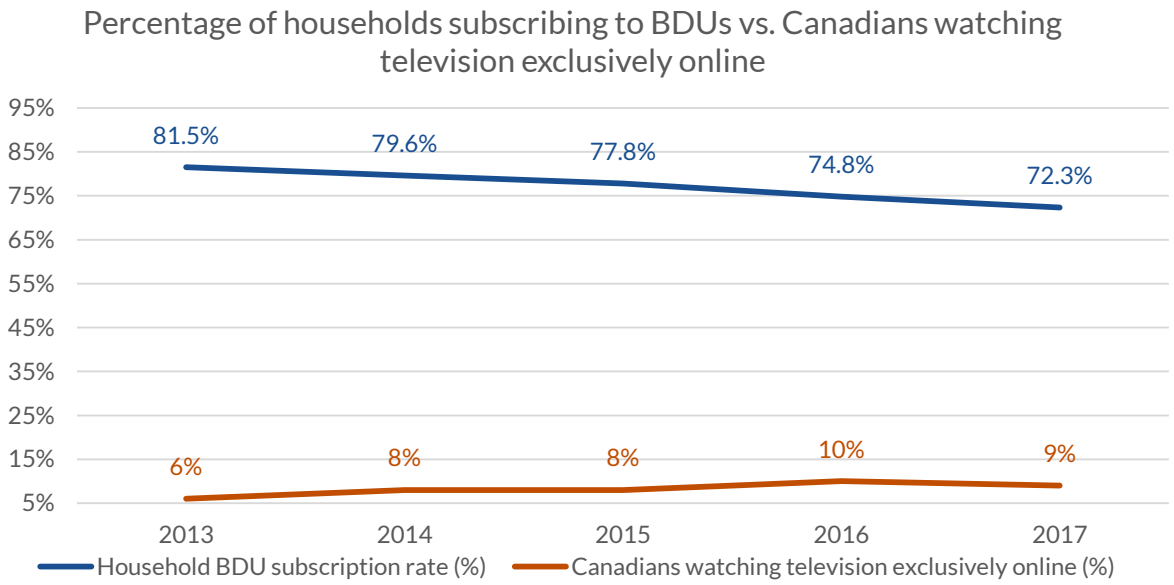
The EBITDA margin is a metric used to measure financial performance; it represents earnings before interest, taxes, depreciation and amortization and is expressed as a percentage of total revenues.

As previously stated, 2017 revenues of Canadian cable, IPTV and satellite companies stood at $8,538 million, a 2.3% decrease from the previous year, marking a third consecutive year of declining revenues. For the first time, BDU revenues displayed a decline in its average five-year CAGR. Revenues declined 0.7% per year on average from 2013 to 2017.

Revenues of IPTV services continued on their upward trend and totalled $1,985 million in 2017, surpassing for the first time DTH revenues, as well as reporting for the first time a positive EBITDA margin (7.7%). DTH services, however, still remain the most profitable of the three types of services, reporting a 28.1% EBITDA margin. DTH services also generated a higher average monthly revenue per subscriber ($76.76/month) than the other services, surpassing cable and IPTV services by over $10/month.

Taken together, cable, IPTV and DTH services provided services to which 72.3% of Canadian households subscribed. Although BDU penetration has been in decline in the recent years, Canadians don't seem to be necessarily replacing the service by its online counterpart. While BDU penetration shrank from 81.5% to 72.3% of Canadian households between 2013 and 2017, the percentage of Canadians who reported watching television exclusively online only went up from 6% to 9% over the same period.

Figure 10.1 Percentage of households subscribing to BDUs vs. Canadians watching television exclusively online



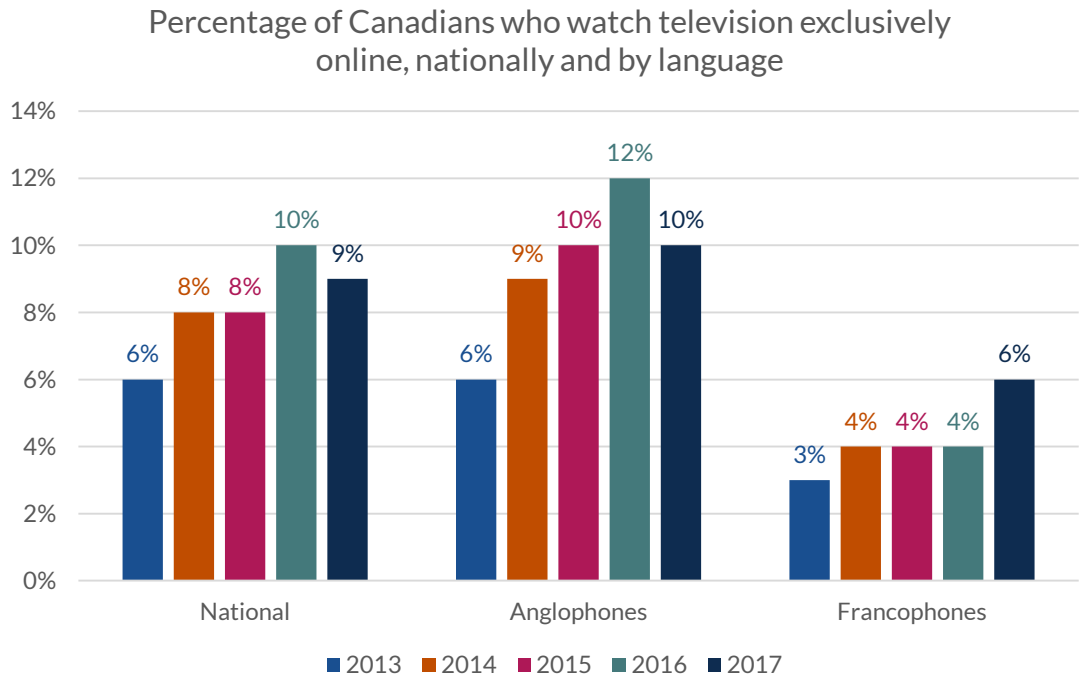
Source: CRTC data collection and Media Technology Monitor (MTM), 2013-2017 (Respondents: Canadians 18+), Statistics Canada census data

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, yet they do not use them, opting instead for online services for their television viewing.

In 2017, traditional television still reached 95% of Canadians, while Internet television reached 61% of Canadians. Although 61% of Canadians watched some television content online, only 9% of Canadians watched television exclusively online. Most Canadians watching television exclusively online were Anglophones and tended to be in the 18-34 age group.

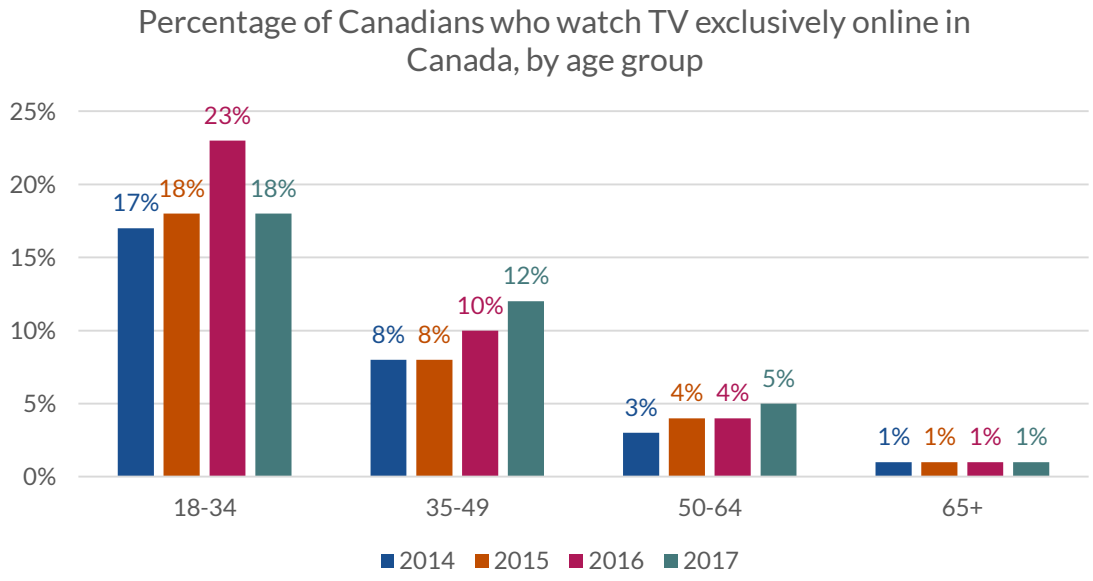
In 2017, 10% of English-speaking Canadians and 6% of French-speaking Canadians watched television content exclusively online. Younger Canadians are more likely to watch television exclusively online than older Canadians. Specifically, in the same year, 18% of Canadians in the 18-34 age group reported watching television exclusively online, while only 12% of the 35-49 age group, 5% the 50-65 age group and 1% of the 65+ age group reported doing so.

Figure 10.2 Percentage of Canadians who watch television exclusively online, nationally and by language



Source: Media Technology Monitor (MTM), 2013-2017 (Respondents: Canadians 18+)

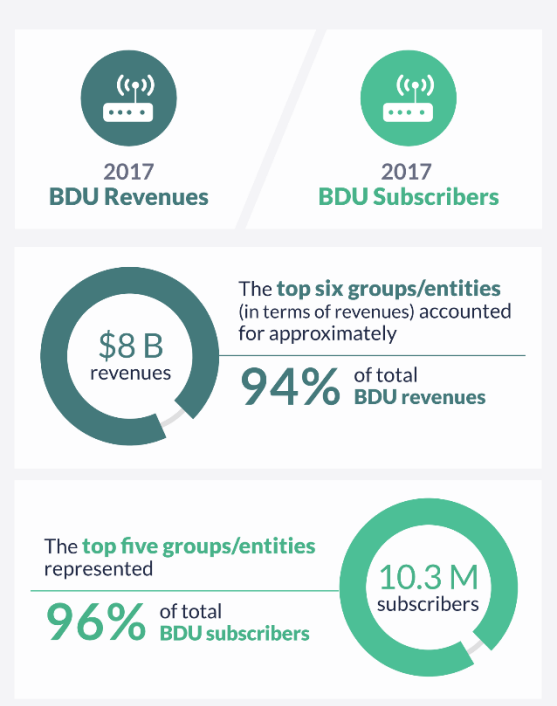
Figure 10.3 Percentage of Canadians who watch TV exclusively online in Canada, by age group

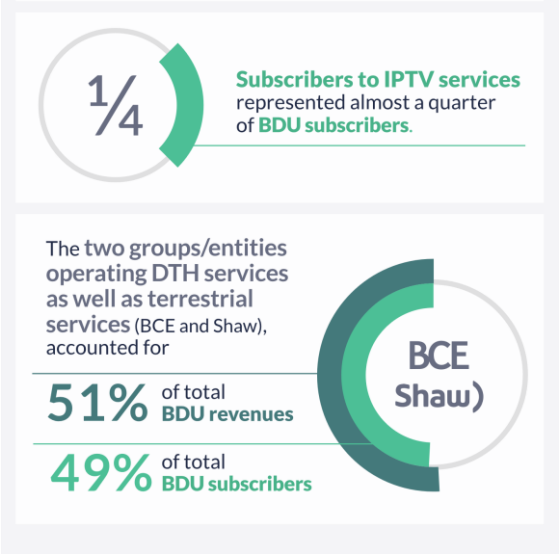


Source: Media Technology Monitor (MTM), 2013-2017 (Respondents: Canadians 18+)

ii. Industry characteristics

Infographic 10.3



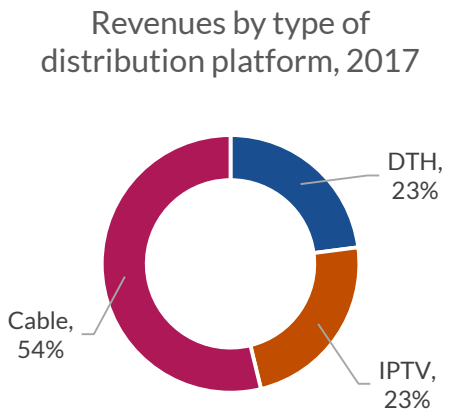


Source: Public disclosure of aggregate annual returns for large ownership groups

As in the case of the overall broadcasting industry, the majority of the BDU sector's revenues are generated by a few large entities. In 2017, the top six groups/entities reported 94% of the total BDU revenues, as well as accounting for 96% of BDU subscribers.

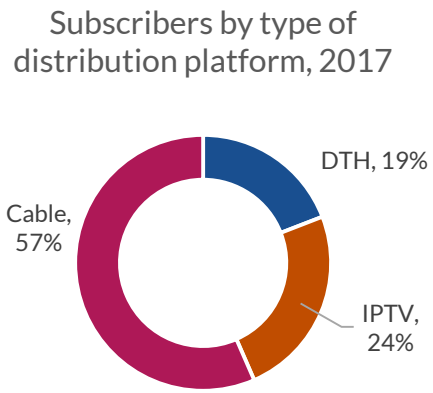
While IPTV is still growing in terms of subscribers and revenue and achieved a positive EBITDA for the first time in 2017, cable services still represented over half of the BDU market, comprising 54% of the total BDU revenues and 57% of subscribers.

Figure 10.4 Revenues by type of distribution platform, 2017



Source: CRTC data collection

Figure 10.5 Subscribers by type of distribution platform, 2017 (%)



Source: CRTC data collection

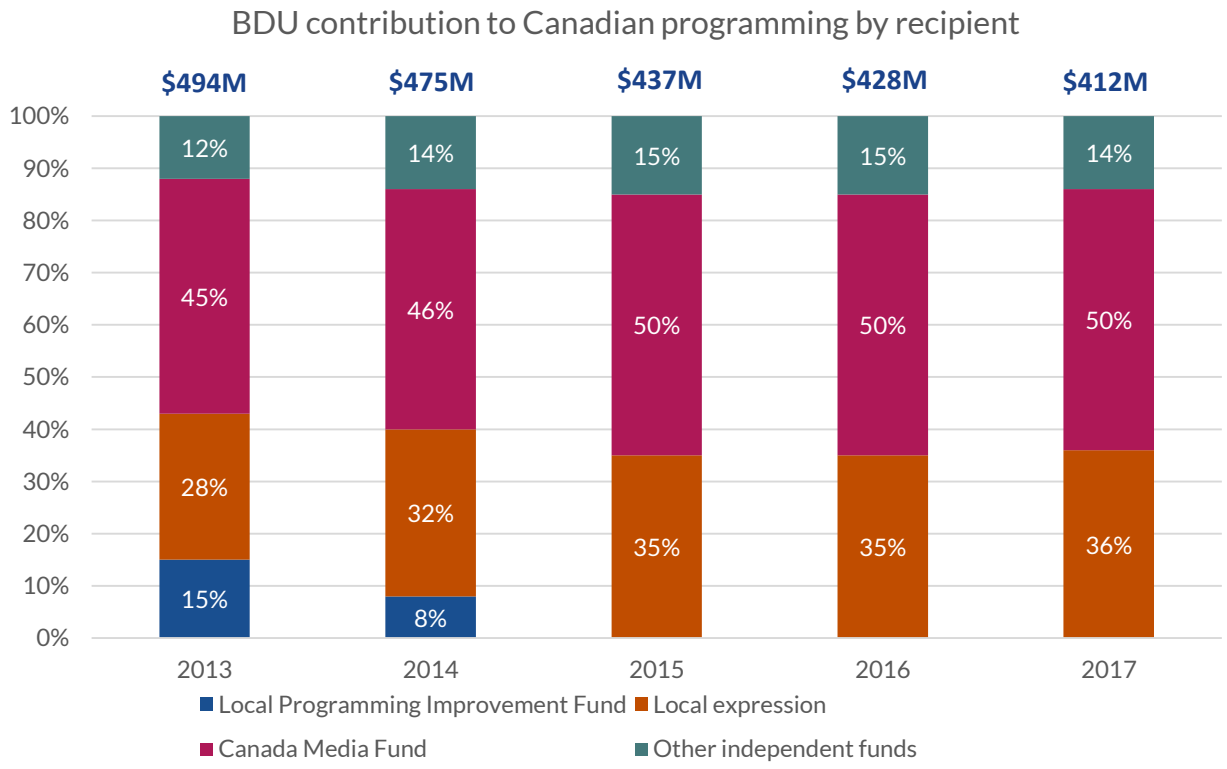
iii. Contributions

Cable, IPTV and satellite companies are required to contribute at least 5% of their annual broadcast-related revenues to the creation and production of Canadian programming. This can take the form of contributions to various Certified Independent Production Funds (CIPFs), the Canada Media Fund (CMF) or local expression, which includes the creation and distribution of community programming. Further, in 2009, the Commission established an additional fund, the Local Programming Improvement Fund (LPIF), in an effort to support local programming by conventional television stations during a difficult financial period. From 2010 to 2014, LPIF contributions made by BDUs averaged $87 million per year. On 1 September 2014, the LPIF was discontinued.

Contributions to the creation and production of Canadian programming by cable, IPTV and satellite companies totalled $412 million in 2017, a 3.7% decrease relative to 2016. From 2013 to 2017, contributions decreased by 4.4% on average per year.

In 2017, approximately half of the BDU contributions to Canadian programming went to the CMF ($206M), followed by local expression (36% or $149M) and independent funds (14% or $58M).

Figure 10.6 BDU contributions to Canadian programming by recipient



Source: CRTC data collection

This figure shows the contributions made by BDUs to the CMF, the LPIF and independent production funds, 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.

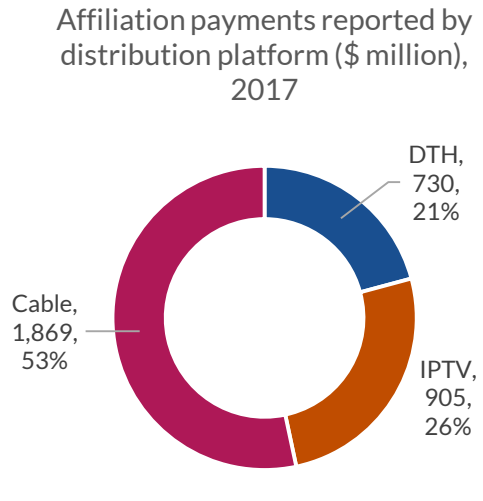
iv. Affiliation payments

The providers of discretionary and on-demand programming services[62] (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 3.1% on average per year from 2013 to 2017, whereas payments to non-Canadian affiliates increased by 2.6% on average per year over the same period. Altogether, in 2017, $3,504 million in affiliation payments were made to all affiliates.

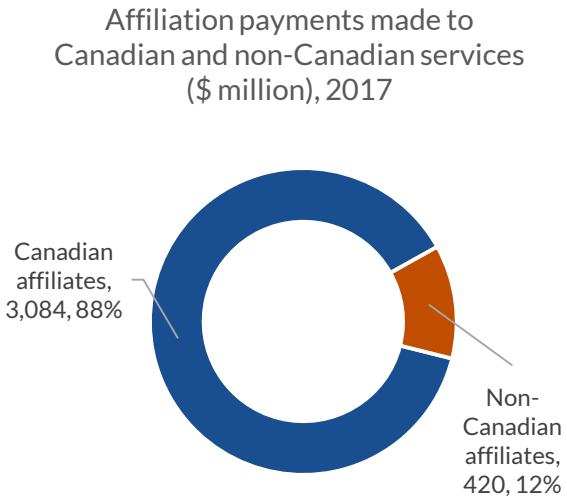
In line with revenues, cable services made the majority (53%) of the affiliation payments to discretionary and on-demand services in 2017, followed by IPTV and DTH services. Affiliation payments made to Canadian services exceeded $3 billion, over seven times more than the amount ($420M) paid to non-Canadian services.

Figure 10.7 Affiliation payments reported by distribution platform ($ million), 2017



Source: CRTC data collection

Figure 10.8 Affiliation payments made to Canadian and non-Canadian services ($ million), 2017



Source: CRTC data collection

The data is based on the 12-month period ending 31 August of each year.

[62] Examples of Canadian discretionary services: CBC New Network & RDI; example of a non-Canadian discretionary service: CNN.

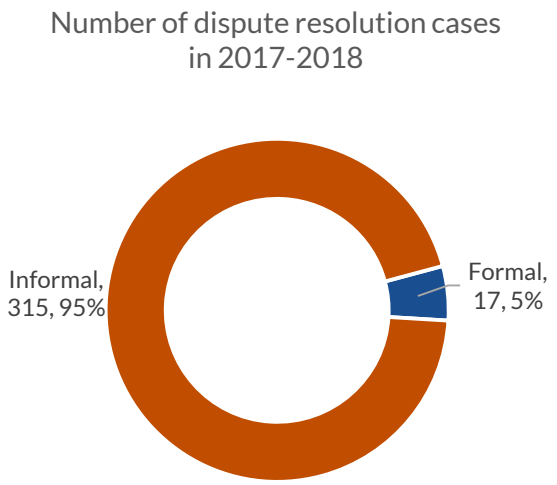
v. Dispute resolution

Dispute resolution is designed to effectively assist parties in reaching mutually beneficial agreements and resolve disputes in an increasingly competitive broadcasting industry. The process and procedures used for resolving disputes that come under the Commission's regulatory purview are set out in *Practices and procedures for staff-assisted mediation, final offer arbitration and expedited hearings*, Broadcasting and Telecom Information Bulletin CRTC 2013-637, 28 November 2013.

Disputes can be generally classified as follows: (1) disputes between broadcasting distributors and programming services concerning 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.

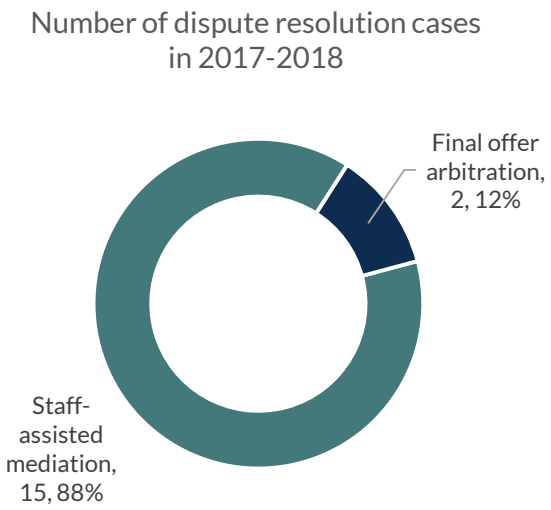
In 2017, a total of 332 cases were brought forward: 95% were informal disputes, while 5% were formal disputes. Among the formal disputes, only two went to final offer arbitration.

Figure 10.9 Number of dispute resolution cases in 2017-2018



Source: CRTC data collection

Figure 10.10 Number of formal dispute resolution cases in 2017-2018



Source: CRTC data collection

The data is based on the 12-month period ending 31 March of each year.