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ANALYSIS OF THE SOCIAL, CULTURAL AND ECONOMIC IMPACTS OF THE CANADIAN BROADCASTING CORPORATION

Prepared by Deloitte LLP
for the Department of Canadian Heritage

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Executive Summary

Study Background and Objectives

The *Broadcasting Act*, the *Telecommunications Act*, and the *Radiocommunication Act* (“the Acts”) regulate the broadcasting and telecommunications industries in Canada by determining broadcasting and telecommunications policy. The purpose of the *Broadcasting Act* specifically includes clarifying the role of the Canadian Radio-television and Telecommunications Commission (“CRTC”), determining the powers and functions of the Canadian Broadcasting Corporation (“CBC/Radio-Canada”), and deciding other regulatory matters. Importantly, the *Broadcasting Act* aims at ensuring that the Canadian broadcasting system “safeguard[s], enrich[es] and strengthen[s] the cultural, political, and social and economic fabric of Canada”.¹

In June of 2018, the Government of Canada launched the Broadcasting and Telecommunications Legislative Review to study the Acts and ensure that, in an era of digital media, Canadians continue to benefit from the full breadth of Canadian media. To that effect, in June 2018, the Minister of Innovation, Science and Industry and the Minister of Canadian Heritage appointed an external Panel of seven experts to study the Acts and conduct consultations. As part of this process, the external panel of experts released a “What We Heard Report” on June 26, 2019. Several findings emerged from the consultations; in particular, the report states that private broadcasters “submitted that CBC/Radio-Canada should not compete with them, particularly for advertising revenue.”²

The external Panel also submitted its final report, “*Canada’s Communications Future: Time to Act*”, to the Minister of Innovation, Science and Industry and to the Minister of Canadian Heritage in January 2020. The Panel provided an extensive list of recommendations to modernize the legislation governing Canada’s communications sector, including several recommendations focused specifically on the role of CBC/Radio-Canada, which included but are not limited to the following:

- CBC/Radio-Canada’s mandate should be amended to increasingly reflect local communities and audiences, provide national, regional, and local news, reflect Canadian perspectives on international news, reflect Indigenous Peoples, showcase Canadian content to international audiences, and take creative risks;
- CBC/Radio-Canada should gradually eliminate advertising on all platforms; and,
- The CRTC should oversee all of CBC/Radio-Canada’s content-related activities.³

In the context of the Government’s review and goals of modernizing the Acts, Canadian Heritage (“PCH”) engaged Deloitte to provide independent research on selected impacts of CBC/Radio-Canada. This study has two objectives:⁴

1. To assess the nature and extent of the economic impacts, if any, of CBC/Radio-Canada’s radio and television audiences and revenues on the audiences and revenues of commercial⁵ broadcasters.
2. To summarize the nature and extent of CBC/Radio-Canada’s social and cultural activities as they related to Canadian audiences and the Canadian media industry more broadly.

For clarity, it is noted that PCH initiated the procurement of this study in December 2019, prior to the recommendations published by the external Panel in the “*Canada’s Communications Future: Time to Act*” report.

Relationship of CBC/Radio-Canada’s Radio and Television Audiences and Revenues and those of Commercial Broadcasters

According to the CRTC’s 2019 *Communications Monitoring Report*, total radio and television revenues in Canada amounted to roughly \$8.7 billion in 2018.⁶ These revenues include revenues from commercial broadcasters, as well as revenues for CBC/Radio-Canada. Unlike private broadcasters, CBC/Radio-Canada receives annual funding from the Government of Canada in the form of parliamentary appropriations. Parliamentary appropriations are an important revenue stream for CBC/Radio-Canada, accounting for nearly all of its radio revenues and approximately 60% of its television revenues.⁷ One of the objectives of this research is to understand if CBC/Radio-Canada’s parliamentary appropriations impact private broadcaster audiences or revenues. This may be the case if CBC/Radio-Canada’s access to government funding in addition to advertising revenue enables it to provide superior programming and attract audiences away from commercial broadcasters.

This study employs an econometric approach to statistically examine the relationship between CBC/Radio-Canada’s radio and television audience levels and revenues and those of private broadcasters, while controlling for other factors that may impact private broadcaster revenues or audiences, such as macroeconomic conditions and demographic characteristics. CBC/Radio-Canada may have a positive (e.g., “crowding-in” of activity), negative (e.g., “crowding-out” of activity), or neutral (e.g., no material impact) statistical relationship to commercial broadcasters in terms of audiences or revenues.

At a high-level, the findings of this study are as follows:

- **Television Audiences:** This study finds a statistically significant **positive** relationship between CBC/Radio-Canada’s television and private broadcaster audiences. This relationship is consistent with the “crowding-in” hypothesis, whereby private broadcaster audiences increase as CBC/Radio-Canada’s audiences increase. One explanation for this relationship could be that, by offering quality programming, CBC/Radio-Canada elevates the quality of television from all broadcasters and television becomes overall more attractive to audiences (for example, by supporting a broader or more diversified network of producers and content suppliers). However, at the genre level, this study **does not find** a statistically significant relationship between news television audiences nor between non-news television audiences.

- **Television Revenues:** This report **does not provide regression analysis** of television revenues due to a lack of sufficient time series data. Instead, it provides an analysis of trends in television revenues over the 2012-2018 period, for which data is available. The analysis finds that advertising revenues have declined over that period, for both private broadcasters and CBC/Radio Canada. CBC/Radio-Canada's advertising revenues have declined faster than private broadcasters, which has led to CBC/Radio-Canada's share of advertising revenues decreasing from 11.6% to 9.3% over the period.
- **Radio Audiences:** When examining the relationship between CBC/Radio-Canada's radio and private broadcaster audiences, the study finds a statistically significant **negative** relationship, which however is small in magnitude. This relationship is consistent with the "crowding-out" hypothesis whereby audiences tune less to private radio as they tune more to CBC/Radio-Canada radio. However, this finding might be spurious given that the study finds this relationship does not hold when looking at news and non-news audiences separately.
- **Radio Revenues:** CBC/Radio-Canada's radio revenues are nearly all derived from parliamentary appropriations, which represent government funding. As such, CBC/Radio-Canada does not compete with private radio broadcasters for advertising revenues directly.⁸ Therefore, this study focuses on examining the relationship between CBC/Radio-Canada's audience levels and private broadcaster revenues. As indicated in the previous paragraph, this study finds a **negative** relationship between CBC/Radio-Canada's audience levels and those of private radio broadcasters. However, the study does **not** find statistical evidence of a relationship between CBC/Radio-Canada's and private broadcasters' revenues. During the 1999-2018 period, private radio revenues increased modestly while CBC/Radio-Canada and private broadcaster tuning decreased.

An important caveat to the above findings is that, while best efforts have been made to incorporate all available data and test the robustness of the results, there remains a possibility that the identified relationships between CBC/Radio Canada and private broadcasters audiences and revenues are "spurious" – that is, driven by potential third factors that have not been accounted for in the analysis. Further research should test alternative control variables, ideally in combination with longer and higher frequency data than was available to this study. Detailed recommendations for extension of the analysis are provided at the end of the Executive Summary.

The study's key findings are explored in further detail in the sections below.

Television Audiences and Revenues Findings

To analyze the relationship between CBC/Radio-Canada's television audiences and commercial broadcaster audiences, the study uses viewing data for five regions across Canada, including: Ontario, Quebec, British Columbia, the Prairies, and the Atlantic provinces. The data are available quarterly from 2012 to 2018 for a total of 140 observations. For the main television analysis of total CBC/Radio-Canada television (i.e., including conventional and discretionary television) and total private broadcaster television viewing, over 100 specifications were tested.

The analysis finds evidence that CBC/Radio-Canada's television viewership has a statistically significant, positive impact on private broadcaster viewership. When controlling for other variables, including GDP per capita and population, the regression analysis suggests that a **1% increase in CBC/Radio-Canada's television viewership is associated with a roughly 0.19% to 0.22% increase in private television viewership.** This result is consistent with a crowding-in hypothesis, which may occur for various reasons. One explanation for this relationship could be that, by offering quality programming, CBC/Radio-Canada elevates the quality of television from all broadcasters and television becomes overall more attractive to audiences (for example, by supporting a broader or more diversified network of producers and content suppliers). Other explanations may be that CBC/Radio-Canada's presence in the market encourages investment in independent production or the development of media infrastructure that benefits the market overall.

Furthermore, when controlling for total private broadcast minutes aired, total CBC/Radio-Canada minutes aired, and/or CBC/Radio-Canada's expenditure per minute aired (a proxy for quality of programming), the results are relatively stable and suggest that a 1% increase in CBC/Radio-Canada's television viewership is associated with a 0.20% to 0.29% increase in private television viewership.

Television Viewership Findings by Genre

It is possible that the relationship between CBC/Radio-Canada and private broadcaster audiences varies by television genre. The study looks at the relationship between CBC/Radio-Canada and private television audiences in the news and non-news genres.⁹ News is studied separately to other formats given CBC/Radio-Canada's mandate as a public broadcaster.

When studying program genres, the primary variable of interest is total minutes viewed. The study also tests daily average reach for Canadians watching a program for at least 10 minutes, with consistent results when using this alternative measure of audience. The regression analysis was conducted for news and non-news separately; roughly 50 regression specifications were tested for news and non-news each.

No statistically significant effect of CBC/Radio-Canada's news television viewing on private news television viewing was found.

No statistically significant effect of CBC/Radio-Canada's non-news television viewing on private non-news television viewing was found.

A lack of statistically significant correlation at the genre level could be an indication that the aggregated results may be spurious due to a low number of observations or unmeasured explanatory factors. Further research should test alternative control variables, ideally in combination with longer time series and higher frequency data than was available to this study.

Television Revenue Findings

This report **does not provide regression analysis of television revenues** due to a lack of sufficient time series data. Instead, it provides an analysis of trends in television revenues over the 2012-2018 period, for which data is available. The analysis finds that advertising revenues are declining across the industry, both for conventional and discretionary television. Between 2012 and 2018 total television advertising revenues decreased at an average annual rate of roughly 3.7% to approximately \$2.8 billion in 2018 (expressed in 2012 dollars).¹⁰ As such, the industry is facing a shrinking pool of advertising dollars, a phenomenon that has been documented outside this report.¹¹ Private advertising revenues (conventional and discretionary) declined at an average annual rate of roughly 3.3% during this period. CBC/Radio-Canada's advertising revenues declined at a faster rate of approximately 7.2%. As a result, CBC/Radio-Canada's share of total television advertising revenues decreased from roughly 11.6% in 2012 to 9.3% in 2018. Some of the decline in advertising revenues is offset by an increase in subscription revenues for discretionary television.

Radio Audiences and Revenues Findings

To understand the statistical relationship between CBC/Radio-Canada's radio audiences (i.e., measured by tuning hours) and revenues (i.e., parliamentary appropriations) and those of private broadcasters, the study analyses the following radio segments:

- French- and English-language radio for all radio formats;
- French- and English-language news radio formats; and,
- French- and English-language non-news radio formats.

CBC/Radio-Canada provides French and English news (CBC Radio One and ICI Radio-Canada Première) and non-news (CBC Music and ICI Musique) radio programming. Unlike its television programming, CBC/Radio-Canada does not receive advertising dollars for its radio programming.¹² As such, in most years, CBC/Radio-Canada's only stream of radio revenues is parliamentary appropriations.¹³

Radio Tuning Hours Findings

To examine the relationship between CBC/Radio-Canada's radio audiences and commercial broadcaster tuning hours, this study conducted over 40 different regression specifications. For the radio tuning hour variables, both total weekly tuning hours as well as total weekly tuning hour per capita were tested. Additionally, seven control variables were tested to account for macroeconomic and demographic characteristics, including GDP per capita, population, median and average incomes, as well as metrics measuring education levels.

The analysis finds evidence that CBC/Radio-Canada's tuning hours have a statistically significant, but small negative impact on private broadcaster tuning hours. When controlling for parliamentary appropriations and other variables, including gross domestic product ("GDP") per capita, internet use, income, or education levels, the regression analysis suggests that **a 1% increase in CBC/Radio-Canada's tuning hours is associated with a 0.06% to 0.08% decline in private tuning hours.** The results on tuning hours do not change when parliamentary appropriations are added to the regressions. **No statistically significant relationship between parliamentary appropriations dedicated to the radio market and private radio tuning hours was found.**

Radio Revenues Findings

CBC/Radio-Canada's radio audiences and parliamentary appropriations may impact (whether positively or negatively) private broadcaster revenues through their impact on private broadcaster audiences. As stated in the previous section, this study finds a statistically significant but small, negative impact of CBC/Radio-Canada's tuning hours on those of private broadcasters. If a relationship between private broadcaster tuning hours and private revenues is found, it may be said that CBC/Radio-Canada's tuning hours indirectly impact private revenues.

The analysis finds evidence of a statistically significant, negative but small in magnitude relationship between private radio tuning hours and private radio revenues. The results suggest that a 1% increase in private radio tuning hours is associated with a 0.07% to 0.10% decrease in private radio revenues. This result is driven by declining radio tuning hours and a small increase in radio revenues between 1999 and 2018. The results of private broadcaster tuning hours and private revenues are robust to different regression specifications, with roughly 60 specifications tested.

In sum, the regression analysis suggests that as the number of hours of CBC/Radio-Canada's radio tuned per Canadian increases, the number of hours of private broadcaster radio tuned per Canadian decreases. Furthermore, as private radio audiences decrease, the analysis suggests that private revenues have increased. As such, there may be a small, indirect negative impact of CBC/Radio-Canada's audiences on private broadcaster revenues.

Radio Tuning Hour Findings by Format

It is possible that the relationship between CBC/Radio-Canada audiences and private broadcaster audiences varies by radio format. Two distinct radio formats were studied: news and non-news formats. News includes all news and talk formats while non-news contains all other radio formats, predominantly music. The regression analysis by format focuses only on audiences and does not review the role of private sector revenues. Nonetheless, if private sector revenues are impacted by radio tuning overall, it may be the case that they are also impacted by tuning in news and non-news formats.

The analysis does not find a statistically significant relationship between CBC/Radio-Canada's news radio tuning hours and private broadcaster news radio tuning hours. Likewise, the analysis does not find a statistically significant relationship between CBC/Radio-Canada's non-news radio tuning hours and private broadcaster non-news radio tuning hours. The results are robust to various specifications, with roughly 40 specifications tested for the news and non-news formats separately.

The Social and Cultural Activities of CBC/Radio-Canada

In addition to the econometric analysis discussed above, this study summarizes the social and cultural activities of CBC/Radio-Canada as they relate to Canadian audiences and the broader Canadian media industry. The study reviews the extent to which the national broadcaster contributes to 10 identified social and cultural dimensions. Overall, the review shows that:

- **There is strong alignment between CBC/Radio-Canada's activities and the categories of social and cultural impact identified in past studies of other public sector broadcasters and media ("PSMs"); and,**
- **Based on the information available, there is evidence that CBC/Radio-Canada contributes to all categories of social and cultural impact identified.**

Due to the limited availability of analogous information for private broadcasters, this study is not able to determine how CBC/Radio-Canada's social and economic contributions compare to those of private broadcasters.

Overview of the Social and Cultural Dimensions Reviewed

- 1. Impact on the quality and distinctiveness of Canadian programming:** The literature suggests that PSMs deliver high-quality programming and may be more trusted than their commercial competitors.
 - The study reviewed data related to the following metrics on quality and distinctiveness: audience reach, audience perception, investment in original Canadian content, spending on news programming, digital news visitors, and investment in digital Canadian content.
- 2. Contribution to local, regional, and national diversity:** The literature identifies three ways that PSMs can impact diversity. First, PSMs can be diverse organizations, often measured by their workforce composition relative to the population they are operating within. Second, PSMs can provide alternative programming compared to other broadcasters. Finally, PSMs may also reach diverse audiences.
 - The study reviewed data related to CBC/Radio-Canada's workforce diversity and audience reach in television and radio, as well as its platform and program diversity and audience reach for its digital services.
- 3. Contribution to the needs of official language minority communities and indigenous communities:** According to the literature, smaller communities may be underserved by commercial audiences given their smaller audience size, which may make them less viable for advertising dollars. PSMs often have specific mandates to serve these communities and are better positioned to do so because of their public mandate.
 - The study reviewed data related to CBC/Radio-Canada's presence and programming in official language minority communities ("OLMCs") and in Indigenous communities.
- 4. Impact on information that is in the interest of the public:** The literature suggests that populations with access to PSMs know more about the government and public affairs. This is primarily attributed to the fact that PSMs generally broadcast more news programming. Furthermore, higher political knowledge is linked to a higher propensity to vote, a direct benefit to the public.
 - The study reviewed data related to CBC/Radio-Canada's investments in news programming and airtime dedicated to news.

5. **Contribution to shared sense of national consciousness and identity:** According to the literature, PSMs can impact individual feelings of inclusion and foster social cohesion. They may do this by providing cultural, sports, or social programming. Through providing information and programming that increases feelings of inclusion and social cohesions, PSMs foster a stronger sense of national identity.
 - The study reviewed data related to CBC/Radio-Canada’s sports, cultural, and social programming.
6. **Impact on learning and education:** The literature suggests that PSMs around the World often have the objective to advance education and learning within their populations.
 - The study reviewed data on CBC/Radio-Canada’s spending on children’s educational programming
7. **Impact on the Canadian creative sector:** The creative sector includes film and television production, archives, heritage and libraries, interactive digital media, the music industry, live performance, and book and magazine publishing. Insofar as PSMs contribute to these various industries and according to the literature, and more specifically, on independent production within the creative sector, PSMs may have an impact on the broader national creative sector.
 - The study reviewed data related to CBC/Radio-Canada’s investments in Canadian television programming and spending on independent productions.
8. **Impact on the emergence and development of local talent, including journalists:** The literature indicates that PSMs generally offer a wide selection of programming across a variety of channels, which implies that they also directly or indirectly employ various content creators and hosts, such as musicians, journalists, and writers.
 - The study reviewed data related to CBC/Radio-Canada’s investment in Canadian content producers, training provided to Canadian content producers, and support for aspiring and professional journalists.
9. **Impact on trends and innovations in different forms and genres of programming or adoption of new technologies/infrastructure:** The literature suggests that PSMs may be in a favourable position to take risks related to investments in innovation because they have a broader mandate to serve the public compared to commercial media that may be more profit focused. As such, PSMs, the literature suggests, may be leaders in innovation.
 - The study reviewed data related to instances where CBC/Radio-Canada was an early adopter and CBC/Radio-Canada’s partnerships developed to support innovation.
10. **Contribution to the flow and exchange of cultural expressions:** According to the literature, PSMs may support the flow and exchange of cultural expression by both preserving cultural media and by promoting local cultural content. The flow and exchange of culture allows an individual or community’s knowledge and experiences to be shared, broadening the perspective of the broader population.
 - The study reviewed data on CBC/Radio-Canada’s programming hours for Programs of National Interest (“PNI”).

Study Limitations

Given the complexity of the topics investigated, there are several limitations to the data and scope of the study. First, detailed data for the radio and television markets were not publicly available in all preferred instances. For example, data on English- and French-language radio tuning was not readily available for CBC/Radio-Canada and commercial radio broadcasters at the local level nor at a quarterly, monthly, or weekly frequency. This limits the number of observations used in the regression analysis, the potential impacts of which are discussed in Section 3.

A key limitation of the Television revenue analysis is the lack of a dataset that is sufficiently long (has sufficient number of observations) to complete proper regression analysis.¹⁴ As a result, this study presents a more basic analysis of trends in the television revenue analysis over the period 2012-2018, for which data is available, and

focuses on a regression analysis of television viewership data. Data on television viewership was obtained through Numeris and NLogic, including a relatively high number of observations.

The impact of CBC/Radio-Canada's digital services are not explored given data limitations. Data for digital services in Canada are provided by Comscore, a third-party provider, and are largely behind paywalls. As such, Deloitte focused on radio and television, where the CRTC and Statistics Canada provide better data coverage. Given the growing importance of the digital market, this is an important area for future research to explore.

The correlations described in the analysis could represent a spurious relationship between private broadcasters and CBC/Radio-Canada due to the low number of observations or a potential unmeasured third factor that drives both private broadcaster audiences or revenues and CBC/Radio-Canada's audiences or revenues. Further research should test alternative control variables, ideally in combination with higher frequency data.

The analytical approach does not rely on analysing a hypothetical or counterfactual case, assessing how the broadcasting industry would behave in the absence of CBC/Radio-Canada.

Given the scope of the study, the social and cultural section does not provide a technical assessment of the impact of CBC/Radio-Canada on Canadian audiences or the Canadian media industry. Instead, it provides a summary of CBC/Radio-Canada's contributions along a number of social and cultural dimensions that were identified by the literature as relevant to public sector media organizations. No attempt has been made to quantify the impact of CBC/Radio-Canada along these dimensions.

Areas for Future Research

This study identified the following areas for further research that could inform the impact of CBC/Radio-Canada on commercial broadcasters. Some of these represent opportunities to expand the econometric analysis used in this study by incorporating additional data, while others would require different methodologies to address additional aspects of the main research questions.

Data Extensions

A key limitation encountered in this study was the lack of available data, in terms of the length of time series data for variables included in the analysis, absence of data for other potential explanatory variables, or lack of comparable data between CBC/Radio-Canada and commercial broadcasters. Options to address these challenges include:

- Incorporating **pre-2012** financial data, including CBC/Radio-Canada data on advertising revenues (this would require potentially adjusting the data for the change in accounting practices that occurred in 2012). This will help analyze the impact of CBC/Radio-Canada advertising revenues on commercial broadcasters' revenues directly, by working with a time series that is sufficiently long to employ a regression approach.
- Augmenting existing time series using existing publicly available **unstructured** data, for example data contained in digitalized older documents or generated by users' behaviour and interactions on the internet. This may increase the number of observations or provide additional explanatory variables that would complement the analysis contained in this report.
- Conducting a survey of Canadian public and commercial broadcasters' **digital** revenues and activities, to allow a fulsome analysis of the digital broadcasting channels.

New Avenues of Analysis

- Performing a **counterfactual analysis** of the role of CBC/Radio-Canada in the broader Canadian broadcasting ecosystem. This would entail assessing how the broadcasting industry would behave in the absence of some or

all of CBC/Radio-Canada's activities, including advertisement revenues generation.

- Assessing the **digital media** provider's impacts on the Canadian broadcasting system, including but not limited to a review of the impact on audiences, domestic content creation, advertisement revenue generation, and other aspects.
- Collecting data on Canadian commercial broadcasters' **socioeconomic and cultural contributions** and performing a comparative analysis to the contributions of CBC/Radio-Canada identified in this report.

1. Introduction

Study Background

In the summer of 2018, the Government of Canada launched a review of the *Broadcasting, Radiocommunication, and Telecommunications Acts* ("the Acts"). The review is a response to changes in the Canadian media landscape, primarily driven by new technologies, such as streaming services. Through this review, the Government seeks to modernize the legislative framework governing the media landscape.

As part of this process, an external Panel of experts, the Broadcasting and Telecommunications Legislative Review Panel, held consultations and studied the Acts. In its final report to the Minister of Innovation, Science and Industry and to the Minister of Canadian Heritage, which was published on January 29, 2020, the Panel explicitly called out the "collision course" between public and private sector advertising revenues (i.e., competition for advertising revenues). The Panel recommended that Canadian Broadcasting Corporation ("CBC/Radio-Canada") should gradually eliminate advertising on all platforms. They also recommended that CBC/Radio-Canada be more reflective of Canadian diversity at the local, regional, and national levels, including a better promotion of Indigenous cultures and languages.

With the business environment evolving fast and the policy landscape being reviewed, Canadian Heritage ("PCH") engaged Deloitte to provide an independent analysis of the certain economic, social, and cultural impacts of CBC/Radio-Canada.

Study Research Objectives

The objective of this report is to provide an independent analysis of CBC/Radio-Canada's activities and their potential impacts, whether positive, negative, or neutral, on Canadian commercial media, independent producers, and audiences. Specifically, the report seeks to address the following research questions:

1. What is the nature and extent of the economic impacts, if any, of CBC/Radio-Canada's radio and television revenues and audiences on the revenues and audiences of commercial broadcasters?
2. What is the nature and extent of CBC/Radio-Canada's social and cultural activities as they relate to Canadian audiences and the broader Canadian media industry?

This report has been provided for the purpose of informing and assisting Canadian Heritage ("PCH") in developing its insights on the economic, social, and cultural impacts of CBC/Radio-Canada and solely focused on the objectives above.

Study Limitations

The report does not attempt to estimate the economic impact of CBC/Radio-Canada's digital services as data on digital services for both the CBC/Radio-Canada and commercial broadcasters is limited and inconsistent. Given data challenges in analyzing radio and television revenues and audiences, it was determined that digital would be

out of scope for this report.

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The analyses are provided as of September 28, 2020 and we including Deloitte disclaim any undertaking or obligation to advise any person of any change in any fact or matter affecting this analysis, which may come or be brought to our attention after the date hereof. Without limiting the foregoing, in the event that there is any material change in any fact or matter affecting the analyses after the date hereof, we reserve the right to change, modify or withdraw the analysis.

Observations are made on the basis of economic, industrial, competitive and general business conditions prevailing as at the date hereof. In the analyses, we may have made assumptions with respect to the industry performance, general business, and economic conditions and other matters, many of which are beyond our control, including government and industry regulation.

No opinion, counsel, or interpretation is intended in matters that require legal or other appropriate professional advice. It is assumed that such opinion, counsel, or interpretations have been, or will be, obtained from the appropriate professional sources. To the extent that there are legal issues relating to compliance with applicable laws, regulations, and policies, we assume no responsibility, therefore.

We believe that our analyses must be considered as a whole and that selecting portions of the analyses or the factors considered by it, without considering all factors and analyses together, could create a misleading view of the issues related to the report.

Amendment of any of the assumptions identified throughout this report could have a material impact on our analysis contained herein. Should any of the major assumptions not be accurate or should any of the information provided to us not be factual or correct, our analyses, as expressed in this report, could be significantly different.

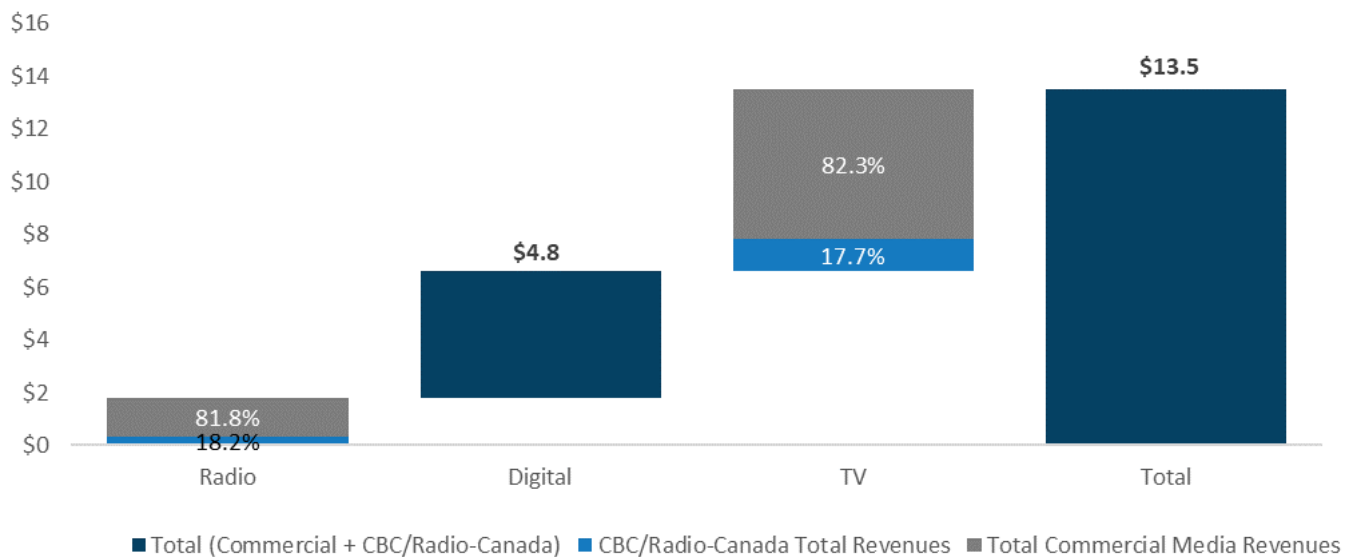
The full extent of the ongoing COVID-19 pandemic's impact on the economic outlook remains uncertain. It is, therefore, important for readers to consider that the analysis is based on data prior to COVID-19 (i.e., prior to January 2020) and does not include any consideration of the likely economic, social, or cultural impacts of either COVID events or the related fiscal stimulus measures.

2. Overview of the Canadian Broadcasting Corporation

Introduction to Canada's Broadcasting Market

According to the Canadian Radio-Television and Telecommunications Commission's ("CRTC") 2019 *Communications Monitoring Report*, the Canadian broadcasting system generated roughly \$13.5 billion in revenues for radio, television, and digital programming in 2018, which includes revenues of commercial broadcasters and media providers and Canada's National public broadcaster, CBC/Radio-Canada.

Figure 1: Canadian Broadcasting System Revenues, 2018 (Current \$B)



Source: CRTC. *Communications Monitoring Report*. (2019).

► Figure 1: Canadian broadcasting system revenues in 2018 (Current \$B) – text version

Note: The CRTC acknowledges that there are several limitations to the estimated size of the digital services market.

Figure 1 illustrates the breakdown of the Canadian broadcasting system revenues, segmented by radio, television (including conventional, discretionary, and on-demand), and digital, sourced from the CRTC. Television generated \$6.9 billion or 51% of the industry’s revenues in 2018, radio generated \$1.8 billion in revenues (13%), and digital generated \$4.8 billion (35%) in revenues.¹⁵ CBC/Radio-Canada’s revenues accounted for 18.2% and 17.7% of the radio and television markets, respectively.

The Canadian Broadcasting Corporation’s Mandate

Founded in 1936, the Canadian Broadcasting Corporation (“CBC/Radio-Canada”) is Canada’s national public broadcaster with a mandate to “provide radio and television services incorporating a wide range of programming that informs, enlightens and entertains”.¹⁶ Furthermore, the *Broadcasting Act* stipulates that CBC/Radio-Canada’s programming should:

- Be predominantly and distinctively Canadian;
- Reflect Canada and its region to national and regional audiences, while serving the special needs of those regions;
- Actively contribute to the flow and exchange of cultural expression;
- Be in English and in French, reflecting the different needs and circumstances of each official language community, including the particular needs and circumstances of English and French linguistic minorities;
- Strive to be of equivalent quality in English and in French;
- Contribute to the shared national consciousness and identity;
- Be made available throughout Canada by the most appropriate and efficient means and as resources become available for the purpose; and,
- Reflect the multicultural and multiracial nature of Canada.¹⁷

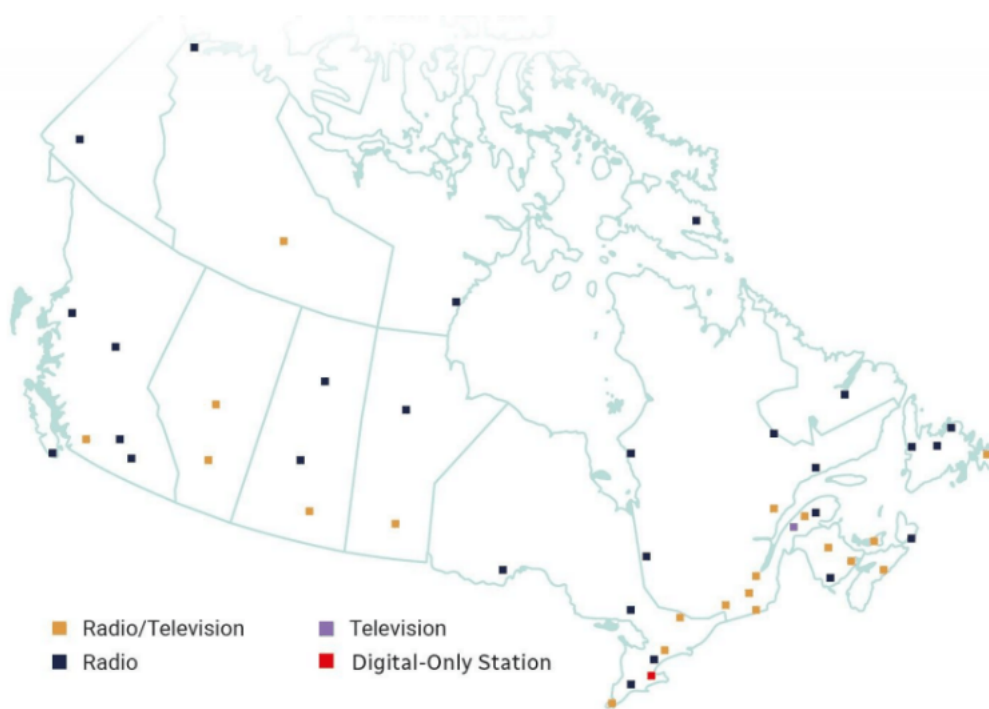
Beyond its mandate and programming objectives, CBC/Radio-Canada is required to comply with licensing and other regulatory obligations put forth by the CRTC.

CBC/Radio-Canada's Operations

CBC/Radio-Canada operates in 67 local markets across Canada. CBC/Radio-Canada has a nationwide presence, with offices across all Canadian provinces and territories. Its head office is located in Ottawa and it has two main network offices, one in Toronto for CBC (English) services and one in Montreal for Radio-Canada (French) services. Additionally, CBC/Radio-Canada has six permanent foreign bureaus.¹⁸

As of 2020, CBC/Radio-Canada employs nearly 7,700 people across the country, with over 6,600 permanent employees, 384 temporary employees, and 653 contract employees.¹⁹

Figure 2: CBC/Radio-Canada's Service Locations



Source: CBC/Radio-Canada. Annual Report 2019-2020. (2019).

► Figure 2: CBC/Radio-Canada's Service Locations – text version

CBC/Radio-Canada's Services

CBC/Radio-Canada provides radio, television, and digital services.

CBC/Radio-Canada provides both news and non-news programming in both French and English:

- **Radio Services:** CBC/Radio-Canada's news radio programming includes CBC Radio One (English) and ICI Radio-Canada Première (French). Its primary non-news radio stations include CBC Music (English) and ICI Musique (French). CBC/Radio-Canada has 88 radio stations across the country.
- **Conventional and Speciality Television Services:** Conventional and speciality television includes news programming, such as ICI RDI (French) and CBC News Network (English), as well as multiple non-news programs such as the documentary channel (English), ICI EXPLORA (French), and ICI ARTV (French). CBC/Radio-Canada's conventional networks are CBC TV (English) and ICI Télé (French). In total, CBC/Radio-Canada has a total of 27 television stations across the country.
- **Digital Services:** CBC/Radio-Canada's news digital services are covered on CBC.ca (English) and Radio-Canada.ca (French). Digital services also include internet-based video services, such as CBC Gem (English), ICI

TOU.TV (French) as well as audio-based services, such as CBC Listen (English) and Radio-Canada OHdio (French).

Figure 3: CBC/Radio-Canada's Services



Source: CBC/Radio-Canada. Annual Report 2019-2020. (2019).

► Figure 3: CBC/Radio-Canada's Services – text version

CBC/Radio-Canada's Services are Available in French, English, and Eight Indigenous Languages

As Canada's national public broadcaster, CBC/Radio-Canada provides its services in English, French, and eight Indigenous languages (Chipewyan, Cree, Gwich'in, Inuktitut, Inuvialuktun, North Slavey, South Slavey, and Tlicho). Through its international service, Radio Canada International ("RCI"), content is also available in Spanish, Arabic, and Mandarin.²⁰ RCI services are outside the scope of this research.

3. The Canadian Broadcasting Corporation's Economic Impact Studied

The overarching objective of the economic analysis presented in this report is to understand if and how the CBC/Radio-Canada's radio and television audiences and revenues impact commercial media providers' audiences and revenues. A three-step approach was applied to develop the economic assessment:

1. First, a review of recent academic literature was conducted to understand common methodologies used to estimate the economic impacts of public broadcasters. The literature review was also used to inform the framework developed to assess the economic impact of CBC/Radio-Canada's audiences and revenues and to situate the results of the analysis within the corpus of findings obtained in other developed economies;
2. Second, a review of available data for radio and television audiences and revenues in Canada was completed. The review involved understanding the relationship between CBC/Radio-Canada's parliamentary appropriations (i.e., annual funding from the Government of Canada) and audiences for radio and television and commercial broadcaster's revenues and audiences; and,
3. Finally, an econometric approach was employed to understand the statistical relationship between CBC/Radio-Canada's radio and television audiences and revenues and the audiences and revenues of commercial broadcasters while controlling for external factors.

The results of the analysis, subject to data limitations, include the following:

- **Television:** The analysis finds evidence that CBC/Radio-Canada's television viewership has a statistically significant, positive impact on private broadcaster viewership. The main regression specifications suggest that

a 1% increase in CBC/Radio-Canada’s viewership is associated with a 0.19% to 0.22% increase in private broadcaster television viewership. This holds at the 95 percent confidence level.

- Additionally, no statistically significant relationship was found between CBC/Radio-Canada’s audiences and private sector audiences at the news and non-news format level. This suggests that the aggregated results could be spurious.
- **Radio:** The analysis finds evidence that CBC/Radio-Canada’s tuning hours have a statistically significant ²¹, but small in magnitude, negative impact on private broadcaster tuning hours. The regression analysis suggests that a 1% increase in CBC/Radio-Canada’s tuning hours is associated with a roughly 0.06% to 0.08% decline in private tuning hours. This holds at the 99 percent confidence level.

No evidence of a statistically significant relationship was found between CBC/Radio-Canada’s parliamentary appropriations allocated to the radio market and commercial broadcaster radio tuning hours.

Additionally, no statistically significant relationship was found between CBC/Radio-Canada’s audiences and private sector audiences at the news and non-news format level. This could be an indication that the aggregated results may be spurious due to a low number of observations or unmeasured explanatory factors. Further research should test alternative control variables, ideally in combination with longer time series and higher frequency data than was available to this study.

The analysis contained in this report does not review CBC/Radio-Canada’s digital services impact. The research completed to date has found that the data related to digital services is limited and was therefore excluded from the scope of this study.

Literature on the Economic Impacts of Public Sector Broadcasters

The economic assessment framework for analyzing CBC/Radio-Canada’s potential economic impact on commercial broadcasters is informed by a review of recent literature on the economic impact of public service broadcasters/media (“PSB” or “PSM”) on commercial broadcasters. These papers were selected based on the relevance of their analysis to this study’s research objectives. Each paper studies a relevant aspect of the markets of interest for this study, whether radio, television, or online services.

Of the papers reviewed, three use an econometric approach, one employs a correlation approach, and one uses event analysis and other bespoke methods to analyze the economic impacts of PSB on commercial broadcasters. Table 1 summarizes the research questions, approach, and findings of the papers reviewed.

Table 1: Overview of Recent Literature on the Economic Impacts of Public Sector Broadcasters

Publication	Author	Research Question	Jurisdiction	Approach	Findings
Public and Private Broadcasters Across the World – The Race to the Top	BBC (2013)	Do countries with a strong public service broadcasting (“PSB”) sector tend to have a strong commercial broadcasting sector?	Cross-sectional analysis across 14 countries.	Correlational analysis	The results show a clear positive correlation between market outcomes in the PSB and commercial sectors, as countries with a well-funded PSB tend to invest in high-quality and diverse content and tend to have commercial markets that generate strong revenues.

Publication	Author	Research Question	Jurisdiction	Approach	Findings
An economic review of the extent to which the BBC crowds out private sector activity	KPMG (2015)	What is the impact of the BBC's activity on commercial activity?	Country-level analysis of the UK.	Regression analyses	The results show that there is no statistically significant impact of BBC's activity, both in terms of minutes broadcast and spending per broadcast minute, on commercial broadcast news or entertainment viewer hours.
The ABC and the Australian media sector: a report supporting the ABC's submission to the inquiry into the competitive neutrality of the national broadcasters	RBB Economics (2018)	Are ABC's activities consistent with the competitive neutrality principles, which state that government business activities should not enjoy net competitive advantages over their private sector competitors simply by virtue of public sector ownership?	Country-level analysis of Australia.	Regression analyses	The results show that the launch of ABC broadcasting initiatives are not correlated with a large change in the audiences of programs broadcast on other private networks. In some cases, the launch of ABC broadcasting initiatives increase the audience for programming on private networks.
Is public service broadcasting a threat to commercial media?	Sjovaag et al. (2019)	What is the extent of, the Norwegian Broadcasting Corporation (NRK) resemblance to commercial media competitors? If there is a resemblance, does it impact the commercial sector's ability to generate revenues?	Country-level analysis of Norway.	Comparative quantitative content analysis	The study does not evaluate the relationship between NRK's advertising revenue and commercial competitor revenues. Instead, the study evaluates content similarities between NRK and commercial broadcasters as a proxy to determine crowding out. Results suggest that NRK carries content that is similar to its commercial competitors. However, the authors find that commercial competitor news content is more similar to each other, than commercial competitor news content is with NRK.

Publication	Author	Research Question	Jurisdiction	Approach	Findings
Crowding out: Is there evidence that public service media harm markets? A cross-national comparative analysis of commercial television and online news providers	Sehl et al. (2020)	Is there any evidence to support that strong public service media (PSM) have a negative effect on commercial media?	28 European Union countries.	Cross-sectional regression analyses	The data analysis finds no evidence of a statistically significant relationship between PSM revenues and commercial broadcasting revenues.

Overview of the Economic Impact of Public Broadcasters in Other Jurisdictions

Overall, the recent literature reviewed as part of this study finds little to no evidence that PSBs' activities negatively impact commercial media broadcasters revenues or viewership. In some jurisdictions, a positive relationship between PSBs and commercial media has been reported, where a PSB enhances the quality and/or revenues of the media sector through competition or positive externalities. Summarized below, these findings are subject to the data available in each case.

Television News in the UK

BBC (2013) shows a clear positive correlation between commercial market revenues and PSB revenues, public funding, investment, and original programming. The study finds that countries with well-resourced public service broadcasters that invest in original programming and which offer high-quality, diverse television programming also tend to have commercial broadcasters that generate significant revenues per capita, invest significantly in original content, and offer diverse television programming, which are regarded as being high quality.

KPMG (2015) does not find evidence of a statistically significant relationship between BBC's activity, either measured in terms of minutes broadcast or spending per broadcast minute, on the viewing hours of commercial broadcast television news. None of the tested specifications provide evidence consistent with the notion of negative economic impact from the BBC on the news television commercial market.

BBC's minutes broadcast and spending per broadcast minute are not found to have a statistically significant impact on the viewing hours of commercial broadcast entertainment television. Finally, in the simplest specification, where only the BBC's entertainment minutes broadcast are regressed on commercial broadcast entertainment minutes (i.e., excluding spending on entertainment per broadcast minute and other controls), the results are essentially unchanged, with no evidence of a statistically significant relationship.

Entertainment Television in the UK

Unlike the news television market, KPMG (2015) finds that when spending on entertainment per broadcast minute is included in the regression and BBC's entertainment minutes broadcast are excluded – BBC has a “weak, statistically significant” negative impact on commercial broadcast minutes of entertainment.²² This finding does not hold when explanatory variables are added to the regression. The report cites that this is not sufficiently strong evidence of BBC activities crowding out commercial broadcasters' revenues.

Television News in Australia

RBB Economics (2018) finds that the launch of ABC News initiatives are uncorrelated with any significant change in commercial broadcaster's audience numbers in Australia. The launch of ABC News initiatives is found to be positively correlated with commercial broadcasters audience numbers, where commercial broadcaster audiences increased by a small but significant amount after the launch of an initiative.

Online News in Denmark

Sjovaag et al. (2019) find that NRK's online news content is similar to commercial news media in terms of core journalistic topics serving a general information function. The authors find that commercial operator news content tended to resemble other commercial news, more than NRK news resembled that of its commercial counterparts. The authors conclude that commercial news ventures compete among themselves rather than with the public service broadcaster.

Online and Television News in the European Union

Lastly, Sehl et al. (2020) find no evidence of statistically significant negative impact of public broadcasters' activities on commercial broadcasters in the European Union. Rather, the report finds a positive correlation between PSM revenues and commercial market revenues or pay television revenues across countries. The analysis also finds no statistically significant negative correlation between online PSM news reach and commercial news reach or paying for online news. The cross-national comparison finds a general trend where a stronger PSM correlates with a stronger commercial market in "democratic, corporatist, and liberal countries, but the opposite in polarized, pluralist, and Central and Eastern European countries."

Overview of Methodologies Used to Analyze the Economic Impacts of Public Broadcasters

The primary objective of the literature review was to develop an understanding of data-driven frameworks to studying the relationship between PSBs and commercial media. The following summarizes key aspects of the various methodologies used to study this relationship.

Methodologies Assessing Substitutability of Public and Private Media

Different methodologies are used to assess the similarities between public and private media and whether countries with strong public media tend to have strong private media.

BBC (2013) conducts a correlation analysis to assess the health of the public broadcaster compared to that of the private sector broadcasters across multiple countries. The health of private and public service broadcasting sectors was segmented across four indicators, including:

- Levels of public and commercial funding per capita
- Investment in original programming per capita
- The proportion of key public service genres in the main channels' schedules
- Audience perception of the quality of the main channels in PSB and commercial sectors.

The countries are plotted on graph to see where each region falls within the following quadrants:

- Low health of public broadcasting; low health of private broadcasting
- High health in public broadcasting; high health in private broadcasting
- Low health in public broadcasting; high health in private broadcasting
- High health in public broadcasting; low health in private broadcasting

Sjovaag et al. (2019) asserts that content similarity is a valid approximation for competition. Therefore, the authors use Latent Dirichlet allocation (“LDA”) topic modelling to assess the degree of similarity between online content profiles of the Norwegian Broadcasting Corporation (“NRK”) and competing private markets.

LDA modelling uses the words within a document to allocate the share of a topic present in the document. No other paper reviewed used this approach to assess the degree of similarity across online news providers. The analysis consists of 10 main values: politics, crime, economy, social issues, culture, lifestyle, sports, accident, weather, and other. These values are broken down into 52 mutually exclusive topics. The LDA modelling measures the degree to which each topic is present in each of the news media surveyed and the degree to which they differ from the total.

Methods to Assess the Substantiality of the Relationship between Public and Private Media

Three papers use regression analysis to assess the magnitude, or substantiality, of the impact of public media on private media.

KPMG (2015) uses regression analysis to measure the impact of BBC’s entertainment television, news television, and local newspaper printing activity on commercial activity in the UK. The regressions assess the impact of BBC activity on commercial broadcasters’ activity, where a negative impact of BBC activity on commercial activity would be consistent with crowding out by the BBC. The analysis accounts for relevant macroeconomic variables, such as GDP per capita and internet penetration.

RBB Economics (2018) uses a regression analysis to determine whether the ABC’s activity negatively impacts the revenues of commercial broadcasters in Australia. The analyses attempt to control for seasonality and trend effects in order to assess if there was any meaningful differences in audiences in the commercial news sector before and after the launch of the ABC News channel initiatives. Each regression analysis studies a specific audience throughout the time period, attempting to assess if there is a meaningful difference in audiences on private television networks after the launch of the channels from ABC’s News network.

Lastly, Sehl et al. (2020) conducts a cross-sectional country analysis using a linear regression model to test multiple hypotheses, which broadly cover whether revenue, television audience share, and online news reach is negatively correlated between public and commercial broadcasters. A linear regression approach was used to control for differences in GDP per capita across countries. GDP per capita was chosen to control for the fact that richer countries are likely to have both stronger commercial and public broadcast markets.

Analytical Approach Used in This Study

The overarching objective of the economic assessment is to understand if and how CBC/Radio-Canada’s radio, and television audiences and revenues impact commercial media audiences and revenues. CBC/Radio-Canada may have a positive (e.g., “crowding-in” of activity), negative (e.g., “crowding-out” of activity), or neutral (e.g., no material impact) statistical relation to commercial media audiences or revenues. The study uses an econometric, or regression, approach to explore this question. Regressions are typically preferred over correlation coefficients because they allow us to control for more than one explanatory factor at once while isolating the impact of each individual factor on the dependent variable (i.e., the variable being modeled).

Importantly, the analytical approach does not rely on developing a hypothetical or counterfactual case study of the commercial broadcasting market in the absence of the CBC/Radio-Canada.

Overview of Variables

The economic analysis, for both the radio and television markets, relies on several variables, including revenues, expenditures, audience measurements, and other control variables. This section outlines the relevance and definition of each.

Revenues

The study seeks to determine if there is a statistical relationship between the revenues of CBC/Radio-Canada and those of commercial broadcasters.

Commercial revenue data is sourced from Statistics Canada for all years, languages, and regions. Commercial radio and television revenues include advertising revenues (both local and national time sales), network payments²³, infomercial revenues, syndication production revenues²⁴, subscriber fees²⁵, and other revenues²⁶. Advertising revenues are consistently the largest segment of commercial revenues for radio and conventional television; in 2018, advertising revenues accounted for roughly 99% of commercial radio revenues and approximately 83% of private conventional television revenues, across all commercial broadcasters in broadcast year 2018.²⁷ For discretionary television, roughly 28% of commercial operating revenues were from advertising while approximately 70% of revenues came from subscriber fees.²⁸ Commercial revenues are reported on a broadcast year basis and were converted to an annual basis to be consistent with control variables and CBC/Radio-Canada revenues.

CBC/Radio-Canada has two distinct revenue streams: parliamentary appropriations and other revenues.

Parliamentary appropriations are funds granted annually by Parliament on a discretionary basis and represent CBC/Radio-Canada's main source of funding. Data for parliamentary appropriations are available from 1999 to 2018.²⁹

CBC/Radio-Canada's other revenues include all sources of revenues other than parliamentary appropriations. Other revenues for CBC/Radio-Canada are comparable to commercial revenues of private sector broadcasters. Like commercial broadcaster revenues, CBC/Radio-Canada's revenues include local and national advertising revenues (television market only), syndication revenues, production service revenues, and miscellaneous revenues. In 2018, other revenues represented less than 3% of CBC/Radio-Canada's total radio revenues,³⁰ but they accounted for roughly 30% of CBC/Radio-Canada's conventional television revenues and all of their discretionary revenues as CBC/Radio-Canada does not allocate parliamentary appropriations to these markets directly.³¹ Data on CBC/Radio-Canada's other revenues are limited to the 2012-2018 period.

The accuracy of statistical modelling relies significantly on the number of observations available over time. To further expand the number of observations and improve the granularity of the markets analyzed, the analysis contained in this report incorporates commercial revenues, CBC/Radio-Canada's parliamentary appropriations and other revenues, separated for English- and French-language markets, where possible.

Finally, revenue and expenditure variables were transformed to 2012 constant dollars using chained 2012 price indices, real GDP for the radio and television broadcasting industry and were also adjusted for the calendar year.³² In order to control for calendar-year variables, such as annual GDP or internet use, CBC/Radio-Canada and private sector revenues are adjusted to match the calendar year. For example, the broadcast year is from September to August so that calendar year 2018 would include roughly 66% of BY2017-2018 and roughly 33% of BY2018-2019.

Audience Measurements

Audience measurements reflect the extent of CBC/Radio-Canada's reach. As such, it may be linked to revenues, as a greater reach may generate interest from advertisers, allowing for higher revenues. The study seeks to understand if variations in CBC/Radio-Canada's reach is associated with changes in private broadcaster's reach. Audience size is an important driver of revenues, especially for private broadcasters (i.e., as opposed to CBC/Radio-

Canada whose radio revenues are determined by parliamentary appropriations and whose television revenues are partially determined by parliamentary appropriations). Moreover, CBC/Radio-Canada and private broadcasters may compete for audiences. Audience measurements come in two forms:

- tuning hours for radio audiences; and,
- audience reach and viewing minutes for television audiences.

Numeris provides all radio and television audience data in Canada.³³ Radio tuning hours are from the Fall Radio Diary, which measures tuning data for all persons 12 and older based on tuning from Monday to Sunday between 5 am and 1 am. Television audience reach and viewing minutes were obtained for all persons ages 2 and older based on viewing from Monday to Sunday between 2 am and 2 am (i.e., for all hours). There are several measures of television viewing, this study employs total accumulated minutes (in millions) for the majority of the analysis.³⁴ Additionally, cumulative reach is used in the total genre analysis as an alternative measure of audiences. Cumulative reach is typically equal to the number of Canadians viewing a given program for at least one minute. The term *viewership* refers to either reach or viewing minutes; the specific viewership variable employed is identified in each case.

Control Variables

Control variables play a key role in ensuring reliability and accuracy of regression models. Control variables are typically factors that, while not the primary target of interest in the analysis, help explain changes in the dependent variable modelled. They ensure completeness of the model and accuracy of the impact measured for the target explanatory variables.

GDP per capita

For the regression analysis in both the radio and television markets, two primary control variables were used to account for economic conditions and changes in technology use across different markets (i.e., when using regional data). Real gross domestic product (“GDP”) per capita was used to account for macroeconomic market conditions and relative wealth. It is possible that under more favourable economic conditions, households will substitute their consumption of television and radio programming for pricier types of entertainment, such as movie theater or show attendance, and vice and versa under less favourable economic conditions. Canadian GDP per capita and Quebec GDP per capita were used to measure English- and French-language market size, respectively.

Internet usage

The share of individuals who use the internet in a specific jurisdiction is used as a proxy for technological changes, consistent with KPMG (2015). It is possible that, as internet usage increases and provides access to a broader array of cultural entertainment sources, households may substitute part of their television and radio programming consumption for other new sources of entertainment made possible by the internet.

GDP per capita and internet use are highly correlated, with both increasing during the past two decades as the availability of internet increased, as did GDP per capita. There may be some endogeneity between the two variables, where a relatively wealthier population over time may be able to afford more technological services. At the national level, GDP per capita and internet use in Canada are roughly 95% positively correlated, and GDP per capita and internet penetration both increased between 1999 and 2018. When both control variables are used, this implies that it will be difficult to statistically untangle the impact of each on the outcome variable of interest. A typical approach to handling endogeneity in control variables that are not of interest is to remove one of the variables from the regression. As such, these variables are added to the regression models incrementally.

Other Control Variables

As is common practice in regression analysis, several additional control variables, as well as a number of permutations of similar variables, were used to test the robustness of the regression analysis to a range of model specifications and explanatory factors. This included: education levels, income levels, and population.

Two education variables were tested: enrollment in post-secondary education and share of the population with tertiary education. Education levels may impact the genre of radio or television consumed, as well as the level of television consumed.

Average and median incomes were used to test alternative measures of wealth compared to GDP per capita. The same motivations for employing GDP per capita apply to these additional income variables.

Population was used as a measure of overall market size. The larger the market, the greater commercial radio and television revenues are likely to be, assuming programming (including advertisement) has the potential to reach a greater audience.

The Importance of Increasing the Number of Observations

In statistics and probability theory, the Law of Large Numbers and the Central Limit Theorem indicate that as the sample size (number of available observations) used to test a given hypothesis increases, the accuracy level of a given model improves. To draw reliable conclusions about statistical relationships, the number of observations used in the models should be sufficiently large. In economics, a minimum, textbook benchmark for an acceptable number of observations ranges from 30-40.

Statistical Testing

The regression results presented in this paper are a fraction of the hundreds of regressions conducted on the data for radio and television. Multiple permutations of each regression were tested to assess the robustness of the results to both functional form and model specification. The results presented are robust to changing variables from logs (e.g., mathematically transformed for interpretation of marginal changes) to levels (e.g., original dollar value or hours unchanged); for simplicity of interpretation, and consistent with common practice, the log-log or 'double log' models are presented. Double log models are convenient as they allow the model coefficients to be interpreted as percentage changes (i.e., a 1% change in an independent variable is associated with a Y% change in the dependent variable).

Several diagnostic tests were performed, and modeling techniques were used to assess the quality and reliability of the regressions output, including the use of robust standard errors ³⁵, log-log specifications, and first difference specifications. ³⁶

Television Analysis Findings

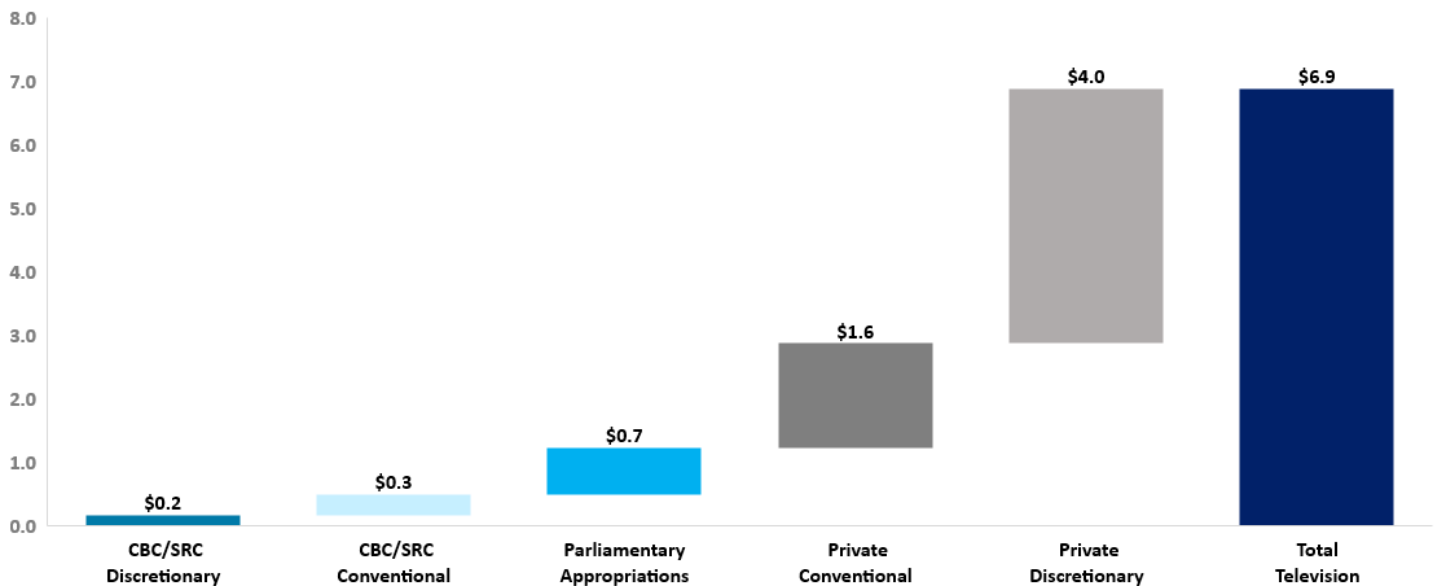
The traditional television sector, which excludes digital internet-based video services, is comprised of conventional television and discretionary and on-demand television (referred to as discretionary television throughout this report). Discretionary television includes pay, specialty, and discretionary channels, such as the Food Network or SportsNet 360. On-demand television includes all pay-per-view and non-internet-based video-on-demand services, such as Bell TV on-demand. CBC/Radio-Canada's discretionary channels include: Documentary, CBC News Network, ICI Explora, ICI ARTV, and ICI RDI. ³⁷

In 2018, the traditional television sector as a whole generated roughly \$6.9 billion in revenues (Figure 4). Combined, private conventional and discretionary operating revenues accounted for over 80% of total television operating revenues in 2018. Private discretionary television accounted for the largest share of operating revenues in 2018 at roughly 58%, or \$4.0 billion. Private conventional revenues accounted for roughly 24% of total television revenues,

or \$1.6 billion. CBC/Radio-Canada's total conventional and discretionary television operating revenues (including parliamentary appropriations) represented roughly 18% of total television operating revenues in 2018, or \$1.2 billion.

Unlike radio, CBC/Radio-Canada receives television advertising and subscription revenues. In 2018, non-parliamentary appropriation revenues (or 'other' revenues) accounted for roughly 39% of total CBC/Radio-Canada television revenues, or approximately \$480 million. Parliamentary appropriation revenues allocated to the television market amounted to roughly \$740 million in 2018, or approximately 60% of CBC/Radio-Canada's television revenues and 11% of total television operating revenues.³⁸

Figure 4: Television Operating Revenues, 2018 (Current \$B)



Source: CRTC. Communications Monitoring Report. (2019).

► Figure 4: Television Operating Revenues, 2018 (Current \$B) – text version

The analysis of the television market considers the following questions:

1. How CBC/Radio-Canada's television viewership relates to commercial television viewership (viewing for all traditional television, including conventional and discretionary);
2. How CBC/Radio-Canada's news television viewership relates to commercial news television viewership (viewing for all traditional television, including conventional and discretionary); and,
3. How CBC/Radio-Canada's non-news television viewership relates to commercial non-news television viewership (viewing for all traditional television, including conventional and discretionary).

CBC/Radio-Canada and Commercial Broadcaster Television Viewing

Data on television viewing was obtained from Numeris. There are several measures of television viewing, this predominantly uses total accumulated minutes. Several multivariate regression models were developed to control for other factors, such as the macroeconomic environment, as well as to maximize the use of the available data and further understand the relationship between CBC/Radio-Canada's viewership and commercial broadcaster viewership. Regression analyses are typically preferred over correlation coefficients because they allow to control for more than one explanatory factor at once and to isolate the impact of each individual factor on the dependent variable (i.e., the variable being modeled).

The television viewing data was available by quarter and by region for five regions in Canada: Ontario, Quebec, BC, the Prairies, and the Atlantic provinces. Each province contains viewers of French-language and English-language television combined. For most regressions, data from Q1 2012 to Q4 2018 is employed. As such, the majority of models have 135 observations when using first-difference estimation. Internet use and education were not used as control variables in the television analysis as data are not available quarterly by region.

As Table 2 illustrates, the analysis finds evidence that CBC/Radio-Canada’s television viewing has a statistically significant, positive impact on private broadcaster viewing. When controlling for other variables, including GDP per capita and population, the regression analysis suggests that **a 1% increase in CBC/Radio-Canada’s television viewing is associated with a roughly 0.19% to 0.22% increase in private television viewing.**

Table 2: Television Viewing Minutes Regressions

Variable	1	2	3	4
Dependent Variable	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)
CBC/Radio-Canada Total Viewing Minutes (logged)	0.22 **	0.20 ±	0.22 **	0.19 **
GDP per Capita (logged)	-	-2.29 ***	-	-2.35 ***
Population (logged)	-	-	0.18	0.70
R-Squared	0.28	0.38	0.28	0.38
Observations	135	135	135	135
Years	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018
Quarterly and Yearly Controls	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a lower R2.

* Significant at the 10% level (p 0.1)

** Significant at the 5% level (p 0.05)

*** Significant at the 1% level (p 0.01)

The breadth of television data available allows for additional control variables to be added to the model. Three additional controls were tested:

- **Total private broadcast minutes aired:** This is a measure of the total supply of television broadcasting by private broadcasters.

- **Total CBC/Radio-Canada broadcast minutes aired:** This is a measure of the total supply of television broadcasting by CBC/Radio-Canada.
- **Total CBC/Radio-Canada expenditure divided by the total minutes aired:** The level of expenditure per broadcast minute can act as a proxy for the quality of CBC/Radio-Canada’s programming. The quality of CBC/Radio-Canada’s television programming by have a positive, neutral, or negative impact on private broadcaster viewership.

Table 3 shows the regression results when controlling for total private broadcast minutes aired, total CBC/Radio-Canada minutes aired, and CBC/Radio-Canada’s expenditure per minute aired (a proxy for quality of programming). As before, the independent variable is total viewership minutes. **The results are relatively stable when additional controls are added and suggest that a 1% increase in CBC/Radio-Canada’s television viewership is associated with a 0.20% to 0.29% increase in private television viewership.** These results are found at the 95 percent confidence level.

An important limitation of the analysis is that it does not control for the structural change of an increase in digital media consumption that has occurred over the past two decades. Digital media consumption has impacted both CBC/Radio-Canada and private broadcasters, which may cause an “omitted variable bias” impacting the validity of the results. It is recommended that further research is undertaken to examine this potential effect.

Table 3: Television Viewing Minutes Regressions - Additional Controls

Variable	1	2	3	4	5
Dependent Variable	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)	Commercial Total Viewing Minutes First Difference (logged)
CBC/Radio-Canada Total Viewing Minutes (logged)	0.22 **	0.29 **	0.20 **	0.20 **	0.27 **
Private broadcasting minutes aired (logged)	-0.63 **	-	-	-0.32	-0.75
CBC broadcasting minutes aired (logged)	-	1.07 **	-	-	1.12 **
CBC expenditure per broadcast minute (logged)	-	-	-0.001 †	-0.001 †	-
GDP per Capita (logged)	-	-	-2.50 ***	-2.44 ***	-2.04 ***
Population (logged)	-	-	0.82	0.83	0.05
Year & Quarter Controls	yes	yes	yes	yes	yes
R-Squared	0.34	0.29	0.39	0.39	0.44
Observations	135	135	135	135	135

Variable	1	2	3	4	5
Years	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018
Robust Standard Errors	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a low R2.

* Significant at the 10% level (p 0.1)

** Significant at the 5% level (p 0.05)

*** Significant at the 1% level (p 0.01)

Television Analysis by Genre

As with radio programming, it is possible that the relationship between CBC/Radio-Canada audiences and private broadcaster audiences varies by television genre. The study looks at the relationship between CBC/Radio-Canada and private television audiences in the news and non-news genres.³⁹ News is studied separately to other formats given CBC/Radio-Canada’s mandate as a public broadcaster.

When studying program genres, the primary variable of interest is total minutes viewed. All regression specifications remain the same: quarterly data for the five Canadian regions is employed, the models are presented in a log-log specification using first difference estimation. The regression analysis was conducted for news and non-news separately; 56 regression specifications were tested for news and non-news each. The results are not statistically significant.

News Television

Table 4 summarizes the main regression specifications for the news television analysis. **No statistically significant effect of CBC/Radio-Canada’s news television viewing on private news television viewing was found.** As before, additional control variables were added to the regressions incrementally. Controlling for either the supply of private news television (i.e., via broadcast hours) or the supply of CBC/Radio-Canada news television did not impact the results. Neither did adding a proxy for the quality of CBC/Radio-Canada’s news television (i.e., using CPE per minute of CBC/Radio-Canada’s news broadcast). Significance was only found in the models with no controls and when controlling for private and CBC/Radio-Canada minutes aired. To be confident in the results, the majority of models with controls would need to be significant.

In specifications using levels for the independent and dependent variables (i.e., total minutes viewed) and using a fixed effects estimation, CBC/Radio-Canada’s news television minutes had a statistically significant positive impact on private broadcaster news television minutes. However, this does not hold when using log-log specifications or first difference estimation. Therefore, the results are not considered significant.

Table 4: News Television Viewership Regressions

Variable	1	2	3	4	5
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Variable	1	2	3	4	5
Dependent Variable	Commercial News Viewership First Difference (total minutes logged)	Commercial News Viewership First Difference (total minutes logged)	Commercial News Viewership First Difference (total minutes logged)	Commercial News Viewership First Difference (total minutes logged)	Commercial News Viewership First Difference (total minutes logged)
CBC/Radio-Canada News Viewership (total minutes logged)	0.21 *	0.17	0.21 *	0.18	0.19
Private broadcasting minutes aired (logged)	-	-	-0.05	-0.07	0.06
CBC broadcasting minutes aired (logged)	-	-	0.12	0.25	-
CBC news CPE per broadcast minute (logged)	-	-	-	-	0.09
GDP per Capita (logged)	-	-1.68 *	-	-1.73	-1.84
Population (logged)	-	0.38	-	0.37	0.56
Year & Quarterly Controls	yes	yes	yes	yes	yes
R-Squared	0.39	0.25	0.20	0.25	0.25
Observations	135	135	135	135	135
Years	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018
Robust Standard Errors	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a low R2.

* Significant at the 10% level (p 0.1)

Non-News Television

Table 5 summarizes the main regression specifications for the non-news analysis. **No statistically significant relationship between CBC/Radio-Canada’s non-news television viewing minutes and private broadcaster non-news television viewing minutes was found.** As before, additional control variables were added to the regressions incrementally. Controlling for either the supply of private news television (i.e., via broadcast hours) or

the supply of CBC/Radio-Canada news television did not impact the results. Neither did adding a proxy for the quality of CBC/Radio-Canada's news television (i.e., using CPE per minute of CBC/Radio-Canada's news broadcast). To be confident in the results, the majority of models with controls would need to be significant.

Table 5: Non-News Television Viewership Regressions

Variable	1	2	3	4	5
Dependent Variable	Commercial Non-News Viewership First Difference (total minutes logged)	Commercial Non-News Viewership First Difference	Commercial Non-News Viewership First Difference	Commercial Non-News Viewership First Difference	Commercial Non-News Viewership First Difference
CBC/Radio-Canada Non-News Viewership (total minutes logged)	0.07	0.06 *	0.05	0.05	0.05 *
Private non-news broadcasting minutes aired (logged)	-	-	-	-0.67	-0.67
CBC non-news broadcasting minutes aired (logged)	-	-	-	0.01	-
CBC non-news CPE per broadcast minute (logged)	-	-	0.04	-	0.04
GDP per Capita (logged)	-	-2.76 ***	-2.79 ***	-2.65 ***	-2.68 ***
Population (logged)	-	1.40	1.44	1.39	1.43
Year & Quarter Controls	yes	yes	yes	yes	yes
R-Squared	0.08	0.25	0.26	0.26	0.27
Observations	135	135	135	135	135
Years	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018	Q1 2012 – Q4 2018
Robust Standard Errors	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a low R2.

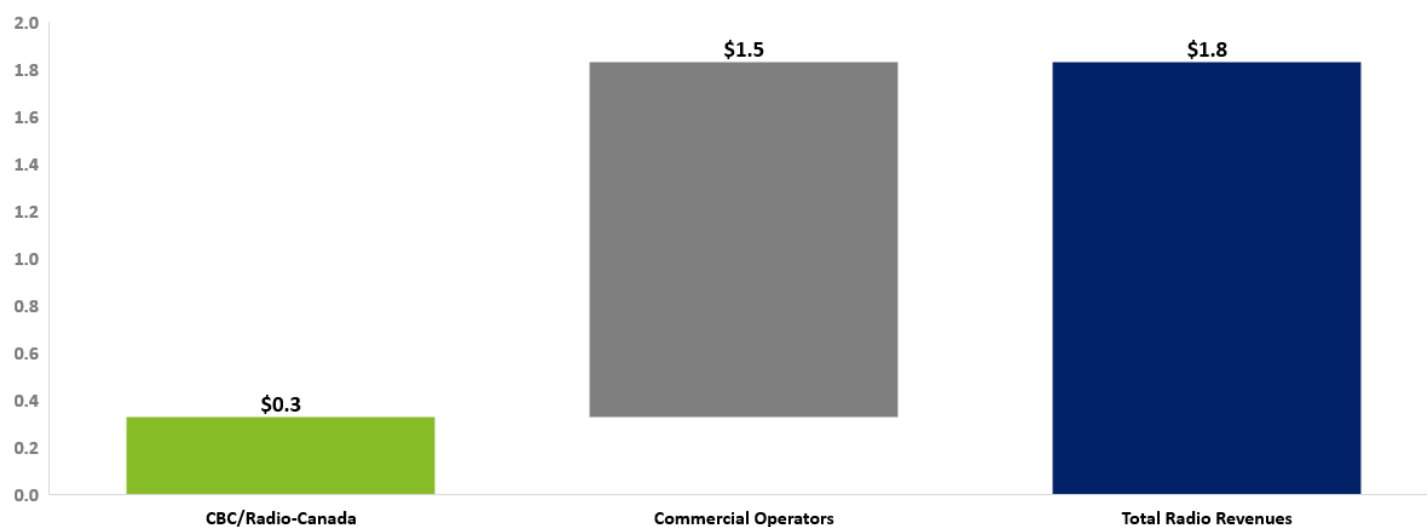
* Significant at the 10% level (p 0.1)

*** Significant at the 1% level (p 0.01)

Radio Analysis Findings

In 2018, commercial and CBC/Radio-Canada radio stations jointly generated \$1.8 billion in revenues (Figure 5).⁴⁰ With 721 radio stations, commercial radio generated approximately \$1.5 billion in revenues (82% of commercial and public radio revenues) and CBC/Radio-Canada's 66 radio stations generated roughly \$327 million (18%) in revenues.⁴¹ Nearly all of CBC/Radio-Canada's radio market revenues come from parliamentary appropriations (roughly 97% in 2018).

Figure 5: Radio Revenues, 2018 (Current \$B)



Source: CRTC. Communications Monitoring Report. (2019).

► Figure 5: Radio Revenues, 2018 (Current \$B) – text version

The radio market analysis considers the following:

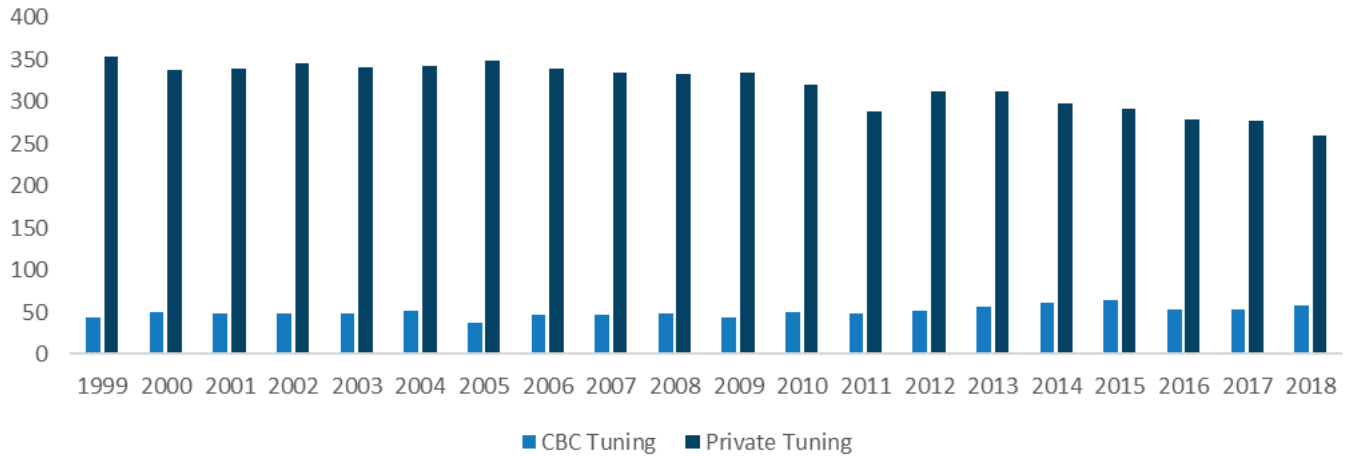
- How CBC/Radio-Canada's tuning hours relate to commercial radio tuning hours;
- How CBC/Radio-Canada's parliamentary appropriations relate to commercial radio tuning hours when controlling for CBC/Radio-Canada's tuning hours; and,
- How CBC/Radio-Canada's tuning hours relate to commercial radio tuning hours in news and non-news formats.

CBC/Radio-Canada and Commercial Broadcaster Radio Tuning Hours

The primary audience measurement for radio in Canada is total weekly average radio tuning hours. This measure can be divided by the Canadian population to have an estimate of the per capita tuning. While commercial radio revenues increased slightly between 1999 and 2018, average tuning hours declined, both in the English- and French-language radio markets (Figure 6, Figure 7). At the same time, total CBC/Radio-Canada tuning hours increased.

Total average weekly hours tuned for English commercial radio equalled roughly 260 million hours in 2018 or roughly 10.6 hours per capita ⁴², down from approximately 350 million hours in 1999 (Figure 6). During the same period, CBC English-language total radio tuning hours increased from roughly 43 million hours a week in 1999 to 58 million hours a week in 2018. Total weekly average tuning hours in the French-language radio market were roughly 66 million in 2018 or 9.0 hours per person, down from roughly 98 million hours in 1999 (Figure 7). Radio-Canada French-language tuning hours increased from roughly 9 million hours a week in 1999 to roughly 22 million hours in 2018, or roughly 3.0 hours per person.

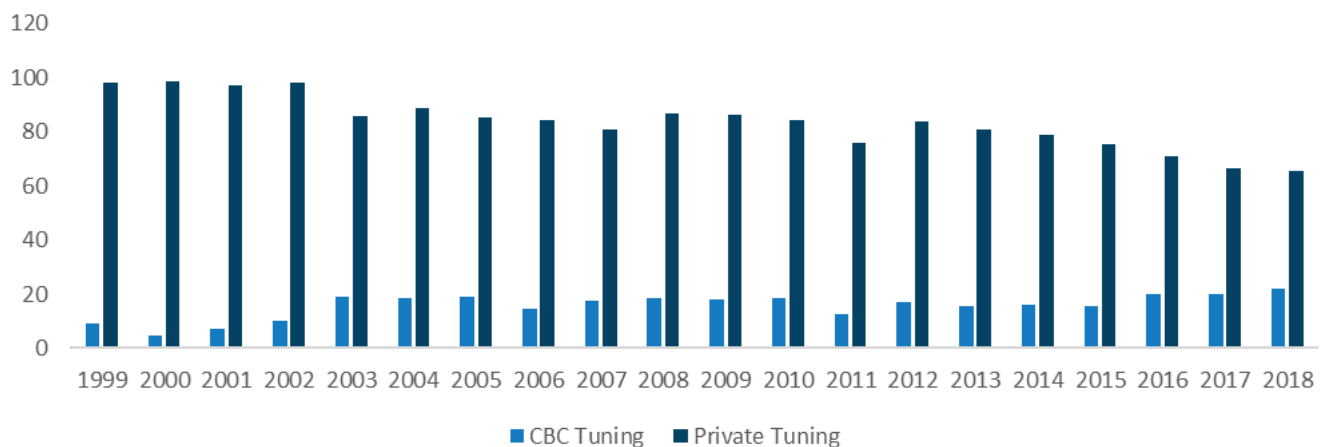
Figure 6: Total Weekly Average Tuning Hours for English-Language Radio in Canada (millions of hours)



Source: CRTC. Communications Monitoring Reports 2000-2019.

► Figure 6: Total Weekly Average Tuning Hours for English-Language Radio in Canada (millions of hours) – text version

Figure 7: Total Weekly Average Tuning Hours for French-Language Radio in Canada (millions of hours)



Source: CRTC. Communications Monitoring Reports 2000-2019.

► Figure 7: Total Weekly Average Tuning Hours for French-Language Radio in Canada (millions of hours) – text version

As a first step in understanding the relationship between commercial radio tuning hours and CBC/Radio-Canada’s tuning hours, the analysis looks at the correlation between these two variables over time. ⁴³ Given the decline in commercial tuning hours and the increase in CBC/Radio-Canada tuning hours between 1999 and 2018, the

correlation between the two series is negative in both the English and French- Language radio markets (Table 6). **Notably, a correlation coefficient only assesses co-movement of two variables, and does not constitute a way to assess causation.**

Table 6: Radio Tuning Hour Correlations (1999-2018)

CBC/Radio-Canada	Commercial Tuning Hours - English	Commercial Tuning Hours - French
Parliamentary Appropriation - English	-0.69	-
Parliamentary Appropriation - French	-	-0.74

In the following regressions, a specific-to-general approach to model specification was adopted, i.e. each additional independent variable was added incrementally to the regression analysis to understand its effect on the dependent variable.

The first set of regressions use tuning hours to study a more direct relationship between CBC/Radio-Canada’s radio activity and the activity of commercial broadcasters. If CBC/Radio-Canada’s parliamentary appropriation revenues have any impact on commercial revenues, this would be found indirectly through the impact on tuning. The regressions rely on data from 1999 to 2018 and use commercial total weekly tuning hours per person as the dependent variable, controlling for CBC/Radio-Canada tuning and other variables. The analysis is not significantly impacted by the use of total average weekly tuning hours or total average weekly tuning hours per person. The analysis controls for the difference between the English and French-language markets by using a panel data structure. As is common practice in econometric analysis, the regression uses the log-transformation of the dependent and independent variables to linearise relationships across variables and facilitate interpretation of the results.

This analysis finds evidence of a statistically significant relationship, which is small in magnitude, between CBC/Radio-Canada’s tuning hours and commercial tuning hours. The coefficient associated with parliamentary appropriations ranges from -0.06 to -0.08 suggesting that a 1% increase in CBC/Radio-Canada’s tuning hours is associated with a 0.06% to 0.08% decrease in commercial tuning hours. While these effects are small in magnitude effects, they are consistent in magnitude and statistical significance. A negative sign on the CBC/Radio-Canada tuning hours coefficient is consistent with the “crowding-out” theory whereby CBC/Radio-Canada’s activities have a negative impact on commercial radio broadcaster tuning hours.

Models presented in Table 7 only have one macroeconomic control variable. This is because the controls are likely correlated and including multiple variables would lead to statistical problems. However, Table 8 provides specifications with multiple controls. Model specifications with multiple control variables were checked and do not impact the results. The coefficient on population and tertiary education are positive and statistically significant (specifications 4 and 5), whereas the coefficients on GDP and median income are positive (specifications 3 and 6). This suggests that as GDP or median incomes increase, individuals are more likely to consume commercial radio.

Table 7: Regression Analysis of CBC/Radio-Canada and Commercial Radio Tuning Hours

Variable	1	2	3	4	5	6
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Variable	1	2	3	4	5	6
Dependent Variable	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.07 ***	-0.08 ***	-0.07 ***	-0.07 ***	-0.06 ***	-0.07 ***
GDP per Capita (logged)	-	1.19 ***	-	-	-	-
Internet Use (logged)	-	-	-15.44	-	-	-
Population (logged)	-	-	-	-0.46 *	-	-
Tertiary Education (logged)	-	-	-	-	-2.49 ***	-
Median Income (logged)	-	-	-	-	-	0.10 *
R-Squared	0.86	0.86	0.84	0.84	0.84	0.84
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Control	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

* Significant at the 10% level (p 0.1)

*** Significant at the 1% level (p 0.01)

Table 8 provides additional specifications of the radio tuning results where multiple control variables are included.

Table 8: Regression Analysis of CBC/Radio-Canada and Commercial Radio Tuning Hours - Additional Specifications

Variable	1	2	3	4	5	6
Dependent Variable	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.07 ^{***}	-0.07 ^{***}	-0.06 ^{***}	-0.06 ^{***}	-0.07 ^{***}	-0.06 ^{***}
GDP per Capita (logged)	1.22 ^{**}	1.14 ^{***}	-	-	-	-
Internet Use (logged)	-3.18	-13.88	-1.85	-11.51	-0.88	-11.32
Population (logged)	-0.22	-1.34 ^{***}	-0.20	-1.57 ^{***}	-0.32	-1.17
Tertiary Education (logged)	-2.64 ^{***}	-	-2.41 ^{***}	-	-2.41 ^{***}	-
Tertiary Education Enrollments (logged)	-	0.34	-	0.46 ^{***}	-	0.25 ^{***}
Median Income (logged)	-	-	0.08 ^{**}	0.25	-	-
Average Income (logged)	-	-	-	-	-0.18 ^{***}	-0.15 [*]
R-Squared	0.86	0.86	0.84	0.85	0.85	0.85
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Control	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a low R2.

* Significant at the 10% level (p 0.1)

** Significant at the 5% level (p 0.05)

*** Significant at the 1% level (p 0.01)

Table 9 illustrates the results when parliamentary appropriations are directly added as an explanatory factor. Again, all control variables were assessed, in addition to specifications including levels of the dependent and independent variables, and various combinations of control variables.

This analysis finds evidence that parliamentary appropriations are not statistically related to commercial broadcaster tuning hours.

Table 9: Regression Analysis of CBC/Radio-Canada and Commercial Radio Tuning Hours - Controlling for Parliamentary Appropriations

Variable	1	2	3	4	5	6
Dependent Variable	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.07 ***	-0.08 ***	-0.07 ***	-0.07 ***	-0.06 ***	-0.07 ***
Parliamentary appropriations (logged)	-0.01	0.08	-0.01	0.02	-0.01	0.001
GDP per Capita (logged)	-	1.20 ***	-	-	-	-
Internet Use (logged)	-	-	15.36	-	-	-
Population (logged)	-	-	-	-0.48 ***	-	-
Tertiary Education (logged)	-	-	-	-	-2.49 ***	-
Median Income (logged)	-	-	-	-	-	-0.10
R-Squared	0.84	0.86	0.84	0.84	0.84	0.84

Variable	1	2	3	4	5	6
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

******* Significant at the 1% level (p 0.01)

Table 10: Regression Analysis of CBC/Radio-Canada and Commercial Radio Tuning Hours - Controlling for Parliamentary Appropriations - Additional Specifications

Variable	1	2	3	4	5	6
Dependent Variable	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)	Commercial Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.08 ***	-0.08 ***	-0.07 ***	-0.06 ***	-0.06 ***	-0.07 ***
Parliamentary appropriations (logged)	0.12	0.10	0.24	0.01	0.19	-0.02
GDP per Capita (logged)	1.21 ***	1.24 *	1.17 **	-	-	-
Internet Use (logged)	-17.90 *	-4.55	-16.25	-1.97	-13.51	-0.55
Population (logged)	-0.59 ***	-0.30 ***	-1.70	-0.21	-1.88	-0.30
Tertiary Education (logged)	-	-2.61 **	-	-2.41 **	-	-2.42 ***
Tertiary Education Enrollments (logged)	-	-	0.41	-	0.52	-

Variable	1	2	3	4	5	6
Commercial Tuning Hours (logged)	0.03 ^{***}	-0.10 ^{**}	-0.10 ^{**}	-0.10 ^{**}	-0.13 [*]	-0.11 [*]
CBC/Radio-Canada Tuning Hours (logged)	0.02 ^{***}	-0.004	-0.004	-0.01 ^{**}	-0.01	-0.01
GDP per Capita (logged)	-	1.19 ^{***}	1.19 ^{***}	1.20 ^{***}	1.25 ^{***}	1.20 ^{**}
Internet Use (logged)	-	-	-16.12 ^{***}	-13.65 ^{***}	-5.23	-13.30 ^{***}
Population (logged)	-	-	-	-0.66 ^{***}	-0.49 ^{***}	-0.80 ^{***}
Tertiary Education (logged)	-	-	-	-	-1.76 ^{**}	-
Tertiary Education Enrollment (logged)	-	-	-	-	-	0.06 ^{***}
R-Squared	0.88	0.92	0.92	0.92	0.92	0.92
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

^{*} Significant at the 10% level (p 0.1)

^{**} Significant at the 5% level (p 0.05)

^{***} Significant at the 1% level (p 0.01)

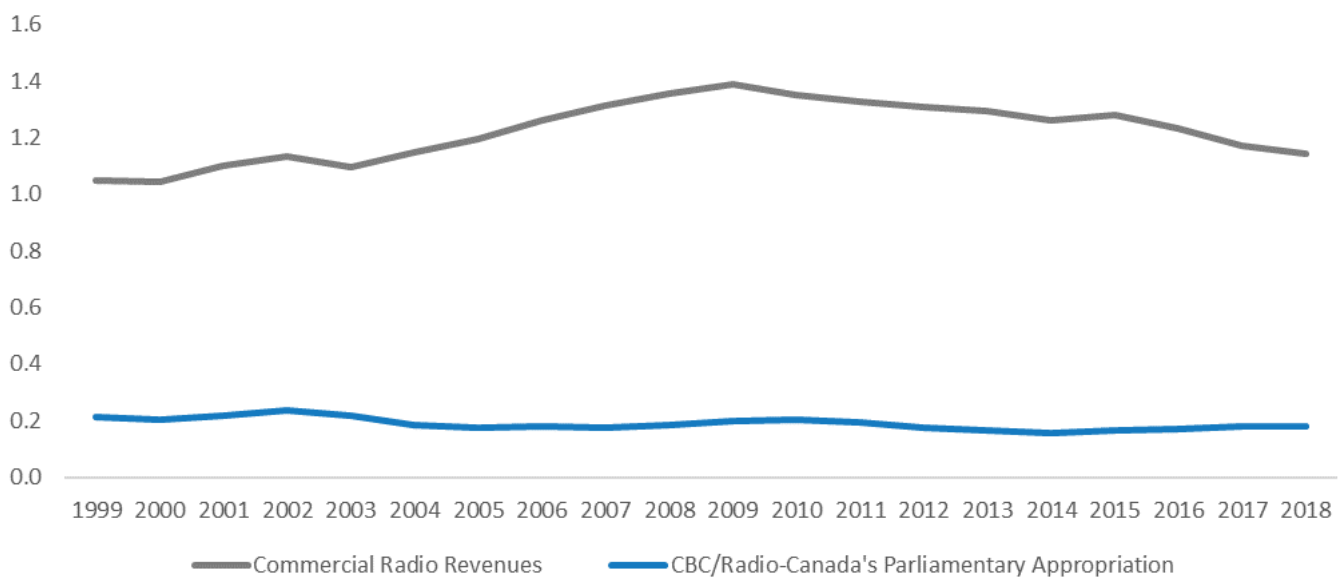
CBC/Radio-Canada and Commercial Broadcaster Revenues

In 2018, English-language radio accounted for over 80% of commercial radio revenues and roughly 60% of CBC/Radio-Canada's parliamentary appropriations that are allocated to radio. The English-language market share for both commercial revenues and CBC/Radio-Canada's parliamentary appropriations is relatively consistent over time.

Between 1999 and 2018, commercial radio operating revenues for the English market increased at an average annual rate of roughly 0.2% (Figure 8).⁴⁴ Despite limited growth overall between 1999 and 2018, commercial English-language radio revenues have contracted in recent years. Between 2009 (the peak of revenues before the financial crises) and 2018, commercial English-language radio revenues contracted at an average annual rate of roughly 2.2%.

CBC/Radio-Canada's parliamentary appropriation dedicated to English-language radio programming contracted at an average annual rate of approximately 0.9% between 1999 and 2018. Like commercial revenues, CBC/Radio-Canada's parliamentary appropriations have contracted in recent years as well; between 2009 and 2018, parliamentary appropriations allocated to the English-language radio market contracted at an average annual rate of roughly 1.2%. CBC/Radio-Canada does not receive advertising revenues for its radio market.⁴⁵ While it does receive a small amount of other revenues, parliamentary appropriations account for roughly 97% of CBC/Radio-Canada's radio revenues (2018). As such, the radio analysis relies on parliamentary appropriations to measure CBC/Radio-Canada radio revenues.

Figure 8: English Radio Market Commercial Revenues and Parliamentary Appropriation (Chained 2012 \$B)

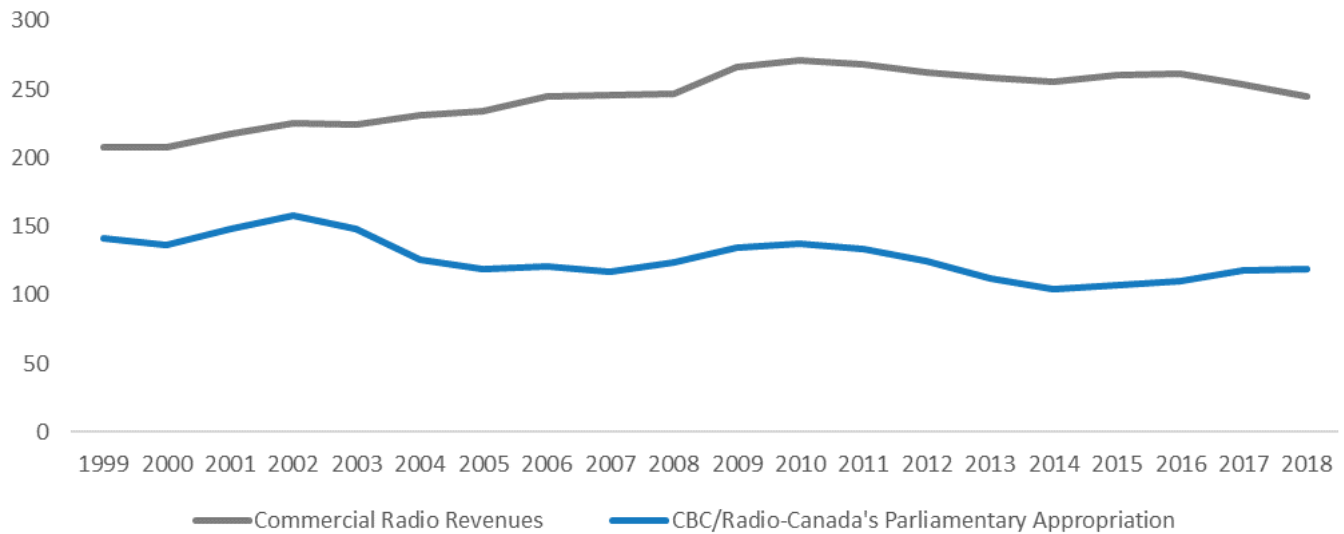


Source: CRTC Communications Monitoring Reports, data submitted by CBC/Radio-Canada, and Deloitte analysis.

► Figure 8: English Radio Market Commercial Revenues and Parliamentary Appropriation (Chained 2012) – text version

French-language radio accounts for the remaining 20% of commercial radio revenues and 40% of CBC/Radio-Canada's parliamentary appropriations that are allocated to radio. Commercial French-language radio operating revenues increased at an average annual rate of approximately 0.6% between 1999 and 2018, while they decreased at an average annual rate of 1.3% between 2009 and 2018 (Figure 9). CBC/Radio-Canada's parliamentary appropriation dedicated to French radio programming contracted at an average annual rate of approximately 0.9% between 1999 and 2018 and they contracted by roughly 1.4% between 2009 and 2018 (Figure 9).

Figure 9: French Radio Market Commercial Revenues and Parliamentary Appropriation (Adjusted for Calendar Year, Chained 2012 \$M)



Source: CRTC Communications Monitoring Reports, data submitted by CBC/Radio-Canada, and Deloitte analysis.

► Figure 9: French Radio Market Commercial Revenues and Parliamentary Appropriation (Adjusted for Calendar Year, Chained 2012) – text version

As a first step in understanding the relationship between commercial radio revenues and CBC/Radio-Canada’s parliamentary appropriations, the analysis looks at the correlation between these two variables over time.⁴⁶

The analysis finds that English and French-language radio revenues and CBC/Radio-Canada’s parliamentary appropriations are found to be moderately, negatively correlated. During the 1999-2018 period, the correlation coefficient for parliamentary appropriations and English-language commercial revenues was -0.42 (Table 12), while the French-language coefficient was -0.47.

Table 12: Commercial Radio Revenues and Parliamentary Appropriations Correlations (1999-2018)

CBC/Radio-Canada	Commercial Revenues - English	Commercial Revenues - French
Parliamentary Appropriation - English	-0.40	-
Parliamentary Appropriation - French	-	-0.45

This analysis finds evidence of a statistically significant relationship between CBC/Radio-Canada’s parliamentary appropriations and commercial revenues. The coefficient associated with parliamentary appropriations ranges from -0.32 to -0.45 suggesting that a 1% increase in CBC/Radio-Canada’s parliamentary appropriations is associated with a 0.32% to 0.45% decrease in commercial revenues.

Table 13: Regression Analysis of Commercial Radio Revenues

Variable	1	2	3	4	5
Dependent Variable (First Difference)	Commercial Revenues (logged)	Commercial Revenues (logged)	Commercial Revenues (logged)	Commercial Revenues (logged)	Commercial Revenues (logged)

Variable	1	2	3	4	5
Parliamentary Appropriation (logged)	-0.43 ***	-0.35 ***	-0.35 ***	-0.32 ***	-0.33 ***
Private tuning hours (logged)	0.03 ***	-0.09 ***	-0.09 ***	-0.009 *	-0.12 *
CBC tuning hours (logged)	0.02 ***	-0.004 ***	-0.004 ***	-0.005 ***	-0.003
GDP per Capita (logged)	-	1.12 ***	1.12 ***	1.13 ***	1.18 **
Internet Use (logged)	-	-	-10.66 ***	-9.56 ***	-0.65
Population (logged)	-	-	-	-0.39	-0.21
Tertiary Education (logged)	-	-	-	-	-1.84 *
R-Squared	0.90	0.93	0.93	0.93	0.93
Observations	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Control	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

* Significant at the 10% level (p 0.1)

** Significant at the 5% level (p 0.05)

*** Significant at the 1% level (p 0.01)

Radio Analysis by Format

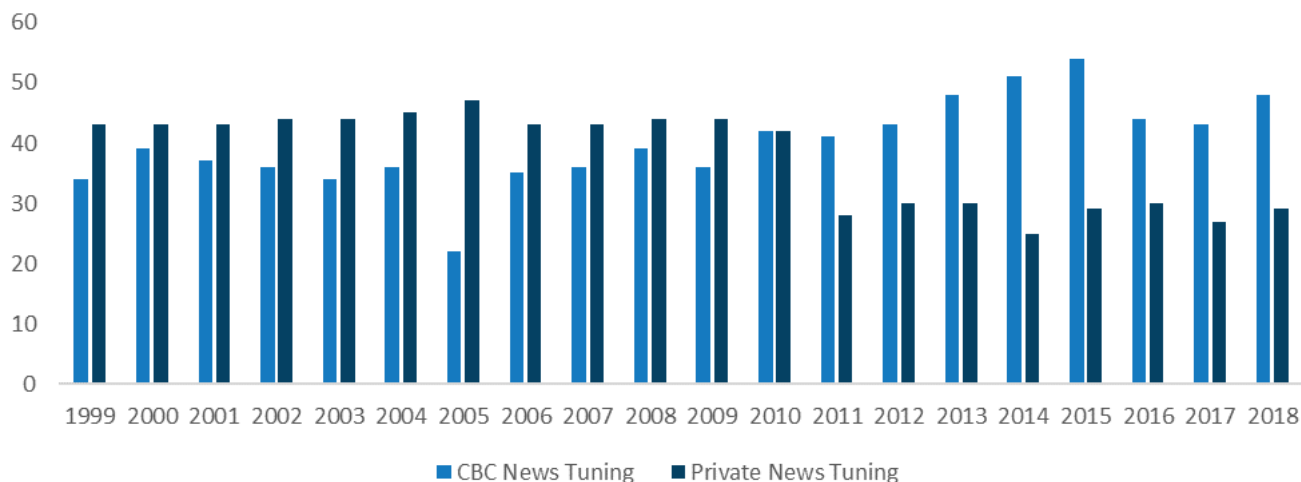
Radio programming differs by format. In particular, different commercial broadcasters operate within the news and non-news ⁴⁷ formats. Furthermore, control variables such as education and income levels may impact commercial news tuning differently from commercial non-news tuning. As such, additional analysis was conducted on the potential impact of CBC/Radio-Canada's radio news audiences (i.e., CBC Radio One and ICI-Première) on commercial news audiences (i.e., news/talk formats), as well separately for the non-news audiences.

News/Talk Radio

In 2018, roughly 15% of English-language news tuning was of CBC Radio One (CBC's English-language news program) and roughly 9% of tuning was of private news/talk programming. ⁴⁸ This translates to roughly 48 million hours of English-language CBC news tuning in an average week and roughly 29 million hours of private English-language news/talk tuning (Figure 10). ICI Première Chaîne (Radio-Canada's French-language news radio) accounts for roughly 19% of French-language radio tuning while private news/talk programming accounts for

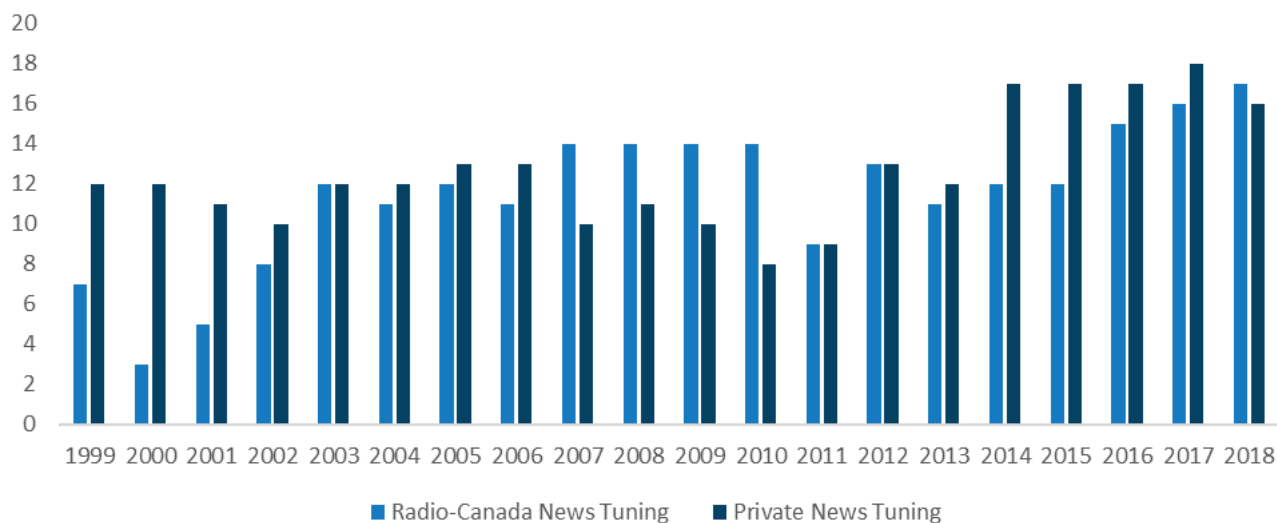
roughly 18%.⁴⁹ This translates to roughly 17 million total tuning hours in an average week for Radio-Canada’s news programming and roughly 16 million hours per week for private French-language news/talk programming (Figure 11).

Figure 10: Total Weekly Tuning Hours - English-Language News Radio 1999-2018 (millions of hours)



► Figure 10: Total Weekly Tuning Hours - English-Language News Radio 1999-2018 (millions of hours) – text version

Figure 11: Total Weekly Tuning Hours - French-Language News Radio 1999-2018 (millions of hours)



► Figure 11: Total Weekly Tuning Hours - French-Language News Radio 1999-2018 (millions of hours) – text version

Table 14 and Table 15 illustrate that neither parliamentary appropriations nor CBC/Radio-Canada’s news tuning have a consistent, statistically significant impact on commercial news tuning hours. These results are consistent when controlling for population, education, or income. These results do **not** indicate that CBC/Radio-Canada news radio tuning hours and commercial news radio tuning hours are not related but that at the aggregate level (i.e., aggregate English and French market), the study does not find a consistent statistically significant relationship. When also controlling for parliamentary appropriations, the coefficient on both parliamentary appropriations and CBC/Radio-Canada tuning hours are both statistically insignificant, except in a few regressions. The results do not change when including multiple control variables.

Table 14: Regression Analysis of Radio News Tuning Hours

Variable	1	2	3	4	5	6
Dependent Variable	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.04 ***	0.01	-0.04 ***	-0.05	-0.003	-0.03 ***
GDP per Capita (logged)	-	-8.03 ***	-	-	-	-
Internet Use (logged)	-	-	-7.98	-	-	-
Population (logged)	-	-	-	-8.75 *	-	-
Tertiary Education (logged)	-	-	-	-	-28.16 ***	-
Median Income (logged)	-	-	-	-	-	-1.48
R-Squared	0.45	0.56	0.45	0.47	0.52	0.46
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data, resulting in a low R2.

* Significant at the 10% level (p 0.1)

*** Significant at the 1% level (p 0.01)

Table 15: Regression Analysis of Radio News Tuning Hours Controlling for Parliamentary Appropriations

Variable	1	2	3	4	5	6
Dependent Variable	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)	Commercial News Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.04 *	0.01 ***	-0.04 *	-0.05	-0.002	-0.03
Parliamentary Appropriations (logged)	-0.03	0.14	-0.03	0.11	0.94	-0.15
GDP per Capita (logged)	-	-8.04 ***	-	-	-	-
Internet Use (logged)	-	-	-7.60	-	-	-
Population (logged)	-	-	-	-8.75 ***	-	-
Tertiary Education (logged)	-	-	-	-	-28.92 ***	-
Median Income (logged)	-	-	-	-	-	-1.50 *
R-Squared	0.45	0.56	0.45	0.47	0.52	0.46
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

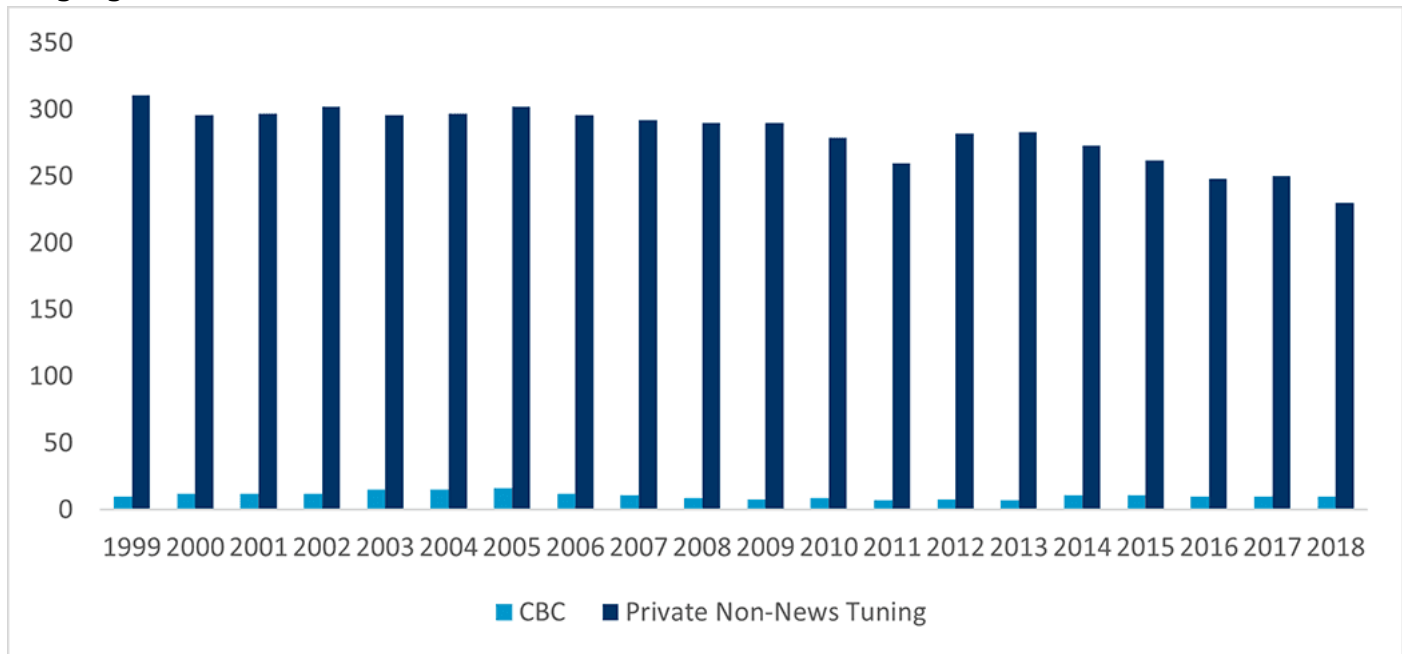
* Significant at the 10% level (p 0.1)

*** Significant at the 1% level (p 0.01)

Non-News/Talk Radio

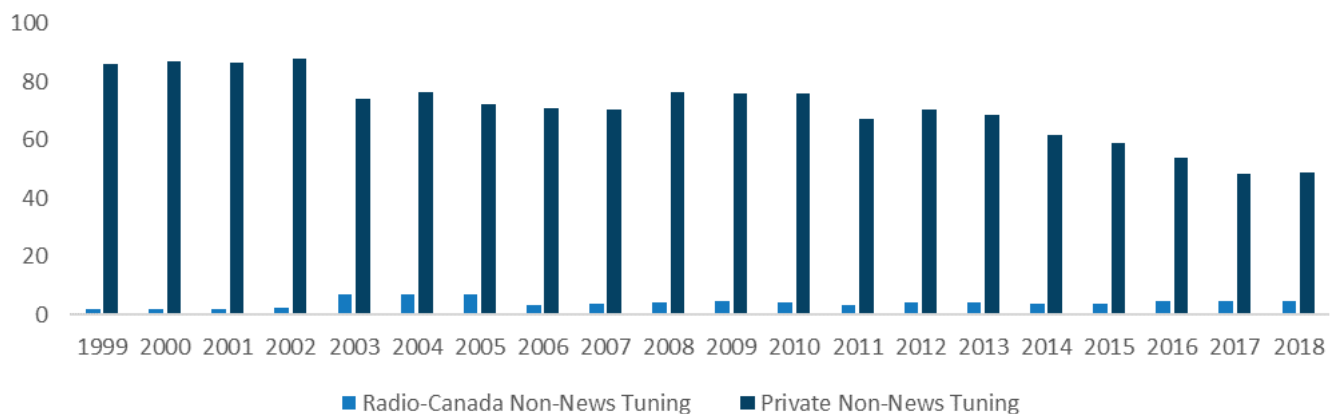
Non-news radio, or music radio, accounted for approximately 75% of English-language radio tuning and roughly 60% of French-language radio tuning in 2018. ⁵⁰ CBC Radio Two accounted for roughly 3% of English-language radio tuning in 2018, or roughly 10 million weekly hours on average. Meanwhile, Canadians tuned roughly 230 million hours of private English-language non-news programming (Figure 12). CBC Musique accounted for approximately 5% of French-language radio tuning, or approximately 4.5 million hours in an average week. Canadians tuned roughly 49 million hours of private French-language non-news radio (Figure 13).

Figure 12: Non-News/Talk Radio Total Average Weekly Tuning Hours 1999-2018 (millions of hours) - English-Language Radio



► Figure 12: Non-News/Talk Radio Total Average Weekly Tuning Hours 1999-2018 - English-Language Radio (millions of hours) – text version

Figure 13: Total Average Weekly Tuning Hours 1999-2018 - French-Language Non-News/Talk Radio (millions of hours)



► Figure 13: Total Average Weekly Tuning Hours 1999-2018 - French-Language Non-News/Talk Radio (millions of hours) – text version

Table 16 and Table 17 illustrate that no statistical relationship was found between CBC/Radio-Canada’s non-news radio tuning hours and private non-news radio tuning hours. The results are consistent with results for various control variables, including population, education, and income. **Parliamentary appropriations have a small, statistically significant positive impact on private tuning hours in some of the tested regression specifications.** However, the results are somewhat inconsistent depending on the specification or mix of control variables used.

Table 16: Regression Analysis of Non-News Radio Tuning Hours

Variable	1	2	3	4	5	6
Dependent Variable	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.06	-0.11	-0.06	-0.05	-0.06	-0.06
GDP per Capita (logged)	-	2.84 ***	-	-	-	-
Internet Use (logged)	-	-	-14.99 ***	-	-	-
Population (logged)	-	-	-	1.97 ***	-	-
Tertiary Education (logged)	-	-	-	-	0.27 ***	-
Median Income (logged)	-	-	-	-	-	0.13
R-Squared	0.66	0.75	0.66	0.67	0.66	0.66
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

*** Significant at the 1% level (p 0.01)

Table 17: Regression Analysis of Non-News Radio Tuning Hours - Controlling for Parliamentary Appropriations

Variable	1	2	3	4	5	6
Dependent Variable	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)	Commercial Non-News Tuning Hours First Difference (logged)
CBC/Radio-Canada Tuning Hours (logged)	-0.06	-0.12 *	-0.06	-0.06	-0.06	-0.06
Parliamentary Appropriations (logged)	0.13 ***	0.31 ***	0.13 ***	0.10	0.15 ***	0.13 ***
GDP per Capita (logged)	-	3.57 ***	-	-	-	-
Internet Use (logged)	-	-	-17.20	-	-	-
Population (logged)	-	-	-	1.42	-	-
Tertiary Education (logged)	-	-	-	-	1.39	-
Median Income (logged)	-	-	-	-	-	0.14
R-Squared	0.67	0.79	0.67	0.68	0.67	0.67
Observations	38	38	38	38	38	38
Years	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018	1999-2018
Year Controls	yes	yes	yes	yes	yes	yes
Robust Standard Errors	yes	yes	yes	yes	yes	yes

First difference estimation is used to account for a unit root challenge in the data.

* Significant at the 10% level (p 0.1)

*** Significant at the 1% level (p 0.01)

4. The Canadian Broadcasting Corporation's Social and Cultural Activities

Introduction and Approach

In addition to the review of the economic impacts of CBC/Radio-Canada's activities on commercial broadcasters covered in Section 3, this section explores the broader contributions of CBC/Radio-Canada in terms of its social and cultural activities.

This section provides a summary of the nature and extent of CBC/Radio-Canada's social and cultural activities associated with its radio, television, and digital media services in Canada. The social and cultural contributions associated with CBC/Radio-Canada's content and activities were identified through a three-step process:

- 1. Literature review:** The first step entailed conducting a review of several papers and reports that consider the impacts of public service media ("PSM") on audiences and media sector players across various international jurisdictions in Western economies. Through this literature review, a list of social and cultural impacts considered for PSMs was identified alongside metrics for reviewing evidence of these activities. Appendix A contains a summary of all literature review findings related to the social and cultural activities.
- 2. Relation to CBC/Radio-Canada's Mandate:** In the second step, the findings of the literature on the impacts of PSMs from step one were reviewed and refined in the context of CBC/Radio-Canada's mandate. This resulted in a list of impacts aligned with CBC/Radio-Canada's mandate, as noted in Section 2, and its broader strategic objectives, as outlined in Section 2.
- 3. Data collection and review:** The final step entailed collecting data from the CTRC, CBC/Radio-Canada, and other third parties on CBC/Radio-Canada's content and activities. The data is used to summarize CBC/Radio-Canada's content and activities across the identified social and cultural dimensions, as identified in steps one and two.

Deloitte relied on secondary research and stakeholder interviews to explore the potential social and cultural contributions of CBC/Radio-Canada. A key challenge when completing the inventory analysis is that many of the metrics identified as useful for analyzing social and cultural impacts (i.e., identified in the literature) are not readily available for both CBC/Radio-Canada and commercial broadcasters and media organizations. As such, some of the 10 identified impacts largely rely on metrics of CBC/Radio-Canada's activities alone.

In addition to the above process, the study includes insights from consultations with Canadian media organizations. These consultations were used to ensure that the research was comprehensive and identified the breadth of impacts that CBC/Radio-Canada has on the Canadian media market, whether these impacts are positive or negative. Stakeholders were specifically asked to comment on any potential differences in CBC/Radio-Canada's impact as compared to the impact of commercial broadcasters. Finally, as part of the consultation process, a Digital Sensing analysis was completed to inform areas of focus for the stakeholder engagement activities, as detailed in Appendix B. A 1-hour interview with each of the following organizations was conducted:

- The Canadian Association of Journalists;
- The Aboriginal Peoples Television Network;

- The Canadian Median Fund;
- The Canadian Media Producers Association; and,
- The Canadian Association of Broadcasters.

Social and Cultural Dimensions Considered

This study identifies 10 social and cultural dimensions associated with CBC/Radio-Canada's activities and services that were determined to be most aligned with the objectives set out in the *Broadcasting Act*.

The review of social impacts considers if and how CBC/Radio-Canada's content and activities affect Canadian audiences. It includes considerations of the following six dimensions:

1. Impact on the quality and distinctiveness of Canadian programming;
2. Contribution to local, regional and national diversity;
3. Contribution to the needs of official language minority communities and indigenous communities;
4. Impact on information that is in the interest of the public;
5. Contribution to shared sense of national consciousness and identity; and,
6. Impact on learning and education.

The review of cultural impacts considers the effects of CBC/Radio-Canada on Canadian culture through its direct and indirect contribution to independent producers, other media broadcasters, and to the Canadian economy as a whole. It includes considerations of the following four dimensions:

7. Impact on the Canadian creative sector;
8. Impact on the emergence and development of local talent including journalists;
9. Impact on trends and innovations in different forms and genres of programming or adoption of new technologies/infrastructure; and,
10. Contribution to the flow and exchange of cultural expressions.

1. Impact on the quality and distinctiveness of Canadian programming

Past studies provide evidence that PSM broadcasting delivers high quality programming and, in some instances, more trusted information than commercial counterparts. This is assessed through a number of broadcasting dimensions, including the share of hours dedicated to news, events, issues and other current affairs programs ⁵¹, the level of investment in original content ⁵², and audience perceptions on the trustworthiness and quality of the PSM broadcasters ⁵³.

In addition to the metrics identified in the literature, the *Broadcasting Act* also explicitly requires that Canadian broadcasters support the quality and distinctiveness of Canadian programming [3(1)(i)(v), 3(1)(f), 3(1)(m)(i)].

2. Contribution to local, regional, and national diversity

The literature provides evidence that PSMs contribute to greater media diversity. Helle Sjøvaag and Truls André Pedersen (2018) conduct a study on the contribution of Norwegian Broadcasting Corporation (NRK) to media diversity. ⁵⁴ The study provides a lens for analyzing media diversity through three distinct dimensions:

- Sender diversity (variety of media broadcasters) - measure of the number of media providers, distribution of ownership, distribution of editorial newsrooms, composition in the workforce, etc. ^{55, 56, 57}
- Content diversity - a measure of the breadth and variety in the content and services from broadcasters, including content type (e.g. program genres), demographics (e.g. age group gender and, language), geography (e.g. local, national, international), perception, etc. ^{58, 59, 60, 61}

- Use diversity - a measure of audience exposure and attention to a sender and content diversity in terms of genres, views and perspectives. ⁶²

The impact of PSMs on diversity also align with the broad mandate of the Canadian broadcasting system defined by the *Broadcasting Act* [3(1)(d)(ii), 3(1)(d)(iii), 3(1)(i)-(iv), 3(1)(m)]. ⁶³

3. Contribution to the needs of official language minority communities and Indigenous communities

The literature reviewed demonstrates the important role of PSMs in serving linguistic, indigenous, and ethnic minority communities that are generally underserved by commercial media (Bardoel & d'Haenens, 2008). ⁶⁴ A key argument for PSM's role in these markets is that the linguistic, indigenous and ethnic minority communities have smaller audiences and hence may not be viable markets for commercial providers that rely on advertising revenue (Moe 2009) ⁶⁵. Nissen (2006) ⁶⁶ argues that PSMs are better positioned to serve minority groups because the media provides a public good which can serve minority groups with content that could not be funded commercially.

Metrics used to study the contribution of PSMs to the needs of minority communities include: measures of the use of minority languages, ⁶⁷ the share of minority communities served, the share of expenditure on minority programming, and measures of broadcast hours provided.

The importance of providing programming that reflects the needs of OLMCs and Indigenous Peoples is stipulated within the CBC/Radio-Canada specific mandates of the *Broadcasting Act* [3(1)(m)(iv), 3(1)(m)(vii)].

4. Impact on information that is in the public interest

The literature reviewed indicates that populations with access to PSMs have greater knowledge on the government and news topics such as politics, current affairs, and international news, and have greater confidence in democratic institutions. ⁶⁸ This is primarily attributed to the fact that PSMs generally broadcast more hard news especially over peak times creating more opportunities for audiences to be informed and as a direct result become more knowledgeable on various hard news topics including politics (Nielson et.al. 2017). The increased political knowledge is argued to increase an individual's propensity to vote.

Generally, a PSM's impact on information that is in the public interest is measured by the total amount of news broadcasting, ^{69, 70} the amount of news broadcasting at peak periods, and the reach of news broadcasting. ⁷¹

In alignment with the literature and the provision of the *Broadcasting Act* [3(1)(d)(i), 3(1)(h)(iv)], including CBC/Radio-Canada's specific mandate to enlighten and inform [3(1)(l)], the analysis examines CBC/Radio-Canada's content and activities pertaining to the following programming of hard news including politics, current affairs, and policies.

5. Contribution to shared sense of national consciousness and identity

The literature on the impact of PSMs on national consciousness and identity considers the effects of PSMs on inclusion, ^{72, 73} social trust, ^{74, 75} and social cohesion. ^{76, 77} These dimensions drive the PSMs' ability to serve the informational needs and interests of the wider public, fostering stronger national identity.

In alignment with the literature and the provision of the *Broadcasting Act* [3(1)(m)(vi)], the analysis examines the exposure of CBC/Radio-Canada's content and activities to audiences pertaining to sports programming, cultural programming and social programming as detailed below.

6. Impact on learning and education

While there is limited literature on PSM's impact on education and learning, a documented objective of PSMs is to provide programs that inform, educate and entertain, indicating that education is a core principle of public service broadcasting. Metrics used to highlight the impact of PSMs on learning and education include: the level or share of news and information programming broadcast,⁷⁸ the level of exposure to news and information programming (i.e., reach of PSMs),⁷⁹ and the level of exposure to programming for children,^{80, 81}

Taking into account the literature and the general provisions of the *Broadcasting Act* [3(1)(i)(iii), 3(1)(j)], the analysis examines CBC/Radio-Canada's contribution to educational programming.

7. Impact on the Canadian creative sector

A report by the European Parliament (2016)⁸² on a coherent European Union policy for cultural and creative industries defines the creative sector as "those industries that are based on cultural values, cultural diversity, individual and/or collective creativity, skills and talent with the potential to generate innovation, wealth and jobs through the creation of social and economic value, in particular from intellectual property". Canada's creative industries include film and television production, archives, heritage and libraries, interactive digital media, the music industry, live performance, and book and magazine publishing.

Metrics on PSMs impact on the creative sector include: level of investment in creatives (e.g., investment in developing and commission local and national content and programming), investment in training, volume of original programming and the volume of programs produced nationally,^{83, 84} and exports of creative content,⁸⁵

8. Impact on the emergence and development of local talent, including journalists

The literature reviewed indicates that public broadcasting services generally offer a wide selection of television, radio, and, more recently, digital services through generalist and thematic channels or platforms that cover a broad range of genres, including news, culture and arts, entertainment/ family, sports, education, and other demographic or regional-specific content.⁸⁶ In operating the channels, PSMs provide platforms for various content creators and hosts, including musicians, journalists, anchors, hosts, actors, writers among others to gain exposure.

Metrics used in the literature to assess the impact of PSMs on talent development include: the level of investment specifically directed towards local talent development,⁸⁷ the level of investments in minority communities, where talent development options may be limited,⁸⁸ direct purchases of content from independent producers, training and development programming offered, and the level of investment in research and development ("R&D").⁸⁹

9. Impact on adoption of new technologies/infrastructure

According to the literature reviewed for this study, PSMs can be viewed as leaders in trends and innovations in programming through their role in de-risking the market for commercial broadcasters.^{90, 91} This is primarily because PSMs are driven by their mandates to serve the varied public needs rather than by profits. While challenging to measure, PSMs may contribute to innovation by taking strategic risks and investing specifically in innovation programs⁹² and deploying new technologies.^{93, 94}

Under the *Broadcasting Act* the Canadian broadcasting system as a whole has an obligation to "be readily adaptable to scientific and technological change".⁹⁵

10. Contribution to the flow and exchange of cultural expressions

Cultural diversity can be viewed as a way of preserving knowledge of identity and social bonds within communities while promoting local cultural contents and artistic expressions.⁹⁶ The flow and exchange of culture allows an individual or community's knowledge and experiences to be shared, broadening the perspective of the broader population.

To assess the impact of PSM on cultural life, the European Broadcasting Union (2015) ⁹⁷ examines two indicators: the number of cultural events or programs supported by a PSM and the amount of investments into cultural events.

In addition to the metrics identified in the literature, the contribution to flow and exchange of cultural expression is directly linked to CBC/Radio-Canada’s mandate 3(1)(m)(iii) of the *Broadcasting Act*.

Summary of CBC/Radio-Canada’s Social and Cultural Activities

Secondary to the economic impact approach, the following summarizes the ways CBC/Radio-Canada targets the identified social and cultural activities. In several areas, comparable data on CBC/Radio-Canada and private media organizations is limited. Refer to Appendix A, *CBC/Radio-Canada’s Social and Cultural Activities*, for a detailed list of metrics reviewed across all 10 social and cultural activities.

Table 18: Summary of CBC/Radio-Canada's Social and Cultural Activities

Impact on or Contribution to:	Relevant Findings
Quality and Distinctiveness of Canadian Programming	<p>Television</p> <ul style="list-style-type: none"> • Audience reach: CBC’s English-language television service has the lowest market share among the top Canadian broadcasters, as measured by audience. Conversely, Radio-Canada’s French-language television has the second largest tuning share, second to Quebecor. Similarly, data on CBC/Radio-Canada’s prime-time reach shows that CBC television services have a limited prime-time audience reach compared to the French-language television services. Audience perception: Surveys exploring audience perception of CBC/Radio-Canada (i.e., both English and French-language programming) find CBC/Radio-Canada to be of high quality. French-speakers reported higher satisfaction with Radio-Canada compared to English-speakers. Compared to other broadcasters, Radio-Canada is the most trusted brand for news while CBC is the fourth most trusted brand. • Investment in original Canadian content: As a share of original first-run programming spending, CBC/Radio-Canada spends more on Canadian content compared to many of the larger commercial broadcasters. Insofar as the proportion of spending dedicated to Canadian content represents a proxy for commitment to quality, CBC/Radio-Canada contributes proportionally more compared to many commercial broadcasters.
	<p>Radio</p> <ul style="list-style-type: none"> • Spending on news/information programming: A proxy for quality, the share of expenditures spent on news programming accounts for the overwhelming majority of CBC/Radio-Canada’s English- and French-language radio programming expenditures. • Hours of Canadian programming: On its entertainment radio programs, the majority of CBC/Radio-Canada’s English- and French-language content is Canadian, as measured by its music stations (i.e., major radio station outside of news).

<p>Impact on or Contribution to:</p>	<p>Relevant Findings</p>
	<p>Digital</p> <ul style="list-style-type: none"> • Digital news visitors: One measure of impact of digital news is the number of unique visitors to a given news site. Since 2014, CBC/Radio-Canada has led news sites in the number of unique Canadian visitors, suggesting that CBC/Radio-Canada is successful in reaching audiences. A majority of Canadians (i.e., over 60%) access CBC/Radio-Canada websites (i.e., English and French websites), the high proportion of reach may suggest that the platforms reach a diversity of audiences in Canada. • Investment in Canadian content: CBC/Radio-Canada spends a relatively higher share of its digital content expenditures on Canadian content compared to the share of expenditures by most major private broadcasters.
<p>Local, Regional, and National Diversity</p>	<p>Television</p> <ul style="list-style-type: none"> • Workforce diversity: Compared to the general population in Canada, CBC/Radio-Canada’s on-air-television workforce is representative of women and visible minorities, but somewhat under representative of Indigenous Peoples and people with disabilities. A comparison to the private sector as a whole was not possible within the scope of this study due to data limitations. • Audience reach: Audience reach can reflect the potential of programming to impact a diversity of audiences. CBC/Radio-Canada captures a relatively small share of the English- and French-language television markets. CBC captures a smaller share of the English-language television market compared to the share that Radio-Canada captures of the French-language market. As such, the impact of CBC on English-language audiences may be muted and potentially less diverse given its smaller market share of audiences overall. <p>Radio</p> <ul style="list-style-type: none"> • Workforce diversity: CBC/Radio-Canada’s on-air radio workforce is reflective of the share of women and Indigenous Peoples in Canada. Visible minorities are somewhat underrepresented in on-air English radio, while people with disabilities are underrepresented in both English- and French-language radio. • Journalism: While not exclusive to radio, stakeholders believe that a tension between CBC/Radio-Canada’s journalism practices and those of private local news outlets exists. They claimed that CBC/Radio-Canada has the resources to develop quality exposés and investigative pieces but, at the same time, CBC/Radio-Canada will also “scoop” stories developed by private broadcasters. Stakeholders raised the concern that CBC/Radio-Canada may compete in local markets that are already sufficiently covered by private broadcasters, potentially limiting its impact. It is difficult to measure these claims with quantitative evidence and no such attempt was made in this study.

Impact on or Contribution to:	Relevant Findings
	<p>Digital</p> <ul style="list-style-type: none"> • Platform diversity: CBC/Radio-Canada’s digital services are easily accessible to those who have internet access. Like most digital services, CBC/Radio-Canada’s programs are available via websites, mobile apps, and third-party digital platforms. • Program diversity: Comparable metrics on digital programming across broadcasters are not readily available. However, CBC/Radio-Canada provides programming in all mandated areas of diversity, including programming in both official languages, programming reflecting Indigenous Peoples, and programming reflecting children and youth. • Digital news visitors: A majority of Canadians (i.e., over 60%) access CBC/Radio-Canada websites (i.e., English and French websites), the high proportion of reach may suggest that the platforms reach a diversity of audiences in Canada. • Digital sensing analysis: A Digital Sensing analysis was conducted to understand online public sentiment related to CBC/Radio-Canada. Between May 18, 2019 and May 17, 2020, the CBC/Radio-Canada was mentioned by individuals across the globe roughly 3.5 million times and by individuals in Canada approximately 1.4 million times. Canadians interact with the CBC/Radio-Canada online in relations to their programs (e.g., ‘Anne with an E’), political topics, and the organization itself (e.g., ‘Defund CBC’). See Appendix B for more details.
<p>Official Language Minority Communities and Indigenous Communities</p>	<p>Official Language Minority Communities (“OLMCs”)</p> <ul style="list-style-type: none"> • Presence: Both CBC and Radio-Canada have a presence in English- and French-language minority communities, respectively. The partnerships and infrastructure that CBC/Radio-Canada maintains in these communities is necessary to serving them adequately. • Programming: CBC News Network is the most popular English-language news network in Quebec and third-party studies suggest that the majority of audiences have a positive view of the network. Similarly, surveys indicate that approximately 97% of the Francophones outside Quebec that are aware of ICI RDI find it essential. <p>Indigenous Communities</p> <ul style="list-style-type: none"> • Presence: CBC/Radio-Canada has developed the infrastructure necessary to serve many Indigenous communities in Canada. • Programming: CBC/Radio-Canada provides a significant amount of Indigenous programming. Ongoing projects by CBC/Radio-Canada will preserve over 70,000 hours of programming in Indigenous languages. CBC/Radio-Canada develops original content and programming covering Indigenous issues. • Stakeholder comments: CBC/Radio-Canada is a champion of Indigenous content. Their work on Missing & Murdered: The Unsolved Cases of Indigenous Women and Girls is an example of some of the important coverage CBC has developed to shed light on Indigenous issues in Canada. However, stakeholders noted that CBC/Radio-Canada cannot replace Indigenous-controlled media organizations but instead should remain a partner that helps spread Indigenous told stories.

Impact on or Contribution to:	Relevant Findings
Information that is in the Public Interest	<p>News Programming (News programming was identified in the literature as a proxy for information that is in the public interest)</p> <ul style="list-style-type: none"> • Investments: Spending on news services can act as a proxy for the degree to which a broadcaster emphasizes information that is of public interest. CBC and Radio-Canada’s expenditure on radio services is nearly exclusively spent on news and information content (i.e., upwards of 80%). CBC/Radio-Canada spends more on news information for its television services than most commercial broadcasters. • Television airtime dedicated to news: Third-party analysis comparing CBC and Radio-Canada’s television news content coverage to that of individual commercial broadcasters suggests that CBC and Radio-Canada dedicate more or approximately the same amount of their broadcasting to news content compared to commercial broadcasters.
Sense of National Consciousness and Identity	<p>Sports Programming</p> <ul style="list-style-type: none"> • Programming type: CBC/Radio-Canada provides sports programming on all its platforms (i.e., radio, television, and digital). Compared to commercial broadcasters, CBC Sports primarily focuses on amateur sports, including Olympic coverage, reflecting its commitment to programs of national identity. <p>Cultural Programming</p> <ul style="list-style-type: none"> • Programming expenditures: Comparable data on cultural programming for CBC/Radio-Canada and commercial broadcasters is limited. Data on CBC/Radio-Canada’s expenditures on cultural programming suggests that CBC/Radio-Canada dedicated some of its conventional television budget to cultural programming. <p>Social Programming</p> <ul style="list-style-type: none"> • Programming hours: Comparable data on cultural programming for CBC/Radio-Canada and commercial broadcasters is limited. Third-party research on CBC and Radio-Canada suggests that CBC provides a similar level of coverage focused on justice and crime and other social issues compared to certain private broadcasters. Radio-Canada, however, focuses slightly less on justice and crime and other social issues compared to some private channels.
Learning and Education	<p>Educational Programming</p> <ul style="list-style-type: none"> • Expenditure on children’s educational programming: CBC/Radio-Canada spends a relatively higher share of its Canadian Programming Expenditures (“CPE”) on children’s educational programming, compared to the share of expenditure by most major private broadcasters. Stakeholders indicated that due to the potentially low profitability of educational programming, CBC/Radio-Canada has a particular strength in this genre.

Impact on or Contribution to:	Relevant Findings
The Canadian Creative Sector	<p>Canadian Programming</p> <ul style="list-style-type: none"> • Investments in Canadian television programming: The proportion of total television expenditures spent on Canadian programming by CBC/Radio-Canada is higher than that of private broadcasters. <p>Support for the Independent Production Sector</p> <ul style="list-style-type: none"> • Spending on independent productions: Compared to private broadcasters, with the exception of Remstar, CBC/Radio-Canada spends a higher proportion of its total television CPE on programs produced by independent producers.
Emergence and Development of Local Talent	<p>Training and Development of Canadian Performers and Content Producers</p> <ul style="list-style-type: none"> • Investments: CBC/Radio-Canada directly supports Canadian content producers by purchasing television and digital content. • Training: CBC/Radio-Canada has fellowship programs for Indigenous creators and aspiring Indigenous creators. <p>Journalistic Talent Development</p> <ul style="list-style-type: none"> • Support for journalism students: CBC/Radio-Canada has several journalism education programs for students, including specific programs for Indigenous students, as well as those in local markets across Canada. CBC/Radio-Canada also partners with educational institutions to offer paid internships and co-op placements for students. • Support for aspiring Indigenous journalists: CBC/Radio-Canada has dedicated mentoring and employment opportunities for young Indigenous journalists and creators. • Support for professional journalists: CBC/Radio-Canada provides funding for the Canadian Association of Journalist's award program, indirectly supporting quality journalism across Canada. They employ and train hundreds of journalists directly and CBC/Radio-Canada journalists have been recognized through journalisms awards for their quality journalism.
Trends and Innovations	<ul style="list-style-type: none"> • Adoption of new technologies: Some evidence suggests that CBC/Radio-Canada is an early technology adopter in the broadcasting and media industry. Most recently, CBC/Radio-Canada was the first to offer over-the-top Canadian streaming services through Tou.tv, it has hosted hackathons to enhance user experiences across its platforms, and the Montreal Radio-Canada office will be the first all IP multiplatform large-scale broadcasting plant in North America. • Partnerships for innovation research: CBC/Radio-Canada partners with private sector players and academic institutions on an ongoing basis to develop innovative solutions to challenges in broadcasting. Ongoing initiatives include enhancing voice-to-text applications in French, combating AI-generated fake news, and improving search capabilities for open databases.

Impact on or Contribution to:	Relevant Findings
Flow and Exchange of Cultural Expressions	Programs of National Interest (“PNI”) <ul style="list-style-type: none"> • Hours of programming: CBC/Radio-Canada exceeds its license requirements for television broadcasting hours of PNI programs, this is true for both French- and English-language programming. CBC/Radio-Canada’s PNI programming is also offered on its digital programs.

Appendix A: Social and Cultural Impacts Literature Review

The following presents the literature review findings related to social and cultural impacts of public service broadcasters (“PSBs”). The review was completed between February and April 2020.

Table 19: Social and Cultural Impacts of Public Service Broadcasters - Literature Review Summary

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
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Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>Public Service and Commercial Broadcasting: Impacts on Politics and Society</p> <p>Ken Newton (2016)</p>	<p>This paper provides an overview of the growing research literature on the impact of public service and commercial broadcasting and highlights its main implications for policy discussions about the future of public service broadcasting in Western societies.</p>	<p>All EU member states, some east and central European countries, the USA, Canada and Japan</p>	<ul style="list-style-type: none"> • Public broadcasters dedicate a larger share of hours to news, events, issues, and other current affairs programs than commercial broadcasters. • Public service media (PSM) broadcast more news and current affairs programs during primetime viewing hours while commercial broadcasters reserve these hours for their most popular entertainment programs. • Public broadcasters are perceived to be a trusted source of information owing to their independence in disseminating information. • Populations served by PSMs are generally found to be more “informed about government and politics, are more trusting of other people, have more positive civic attitudes, have greater confidence in democratic institutions and are more likely to engage in democratic politics”. • PSMs encourage high level of trust in news sources owing to the fact that their news is considered more trustworthy and programming more socially inclusive. • Populations in countries with PSMs have a high level of social trust (the trust citizens have in each other in everyday life).
<p>Public and Private Broadcasters Across the World – The Race to the Top</p> <p>BBC (2013)</p>	<p>This report researches if countries with a strong public service broadcasting section tend to have a strong commercial broadcasting sector</p>	<p>Germany, Denmark, Spain, France, the UK, Italy, Netherlands, Norway, Portugal, Sweden, Australia, Brazil, Japan and the US</p>	<ul style="list-style-type: none"> • PSM channels reviewed in the jurisdictions were of higher quality than the commercial counterparts. • The report finds a positive relationship between PSM investment in originated content and the quality of commercial broadcasters’ content.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p data-bbox="103 149 321 411">Analysis of the relation between and impact of public service media and private media</p> <p data-bbox="103 432 279 506">Nielsen et al. (2016)</p>	<p data-bbox="352 149 787 449">This paper maps relevant academic and stakeholder (industry/regulatory) research on the relation between public service media and private sector media with regard to their political impact, social impact, and market impact.</p>	<p data-bbox="807 149 862 180">N/A</p>	<ul data-bbox="1040 149 1511 1367" style="list-style-type: none"> • PSMs were found to be a positive impact on content investment by private media. • PSMs generally broadcast more hard news (including politics, economics, current affairs and international events) topics including politics compared to the commercial broadcasters. • PSMs generally broadcast more hard news (including politics, economics, current affairs and international events) especially over peak times creating more opportunities for audiences to be informed and as a direct result become more knowledgeable on various hard news topics including politics. • The study finds consensus views as follows: • PSMs dedicate a larger share of airtime to news and information programs and tend to focus on hard news than the private broadcasters; • The population in countries with PSMs have high levels of political knowledge; and • The number of people in countries with PSMs are involved in the political process.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>NRK's role and contribution to Norwegian media diversity</p> <p>Helle Sjøvaag and Truls André Pedersen (2018)</p>	<p>This study reviews the contribution of Norwegian Broadcasting Corporation (NRK) to media diversity</p>	<p>Norway</p>	<ul style="list-style-type: none"> • The study provides a lens for analyzing media diversity through three distinct dimensions: • Sender diversity (variety of media broadcasters) - measure of the number of media providers, distribution of ownership, distribution of editorial news rooms, composition in the workforce, etc. • Content diversity - a measure of the breadth and variety in the content and services from broadcasters, including content type (e.g. program genres), demographics (e.g. age group gender and, language), geography (e.g. local, national, international), perception, etc. • Use diversity - a measure of audience exposure and attention to a sender and content diversity in terms of genres, views and perspectives.
<p>Media and Communication Policy current state and measurement</p> <p>Marko et al. (2018)</p>	<p>This project studies the current states of media policy Finland to be used in the preparation of a new national media policy program</p>	<p>Finland</p>	<ul style="list-style-type: none"> • Sender diversity is an important component in examining media diversity and propose four variables of sender diversity: number of media options available, media ownership diversity, the diversity of content providers, and diversity of content authors.
<p>Essential Principles for Contemporary Media and Communications Policymaking</p> <p>Robert G. Picard and Victor Pickard (2017)</p>	<p>This paper proposes principles to guide contemporary media and communications policymaking in democratic countries</p>	<p>N/A</p>	<ul style="list-style-type: none"> • Diversity of information providers and media ownership help prevent monopolistic power in media and promote availability of different types of content.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
CBC Radio-Canada Economic Impact Deloitte (2011)	This paper measures the impact of CBC/Radio-Canada on the Canadian economy in broadcasting year ended August 31, 2010	Canada	<ul style="list-style-type: none"> • CBC/Radio-Canada’s strong presence in a number of genres contributes to the diversity of the sector, commissioning a large number of independent production companies in both English and French language segment.
Public broadcasting in Europe: rationale, licence fee and other issues John O’Hagan and Michael Jennings (2003)	This paper deals with some key issues arising in the current debate in Europe over public sector broadcasting (PSB). It asks what is understood by PSB and examines critically the arguments for PSB.	Europe	<ul style="list-style-type: none"> • The study finds evidence suggesting that public service broadcasters ensure a greater diversity of programs through generating competition that lead to improvement of existing products. • PSMs take more risk to create innovative programs as their primary objective is not revenue generation.
Competition, Concentration and Diversity in European Television Markets Richard Van der Wurff (2005)	This study investigates how competition, concentration and public broadcasters influence diversity of program supply in European television markets.	Finland, France, Germany, Greece, Italy, the Netherlands, Spain and the UK	<ul style="list-style-type: none"> • PSMs support greater content diversity especially in ensuring broadcasting of programs such as news, documentaries, current affairs and political discussions that promote national and cultural diversity.
Public service media in the information society Christian S. Nissen (2006)	This report describes the key developments and trends in media, and addresses the challenging issues confronting Public Service Broadcasting in coming years	European Union	<ul style="list-style-type: none"> • PSM support greater content diversity especially in ensuring broadcasting of programs such as news, documentaries, current affairs and political discussions that promote national and cultural diversity. • PSMs are better positioned to serve minority groups because the media provides a public good which can serve minority groups with content that could not be funded commercially. • PSM can act as common meeting ground and present reference points and experience needed to shape the values and norms on which society is based.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>Reinventing public service broadcasting in Europe: prospects, promises and problems</p> <p>Johannes Bardoel & Leen d'Haenens (2008)</p>	<p>The paper deals with the question whether the European full-fledged PSB model is still realistic or a more small-scale public service a la the American PBS would be a more viable prospect.</p>	<p>Europe</p>	<ul style="list-style-type: none"> • This paper demonstrates the important role of PSMs in serving linguistic, indigenous and ethnic minority communities that are generally underserved by commercial media.
<p>Status und Perspektiven öffentlich-rechtlicher Onlinemedien</p> <p>Hallvard Moe (2009)</p>	<p>The article describes what is at stake in terms of media policy for the legitimation of public broadcasting beyond its core area.</p>	<p>N/A</p>	<ul style="list-style-type: none"> • The article finds that linguistic, indigenous and ethnic minority communities have smaller audiences and hence may not be viable markets for commercial providers that rely on advertising revenue.
<p>Minority Language Protection in Italy: Linguistic Minorities and the Media</p> <p>Aline Sierp (2008)</p>	<p>This paper compares different measures of protection adopted by national and regional authorities in Italy, aiming to illustrate how these measures can be translated into different levels of development of broadcast media provisions for linguistic minorities.</p>	<p>Italy</p>	<ul style="list-style-type: none"> • According to this paper, one of the benefit of including minority communities in the media is the contributions to ethnic cohesion and cultural preservation through promoting linguistic pluralism (representation of the views and interests held across society).
<p>Unceded Airwaves Episode Two [Radio broadcast].</p> <p>O'Sullivan (2015)</p>	<p>N/A</p>	<p>N/A</p>	<ul style="list-style-type: none"> • The benefits of including minority communities in the media include restoring culture and language.
<p>Telling and being Told: Storytelling and Cultural Control in Contemporary Mexican and Yukatek Maya Texts</p> <p>Paul M. Worley (2009)</p>	<p>This paper highlights how Yucatec Maya literatures play a vital role in imaginings of Maya culture and its relationships with Mexican and global cultures</p>	<p>Mexico</p>	<ul style="list-style-type: none"> • The benefits of including minority communities in the media include restoring culture and language.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
Radio Broadcasting in Regional or Minority Languages. Davyth Hicks (2013)	This conference report summarizes the conference that was held to discuss the importance of radio broadcasting in regional or minority languages	European Union	<ul style="list-style-type: none"> • The benefits of including minority communities in the media include promoting tolerance and permitting cultural pluralism.
Contribution of public service media in promoting social cohesion and integrating all communities and generation Council of Europe (2009)	The report provides a summary of key developments in the public service media across Council of Europe member states	Europe	<ul style="list-style-type: none"> • The benefits of including minority communities in the media include promoting tolerance and permitting cultural pluralism and promoting multicultural and multiethnic societies.
Ethnic Minority Media: An International Perspective Stephen H. Riggins (1992)	This study investigates the following research question - Does minority media contribute to ethnic cohesion and cultural maintenance? Or does an ethnic media encourage assimilation into the dominant culture by espousing that culture's products, images, and values?	Global	<ul style="list-style-type: none"> • The use of minority languages in the media can be a democratic tool by encouraging people to play an active role in the future of their region and their locality.
Indigenous Broadcasting and the CRTC: Lessons from the Licensing of Native Type B Radio Szwarc, J. (n.d.).	This study utilizes information from the CRTC's archives to understand the current state of the Indigenous broadcasting sector in Canada.	Canada	<ul style="list-style-type: none"> • That radio has a great capacity for revitalizing Indigenous languages and culture through media empowerment.
Minority-Language related broadcasting and legislation in the OSCE Tarlach McGonagle et al. (2003)	This study reports on the basic regulations of minority-language related broadcasting of the 55 participating States of the OSCE.	55 participating States of the Organization for Security and Co-operation in Europe	<ul style="list-style-type: none"> • For many EU states the role of protecting and/or promoting the official/State language(s) or minority languages is assigned expressly to the public service broadcaster.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>Auntie knows best? Public broadcasters and current affairs knowledge.</p> <p>Soroka Stuart et al. (2013)</p>	<p>This study investigates the following research question - Does exposure to public versus commercial news influence citizens' knowledge of current affairs?</p>	<p>Canada, Italy, Japan, Norway, the UK, South Korea</p>	<ul style="list-style-type: none"> • Exposure to public channels have a stronger positive effect on overall public affairs knowledge than exposure to commercial broadcasters. • Audiences exposed to public media are more knowledgeable about current affairs compared to those exposed to commercial media.
<p>Democracy & PSM How a nation's democratic health relates to the strength of its public service media</p> <p>EBU (2019)</p>	<p>The report draws on a number of internationally established and widely used political indicators to find links between countries' ranks on these indices and the status of their PSM organizations.</p>	<p>Europe</p>	<ul style="list-style-type: none"> • Nations with strong public television (defined by the public service media television market share) tends to have more political participation, political stability and less corruption.
<p>European TV Environments and citizens' social trust: Evidence from Multilevel Analyses</p> <p>Schmitt-Beck and Wolsing (2013)</p>	<p>Examines the relationship between aggregate television consumption and social trust</p>	<p>25 European countries</p>	<ul style="list-style-type: none"> • In countries with high market share of public television have higher levels of social trust.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>Public service media contribution to society EBU (2015)</p>	<p>The main goal of the report is to define a conceptual and operational framework that enables EBU Members to assess their contribution to society and communicate about it.</p>	<p>Europe</p>	<ul style="list-style-type: none"> • Public service media broadcaster can help various groups to grow and celebrate their identity, and can also be used to foster social cohesion, facilitate integration, and raise awareness about others. • To estimate the impact of PSMs on the media sector the European Broadcaster Union (2015) suggests looking at the volume of original programming and the volume of programs produced nationally. • PSMs often play a central role in the launch and deployment of new technology in the media sector as they are not tied to seeking commercial returns. • PSMs are important commissioners and distributors of cultural content, by promoting other cultural disciplines and industry through the showcase of their production, content and the sponsoring of their events.
<p>Beyond city limits: Regional journalism and social capital Ian Richards (2012)</p>	<p>This article reports a pilot study which investigated the relationship between regional journalism and social capital in two regional locations in the Australian state of South Australia, and one in the Canadian province of British Columbia.</p>	<p>Australia, Canada</p>	<ul style="list-style-type: none"> • PSMs facilitate communication between different sections of the community strengthening the community ties.
<p>Harnessing public broadcasting for Canadians in the digital age Cullen International. (2019)</p>	<p>This objective of this study is to provide an overview of the evolution of public service broadcasters, their governance and measurement framework to help the public process to identify an approach that could be tailored to the Canadian situation</p>	<p>11 PSMs covering nine countries</p>	<ul style="list-style-type: none"> • PSM programming is more comprehensive and provides a broad range of genres. • All were obligated to offer programming to minority communities. • Some PSMs are mandated to meet quotas for either producing or providing local and regional content, also indicating the opportunity for local talent.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
Influence on Children Media Education State University (n.d.)	The objectives of this paper are to explore the beneficial and harmful effects of media on children's mental and physical health, and to identify how physicians can counsel patients and their families and promote the healthy use of the media in their communities	N/A	<ul style="list-style-type: none"> The benefits of PSMs on children reviewed in the literature include early readiness for learning, educational enrichment, opportunities to view or participate in discussions of social issues and exposure to arts.
Mass media and public education: The effects of access to community radio in Benin Keefer and Khemani (2014)	This paper examines the effects of citizen media access on broad public services, such as education and the potentially influential role of mass media on parental investments in children's education	Benin	<ul style="list-style-type: none"> Communities with greater media exposure have higher literacy rates.
Early Childhood Education by MOOC: Lessons from Sesame Street Kearney and Levine (2015)	This paper investigates whether preschool children exposed to <i>Sesame Street</i> when it began in 1969 experienced improved educational and labour market outcomes subsequently	USA	<ul style="list-style-type: none"> Estimates the effects of <i>Sesame Street</i> on educational and labour market outcomes and find that the program improved school readiness, with more nuanced effects in the long run.
Report on a coherent EU policy for cultural and creative industries European Parliament (2016)	N/A	European Union	<ul style="list-style-type: none"> Defines the creative sector as "those industries that are based on cultural values, cultural diversity, individual and/or collective creativity, skills and talent with the potential to generate innovation, wealth and jobs through the creation of social and economic value, in particular from intellectual property".
BBC Charter review Public consultation Department for Culture Media & Sport (2015)	This report summarizes the results of the consultations undertaken by the UK government regarding the BBC. It speaks to the mission, purpose and values of the BBC, and what it does in terms of its scale and scope	UK	<ul style="list-style-type: none"> The BBC contributes to investment in independent production and the development of media distribution infrastructure.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
<p>What if there were no BBC television? The net impact on UK viewers</p> <p>Barwise and Picard (2014)</p>	<p>This report uses scenario analysis to compare the current UK television market with what it might be like if there were no BBC TV</p>	<p>UK</p>	<ul style="list-style-type: none"> • An absence of the BBC is found to have a negative effect on content investment, investment in first-run UK content and a reduction in the audience choice and value for money.
<p>The economic value of the BBC 2011/2012</p> <p>BBC (2013)</p>	<p>This report looks at the economic impact of the BBC on the UK economy</p>	<p>UK</p>	<ul style="list-style-type: none"> • Advances that the BBC worldwide supports the exports of UK creative content thereby promoting the UK's reputation overseas, and raising of the profile of the UK creative sector. • The BBC's investments in the UK production sector through activities such as training and developing creative talent, commissioning of content from independent producers, and research and development (R&D) supports the productive potential of the sector in the UK.
<p>Rapport sur l'exécution du cahier des charges de France Télévisions - Année 2018</p> <p>Conseil supérieur de l'audiovisuel (2019)</p>	<p>N/A</p>	<p>France</p>	<ul style="list-style-type: none"> • France Télévisions is required to devote 75% of its investment in audiovisual content to the development of French independent production.

Publication	Research Question/Topic	Jurisdiction	Relevant Findings
The ABC and the Australian media sector RBB Economics (2018)	Explores the effects of the ABC on competition in the Australian media sector, within the context of the Australian Government’s ongoing inquiry into the competitive neutrality of the national broadcasters, the ABC and the Special Broadcasting Services (“SBS”)	Australia	<ul style="list-style-type: none"> • The broadcaster has supported the development of local talent through investments including producers, hosts, journalists and musicians gained exposure through their work with ABC. • The analysis also finds that ABC has also supported artists and music. • The document reports investments initiatives of Australia’s ABC in launching <i>iview</i> video on demand (VOD) service that, in spite of despite not stimulating much viewership demand, was successfully leveraged by commercial broadcasters.
Cultural diversity and media pluralism EBU (2005)	This article highlights the importance of cultural diversity and media pluralism in the European Union	Europe	<ul style="list-style-type: none"> • Cultural expressions are important because it allows audiences to be exposed to diversity of information, which is essential for democracy and cultural diversity.
Public service media and exposure diversity Helberger and Burri (2015)	This article introduces speaks to public service media and exposure diversity and outlines the key motivation behind it.	N/A	<ul style="list-style-type: none"> • PSMs play an important role in facilitating cultural exchange by serving as drivers of information flows.

CBC/Radio-Canada’s Social and Cultural Activities

The following section outlines the literature and relevant *Broadcasting Act* provisions that motivate each of the social and cultural impacts explored. Additionally, any supporting evidence of the contribution or activities related to each social and cultural indicator is explored.

1. Impact on the quality and distinctiveness of Canadian programming

Impact on the quality and distinctiveness of television programming

The analysis of these dimensions of quality for each platform is detailed below, and covers the following aspects:

- Audience perception of broadcaster services;
- Share of news and informational programming compared to other genres; and,
- Level of investment in Canadian content.

Television Audience Reach

CBC/Radio-Canada television services have varying degrees of audience engagement with CBC/Radio-Canada's English-language television services reaching a smaller share of prime time audiences compared to its French-language television services counterpart.

- In terms of the 2017-2018 market share, Radio-Canada represented 19.3% of the television tuning share, second to Quebecor at 38.4%, while CBC represented 8.0% of the television tuning share, ranking behind all major providers: BCE (38.0%), Corus/Shaw (34.9%) and Rogers (10.5%). ⁹⁸
- In 2018-2019, ICI TÉLÉ reached 22.9% of prime-time audience share, while ICI RDI, ICI ARTV and ICI EXPLORA reached 4.9% of all-day audience share. ⁹⁹
- In 2018–2019, CBC television services reached 5.0% of prime-time audience, while CBC News Network reached 1.4% of all-day audience share across Canada, reflecting limited overall reach. ¹⁰⁰
- Further, CBC News network reached 17% of the Anglophone population, and ICI RDI reached 28% of the Quebec francophone population on average each week between September 2018 and April 2019. ¹⁰¹

CBC English-language television services has the lowest market share among the top Canadian broadcasters. Similarly, the data on CBC/Radio-Canada prime-time reach shows that it has a limited prime-time audience reach, particularly limited for English-language television services. This indicates a limited overall exposure of CBC/Radio-Canada television services to Canadian audiences, which may limit its ability to provide audience-related impacts such as those associated with education and diversity.

Audience Perception of Broadcaster Quality

CBC/Radio-Canada's audiences for ICI RDI and CBC News Network perceive that the content offered by the broadcaster is objective and of high quality.

The news content provided by Radio-Canada French-language television services (ICI RDI) is perceived to be of quality. ¹⁰²

- Approximately 96% of viewers surveyed in Quebec consider the channel credible, while 91% agree that ICI RDI impartial and objective. ¹⁰³
- Similarly, 99% of French speakers living outside Quebec see the news channel as credible, and 92% believe it to be impartial and objective. ¹⁰⁴

The news content provided by CBC English-language television services (CBC News Network) is perceived by majority of its viewers to be of high quality.

- Approximately 70% of surveyed Canadians outside of Quebec and 71% of surveyed Canadians living in Quebec agree that CBC News Network gives them access to high quality investigative and current affairs programs. ¹⁰⁵

Other third-party studies also document a similar positive sentiment on CBC/Radio-Canada programming quality.

- According to the 2019 Digital News Report by Reuters, CBC News is the fourth most trusted media brand for news for the English-speaking population, while ICI Radio-Canada (Info/ICI RDI) is the most trusted brand for news for the French-speaking population. ¹⁰⁶
- The analysis indicates a general positive sentiment about CBC/Radio-Canada's news services, in both French and English languages, a reflection of the quality of its programming.

Investment in Original Canadian Content

CBC/Radio-Canada's share of investment in original Canadian content is high, compared to commercial broadcasters, reflecting its contribution to providing predominantly and distinctively Canadian content.

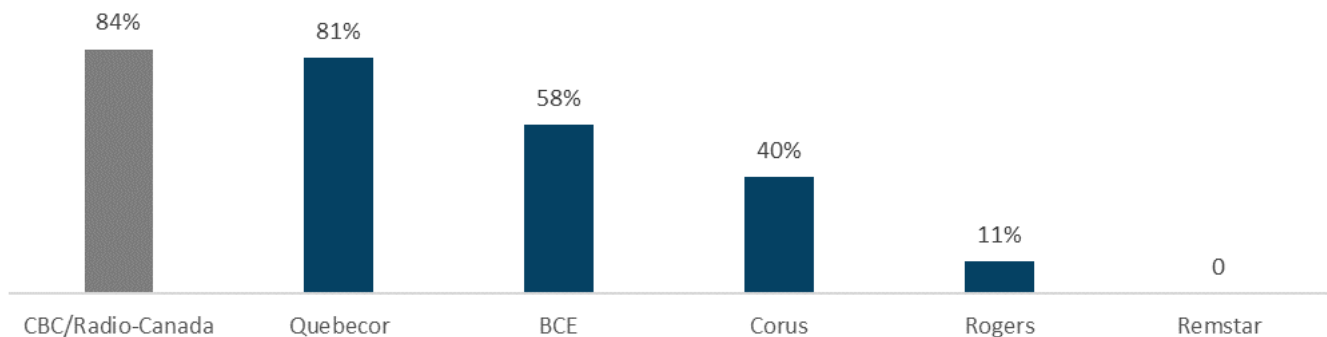
- CBC/Radio-Canada spending on original, first-run Canadian content accounted for approximately 84% of its conventional and discretionary television programming expenditures in 2018–2019, ¹⁰⁷ a share comparatively higher than that of commercial broadcasters in 2018-2019: Quebecor 81%, BCE 58%, Corus 40%, Rogers 11%, and Remstar 0%. ¹⁰⁸

In 2018-2019, CBC/Radio-Canada spent \$266.6M on original, first run non-information Canadian content for its conventional and discretionary television programming, accounting for 50% of its spending on original first-run programming. ¹⁰⁹ Comparatively, the 2018-2019 spending on original first run programming excluding information was: Quebecor \$71.4M (31% of its original first run programming), Rogers \$49.3M (66% of its original first run programming), BCE \$315.9M (38% of its original first run programming) and Corus \$146.7M (50% of its original first run programming). ¹¹⁰

- Further, CBC/Radio-Canada’s share of spending on original, first-run Canadian programming for English and French conventional television services is of the same magnitude. Expenditure on programming can be viewed as a proxy for program quality, suggesting CBC/Radio-Canada’s French- and English-language programming are of comparable quality.

In 2018–2019, CBC/Radio-Canada spent \$225.1M on original first-run Canadian programming for its English conventional television services ¹¹¹, and \$217.2M on original first-run Canadian programming for their French conventional services. ¹¹²

Figure 14: Spending on Original, First-Run Canadian Content (% of Conventional and Discretionary Television Spending)



Source: CRTC. (2020). Aggregate Annual Returns.

► Figure 14: Spending on Original, First-Run Canadian Content (% of Conventional and Discretionary Television Spending) – text version

This analysis indicates a high spend by CBC/Radio-Canada on original, first-run Canadian content, a reflection of CBC/Radio-Canada’s contribution to providing distinctively Canadian content.

Impact on the quality and distinctiveness of radio programming

CBC/Radio-Canada radio programming is provided through four main radio services: Radio 1 that provides news, documentaries, current affairs, and arts programming in English, ICI RADIO-CANADA PREMIÈRE, providing similar services in French, Radio 2 that provides music programming in English and ICI MUSIQUE providing the similar services in French. Similar to television services, the analysis examines the quality and distinctiveness of CBC radio programming on the same dimensions of quality.

Spending on News/Information Programming

CBC/Radio-Canada radio services provide more news programming compared to non-news programming, such as talk shows and entertainment, as reflected in the relative amount of expenditures.

- In 2017–2018, programming expenditures on news (Radio One) for CBC/Radio-Canada English radio services accounted for 93% of the total English radio programming expenditures, while programming expenditures on news for the broadcaster’s French radio services accounted for 90% of their total radio programming expenditures for French services. ¹¹³

Share of Hours on Canadian Content Programming

CBC/Radio-Canada dedicates a larger share of its radio airtime to Canadian programming compared to non-Canadian content.

- The majority of ICI MUSIQUE content (57%) airing between 6 a.m. and midnight in the Pop category is Canadian, and roughly 53% of CBC Music content airing between 6 a.m. and midnight in the Pop category is Canadian. ¹¹⁴

Stakeholders universally agreed that CBC/Radio-Canada provides quality radio programming and that because it does not receive advertising dollars for this programming, it is able to provide distinctive programming, especially in markets that are smaller and less profitable for private broadcasters.

Impact on quality and distinctiveness of digital programming

CBC/Radio-Canada provides digital programming services through CBC Gem (English), ICI TOU.TV (French), and CBC/Radio-Canada kids, and other platforms. The analysis is based on the limited data available information on CBC/Radio-Canada digital programming.

Digital News Reach

In 2018-2019, CBC/Radio-Canada’s total digital reach amounted to roughly 21.7 million Canadians (unique visitors accessing digital content on mobile or desktop devices). This represents an average annual increase of unique monthly visitors of roughly 16% since 2014.

- Compared to other news sources, CBC/Radio-Canada has attracted the highest number of unique monthly visitors since 2014. ¹¹⁵ This suggests that as a news platform, CBC/Radio-Canada is highly competitive and may suggest that Canadians value the news platform more than other digital news options.

Share of Hours Dedicated to Educational Programming

CBC/Radio-Canada digital services include hours dedicated to educational programming for children and youth.

- CBC Gem is currently home to over 200 hours of advertising-free quality kids programming. ¹¹⁶
- CBC/Radio-Canada distributes over 1,000 hours of globally available digital content including finished tape, pre-sale and format. ¹¹⁷

While this analysis indicates that CBC/Radio-Canada digital services provide educational programming, it is not clear that the number of hours dedicated to this programming is larger compared to other programming areas or compared to commercial broadcasters.

Investment in Canadian Content

Compared to commercial broadcasters, CBC/Radio-Canada’s spends a larger share of its digital content expenditures on Canadian content.

- In 2017–2018, CBC/Radio-Canada spent \$34.0M on digital media content, of which 40% was toward Canadian content for its digital services. ¹¹⁸ Comparatively, in 2018-2019 nineteen private commercial broadcasters cumulatively spent roughly 19% of their digital services budget on Canadian digital content. ¹¹⁹
- The relatively high share of investment in Canadian content reflects CBC/Radio-Canada’s commitment to providing Canadian content on its digital platform but does provide insight into the quality of its digital programming content.
- In consultations with stakeholders, several expressed that they believe CBC/Radio-Canada’s digital services strategy is not transparent and that compared to its other platforms, particularly radio, their digital services are not distinctively Canadian.

2. Contribution to local, regional, and national diversity

CBC/Radio-Canada contribution to diversity of television programming

Diversity of Television Network Locations

CBC has an extensive local and national television network.

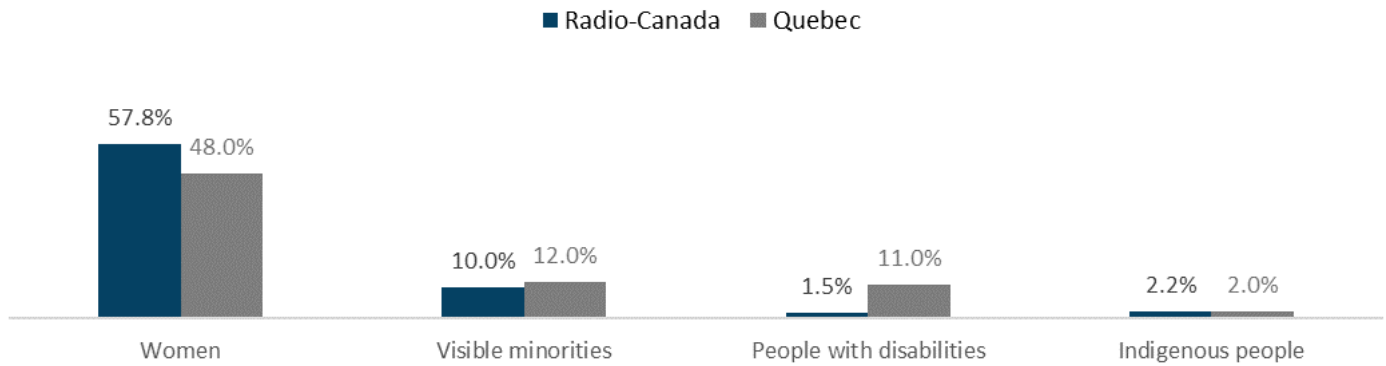
- CBC/Radio-Canada is supported by an extensive network of community-based locations that offer content to its local and regional audiences through 27 television stations and five discretionary services (CBC News Network, ICI RDI, ICI ARTV, ICI EXPLORA and documentary). ¹²⁰
- CBC Local Services include CBC West (BC and Alberta), CBC Centre and North (Saskatchewan and Manitoba, and the Northern Territories), CBC Ontario, CBC Quebec, and CBC Atlantic (New Brunswick, Nova Scotia, PEI, and Newfoundland) that provide local television programming including 13 newscast and other regionally produced programs. ¹²¹

Workforce Diversity

CBC/Radio-Canada is required by the *Employment Equity Act* to provide equal employment opportunities to the four designated groups: women, Indigenous people, people with disabilities and visible minorities. CBC/Radio-Canada’s workforce is diverse in terms of representation of women and indigenous people compared to the industry availability. However, compared to the Canadian labour force, CBC/Radio-Canada underperforms in the representation of visible minorities and people with disabilities. ¹²²

- Based on April 1, 2019 data, Radio-Canada women employees accounted for 57.8% of the on-air television workforce (women accounted for approximately 48% of Quebec’s labour force in 2018), ¹²³ visible minorities 10.0% (visible minorities accounted for 12% of Quebec’s labour force in 2016), ¹²⁴ Indigenous Peoples 2.2% (Indigenous Peoples accounted for roughly 2% of Quebec’s labour force in 2016), ¹²⁵ and people with disabilities 1.5% (people with disabilities, between 25 and 64 years old, accounted for roughly 11% of Quebec’s labour force in 2017), ¹²⁶ reflecting a limited representation people with disabilities but reflecting the other groups well.

Figure 15: Radio-Canada On-Air Television Workforce Diversity (%)



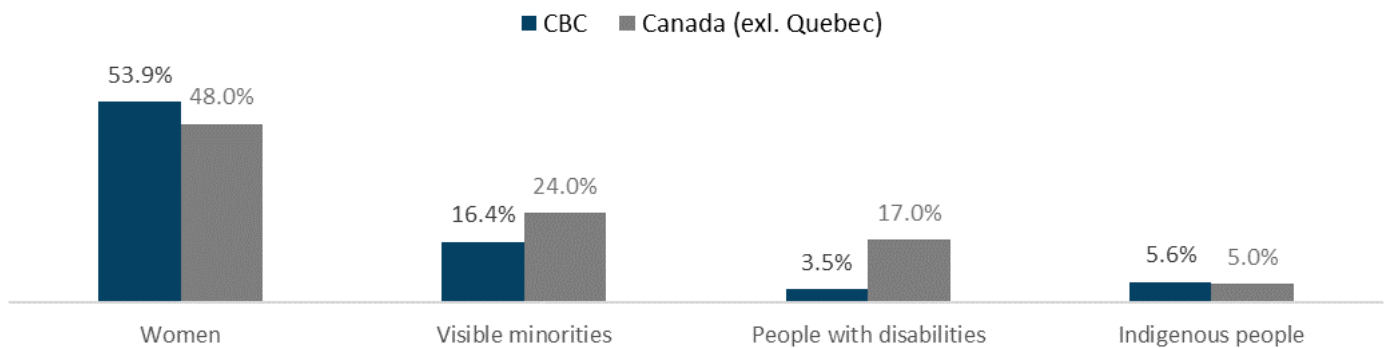
Source: CBC/Radio Canada (2020); Statistics Canada (2020)

► Figure 15: Radio-Canada On-Air Television Workforce Diversity (%) – text version

Note: Quebec share of women in 2019; Quebec share of visible minorities in 2016; Quebec share of people with disabilities in 2017; Quebec share of Indigenous people in 2016.

- Similarly for CBC, women accounted for 53.9% of on-air television employees (women accounted for approximately 48% of the Canadian, excluding Quebec, labour force in 2018), ¹²⁷ visible minorities roughly 16.4% (visible minorities accounted for roughly 24% of the Canadian, excluding Quebec, labour force in 2016), ¹²⁸ Indigenous people 5.6% (Indigenous Peoples accounted for roughly 5% of the Canadian, excluding Quebec, labour force in 2016), ¹²⁹ and people with disabilities 3.5% (people, 25 years and over, with disabilities accounted for roughly 17% of the Canadian, excluding Quebec, labour force in 2017). ^{130, 131} As such, CBC could be more reflective of visible minorities and people with disabilities.

Figure 16: CBC On-Air Television Workforce Diversity (%)



Source: CBC/Radio Canada (2020); Statistics Canada (2020)

► Figure 16: CBC On-Air Television Workforce Diversity (%) – text version

Note: Rest of Canada (“ROC”) share of women in 2019; RoC share of visible minorities in 2016; RoC share of people with disabilities in 2017; RoC share of Indigenous people in 2016.

CBC/Radio-Canada’s on-air television workforce is reflective of the share of women and Indigenous Peoples in Canada. Visible minorities are somewhat underrepresented in on-air English television, while people with disabilities are underrepresented in both English- and French-language television.

Diversity of Local Resources

CBC/Radio-Canada has a large share of resources to support local and regional content development and dissemination across Canada.

- CBC/Radio-Canada has on-the-ground and information personnel that support its operations at the local and regional locations. Approximately 46% of Radio-Canada’s television services on the ground personnel are dedicated to the creation of local and regional content compared to 49% for CBC. ¹³²

Diversity in Programming

CBC/Radio-Canada provides a wide array of programming through its conventional and speciality television services covering both official languages (English and French) as well as eight indigenous languages.

- CBC/Radio-Canada’s news services are offered through ICI RDI (French) and CBC News Network (English); non-news services through the Documentary channel (English), and ICI ARTV (French); and Indigenous programming through CBC North. ¹³³ Through these television services, CBC/Radio-Canada invest and offers various categories of content including information (e.g., news, analysis and interpretations, long-form documentary), sports, music and entertainment (e.g., drama, films, animated programs & films, game shows, music/variety and award shows), and others. ¹³⁴
- CBC/Radio-Canada’s television services include programming for linguistic minorities and Indigenous communities, as well as programs tailored to youth and kids.

CBC/Radio-Canada offers seven regional French television stations in OLMCs, in Vancouver, Edmonton, Regina, Winnipeg, Toronto, Ottawa and Moncton, through ICI RADIO-CANADA TÉLÉ. ¹³⁵ The broadcaster also has English-language broadcasting television facilities in Montreal to serve the Montreal English-language community. ¹³⁶

CBC North provides television programming in eight Indigenous languages (Chipewyan, Cree, Gwich’in, Inuktitut, Inuvialuktun, North Slavey, South Slavey and Tlicho). CBC North offers 200 hours of local programming with over 60% of the hours allocated for programming in Indigenous languages. ¹³⁷

CBC/Radio-Canada is required to provide at least 15 hours of Canadian programming for children under 12 weekly. The broadcaster provides television and digital video content to kids from 3 to 12 through CBC Kids (English) and Radio-Canada Jeunesse (French). ¹³⁸

Radio-Canada’s has 14 journalistic bureaus, in Vancouver, Calgary, Edmonton, Regina, Winnipeg, Toronto, Ottawa, Montreal, Quebec City, Trois-Rivières, Sherbrook, Saguenay, Moncton and Halifax to support French-language television programming, ¹³⁹ while CBC, has 10 journalistic bureaus, in Vancouver, Edmonton, Calgary, Regina, Winnipeg, Toronto, Ottawa, Montreal, St-John’s and Halifax to support television programming. ¹⁴⁰

- Approximately 88% of viewers in Quebec and 91% of viewers outside Quebec believe that ICI RDI content reflects the diversity of opinions. ¹⁴¹
- Approximately 65% of surveyed Canadians outside of Quebec and 69% of surveyed Anglophones living in Quebec agree that CBC News Network reflects the diversity and multicultural spirit of Canada. ¹⁴²

CBC/Radio-Canada impact on diversity of radio programming

Diversity of Radio Network

CBC/Radio-Canada has a considerable local and regional presence across Canada positioning it to offer content tailored to its local, regional and national audiences.

- CBC/Radio-Canada operates a network of 88 radio stations, including 39 Radio One stations, 14 CBC Music, 21 ICI PREMIÈRE and 14 ICI MUSIQUE. ¹⁴³ For French services, CBC/Radio-Canada 20 regional ICI PREMIÈRE radio stations that provide news and non-news programming. ¹⁴⁴
- Local programming includes 20 morning shows, 17 home shows and Saturday regional shows. ¹⁴⁵

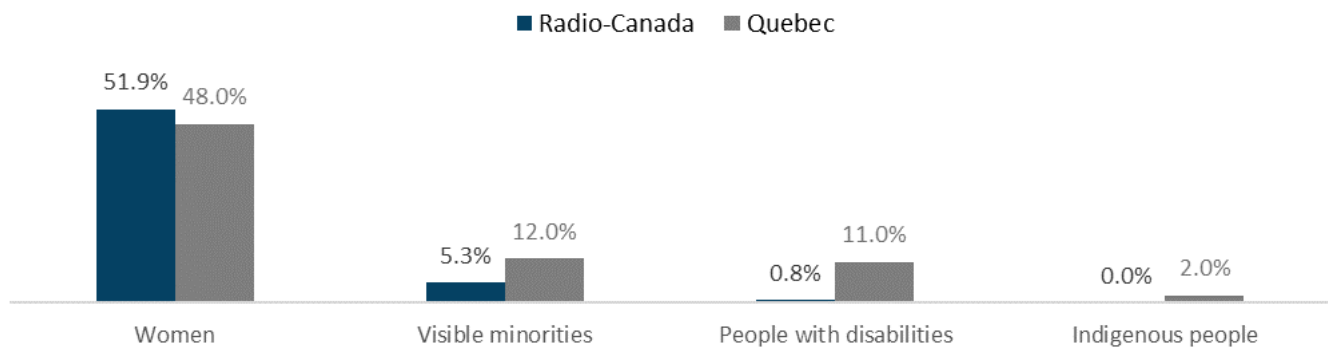
This analysis shows that CBC/Radio-Canada offers a range of radio services at the local and regional levels that provide media options to Canadian audiences, contributing to media choice.

Radio Workforce Diversity

While CBC/Radio-Canada’s on-air workforce is diverse, indigenous peoples are largely unrepresented on Radio-Canada, while visible minorities and people with disabilities are underrepresented on both CBC and Radio-Canada on-air workforce.

- Based on April 1, 2019 data, Radio-Canada women employees accounted for 51.9% of on-air radio workforce visible minorities 5.3%, people with disabilities 0.8%, and Indigenous people were largely underrepresented (0.0%). ¹⁴⁶

Figure 17: Radio-Canada Radio Services Workforce Diversity (%)



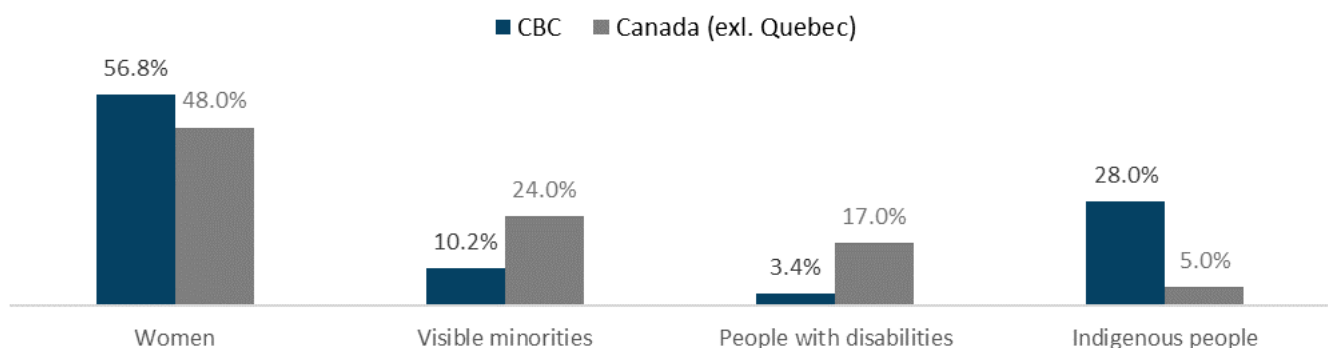
Source: CBC/Radio Canada (2020); Statistics Canada (2020)

► Figure 17: Radio-Canada Radio Services Workforce Diversity (%) – text version

Note: Quebec share of women in 2018; Quebec share of visible minorities in 2016; Quebec share of people with disabilities in 2017; Quebec share of Indigenous people in 2016.

- Similarly, for CBC, women accounted for 56.8% of on-air radio employees, Indigenous people 28.0%, visible minorities 10.2% and people with disabilities 3.4%. ¹⁴⁷

Figure 18: CBC Radio Services Workforce Diversity (%)



Source: CBC/Radio Canada (2020); Statistics Canada (2020)

► Figure 18: CBC Radio Services Workforce Diversity (%) – text version

Note: Rest of Canada (“ROC”) share of women in 2018; RoC share of visible minorities in 2016; RoC share of people with disabilities in 2017; RoC share of Indigenous people in 2016.

Diversity of Local Resources

CBC/Radio-Canada has a large share of resources to support local and regional content development and dissemination.

- CBC/Radio-Canada's workforce includes a number of on-the-ground and information personnel such as journalists, newsgatherers, researchers, producers, editors, videographers, hosts and technical staff that support creation of local and regional content. Approximately 79% of Radio-Canada radio services on-the-ground and information personnel are dedicated to the creation of local and regional news compared with 92% for CBC radio services. ¹⁴⁸

Diversity in Radio Programming

CBC/Radio-Canada radio services offer both news and non-news programming through its local, regional and national radio networks.

- CBC/Radio-Canada's Radio One stations and ICI PREMIÈRE offer news and non-news programming, while CBC Music and ICI MUSIQUE offer national music programming.
- CBC North provides radio services in eight Indigenous languages (Chipewyan, Cree, Gwich'in, Inuktitut, Inuvialuktun, North Slavey, South Slavey and Tlicho). ¹⁴⁹

CBC/Radio-Canada provides a range of programming covering different genres including minority communities, reflecting on the diversity of its programming.

Diversity in Audiences Exposed to Radio Programming

CBC/Radio-Canada radio services are provided to both French- and English-language audiences cross Canada.

- In 2018–2019, CBC Radio One and CBC Music captured 13.5% of all-day audience share in the five markets measured by PPM (Montreal, Toronto, Vancouver, Calgary and Edmonton). Over the same period, CBC Radio One and CBC Music reported a monthly average national reach of 7.7M and 4.5M, respectively. ¹⁵⁰
- In 2018–2019 ICI PREMIÈRE and ICI MUSIQUE captured 26.5% of all-day audience share. ¹⁵¹
- In 2018-19, CBC Radio One reached 17.1% of the morning show audience share in the five markets measured by PPM, while ICI PREMIÈRE reached 22.8%. ¹⁵²

CBC/Radio-Canada impact on diversity of digital services

In examining the impact of CBC/Radio-Canada digital services, the review considers the following components of diversity: presence of digital platforms, variety of digital offerings and the reach of digital programs.

Diversity of Digital Platforms

CBC/Radio-Canada's digital programming is available through websites, mobile apps, and via other third party digital platforms, to local, regional and national audiences.

- CBC/Radio-Canada offers access to regional audio and audiovisual content through 22 local/regional websites. ¹⁵³
- CBC/Radio-Canada has a French-language Indigenous website, *Espaces Autochtones*.

This data shows that CBC/Radio-Canada provides a range of digital platforms that provide options to Canadian audiences, contributing to media choice.

Diversity in Digital Programming

CBC/Radio-Canada's digital services provide diverse content including news and non-news products, with some content tailored to specific demographics.

- CBC/Radio-Canada digital platforms offer news programming through CBC.ca (English) and Radio-Canada.ca (French). For non-news programming, CBC/Radio-Canada offers content through CBC Gem (English), ICI EXPLORA (French), CBC Listen (English) and Radio-Canada OHdio (French).
- CBC/Radio-Canada digital platforms offer content geared towards kids through cbckids.ca. This includes access to information and news through CBC Kids News. ¹⁵⁴
- CBC/Radio-Canada digital platforms provide access to 200 hours of ad-free content targeted towards teens and tween through CBC Gem. ¹⁵⁵
- CBC/Radio-Canada's radio platforms provide Indigenous music, culture, news and current affairs programming.

The data shows that CBC/Radio-Canada provides a range of digital offerings including news entertainments, educational programming and Indigenous content, reflecting on the diversity of its programming.

Diversity of Digital Reach

CBC/Radio-Canada's digital services reach a relatively wide audience, representing a majority of the Canadian population.

- In 2019–2020, Radio-Canada digital offerings reached 5.2 million unique visitors on a monthly average (over 60% of the French-speaking population), while CBC digital offering reached 18.2 million (over 60% of the English-speaking population). ¹⁵⁶
- Based on April to March 2018–2019 data, the average monthly reach for CBC News/Regions is 14 million, while the average monthly reach for Radio-Canada Info/Regions is 3 millions. ¹⁵⁷ Data to compare to local commercial media news visitors is not publicly available.

3. Contribution to the needs of official language minority communities and Indigenous communities

CBC/Radio-Canada contribution to reflecting OLMC regions

CBC/Radio-Canada provides services to both English and French OLMCs. Radio-Canada has a local and regional presence across Canada that serves French-language OLMCs and partners with a number of organizations to support OLMCs.

- Radio-Canada serves OLMCs located outside of Quebec. The services include ICI RADIO-CANADA TÉLÉ with seven stations that operate outside Québec, ICI PREMIÈRE radio network with 11 located outside Québec, and local/regional web and mobile offerings that serve as regional hubs for local OLMCs and the regional French-language communities of the West, Ontario and Atlantic regions. ¹⁵⁸ The programming in the OLMCs market includes local and regional news; local non-news programming; and national programming that reflects the needs of the OLMCs. Indeed, roughly 97% of Francophone outside Quebec, who are aware of ICI RDI, find it essential. ¹⁵⁹
- Between Sep 2018 and April 2019, ICI RDI reached over 1M viewers outside Quebec for a least one minute. ¹⁶⁰
- Radio-Canada is associated with over 90 partners supporting serving French language OLMCs. ¹⁶¹

The data shows that Radio-Canada has infrastructure and offers programming to OLMCs market reflecting its contribution to serving the needs of OLMCs.

CBC has presence in Quebec to serve OLMCs and the services are viewed positively by the OLMC audiences.

- CBC serves the English-language OLMCs in Quebec through television, radio, and digital broadcasting programming based out of its facilities in Montreal. This includes a station in Montreal, Quebec City and a two-person bureau in Sherbrooke. ¹⁶²

- Between Sep 2018 and April 2019, CBC News Network reached a total of 2.4M Quebec viewers for a least one minute. Among Quebec viewers, CBC News Network outperforms CTV News Channel every day, especially in coverage of major events and breaking news. ¹⁶³

CBC/Radio-Canada's contribution to OLMC programming

CBC/Radio-Canada has licence requirements with respect to meeting the needs of OLMCs, which includes broadcasting OLMC productions, promoting content that is relevant to the regions, and offering specific levels of local programming that serve OLMC markets.

- CBC/Radio-Canada broadcasts programs across its television, radio, and digital platforms that showcase content and performers from OLMCs. ¹⁶⁴
- In comparison to similar commercial services, a study by Centre d'étude sur les médias comparing ICI RDI and LCN (Le Canal Nouvelles, a specialty channel owned by Groupe TVA, with a market share of 8.3% in 2019) ¹⁶⁵ between May and June 2019 finds that ICI RDI coverage of OLMCs comprised 16% of its content coverage, compared to 1% for LCN. ¹⁶⁶
- CBC/Radio-Canada's programming in OLMCs includes news and non-news programming. CBC News Network is the second most popular English news service in the province of Quebec, after CNN. However, considering only Canadian English news services, CBC News Network is the most popular in Quebec. ¹⁶⁷ A Mission Research survey in June 2019 on CBC News Network reports that 46% of Anglophones in Quebec are regular viewers of CBC News Network (compared to 45% of rest of Canada), 70% have a positive impression of the network, and 63% believe CBC News Network is important for their province or region. ¹⁶⁸
- In terms of content coverage in CBC programming, a study by Cormex analyzes the content of CBC News Network and CTV News Channel between May and June 2019 and found that OLMC-related coverage comprised roughly 6% of the total volume for CBC News Network, compared to 5% for CTV. ¹⁶⁹

The data shows that Radio-Canada's television services cover a larger proportion of OLMCs content compared to LCN. The data also shows that CBC's television services cover a similar share of OLMCs content to that covered by CTV.

CBC/Radio-Canada contribution to Indigenous communities

CBC/Radio-Canada has a local and regional presence across Canada that serves Indigenous communities.

- CBC/Radio-Canada has office locations in a number of Canadian territories that are resident to many Indigenous Peoples including Whitehorse, Yellowknife, Iqaluit, Inuvik, and Rankin Inlet. ¹⁷⁰
- CBC/Radio-Canada broadcasts reach 25 Nunavut Inuit communities, 14 Nunavik Inuit communities, 9 Northern Cree Communities, 33 Dene NWT communities and 15 Yukon communities. ¹⁷¹
- CBC North provides services in eight Indigenous languages (Chipewyan, Cree, Gwich'in, Inuktitut, Inuvialuktun, North Slavey, South Slavey and Tlicho). ¹⁷²

This data shows that CBC/Radio-Canada has infrastructure that provides programming to Indigenous communities, reflecting its contribution to serving Indigenous communities needs.

CBC/Radio-Canada's contribution to Indigenous programming

CBC/Radio-Canada offers indigenous language news and information programming across television, radio, and digital platforms.

- CBC North provides 200 local programming hours, over 60% of the hours are in Indigenous languages. ¹⁷³

- Through CBC North television production centre, CFYK-TV, CBC/Radio-Canada provides 5.5 hours of original programming per week on average focused on the lives and interest of people in the North. ¹⁷⁴
- CBC/Radio-Canada has over 70,000 hours of materials in Indigenous languages and stories. ¹⁷⁵
- CBC has commissioned over a third of its 75 short digital docs from Indigenous filmmakers from across Canada on CBC Short Docs. ¹⁷⁶
- CBC supports the production of feature films led by Indigenous filmmakers through CBC FILMS. ¹⁷⁷
- CBC Music hosts an Indigenous music program from Vancouver each week airing on both radio networks. Moreover, CBC Music offers 6 and ICI MUSIQUE offers two Indigenous Music playlists. ¹⁷⁸
- CBC/Radio-Canada has a French-language Indigenous Website, Espace Autochtones. ¹⁷⁹

This data shows that CBC/Radio-Canada contributes to Indigenous programming, promotion of indigenous content and offer programming that is reflective of the Indigenous communities.

In consultations, stakeholders noted the CBC/Radio-Canada is an important partner for developing and supporting Indigenous content specifically because it has a broad reach and significant resources to connect with Canadians. Importantly, however, CBC/Radio-Canada is not Indigenous owned or run. Therefore, stakeholders noted that CBC/Radio-Canada largely plays a supporting role in developing Indigenous content. One particular example where CBC/Radio-Canada successfully increased awareness regarding Indigenous Peoples in Canada is their coverage of the *Missing & Murdered: The Unsolved Cases of Indigenous Women and Girls*, which was covered more extensively by CBC/Radio-Canada compared to other broadcasters.

4. Impact on information that is in public interest

Contribution to news Programming

Under this component, the review considers CBC/Radio-Canada's investment and coverage of news, politics, policies, and current affairs programming. As defined by the CRTC, news programming encompasses subcategory 11 for radio and category 1 for television programming. ¹⁸⁰

- ICI PREMIÈRE radio channel primarily provides news, current affairs and cultural programs, providing listeners with local, regional, national and international news. It airs approximately 14 hours of news and 111 hours of other spoken-word content for each broadcast week. ¹⁸¹

In 2017–2018, Radio-Canada spent \$79.0M on news programming for ICI PREMIÈRE services, representing 89% of its French radio services (ICI PREMIÈRE and ICI MUSIQUE) programming expenditures. ¹⁸²

- In terms of television programming, in 2018-19, Radio-Canada spent \$66.7M on news programming, ¹⁸³ accounting for 26% of its total French conventional television services programming expenses. ¹⁸⁴

An analysis comparing the nature of news content covered by ICI RDI and LCN (a French-language 24 hours news channels part of Québecor Média Inc), finds that ICI RDI provides more coverage of news focused on politics with 18.2% of its broadcasting time dedicated to politics compared to 12.3% for LCN. ¹⁸⁵

- CBC Radio One primarily provides spoken-word programs that include a variety of network shows and local programs. On average, CBC Radio One provides an average of 16 hours of news and 85 hours of other spoken word.

In 2017–2018 CBC spent \$126.1M on news programming for Radio One, accounting for 93% of its English radio services (Radio One and Radio 2) programming expenses. ¹⁸⁶

- In terms of television programming, CBC News Network's services air 24 hours a day, 7 days a week providing live news, breaking news stories, and on-site broadcasts of major events.

In 2018–2019, CBC spent \$55.4M on news programming for its television services, representing 21% of the total English conventional television services programming expenses.

In comparison to commercial media, an analysis of news content covered by CBC News Network and CTV, an English-language 24-hours news channels part of BCE Inc.) finds that both channels provide equal coverage for news focused on politics with 33% of CBC New Network broadcasting time dedicated to politics compared 33.9% for CTV. ¹⁸⁷

In 2018-2019, CBC/Radio-Canada spent \$207.3M on news programming for its discretionary and conventional television services. Comparatively, BCE spent \$249.3M, Corus spent \$131.4M, Quebecor spent \$50.8M and Rogers \$34.1M. ¹⁸⁸

The data shows that Radio-Canada focuses its radio programming on hard news, a reflection of its contribution to providing information that is in the public interest. Further, in terms of its television programming, the data shows that Radio-Canada provides a larger share of news programming compared to LCN. In the view of CBC services, the data indicates that CBC Radio One has a greater focus on news programming, while CBC News Network provides a share of news programming comparable to CTV.

5. Contribution to Shared sense of national consciousness and identity

Contribution to sports programs

Sports brings people together, through events and experiences, promoting a sense of belonging and uniting people in celebration. By providing access to sporting events, CBC/Radio-Canada fosters social cohesion among Canadians that in turn promoted national identity.

- CBC/Radio-Canada offers access to online content for sports via Radio Canada Sports (French) with over 300 hours of live-streamed sports per year. Similarly, CBC Sports (English) offers over 2,000 hours of live events yearly. ¹⁸⁹ With the exception of National Hockey League coverage, CBC/Radio-Canada focuses on amateur sports, including the Olympics.
- CBC/Radio-Canada also offers coverage of news related to sports through its news channels, ICI RDI and CBC News Network. Between 27 May and 16 June 2019, ICI RDI dedicated 9.6% of its broadcasting time to Sports. Additionally, between 10 May and 27 June 2019, CBC spent 17.2% of its broadcasting time covering Raptors series parade, and 3.3% covering other sports. ¹⁹⁰
- CBC/Radio-Canada is the broadcaster of major sporting events known to bring Canadians closer together, such as the Olympic Games and the Paralympic Games. Additionally, in 2018–2019, CBC/Radio-Canada was the broadcast partner for the 2018 North American Indigenous Games (NAIG). ¹⁹¹

The analysis indicates that CBC/Radio-Canada provides programming for sports events, including a number of major sporting events, reflecting its contribution to promoting a sense of national consciousness and identity.

Contribution to cultural programs

- In 2018–2019, CBC/Radio-Canada spent \$96.3M on Canadian programming expenditures (“CPE”) related to drama and comedy for its English-language conventional television services, plus an additional \$2.9M on music and variety. ¹⁹²

Stakeholders noted that CBC/Radio-Canada does a particularly good job at telling uniquely Canadian stories (e.g., CBC will set a story in Winnipeg or St. John’s specifically) where private broadcasters may be less likely to do this because they are trying to reach a more generic audience. Nonetheless, some of CBC/Radio-Canada’s Canada-specific shows have seen great success both in Canada and outside of Canada, such as *Anne with an E*. However,

stakeholders did note that they would like to see increased transparency from CBC/Radio-Canada as to how it determines which programs to continue and which to cancel. This is the case for its conventional television programming (e.g., *Anne with an E*) and is increasingly the case for its digital programming providing on CBC Gem.

- In 2018-2019, CBC/Radio-Canada spent \$64.4M on drama and comedy CPE for its French-language conventional television services, and \$20.7M on music and variety. ¹⁹³

Limited data comparing expenditures in these genres to those of commercial broadcasters as whole is available.

Contribution to social programs

CBC/Radio-Canada provides programming to Canadians that reflects on the social issues.

- An analysis comparing the nature of new content covered by ICI RDI and LCN finds that ICI RDI provides less coverage of news focused on justice, police, and public safety accounting for 7.8% of its broadcasting time compared to 11.6% for LCN. ¹⁹⁴
- A similar analysis comparing the nature of news content covered by CBC News Network and CTV finds that CBC News Network provides similar coverage of news focused on justice and crime (8.4% of total coverage) and social issues (2.1%) compared to 8.3% and 2.6% for CTV. ¹⁹⁵

The data indicates that CBC/Radio-Canada provides social programming through its French and English-language services, reflecting its contribution to promoting awareness of Canadian social issues. In comparison to LCN, the data shows that Radio-Canada's television services cover less programming of social issues, while the coverage of social issues in English-language television services is comparable to the coverage by CTV.

6. Impact on learning and education

CBC/Radio-Canada provides educational programming for children through its television and digital platforms.

- CBC/Radio-Canada television services programming is required by condition of licence to broadcast at least 15 hours per week of Canadian programming for children under 12 years of age. ¹⁹⁶
- In 2018-2019, CBC/Radio-Canada spent \$13.6M on CPE for children's programming for its conventional and discretionary television services. It accounted for 2% of its total CPE for the period. Comparatively, for private broadcasters, CPE for children's programming accounted for 7% of Corus and 2% of BCE's total CPE spending. It represented 0.5% or less for Quebecor, Rogers, and Remstar. ¹⁹⁷

In 2018-2019, Radio-Canada spent \$7.6M on CPE for children's programming for the French-language conventional television stations. ¹⁹⁸

In 2018-2019, CBC spent \$5.2M on CPE for children's programming for the English-language conventional television stations. ¹⁹⁹

- CBC/Radio-Canada's digital educational platform, Curio.ca, supports Canadian schools to develop a curriculum on understanding disinformation. ²⁰⁰

CBC/Radio-Canada collaborates with partners including cultural organizations, such as the Canadian Race Relations Foundation, the National Battlefields Commission, and the Canadian Museum of Nature, on its educational platform to engage schools and students around the country.

- Importantly, stakeholders noted that the youth and educational genre is an area of particular strength for CBC/Radio-Canada vis-à-vis commercial broadcasters, suggesting that due to the potentially low profitability of these genres, CBC/Radio-Canada plays an important role in contributing this content when commercial broadcasters may be less able to given profit considerations.

7. Impact on the Canadian creative sector

Investment in Canadian programming

CBC/Radio-Canada makes significant contribution to the Canadian creative sector and wider economy through its annual expenditures and investments in Canadian programming.

Operational Expenditure

CBC/Radio-Canada makes annual operating and investment expenditures that stimulated economic activity both directly through its own spending and indirectly through its supply chain.

- In 2018–2019 CBC/Radio-Canada incurred \$432.9M in total operating expenses for English language conventional television service ²⁰¹ and \$405.6M for French language conventional television. ²⁰² The expenditures were incurred towards programming and production, technical services, sales and promotion, salaries and wages and other administration expenses.

Investments in Canadian Television Programming

CBC/Radio-Canada allocates almost all of its programming expenditures for conventional and discretionary television services toward CPE.

- In 2018-2019, CBC/Radio-Canada spent \$629.1M on total programming expenditure for its conventional and discretionary television services, of which 96% was spent on CPE. ²⁰³ CBC/Radio-Canada's share of CPE is comparatively higher than that of commercial broadcasters in 2018-2019: Quebecor 89%, Rogers 78%, Remstar 77%, BCE 59% and Corus 48%. ²⁰⁴
- In 2018–2019, CBC spent \$246.4M on CPE for conventional television stations, of which 91% was spent on original first-run programming. ²⁰⁵
- In 2018-2019 Radio-Canada spent \$247.7M on CPE for conventional television stations of which 88% was spent on original first-run programming. ²⁰⁶
- In 2018–2019, CBC/Radio-Canada spent \$107.3M on CPE for discretionary services of which 81% was spent on original first-run programming. ²⁰⁷

Investments in Canadian Radio Programming

CBC/Radio-Canada also invests in the Canadian creative sector and the broader economy through its spending in radio services operations.

- In 2018–2019, CBC spent \$180M on operating expenses for their English-language radio services, ²⁰⁸ and \$116M on their French-language radio services. ²⁰⁹
- Comparatively, BCE spent \$278.1M on operating for its English and French language radio services, Corus spent \$77.1M on its English-language radio services, \$80.6M for Cogeco and \$165.0M for Rogers. ²¹⁰

Investments in Canadian Digital Programming

CBC/Radio-Canada also invests in digital platforms as reflected in its expenditures towards providing digital content.

- In 2017–2018, CBC/Radio-Canada spent \$13.7M on Canadian digital content, representing 40% of its total digital content expenses. ²¹¹

Contribution to independent production sector

CBC/Radio-distribution infrastructure provides a independent producers thereby supporting the productive potential of the creative sector. This is demonstrated by the following activities undertaken by CBC/Radio-Canada:

- In 2018-2019, CBC/Radio-Canada invested \$277.6M to acquire programs produced by independent producers for its conventional and discretionary television services, accounting for 46% of its total CPE. ²¹² Comparatively, CBC/Radio-Canada's share of spending in Canadian independent production programming is second only to Remstar at 74%. Other commercial broadcasters have a relatively lower share of spending with Rogers at 3%, CBE at 15%, and Corus at 22%, 25% of Quebecor and 74% of Remstar spending on CPE. ²¹³
- CBC/Radio-Canada French services have ties with independent producers in the regions, and holds biennale formal consultations (public meetings) that include a segment dedicated to independent producers to explore the issues and needs of producers in the regions. ²¹⁴
- CBC/Radio-Canada has financed over 120 digital original series from Canadian independent producers since 2014. ²¹⁵
- CBC/Radio-Canada also supports Canadian independent French-language producers efforts to increase their development and international reach. In 2017, CBC/Radio-Canada committed \$2.5M over five years to help these producers create and distribute programming with "the potential to attract global audiences". ²¹⁶
- In 2017-2018, CBC broadcasted 502.9 hours (representing 93% of the total hours of PNI broadcasted in prime-time) of programs produced by independent producers in prime time, ²¹⁷ while Radio-Canada broadcast 525.8 hours (representing 98% of the total hours of PNI broadcasted in prime-time) of programs produced by independent producers. ²¹⁸
- In 2018-2019, CBC/Radio-Canada invested in the development of Canadian television by funding 255 projects through the Canada Media Fund ("CMF") valued at \$86.2M. This accounted for 31% of the total investment in television for the CMF over the period. Out of the 255 projects, 138 were in French (\$28.2M) and 117 in English (\$58.0M): ²¹⁹
 - Atlantic – 16 projects funded for \$6.3M
 - Quebec – 124 projects funded for \$33.4, of which 103 were from the Montreal region
 - Ontario – 86 projects funded for \$40.1M, of which 68 projects were from the Toronto region
 - Prairies – 15 projects funded for \$5.2M
 - British Columbia – 14 projects funded for \$1.1M
- In 2018-2019, CBC/Radio-Canada invested in the development of Canadian digital media by funding 43 projects through the CMF valued at \$2.5M. This accounted for 4% of the total investment in digital media for the CMF. Out of the 43 projects, 15 were in French and 28 were in English. ²²⁰

Contribution to media infrastructure

CBC/Radio-Canada's distribution infrastructure provides a platform for Canadian artists and content producers from all regions of Canada to showcase their works.

- CBC/Radio-Canada promotes Canadian music and artists through its CBC Music and ICI MUSIQUE stations, and broadcasts local and regional shows through its Radio One stations and ICI PREMIÈRE.
- CBC/Radio-Canada's digital platforms include CBC Gem, CBC Short Docs, CBC.ca, Radio-Canada.ca and several websites that promote the content for Canadian performers.
- CBC Short Docs supports short documentary content by emerging documentary filmmakers from across Canada. ²²¹
- CBC Gem and ICI TOU.TV are the broadcaster's streaming audio visual services, offering access to live and on-demand access to CBC/Radio-Canada programming. ²²²
- CBC/Radio-Canada offers 22 regional websites in French and 20 local/regional websites in English, providing Canadians with editorial selections, news, weather updates and live local radio and TV tailored to their regions. ²²³

- Espaces autochtones is CBC/Radio-Canada's French-language Indigenous, offering comprehensive coverage of Indigenous news. ²²⁴

Contribution to export of Canadian content

CBC/Radio-Canada directly provides Canadian content through its digital platforms and contributes to international news through its partnerships with international media companies.

- CBC/Radio-Canada's YouTube channel has over 2 billion views since its launch with 67% of the views from international viewers. ²²⁵
- CBC/Radio-Canada distributes almost 1,000 hours of globally available content finished tape, pre-sales and formats. ²²⁶
- CBC/Radio-Canada has made select podcasts and original titles available on global platforms including on Apple Podcast, Spotify, and Netflix. For podcasts, over 60% of downloads are from outside of Canada and over 90% of snapchat unique visitors are from outside of Canada. ²²⁷
- On international partnerships, CBC/Radio-Canada has formal agreements with ABC in Australia, BBC in the UK, FTD in France, and ZDF in Germany for promotion, collaboration, and distribution of Canadian content in these jurisdictions. Additionally through ICI RDI, CBC/Radio-Canada directly contributes to international news bureaus in Beijing, Moscow, Paris, and Washington. ²²⁸
- CBC/Radio-Canada also supports producers accessing international markets. In 2017, CBC/Radio-Canada committed \$2.5 million dollars over five years to support the development and international reach of independent French-language Canadian producers. ²²⁹

8. Impact on the emergence and development of local talent, including journalists

Contribution to training and development of Canadian performers and content producers

CBC/Radio-Canada directly supports emerging Canadian creative talent providing a market for the content from performers and creators. The broadcaster also collaborated with a number of training institutions to provide training opportunities for creators.

- In terms of supporting emerging local creative talent, CBC/Radio-Canada:

Annually invests roughly \$601.4M in producing television content from Canadian content creators. ²³⁰

Through CBC Creator Network, collaborates with over 120 digital content creators across Canada and produced more than 450 videos. The content is published across CBC/Radio-Canada platforms including CBC Indigenous, CBC arts, CBC Short Docs, Absolutely Manitoba and CBC Gem. ²³¹

Provides visibility to Canadian artists, producers, and production teams by producing content that is available internationally, such as the Murdoch Mysteries (available in 110 countries), Heartland, or Republic of Doyle (available in over 90 countries). ²³²

CBC/Radio-Canada also supports and promotes emerging musicians through CBC's Searchlight, Révélation Radio-Canada, Canadian Music Class Challenge and CBC Music First Play Live. ²³³

- In terms of supporting training and development of local creative talent, CBC/Radio-Canada undertakes the following activities:

Promotes the development of Indigenous creators through offering fellowships to its Indigenous training centre in Winnipeg, Manitoba. ²³⁴

Partners with training institutions to support training for young Indigenous creators. In March 2020, CBC and National Screen Institute confirmed a renewal of their partnership to support CBC New Indigenous Voices training program. ²³⁵

- CBC/Radio-Canada is one of the founding partners of the Indigenous Screen Office (“ISO”). The ISO supports and develops Indigenous screen storytellers and Indigenous stories on screens. Its goal is to increase representation of Indigenous peoples throughout the screen industries. ²³⁶
- A recent study of LinkedIn data demonstrated that CBC/Radio-Canada is a talent incubator and creates high-value talent both within the media industry and elsewhere. ²³⁷

Contribution to journalistic talent development

CBC/Radio-Canada supports the emergence and development of journalists through providing employment opportunities and training for aspiring student journalists.

- CBC/Radio-Canada has employed on the ground news and information personnel (October 2019): ²³⁸

533.5 FTEs dedicated to TV for French services and 396.8 for English TV services;

341 FTEs dedicated to French radio services and 601.7 dedicated to English radio services; and,

221.9 FTEs dedicated to ICI RDI and 292.5 FTEs for CBC News Network.

- The quality of CBC/Radio-Canada’s journalism has been recognized through 5 wins from the 2019 Grands Prix du Journalism de la FPJQ for their French content, and 5 wins from the 2018 Canadian Association of Journalism Awards. ²³⁹
- In 2019, the broadcaster received three journalism awards from the Canadian Radio Television Digital News Association for their CBC Indigenous work. ²⁴⁰
- CBC/Radio-Canada collaborates with education/training institutions, to provide training for students interested in journalism.

CBC/Radio-Canada reporters, producers, and videographers provide journalistic training to Indigenous high school students through the CBC Junior J School. ²⁴¹

Radio-Canada has a journalist training centre in Regina, Saskatchewan to train recruits as cross platform reporters. ²⁴²

Every year, 10 aspiring young francophone journalists head to Regina, Saskatchewan, to receive professional coaching and the chance to learn the ropes in one of Radio-Canada’s local stations across the country. Following their seven-week internship, participants are assigned to a regional station across the country where they gain work experience. ²⁴³

CBC/Radio-Canada has relationships with universities and colleges across the country like Carleton University, Université de Montréal, and Ryerson to offer paid internship and coop placements for student wishing to gain experience in the industry. ²⁴⁴

- CBC/Radio-Canada has partnerships with Indigenous schools, bands and publications to offers training programs to aspiring Indigenous journalists and creators. ²⁴⁵

National Screen Institute’s New Indigenous Voices Program provides young Indigenous Peoples aged 18–35 with employment opportunities in film, TV and digital media.

CBC Edmonton’s Media Mentoring and Training program works with the Alexis Nakota Sioux Nation to provide digital training to help them develop their own stories.

Radio-Canada works with the First Nations Education Council to provide training on careers in the media to students at the Kiuna Institution on the Abénakise Odanak Reserve. Three students were offered internships at CBC/Radio-Canada regional stations in Trois-Rivières, Quebec City and Saguenay.

For the past four years, hundreds of high school students have participated in CBC/Radio-Canada's Indigenous Junior J-School; a hands-on program created by their top journalists and producers.

Collaboration with Société de Communication Atikamekw Montagnais (SOCAM), the Atikamekw-Montagnais Communication Society to train journalist and offer workshop to Kiuna College students. ²⁴⁶

- Stakeholders indicated that CBC/Radio-Canada journalists and journalists across the industry are generally open to sharing best practices. However, CBC/Radio-Canada's talent generally has access to more resources compared to journalists at smaller news outlets.

Stakeholders noted that because of CBC/Radio-Canada's government funding, they are in a position to provide additional stability to their journalists. In an industry where employment can often be precarious, the benefit of more stable employment can open opportunities to focus on training and development that other journalists may not have the opportunity to do.

CBC/Radio-Canada's journalists have access to a team of professionals to develop stories, including graphic designers, audio technicians, editors, etc. Comparatively, private journalists may have to complete all elements of a story themselves. As a result, stakeholders explained, CBC/Radio-Canada's journalists may produce an overall better product. While sharing best practices and supporting formal associations (e.g., the Canadian Association of Journalists) helps the quality of journalism talent overall, CBC/Radio-Canada journalists may still have an advantage given the resources available to them.

9. Impact on adoption of new technologies/infrastructure

Contribution to adoption of new technologies and related campaigns

CBC/Radio-Canada supports innovation in the Canadian media sector through the early adoption of new technologies, the creation of partnerships and the organization of innovation-driven competitions.

- CBC/Radio-Canada is often an early-adopter of new technologies in the media sector.

CBC/Radio-Canada was the first to develop a podcast and to offer over-the-top ("OTT") Canadian streaming services through Tou.tv. ²⁴⁷

CBC/Radio-Canada has hosted three hackathons and brought together developers from across the country to help find solutions to enhance users experiences on its platforms and to improve the efficiency of its employees. ²⁴⁸

Radio-Canada is moving into la nouvelle Maison Radio-Canada, an IP environment where it will be easier to use software based solutions, giving employees the ability to experiment with different formats. The new Montreal Radio-Canada project will be the first, and only, all IP multi-platform large-scale broadcasting plant in North America. ²⁴⁹

- CBC/Radio-Canada has innovative partnerships with technology companies and universities to support the creation and adoption of new technologies by the broadcaster ²⁵⁰

Along with BBC, New York Times, and Microsoft, CBC/Radio-Canada is leading efforts to develop "Origin", an open standard for proof-of-provenance based approaches to fight AI-generated "deep fake" video news. This new application will digitally verify the authenticity of news content when it appears on other online platforms. ²⁵¹ To be

able to do the same in French, the broadcaster has partnered with Lyrebird to develop their own personal assistant. ²⁵²

CBC/Radio-Canada is working with Blackbox, a tech start-up, to improve speech to text in French, which currently is not performing as well as in English. ²⁵³

The broadcaster is also working with l'École Polytechnique to see how AI can help save time in searching for information in an open database. ²⁵⁴

When Amazon announced the arrival of Alexa in Canada, CBC was one of the Canadian partners to help design a user experience for a conversational interface. ²⁵⁵

10. Contribution to the flow and exchange of cultural expressions

Contribution to programs of national interest (PNI)

PNI covers drama, scripted series, long-form documentaries and awards shows honouring Canadian culture. CBC/Radio-Canada contributes to the flow and exchange of Canadian culture through making investments in PNI and supporting the broadcast of PNI content.

- In terms of investments in PNI, CBC/Radio-Canada spent about 43% of its total television programming expenses towards PNI for its discretionary and conventional services ²⁵⁶ :

In 2017–2018, CBC/Radio-Canada spent \$112.8M on programs of national interest (PNI) for the French-language television stations. ²⁵⁷

In 2017–2018, the broadcaster spent \$146.4M on PNI for the English-language television stations. ²⁵⁸

- In terms of supporting programming of PNI, CBC/Radio-Canada exceeds its PNI hours for both French and English-language television services:

CBC/Radio-Canada has a licence requirement to broadcast at least nine hours per week of PNI content, in prime time, on English-language services. In 2018-19, CBC broadcast 559.8 hours (~10hrs/week) of PNI in prime time. ²⁵⁹

CBC/Radio-Canada has a licence requirement to broadcast at least seven hours per week of PNI content, in prime time, on French-language services. In 2018-19, CBC aired a total of 514.2 hours (~10hrs/week) of PNI in prime time. ²⁶⁰

- The programming includes prime time air for national events such as Les Prix Gémeaux, Le Gala Québec Cinéma, le Gala de l'ADISQ, Canada Day in the Capital, ²⁶¹ and signature Canadian cultural events such as Radio-Canada's presentation of The Nutcracker (Les Grands Ballets Canadiens) and Minuit moins une pour la planète. ²⁶²
- CBC/Radio-Canada's PNI content is also available through its digital platforms, OTT platform and CBC Gem.

CBC GEM offers more than 750 documentary titles and more than 100 Canadian films, with a new film added each week.

- CBC/Radio-Canada provides prime time air for national events such as Les Prix Gémeaux, Le Gala Québec Cinéma, le Gala de l'ADISQ, Canada Day in the Capital. ²⁶³
- CBC/Radio-Canada provides programming for signature Canadian cultural events such as Radio-Canada's presentation of The Nutcracker (Les Grands Ballets Canadiens) and Minuit moins une pour la planète. ²⁶⁴

Contribution to Indigenous programming

CBC/Radio-Canada promotes programs that showcase performers and content from Indigenous communities across its platforms:

- Through CBC North television production centre, CFYK-TV, CBC/Radio-Canada provides 5.5 hours of original programming per week on average focuses on the lives and interest of people in the North. ²⁶⁵
- Through CBC North, CBC/Radio-Canada provides 125 hours are in Indigenous languages. ²⁶⁶
- CBC/Radio-Canada has over 70,000 hours of materials of Indigenous languages and stories. ²⁶⁷
- CBC has commissioned over a third of its 75 short digital docs from Indigenous filmmakers from across Canada on CBC Short Docs. ²⁶⁸
- To administer their Indigenous content, CBC/Radio-Canada often partners with the Aboriginal Peoples Television Network (“APTN”). Stakeholders indicated that the advantage of working with CBC/Radio-Canada is that their reach is greater, bringing greater attention to Indigenous programming. CBC/Radio-Canada’s greater access to resources and wider audience base were noted as reasons CBC/Radio-Canada has an important impact on Indigenous culture and sharing Indigenous stories.
 - One caveat noted by stakeholders was that CBC/Radio-Canada needs to strike a balance between sharing Indigenous stories and ensuring that those stories are developed and controlled by Indigenous Peoples. CBC/Radio-Canada, it was argued, cannot fully substitute for Indigenous-controlled media, of which there are many organizations in Canada. APTN, for example, has a wider breadth of material; for example, they have material in at least 15 different Indigenous languages, compared to CBC North’s eight.

Appendix B: Digital Sensing Analysis Results

To further the social and cultural analysis and begin to identify themes to explore in the consultation process, a Digital Sensing analysis was conducted to understand public sentiment related to CBC/Radio-Canada. Digital Sensing allows social, cultural, and economic themes, beyond those identified in the literature, to be identified from current public sentiment. It aligns with the research objectives of this project as it allows for analysis of the current public sentiment on CBC/Radio-Canada in individual markets, such as the English-language, French-language, and individual provincial markets. A summary of the findings is described in this section.

Approach

The Digital Sensing analysis was conducted by observing activity between May 18, 2019 and May 17, 2020. During the monitoring period, digital and social media chatter referencing CBC/Radio-Canada was analyzed, including the size, scope, sentiment, trends, engagement, reach, and key topics appearing in online discussion (“chatter” or “mentions”). Analysis was performed to identify relevant content and filter out irrelevant content (“noise”). The CBC-related topics analyzed were informed by the social and cultural analysis, as presented in Section 4.

The following procedures were conducted:

1. Scans using keyword based Boolean queries across 100+ million public sources to identify any chatter relevant to CBC/Radio-Canada.
2. Brand sentiment analysis related to CBC/Radio-Canada was conducted, including insights related to negative sentiment chatter and the level of engagement within these online discussions.
3. Analysis, including the collection and review of digital content (i.e., publicly available data and social media accounts) to identify content, postings, and profiles relevant to CBC/Radio-Canada.
4. Collection and review of other digital content (i.e., publicly available data), which aimed to identify relevant content, postings, and profiles relevant to CBC. Social media platforms scanned include, but were not limited

to:

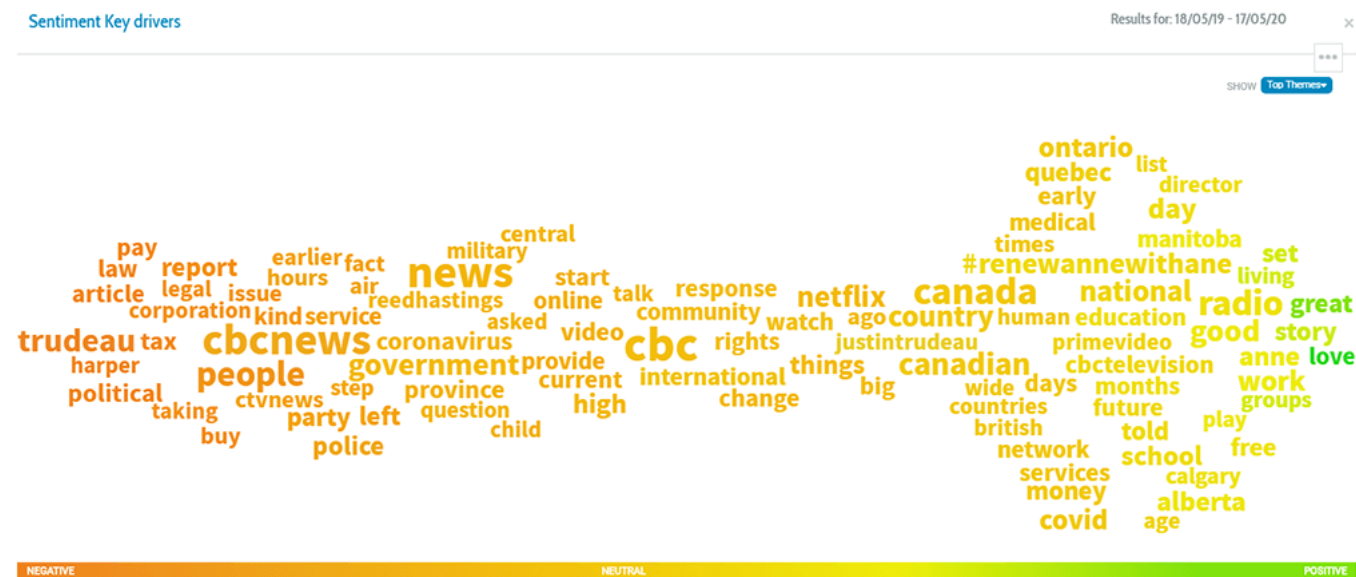
- Twitter: Micro-blogging platform where users exchange short messages (280 characters or less); most messages exchanged on Twitter are public and can be viewed or interacted with by any user on the platform.
- Facebook: Social networking platform that popularized the concept of sharing content with friends. Users can also follow public organizational pages and join groups for specific interests, hobbies, and topics.
- Instagram: Photo and video sharing network owned by Facebook.
- Forums: Discussion sites such as Reddit, where users can anonymously discuss topics on sub-channels linked to specific topics.

Key sentiment drivers (English)

Sentiment analysis organizes “top themes” and “top hashtags” related to CBC/Radio-Canada across a spectrum of negative to positive sentiment from the Canadian population. Figure 19 and Figure 20 summarize the sentiment analysis conducted on CBC’s social media mentions by top themes and top hashtags, respectively, mentioned by Canadians.

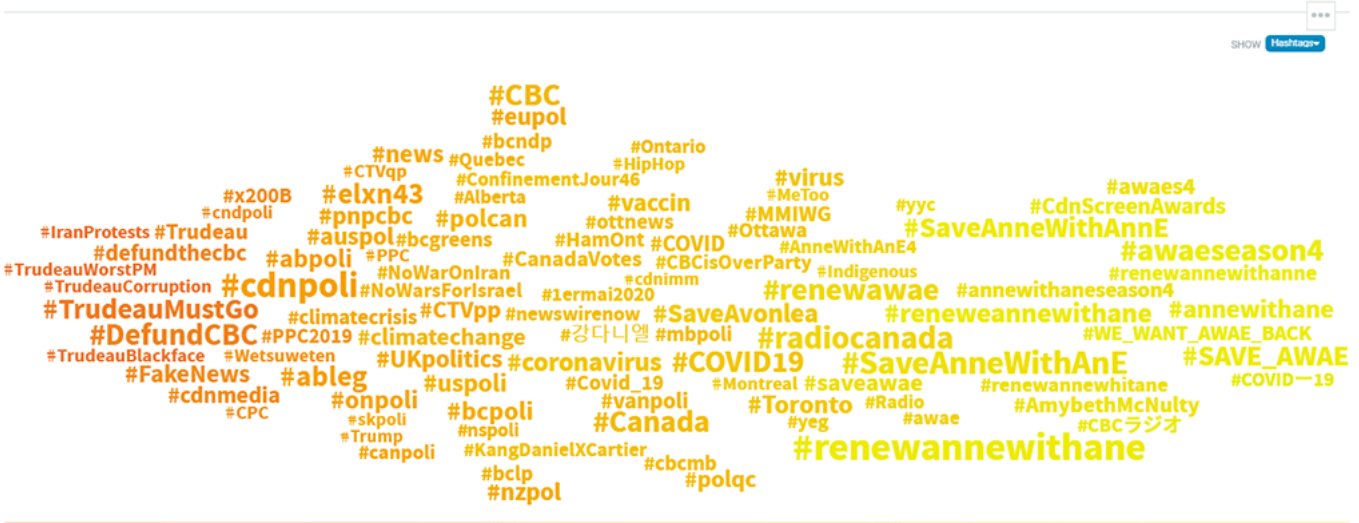
The analysis reveals that clusters of “top themes” and “top hashtags” on the positive sentiment side of the spectrum appear related to a user-generated ²⁶⁹ social media campaign calling for the renewal of the CBC series ‘*Anne with an E*’. This type of commentary may be a result of Canadians’ positive attitudes towards the show and their desire for it to continue airing. On the negative end of the spectrum, “top themes” and “top hashtags” appear to be largely political in nature, ranging from chatter related to the Trudeau government (e.g., “#TrudeauCorruption”) to calls by users to defund the CBC (e.g., “#DefundCBC”).

Figure 19: Key sentiment drivers by top themes (English)



▶ Figure 19: Key sentiment drivers by top themes (English) – text version

Figure 20: Key sentiment drivers by top hashtags (English)



NEGATIVE NEUTRAL POSITIVE

► Figure 20: Key sentiment drivers by top hashtags (English) – text version

Key sentiment drivers (French)

Figure 21 and Figure 22 below summarize the sentiment analysis of mentions of Radio-Canada related keywords in French during the monitoring period. Similarly, sentiment analysis of mentions of CBC/Radio-Canada during the monitoring period indicates a comparable spread across “top themes” and “top hashtags”. Unlike the English-language chatter, clusters of top themes and top hashtags on the positive sentiment side of the spectrum appear to be more overtly political in nature. Top hashtags in particular skew heavily political, ranging from chatter focused on the Trudeau government to discussions of Quebecois identity to broader global issues such as climate change and the COVID-19 pandemic. The top themes and hashtags in French-language mentions related to CBC/Radio-Canada did not appear to be related to the organization specifically, unlike in the English-language mentions where calls to defund CBC/Radio-Canada and other mentions indicated the public was specifically chatting about the organization itself.

Figure 21: Key sentiment drivers by top themes (French)



► Figure 21: Key sentiment drivers by top themes (French) – text version

Figure 22: Key sentiment drivers by top hashtags (French)



► Figure 22: Key sentiment drivers by top hashtags (French) – text version

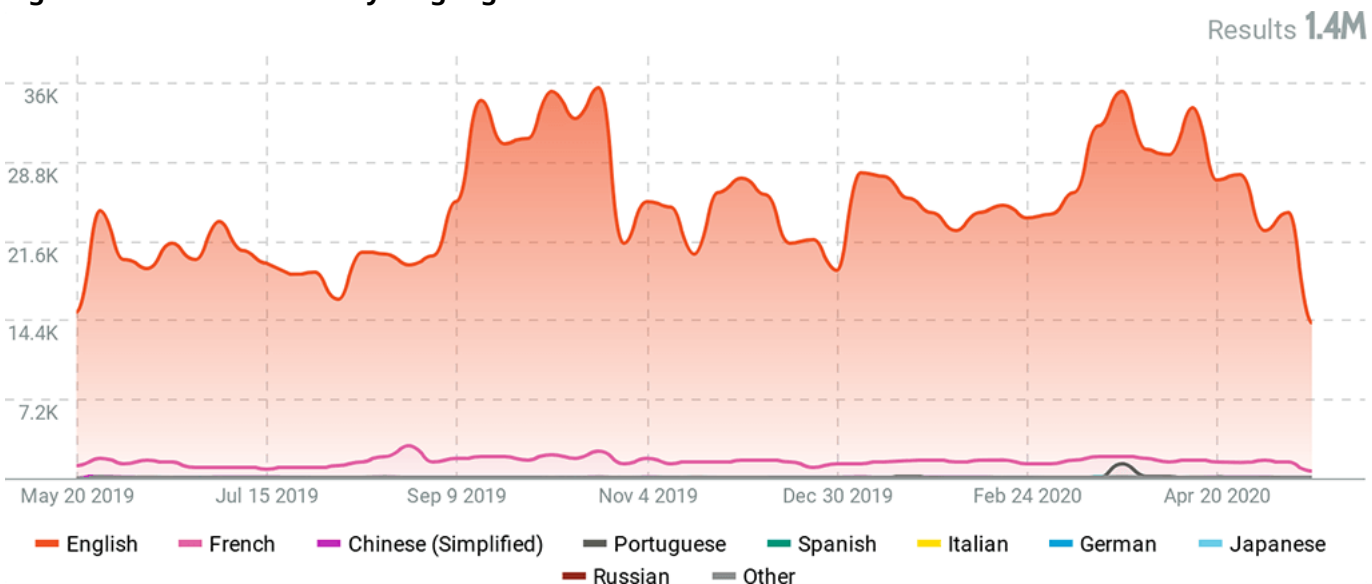
Between May 18, 2019 and May 17, 2020, the CBC/Radio-Canada was mentioned by individuals across the globe roughly 3.5 million times and by individuals in Canada approximately 1.4 million times.

Total mentions by language in Canada

Language analysis of mentions during the monitoring period indicates chatter related to CBC/Radio-Canada (even with French language keywords included) is overwhelmingly English (93%), as shown in Figure 23. French language mentions of CBC/Radio-Canada made up about 6% of total chatter. However, it is possible that the French-speaking public engages on social media using English, which is the dominant social media language.

The next largest segment of chatter appears to be Chinese language, constituting approximately 0.3% of chatter. This small pocket of chatter also appears largely related to fan discussion of CBC coverage of the COVID-19 pandemic, specifically around travel restrictions.

Figure 23: Total mentions by language over time

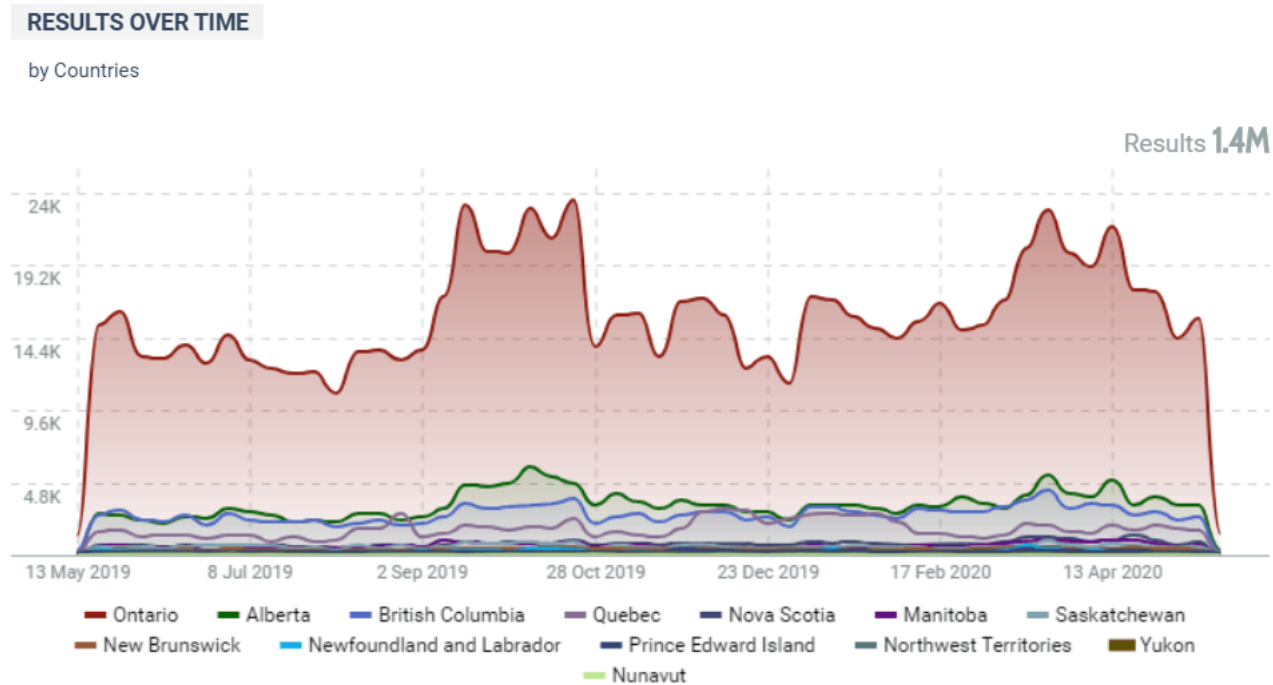


► Figure 23: Total mentions by language over time – text version

Total mentions by province

Analysis of mentions by province during the monitoring period indicates chatter related to CBC/Radio-Canada (with French-language keywords included) is based primarily in the province of Ontario. Western provinces, primarily British Columbia and Alberta, make up the next largest segment of chatter. BC-specific chatter is similar to Ontario in that it crosses a wide range of sociopolitical, economic, and cultural topics, without a clear nexus to any one issue/topic. Chatter in Alberta appears to relate largely to CBC's coverage of Alberta-specific issues, such as the economic downturn in the oil industry (prior to the broader financial havoc wrought by COVID-19) and developments vis-à-vis federal and provincial elections.

Figure 24: Total mentions by province over time

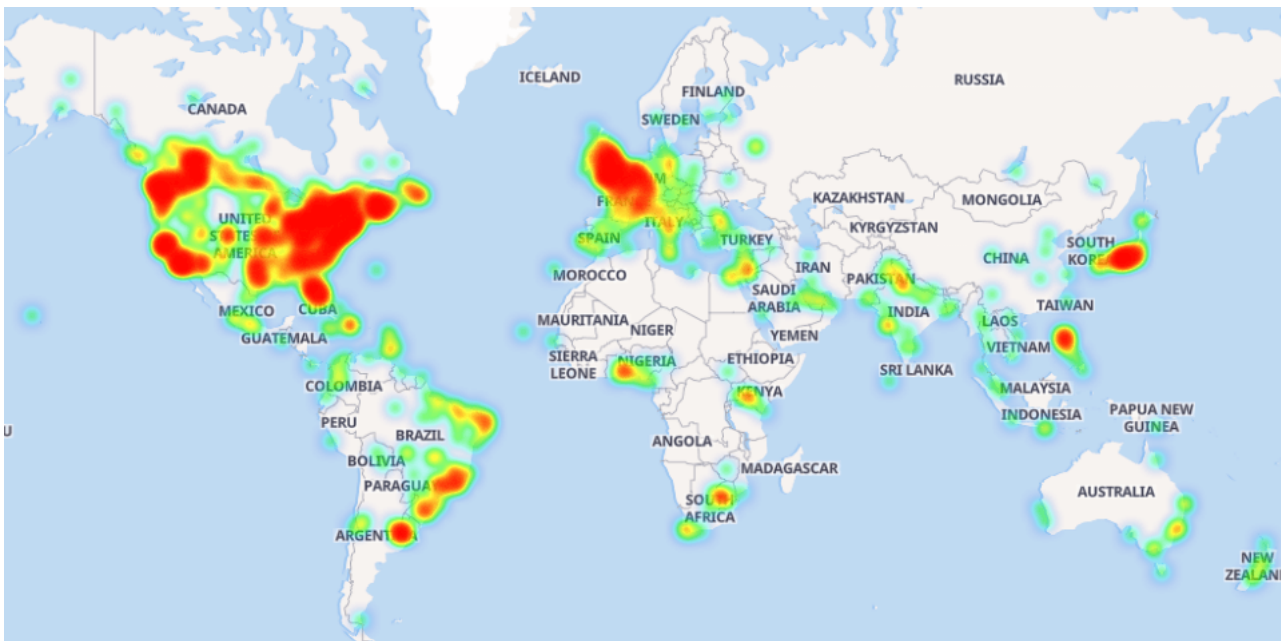


► Figure 24: Total mentions by province over time – text version

Total Mentions by Location – Global

Analysis of mentions by globally during the monitoring period indicates chatter related to CBC/Radio-Canada is spread widely around the world, with dominant jurisdictions including United States, France, Brazil, Japan and the UK. The chatter in the UK is largely attributed to UK-based media publications referencing CBC as a source for international news coverage.

Figure 25: Mentions of CBC/Radio-Canada on Social Media



► Figure 25: Mentions of CBC/Radio-Canada on Social Media – text version

Appendix C: Statement of Work

Objectives of the Requirement

The research objectives were designed to evolve over the course of the project, subject to data limitations. The original objectives in the statement of work are as follows:

The objective of this contract is to identify and analyse the social, cultural, and economic impacts of CBC/RC's content, services, and activities on contemporary Canadian audiences, creators, producers, and media organizations (including but not limited to other broadcasters and news providers). The study findings will provide a key input to the Broadcasting, Copyright and Creative Marketplace branch's (BCCM) ongoing analysis of the current and potential future role and mandate of the national public broadcaster in the context of the ongoing review of Canada's broadcasting and telecommunications legislation.

References

- BBC. (2013). Public and private broadcasters across the world – the race to the top (PDF (Portable Document Format) format). Retrieved from: https://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc_report_public_and_private
- BBC. (2013). The economic value of the BBC: 2011/2012. Retrieved from: http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc_economic_impact_2013.pdf (PDF (Portable Document Format) format).
- Canadian Radio-Television and Telecommunications Commission. (2020). Communications Monitoring Report 2019. Retrieved from: <https://crtc.gc.ca/pubs/cmr2019-en.pdf> (PDF (Portable Document Format) format).
- CBC/Radio Canada. (2018). Indigenous, reflection and representation. Retrieved from: <https://site-cbc.radio-canada.ca/documents/vision/strategy/submission/appendix-e-cbc-radio-canada-indigenous.pdf> (PDF (Portable Document Format) format).
- DellaVigna, S., & La Ferrara, E. (2015). Economic and social impacts of the media. In Handbook of media economics (Vol. 1, pp. 723-768). North-Holland. Retrieved from:

<https://eml.berkeley.edu/~sdellavi/wp/w21360.pdf> (PDF (Portable Document Format) format).

- Deloitte. (2014). Economic impact of CBC/Radio Canada in 2013. Retrieved from: <https://site-cbc.radio-canada.ca/documents/vision/strategy/latest-studies/cbcradio-canada-economic-impact-deloitte-2013.pdf> (PDF (Portable Document Format) format).
- Deloitte. (2011). The economic impact of CBC/Radio Canada.
- European Broadcasting Union. (2019). Democracy & PSM: How a nation's democratic health related to the strength of its public service media.
- European Broadcasting Union. (2018). PSM contribution to democracy. Retrieved from: https://www.ebu.ch/files/live/sites/ebu/files/Publications/MIS/login_only/c2s/EBU-MIS_PSM-Contribution-to-Democracy_2018.pdf (PDF (Portable Document Format) format).
- European Broadcasting Union. (2015). Public service media contribution to society. Retrieved from: <https://www.asiconferences.com/wp-content/uploads/2016/06/EBU-MIS-PSM-Contribution-to-Society-Report-Dec-2015.pdf> (PDF (Portable Document Format) format).
- EY. (2016). A review of the BBC's transfer pricing regime. Retrieved from: http://downloads.bbc.co.uk/bbctrust/assets/files/pdf/our_work/transfer_pricing/bbc_transfer_pricing.pdf (PDF (Portable Document Format) format).
- EY. (2016). The future of Channel 4 in a changing market environment. <https://www.channel4.com/media/documents/press/news/Desktop/EY%20C4%20report%20FINAL%20160316.pdf> (PDF (Portable Document Format) format).
- Innovation, Science and Economic Development Canada. (2020). Canada's communications future: time to act. Retrieved from: [https://www.ic.gc.ca/eic/site/110.nsf/vwapj/BTLR_Eng-V3.pdf/\\$file/BTLR_Eng-V3.pdf](https://www.ic.gc.ca/eic/site/110.nsf/vwapj/BTLR_Eng-V3.pdf/$file/BTLR_Eng-V3.pdf) (PDF (Portable Document Format) format).
- KPMG LLP. (2015). An economic review of the extent to which the BBC crowds out private sector activity. Retrieved from: <https://assets.kpmg/content/dam/kpmg/uk/pdf/2017/02/bbccrowdingwebaccess.pdf> (PDF (Portable Document Format) format).
- Ofcom. (2018). Representation and portrayal on BBC television. Retrieved from: https://www.ofcom.org.uk/_data/assets/pdf_file/0022/124078/report-bbc-representation-portrayal.pdf (PDF (Portable Document Format) format).
- Ofcom. (2020). Small screen: big debate – a five-year review of public service broadcasting (2014-18). Retrieved from: https://www.ofcom.org.uk/_data/assets/pdf_file/0013/192100/psb-five-year-review.pdf (PDF (Portable Document Format) format).
- Ofcom. (2019). The communications market report. Retrieved from: <https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/interactive-data>.
- Ofcom. (2019). The BBC's commercial and trading activities: requirements and guidance. Retrieved from: https://www.ofcom.org.uk/_data/assets/pdf_file/0018/136071/BBC-commercial-trading-updated-requirements.pdf (PDF (Portable Document Format) format).
- RBB Economics. (2018). The ABC and the Australian media sector. Retrieved from: <http://www.abc.net.au/cm/lb/10044266/data/rbb-report---complete-data.pdf> (PDF (Portable Document Format) format).
- Reuters Institute. (2019). Digital News Report 2019. Retrieved from: <http://www.digitalnewsreport.org/>.
- Radio Connects Connexions. Glossary of Terms. Retrieved from: <https://radioconnects.ca/everything-audio/glossary/>.
- Sehl, A., Fletcher, R., & Picard, R. G. (2020). Crowding out: Is there evidence that public service media harm markets? A cross-national comparative analysis of commercial television and online news providers. European

Journal of Communication. DOI: 0267323120903688.

- Sjøvaag, H., Thomas, O., & Truls, A.P. (2019). Is public service broadcasting a threat to commercial media? *Media, Culture & Society* 41(6), 808-827. DOI: 10.1177/0163443718818354.
- Sjøvaag, H., Thomas, O., & Truls, A.P. (2018). NRK's role and contribution to Norwegian media diversity. Retrieved from: <https://www.nordicom.gu.se/en/latest/news/nrks-contribution-media-diversity-analysed>.

Footnotes

- ¹ Innovation, Science and Economic Development Canada. *The Broadcasting Act: Structure and Background*. <https://www.ic.gc.ca/eic/site/110.nsf/eng/00005.html>
- ² Broadcasting and Telecommunications Legislative Review Panel. 2019. What We Heard Report. <https://www.ic.gc.ca/eic/site/110.nsf/eng/00011.html>
- ³ Broadcasting and Telecommunications Legislative Review. 2020. Canada's Communications Future: Time to Act. Section 3.7. <https://www.ic.gc.ca/eic/site/110.nsf/eng/00012.html>
- ⁴ See Appendix C for the original Statement of Work.
- ⁵ Private and commercial are used interchangeably throughout this report.
- ⁶ At the time of the analysis, May 2020, the CRTC had not published 2019 figures.
- ⁷ The percentage of CBC/Radio-Canada's television revenues accounted for by parliamentary appropriations fluctuates annually and technically parliamentary appropriations are only allocated to CBC/Radio-Canada's conventional television programming, not its discretionary television programming.
- ⁸ CBC/Radio-Canada was able to receive advertising revenues for radio between 2014 and 2017; however, these revenues amounts to less than 1% of total revenues (i.e., including parliamentary appropriations) in any given year. As such, they are not included in the analysis.
- ⁹ The news genre refers to Category 1 (News) while non-news includes all other genres (i.e., Categories 2-15).
- ¹⁰ Dollars were deflated using Statistics Canada's GDP deflator. Time horizon selected to match data provided by CBC/Radio-Canada. Values converted to real 2012 dollars.
- ¹¹ Canada. Parliament. House of Commons. Standing Committee on Canadian Heritage, & Fry, H. (2017). *Disruption: Change and Churning in Canada's Media Landscape*. House of Commons.
- ¹² CBC/Radio-Canada temporarily received advertising revenues between 2014 and 2017 for its radio programming.
- ¹³ CBC/Radio-Canada receives other minor revenues that are discussed in the body of the report.

- 14 Deloitte worked with CBC/Radio-Canada to attempt to obtain a dataset on its advertising revenues that is sufficiently long to employ an econometric approach. However, due to changes in its accounting practices starting in 2012, CBC/Radio-Canada was unable to provide advertising data prior to this date. With limited number of observations, it was deemed preferable to not publish the econometric analysis of television revenues but instead present a general trend analysis of advertising revenues for CBC/Radio-Canada and commercial broadcasters, for which data is available.
- 15 Digital services are not regulated; as such, data on digital services is limited. The CRTC uses publicly available data to estimate digital revenues (*Communications Monitoring Report*, 2019, pg.158); as such, data on CBC/Radio-Canada's share of the digital services market is not reported here.
- 16 Section 3(1)(l) of the *Canadian Broadcasting Act*. Web Source: <https://laws.justice.gc.ca/PDF/B-9.01.pdf> (PDF.(Portable Document Format) format)
- 17 Department of Justice. (2019). *Canadian Broadcasting Act*. Web Source: <https://laws.justice.gc.ca/PDF/B-9.01.pdf> (PDF.(Portable Document Format) format)
- 18 CBC/Radio-Canada. (2019). 2019–2020 Annual Report.
- 19 *Ibid.*
- 20 CBC/Radio-Canada (2019). 2018–2019 Annual Report. Web Source: <https://site-cbc.radio-canada.ca/documents/impact-and-accountability/finances/2018-2019-annual-report.pdf> (PDF.(Portable Document Format) format)
- 21 Statistical significance is the likelihood that two variables are related by something more than a random relationship. Statistical significance is defined by a probability value for one variable while relating it statistically to another value. The significance level associated with the probability values is defined later in the report. When the relationship between two variables is statistically significant, it indicates that they may be related by more than simply chance.
- 22 Statistical significance was found at the 10% level.
- 23 Network payments include 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.
- 24 Syndicated production is the revenue received by the sale or airing permission of a program produced by a network to another network.
- 25 Subscriber fees are fees collected for subscription television services.
- 26 Other revenues include broadcast related revenue received from the use of talent services and technical facilities.
- 27 Statistics Canada. Table: 22-10-0004-01.
- 28 *Ibid.*

- 29 For 2012-2018, CBC/Radio-Canada provided their parliamentary appropriation data. For 1999-2011, the analysis relies on total parliamentary appropriations published in the [Canadian Media Concentration Research Project](#) (CMCRP) at Carleton University and applied the methodology developed by the [CMCRP](#) to determine the radio and television share of parliamentary appropriation.
- 30 CBC/Radio-Canada was able to receive advertising revenues for radio between 2014 and 2017; however, these revenues amounts to less than 1% of total revenues (i.e., including parliamentary appropriations) in any given year. As such, they are not included in the analysis.
- 31 Data directly provided by CBC/Radio-Canada.
- 32 Statistics Canada. Table 36-10-0402-01.
- 33 Stats Radio provides some radio audience measurement. To our knowledge no other organizations in Canada track television audience. The CRTC relies on data from Numeris in its reporting.
- 34 Total viewing minutes are equal to the average minute audience in thousands multiplied by the duration of viewing.
- 35 To account for potential heteroscedasticity.
- 36 First differences were used to account for unit root challenges in the data. Fixed effects models were also tested.
- 37 CBC/Radio-Canada also had the Bold discretionary channel in 2012.
- 38 Not converted to calendar year.
- 39 The news genre refers to Category 1 (News) while non-news includes all other genres (i.e., Categories 2-15).
- 40 Note, these figures are from the CRTC and have not been adjusted for calendar year, unlike in the regression analysis section.
- 41 The Canadian Radio-television and Telecommunications Commission (CRTC). 2020. *Communications Monitoring Report 2019*.
- 42 Estimated by dividing total weekly hours tuned for English-language radio by the total English-speaking population; the English-speaking population is calculated using Statistics Canada Census estimations. Population 12+ is used to align to the radio tuning data as reported by the CRTC.

- 43 A correlation coefficient ranges from -1 to +1 and measures the direction and degree of variation between two variables. A positive correlation, denoted by a correlation coefficient greater than 0, indicates that when one variable increases, the other variable also tends to increase. Two variables are said to be negatively correlated, denoted by a coefficient of less than 0, when one variable increases and the other tends to decrease. A weak correlation may range, in absolute value, from slightly greater than 0 to 0.3, a moderate correlation may range from 0.3 to 0.7, and a correlation coefficient greater than 0.7 indicates a strong correlation. A correlation coefficient of zero indicates there is no correlation between the two variables.
- 44 All revenue, expenditure, and parliamentary appropriation figures are reported in chained 2012 dollars, deflated using an industry deflator from Statistics Canada.
- 45 CBC/Radio-Canada received advertising for radio between 2014 and 2017; however, these revenues amounted less than 1% of its radio revenues overall.
- 46 A correlation coefficient ranges from -1 to +1 and measures the direction and degree of variation between two variables. A positive correlation, denoted by a correlation coefficient greater than 0, indicates that when one variable increases, the other variable also tends to increase. Two variables are said to be negatively correlated, denoted by a coefficient of less than 0, when one variable increases and the other tends to decrease. A weak correlation may range, in absolute value, from slightly greater than 0 to 0.3, a moderate correlation may range from 0.3 to 0.7, and a correlation coefficient greater than 0.7 indicates a strong correlation. A correlation coefficient of zero indicates there is no correlation between the two variables.
- 47 Includes all radio format categories except Category 1 (Spoken Word and News).
- 48 The Canadian Radio-television and Telecommunications Commission (CRTC). 2020. *Communications Monitoring Report 2019*.
- 49 *Ibid.*
- 50 The Canadian Radio-television and Telecommunications Commission (CRTC). 2020. *Communications Monitoring Report 2019*.
- 51 Newton (2016).
- 52 BBC (2013) and Nielsen et al. (2017).
- 53 Newton (2016) and BBC (2013).
- 54 Sjøvaag, H., Thomas, O., & Truls, A.P. (2018). NRK's role and contribution to Norwegian media diversity. Web Source: https://www.regjeringen.no/contentassets/9a2b089bb37e4fbe822fc5ae3960c9bf/nrks-bidrag-til-mediemangfoldet_sjovaag_pedersen.pdf (PDF (Portable Document Format) format) (available in Norwegian only)
- 55 Norwegian Media Authority.(2020). Norwegian sender diversity. Web Source: <https://www.nordicom.gu.se/en/latest/news/method-assess-norwegian-media-development>

- 56 Marko et.al. (2018). Media and Communication Policy current state and measurement. Web Source: http://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/160714/04_18_Media-%20ja-viestintapolitiikan-nykytila.pdf?sequence=1&isAllowed=y. (PDF (Portable Document Format) format) (available in Finnish only)
- 57 Picard and Pickard (2017). Essential Principles for Contemporary Media and Communications Policymaking. Web Source: <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/Essential%2520Principles%2520for> (PDF (Portable Document Format) format)
- 58 CBC Radio-Canada Economic Impact, Deloitte, 2011. Page 64
- 59 O'hagan, J., & Jennings, M. (2003). Public broadcasting in Europe: rationale, licence fee and other issues. *Journal of Cultural Economics*, 27(1), 31–56.
- 60 Van Der Wurff. (2005). Competition, Concentration and Diversity in European Television Markets, *Journal of Cultural Economics*, Issue 29, p. 249–275.
- 61 Nissen, C.S. (2006): Public service media in the information society, Report prepared for the Council of Europe's Group of Specialists on Public Service Broadcasting in the Information Society, 1–48.
- 62 Cullen International. (2019). Harnessing public broadcasting for Canadians in the digital age. Web Source: <https://crtc.gc.ca/eng/publications/reports/2019-cullen/clln19.htm#appa4>
- 63 Minister of Justice (2019). *Broadcasting Act*. Retrieved from: <https://laws.justice.gc.ca/PDF/B-9.01.pdf> (PDF (Portable Document Format) format)
- 64 Bardoel, J.; d'Haenens, L. (2008): Reinventing public service broadcasting in Europe: prospects, promises and problems, in: *Media, Culture & Society* 30(3): 337–355.
- 65 Moe, H. (2009): Status und Perspektiven öffentlich-rechtlicher Onlinemedien, in: *Media Perspektiven* 4/2009: 189–200.
- 66 Nissen, C. S. (2006). Public service media in the information society. Strasbourg: Council of Europe. Web Source: <https://rm.coe.int/1680483b2f>
- 67 Riggins S.H. (1992). *Ethnic Minority Media*. Sage Publications: Newbury Park.
- 68 Hard news is typically used to refer to topics that are usually timely, important and consequential (e.g., International news, political news, business and economics news and health or education news). Conversely, soft news topics include entertainment, celebrity, and lifestyle news (e.g., entertainment or celebrity news, lifestyle news, arts and culture news, sport news). Source: Reuters, Digital News Report 2016. <http://www.digitalnewsreport.org/survey/2016/hard-soft-news-2016/>
- 69 Nielsen, R. K., Fletcher, R., Sehl, A., & Levy, D. (2016). Analysis of the relation between and impact of public service media and private media. Available at SSRN 2868065. <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/Analysis%2520of%2520the%2520R> (PDF (Portable Document Format) format)

- 70 Nielsen, R. K., Fletcher, R., Sehl, A., & Levy, D. (2016). Analysis of the relation between and impact of public service media and private media. Available at SSRN 2868065.
<https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/Analysis%2520of%2520the%2520R%2520format> (PDF.(Portable Document Format) format)
- 71 Soroka, Stuart, Blake Andrew, Toril Aalberg, Shanto Iyengar, James Curran, Sharon Coen, Kaori Hayashi et al. "Auntie knows best? Public broadcasters and current affairs knowledge." *British Journal of Political Science* 43, no. 4 (2013): 719–739.
- 72 Conseil mondial de la radiotélévision. (2001). Public broadcasting : why? how?. Web Source : <http://www.unesco.org/new/en/communication-and-information/resources/publications-and-communication-materials/publications/full-list/public-broadcasting-why-how/>
- 73 Nissen, C. S. (2006). Public service media in the information society. *Strasbourg: Council of Europe*. Web Source: <https://rm.coe.int/1680483b2f>
- 74 <https://onlinelibrary.wiley.com/doi/full/10.1111/1467-923X.12214>
- 75 <https://www.degruyter.com/view/journals/comm/35/4/article-p461.xml>
- 76 European Broadcasting Union. "Public service media contribution to society". 2015
- 77 <https://journals.sagepub.com/doi/abs/10.1177/1464884912453280?journalCode=joua>
- 78 Nielsen et al. (2017).
- 79 Soroka, S., Andrew, B., Aalberg, T., Iyengar, S., Curran, J., Coen, S., ... & Rowe, D. (2013). Auntie knows best? Public broadcasters and current affairs knowledge. *British Journal of Political Science*, 43(4), 719-739.
- 80 Keefer, P., & Khemani, S. (2014). Mass media and public education: The effects of access to community radio in Benin. *Journal of Development Economics*, 109, 57-72. Retrieved from: <https://www.sciencedirect.com/science/article/abs/pii/S0304387814000406>
- 81 Kearney, M. S., & Levine, P. B. (2015). Media influences on social outcomes: The impact of MTV's 16 and pregnant on teen childbearing. *American Economic Review*, 105(12), 3597–3632.
- 82 European Parliament (2016) Report on a coherent EU policy for cultural and creative industries (2016/2072(INI)). European Parliament, Brussels
- 83 European Broadcasting Union. "Public service media contribution to society". 2015
- 84 Barwise, P., & Picard, R. (2014). What if there were no BBC television? The net impact on UK viewers. Patrick Barwise and Robert G. Picard, What If There Were No BBC Television. Web Source: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2017-06/What%20if%20there%20were%20no%20BBC%20TV_0.pdf (PDF.(Portable Document Format) format)

- 85 BBC. (2013). The economic value of the BBC 2011/2012. Web Source: http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc_economic_impact_2011_2012.pdf (PDF (Portable Document Format) format)
- 86 Cullen International. (2019). Harnessing public broadcasting for Canadians in the digital age. Web Source: <https://crtc.gc.ca/eng/publications/reports/2019-cullen/clln19.htm#appa4>
- 87 RBB Economics (2018).
- 88 Cullen International (2019).
- 89 BBC (2013).
- 90 RBB Economics (2018).
- 91 Barwise, P., & Picard, R. (2014). What if there were no BBC television? The net impact on UK viewers. Patrick Barwise and Robert G. Picard, What If There Were No BBC Television. Web Source: <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2017-06/What%20if%20there%20were%20no%20BBC%20TV%200.pdf> (PDF (Portable Document Format) format)
- 92 O'hagan, J., & Jennings, M. (2003). Public broadcasting in Europe: rationale, licence fee and other issues. *Journal of Cultural Economics*, 27(1), 31–56.
- 93 European Broadcasting Union. “Public service media contribution to society”. (2015).
- 94 RBB Economics (2018).
- 95 Minister of Justice (2019). *Broadcasting Act*. Retrieved from: <https://laws.justice.gc.ca/PDF/B-9.01.pdf> (PDF (Portable Document Format) format)
- 96 Unesco (2004). Promoting cultural diversity through the media : new possibilities for local content distribution. Retrieved from : http://www.unesco.org/new/en/member-states/single-view/news/promoting_cultural_diversity_through_the_media_new_possibil/
- 97 European Broadcasting Union. “Public service media contribution to society”. 2015
- 98 CRTC (2020). Data-television-sector. Table 6.2. *Open Government*. Web Source : <https://open.canada.ca/data/en/dataset/69f8d82a-bc22-4071-9e9f-0ed66fa7940a>
- 99 CBC/Radio Canada (2020). Our Performance – Media Lines – CBC highlights. Web Source: <https://cbc.radio-canada.ca/en/impact-and-accountability/finances/annual-reports/ar-2018-2019/accountability-plan/performance-media-lines-cbc-highlights>
- 100 CBC/Radio Canada (2020). Our Performance – Media Lines – CBC highlights. Web Source: <https://cbc.radio-canada.ca/en/impact-and-accountability/finances/annual-reports/ar-2018-2019/accountability-plan/performance-media-lines-cbc-highlights>

- 101 DM#3700220 - APP - 2019-0282-
5_APP_Appendix_6_CBCNN_A38_Analysis_of_CBCSRC_Canada_News_Channels_En
- 102 CBC/Radio Canada (2019). DM#3700164 – APP – 2019-0281-
7_APP_Annexe_7_RDI_Q34_SRC_Perceptions_d’ICI_RDI_FR. Retrieved from:
https://crtc.gc.ca/eng/archive/2019/2019-379.htm?_ga=2.104683840.1770675006.1585747303-1646780103.1585245980
- 103 CBC/Radio Canada (2019). DM#3700164 – APP – 2019-0281-
7_APP_Annexe_7_RDI_Q34_SRC_Perceptions_d’ICI_RDI_FR. Retrieved from:
https://crtc.gc.ca/eng/archive/2019/2019-379.htm?_ga=2.104683840.1770675006.1585747303-1646780103.1585245980
- 104 CBC/Radio Canada (2019). DM#3700164 – APP – 2019-0281-
7_APP_Annexe_7_RDI_Q34_SRC_Perceptions_d’ICI_RDI_FR. Retrieved from:
https://crtc.gc.ca/eng/archive/2019/2019-379.htm?_ga=2.104683840.1770675006.1585747303-1646780103.1585245980
- 105 CBC/Radio-Canada (2019). DM#3700224 - APP - 2019-0282-
5_APP_Appendix_10_CBCNN_Q38_Perception_Study_Mission_EN. Retrieved from:
https://crtc.gc.ca/eng/archive/2019/2019-379.htm?_ga=2.104683840.1770675006.1585747303-1646780103.1585245980
- 106 Reuters Institute (2020). Digital News Report Canada. Retrieved from :
<http://www.digitalnewsreport.org/survey/2020/canada-2020/>
- 107 This share was similar in 2017–2018 (85%). CBC/Radio-Canada. Summary 1230_ETV and FTV 2018. Internal data shared with Deloitte.
- 108 CRTC (2020). Aggregate Annual Returns. Retrieved from: <https://crtc.gc.ca/eng/industr/ann.htm>
- 109 *Ibid.*
- 110 *Ibid.*
- 111 CRTC (2020). CBC 2019 Aggregated Conventional Television Annual Return Form. Retrieved from:
https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 112 CRTC (2020). SRC Formulaire de rapport annuel cumulé des entreprise de télévisions traditionnelle pour 2019. Retrieved from: https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publicue.pdf (PDF (Portable Document Format) format) (available in French only)
- 113 CBC/Radio-Canada (2020). Radio revenues and expenses. Internal data shared with Deloitte.
- 114 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final

- 115 Based on data from the Canadian Media Concentration Research Project's 2018 database.
<https://www.cmcrp.org/about/archived-data/>
- 116 CRTC (2020). Aggregate Annual Returns. Retrieved from: <https://crtc.gc.ca/eng/industr/ann.htm>
- 117 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 118 DM#3753144 - Réponse-Response - 9 October 2019 - 2019-0280-0 APP_CBC_Radio_Financials-EN ABRIDGED
- 119 CRTC 2019-91 - Summary of responses to the request for information
- 120 CBC/Radio Canada (2019). 2018-2019 Annual Report. Web Source: <https://site-cbc.radio-canada.ca/documents/impact-and-accountability/finances/2018-2019-annual-report.pdf> (PDF (Portable Document Format) format)
- 121 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 122 CBC/Radio Canada (2020). Our Performance - Media Lines - CBC highlights. Web Source: <https://site-cbc.radio-canada.ca/documents/impact-and-accountability/diversity-inclusion/workforce-effectifs/cbc-radio-canada-diversity-workforce-analysis-Q1-2019-table-1-3.pdf> (PDF (Portable Document Format) format)
- 123 Statistics Canada (2020). Table: 14-10-0018-01 (formerly CANSIM 282-0002). Web Source: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>
- 124 Statistics Canada (2020). 2016 Census. Catalogue Number 98-400-X2016286.
- 125 Statistics Canada (2020). 2016 Census. Catalogue Number 98-400-X2016266.
- 126 Statistics Canada (2020). Table 13-10-0377-01 Labour force status of persons with and without disabilities aged 25 to 64 years, by age group and sex, Canada, provinces and territories. Web source: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310037701>
- 127 Statistics Canada (2020). Table: 14-10-0018-01 (formerly CANSIM 282-0002). Web Source: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>
- 128 Statistics Canada (2020). 2016 Census. Catalogue Number 98-400-X2016286.
- 129 Statistics Canada (2020). 2016 Census. Catalogue Number 98-400-X2016266.
- 130 Statistics Canada (2020). Table 13-10-0377-01 Labour force status of persons with and without disabilities aged 25 to 64 years, by age group and sex, Canada, provinces and territories. Web source: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310037701>

- 131 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 132 DM#3733679 - Réponse-Response - 9 October 2019 - Appendix_3_Q31_On_The_Ground_News_and_information_personnel-EN-FR_Abridged
- 133 DM#3700211 - APP - 2019-0282-5_APP_Appendix_B_Detailed_description_of_services_EN
- 134 CRTC (2020). CBC 2019 Aggregated Conventional Television Annual Return Form. Retrieved from https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 135 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 136 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 137 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 138 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 139 DM#373372 - Réponse-Response - 9 October 2019 - Appendix_3_Q3_On_The_Ground_News_and_informations_personnel-EN-FR
- 140 DM#373372 - Réponse-Response - 9 October 2019 - Appendix_3_Q3_On_The_Ground_News_and_informations_personnel-EN-FR
- 141 DM#3700164 - APP - 2019-0281_7_APP_Annexe_7_RDI_Q34_SRC_Perceptions_d'ICI_RDI_FR
- 142 CBC/Radio-Canada (2019). DM#3700224 - APP - 2019-0282-5_APP_Appendix_10_CBCNN_Q38_Perception_Study_Mission_EN. Retrieved from: https://crtc.gc.ca/eng/archive/2019/2019-379.htm?_ga=2.104683840.1770675006.1585747303-1646780103.1585245980
- 143 CBC/Radio-Canada (2020). 2018-2019 Annual report. Retrieved from: <https://site-cbc.radio-canada.ca/documents/impact-and-accountability/finances/2018-2019-annual-report.pdf> (PDF (Portable Document Format) format)
- 144 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 145 M#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final

- 146 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 147 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 148 DM#373372 - Réponse-Response - 9 October 2019 - Appendix_3_Q3_On_The_Ground_News_and_informations_personnel-EN-FR
- 149 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 150 <https://cbc.radio-canada.ca/en/impact-and-accountability/finances/annual-reports/ar-2018-2019/accountability-plan/performance-media-lines-cbc-highlights>
- 151 <https://cbc.radio-canada.ca/en/impact-and-accountability/finances/annual-reports/ar-2018-2019/accountability-plan/performance-media-lines-cbc-highlights>
- 152 <https://cbc.radio-canada.ca/en/impact-and-accountability/finances/annual-reports/ar-2018-2019/accountability-plan/performance-media-lines-cbc-highlights>
- 153 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 154 *Ibid.*
- 155 *Ibid.*
- 156 CBC/Radio-Canada. (2020). 2019–2020 Annual Report.
- 157 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 158 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 159 DM#3700164 -APP - 2019-0281-7_APP_Annexe_7_RDI_Q34_SRC_Perceptions_d'ICI_RDI_FR
- 160 DM#3720747 - InfoSupp_AddInfo - 30 September 2019 - 2019-0282-5_APP_Appendix_6_CBCNN_Q38_Analysis_of_CBCSRC_Canada_News_Channels_EN
- 161 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 162 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final

- 163 DM#3700220 – APP – 2019-0282-
5_APP_Appendix_6_CBCNN_Q38_Analysis_of_CBCSRC_Canada_News_Channels_EN
- 164 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 165 Quebecor (2020). TVA Group is Quebec’s TV leader. Web Source:
<https://quebecor.solutions/en/communiqués/tva-numeris-hiver-2019#:~:text=Thanks%20to%20its%20trustworthy%20team,a%20market%20share%20of%208.3%25.>
- 166 DM#3700162 – APP – 2019-0281-7_APP-Annexe 5-RDI_Q34_SRC_Analyse_comparative-
des_contenus_ICI_RDI_et_LCN_CEM_FR
- 167 DM#3720747 – InfoSupp_AddInfo – 30 September 2019 – 2019-0282-
5_APP_Appendix_6_CBCNN_Q38_Analysis_of_CBCSRC_Canada_News_Channels_EN
- 168 DM#3700224 – APP – 2019-0282-5_APP_Appendix_10_CBCNN_Q38_Perception_Study_Mision_EN
- 169 DM#3700223 – APP – 2019-0282-
5_APP_Appendix_9_CBCNN_Q38_Media_Content_Analysis_2019_Cormex_EN
- 170 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 171 *Ibid.*
- 172 *Ibid.*
- 173 *Ibid.*
- 174 *Ibid.*
- 175 *Ibid.*
- 176 *Ibid.*
- 177 *Ibid.*
- 178 *Ibid.*
- 179 *Ibid.*
- 180 CRTC. (2020). Broadcasters and Canadian Productions. <https://crtc.gc.ca/eng/industr/tvradio/>
- 181 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final

- 182 CBC (2020). Radio revenues and expenses.
- 183 News is defined by the CRTC as subcategory 11 for radio and category 1 for television.
- 184 CRTC. (2019). [https://crtc.gc.ca/public/5040/SRC Television cumule 2019_publicque.pdf](https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publicque.pdf) (PDF (Portable Document Format) format) (available in French only)
- 185 DM#3700162 – APP – 2019-0281-
7_APP_Annexe_5_RDI_Q34_SRC_Analyse_comparative_des_contenus_ICI_RDI_et_LCN_CEM_fr
- 186 CBC (2020). Radio revenues and expenses.
- 187 DM#3700223 – APP – 2019-0282-
5_APP_Appendix_9_CBCNN_Q38_Media_Content_Analysis_2019_Cormex_EN
- 188 <https://crtc.gc.ca/eng/industr/ann.htm>
- 189 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 190 DM#3700223 – APP – 2019-0282-
5_APP_Appendix_9_CBCNN_Q38_Media_Content_Analysis_2019_Cormex_EN
- 191 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 192 [https://crtc.gc.ca/public/5040/CBC 2019 Television Aggregate Return public.pdf](https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf) (PDF (Portable Document Format) format)
- 193 [https://crtc.gc.ca/public/5040/SRC Television cumule 2019_publicque.pdf](https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publicque.pdf) (PDF (Portable Document Format) format)
- 194 DM#3700162 – APP – 2019-0281-
7_APP_Annexe_5_RDI_Q34_SRC_Analyse_comparative_des_contenus_ICI_RDI_et_LCN_CEM_fr
- 195 DM#3700223 – APP – 2019-0282-
5_APP_Appendix_9_CBCNN_Q38_Media_Content_Analysis_2019_Cormex_EN
- 196 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 197 CRTC (2020). Annual Aggregate Returns. Retrieved from: <https://crtc.gc.ca/eng/industr/ann.htm>
- 198 CRTC (2020). SRC Formulaire de rapport annuel cumulé des entreprise de télévisions traditionnelle pour 2019. Retrieved from: [https://crtc.gc.ca/public/5040/SRC Television cumule 2019_publicque.pdf](https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publicque.pdf) (PDF (Portable Document Format) format) (available in French only)

- 199 CRTC (2020). CBC 2019 Aggregated Conventional Television Annual Return Form. Retrieved from https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 200 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 201 https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 202 https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publique.pdf (PDF (Portable Document Format) format) (available in French only)
- 203 <https://crtc.gc.ca/eng/industr/ann.htm>
- 204 *Ibid.*
- 205 https://crtc.gc.ca/public/5040/CBC_2019_Television_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 206 https://crtc.gc.ca/public/5040/SRC_Television_cumule_2019_publique.pdf (PDF (Portable Document Format) format)
- 207 https://crtc.gc.ca/public/5040/CBC_2019_Discretionary_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 208 https://crtc.gc.ca/public/5040/CBC_2019_Radio_Aggregate_Return_public.pdf (PDF (Portable Document Format) format)
- 209 https://crtc.gc.ca/public/5040/SRC_Radio_cumule_2019_publique.pdf (PDF (Portable Document Format) format)
- 210 <https://crtc.gc.ca/eng/industr/ann.htm>
- 211 DM#3753144 – Réponse-Response – 9 October 2019 – 2019-0280-0 APP_CBC_Radio_Financials-EN ABRIDGED
- 212 CRTC (2020). Aggregate Annual Returns. Retrieved from: <https://crtc.gc.ca/eng/industr/ann.htm>
- 213 *Ibid.*
- 214 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 215 *Ibid.*
- 216 *Ibid.*

- 217 DM#3700231 – APP – 2019-0282-5_APP_Q103_CBC_PNI_Report_template-EN
- 218 DM#3700173 – APP -2019-0281-7_APP_Q103_SRC_PNI_Report_template-EN
- 219 <https://cmf-fmc.ca/funded-projects/funded-projects-database>
- 220 <https://cmf-fmc.ca/funded-projects/funded-projects-database>
- 221 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 222 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 223 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 224 Dm#3700210 – APP – 2019-0282-5_APP_Appendix_B_Detailed_description_of_services_EN
- 225 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 226 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 227 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 228 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 229 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 230 <https://crtc.gc.ca/eng/industr/ann.htm>
- 231 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 232 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 233 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 234 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final

- 235 <https://www.cbc.ca/mediacentre/press-release/the-national-screen-institute-and-cbc-announce-partnership-renewal-for-cbc>
- 236 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 237 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 238 DM#3733722 - Réponse-Response - 9 October 2019 - Appendix
_3_Q31_On_The_Ground_News_and_information_personnel-EN-FR_Abridged
- 239 CBC/Radio-Canada (2020). 2018-2019 Annual report. Retrieved from: <https://site-cbc.radio-canada.ca/documents/impact-and-accountability/finances/2018-2019-annual-report.pdf> (PDF (Portable Document Format) format)
- 240 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 241 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 242 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 243 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 244 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 245 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 246 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-
0_CBC_Application_Form_TV_and_Radio_EN-Final
- 247 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 248 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 249 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 250 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 251 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 252 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 253 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 254 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.

- 255 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte.
- 256 TV revenues and expenses
- 257 DM#3755579 – Réponse-Response – 9 October 2019 – 2019-0281-7 APP_SRC_TV_Financials-EN-ABRIDGED
- 258 DM#375582 – Réponse-Response – 9 Octobre 2019 – 2019-0282-5 APP_CBC_TV_Financials-EN ABRIDGED
- 259 CBC/Radio-Canada (2020). ANNUAL_REPORTS_Reference_684797_-_2918-2019_Appendix_3_Programs_of_National_Interest_in_PrimeTime
- 260 CBC/Radio-Canada (2020). ANNUAL_REPORTS_Reference_684797_-_2918-2019_CBCSRC_Annexe_3_EIN_EN
- 261 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte
- 262 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte
- 263 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte
- 264 CBC/Radio Canada (2020). Deloitte_Social and cultural impacts. Internal data prepared for Deloitte
- 265 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 266 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 267 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 268 DM#3733685 - Réponse-Response - 9 October 2019 - 2019-0280-0_CBC_Application_Form_TV_and_Radio_EN-Final
- 269 User-generated sentiment indicates sentiments from real social media accounts operated by Canadians, as opposed to bot accounts that sometimes generate content to artificially generate narratives on a given topic or organization.

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