

# **The Economic Contribution of the Film and Television Sector in Canada**

**July 2013**





This report was commissioned by the Motion Picture Association - Canada, in collaboration with the Canadian Media Production Association, and conducted by Nordicity. Building on research released in *Profile 2012: An Economic Report on the Screen-based Production Industry in Canada*, this comprehensive study captures the impact of the entire industry value chain on the country's economy, including the direct, indirect and induced impacts of film and television production and distribution, manufacturing, and distribution of content to consumers (e.g. exhibition, retail sales and rentals, television broadcasting, etc.). The report also investigates spillover economic effects, such as film festivals, tourism and more.



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#### THE FILM AND TELEVISION SECTOR IN CANADA COMPRISES NINE VALUE CHAIN SEGMENTS:

1. PRODUCTION
2. DISTRIBUTION
3. MEDIA MANUFACTURING AND DIGITAL ASSET MANAGEMENT
4. FILM FESTIVALS
5. THEATRICAL EXHIBITION
6. DVD/BLU-RAY SALES AND RENTALS
7. VIDEO-ON-DEMAND AND ONLINE DIGITAL
8. BROADCASTING
9. BROADCASTING DISTRIBUTION

#### HIGHLIGHTS - IN 2011, THE FILM AND TELEVISION SECTOR IN CANADA:

- Supported **262,700 full time equivalent jobs (FTEs)** in Canada across the entire value chain, including 132,500 FTEs supported by film and television production
- Generated **\$12.8 B in labour income** for Canadians
- Generated **\$20.4 B in gross domestic production (GDP)** across the Canadian economy
- Recorded an **export value of \$2.4 B**
- Returned **\$5.5 B in tax revenue**: \$2.8 B in federal taxes and \$2.7 B in provincial and local taxes
- Produced **\$279.7 M worth of computer animation**
- Produced **\$435.0 M worth of visual effects**
- Attracted **1.9 million in total attendance** and over **\$160 M in expenditures to Canada's major film festivals**

#### ANCILLARY ECONOMIC BENEFITS:

The economic contribution of the film and television sector does not stop with the economic and tax revenue impacts originating from activity in the value chain. The sector's economic contribution also manifests itself over time through industry development, and through spillover effects captured by the construction and tourism sectors.

##### SOUNDSTAGE CONSTRUCTION

The construction or renovation of 365,000 sq. ft. of soundstage space in the past five years has generated between 450 and 650 FTEs of employment.

##### FILM-INDUCED TOURISM

Tourists attracted to the locations of films and television programs e.g.: **The Twilight Saga**, **Smallville**, **Supernatural**, **Republic of Doyle**, and **Scott Pilgrim vs. The World**.



## List of Acronyms

|       |  |
|-------|--|
| BDU   | Broadcasting Distribution Undertaking (i.e. cable or satellite TV service providers) |
| FTE   | Full-time Equivalent   |
| CASO  | Computer Animation Studios of Ontario  |
| CAVCO | Canadian Audio-visual Certification Office   |
| CMPA  | Canadian Media Production Association  |
| COGS  | Cost of Goods Sold   |
| CRTC  | Canadian Radio-television and Telecommunications Commission                          |
| DTH   | Direct-to-Home   |
| FLS   | Foreign Location and Service   |
| GDP   | Gross Domestic Product   |
| IO    | Input-Output   |
| IPTV  | Internet protocol television   |
| MDS   | Multipoint Distribution Systems  |
| MPTAC | Motion Picture Theatres Association of Canada  |
| NAICS | North American Industry Classification System  |
| OTT   | Over the Top (e.g. Netflix)  |
| OTA   | Over the Air   |
| PPV   | Pay Per View   |
| SIRT  | Screen Industries Research and Training Centre                                       |
| VOD   | Video-on-Demand  |

## Executive Summary

### *Background and economic impact*

For well over a century, film and television have been integral to the social and cultural fabric of Canada. And while film and television have left an indelible cultural contribution on Canadian society, they have also made a significant contribution to the Canadian economy.

The economic contribution of Canada's film and television sector begins with the development and production stages of the value chain. Once a film or television program is completed, it enters distribution and is ultimately released in theatres, on television and, more recently, in the increasing number of online platforms. Each of these subsequent stages of distribution and content consumption adds economic value to film and television content. These value-adding processes create thousands of jobs for Canadians and generate gross domestic product (GDP) for the Canadian economy.

In 2011, the film and television sector in Canada supported **262,700 full-time equivalent workers (FTEs)**, and generated **\$12.8 billion in labour income** for Canadians and **\$20.4 billion in GDP** for the Canadian economy (Exhibit 1).

#### **Exhibit 1 Summary of economic impact, 2011**

|                     | Direct impact | Indirect impact | Induced impact | Total impact   |
|---------------------|---------------|-----------------|----------------|----------------|
| Employment (FTEs)   | 108,600       | 111,100         | 43,000         | <b>262,700</b> |
| Labour income (\$M) | 6,356         | 4,632           | 1,807          | <b>12,795</b>  |
| GDP (\$M)           | 9,721         | 7,616           | 3,068          | <b>20,405</b>  |

Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

The employment and economic activity stimulated by the film and television sector in Canada also yields significant revenue for the federal and provincial governments. In 2011, the total economic impact of the film and television sector generated an estimated **\$2.8 billion in federal tax revenue** and **\$2.7 billion in provincial government revenue** (Exhibit 2). The total tax-revenue impact of the sector was **\$5.5 billion** in 2011.

#### **Exhibit 2 Summary of impact on tax revenue, 2011 (\$M)**

|             | Federal | Provincial* | Total        |
|-------------|---------|-------------|--------------|
| Tax revenue | 2,844   | 2,655       | <b>5,499</b> |

Source: Nordicity estimates based on data from CMPA, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest, and Statistics Canada, CANSIM tables 384-0001 and 385-0001.

\* Includes local property taxes and other fees.

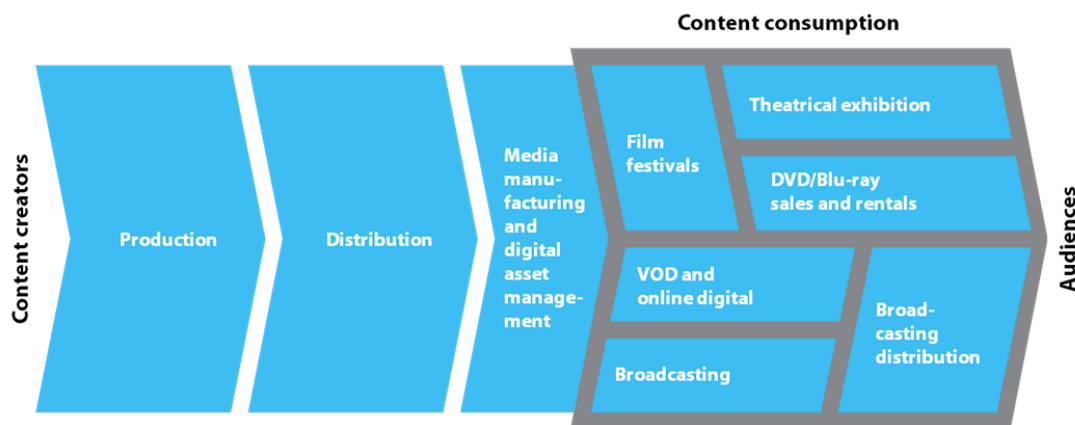
### *Film and television value chain in Canada*

From content production through to content consumption, the various segments of the film and television value chain in Canada are significant sources of sector revenue or production volume. The **broadcasting distribution** industry – which includes cable-television, direct-to-home satellite (DTH), Internet protocol television (IPTV) and multipoint distribution systems (MDS) – earned \$8.6 billion in total revenue in 2011 (Exhibit 41). And despite the fact that the number of broadcasting distribution

subscribers grew by a modest compound annual growth rate (CAGR) of 2.2% between 2007 and 2011 (Exhibit 40), total revenue grew at a CAGR of 8.0% (Exhibit 41).

The **broadcasting** industry (excluding video-on-demand [VOD] and pay-per-view [PPV] services) earned over \$6.8 billion in revenue (Exhibit 35). And despite the sharp drop in advertising revenue during the 2008-09 recession, the broadcasting industry experienced steady growth between 2007 and 2011. Revenue expanded at a CAGR of 3.7% (Exhibit 35), as the industry continued to realize more of its total revenue from specialty and pay television services with mixed revenue models that include subscriber fees and advertising (Exhibit 36).

**Exhibit 3 Film and TV value chain**



The **production** industry was also relatively resilient in recent years, in the face of rapid value chain evolution and the added pressures from a rising Canadian dollar and global competition for Hollywood’s location production. Just under \$5.9 billion was spent on the production of films and television programs in Canada in 2011. This level of production volume meant that the production industry was also the value chain’s primary engine of job creation, with 52,100 FTEs of direct employment (Exhibit 10), and with job creation in every province and territory (Exhibit 12). The combination of consistent and stable support from government, and the growing quality and capacity of Canadian talent and crews have underpinned the sustained activity and employment in this sector.

Over the past decade, the combination of digital technology, broadband Internet and new household entertainment devices, has led to the rapid evolution of the film and television value chain. The content consumption side of the value chain continues to experience fragmentation, as audiences expand the types of technologies and platforms they use to find and watch film and television content. Release windows are more compressed and complex with the advent of new digital platforms; and some industry segments of the value chain – such as film-printing – have all but disappeared. The effects of this rapid value chain evolution are evident in many industries within Canada’s film and television sector.

Canada’s **theatrical exhibition** industry has also been relatively resilient in recent years, despite the growth of alternative platforms. Canadians spent \$1 billion at the box office in 2011 (Exhibit 24). These box office receipts helped maintain an industry workforce of 8,300 FTEs (Exhibit 26), as the



theatre chains have been effective in investing in new ways to provide an attractive experience for the moviegoer.

The **DVD/Blu-ray sales and rentals** industry has not been as resilient in recent years, however. The industry has largely followed a global trend away from the use of DVD/Blu-ray discs as the primary home entertainment platform. Between 2007 and 2011, total consumer spending in Canada's DVD/Blu-ray sales and rentals market fell by over one-third (Exhibit 28). Nevertheless, Canadians still spent nearly \$1.8 billion on purchases and rentals of DVD/Blu-ray discs in 2011. This spending, in turn, supported an estimated 8,500 FTEs in Canada's retail sector (Exhibit 30). However, as consumer spending on DVD/Blu-ray sales and rentals declines, the overall employment impact associated with secondary windows for content are likely to diminish because the electronic delivery systems that are displacing video stores are far less labour intensive.

Canada's film and television **distribution** industry remains both largely foreign-controlled and underpinned by the distribution of foreign content. In 2011, approximately 75% of industry revenue was earned by foreign-controlled distributors. The distribution industry's overall revenue was dragged down in recent years by the decline of the wholesaling of pre-recorded videos. However, earnings from the distribution of film and television content continued to grow steadily between 2007 and 2011 (Exhibit 13). In total, distribution revenue in Canada was an estimated \$1.9 billion in 2011 (Exhibit 13).

Canada is home to some of the leading international **film festivals**, including the Toronto International Film Festival, Hot Docs, the Montreal World Film Festival and Vancouver International Film Festival. These major film festivals across Canada attracted an estimated audience of 1.9 million in 2011 (Exhibit 19), as well as over 18,000 industry delegates (Exhibit 20). Festival operations, visitor spending and delegate spending, combined, were worth \$163 million in 2011 and generated 2,000 FTEs of employment (Exhibit 23). Scores of smaller festivals also attracted audiences across Canada.

The **media manufacturing and digital asset management (DAM)** industry has probably experienced the greatest disruption from the value chain evolution in recent years. Of all the value chain industry segments, it has, arguably, been most affected by the rapid decline in DVD/Blu-ray sales and rentals. Employment in media manufacturing fell by 50% between 2007 and 2011 (Exhibit 16). What is more, the global move from film prints to digital distribution has virtually shuttered this type of activity in Canada. However, some of the companies that once provided film lab services are moving into the provision of DAM services. They are serving a host of international clients as well as the domestic market. While positive in itself, DAM requires less labour than the physical product handling.

#### ***Ancillary economic benefits***

The economic contribution of the film and television sector does not stop with the economic and tax revenue impacts originating from activity in the value chain. The sector's economic contribution also manifests itself over time through *industry development*, and through spillover effects captured by the construction and tourism sectors.

Canada's film and television sector has now entered a third wave of industry development. This third wave is characterized by increasing domestic participation at the higher end of the value chain – the creation of larger-budget productions, the provision of visual effects (VFX) and post-production



services, and innovation in production technology itself (e.g. motion capture, 3D, and large-screen formats).

Computer animation and VFX studios have emerged as critical elements in the new wave of production capabilities in Canada. Canada's **computer animation** studios perform fee-for-service work for other domestic and foreign producers, and create their own intellectual property (IP). In 2011, they generated an estimated \$279.7 million in expenditures – up by 11.3% compared to 2009 (Exhibit 65). Canada's **VFX** industry, which operates largely on a fee-for-service basis, experienced a 67% rise in production activity between 2009 and 2011, as total expenditures increased from \$260.7 million to \$435.0 million. This VFX activity included production for foreign clients who produced their programming elsewhere but engaged Canadian studios to supply VFX services (Exhibit 67).

Through the construction, renovation and retrofitting of soundstages, the film and television sector has a significant spillover effect on Canada's construction sector. Canada currently has 2.8 million square feet ("sq. ft.") of soundstage and studio capacity. During the past five years, approximately 365,000 sq. ft. of additional soundstage space has opened in Canada. The construction activity associated with these new facilities is estimated to have generated between 450 and 650 FTEs of employment.

The film and television sector also has a spillover effect on the tourism sector through *film-induced* tourism, which captures tourism associated with both films and television programs. And while there are no statistics available on film-induced tourism in Canada, several notable feature films and television series shot in Canada, such as *The Twilight Saga*, *Smallville* and *Supernatural* (British Columbia), *Scott Pilgrim vs. The World* (Ontario), and *Republic of Doyle* (Newfoundland) draw loyal fans to production locations.

All this activity constitutes a major economic sector in Canada: lots of attractive employment opportunities, foreign investment, and new investment in soundstage infrastructure in Canada. Furthermore, Canada's film and television sector has proven to be resilient in the face of economic challenges and intensive foreign competition, in fact, more so than many traditional industrial sectors of the Canadian economy. As a result, the film and television sector is well-positioned to continue to grow and generate skilled employment for Canadians right across the country.

## 1. Introduction

### 1.1 Background

#### ***Film and television has been an integral part of the social and cultural fabric of Canada for well over a century***

For well over a century, film and television has been an integral part of the social and cultural fabric of Canada. In 1896 – only two years after the first public cinema screening in New York – Andrew and George Holland brought Thomas Edison’s Vitascope experience to Ottawa audiences.<sup>1</sup> Before the end of the 19<sup>th</sup> century Canadians had already joined the ranks of the world’s earliest filmmakers. Many of Canada’s first films, including *Ten Years in Manitoba* and *Living Canada*, extolled the virtues of life in Canada and helped attract Europeans to immigrate to Canada.<sup>2</sup>

Following World War Two, film and television quickly became part of Canadians’ everyday life. CBC/Radio-Canada brought Canadian television programming to Canadian households – coast to coast. By the 1970s, Canada’s cable-television infrastructure permitted the country’s growing urban populations to enjoy not only Canadian television programs, but also much of the American network programming that was previously only available to border residents close to American television transmitting stations. Over the decades, film and television, have enabled Canadians to share many nation-defining moments, not the least of which have been Canada’s sports triumphs.

#### ***As well as its indelible contribution to Canadian culture and society, film and television make a significant contribution to the Canadian economy***

From the National Film Board of Canada to the CBC/Radio-Canada to the Oscar Award nominations and wins, film and television has left an indelible cultural contribution on Canadian society. Alongside this important cultural contribution, however, it is important to also recognize that film and television also makes a significant contribution to the Canadian economy.

The Canadian Media Production Association (CMPA) has led the way in fostering a better understanding of the economic contribution of film and television *production* in Canada. The most recent edition of its annual statistical compendium, *Profile 2012: An Economic Report on the Screen-based Production Industry in Canada* (“Profile 2012”), reports that the production of film and television content in Canada generated over 50,000 full-time equivalent jobs (FTEs) during the 2011-12 fiscal year, and supported a further 80,000 spin-off FTEs throughout the Canadian economy.<sup>3</sup>

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<sup>1</sup> Peter Morris, “The History of Film in Canada,” *The Canadian Encyclopaedia*, accessed January 31, 2013, <http://www.thecanadianencyclopedia.com/articles/film-history>.

<sup>2</sup> *Ibid.*

<sup>3</sup> Canadian Media Production Association (CMPA), Association des producteurs de films et de télévision du Québec (APFTQ) and Department of Canadian Heritage, *Profile 2012: An Economic Report on the Canadian Screen-based Production Industry in Canada*, February 2013, p. 8.



The economic contribution of film and television content does not stop with the production stage of the sector's value chain. Once a film or television program is completed, it enters distribution and ultimately theatres or television-release windows. Along the way, some film and television content will also enter the retail sales and consumer rental window. While its role is now declining because of the proliferation of video on demand (VOD) and over-the-top (OTT) online services in Canada, for years there has been economic stimulus from the manufacturing of physical media. Content developed primarily for television has other outlets in physical and electronic distribution. Films also have a television-distribution window – on conventional or specialty-television services – after their sales, rental, VOD and pay-television windows have matured.

All of these value chain activities also make a contribution to the Canadian economy. In some cases, the impacts on employment and economic value added (i.e. gross domestic product [GDP]) from distribution may be limited in Canada. In other cases, economic contribution from the distribution and sales of film and television content can be just as significant as that of the production stage of the value chain.

As a whole, it is important to maintain strength in distribution as well as production through continuous investment, skills upgrading, and innovation in all stages of the value chain. Technology enables disintermediation as well as innovation, and the film and television sector's economic contribution will wax or wane depending on the sector's success in meeting these challenges.

## 1.2 Nordicity's Mandate

As noted above, *CMPA's Profile 2012* provides an authoritative quantification of the economic contribution of film and television production. However, no study has yet established an estimate of the overall economic contribution of the entire film and television sector's value chain in Canada. To address this gap, the Motion Picture Association - Canada ("MPA-Canada"), in collaboration with CMPA, commissioned Nordicity to prepare an analysis of **The Economic Contribution of the Film and Television Sector in Canada**.

The following report presents the results of Nordicity's research and analysis. It builds on statistics released in *Profile 2012* and captures the impact of the entire film and television sector's value chain on Canada's economy. This report addresses each stage of economic impact – direct, indirect and induced – across all segments of the sector, including production, distribution, media manufacturing, and the various channels through which consumers can access content (e.g. theatrical exhibition, DVD/Blu-ray sales and rentals, television broadcasting and Internet).

For each stage of economic impact, the report provides a quantification of the employment, labour income and GDP effects. The report also investigates certain spillover economic effects, such as soundstage construction and tourism. This comprehensive review and analysis of Canada's film and television sector provides a full picture of the economic impact of the whole film and television sector in Canada.



### 1.3 Report outline

Following this introduction section, the report is organized into five sections. **Section 2** outlines the methodology used by Nordicity to prepare the analysis and report. **Section 3** provides a detailed discussion of each industry segment within the film and television value chain in Canada. For each industry segment, we draw upon primary and secondary data to provide estimates of operating revenue, expenditures, labour income and employment.

**Section 4** presents the results of the economic impact analysis, which draws upon the analysis in Section 3. It includes estimates of the direct impact of each value chain segment in terms of employment, labour income, GDP and export value. This section also presents estimates of the spin-off and total economic impact of each value chain segment and in aggregate across the film and television value chain. On the basis of these estimates of the total economic impact, we also present estimates of the tax revenue generated by the economic activity stimulated by the sector.

**Section 5** investigates many of the ancillary economic benefits that can be attributed to the film and television sector in Canada. Some of these economic benefits are observable, but not necessarily quantifiable. While the economic benefits are calculated in the value chain analysis of Section 4, some elements such as computer animation and visual effects (VFX) warrant a separate discussion because of the potential long-term benefits they can have on the sector and the Canadian economy. Finally, this section addresses the spillover effects in infrastructure construction and tourism, which reside outside of the film and television sector's value chain, but still owe their existence to the sector.

**Section 6** summarizes the key findings from the analysis.

## 2. Methodology

In this section, we outline the methodology used to prepare this report, including the secondary research and data compilation, primary research and economic impact modelling techniques.

### 2.1 Secondary research and data

Secondary research, and the compilation and analysis of data from secondary sources played a key role in the preparation of this report. We consulted reports published by CMPA, Statistics Canada, the Canadian Radio-television and Telecommunications Commission (CRTC) and the Department of Canadian Heritage. We also sourced data from those organizations, as well as the Motion Picture Theatres Associations of Canada (MPTAC), IHS Screen Digest, the Ontario Media Development Corporation (OMDC), BC Film+Media and Observatoire de la Culture et des Communications du Québec.

Many of the publications issued by these organizations were also sources of the key data that were the basis of the calculations and estimates in this report, illustrated as follows:

- CMPA was a source of data for film and television production.
- Data for the distribution and theatrical exhibition segments were sourced from Statistics Canada.
- MPTAC supplied box office data for the analysis of the theatrical exhibition segment.
- The analyses of the VOD and online digital, broadcasting and broadcasting distribution segments were based wholly or partially on data from CRTC.
- IHS Screen Digest provided specific data for the analyses of the DVD/Blu-ray sales and rentals, and VOD and online digital segments.
- Data from OMDC, BC Film+Media and Observatoire de la culture et des communications du Québec (OCCQ) were integral to the derivation of estimates of computer animation and VFX production in Canada.

We also consulted a variety of industry reports, trade-journal articles and relevant web sites. A complete list of the publications consulted for this report can be found in the References and Data Sources section at the end of this report.

### 2.2 Primary research

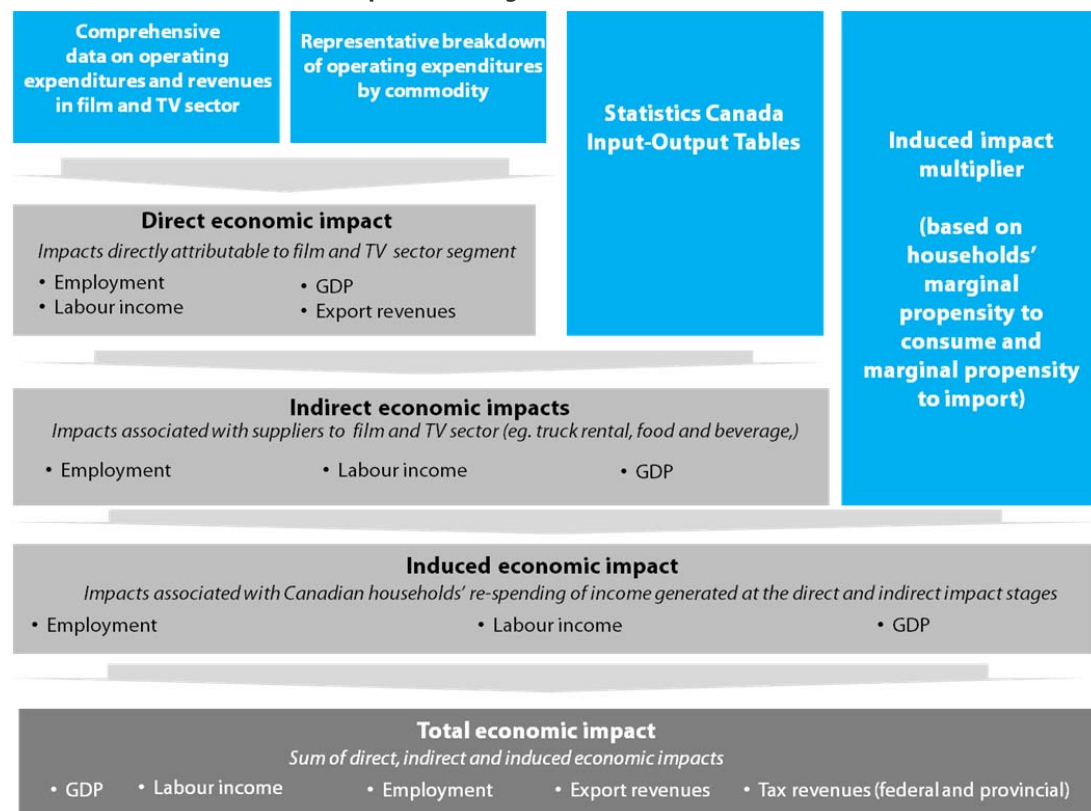
To supplement the secondary research and data, we also conducted focused interviews with 23 industry representatives. These interviews were used to gather additional context and validate certain assumptions used in the preparation of our estimates. A list of interviewees can be found in Appendix C.

## 2.3 Economic impact modelling

The economic impact modeling (presented in Section 4) draws upon the secondary data and Statistics Canada’s Input-Output (I-O) tables to generate estimates of the economic impact of each industry in the film and television sector and the sector as a whole, in terms of employment, labour income and GDP.

Exhibit 4 summarizes the three stages of economic impact analysis, the key data and modelling considerations for each stage, and the economic-variable outputs. The total economic impact of the film and television sector can be characterized in terms of three stages of economic impacts: **direct**, **indirect** and **induced impacts**. To model these impacts, we compiled data on industry activity, prepared a representative breakdown of industry cost structure, obtained Statistics Canada’s I-O tables, and derived a custom induced impact multiplier.

**Exhibit 4 Overview of economic impact modeling**



### Direct impact

The direct economic impact refers to the employment, labour income and GDP generated within the film and television sector itself. This direct economic impact is largely in the form of wages and salaries paid to the sector's workers (i.e. employees, freelancers and contractors). It also includes operating surplus (i.e. operating profits [return to shareholders] and sole proprietors' income) earned by companies and the value of depreciation of capital assets.

To estimate the direct economic impact we compiled comprehensive data on industry activity (i.e. revenue, wages and salaries, and other operating expenditures) and a representative breakdown of cost structures for each segment. The compiled data and cost-structure breakdowns were used in conjunction with Statistics Canada's I-O tables for the Canadian economy to derive estimates of direct employment (FTEs), labour income and GDP.

### Indirect impact

The indirect impact refers to the increase in employment, labour income and GDP in the industries that supply inputs to the film and television sector (e.g. truck rentals, food and beverage, advertising services). These suppliers may be located within Canada or in other countries; and therefore, there can be some economic leakages out of the Canadian economy, which reduce the potential indirect economic impact for Canada. In many cases, one film and television value chain industry is a supplier to another industry; so these intra-sector flows were also taken into account.

The conversion of data for industry activity into estimates of the indirect economic impact requires an I-O model of the particular regional or national economy under analysis. Nordicity used Statistics Canada's I-O tables to construct a model that could be used to estimate the indirect economic impact. This model took into the pattern of re-spending by the film and television sector's supplier industries, and the degree to which these supplier industries' purchases leaked from the Canadian economy in the form of imported inputs.

### Induced impact

The induced economic impact refers to the increase in employment, labour income and GDP that can be attributed to the re-spending of income by Canadian households that earned income at both the direct and indirect stages of the economic impact. Because Statistics Canada I-O tables only permit one to estimate the indirect impacts of an industry, sector or economic shock, Nordicity developed and applied a custom induced impact economic multiplier to derive estimates for this analysis. This multiplier is based on Nordicity's estimates of the marginal propensity to consume (MPC) and marginal propensity to import (MPM) for Canada. The derivation of the MPC and MPM are based on data for household spending and international trade available from Statistics Canada. Additional details for Nordicity's induced-impact multiplier can be found in Appendix B.

### Total economic impact

The total economic impact is equal to the sum of the direct, indirect and induced economic impacts. Based on the estimates of economic variables for the direct, indirect and induced economic impacts, we derived overall estimates of the total impact that each industry in the film and television sector (and the sum of the segments) had on employment, labour income and GDP.





### Tax revenue

To estimate the tax revenue generated by the total economic impact across the film and television sector, Nordicity applied a simple tax impact model, which was based on the relationship between federal and provincial tax revenue and total labour income (i.e. wages and salaries) or GDP in the Canadian economy. The data and assumptions underlying Nordicity's tax impact model can be found in Section 4.3.

### 3. Film and Television Value Chain

In this section we provide a description and analysis of the structure and performance of the film and television sector in Canada. We begin with a general overview of the film and television value chain and how the content consumption side of the value chain is rapidly changing, as audiences increase their use of alternative digital platforms. This is followed by a more in-depth analysis of the financial and economic performance of each industry within the value chain. For certain industries, we also discuss and analyze the key trends during the period, 2007 to 2011.

#### 3.1 Overview of film and television value chain

Until recently, the film and television value chain was considered relatively orderly. The major global studios and independent filmmakers created and produced films that distributors – many of which are owned by the major global studios – initially released in the theatrical exhibition window. The exhibition window release was followed six to eight months later by a sequence of releases into the pay-TV, pay-per-view (PPV) and home-video windows. Some years later, the film would be released on cable television and finally broadcast television.

Television programming was also characterized by a relatively orderly value chain. A commissioning broadcaster's exclusive rights to a television program would typically last for five to seven years, after which the program would revert to syndication. In Canada, this syndication often meant that repeats of the television program would begin to air on specialty-TV services. The more successful television series would be released into the home video market.

Over the past decade, the combination of digital technology, broadband Internet and new household entertainment devices has led to the rapid evolution of the film and television value chain. Certain industry segments within the value chain – particularly those in proximity to audiences – have undergone fragmentation. Release windows are no longer always sequential. And where sequential releasing is still very common, the time between release windows has compressed.

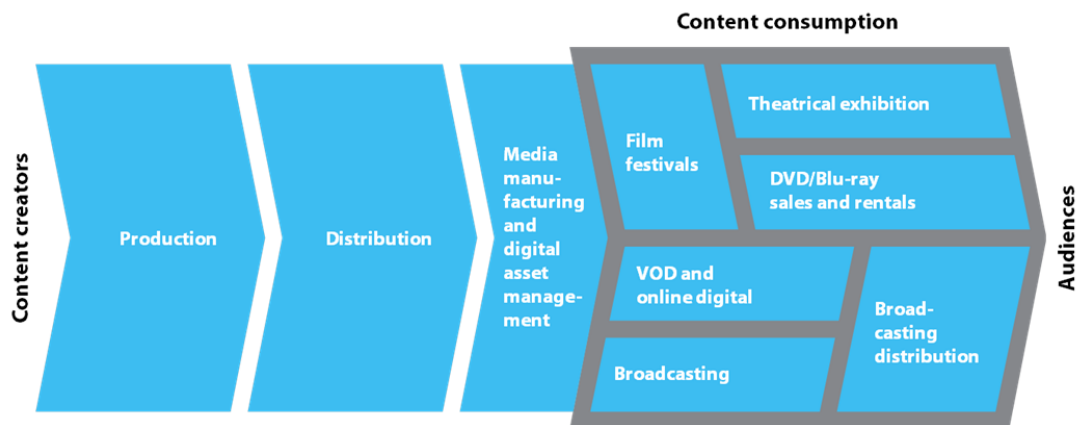
Exhibit 5 depicts the current configuration of the film and television value chain in Canada in a simplified manner. This configuration provided the basis for our analysis of the film and television sector. The film and television value chain begins with the production stage. **Production** converts the creative ideas of the screenwriter and director into a finished film or television program.

The production stage is followed by **distribution**. Distribution companies typically control the economic rights of films and television programs. These companies plan and execute the release windowing of the film and television program with a view to optimizing the revenue potential of the content.

Before a film or television program can reach audiences, it has to be transferred to some type of media (i.e. media manufacturing) or delivered to its release window in some manner. Traditionally this **media manufacturing** and delivery involved the processing and duplication of film and tape copies. The proliferation of digital cinema in recent years, as well as consumers' continued uptake of online digital services (e.g. iTunes and Netflix), has meant that **digital asset management (DAM)** services play a larger role. DAM entails both the encoding of digital-file copies of films and television

programs as well as the transmission of these copies to digital cinemas or online digital services, and any required file storage medium.

**Exhibit 5 Film and television value chain**



The fragmentation and flux in the value chain is most evident in the content consumption stage. **Film festivals** have become an important economic actor in the value chain. While film festivals do not directly generate large audiences for films, they are now an important venue through which producers and distributors can raise awareness for their films and sell them into previously unsold territories. What is more, film festivals often generate significant economic benefits for their host cities.

Most films are still released first in the theatrical exhibition window; however, this is not always the case, particularly in Canada. The intense competition for access to theatrical screens often means that some films are first released in the home video market – that is, the **DVD/Blu-ray sales and rentals** market. Some films may also be released first on **VOD and online digital** platforms.

For television programming, content consumption typically begins in the **broadcasting** industry, which includes over-the-air (OTA) conventional television broadcasters, pay-TV, and specialty-TV services that operate in Canada. Television programming may also experience an initial or subsequent release on DVD/Blu-ray, VOD or online digital platforms.

For the Canadian market it is important to recognize the role of cable-television, direct-to-home satellite (DTH), Internet protocol television (IPTV) and other point-to-multipoint services. They play an essential role in ensuring that Canadian audiences can reliably access the television programming available from pay-TV and specialty-TV services, as well as conventional OTA broadcasters. These entities comprise the **broadcasting distribution** industry and within the Canadian market are collectively referred to as broadcasting distribution undertakings (BDUs). Given that 90% of Canadians receive their television programming through a BDU, this industry is a vital link between broadcasters and their audiences.<sup>4</sup>

<sup>4</sup> CRTC, *Communications Monitoring Report 2012*, p. 95.

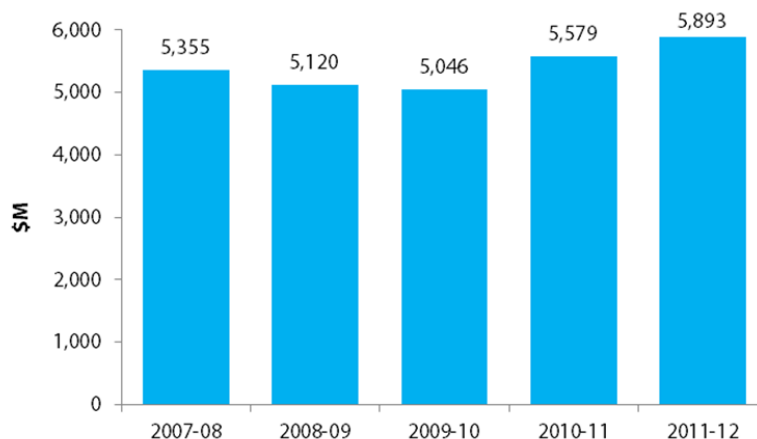
## 3.2 Film and television production

### *The production of films and television programs in Canada reached an all-time high of \$5.9 billion during the 2011-12 fiscal year*

Canada has a long history of film and television production, and has been popular for a long time with foreign producers. Today, production is one of the largest industries in Canada's film and television sector. During the 2011-12 fiscal year (April 1, 2011 to March 31, 2012), just under \$5.9 billion was spent on the production of films and television programs in Canada (Exhibit 6).<sup>5</sup>

Canada's total volume of production experienced year-over-year declines in 2008-09 and 2009-10, as the effects of the recession, and increased competition on the location-shooting market dragged down overall levels of production. In 2010-11, Canada's production industry bounced back with a 10.6% increase in production volume. The overall volume of production rose by a further 5.6% in 2011-12 to an all-time high.

**Exhibit 6 Total volume of film and television production**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, and the Association of Provincial Funding Agencies.

Canada's production industry has four key segments (Exhibit 7). The largest segment, **Canadian television** production, includes television programs made by Canadian producers and certified as Canadian content (on the basis of the Canadian content points scale). In 2011-12, the Canadian television segment recorded \$2,576 million in production volume and accounted for 44% of Canada's total production volume (Exhibit 7 and Exhibit 8).

The production of feature-length and short films certified as Canadian content falls within the **Canadian theatrical** segment. In 2011-12, Canadian theatrical production reached a five-year high of

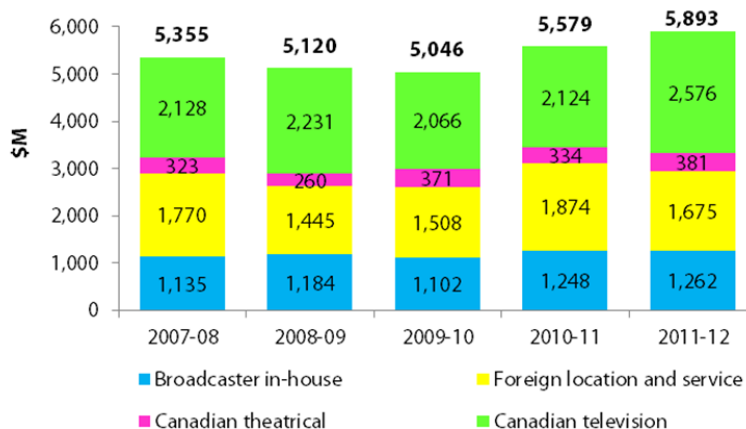
<sup>5</sup> The production-industry statistics presented in this report exclude expenditures on the production of television advertising.

\$381 million and accounted for 6% of total production volume, making it the smallest of the four segments.

**Foreign location and service (FLS)** production predominantly comprises films and television programs for which the copyright is held by a foreign entity.<sup>6</sup> In 2011-12, FLS production totalled \$1,675 million, making it the second largest segment, with a 28% share of total production.

**Broadcaster in-house production** largely comprises news and sports programming produced directly by broadcasters without the involvement of independent producers or Hollywood studios. In 2011-12, broadcaster in-house production totalled \$1,262 million and accounted for 21% of total production in Canada.

**Exhibit 7 Volume of film and television production by segment**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, and the Association of Provincial Funding Agencies.

### ***Industry growth in recent years has been fuelled by an increasing number of high-budget drama and lifestyle series produced by Canadians for Canadian and American broadcasters***

The overall growth in film and television production in Canada in the past three years has been driven largely by Canadian television production, although Canadian theatrical production and broadcaster in-house production have also contributed to the growth. Between 2009-10 and 2011-12, Canadian television production increased by 25%. While this growth reflects the national picture, it masks substantial changes in share among provinces, in genre, and in foreign vs. domestic production.

This overall growth was fuelled in large part by an increasing number of high-budget drama series – many of which also aired on American broadcast networks – and a proliferation of lifestyle shows – many of which were also pre-sold to American cable channels. Increasing skill levels among the

<sup>6</sup> In a minority of cases, the copyright is held by a Canadian producer; however, because the film or television program does not qualify as Canadian content, the production is considered a service production.

creative and technical labour force, and confidence in Canadian producers' management of major projects were positive factors. Stability in support mechanisms – primarily tax credits, regulation and funding programs – has played a huge role in attracting foreign producers and capital in general.

With expanding production of news and sports programming, broadcaster in-house production grew by 15% between 2009-10 and 2011-12. Canadian theatrical production was also higher in 2011-12; however, over the previous five years it displayed a tendency to significant annual fluctuations in accordance with the production of large-budget feature films. Indeed, for the Canadian market, the production of large-budget international coproductions and co-ventures, such as *Resident Evil*, can have a significant effect on the overall level of production in a given year.

## **Total Recall**

*Total Recall* (Sony Pictures, Feature Film, 2012) filmed for 15 weeks (105 days) in Ontario and spent more than US\$75 million on production, before rebates. Local expenditures included more than US\$1.5 million in hotel accommodations and more than US\$1 million on local food vendors and caterers. The production employed more than 2,300 cast and crew, and hired more than 2,200 extras.

According to Monty Montgomery, business manager for IATSE Local 873, members of the union received more than \$25 million in wages from their work on *Total Recall*. During peak production, as many as 600 film workers from the IATSE local were on-site at once. Altogether, the movie provided 45,000 days of paid work to IATSE 873's members.

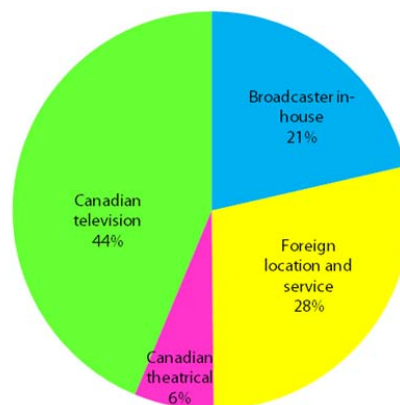


Source: Sony Pictures Entertainment Inc.; Tony Wong, "How 'Total Recall' saved Toronto's film industry," *Toronto Star*, September 22, 2011, accessed April 5, 2013, [http://www.thestar.com/news/2011/09/22/how\\_total\\_recall\\_saved\\_torontos\\_film\\_industry.html](http://www.thestar.com/news/2011/09/22/how_total_recall_saved_torontos_film_industry.html).

## **Canada's skilled crews and attractive production incentives ensure that Canadian locations remain one of Hollywood's preferred destinations for filming in an increasingly competitive market**

The increases in these segments offset a 10.6% drop in FLS production in 2011-12. In what is very much a global market, Canada is recognized for its skilled crews and attractive production incentives. However, the rising Canadian dollar and increasing competition from jurisdictions in the United States (US) and elsewhere have dampened what had been one of Canada's fastest-growing segments of production.

**Exhibit 8 Share of volume of film and television production, by segment, 2011-12**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, and the Association of Provincial Funding Agencies.

Note: Some totals may not sum due to rounding.

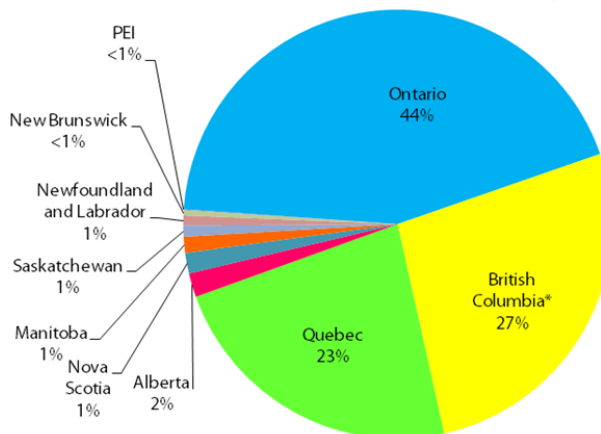
Every province and territory in Canada is home to some film and television production; however, three provinces – Ontario, British Columbia and Quebec – account for the vast majority of production activity (Exhibit 9).

- As the home to Canada’s French-language production and broadcasting industries, Quebec accounted for 23% of total production in 2011-12.
- With its relative close proximity to Hollywood, British Columbia is Canada’s leading centre for FLS production. In 2011-12 it accounted for nearly 27% of total production.
- Ontario is home to most of Canada’s English-language producers and broadcasters. It also has a vibrant FLS production segment. In 2011-12, Ontario accounted for 44% of total film and television production in Canada.

Canada’s other provinces each accounted for smaller slices of total production volume in 2011-12; however, these smaller hubs of film and television activity have always been important contributors to the overall production picture, reflecting the geographic breadth and diversity of Canada’s production industry.

Canada’s largest production centres – Toronto, Vancouver and Montreal– are not only leaders within Canada, but also happen to be among the largest production centres in North America. In recent years, Toronto and Vancouver have traded places as the third- and fourth-largest centres of film and television production centres in North America, behind the perennial leaders, Los Angeles and New York.

**Exhibit 9 Volume of film and television production, by province, 2011-12**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, and the Association of Provincial Funding Agencies.

\* Includes Territories (Yukon, Nunavut and Northwest Territories).

Canadian guilds and unions point to substantial upgrading of skills over the last half decade. For some time, Canadians have been working alongside their US counterparts, which has provided Canadians the opportunity to grow and develop their own practices. As US producers became accustomed to the quality of the crews and talent north of the border, they relied more on the local workforce rather than bringing their own cast and crew for shoots in Canada. Canadian expertise in VFX has also helped attract and retain production because of the growing real-time integration of the live action and VFX in the production process.

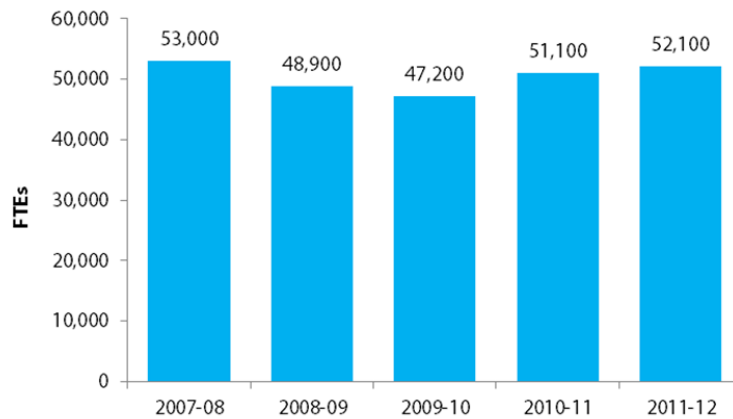
### ***Film and television production generated 52,100 FTEs of direct employment in 2011-12***

With nearly \$6 billion in production spending, Canada's film and television production segment has also been a significant generator of employment across the country. In 2011-12, film and television production generated 52,100 FTEs of employment directly in production activities (Exhibit 10).

The distribution of these direct jobs mirrors the overall structure of the Canadian production industry. Canadian television production generated the most employment: 22,800 FTEs in 2011-12 (Exhibit 11). It was followed by the FLS production segment, where there was 14,800 FTEs of direct employment. An estimated 11,200 FTEs were employed in the broadcaster in-house segment. And Canadian theatrical production generated 3,400 FTEs of employment in 2011-12.

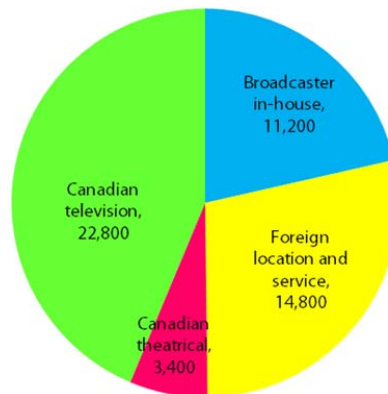


**Exhibit 10 Employment in film and television production**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, Association of Provincial Funding Agencies and Statistics Canada.

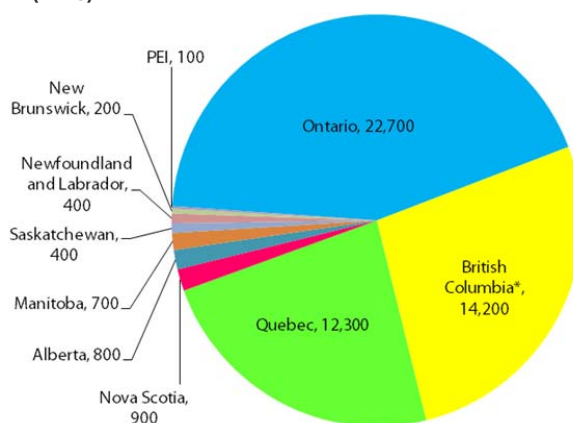
**Exhibit 11 Employment in film and television production, by segment, 2011-12 (FTEs)**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, Association of Provincial Funding Agencies and Statistics Canada.

As with production, employment is concentrated in the three largest provinces for production: Ontario, British Columbia and Quebec (Exhibit 12). Nevertheless, with production activity spread across the country, most provinces possess production workforces that number in the hundreds.

**Exhibit 12 Employment in film and television production, by province, 2011-12 (FTEs)**



Source: Estimates based on data from CAVCO, CRTC, CBC/Radio-Canada, Association of Provincial Funding Agencies and Statistics Canada.

\* Includes Territories (Yukon, Nunavut and Northwest Territories).

### 3.3 Distribution

Distributors operating in Canada can be divided into two categories: i) Canadian-controlled and ii) foreign-controlled. Canadian-controlled distributors include companies such as eOne Distribution, Métropole Films and Mongrel Media. Foreign-controlled distributors in Canada include the six studios that form the membership of MPA-Canada: Walt Disney Studios Motion Pictures, Paramount Pictures Corporation, Sony Pictures Entertainment Inc., Twentieth Century Fox Film Corporation, Universal City Studios LLC, and Warner Bros. Entertainment Inc.<sup>7</sup>

In 2011, the distribution of film and television content in Canada generated an estimated \$1.86 billion in total revenue.<sup>8</sup> The majority of this revenue was earned by foreign-controlled distributors, given that, historically, foreign-controlled distributors accounted for 70% to 75% of the total revenue in the Canadian distribution industry.<sup>9</sup>

<sup>7</sup> "About Us," Motion Picture Association -Canada, accessed April 16, 2013, <http://www.mpa-canada.org/?q=content/about-motion-picture-association-%E2%80%93-canada>.

<sup>8</sup> The total revenue of the distribution industry includes not only revenue earned from the distribution of Canadian content and foreign feature film content, but also revenue from the licensing of foreign television programs, particularly American television programs, to Canadian broadcasters.

<sup>9</sup> Nordicity calculations based on special tabulation supplied by Statistics Canada.

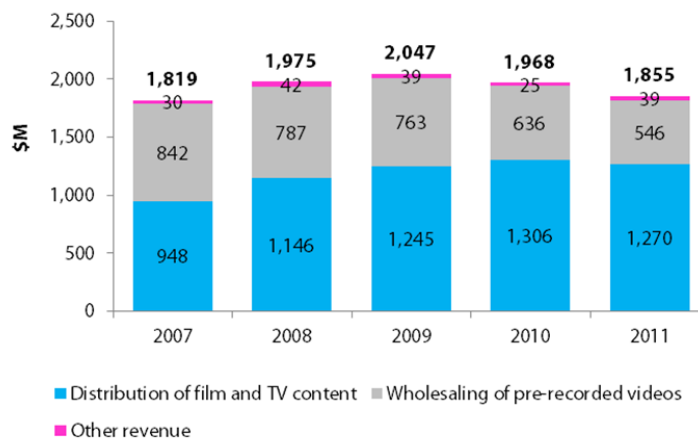
## Entertainment One

From humble beginnings as a Canadian record retailer (Records on Wheels) in 1973, Entertainment One (operating under the brand name “eOne”) has risen to become an international player in entertainment content distribution. Its recent acquisition of Alliance Entertainment positions it as the largest independent film distributor in both Canada and the United Kingdom. Entertainment One currently holds the rights to over 35,000 film and television series and 45,000 music tracks, available across multiple formats.

Source: Entertainment One Ltd., “Entertainment One Ltd. completes acquisition of Alliance Films Holdings Inc.” press release, January 9, 2013, accessed April 17, 2013, <http://entertainmentone.com/about-eone/news-events/entertainment-one-ltd-completes-acquisition-of-all>.

Distributors in Canada earn revenue through three primary segments: i) the distribution of film and television content, ii) wholesaling of pre-recorded videos, and iii) other revenue sources. Between 2007 and 2011, revenue generated from the distribution of film and television content grew slightly for distributors (Exhibit 13).<sup>10</sup> This growth occurred despite the slight decline in total distribution-industry revenue from its peak in 2009 at \$2.05 billion to \$1.86 billion in 2011.

**Exhibit 13 Film and television distribution industry, operating revenue, by segment**



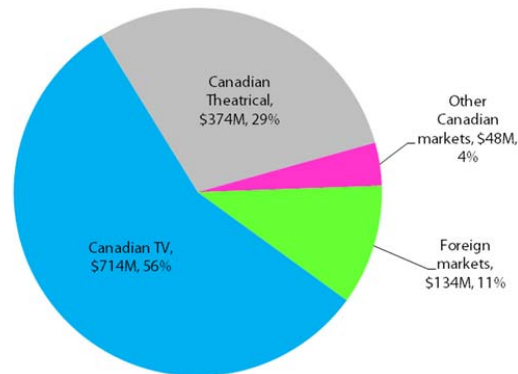
Source: Statistics Canada, catalogue no. 87F0010X.

<sup>10</sup> At the time of writing, Statistics Canada had only published data for total distribution industry revenue for 2011; it had not published any breakdowns of total industry revenue by primary revenue segments. In lieu of Statistics Canada data, Nordicity prepared an estimate based on the trends in distributors’ downstream markets, specifically, the theatrical exhibition, broadcasting, and DVD/Blu-ray sales and rental markets.

## **Distribution to Canadian television platforms generated revenue of \$714 million in 2011 or 56% of total distribution industry revenue**

The distribution of film and television content onto Canadian television platforms is the major revenue source for distributors. In 2011, distribution to Canadian television platforms generated revenue of \$714 million or 56% of total distribution industry revenue (Exhibit 14). The theatrical market followed with \$374 million or 29% of total 2011 revenue. Other Canadian markets, such as the educational/institutional market, generated \$48 million in revenue or 4% of the total 2011 revenue. Sales to foreign markets generated \$134 million in revenue, or 11% of total industry revenue.

**Exhibit 14 Revenue from distribution of film and television content, by market, 2011**



Source: Statistics Canada, catalogue no. 87F0010X.

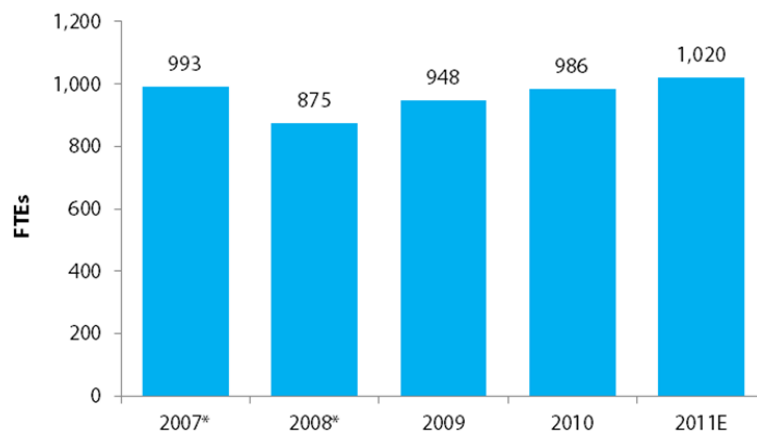
Canadian-based distributors – and particularly distributors in the English-language market – typically earn the majority of their revenue through the distribution of non-Canadian content. In 2011, for example, distributors earned 83% of their revenue through the distribution of non-Canadian content.<sup>11</sup> The distribution of Canadian content was worth \$210 million in 2011, or 17% of total distribution revenue.<sup>12</sup>

Exhibit 15 presents employment (measured in FTEs) in the film and television distribution industry. The total count of FTEs experienced steady growth between 2008 and 2011, although this growth may have been linked to the inclusion of contract workers in the 2009 to 2011 tabulations. Note that these results do not capture the most recent industry consolidations. Although employment dipped in 2008, it grew steadily since that year. Based on the revenue in the distribution industry in Canada, Nordicity estimates that, in 2011, it generated 1,020 FTEs of employment.

<sup>11</sup> Statistics Canada, "Film and Video Distribution," catalogue no. 87F0010X.

<sup>12</sup> *Ibid.*

**Exhibit 15 Employment in film and television distribution industry (FTEs)**



Source: Nordicity estimates based on data from Statistics Canada, cat no. 87F0010X.

\* Excludes contract workers.

E - Nordicity estimate; data not published by Statistics Canada.

### 3.4 Media manufacturing and digital asset management

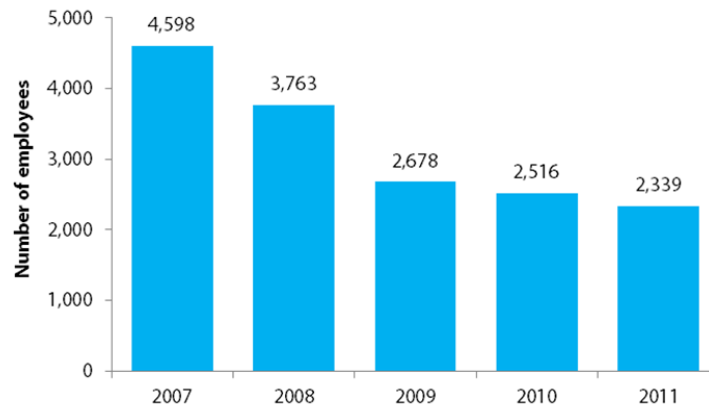
Before the film and television content controlled by distributors can reach audiences, it must be formatted onto some type of media that can be distributed to either a mass-audience platform provider (i.e. theatres or broadcasters) or directly to consumers via physical media or online digital services. For a long time, this formatting involved the use of physical media, and a media manufacturing process that involved the duplication of film and videotape. With the onset of new digital technology, the pressing of DVDs – and later Blu-ray discs – came to the forefront.

Today, the manufacturing of media such as DVDs and Blu-ray discs is still important, but represents a declining share of the overall activity in this particular value chain segment. Increasingly, electronic methods have replaced physical methods of distribution to consumers, whether online or via broadcasting distribution platforms.

The decline in media manufacturing in Canada (and around the world) has followed the rapid decline of the DVD/Blu-ray sales and rentals market (see Section 3.7). Data from Statistics Canada indicate that employment in Canada in the manufacturing and duplication of physical media dropped by one-half between 2007 and 2011. Total employment in this industry fell from 4,598 in 2007 to 2,339 in 2011 (Exhibit 16). While these employment data include both the manufacturing of video and music media, they do provide an indication of the overall trend in the media manufacturing segment.<sup>13</sup>

<sup>13</sup> The most recently published financial statements for CINRAM Inc. (2010) suggest that with the rapid decline in the use of music CDs in recent years, over 80% of economic activity in the media manufacturing industry can now be attributed to DVD/Blu-ray.

**Exhibit 16 Employment in the manufacturing and reproduction of magnetic and optical media (NAICS 3346) in Canada**



Source: Statistics Canada, CANSIM table 281-0027.

Part of the decline in the media manufacturing industry is being offset by growth in digital asset management (DAM). In Canada, Deluxe and Technicolor are examples of leading providers of such DAM services to broadcasters and distributors of long-form film and television content. Other providers of similar DAM services include Montreal-based Vision Globale, which focuses on the French-language market, and Toronto-based Creative Post Inc., which is another post-production company that has diversified into DAM.

### ***The media manufacturing and digital asset management industry earned nearly \$200 million in revenue in 2011***

On the basis of data published by Statistics Canada, selected metrics gathered from financial reports published by CINRAM Inc. and industry interviews, Nordicity prepared estimates of operating revenue, wages and salaries and employment in Canada's media manufacturing and DAM industry in 2011 (Exhibit 17).

Nordicity estimates that operating revenue in the media manufacturing and DAM industry totalled \$192.3 million in 2011, with media manufacturing accounting for \$167.3 million and DAM accounting for an estimated \$25 million (Exhibit 17). Wages and salaries in the media manufacturing and DAM industry were an estimated \$88.4 million in 2011. These wages and salaries supported 1,600 FTEs of employment.

**Exhibit 17 Financial and operating data for media manufacturing and digital asset management, 2011**

|                          | Media manufacturing (DVD/Blu-ray) | Digital asset management | Total |
|--------------------------|-----------------------------------|--------------------------|-------|
| Operating revenue (\$M)  | 167.3                             | 25.0                     | 192.3 |
| Wages and salaries (\$M) | 79.2                              | 9.3                      | 88.4  |
| Employment (FTEs)        | 1,400                             | 250                      | 1,600 |

Source: Nordicity estimates based on data from Statistics Canada, CANSIM table 281-0027; Statistics Canada, "Film, television and video post-production," catalogue no. 87-009-X; CINRAM financial statements, various years; and industry interviews.

### **Deluxe Canada**

In recent years, Deluxe Canada has branched out from its roots in post-production and succeeded in making a place for itself in the digital content and DAM industries.

In 2012, it launched a new proprietary asset and workflow management tool called DL3, which provides sophisticated asset archiving, organization and cataloguing along with workflow management and content creation support. This service aims to be a one-stop shop for asset management – from the first receipt of a master, encompassing storage, translation between digital formats, distribution, and the adaptation of digital content to foreign languages through subtitling and language dubbing.

Deluxe Canada has also developed systems to watermark and track digital copies of copyrighted content; it has leveraged this process into a thriving business in copyright monitoring, helping content producers and distributors to monitor illegal or unauthorized uses of intellectual property.

Source: Deluxe Canada; Deluxe, "Deluxe Launches DL3 - a State of the Art Asset & Workflow Management System for Digital Media," *PR Newswire*, January 17, 2012, accessed, April 23, 2013 <http://www.prnewswire.com/news-releases-test/deluxe-launches-dl3---a-state-of-the-art-asset--workflow-management-system-for-digital-media-137485223.html>.

### **3.5 Film festivals**

Film festivals have traditionally been venues for the marketing and selling of independent films to distributors. However, in recent years, they have also taken on the role as venues for engaging audiences, building interest for films ahead of their theatrical exhibition release, and providing fora for industry networking and discussion.

#### ***Canada is home to many leading global film festivals including the Toronto International Film Festival, Hot Docs and Montreal's Festival des Films du Monde***

Canada is home to countless film festivals catering to a broad range of genres. Indeed, Canada's largest film festival, the Toronto International Film Festival (TIFF), has grown to become one of the premier global film festivals alongside Cannes, Venice, and Sundance. Similarly, Toronto's Hot Docs Festival has emerged over the past decade to become North America's largest documentary film festival.

Telefilm Canada provides financial support to 40 film festivals in Canada (Exhibit 18). These 40 festivals represent the major events in Canada; however, there are numerous smaller local film festivals that operate without funding from Telefilm Canada.



### Exhibit 18 Film festivals supported by Telefilm Canada

|  |   |
|--|---|
| Rencontres internationales du documentaire de Montréal (Montreal International Documentary Festival) | imagineNATIVE film + media arts festival                    |
| Abitibi-Temiscamingue International Film Festival  | International Festival of Films on Art                      |
| Atlantic Film Festival   | Montreal International Children Film Festival               |
| Banff World Media Festival   | Ottawa International Animation Festival                     |
| Calgary International Film Festival  | Pan-Africa International                                    |
| Festival international de cinéma jeunesse de Rimouski  | Quebec Cinema Rendez-Vous                                   |
| Cinéfest Sudbury International Film Festival   | Reel 2 Real International Film Festival for Youth           |
| CINÉFRANCO: Festival international du film francophone   | Toronto Reel Asian International Film Festival              |
| Cinémental   | ReelWorld Film Festival                                     |
| Edmonton International Film Festival   | Rendez-vous du cinéma québécois et francophone de Vancouver |
| Festival du film de l'Outaouais  | Saguenay International Short Film Festival                  |
| Festival du nouveau cinéma - Montréal  | Sprockets Toronto International Film Festival for Children  |
| Festival international du cinéma francophone en Acadie   | The St. John's International Women's Film Festival          |
| First Peoples' Festival Présence autochtone  | Toronto International Film Festival (TIFF)                  |
| FLICKS: Saskatchewan International for Young People  | Vancouver International Film Festival (VIFF)                |
| Freeze Frame - International Festival of Films for Kids of all Ages                                  | Victoria Film Festival                                      |
| Gimli Film Festival  | Whistler Film Festival                                      |
| Global Visions Film Festival   | Montreal World Film Festival / Festival des Films du Monde  |
| Hot Docs   | Worldwide Short Film Festival of the Canadian Film Centre   |
| Images Festival  | Yorkton Short Film & Video Festival                         |

Source: Telefilm Canada.

### **Major film festivals in Canada garnered total attendance estimated at nearly 1.9 million in 2011**

TIFF is largest film festival in Canada. In 2011, it recorded an attendance of approximately 400,000 and registered 3,989 industry delegates. In terms of attendance, TIFF was followed closely by The Montreal World Film Festival, with 385,000 attendees in 2011. The Vancouver International Film Festival (VIFF) recorded attendance of 152,000 in 2011.

We also collected attendance data for a further 20 of the 40 major festivals supported by Telefilm Canada. The total attendance across these 20 major festivals was 520,000 in 2011. For the remaining 17 major festivals for which we did not have data (the “non-reporting festivals”), we estimated that total attendance was approximately 442,000 in 2011.<sup>14</sup> In total, therefore, major film festivals in Canada garnered total attendance estimated at 1,899,000 in 2011.

Film festivals play a key role in the film and television sector’s value chain, since they provide a forum through which independent filmmakers can market and sell their productions to distributors or broadcasters. This marketing and distribution role can yield significant economic benefits. For the most part, this economic benefit is captured elsewhere in the value chain analysis – specifically through the distribution and broadcasting industries in the value chain.

<sup>14</sup> To derive this estimate we applied the average attendance across the 20 reporting film festivals. This average, therefore, excluded the three largest festivals: TIFF, Montreal World Film Festival and VIFF.



## Toronto International Film Festival

Founded in 1976 as “The Festival of Festivals,” the Toronto International Film Festival (TIFF) has grown to become the leading *public* film festival in the world and has joined Cannes and Venice on the major international circuit. Held each September, TIFF attracts an audience of over 400,000 and 4,000 industry delegates to Toronto for screenings, special events and film marketing. In recent years numerous critically acclaimed films, including *Crash*, *Sideways*, *Precious* and *The King’s Speech* have premiered at TIFF.

In 2009, TIFF moved into a permanent facility, TIFF Bell Lightbox, in the heart of Toronto’s entertainment district. The five-story TIFF Bell Lightbox houses five public cinemas, two galleries, three learning studios, a centre for students and scholars, a bistro, a restaurant and a lounge. TIFF now offers year-round programming, community engagement and industry development.

A study conducted by TCI Management Consultants in 2010 found that TIFF (including festival and non-festival activities) contributed over \$131 million to the Ontario economy during the 2008-09 fiscal year.

Source: “TIFF History,” Toronto International Film Festival, accessed April 16, 2013, <http://tiff.net/about/tiffhistory>; “TIFF Bell Lightbox,” Toronto International Film Festival, accessed April 16, 2013, <http://tiff.net/about/tiffbelllightbox>; TCI Management Consultants, *Economic Activity Associated with the 2008-2009 Operations of TIFF*, report submitted to Toronto International Film Festival Inc., February 2010, pp. 3-4.

**Exhibit 19 Film festival attendance in Canada, major festivals, 2011**



Source: Nordicity estimates based on data from annual reports and web sites of film festivals.

Film festivals also generate economic benefits for the Canadian economy through the audiences and industry delegations that they attract to their host cities and venues, and through the operating expenditures associated with the delivery of their programming and events. In this sub-section, we focus on quantifying these particular aspects of film festivals’ economic contribution, rather than the benefits they indirectly generate for other value chain industries (e.g. the promotion of films themselves).

Before deriving the total expenditures associated with major film festivals, we developed an estimate of the number of industry delegates. We had reliable data on the size of audiences and the number of industry delegates registered for TIFF and nine other major film festivals. The data for the ten major festivals, including TIFF, indicated that delegates comprised 1.4% of total attendance. This percentage was applied to the estimate of total attendance at all major festivals except TIFF, 1,499,000, to arrive at an estimate of 14,465 delegates at those other 39 major festivals (Exhibit 20). The total number of delegates across all 40 major festivals was therefore 18,634.<sup>15</sup>

**Exhibit 20 Total attendance and number of industry delegates at major film festivals in Canada, 2011**

|            | TIFF    | Other major film festivals | Total            |
|------------|---------|----------------------------|------------------|
| Attendance | 400,000 | 1,499,000                  | <b>1,899,000</b> |
| Delegates  | 3,989   | 14,465*                    | <b>18,634</b>    |

Source: Nordicity estimates based on data from annual reports and web sites of film festivals.

\* This figure includes an estimate of delegates to Montreal World Film Festival and Rencontres internationales du documentaire de Montréal based on the average ratio of delegates per attendees (0.014 delegates per attendee) for the ten film festivals that reported both data points (a 25% sample).

We obtained reliable metrics on attendee and delegate expenditures for TIFF from TCI Management Consultants' 2010 study of the economic impact of TIFF, *Economic Activity Associated with the 2008-2009 Operations of TIFF*. To derive estimates of attendee, delegate and operating expenditures for the other major film festivals, we applied the average per-attendee expenditure implied by the TCI study and our own collection of data for selected film festivals. These average per-attendee spending amounts were multiplied by the total number of attendees, 1,499,000, at all major film festivals (excluding TIFF).

First, we estimated major festivals' total operating expenditures on the basis of an average operating expenditure per attendee of \$22.20 (Exhibit 21). Total festival operating expenditures (excluding TIFF) in 2011 were equal to \$33.3 million.

We also estimated visitor spending, that is, the spending by attendees on local accommodation, travel and food. Note that since many festival attendees are often local, they would not incur significant spending on accommodation, travel and food, thus bringing down the average. We estimated total visitor spending at \$22.8 million in 2011.

## Whistler Film Festival

Founded in 2001, the Whistler Film Festival has grown to become one of Canada's premier events for promoting the development of Western Canada's film industry and an emerging venue in the international circuit. The festival, held during the first weekend in December, attracts an audience of over 8,200 and more than 500 industry delegates to the ski resort of Whistler, British Columbia for seminars, special events, and the screening of over 80 independent films from Canada and around the world.

Source: "About Us," Whistler Film Festival, accessed April 5, 2013, <http://whistlerfilmfestival.com/About-Us/organization.html>.

<sup>15</sup> Film festivals differ in the composition of the activities – relatively more industry vs. filmgoers. For example, the Banff World Media Festival is strictly a business festival; others, such as the Whistler Film Festival, are more commercially oriented.

Separate from the visitor spending amount, we also estimated industry-delegate spending. This figure represents the value of expenditures on delegates' business travel and public relations (e.g. events and parties) at film festivals. Based on average spending per delegate of \$2,679, we estimated total delegate spending at \$39.2 million across all major festivals except TIFF.

**Exhibit 21 Summary of calculations of film festival expenditures (excluding TIFF), 2011**

|  |   |  |   |  |
|--|---|--|---|--|
| Total attendance at major film festivals (excl. TIFF):<br>1,499,000                | × | Average operating expenditure per attendee:<br>\$22.20 | = | <b>Total festival operating expenditures:<br/>\$33.3 million</b> |
|  | × | Average visitor spending per attendee*:<br>\$15.20     | = | <b>Total visitor spending:<br/>\$22.8 million</b>                |
| <hr/>  |   |  |   |  |
| Total industry delegates at major film festivals (excl. TIFF):<br>18,634 delegates | × | Average industry spending per delegate*:<br>\$2,679    | = | <b>Total industry-spending on delegates:<br/>\$39.2 million</b>  |

Source: Nordicity estimates based on data from TCI Management Consultants, and annual reports and web sites of film festivals.

\* The average rates of \$15.20 per attendee and \$2,679 per delegate represent 50% of the average rates observed for TIFF.

## **Over \$160 million was spent by delegates, audiences and festival organizers at Canada's major film festivals in 2011**

We combined the estimates of expenditures for TIFF with our estimates for other major film festivals to arrive at estimates of overall expenditures generated by all film festivals in Canada. Across all major film festivals in Canada (including TIFF), we estimated total operating expenditures at \$67.1 million in 2011 (Exhibit 22). Total visitor spending was an estimated \$35.0 million, while industry spending on delegates was an estimated \$60.6 million. In total, Canada's major film festivals generated an estimated \$162.6 million in expenditures in 2011.

**Exhibit 22 Estimates of total spending and operating expenditures associated with major film festivals in Canada, 2011 (\$M)**

|                                | TIFF*       | Other major film festivals | Total        |
|--------------------------------|-------------|----------------------------|--------------|
| Festival operations            | 33.8        | 33.3                       | <b>67.1</b>  |
| Visitor spending               | 12.2        | 22.8                       | <b>35.0</b>  |
| Industry spending on delegates | 21.4        | 39.2                       | <b>60.6</b>  |
| <b>Total expenditures</b>      | <b>67.3</b> | <b>95.4</b>                | <b>162.6</b> |

Source: Nordicity estimates based on data from TCI Management Consultants, and annual reports and web sites of film festivals.

\* The TIFF are based on data reported by TCI Management Consultants for 2009, after applying a CPI adjustment and an adjustment to account for the higher number of delegates in 2011.

Each of the three components of film festival total expenditures were broken down into wages and salaries, other operating expenditures and operating surplus using Statistics Canada's I-O tables. The I-O tables for the Arts, Entertainment and Recreation industry were applied to festival operations; the I-O tables for the Retail Trade industry were applied to visitor spending and industry spending on delegates, because most those expenditures find their way into Canada's retail sector. An average FTE cost of \$27,000 was used to derive estimates of the total FTEs generated from each type of spending. This FTE cost corresponded with the average FTE cost in both the Arts, Entertainment and Recreation, and Retail Trade industries.

## **Canada's major film festivals supported 2,000 FTEs of employment in 2011, including 400 FTEs in festival operations**

Overall, the three components of film festival spending generated total wages and salaries of \$53.4 million in 2011 (Exhibit 23). These wages and salaries supported 2,000 FTEs, including 400 FTEs in festival operations and 1,600 FTEs in other sectors of the economy. Other operating expenditures totalled \$92.9 million, while operating surplus was \$16.2 million.

**Exhibit 23 Breakdown of total expenditures and estimates of employment generated by major film festivals, 2011**

|                                       | Festival operations | Visitor spending | Industry spending on delegates | Total        |
|---------------------------------------|---------------------|------------------|--------------------------------|--------------|
| Wages and salaries (\$M) <sup>†</sup> | 11.4                | 15.4             | 26.7                           | <b>53.4</b>  |
| Other operating expenditures (\$M)    | 55.7                | 13.6             | 23.6                           | <b>92.9</b>  |
| Operating surplus (\$M) <sup>††</sup> | --                  | 5.9              | 10.3                           | <b>16.2</b>  |
| <b>Total expenditures</b>             | <b>67.1</b>         | <b>35.0</b>      | <b>60.6</b>                    | <b>162.6</b> |
| Employment (FTEs) <sup>†††</sup>      | 400                 | 600              | 1,000                          | 2,000        |

Source: Nordicity estimates based on data from Statistics Canada, TCI Management Consultants, and annual reports and web sites of film festivals.

<sup>†</sup> Wages and salaries for operating expenditures estimated on the basis of labour income share of total output in Arts, Entertainment and Recreation industry (17%); for visitor spending and industry spending on delegates, estimates of wages and salaries are based on labour income share of total output in Retail Trade industry (44%).

<sup>††</sup> Operating surplus estimates based on operating surplus share for Retail Trade industry (17%).

<sup>†††</sup> Employment estimates are based on an average FTE cost of approximately \$27,000 observed in the Arts, Entertainment and Recreation industry and Retail Trade industries.

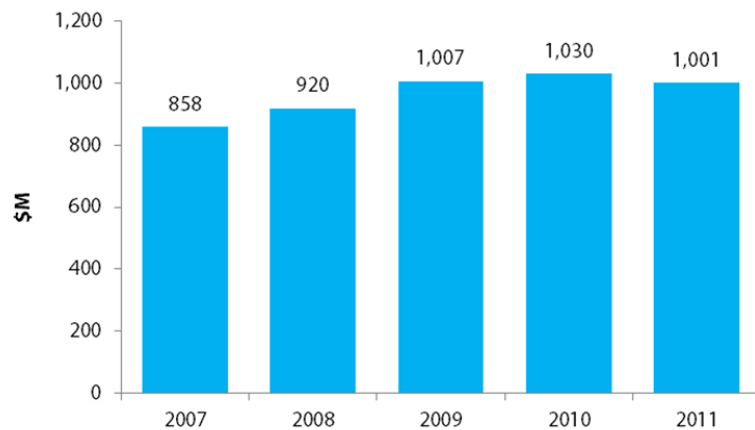
## **3.6 Theatrical exhibition**

### **Canadians spent \$1 billion at the box office in 2011**

Canada's theatre landscape includes both major chains and hundreds of independent cinemas. Cineplex Inc. ("Cineplex") is, by far, the largest chain in Canada. It is followed, in size, by Empire Theatres Limited, and the regional chains, Cinéma Guzzo and Landmark Cinemas Inc.

Despite the growth in online digital distribution platforms, the theatrical exhibition industry remains an important window for the release of feature films in Canada. In 2011, Canadians spent \$1 billion at the Canadian box office (Exhibit 24). And while total box office receipts were down by 2.8% compared to 2010, the box office experienced year-over-year growth in the previous three years, 2008 to 2010.

**Exhibit 24 Box office revenue in Canada**



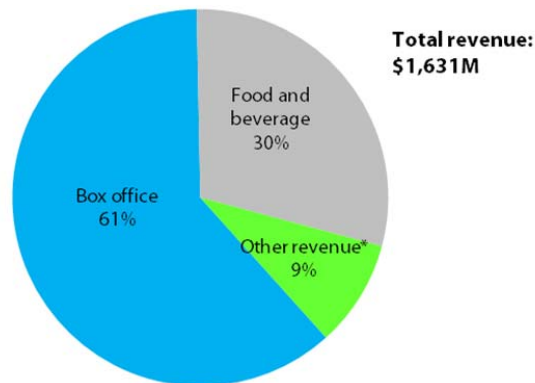
Source: MPTAC.

***On top of \$1 billion in box office revenue, Canadian theatres earned an estimated \$600 million from refreshments, advertising and other new revenue streams***

Box office receipts are not the only source of revenue for Canadian theatre operators; the refreshment stand is also a significant source of revenue. In 2011, box office receipts accounted for 61% of theatre operators' total revenue, while sales of food and beverage accounted for 30% of total revenue (Exhibit 25). In other words, sales of popcorn and other refreshments generated \$481 million in revenue for theatre operators.

Many Canadian theatre operators have also been successful in diversifying into new revenue streams, particularly the sale of on-screen advertising time. In 2011, other revenue accounted for 9% of total revenue, \$150 million. In total, Canadian theatre operators earned an estimated \$1,631 million in total revenue.

**Exhibit 25 Sources of revenue in theatrical exhibition industry in Canada, 2011**



Source: Nordicity estimates based on data from MPTAC; and Statistics Canada, catalogue no. 87F0009X.

\* Includes revenue earned from sale of in-theatre advertising.

To derive an estimate of the number of FTEs in the theatrical exhibition industry, we extrapolated from employment data published by Cineplex. In 2011, Cineplex employed 10,000 people in Canada (Exhibit 26). The fact that Cineplex held a 66% market share in the theatrical exhibition market in 2011 implies that the total number of industry employees was approximately 15,000.<sup>16</sup> Cineplex's workforce included 90% part-time workers and 10% full-time workers. This ratio of part-time to full-time workers implies that 15,000 industry employees represent an estimated 8,300 FTEs.

**Exhibit 26 Derivation of estimate of number of FTEs in the theatrical exhibition industry**

|   |   |   |   |   |   |  |   |   |
|---|---|---|---|---|---|--|---|---|
| Cineplex<br>Total<br>employees<br>(2011):<br>10,000 | → | Cineplex<br>market<br>share<br>(2011):<br>66% | → | Total<br>industry<br>employees:<br>15,000 | → | Cineplex<br>workforce:<br>90% Part-<br>time<br>10% Full-time | → | <b>Theatrical<br/>exhibition<br/>industry<br/>Total number<br/>of FTEs (2011):<br/>8,300*</b> |
|---|---|---|---|---|---|--|---|---|

Source: Nordicity calculations based on data from Cineplex Inc., *Annual Information Form 2012*, p. 12; and Cineplex Inc., "Annual General Meeting Presentation," May 16, 2012, p. 4.

\*Calculation assumes that a part-time worker works on average 20 hour per week.

<sup>16</sup> Cineplex Inc., "Annual General Meeting Presentation," May 16, 2012.

## Cineplex reports record year in 2012

Cineplex Inc. took in a record \$1.1 billion in revenue in 2012, a 9.4% increase from the previous year. Box office sales, attendance and concessions all contributed to their success – driven by blockbuster movies such as *The Avengers*, *Skyfall*, and *Life of Pi*.

Despite there being theatre chains for sale in the UK and in Europe, Ellis Jacob, President and CEO of Cineplex, indicates that the company will focus on business on its home turf. “We still see huge opportunities in Canada and some of the businesses that we are developing and if we continue to focus on those businesses, we will continue grow to our bottom line and our results instead of getting distracted by other parts of the world.”

Digital innovation also figures into Cineplex’s plans. It has completed the rollout of digital projection technology and added 16 UltraAVX auditoriums for a total of 39 and plans to add another 10.

The switch to digital projection is exemplified by events like the 2013 Cineplex Digital Film Festival (now in its fourth year), which will be showing digital versions of older domestic, foreign and cult favourites, along with a couple of debuts.

Source: Melissa Leong, “Cineplex rings up record \$1.1B revenue as hungry moviegoers flock to blockbusters,” *Financial Post*, February 7, 2013, accessed April 5, 2013, <http://business.financialpost.com/2013/02/07/cineplex-posts-best-year-on-record-with-1-1-billion-revenue/>.

Ontario accounted for over 40% of Canada’s total box office in 2011 (Exhibit 27). It also accounted for over 40% of total industry revenue and 3,500 FTEs of employment. Quebec accounted for 1,800 FTEs of employment, while Alberta and British Columbia accounted for 1,100 FTEs and 1,000 FTEs of employment, respectively. The rest of Canada combined to account for 1,000 FTEs of employment.

### Exhibit 27 Revenue and employment in the theatrical exhibition industry, by region, 2011

|                     | Ontario | Quebec | British Columbia | Alberta | Rest of Canada | Total Canada |
|---------------------|---------|--------|------------------|---------|----------------|--------------|
| Box office (\$M)    | 406     | 192    | 145              | 143     | 114            | 1,001        |
| Total revenue (\$M) | 667     | 301    | 227              | 241     | 195            | 1,630        |
| Employment (FTEs)   | 3,500   | 1,800  | 1,000            | 1,100   | 1,000          | 8,300        |

Source: Nordicity estimates based on data from Motion Picture Theatres Association of Canada; Statistics Canada, catalogue no. 87F0009X; Cineplex Inc., Annual Information Form 2012, p. 12; and Cineplex Inc., “Annual General Meeting Presentation,” May 16, 2012, p. 4.

Note: Some totals may not sum due to rounding.

## 3.7 DVD/Blu-ray sales and rentals

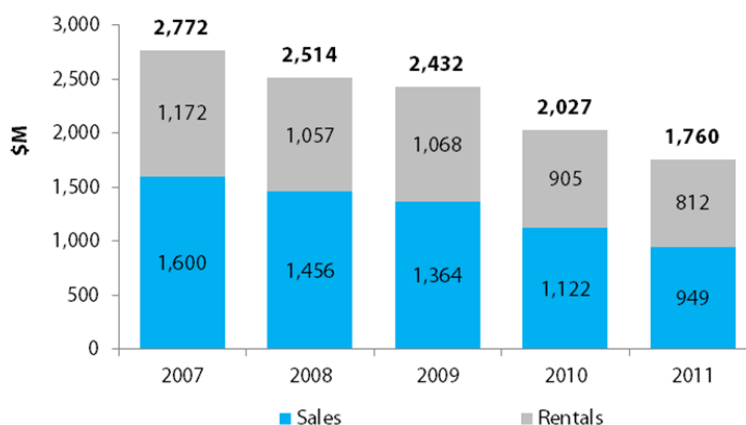
### Canadians spent \$1.8 billion on the purchase and rental of DVD/Blu-ray discs in 2011

The home entertainment industry has weathered numerous disruptions since VCRs became a common home electronics purchase. DVDs replaced VHS videos just as compact discs replaced cassette tapes in the music industry. The steady decline experienced over the past five years, however, seems to signal upheaval of a more permanent nature as audience consumption in the home shifts almost entirely to digital downloads, VOD and content-streaming.

Total consumer spending on DVD/Blu-ray sales and rentals in Canada dropped steadily and markedly between 2007 and 2011. DVD/Blu-ray sales dropped 41%, from \$1,600 million to \$949 million (Exhibit 28). Consumer spending on DVD/Blu-ray rentals meanwhile fell by 31%, from \$1,172 million to \$812 million.

Amid this decline, the home entertainment industry has made various efforts to deliver products that appeal more to modern audiences' demands for convenience and flexibility – simply put, “buy once and play everywhere.”<sup>17</sup> Such efforts include providing digital copies with the purchase of DVD and Blu-ray discs. In other words, providing an extra copy of the film to allow consumers to transfer or download to a computer, or portable media device. This tenet is also evident in the work of The Digital Entertainment Content Ecosystem (DECE) consortium's creation of the *UltraViolet* digital content storage locker whereby consumers have the right to access content (Blu-ray, DVD, online digital download) on any registered *UltraViolet* device at home or on the go.<sup>18</sup>

**Exhibit 28 Total consumer spending on DVD/Blu-ray, sales vs. rentals market**



Source: IHS Screen Digest.

Note: Includes consumer spending on Blu-ray, HD DVD, DVD and VHS formats.

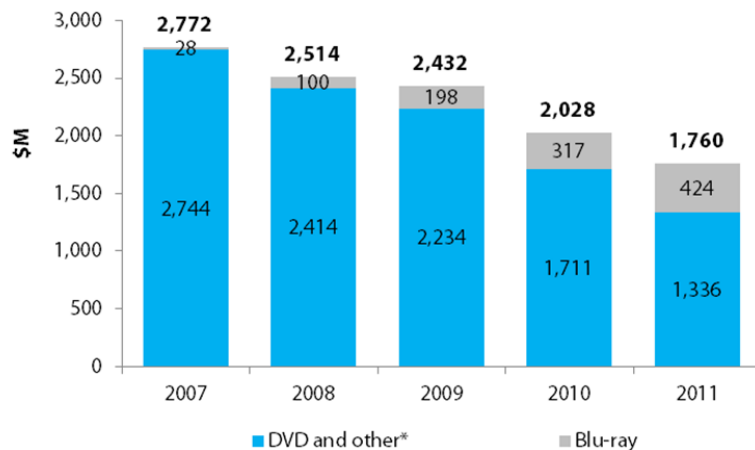
<sup>17</sup> MPA-Canada, “Expanding Consumer Choice for Film & Television Audiences Online,” accessed May 16, 2003, [http://www.mpa-canada.org/downloads/INTERACTIVE-PDF\\_Digital-Offerings-in-Canada.pdf](http://www.mpa-canada.org/downloads/INTERACTIVE-PDF_Digital-Offerings-in-Canada.pdf).

<sup>18</sup> *Ibid.*



It may be too soon to diagnose whether these efforts can successfully preserve the physical home video market. In fact, based on Exhibit 28, it appears more likely that the total market will continue to shrink in the coming years. However, as depicted by Exhibit 29, as total spending declined between 2007 and 2011, the share of spend on Blu-ray sales and rentals actually grew (admittedly from a very small base). The value of Blu-ray sales and rentals grew from 1% of the total market in 2007 to 24% of the total market in 2011. Though the growth in Blu-ray sales and rentals may not ultimately counter-balance the decline in DVD sales and rentals, it is likely too soon to predict the end of physical home entertainment.

**Exhibit 29 Total consumer spending on DVD/Blu-ray sales and rentals, by media format**



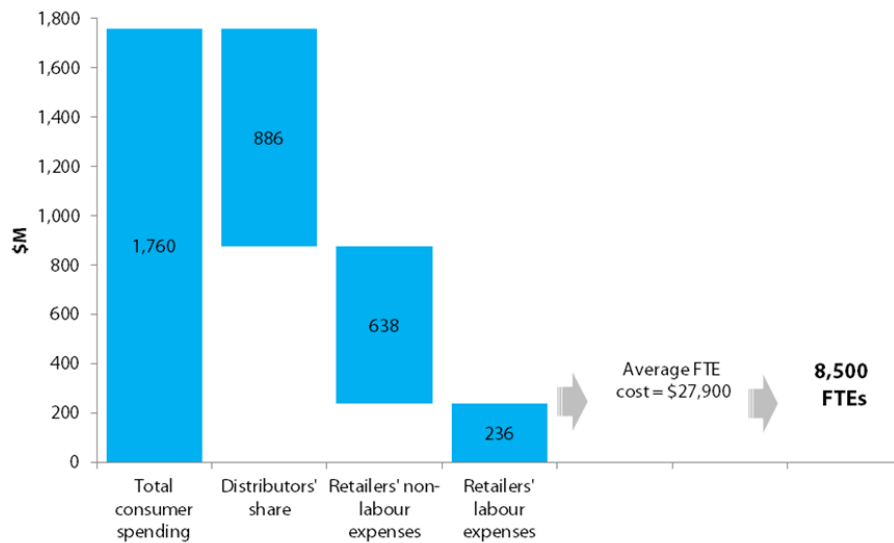
Source: IHS Screen Digest.

\* Figures for 2007 and 2008 include small amounts for VHS and HD DVD.

## ***Sales and rentals of DVD/Blu-ray discs supported 8,500 full-time jobs in the retail sector across Canada in 2011***

Despite the recent declines in revenue in the DVD/Blu-ray market, this segment continues to support thousands of retail-sector jobs across Canada. In the electronics and appliance store retail segment, labour expenses account for, on average, 13.4% of the total operating revenue. After taking into account distributors' share of retail sales, a labour-expense share of 13.4% implies that \$1.8 billion in consumer spending on DVD/Blu-ray discs ultimately generated \$236 million in wages and salaries for Canadians (Exhibit 30), and \$638 million in non-labour expenses. Given that the average FTE costs in the Canadian retail trade industry was \$27,900 in 2011, these wages and salaries supported approximately 8,500 FTEs.

**Exhibit 30 Total employment supported by DVD/Blu-ray sales and rentals, 2011**



Source: IHS Screen Digest; and Statistics Canada, CANSIM tables 080-0023 and 281-0027.

### 3.8 Video-on-demand and online digital

#### *Canadians spent just under \$500 million on VOD and online digital video services in 2011*

The breadth of VOD,<sup>19</sup> online streaming and movie rental offerings from the major BDUs have grown rapidly in recent years. Companies such as Shaw Communications Inc. and Rogers Media Inc. currently offer these services exclusively to their cable and satellite subscribers.

Section 3.7 detailed the steady decline in revenue in Canada's DVD/Blu-ray sales and rentals market. A portion of this decline has been offset by rapid growth in Canada's VOD and online digital market. Between 2007 and 2011, overall revenue in this market more than doubled, increasing from \$228 million to \$495 million (Exhibit 31). This total revenue supported an estimated 200 FTEs of employment in Canada in 2011.<sup>20</sup>

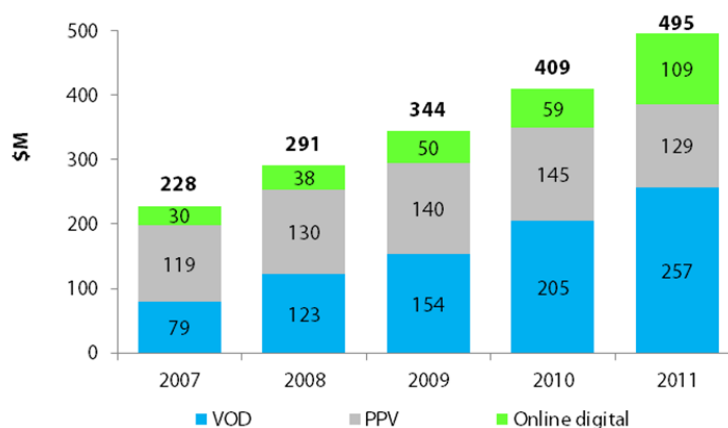
Most of this growth was fuelled by expanding VOD revenue. VOD revenue more than tripled between 2007 and 2011, increasing from \$79 million to \$257 million (Exhibit 31). The online digital market also contributed to the growth. IHS Screen Digest estimates that the size of Canada's online digital market doubled between 2009 and 2011, bringing the total size of this segment to \$109 million. Canada's

<sup>19</sup> The VOD revenue reported for the VOD and online digital industry in this section are not also counted as part of the broadcasting or broadcasting distribution industries in later sections of this report.

<sup>20</sup> See Appendix A for calculation of employment estimates.

PPV segment also experienced growth between 2007 and 2010, but started to decline in size in 2011. Exhibit 32 provides examples of many of the VOD, PPV and online digital services available in Canada.

**Exhibit 31 Total revenue of VOD and online digital services in Canada**



Source: Nordicity estimates based on data from CRTC (VOD, PPV) and IHS Screen Digest (online digital).

The latest statistics for VOD adoption indicate that 16% of Canadians (18+) in the English-language market used VOD in 2011 (at least once in the month prior to being surveyed); in the French-language market, the adoption rate was slightly higher, at 19% (Exhibit 33). Both language markets experienced steady growth in VOD adoption between 2007 and 2011; however, it would appear that growth in the English-language market slowed somewhat in 2011.

### ***While less than 20% of Canadian adults used VOD services in 2011, one-third of them watched TV programming on the web***

Canadians are also avid viewers of television programming on the Internet. In 2011, one-third of Canadians (18+) reported that they watched television programming on the Internet, including either full-length episodes or clips of television programs (Exhibit 34B). In both language markets, the share of Canadian adults watching television programming on the Internet has more than doubled in the span of five years: increasing from 14% to 34% in the English-language market, and 13% to 33% in the French-language market (Exhibit 34A).

**Exhibit 32 Examples of online digital services available in Canada**

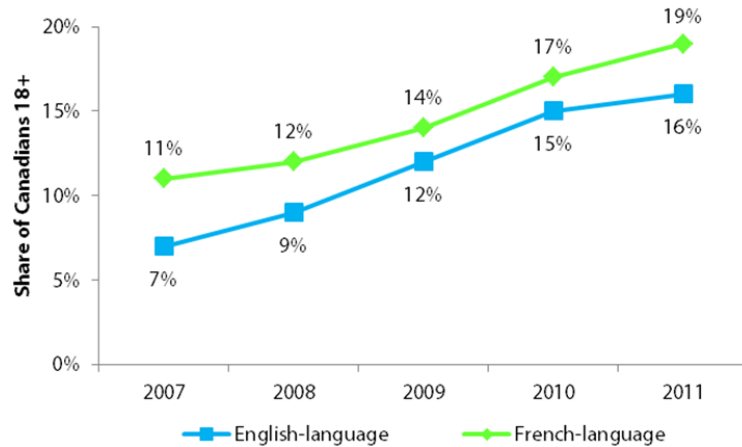
| <b>Subscription streaming</b>   |  |   |
|---|--|---|
|   | Illico club unlimited  | Netflix   |
| <b>Download to own or rent</b>  |  |   |
| Best Buy CinemaNow<br>Blackberry World<br>Cineplex  | iTunes<br>Microsoft xBox<br>National Film Board of Canada  | Ninetendo Wii<br>Sony Playstation 3   |
| <b>Cable and satellite VOD online</b>   |  |   |
| Bell TV Online<br>HBO Canada<br>Illico  | Movie Central Rogers On Demand<br>Shaw   | Telus Optik TV<br>TMN On Demand   |
| <b>Buy once, play anywhere</b>  |  |   |
|   | Cineplex Ultraviolet   |   |
| <b>Ad-supported streaming</b>   |  |   |
| ABC SPARK<br>Bravo<br>Cartoon Network<br>CBC/Radio-Canada<br>Country Music Television Ltd.<br>Crackle<br>CTV<br>Discovery Channel<br>Food Network | GlobalTV<br>HGTV Canada<br>History<br>MTV<br>Much Music<br>Showcase<br>Slice<br>Space<br>Teletoon Canada | TFO<br>The Comedy Network<br>Treehouse TV<br>TSN<br>TVA<br>TVO<br>W Network, Inc.<br>YTV Canada |

Source: MPA-Canada, "Expanding Consumer Choice for Film & Television Audiences Online," accessed May 16, 2013, [http://www.mpa-canada.org/downloads/INTERACTIVE-PDF\\_Digital-Offerings-in-Canada.pdf](http://www.mpa-canada.org/downloads/INTERACTIVE-PDF_Digital-Offerings-in-Canada.pdf).

Canadians also demonstrate a propensity to watch full-length television or movie content on the Internet. In 2011, 21% of Canadian adults had watched a 30 or 60 minute television program (at least once in the previous month); 14% watched a full-length movie on the Internet (Exhibit 34B). This type of adoption bodes well for future growth on these platforms, especially the Internet.

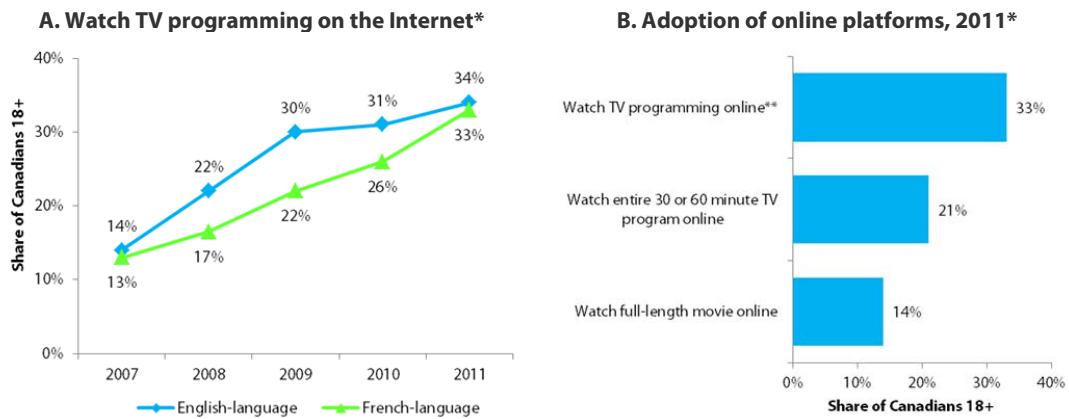
The economic impact of the VOD and online digital industry varies depending on how programming is consumed. If programming is consumed through CRTC-licensed VOD services, then the CRTC has the opportunity to set conditions and thus ensure a reasonable contribution is made to the Canadian broadcasting system. If programming is consumed through web sites located outside of Canada, however, the economic contribution to Canada is reduced.

**Exhibit 33 VOD penetration\* in Canada**



Source: Data for 2007 to 2010 from Media Technology Monitor (as reported in CRTC, *Communications Monitoring Report*); data for 2011 from Media Technology Monitor (as reported in Television Bureau of Canada, *TVBasics 2012-2013*, p. 31).  
 \* Percentage of Canadians 18+ who used VOD at least once in the past month.

**Exhibit 34 Canadians' adoption of online film and TV platforms**



Source: Media Technology Monitor (as reported in CRTC, *Communications Monitoring Report 2012*, p. 111 and p. 114).  
 \* Percentage of Canadians 18+ who used the platform at least once in the past month.  
 \*\* Includes TV clips and full-length programming.

## 3.9 Broadcasting

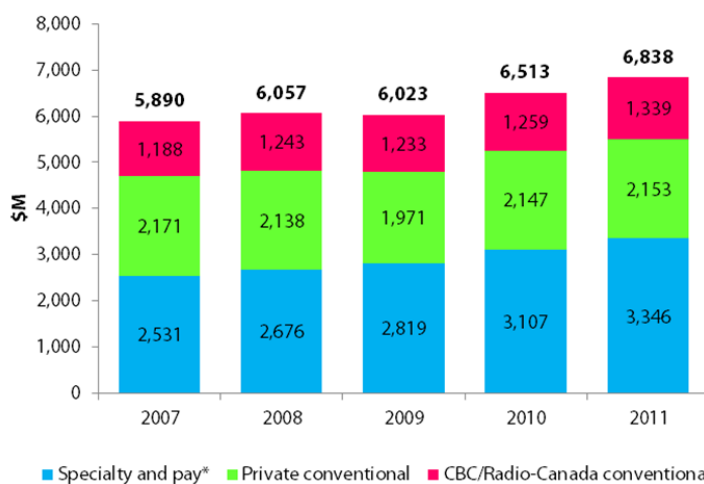
**Canadian broadcasters (excluding VOD services) generated over \$6.8 billion in revenue in 2011; nearly one-half of this total revenue was in the specialty and pay television sub-segments**

Canada's broadcasting industry comprises three key segments. The largest is the **specialty and pay** segment, which includes the thematic channels and pay-TV channels that are only available to households that subscribe to a BDU. In 2011, the specialty and pay segment earned revenue of over \$3.3 billion (Exhibit 35).

The second largest segment, the **private conventional** segment, comprises the traditional OTA television broadcasters available to households with or without a subscription to a BDU. In 2011, private conventional broadcasters in Canada earned just under \$2.2 billion in revenue.

Canada's national public broadcaster, **CBC/Radio-Canada**, comprises a third key segment.<sup>21</sup> While CBC/Radio-Canada funds its television operations out of a parliamentary appropriation of \$1.1 billion – which must also be used to fund its radio and Internet operations – it is also permitted to sell advertising airtime. In 2011, CBC/Radio-Canada's parliamentary funding for television operations, advertising sales and other revenue sources combined for a total of \$1,339 million.

**Exhibit 35 Total revenue in Canadian broadcasting industry, by segment**



Source: CRTC, *Communications Monitoring Report 2012*.  
\* Excludes VOD and PPV.

<sup>21</sup> In addition to the national public broadcaster, CBC/Radio-Canada, provincial governments in Quebec, Ontario and British Columbia also operate public educational broadcasters. These broadcasters (Télé-Québec, TFO, TVO and Knowledge Network) do earn commercial revenue, however the amounts are small and therefore, have been excluded from this analysis.

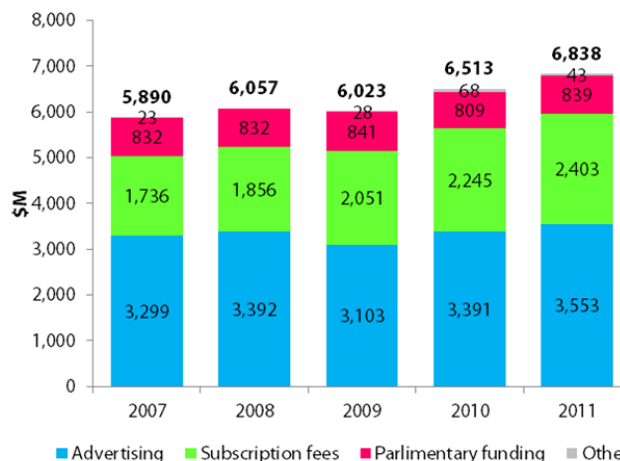
Overall, Canada's broadcasting industry earned revenue of just over \$6.8 billion in 2011. On a topline basis, the broadcasting industry in Canada is continuing to grow, even though its growth stalled in 2009 on account of the 2008-09 recession, which took a significant toll on advertising sales.

The topline trend in the broadcasting industry masks the structural shift that is taking place among the various segments. The private conventional segment, which relies entirely on advertising sales, failed to grow its revenue between 2007 and 2011. With total revenue of \$2,153 million in 2011, it was actually one percent *below* its revenue level in 2007.

### **Although subscription fees increased their share of total broadcasting industry revenue between 2007 and 2011, advertising still accounted for more than half of industry revenue in 2011**

Although Canada's advertising-dependent private conventional broadcasters experienced a real-dollar drop in their revenue during the past five years, advertising remains the largest source of revenue for broadcasters across all segments. In 2011, the Canadian broadcasting industry's advertising revenue totalled \$3,553 million, or 52% of total revenue (Exhibit 36). Its share of total revenue dropped from 56% in 2007, as subscription fees (i.e. wholesale carriage fees) earned by specialty and pay services increased their share from 29% to 35%.

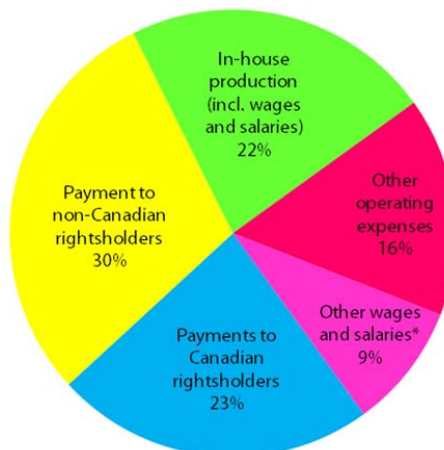
**Exhibit 36 Revenue in Canadian broadcasting industry, by source of revenue**



Source: CRTC, *Communications Monitoring Report 2012*.

Programming rights were, by far, the largest expenditure for Canadian broadcasters, accounting for 53% of total operating expenditures in 2011 (Exhibit 37). These programming rights payments were split between payments to non-Canadian rights holders, which accounted for 30% of total operating expenditures and payments to Canadian rights holders, which accounted for 23% of total operating expenditures.

**Exhibit 37 Breakdown of operating expenditures in Canadian broadcasting industry, 2011**

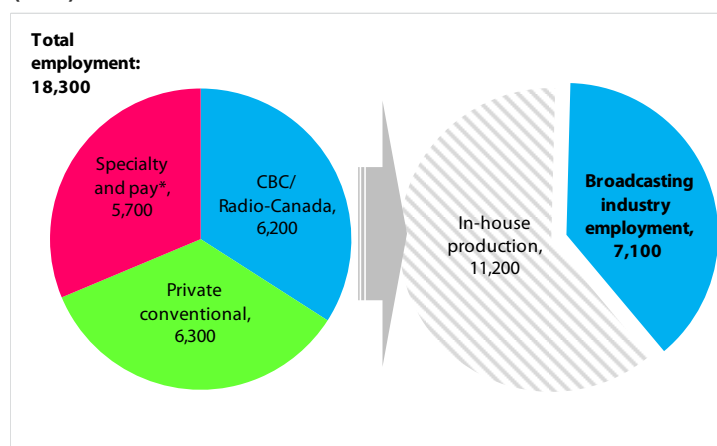


Source: Nordicity estimates based on data from CRTC.

\* Includes wages and salaries of employees engaged in sales, marketing and administration; excludes employees engaged in in-house production of television programs.

To estimate employment in the broadcasting industry, we summed the reported number of FTEs employed in each of the three key segments: CBC/Radio-Canada, private conventional, and specialty and pay. These three segments employed a total of 18,300 FTEs in 2011 (Exhibit 38). From this total, we deducted the number of FTEs working in in-house production, which were already counted as part of production industry employment. After removing 11,200 FTEs working in in-house production roles, we arrived at an estimate of 7,100 FTEs for the broadcasting industry.

**Exhibit 38 Estimate of total employment in the broadcasting industry (net of employment in in-house production), 2011 (FTEs)**



Source: Nordicity estimates based on data from CRTC and CMPA.

\* Excludes VOD and PPV services.

Note: Some totals may not sum due to rounding.



Canada's largest production centre, Ontario accounted for over 60% of total broadcasting industry revenue and nearly one-half of the industry's employment (Exhibit 39). In 2011, broadcasting industry revenue in Ontario totalled \$4.2 billion; segment employment was an estimated 3,200 FTEs. Ontario was followed by Quebec with \$1.5 billion in revenue and 2,200 FTEs of employment, or 22% of revenue and 31% of employment. Canada's other provinces and territories accounted for the remaining 18% of segment revenue and 23% of employment.

**Exhibit 39 Revenue and employment in the broadcasting industry, by region, 2011**

|                     | Ontario | Quebec | Prairie Provinces | British Columbia* | Atlantic Canada | Total Canada |
|---------------------|---------|--------|-------------------|-------------------|-----------------|--------------|
| Total revenue (\$M) | 4,218   | 1,525  | 563               | 386               | 146             | 6,838        |
| Employment (FTEs)** | 3,200   | 2,200  | 800               | 600               | 300             | 7,100        |

Source: Nordicity estimates based on data from CRTC and CMPA.

Note: Some totals may not sum due to rounding.

\* Includes Territories.

\*\* Excludes workers employed in in-house production.

## 3.10 Broadcasting distribution

### **90% of Canadian households subscribe to a broadcasting distribution service – cable-television, DTH, MDS or IPTV**

Broadcasting distribution is another major source of economic activity within the Canadian film and television sector. The vast majority of Canadians receive their television programming through BDUs, which offer households and businesses bouquets of conventional (i.e. OTA), specialty and pay, and VOD/PPV services. According to CRTC statistics, 90% of Canadian households subscribe to BDU services.<sup>22</sup> In total, there were 11.8 million BDU subscribers (households and businesses) in Canada in 2011 (Exhibit 40).

The most popular service in Canada is cable television. In 2011, it accounted for the 70% of total BDU subscribers, or just over 8.2 million total subscribers. The four largest cable-television providers – Rogers Cable, Shaw Cable, Videotron and Cogeco Cable – accounted for 89% of all cable-television subscribers in Canada.<sup>23</sup>

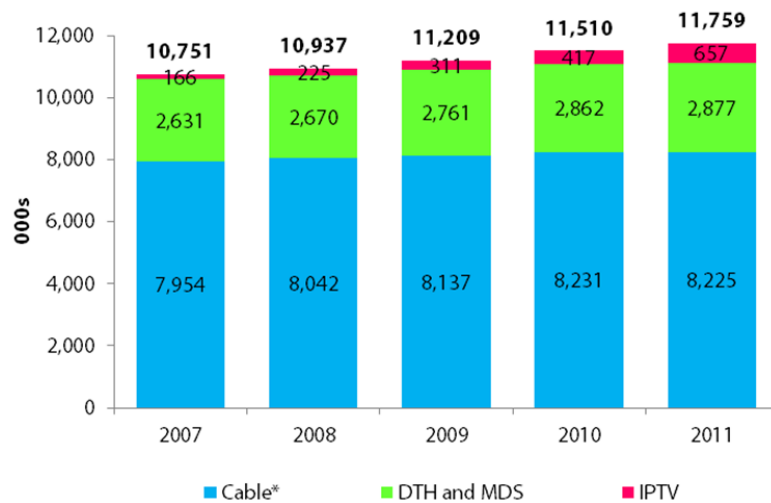
DTH is another popular BDU service in Canada. Canada has two subscription-based DTH providers, Bell ExpressVu and Shaw Direct.<sup>24</sup> Many Canadian households also have the option to receive BDU services from one of the five terrestrial multipoint distribution systems (MDS). Together, subscribers to DTH or MDS totalled 2.9 million in 2011, accounting for 25% of the total BDU market.

<sup>22</sup> CRTC, *Communications Monitoring Report 2012*, 2012, p. 95.

<sup>23</sup> CRTC, *Communications Monitoring Report 2012*, 2012, p. 98.

<sup>24</sup> The CRTC also licensed a subscription-free satellite television, FreeHD, in February 2010. FreeHD currently operates as BluSky HDTV, however, it has not yet launched a satellite BDU service.

**Exhibit 40 Number of subscribers to broadcasting distribution services in Canada**



Source: CRTC.

\* Includes CRTC estimates for non-reporting BDUs.

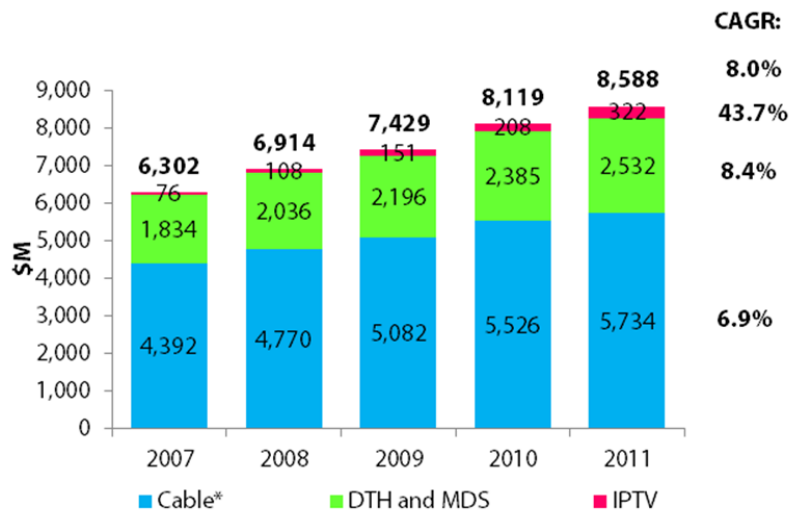
The IPTV market in Canada is also growing quickly. IPTV providers such as TELUS's Optik TV and Bell Canada's FIBE TV service permit households to obtain multichannel digital television services through their a broadband Internet connection. In 2011, there were 657,000 IPTV subscribers in Canada, accounting for 6% of the total market.

***Although subscriber growth was relatively slow between 2007 and 2011, revenue in the broadcasting distribution industry grew at an average annual rate of 8%, as BDUs continued to offer Canadians an expanding array of programming options***

Given that the household penetration of BDU services in Canada was already at 90% by 2011, subscriber growth has been slow in recent years. Between 2007 and 2011, the total number of BDU subscribers in Canada increased at an annual average rate of 2.2%. While subscriber growth was slow, BDU revenue still grew at a healthy pace, as BDUs continued to offer Canadian households an expanding array of programming options. Between 2007 and 2011, total revenue in the BDU industry increased from \$6.3 billion to just under \$8.6 billion – a compound annual growth rate (CAGR) of 8.0% (Exhibit 41).

The IPTV segment experienced the fastest revenue growth, as its subscriber base grew rapidly. The combined DTH and MDS segment experienced a CAGR of 8.4%, while revenue growth in the cable television segment was also relatively strong, at a CAGR of 6.9%.

**Exhibit 41 Total revenue in broadcasting distribution industry**



Source: CRTC.

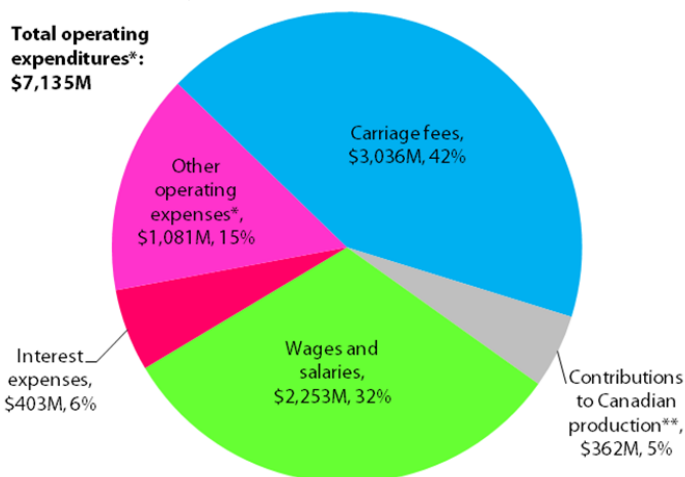
\* Includes CRTC estimates for non-reporting BDUs.

The broadcasting distribution industry does generate a relatively high level of total operating revenue compared to other industries in the film and television sector value chain; however, a large portion of this revenue is passed through to the broadcasting industry in the form of carriage fees for pay and specialty services, as well as fees for VOD and PPV services. In 2011, BDU's carriage fees totalled \$3.0 billion, or 42% of BDU's total operating expenditures of \$7.1 billion (Exhibit 42).

***In 2011, the broadcasting distribution industry remitted over \$3.0 billion in carriage fees to broadcasters and directly contributed \$362 million to the production of Canadian programming***

BDUs also make contributions directly to the Canadian production through the Canada Media Fund (CMF), the Local Programming Improvement Fund (LPIF), and various independent production funds. In 2011, BDUs made a total of \$362 million in contributions to Canadian production; these contributions accounted for 5% of total operating expenditures. Wages and salaries accounted for 32% of total operating expenditures, interest expenses accounted for 6%, and other operating expenditures accounted for the remaining 13%.

**Exhibit 42 Breakdown of total operating expenditures in broadcasting distribution industry**



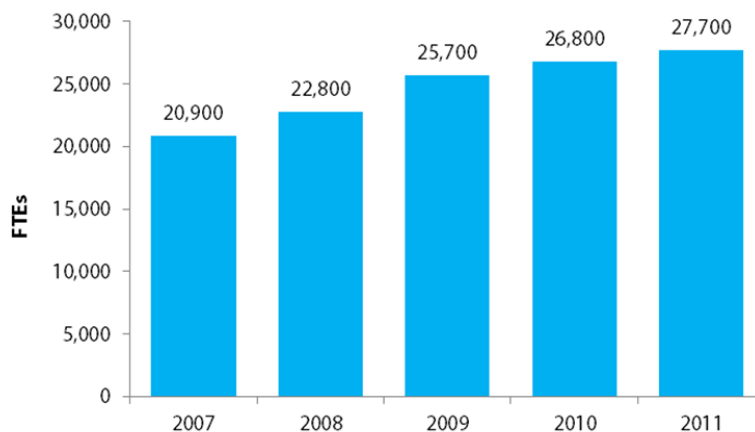
Source: Nordicity estimates based on data from CRTC.

\* Excludes depreciation expenses.

\*\*Include contributions to CMF (\$205M), independent production funds (\$50M) and LPIF (\$107M).

The broadcasting distribution industry’s growth in revenue between 2007 and 2011 was accompanied by a steady increase in industry employment. Between 2007 and 2011, the industry added 6,800 FTEs of employment to its payrolls, bringing total industry employment to 27,700 FTEs in 2011 (Exhibit 43). In the five-year period, 2007 to 2011, Canada’s broadcasting distribution industry saw its workforce expand by 33%.

**Exhibit 43 Employment in broadcasting distribution industry, 2011 (FTEs)**



Source: CRTC.



For the broadcasting distribution industry, regional data are only available for reporting cable-television and IPTV licensees<sup>25</sup>; no regional data are available for DTH and MDS licensees. The data for reporting cable-television and IPTV licensees indicates that Ontario accounted for \$2.3 billion in revenue in 2011, or 39% of national revenue. Employment in Ontario was 6,500 FTEs in 2011 or 26% of national employment. Employment in Quebec was also 6,500 FTEs in 2011; however, its share of national revenue was \$1.3 billion, or 21%.

**Exhibit 44 Revenue and employment in cable television and IPTV segments, by region, 2011\***

|                     | Ontario | Quebec | Prairie Provinces | British Columbia** | Atlantic Canada | Total Canada |
|---------------------|---------|--------|-------------------|--------------------|-----------------|--------------|
| Total revenue (\$M) | 2,323   | 1,263  | 1,014             | 903                | 414             | 5,918        |
| Employment (FTEs)   | 6,500   | 6,500  | 5,100             | 5,400              | 1,600           | 25,100       |

Source: CRTC.

\* Based exclusively on data reporting cable-television and IPTV licensees.

\*\* Includes Territories.

<sup>25</sup> CRTC regulations exempt certain types of smaller cable-television systems from submitting annual operating and financial data to the CRTC.

## 4. Economic Impact Analysis

In this section we present the results of our analysis of the impact that the film and television sector has on the Canadian economy in terms of employment, labour income and GDP. We include estimates of the direct economic impact (i.e. the impact within each value chain industry), and the spin-off impact, which includes the indirect and induced economic impacts. The direct and spin-off impacts are summed to arrive at an estimate of the total economic impact. We also include estimates of the tax revenue that can be linked to the film and television sectors' overall economic impact.

### 4.1 Direct economic impact

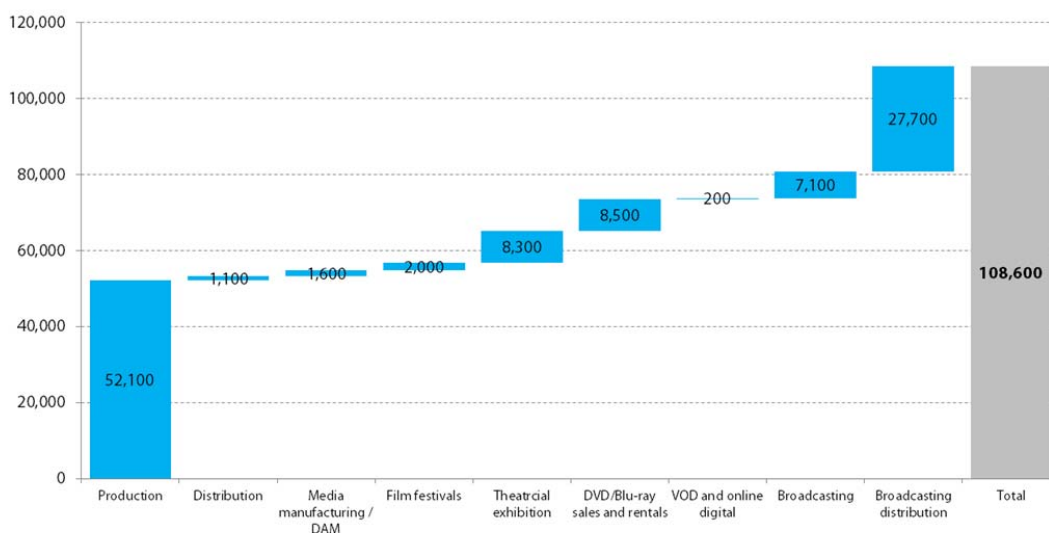
In this section, we present the estimates of the direct economic impact: that is, the impacts realized directly within each segment of the film and television sector value chain.

#### 4.1.1 Employment

#### *The film and television sector generated over 108,000 FTEs of direct employment in 2011*

Direct employment in Canada's film and television sector totalled an estimated 108,600 FTEs in 2011 (Exhibit 45). Nearly one-half of this employment, 52,100, was in the production industry, which is considered one of the most labour-intensive industries of the film and television sector. Indeed, the production of a feature film or a television drama will often involve a cast and crew comprised of dozens of personnel.

**Exhibit 45 Direct employment, 2011 (FTEs)**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

The second largest source of employment was the broadcasting distribution industry, with 27,700 FTEs. The broadcasting distribution industry employs hundreds of Canadians in technical and engineering roles, marketing, customer service, and finance and administration.

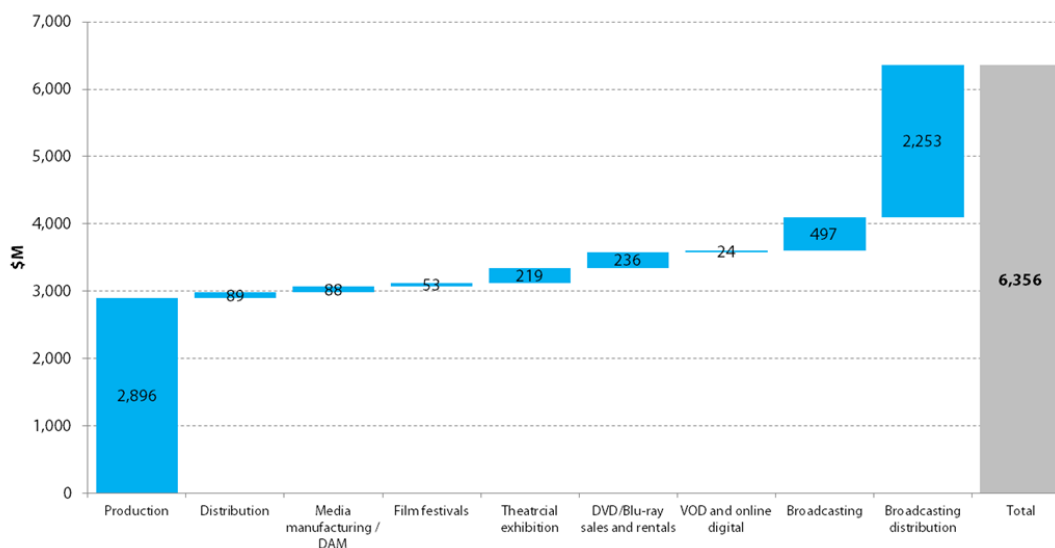
Although the DVD/Blu-ray sales and rentals industry is experiencing declining revenue, it still remains a significant source of employment. While the precise number of Canadians engaged in the sale or rental of DVD/Blu-ray discs is unknown, Nordicity’s analysis indicates that the revenue earned in this industry in 2011 supported 8,500 FTEs of employment in the Canadian retail sector.<sup>26</sup> The theatrical exhibition and broadcasting industries were also important sources of employment in 2011, with 8,300 and 7,100 FTEs, respectively.

#### 4.1.2 Labour income

### *Workers employed in the film and television sector earned \$6.4 billion in labour income in 2011*

Canadians working in the film and television sector earned an estimated \$6.4 billion in labour income (i.e. wages and benefits) in 2011 (Exhibit 46). The distribution of this labour income closely followed that of employment. Most of the labour income was earned by workers in the production and broadcasting distribution industries.

**Exhibit 46 Direct labour income, 2011**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

<sup>26</sup> The estimate of employment was based on the average share of revenue devoted to labour compensation and the average full-time salary in the retail sector in Canada. See Appendix A for detailed calculations.

The relative shares of labour income and employment varied somewhat, however, given that average wages also vary across industries. For example, segments such as DVD/Blu-ray sales and rentals, and theatrical exhibition account for 7.8% and 7.6% of employment, respectively; however, because these are both relatively lower-wage industries, their shares of labour income were much lower: 3.7% for DVD/Blu-ray sales and rentals, and 3.4% for theatrical exhibition.

## Canadian Film Centre

The Canadian Film Centre (CFC), founded in 1988, offers a variety of training and professional development programs to help accelerate the careers of Canadians working in film, television, screen acting, music and digital media. Over the past 25 years, more than 1,500 talented Canadians have graduated from CFC and moved into key roles in the creation of innovative, ground-breaking content and award-winning content.

In 2013, CFC, in partnership with the Ontario Ministry of Tourism, Culture and Sport (MTCS), commissioned Nordicity to measure the economic impact it has had since 2005-06 – the first year of MTCS support. The *Study of the Economic Impacts of the Canadian Film Centre* found that:

- Between 2006 and 2012, 577 graduates earned a cumulative income differential of \$34.9 million; and this income differential created \$41.5 million in GDP for the Ontario economy.
- Since 2006, 137 CFC graduates have established media companies in Ontario, which have generated \$80 million in production expenditures, and attracted \$47 million in financing from outside the province.
- The CFC activities between 2006 and 2012 ultimately led to the creation of 2,000FTEs in the Ontario economy and \$115 million in GDP.

Source: "About Us," Canadian Film Centre, accessed April 5, 2013, [http://cfccreates.com/about\\_us/index.php](http://cfccreates.com/about_us/index.php); "Lights, Camera, Economic Action," Canadian Film Centre, accessed April 5, 2013, [http://www.cfccreates.com/about\\_us/news/news\\_item.php?id=item271](http://www.cfccreates.com/about_us/news/news_item.php?id=item271).

### 4.1.3 Gross Domestic Product

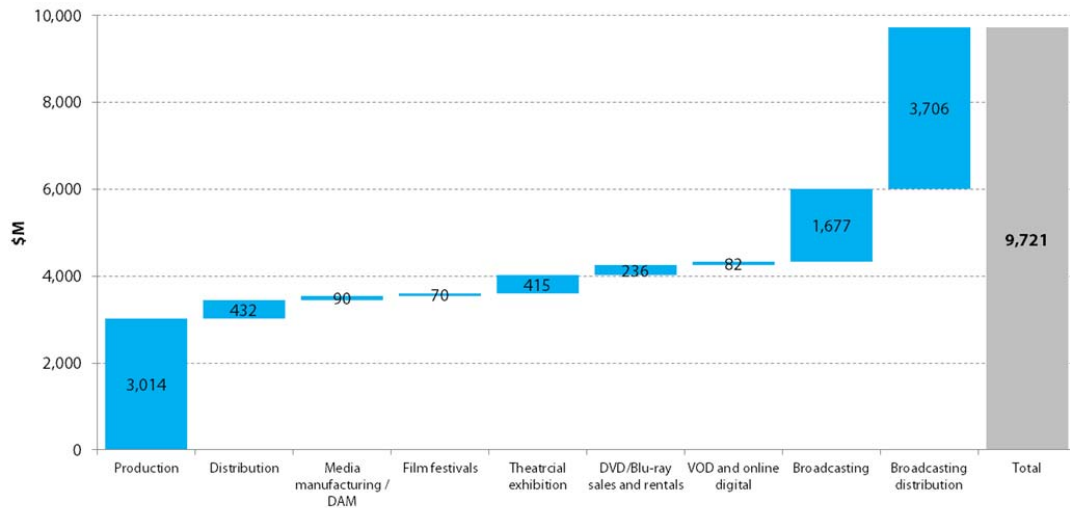
#### **The film and television sector generated nearly \$10 billion in GDP in 2011**

The film and television sector generated a total of \$9.7 billion in GDP in 2011 (Exhibit 47). The broadcasting distribution industry was the largest source of GDP. In 2011, it generated nearly \$3.8 billion in GDP, or approximately 38% of total sector GDP. It was followed by the production industry with just over \$3.0 billion in GDP in 2011. The broadcasting industry was another significant source of GDP, with nearly \$1.7 billion in GDP in 2011.

Labour income was the largest source of GDP in the film and television sector. The \$6.4 billion in labour income earned by workers in the film and television sector in 2011 accounted for 65% of total GDP (Exhibit 48). Operating surplus (i.e. consumption of capital assets and compensation for providers of financial and entrepreneurial capital) accounted for \$3.4 billion or 35%.



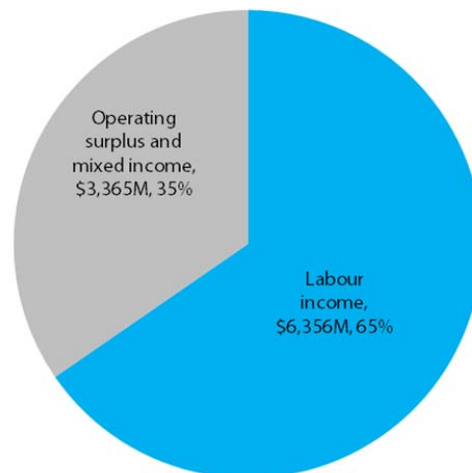
**Exhibit 47 Direct GDP, 2011**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

**Exhibit 48 Sources of direct GDP in film and television sector**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

## 4.1.4 Export value

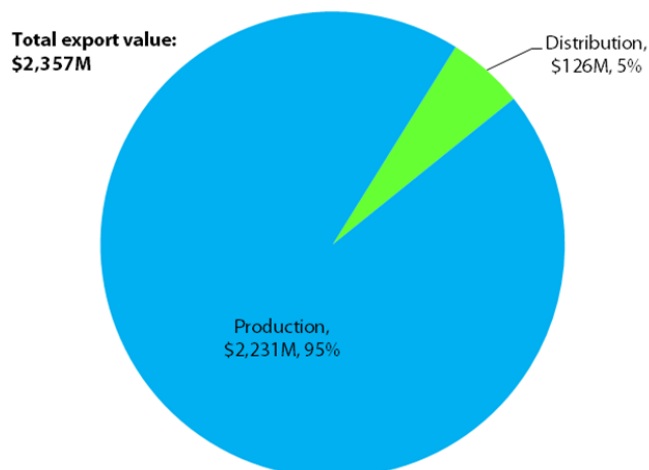
### **The film and television sector generated \$2.4 billion in export value in 2011**

Thus far we have examined the direct impact that the film and television sector has on the Canadian economy through employment, labour income and GDP. Like many other sectors of the Canadian economy, the film and television sector can attribute part of its economic impact to its earnings from foreign markets. To measure the value of the Canadian film and television sector's export activity, Nordicity uses the concept of *export value* developed in conjunction with CMPA.

Export value combines the value of exports of goods and services that cross the Canadian border with the value of foreign financing of films and television programs shot in Canada. This foreign financing includes the pre-sales of Canadian television programs and films to foreign broadcasters and distributors. It also includes that value of Canadian labour and supplies purchased by foreign producers when they shoot films and television programs in Canada (i.e. FLS production).

In 2011, Canada's film and television sector generated \$2.4 billion in export value (Exhibit 49). The vast majority of the total export value in the film and television sector originated in the production industry. In 2011, the production industry generated over \$2.2 billion in export value. The distribution industry accounted for 5% of total export value in 2011, with \$126 million in revenue earned from the licensing of Canadian and non-Canadian content to clients outside of Canada. Broadcasting, broadcasting distribution, electronic distribution, physical distribution, theatrical distribution – all are typically not geared to export but rather to ensuring the film and television product gets to the consumer in Canada.<sup>27</sup>

**Exhibit 49 Export value, 2011**



Source: Nordicity estimates based on data from CMPA and Statistics Canada, 87F0010X.

<sup>27</sup> The media manufacturing and DAM segment represents another source of export revenue for Canada's film and television sector; however, export data for that segment is not available.

## 4.2 Spin-off and total economic impact

In addition to the direct economic impact (presented in Section 4.1) the film and television sector generates spin-off economic impacts throughout the Canadian economy. This spin-off economic impact includes the indirect economic impact associated with the sector's procurement from other sectors of the Canadian economy. It also includes the induced economic impact. The induced economic impact refers to the wider impact on the Canadian economy that arises from the re-spending of labour income earned at both the direct and indirect stages of the economic impact. The direct and spin-off economic impacts can be summed to arrive at an estimate of the total economic impact.

### 4.2.1 Employment

#### *The film and television sector supported 262,700 FTEs of employment across the Canadian economy in 2011*

In 2011, the film and television sector generated 111,100 indirect-impact FTEs and 43,000 induced-impact FTEs, in addition to the 108,600 direct-impact FTEs generated within the film and television sector itself (Exhibit 50). Overall, the direct and spin-off impacts of the film and television sector in Canada supported a total of 262,700 FTEs across the Canadian economy in 2011.

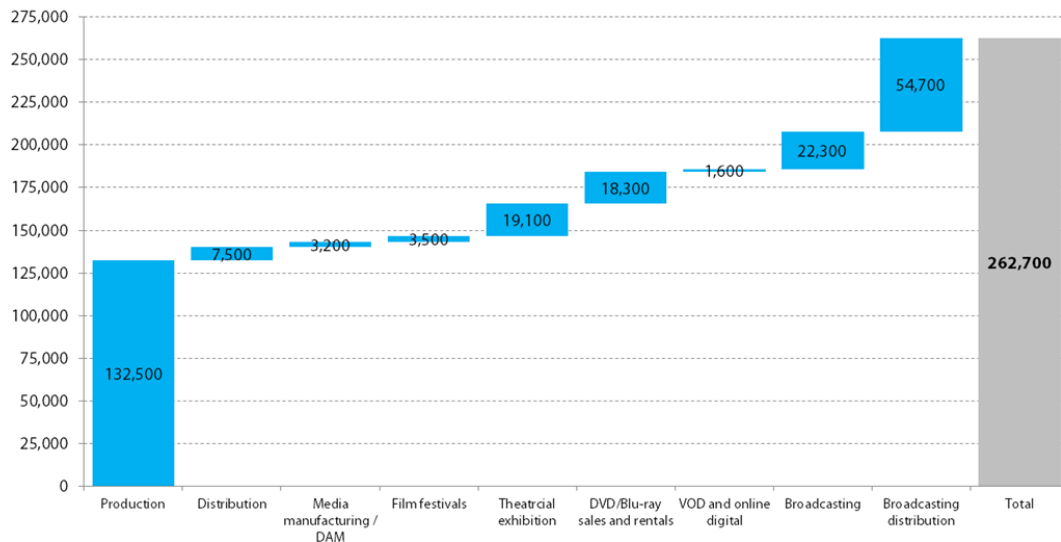
**Exhibit 50 Direct and spin-off employment, 2011 (FTEs)**

|                               | Spin-off       |                |               | Total          |
|-------------------------------|----------------|----------------|---------------|----------------|
|                               | Direct         | Indirect       | Induced       |                |
| Production                    | 52,100         | 61,000         | 19,400        | 132,500        |
| Distribution                  | 1,100          | 4,700          | 1,200         | 7,000          |
| Media manufacturing and DAM   | 1,600          | 1,000          | 600           | 3,300          |
| Film festivals                | 2,000          | 1,100          | 400           | 3,500          |
| Theatrical exhibition         | 8,300          | 8,400          | 2,400         | 19,100         |
| DVD/Blu-ray sales and rentals | 8,500          | 7,400          | 2,400         | 18,300         |
| VOD and online digital        | 200            | 1,100          | 300           | 1,600          |
| Broadcasting                  | 7,100          | 11,200         | 4,000         | 22,300         |
| Broadcasting distribution     | 27,700         | 14,800         | 12,200        | 54,700         |
| <b>Total</b>                  | <b>108,600</b> | <b>111,100</b> | <b>43,000</b> | <b>262,700</b> |

Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

The production industry was the largest contributor to total employment across the film and television sector value chain. Through its direct and spin-off impacts, it generated 132,500 FTEs of employment across the Canadian economy in 2011; this employment-impact accounted for approximately one-half of the film and television sector's total employment impact (Exhibit 51). It is also noteworthy that many of the traditional content consumption platforms, such as DVD/Blu-ray sales and rentals, and theatrical exhibition displayed much higher employment effects than the emerging VOD and online digital platform. Thus, some of the value chain elements may experience declines in the amount of employment as distribution transitions to electronic from physical. In the production sector, which produces the largest amount of employment, the competitiveness of and public support for Canadian production will determine future employment levels.

**Exhibit 51 Total employment impact, 2011 (FTEs)**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

## 4.2.2 Labour income

The indirect and induced employment generated by the film and television sector resulted in \$4.6 billion in indirect-impact labour income and \$1.8 billion in induced-impact labour, in addition to the direct labour income of \$6.4 billion (Exhibit 52). Overall, the direct and spin-off impacts of the film and television sector in Canada generated a total of \$12.8 billion in labour income across the Canadian economy in 2011.

### ***The jobs supported by the film and television sector generated \$12.8 billion in labour income for Canadians in 2011***

As with employment, the production industry was, by far, the largest source of labour income in the film and television sector value chain. Through its direct and spin-off impacts, it generated just under \$6.0 billion in labour income across the Canadian economy in 2011, accounting for 47% of the total labour income impact. The broadcasting distribution industry was another significant source of labour income. In 2011, the direct and spin-off employment impacts in the broadcasting distribution industry generated \$3.5 billion in labour income, accounting for 28% of the film and television sector's overall impact on the Canadian economy.

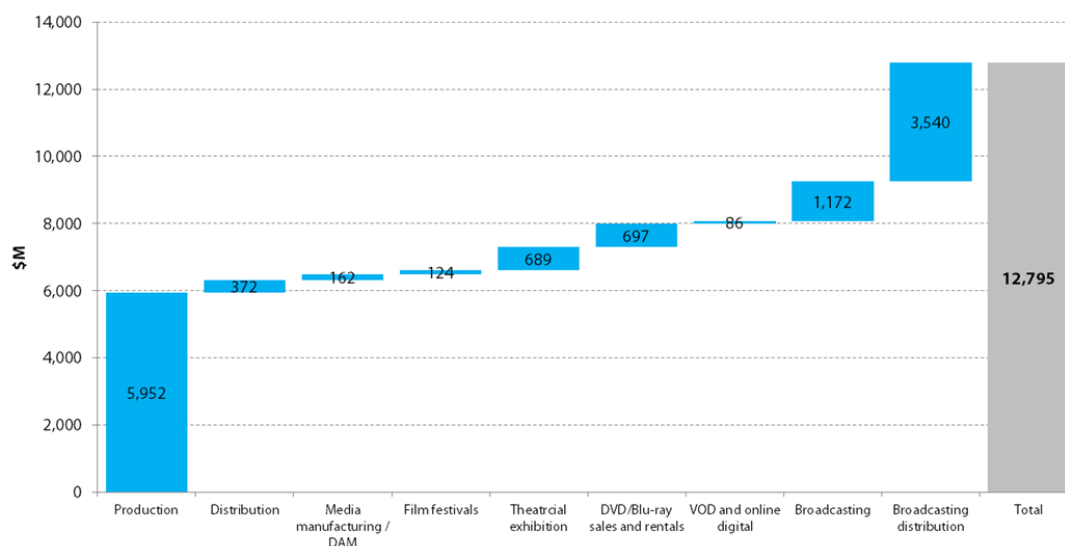
**Exhibit 52 Direct and spin-off labour income, 2011 (\$M)**

|                               | Direct       | Spin-off     |              | Total         |
|-------------------------------|--------------|--------------|--------------|---------------|
|                               |              | Indirect     | Induced      |               |
| Production                    | 2,896        | 2,330        | 726          | 5,952         |
| Distribution                  | 89           | 224          | 59           | 372           |
| Media manufacturing and DAM   | 88           | 48           | 26           | 162           |
| Film festivals                | 53           | 51           | 20           | 124           |
| Theatrical exhibition         | 219          | 362          | 109          | 689           |
| DVD/Blu-ray sales and rentals | 236          | 351          | 110          | 697           |
| VOD and online digital        | 24           | 48           | 14           | 86            |
| Broadcasting                  | 497          | 489          | 185          | 1,172         |
| Broadcasting distribution     | 2,253        | 728          | 559          | 3,540         |
| <b>Total</b>                  | <b>6,356</b> | <b>4,632</b> | <b>1,807</b> | <b>12,795</b> |

Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

**Exhibit 53 Total labour income impact, 2011 (\$M)**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

## 4.2.3 Gross Domestic Product

### *The film and television sector generated over \$20 billion in GDP across the Canadian economy in 2011*

In addition to the creation of \$9.7 billion in direct GDP, the film and television sector generated a further \$7.6 billion in indirect-impact GDP and \$3.1 billion in induced impact GDP across the Canadian economy (Exhibit 54). Overall, the direct and spin-off impacts of the film and television sector in Canada generated a total of \$20.4 billion in GDP across the Canadian economy in 2011.

**Exhibit 54 Direct and spin-off GDP, 2011 (\$M)**

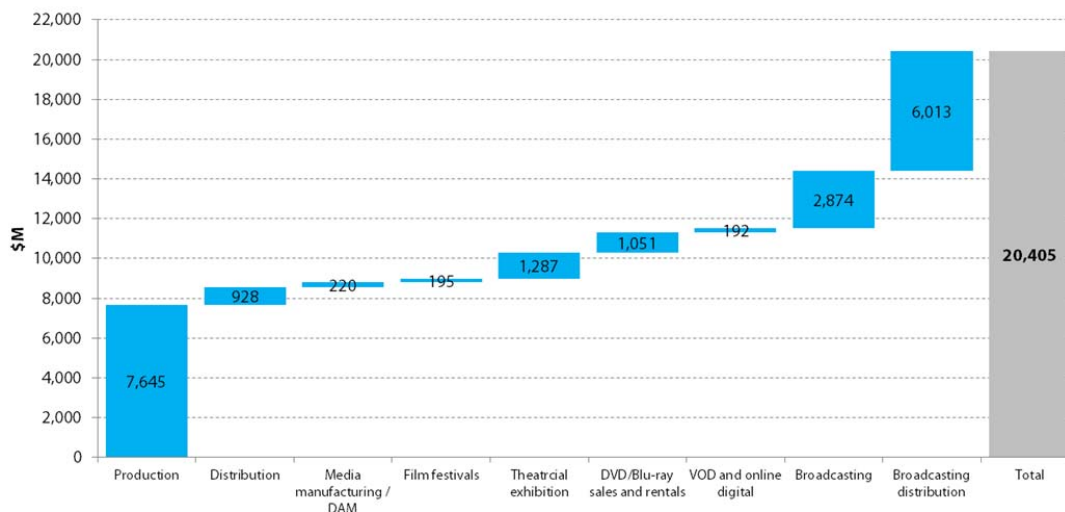
|  | Direct       | Spin-off     |              | Total         |
|--|--------------|--------------|--------------|---------------|
|  |              | Indirect     | Induced      |               |
| Production                                       | 3,014        | 3,531        | 1,100        | 7,645         |
| Distribution                                     | 432          | 389          | 107          | 928           |
| Media manufacturing and digital asset management | 90           | 83           | 47           | 220           |
| Film festivals                                   | 70           | 90           | 36           | 195           |
| Theatrical exhibition                            | 415          | 674          | 198          | 1,287         |
| DVD/Blu-ray sales and rentals                    | 236          | 614          | 201          | 1,051         |
| VOD and online digital                           | 82           | 85           | 25           | 192           |
| Broadcasting                                     | 1,677        | 860          | 337          | 2,874         |
| Broadcasting distribution                        | 3,706        | 1,289        | 1,018        | 6,013         |
| <b>Total</b>                                     | <b>9,721</b> | <b>7,616</b> | <b>3,068</b> | <b>20,405</b> |

Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

The production industry was the single biggest contributor to the film and television sector's total GDP impact. In 2011, the production industry generated \$7.6 billion in GDP, accounting for 37% of the total GDP impact of \$20.4 billion. The other major contributors to the total GDP impact included the broadcasting distribution and broadcasting industries. In 2011, the broadcasting distribution industry generated \$6.0 billion in total GDP, or 29% of the total impact, while the broadcasting industry generated \$2.9 billion in GDP, or 14% of the total impact. The other six value chain segments combined for 19% of the total GDP impact.

**Exhibit 55 Total GDP impact, 2011**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTCC, TCI Management Consultants, MPTAC and IHS Screen Digest.

Note: Some totals may not sum due to rounding.

## 4.3 Tax revenue

### *The economic activity stimulated by the film and television sector generated nearly \$5.5 billion in tax revenue for governments in Canada*

To estimate the tax revenue generated by the total economic impact across the film and television sector value chain, Nordicity used a simple tax impact model based on the relationship between federal and provincial tax revenue and total wages (i.e. labour income) or GDP in the Canadian economy.

Exhibit 56 presents data published by Statistics Canada that was used to derive effective tax ratios, which could be applied to the total economic impact in terms of labour income or GDP, in order to estimate the total tax revenue that would be expected to accompany the economic impact.<sup>28</sup> The effective tax ratio used to estimate personal income taxes (federal and provincial) was based on the ratio of personal income taxes to total wages and salaries. The effective tax ratios for corporate

<sup>28</sup> The effective tax ratios have been calculated on the basis of data published for 2009 – the last year for which Statistics Canada published tax revenue data. The effective tax ratios will differ from published statutory tax rates.

income tax, consumption taxes, and local property taxes and fees<sup>29</sup> were all based on the ratio of tax revenue to GDP.

#### Exhibit 56 Calculation of effective tax ratios for tax revenue analysis

|                                    | Federal<br>(2009) | Provincial<br>(2009) |
|------------------------------------|-------------------|----------------------|
| <b>Tax and economic data (\$M)</b> |                   |                      |
| Personal income taxes              | 114,321           | 67,456               |
| Corporation income taxes           | 31,273            | 15,915               |
| Consumption taxes                  | 42,535            | 55,017               |
| Local property taxes               | 0                 | 41,352               |
| Total wages and salaries           | 814,707           | 814,707              |
| Total GDP                          | 1,436,123         | 1,436,123            |
| <b>Effective tax ratios</b>        |                   |                      |
| Personal income taxes <sup>†</sup> | 14.0%             | 8.3%                 |
| Corporate income tax <sup>††</sup> | 2.2%              | 1.1%                 |
| Consumption taxes <sup>††</sup>    | 3.0%              | 3.8%                 |
| Local property taxes <sup>††</sup> | --                | 2.9%                 |

Source: Nordicity estimates based on data from Statistics Canada, CANSIM tables 384-0001 and 385-0001.

<sup>†</sup> Calculated as a percentage of total wages and salaries.

<sup>††</sup> Calculated as a percentage of total GDP.

The application of the effective tax ratios for personal income tax to the total labour income impact of \$12.8 billion yields the personal income tax impact of nearly \$2.9 billion reported in Exhibit 57. This total includes \$1.8 billion in federal income tax and just under \$1.1 billion in provincial income tax. The application of the effective tax ratios for corporate income tax, consumption tax, and local property taxes to the total GDP impact of \$20.4 billion yields estimated total tax revenue of \$670 million, \$1.4 billion and \$588 million, respectively.

In total, the economic activity stimulated by the film and television sector generated \$5.5 billion in tax revenue for governments in Canada. Of this total, the federal government collected over \$2.8 billion, while provincial governments collected nearly \$2.7 billion.

#### Exhibit 57 Tax revenue generated by total economic impact, 2011 (\$M)

|                      | Federal      | Provincial   | Total        |
|----------------------|--------------|--------------|--------------|
| Personal income tax  | 1,795        | 1,059        | <b>2,855</b> |
| Corporate income tax | 444          | 226          | <b>670</b>   |
| Consumption taxes    | 604          | 782          | <b>1,386</b> |
| Local property taxes | --           | 588          | <b>588</b>   |
| <b>Total</b>         | <b>2,844</b> | <b>2,655</b> | <b>5,499</b> |

Source: Nordicity estimates based on data from Statistics Canada, CANSIM tables 384-0001 and 385-0001.

<sup>29</sup> Local property taxes and fees have been categorized as provincial taxes since local governments in Canada are agencies of provincial governments.

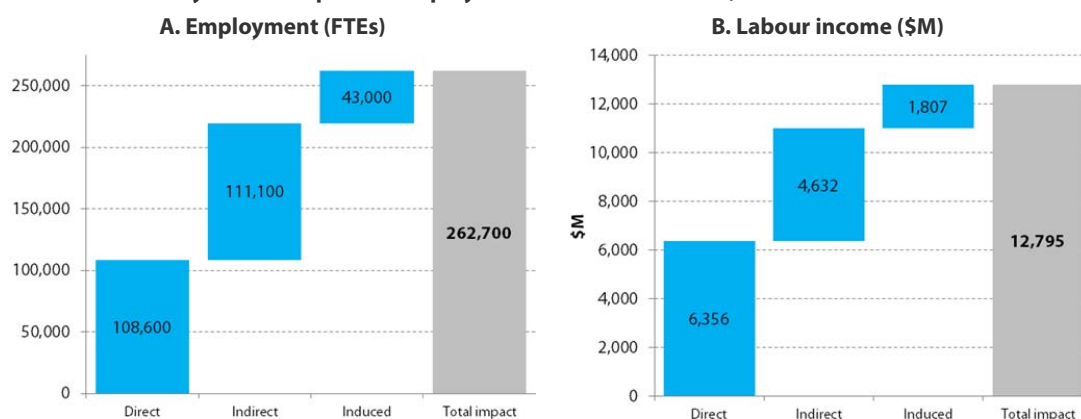


## 4.4 Summary of economic impact

Overall, the film and television sector supported 262,700 FTEs of employment in Canada in 2011 (Exhibit 58A). This total employment impact included 108,600 FTEs of employment at companies operating directly in the film and television sector. It also included indirect-impact employment of 111,100 FTEs and 43,000 FTEs in induced-impact employment.

The employment supported by the film and television sector generated just over \$12.8 billion in labour income for Canadian workers in 2011 (Exhibit 58B). This total included \$6.4 billion in labour income earned by workers employed at companies operating in the film and television sector, \$4.6 billion in indirect-impact labour income earned by workers employed in supplier industries and \$1.8 billion in labour income on account of induced impacts.

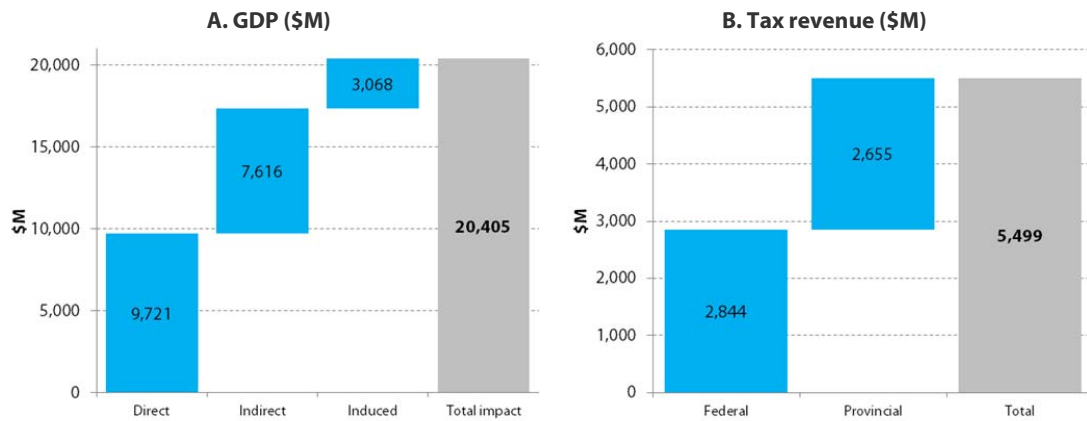
**Exhibit 58 Summary of total impact on employment and labour income, 2011**



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

The film and television sector led to the creation of \$20.4 billion in GDP across the Canadian economy in 2011 (Exhibit 59A). This total included \$9.7 billion in GDP created directly within the film and television sector, a further \$7.6 billion in indirect-impact GDP and \$3.1 billion in induced-impact GDP. The total economic activity stimulated by the film and television sector in Canada also yielded \$5.5 billion in tax revenue for governments in Canada in 2011, including over \$2.8 billion in federal tax revenue and nearly \$2.7 billion in provincial tax revenue (Exhibit 59B).

**Exhibit 59 Summary of total impact on GDP and tax revenue, 2011**



Source: A: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest; B: Nordicity estimates based on data from Statistics Canada, CANSIM tables 384-0001 and 385-0001.

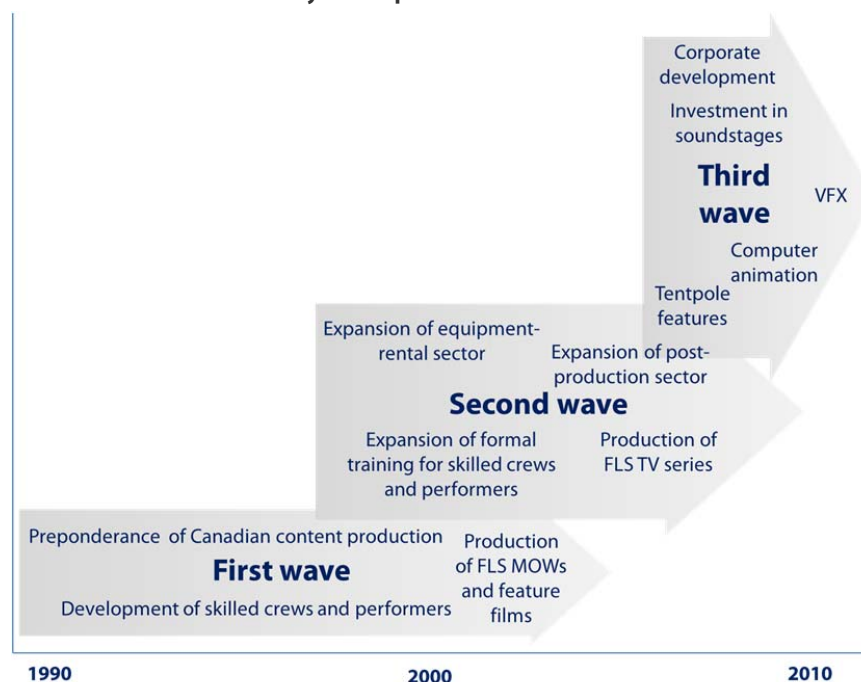
## 5. Ancillary Economic Benefits

Section 4 captured the economic impacts arising from the dollar expenditures across the film and television value chain in Canada – from production through content consumption – at a single point in time, 2011. And while those economic impacts represent the core of the sector’s economic contribution, there are aspects to the sector’s economic contribution that manifest themselves over time in the form of *industry development*. Furthermore, there are spillover effects that occur in other sectors. Infrastructure investment (construction sector) and film-induced tourism (tourism sector) are two examples of such spillover effects. In Section 5, we examine both the industry development and spillover effects associated with the film and television sector in Canada.

### 5.1 Industry development

During the 1990s, the majority of film and television production in Canada was of Canadian content. During this period, FLS production in Canada was slowly on the increase, however, the majority of it was tied to feature films: first with movies of the week (MOWs) and later with theatrical feature films. That being said, British Columbia did host some major American television series – such as *21 Jump Street* and *The X-Files* – in the late 1980s and 1990s. In aggregate, FLS feature film projects delivered high levels of expenditures in Canada; however, the annual level of expenditures rose and fell significantly, from year to year. This period of predominantly Canadian content production, and MOW and feature film production in the FLS segment represented the first wave of industry development.

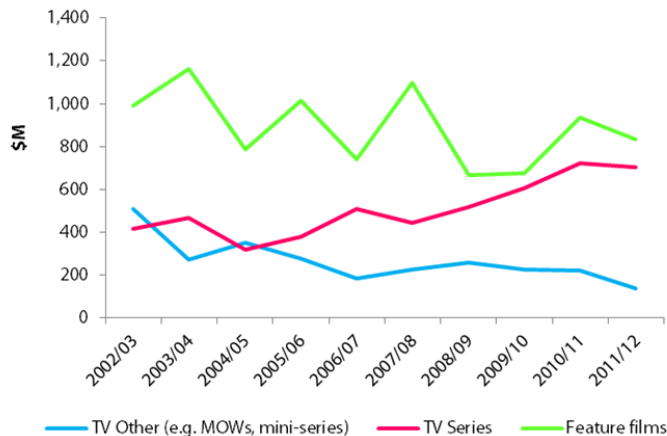
**Exhibit 60 Overview of industry development in the Canadian film and television sector**



Over the past decade, Canada has experienced a second wave of industry development characterized by a shift in the composition of its FLS production. Canadian content production has continued to grow; however in the FLS segment, Canada is now a host to an increasing number of television series, which typically have significantly lower hourly budgets than feature films, but often come with 13 to 26 hours of programming. More importantly, networks can renew television series for many seasons; thus, these series become a more regular and predictable source of production expenditures and employment in Canada. As shown in Exhibit 61, FLS television series have steadily increased over the last seven years (2002-03 to 2011-12), while MOWs have declined by about the same amount. Recently, television series have also caught up to feature films in terms of production volume (i.e. expenditures).

Film commission offices across Canada are often trying to attract *tentpole* feature film projects – essentially projects that have a large budget and whose impact is felt throughout the local production community. Indeed, the relatively wide fluctuation in the feature film time-series displayed in Exhibit 61 is the product of lean or good years in landing tentpole films in Canada. The development of a strong VFX studio community in Canada’s major centres of production has helped enhance Canada’s appeal as a destination for tentpole feature film, as VFX is increasingly integrated into the production process, particularly for blockbuster films.

**Exhibit 61 Volume of FLS production in Canada, by type**



Source: CMPA, *Profile 2012*.

While tentpole feature films can be a boon for a local economy, the importance of mid-budget and smaller projects should not be discounted. Indeed, for a given level of aggregate production expenditures, smaller projects have the potential to provide even more employment opportunities for skilled crew. For example, while a \$50 million tentpole project may provide employment for one director of photography (DP), five \$10 million projects would provide simultaneous employment for five DPs.

This trend towards increased television series production is also evident on the domestic production side. As more and more Canadian prime-time drama and lifestyle series attract higher audiences inside and outside of Canada, the annual levels of production activity are becoming relatively more



certain and less subject to the annual fluctuations that accompany spurts in mini-series, MOW and feature film production.

### **Screen Industries Research and Training Centre**

The Screen Industries Research and Training Centre (SIRT) was established at Pinewood Toronto Studios by Sheridan College in 2010. SIRT's production and lab facility is dedicated to exploring digital image capture and creation processes for film, television, games and other screen-based industries.

With a mandate to strengthen the Ontario creative industries through knowledge development and dissemination, SIRT actively seeks partnerships with entertainment industry companies working in content and technology. Recently, SIRT announced that it had entered into a partnership with the Ubisoft Entertainment S.A., at the launch of the company's new state-of-the-art motion capture studio in Toronto. SIRT also recently completed the first stage of its 3D High Frame Rate (HFR) research project, and is now hosting a series of motion capture workshop modules for actors who belong to ACTRA, demonstrating its commitment to innovation and growth in the screen-based industries in Ontario.

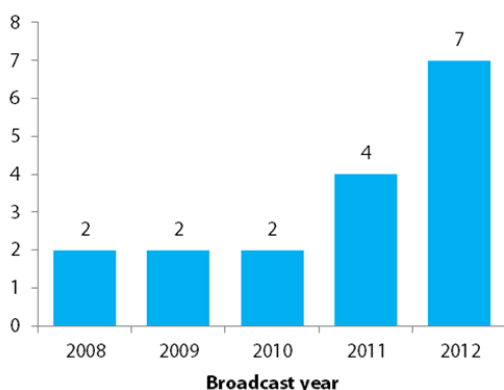
Source: "About Us," SIRT, accessed April 5, 2013, <https://www.sirtcentre.com/about.html>.

Industry stakeholders place a lot of emphasis on the stability of public support – through tax credits particularly – as a key success factor for the production industry. The continuous upgrading of skills across the board via academic and apprenticeship training has been critical as well, particularly to the increased success of Canadian television series. The training by institutions such as Sheridan's Screen Industries Research and Training Centre (SIRT) and the Canadian Film Centre (CFC) plays an important role in developing the high-end talent base that is needed to remain competitive. The existence of a strong technical base in Canada, through continuous investment by post-production services and equipment rental suppliers rounds out Canada's capacity, and has helped attract even more investment in infrastructure.

Canada has now entered a third wave of industry development. This third wave is characterized by the establishment of an increasing number of integrated production companies that no longer produce on strictly a project-by-project basis, but have developed enough scale to retain business affairs departments, invest in multiple development projects and libraries, and diversify into related businesses, such as interactive digital media, distribution, and computer animation. These corporate entities can provide an even higher level of employment certainty for the film and television workforce in Canada. They also provide their owners and managers with a portfolio of revenue streams that can be used to constantly reinvest in new content, new lines of business or new market opportunities.

**Exhibit 62 Audience performance of Canadian-produced English-language television series**

**A. Number of television series with average minute audience of one million or higher**



**B. Top ten television series, 2012 broadcast year\***

|                                |              |
|--------------------------------|--------------|
| <b>1. Saving Hope</b>          | <b>1,658</b> |
| <b>2. Rookie Blue</b>          | <b>1,477</b> |
| <b>3. Flashpoint</b>           | <b>1,427</b> |
| <b>4. Battle of the Blades</b> | <b>1,252</b> |
| <b>5. Bomb Girls</b>           | <b>1,252</b> |
| <b>6. The Listener</b>         | <b>1,140</b> |
| <b>7. Republic of Doyle</b>    | <b>1,048</b> |
| 8. The Firm                    | 975          |
| 9. Artic Air                   | 965          |
| 10. Rick Mercer Report         | 871          |

Source: CMF Research (BBM Canada).

\*Titles in bold with average minute audience over one million.

In the remainder of this sub-section, we focus on the emergence of computer animation and VFX production, which is an increasingly important part of the industry's development. We also discuss the role of integrated production companies, which, as noted above are important to the future growth of the industry

### 5.1.1 Computer animation studios

One important element of the overall production environment in Canada is its computer animation studios.<sup>30</sup> These studios, such as Pixar Canada and Sony Pictures Imageworks (located in Vancouver, British Columbia), typically produce fully rendered digitally animated content. As with Pixar Canada, some of this content takes the form of complete film projects, television series or commercial projects. At the same time, computer animation studios can also provide fully rendered animation elements to film, television and digital media producers (e.g. as part of a larger project or for the introduction of a video game project). Computer animation studios located in Canada are either engaged in activities that can generate Canadian-controlled intellectual property (i.e. "Canadian IP") or in activities that can be described as *fee-for-service* work, where IP is retained by the downstream client or publisher, which is often a foreign studio.

Pixar credits its investment in Canada to the proliferation of Canadian skilled animators it was encountering in its studios in California, and to the Digital Animation and Visual Effects (DAVE) Tax Credit established by the Government of British Columbia to attract technology investment to the province. Pixar was quickly followed by Sony Pictures Imageworks, Digital Domain Productions, Rhythm & Hues and Lucasfilm's Industrial Light & Magic. The result has been the repatriation of many

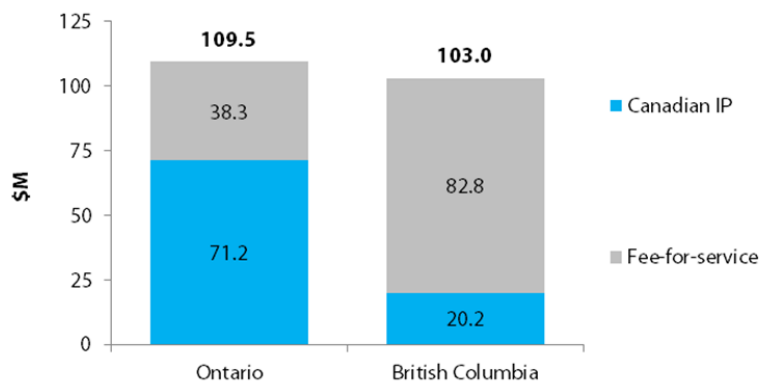
<sup>30</sup> We should note that computer animation firms commonly engage in some visual effects work (and vice versa).

skilled Canadian animators who wanted to return to Vancouver, and the formation of an emerging computer animation cluster in Vancouver.

## **Computer animation expenditures in Canada were an estimated \$280 million in 2011, and included both fee-for-service and Canadian IP projects**

In British Columbia – despite the reference to Pixar which does produce for itself – the work of other computer animation studios tends to skew towards fee-for-service work. In Ontario the companies undertaking computer animation (e.g. Corus-owned Nelvana) tend to act as the producers of their own content, i.e. they generate Canadian IP projects. Exhibit 63 shows the three-year average (2008-09 through 2010-11) of fee-for-service and Canadian IP productions for these two jurisdictions.

**Exhibit 63 Type of computer animation expenditures, three-year average, 2008-09 to 2010-11 (estimates)**



Source: Nordicity estimates based on data from BC Film + Media; CASO, *Economic Profile of the Computer Animation and Visual Effects Industry in Ontario, 2008-2010*.

## Pixar Canada

Started in 2009, Pixar Canada is the only satellite office of Pixar outside of the US. Located in the historic Gastown district of Vancouver, its 30,000 square-foot facility (a restored and retrofitted heritage building) is home to nearly 100 employees working on character animation for television and short films.

This permanent presence has provided an enduring economic stimulus to the City of Vancouver. Two-thirds of workers at the Pixar Canada studio are Canadian, and of those, one-half are *repatriots*: Canadians who have returned from working in other countries. Pixar Canada also has an apprentice program which hires recent graduates of local schools and gives them extensive on-site training and development within a production environment.

The studio's focus is on projects featuring legacy characters from Pixar's earlier films, *Cars* and *Toy Story*. To date, it has completed seven short films, which are distributed across a variety of platforms: television, DVD compilations, internet broadcasting, theme park attractions and theatrical exhibitions.

Source: Pixar Canada; Anja Konjicanin, "Inside Pixar Canada studios in Vancouver," *Vancouver Observer*, October 21, 2011, accessed April 5, 2013, <http://www.vancouverobserver.com/blogs/thescene/2011/10/21/inside-pixar-canada-studios-vancouver>; Peter Scrietta, "Pixar Canada Officially Opens," *Slashfilm*, accessed April 5, 2013, <http://www.slashfilm.com/pixar-canada-officially-opens/>.

Canada has a long history of producing top-level animation talent from institutions such as Oakville, Ontario's Sheridan College or Montreal's Centre national d'animation et design (Centre NAD). Building on such talent, Canada has become home to leading computer animation studios such as Toronto's Arc Productions (*Gnomeo & Juliet*, 9) and Guru Studio (*Spaceface*, *Justin Time*).

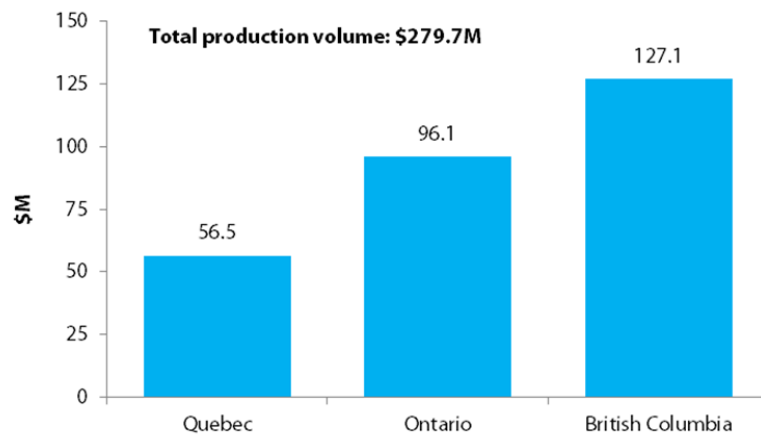
Nordicity estimates that the computer animation segment generated, at a minimum, \$279.7 million in production volume (i.e. production expenditures) in 2011 (Exhibit 64).<sup>31</sup> Of that amount (\$279.7 million) of computer animation production volume undertaken in 2011, 46% was produced in Ontario, while BC and Quebec accounted for 28% and 26% of the total Canadian volume, respectively.

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<sup>31</sup> This estimate is based on the production volume statistics supplied by funding agencies in Ontario, British Columbia and Quebec. It is likely that additional production volume exists outside of these major production centres, but such productions are unlikely to affect the total national production volume estimate to a significant degree.



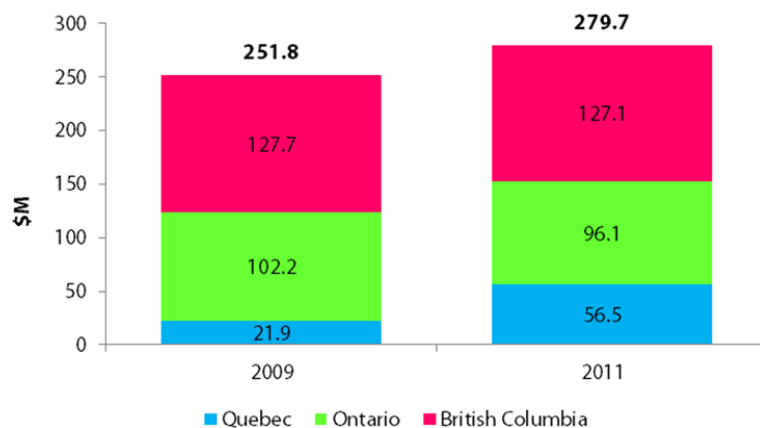
**Exhibit 64 Total volume of computer animation production in Canada, 2011 (estimates)**



Source: Nordicity estimates based on data from BC Film + Media; Observatoire de la culture et des communications du Québec, *Statistiques sur l'industrie du film et de la production télévisuelle indépendante. Édition 2012*; CASO, *Economic Profile of the Computer Animation and Visual Effects Industry in Ontario, 2008-2010*. Note: Quebec figures are for 2010.

The total volume of computer animation production in 2011, \$279.7 million, represents an 11.3% increase from the volume of \$251.8 million in 2009; the majority of the growth over that two-year period appears to have been from Quebec (Exhibit 65), where the volume of computer animation more than doubled from \$21.9 million to \$56.5 million.

**Exhibit 65 Growth in the total volume of computer animation production in Canada, by province, 2009 vs. 2011 (estimates)**



Source: Nordicity estimates based on data from BC Film + Media; Observatoire de la culture et des communications du Québec, *Statistiques sur l'industrie du film et de la production télévisuelle indépendante. Édition 2012*; CASO, *Economic Profile of the Computer Animation and Visual Effects Industry in Ontario, 2008-2010*.

## 5.1.2 VFX studios

### **VFX expenditures in Canada were an estimated \$435 million in 2011**

While computer animation studios tend to produce completed scenes for producers or completed film, television or commercial products, VFX studios tend to provide their clients with completed shots. As such, the VFX business in Canada is mainly service-based, undertaking fee-for-service work for both domestic and foreign producers.

While there are numerous VFX studios in Canada (there are at least 60 VFX studios operating in BC alone), a small number of larger studios dominate the landscape. For example, SPIN (*The Borgias*, *Game of Thrones*) has operations in both Toronto (production) and Vancouver (sales). Other notable Canadian VFX studios include (but are in no way limited to) Mr. X of Toronto (*Resident Evil: Retribution*, *Mama*, *Cosmopolis*), Image Engine of Vancouver (*Zero Dark Thirty*, *Battleship*, *Stargate Universe*), and Rodeo FX of Montreal (*The Twilight Saga: Breaking Dawn - Part 2*, *The Amazing Spiderman*, *Abraham Lincoln: Vampire Hunter*).

## Mr. X

Based in Toronto, Mr. X is a digital studio specializing in feature film VFX and animation. It provides digital services ranging from creative design to full animation and modelling at every stage of the production process.

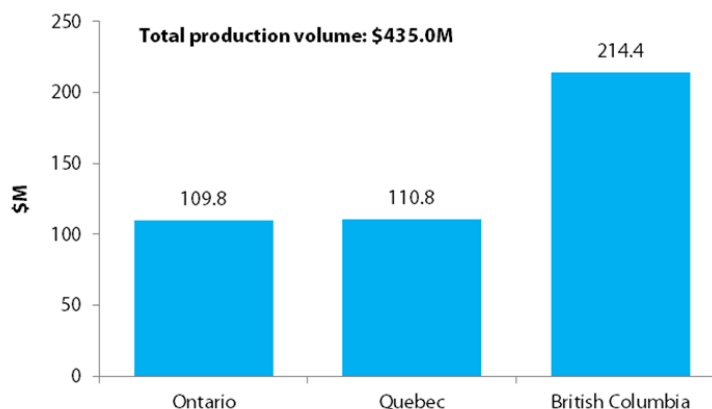
In the last few years, Mr. X has worked on several of the most VFX-intensive films coming out of Hollywood, including *The Twilight Saga: Breaking Dawn - Part 1*, *Tron: Legacy*, *Scott Pilgrim vs. The World*, and *Resident Evil: Retribution*. The Mr. X studio is currently at work on the new television series *Vikings* and the upcoming remakes of *Carrie* and *Robocop*.

In 2012, Mr. X branched out into US operations, opening a studio in New York called Mr. X Gotham, which focuses on high-end VFX for feature films produced in New York. As with its studio in Toronto, the tax credit incentives offered by both jurisdictions are an important component of the success of firms in this highly competitive industry. Ontario has the 25% 'all-spend' tax credit introduced in 2009, and New York has recently increased its tax credit for post-production from 10% to 30%, as well as extending it to cover post-production work on films shot outside the state. Mr. X's two facilities together employ more than 175 filmmakers, artists and programmers.

Source: "About Us," Mr. X, accessed April 5, 2013, <http://www.mrxfx.com>; "Mr. X Gotham Launches in New York City," Mr. X, press release, August 7, 2012, accessed April 5, 2013, <http://www.mrxfx.com/press/60>.

Nordicity estimates that \$435.0 million was spent in Canada on VFX services in 2011 (Exhibit 66). British Columbia was the leader among Canada's major production centres in terms of VFX expenditures, accounting for 52% of total spending in 2011. Quebec and Ontario each accounted for another 24%.

**Exhibit 66 Total expenditures on VFX services in Canada, 2011 (estimates)**

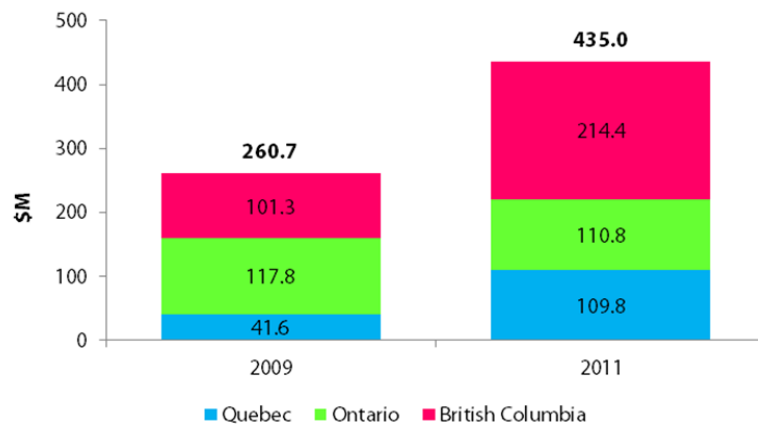


Source: Nordicity estimates based on data from BC Film + Media; Observatoire de la culture et des communications du Québec, *Statistiques sur l'industrie du film et de la production télévisuelle indépendante. Édition 2012*; CASO, *Economic Profile of the Computer Animation and Visual Effects Industry in Ontario, 2008-2010*. Note: Quebec statistics are for 2010.

The 2011 VFX production volume of \$435.0 million represents a 67% increase from \$260.7 million in 2009, with the majority of the growth over that period coming from British Columbia (Exhibit 67).

Between 2009 and 2011, VFX production in British Columbia more than doubled from \$101.3 million to \$214.4 million. Given the growing importance of VFX on the production process, the development of such capacity in Canada should contribute to the future health of the production sector.

**Exhibit 67 Growth in the total volume of VFX production in Canada, by province, 2009 vs. 2011**



Source: Nordicity estimates based on data from BC Film + Media; Observatoire de la culture et des communications du Québec, *Statistiques sur l'industrie du film et de la production télévisuelle indépendante*, Édition 2012; CASO, *Economic Profile of the Computer Animation and Visual Effects Industry in Ontario, 2008-2010*.

## Ontario

Ontario is Canada's largest production centre and the home to most of its English-language distribution and broadcasting companies. With nearly \$2.6 billion in total production volume in 2011-12, Ontario's production industry accounted for 44% of total national production volume and generated 22,700 FTEs of direct employment. Ontario's production industry is not only the largest among all Canadian provinces, but is also very diverse in terms of types of production, with high levels of activity in domestic Canadian television and theatrical production, FLS production and broadcaster in-house production.

### Exhibit 68 Film and television sector in Ontario, key performance indicators, 2011



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants and MPTAC.

#### Notes:

Share of national totals in parentheses.

Theatrical exhibition box office is an estimate based on the province's share of the national box office in 2010, as published by Statistics Canada.

As Canada's centre of commerce and English-language media, nearly all of Canada's leading distributors are based in Ontario, including foreign- and Canadian-owned distributors. In 2011, Ontario-based distributors earned \$1.6 billion in revenue, or 86% of total distribution revenue in Canada.

Consolidation in the Canadian broadcasting industry over the past couple of decades has meant that the province's share of national revenue in this segment has also increased. Bell Media, Shaw Media, Rogers Media and Corus Entertainment are all based in Toronto, giving the province a 62% share of national broadcasting revenue and a 46% share of industry employment.

In recent years, Ontario has expanded its leadership in not only Canada's film and television sector, but also among North American and global production centres. Following the introduction of an all-spend tax credit in 2009, the province's film and television sector has experienced broad growth. Ontario-based producers have been involved in numerous successful international coproduction and co-venture projects, including *The Tudors*, *The Borgias* and *Vikings*.

The opening of Pinewood Toronto Studios in 2008 was a major development for the physical infrastructure of Ontario's film and television sector, and gave the province the capacity to host *tentpole* feature film projects such as *Total Recall* in 2011 and *Pacific Rim* in 2012. Ontario is currently the location for the production of several popular American television series, including *Warehouse*

*13 and Beauty and the Beast*. Indeed, the Netflix-only series, *Hemlock Grove*, was shot in Toronto. All of the recent growth experienced by the Ontario's domestic and FLS segments has helped the province grow to become the third-largest production centre in North America, behind California and New York.<sup>32</sup>

With leading computer animation and VFX studios such as Mr. X, Soho VFX and Cuppa Coffee Animation; a number of other companies, such as IMAX, Red Lab and Christie Digital Systems Inc. engaged in cutting-edge innovation; and a network of training and research centres such as CFC and SIRT, Ontario is poised to remain as one of the leading centres of film and television activity right across the value chain.

### 5.1.3 Corporate development

Historically, Canada's film and television sector has been highly fragmented. At the content consumption end of the value chain, there were dozens of companies operating in both the broadcasting and broadcasting distribution industries. At the production end of the value chain, there were hundreds of small independent production companies vying for commissions from Canadian broadcasters. Canada's broadcasting and broadcasting distribution industries have always experienced phases of consolidation; this trend has accelerated over the past decade to the point where a half a dozen of vertically integrated companies now dominate these industries.

Corporate consolidation has come to Canada's production industry somewhat more slowly. Over the past decade, however, this industry has experienced some consolidation and the emergence of several integrated production companies. These integrated production companies – which could also be referred to as super-indies<sup>33</sup> – not only produce commissioned programs for Canadian broadcasters, but are also building rights libraries, developing distribution arms, and adding digital capabilities, so as to better monetize their own produced content and the content of other producers.

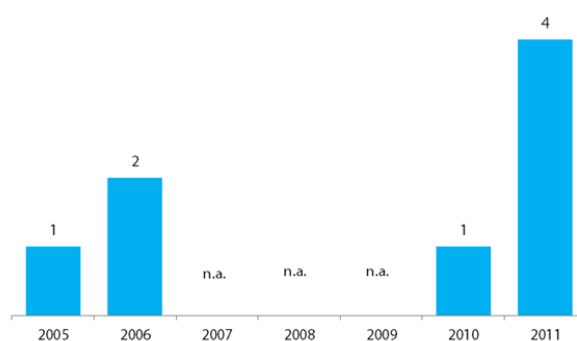
The recent consolidation in Canada's production industry is evident in published annual production statistics. According to *Playback*, four independent production companies in Canada recorded production activity in excess of \$100 million in 2011 (Exhibit 69). By comparison, in 2010, only one company, Entertainment One exceeded \$100 million.

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<sup>32</sup> "Progress Report 2012: The Economy," Government of Ontario, accessed April 22, 2013 [http://www.gov.on.ca/en/initiatives/progressreport2012/ONT05\\_040343.html#1.4.6](http://www.gov.on.ca/en/initiatives/progressreport2012/ONT05_040343.html#1.4.6).

<sup>33</sup> The term "super-indie" is the term used in the UK production sector to refer to independent production companies that grew through consolidation of smaller companies. In general, however, the size of the UK's super-indies substantially exceeds those in Canada.

**Exhibit 69 Number of production companies operating in Canada that exceeded \$100 million in annual expenditures on production and development**



Source: *Playback*.  
n.a. – data not available.

Lionsgate Entertainment, which was founded in Vancouver, but is now headquartered in Santa Monica, California, is one of the largest global super-indies. Its expenditures on development and production totalled just under \$900 million in 2011, in contrast with the development and production expenditures of the largest Canadian company, Entertainment One, at just under \$200 million (Exhibit 70).

**Exhibit 70 Top ten production companies in Canada, 2011**

| Rank | Company                        | Total value of development and production expenditures (\$) |
|------|--------------------------------|---|
| 1    | Lionsgate Entertainment        | 878,200,000   |
| 2    | Entertainment One              | 196,188,000   |
| 3    | Don Carmody Productions Inc.   | 112,390,000   |
| 4    | Cineflix Media Inc.            | 103,448,000   |
| 5    | Muse Entertainment Enterprises | 58,223,000  |
| 6    | Shaftesbury Films Inc.         | 45,964,000  |
| 7    | Temple Street Productions      | 38,602,000  |
| 8    | DHX Media                      | 38,150,000  |
| 9    | Epitome Pictures Inc.          | 35,250,000  |
| 10   | Seven24 Films                  | 33,850,000  |

Source: *Playback*.

Entertainment One has emerged over the past decade as one of Canada's leading super-indies. With offices in Toronto and the UK, its production titles include the globally popular *Peppa Pig* franchise and high-budget prime time dramas, such as *Rookie Blue* and *Saving Hope*. Along with its production operations, Entertainment One has also built an extensive library of distribution rights to its own content and third-party content. As of 2012, its library consisted of film and television titles valued at



\$385 million.<sup>34</sup> Entertainment One also has one of the most extensive foreign distribution businesses for film and television of any Canadian-owned company, and is the largest Canadian-owned feature film distributor in Canada.

Montreal-based Cineflix Media also invested over \$100 million in the production of scripted and non-scripted programming in Canada in 2011. Many of Cineflix's titles are not only popular on Canadian television, but also in the US and other territories. Its drama, *Copper*, was recently renewed for a second season on BBC America; and its *Property Brothers* airs on HGTV in the US.

While not among the top five production companies in 2011, DHX Media, like Entertainment One, is another publicly traded Canadian independent production company that focuses on highly exportable animation and live action children's programming. Indeed, its programming airs in more than 150 countries.<sup>35</sup> DHX Media has also been very successful in building its distribution arm. With 8,500 half-hours of children's programming in its library, it now controls the largest independent library of children's content in the world.<sup>36</sup>

Through both horizontal (acquisitions of independent production companies) and vertical (expansion into distribution) integration, several of Canada's independent production companies now possess the scale and expertise that allows them to effectively pursue multi-platform strategies and focus on exportable and high-budget content. In this regard, these integrated production companies are at the core of the third wave of industry development, which can provide the basis for sustainable growth, further investment in content creation and much more stable employment within the production industry in the future.

### Take 5 Productions

Founded in 2009, Take 5 Productions is the successor company to Dufferin Gate Productions, sold in 2007. It is committed to producing high quality international television. Since 2009, Take 5 has coproduced and delivered the final season of the award winning series, *The Tudors*, for Showtime and CBC; the first two seasons of *The Borgias* for Showtime and Bravo/CTV; the ten-hour series, *Camelot*, for Starz and CBC; and the eight-hour series, *World Without End*, for Tandem and Shaw. In March 2012, Take 5 embarked on its latest major international coproduction, *Vikings*, which airs on History in both Canada and the US.

Take 5 is living proof that there is a market for high-value production in Ontario. By pooling resources with international partners in coproductions and co-ventures, it has shown that it can deliver high quality television series. Take 5 is currently at work on *Beauty and the Beast*, which will air on The CW in the US and on Showcase in Canada. The filming, along with most of the post-production and VFX work for this project, is taking place in Ontario.

Source: "About Us" Take 5 Productions Inc., accessed April 5, 2013, [http://www.take5productions.ca/about\\_us.html](http://www.take5productions.ca/about_us.html).

<sup>34</sup> Entertainment One, "Investment Case," available at: <http://entertainmentone.com/investors/investment-case>.

<sup>35</sup> "Fact Sheet," DHX Media, accessed on April 17, <http://www.dhxmedia.com/docs/investorrelations/pdf/DHX%20Media%20Fact%20Sheet%20December%202012.pdf>.

<sup>36</sup> *Ibid.*



Consolidation among production companies is inherently more difficult than consolidation of cable companies or broadcasters, where scale is easier to achieve. Production companies all have unique histories and specializations that are representative of their founders. In fact, there will likely always be a mix of independent companies that are smaller as well as a few larger ones, as consolidation is not an easy route to success. However, where production companies remain small, it is likely that they will need to specialize and operate on a more international scale to thrive in the current and future marketplace.

Just as Canada's production industry has experienced corporate development in recent years, so has its equipment rental segment – a vital part of production-support infrastructure. SIM Digital, a leading camera rental company, acquired PS Production Services in May 2013 –evidence of both horizontal and vertical integration.<sup>37</sup> Meanwhile, Canada's largest equipment rental company, William F. White International Inc., has made a series of investments to expand its capacity. Since 2010, it has invested over \$20 million in new production equipment and continues to invest millions of dollars each year.<sup>38</sup>

## William F. White International Inc.

William F. White International Inc. (WFW), a Comweb Group member company, was founded in Toronto in 1963. Over the past 50 years it has grown to become Canada's largest supplier of equipment for film, television and digital media production. With more than 200 employees in 6 offices across Canada, WFW provides producers with a complete array of lighting and grip equipment, generators, remote heads and cranes, camera cars, and other specialty production equipment.

With the most extensive inventory of state-of-the-art production equipment in the industry, WFW is recognized by Canadian and international producers as one of the best production equipment rental and sales companies. In 2007, it continued its tradition of industry leadership with the launch of its Whites Goes Green™ initiative, with the aim of reducing the environmental impact of its production equipment and its own business operations.

Since 2010, WFW has invested over \$20 million in the acquisition of new and cutting-edge production equipment, including Kino Flo Celeb LED lighting, Arri lensless HMI Par systems, new high-speed camera support vehicles and off-road camera cars. With the production process undergoing rapid technological changes in recent years, WFW has become an increasingly important and integral part of Canada's production industry. To maintain its leadership, the company continues to invest millions of dollars each year to ensure that producers in Canada can access an inventory of the latest production technologies.

Source: William F. White, "Corporate Overview," accessed June 24, 2013, <http://www.whites.com/about/corporate-overview>; William F. White, "William F. White Int'l celebrates 50 years of innovation with multimillion dollar investment in new production equipment technologies," press release, March 28, 2013, accessed June 24, 2013, <http://www.whites.com/news-events/news/william-f-white-intl-celebrates-50-years-of-innovation>.

<sup>37</sup> Etan Vlessing, "SIM Digital acquires PS Production Services," *Playback*, May 6, 2013.

<sup>38</sup> William F. White, "William F. White Int'l celebrates 50 years of innovation with multimillion dollar investment in new production equipment technologies," press release, March 28, 2013, accessed June 24, 2013, <http://www.whites.com/news-events/news/william-f-white-intl-celebrates-50-years-of-innovation>.



With Paramount Production Support Inc. in Vancouver, and William F. White International Inc. and SIM Digital operating across Canada (outside Quebec), Canadian and foreign producers shooting in Canada benefit from the ability to access all of the latest production equipment technologies. With the film and television production process experiencing rapid changes due to technology, the presence of these large-scale equipment rental companies is all the more important for the long-term growth of Canada's film and television sector. These large-scale companies are in a position to maintain large equipment inventories and make the investments in new technologies needed to ensure that producers in Canada can continue to make innovative and globally competitive content.

## 5.2 Infrastructure

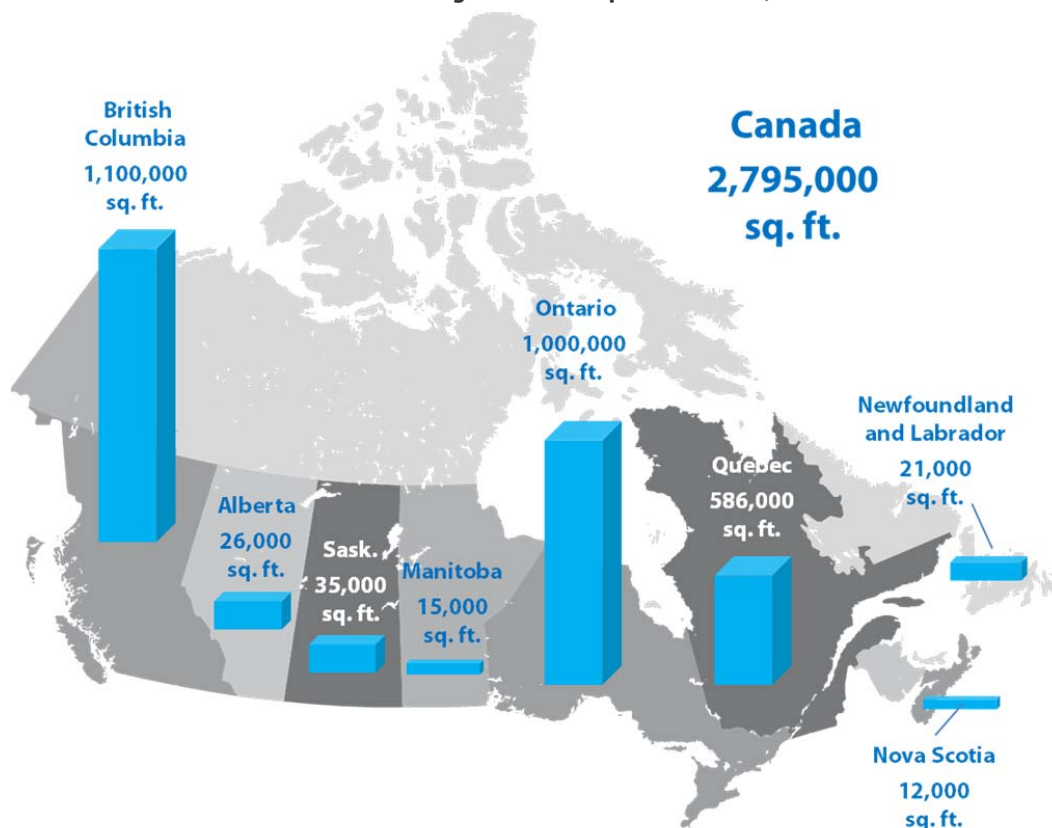
### *During the past five years, the development of new soundstage capacity has generated between 450 and 650 FTEs of employment*

The film and television sector can have a significant spillover effect on the construction industry. Soundstages and other forms of purpose-built filming facilities often play a key role in certain types of production, particularly large-budget tentpole feature films. Increasing levels of feature film production as well as television production generate demand for more and more-up-to-date soundstage facilities. This activity stimulates either construction of new facilities or the retrofitting of existing buildings – both of which spur activity in Canada's construction sector.

There is currently 2.8 million square feet ("sq. ft.") of soundstage and studio space in Canada, including purpose-built and repurposed facilities (Exhibit 71). Approximately 40% of this space, or 1.1 million sq. ft., is in British Columbia. The province's Lower Mainland is home to four major soundstage facilities with more than 100,000 sq. ft. each – Canadian Motion Picture Park (200,000 sq. ft.), Mammoth Studios (251,000 sq. ft.), Vancouver Film Studios (153,000 sq. ft.) and North Shore Studios (121,000 sq. ft.) – and over a dozen smaller studios with anywhere from 1,000 sq. ft. to 75,000 sq. ft.

British Columbia is followed by Ontario with approximately one million sq. ft. Cinespace Film Studios and Pinewood Toronto Studios account for approximately 40% of that capacity. Quebec has approximately 586,000 sq. ft. of soundstage and studio space; purpose-built soundstage facilities account for approximately 300,000 sq. ft., or half the total space. Soundstage and studio facilities can also be found in Saskatchewan (35,000 sq. ft.), Alberta (26,000 sq. ft.), Newfoundland and Labrador (21,000 sq. ft.), Manitoba (15,000 sq. ft.) and Nova Scotia (12,000 sq. ft.).

Exhibit 71 Soundstage and studio space in Canada, 2012



Source: *Playback Magazine*, Quebec Film and Television Council, La Cite du Cinema and Nordicity research.

In recent years, there has been a renewed spate of soundstage and studio construction in Canada, particularly in Ontario, where the introduction of an *all-spend* tax credit has helped make the province even more competitive in the global FLS market. Since the Province of Ontario announced its all-spend tax credit for FLS, investors in Ontario have announced commitments to build, retrofit or reopen approximately 330,000 sq. ft. of new soundstage space (Exhibit 72). Across Canada, approximately 365,000 sq. ft. of purpose-built, retrofitted or reopened soundstage space came online between 2009 and 2012 (Exhibit 72).

While there is limited data available on the value of all these soundstage investments, Nordicity's research indicates that soundstage development costs can range from \$200 to \$300 per sq. ft.<sup>39</sup> In

<sup>39</sup> This figure is derived from Vancouver Film Studios' 2009 announcement that it will invest \$10 million to build a 36,000 sq. ft. soundstage on its existing lot. See Vancouver Sun, "Studio makes \$10-million sound stage investment," *Vancouver Sun*, September 21, 2009, accessed April 17, 2013,

other words, since 2009, capital investment in soundstages in Canada was worth between \$50 million and \$75 million.<sup>40</sup> These levels of capital investments would have generated between 250 and 350 FTEs of employment in the Canadian construction industry and an additional 200 to 300 FTEs of indirect-impact employment.<sup>41</sup> The total employment impact associated with soundstage development in Canada, therefore, would have been between 450 and 650 FTEs.

**Exhibit 72 List of soundstage investments in Canada, 2009 to 2012**

| Soundstage                                  | Location            | Year of announcement | Size of new space or expansion (sq. ft.) |
|---|---------------------|----------------------|--|
| Cinespace Film Studios                      | Toronto, ON         | 2009                 | 85,000                                   |
| The Backlot Film Studios                    | Etobicoke, ON       | 2009                 | 42,000                                   |
| The Generator at One                        | St. Catherine's, ON | 2010                 | --                                       |
| NAFTC Studios                               | Lakeshore, ON       | 2010                 | 26,000                                   |
| Vancouver Film Studios                      | Vancouver, BC       | 2011                 | 36,000                                   |
| Pyman Media Group                           | Mississauga, ON     | 2012                 | 2,400                                    |
| Northern Ontario Film Studios               | Sudbury, ON         | 2012                 | 20,000                                   |
| Pinewood Toronto Studios (expansion)        | Toronto, ON         | 2012                 | 32,400                                   |
| Revival 629 (formerly Toronto Film Studios) | Toronto, ON         | 2012                 | 130,000                                  |

Source: Nordicity research.

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<http://www.canada.com/vancouver/news/business/story.html?id=4ff887c3-c6b0-4733-901c-81d0d70a0a94&k=4632>.

<sup>40</sup> Revival629 was excluded from the estimate of the value of soundstage investments because it required limited construction work to reopen what was an operating studio lot until 2008.

<sup>41</sup> Employment estimates based on employment-multipliers implied by analysis found in Will Dunning Inc., *Economic and Fiscal Impacts of Residential Construction*, prepared for Canadian Home Builders Association, accessed April 17, 2013, <http://www.chba.ca/uploads/About%20CHBA/Canada%202010-Full.pdf>, p.2.

## Quebec

Quebec is the centre of Canada's French-language film and television sector, although French-language producers and broadcasters can be found right across the country. In 2011, the province's total production of nearly \$1.4 billion accounted for 23% of the national total and generated 12,300 FTEs of direct employment. The province also boasted a burgeoning FLS segment in 2011.

As the home to Canada's French-language broadcasters – and several English broadcasters as well – Quebec's broadcasting industry generated over \$1.5 billion in revenue in 2011 and 2,200 FTEs of employment. With a network of Canadian distribution companies, Quebec also recorded \$233 million in distribution industry revenue in 2011, or 13% of the national total.

Quebec's strong tradition of fostering cultural development has bestowed it with exceptional education and training institutions for its visual artists. Many of the province's leading filmmakers, including Denys Arcand (*The Barbarian Invasions*), Philippe Falardeau (*Monsieur Lazhar*) and Kim Nguyen (*Rebelle*), have either won or received nominations for Academy Awards over the past decade. Quebec's homegrown talent – creators, performers and crews – helps ensure that its films and television programs are consistently popular with the province's audience.

### Exhibit 73 Film and television sector in Quebec, key performance indicators, 2011



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants and MPTAC.

#### Notes:

Share of national totals in parentheses.

Theatrical exhibition box office is an estimate based on the province's share of the national box office in 2010, as published by Statistics Canada.

This skilled and experienced production workforce also gives the province the human infrastructure that is so vital to attracting projects in the highly competitive global FLS market. The introduction of an all-spend tax credit in 2009, along with established audiovisual and VFX clusters have helped the province attract numerous major FLS projects. In recent years, *The Curious Case of Benjamin Button*, *300* and *The Avengers* have all shot in Quebec. In 2011-12, Quebec's volume of FLS production totalled \$157 million.

While Quebec has always led the way for Canada's French-language television and feature film production segments, its more recent growth as a hub for video games development and VFX work, and its ongoing commitment to developing its digital workforce should help it continue to diversify its film and television sector, and remain a competitive locale for all types of production.

### 5.3 Tourism

Film-induced tourism refers to tourist visits to a destination or attraction as a result of the destination's being featured on television, video or in theatres.<sup>42</sup> It is a phenomenon that is gaining increasing attention around the world, with a number of high-profile case studies helping to bring its potential to the forefront (e.g. the *Lord of the Rings* trilogy in New Zealand and the *Harry Potter* series in the UK). Indeed, in recent years, many jurisdictions have been making efforts to capitalize on the potential that film-induced tourism has to offer. For example, in the Bahamas the Film & Television Commission is a division of the Ministry of Tourism, and tourism potential is an integrated factor in the planning, decision-making and negotiations around attracting productions to film there.<sup>43</sup>

There are different aspects of film-induced tourism, and they can be organized into four categories as follows:

1. **Film location tourism:** This form of film-induced tourism is the most directly linked to the content of the film, where visitors are attracted to a destination or attraction specifically to visit the locations where a film or television show was filmed. According to one former tour operator based in Vancouver, film location tourism tends to have the most impact when a film is extremely successful with a wide audience (e.g. the *Lord of the Rings* trilogy) or when it has a very devoted fan base who want to immerse themselves in every aspect of the film (e.g. the *Twilight* series).
2. **Celebrity tourism:** Similar to film location tourism, this form of tourism primarily revolves around tourists who travel to locations where films or television programs are being filmed in the hopes of catching a glimpse of celebrities on location during filming or at various sites around the city or town where the production is being filmed during non-filming hours. A former tour operator noted that, for example, when Robert Pattinson was in Toronto filming *Cosmopolis*, there was a large influx of Robert Pattinson fans into the city from the US, hoping to catch a glimpse of their favourite celebrity. These fans generated a certain amount of economic activity for Toronto as they stayed in hotels and ate at local restaurants in the city during their stay.
3. **Film-induced destination tourism:** In many cases, not only will the actual filming locations be a draw for tourism, but the location itself, its landscapes (urban and/or rural) and its attractions could be enough of a draw. Film and television presents a major opportunity for tourism destination promotion and *product placement*. Simply featuring a certain landscape or attraction on the screen in a favourable way can be enough to create awareness of and interest in that place as a potential destination, even if the film itself and its sets are not necessarily a major draw in themselves.
4. **Film setting tourism:** According to Dr. Simon Hudson (Director and Endowed Chair, Center of Economic Excellence in Tourism and Economic Development, University of South Carolina), in many cases, both the intended setting (if it is a real place) of a film or television

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<sup>42</sup> Simon Hudson and J. R. Brent Ritchie, "Promoting Destinations via Film Tourism: An Empirical Identification of Supporting Marketing Initiatives," *Journal of Travel Research* 44(2006): 387.

<sup>43</sup> Simon Hudson, *Film Tourism: A Destination Marketing Opportunity for Alberta*, 2005, p.19.

program can benefit from film-induced tourism related to that production and the film location, which has stood in for it during production. For example, Forks, Washington benefited greatly from film-induced tourism related to the *Twilight* series, although the majority of the series was filmed in British Columbia.

Moreover, while the largest spikes in film-induced tourism occur immediately after the successful release of a major production, film-induced tourism also holds a unique ability for longevity in its impacts on tourism. For example, according to Dr. Hudson, the series *The Beachcombers*, which was set in Gibsons, British Columbia and filmed largely on location there, still draws many tourists to Gibsons, over 20 years after the series stopped running.

## British Columbia

For over two decades, British Columbia has been one of Hollywood's preferred destinations for location shooting. In the 1980s and 1990s, Hollywood producers brought the filming of shows such as *21 Jump Street* and *The X-Files* to British Columbia. Today, the province hosts over \$1 billion, annually, in FLS production.

With \$1.1 billion in FLS production in 2011-12, British Columbia now accounts for two-thirds of all FLS production in Canada. All of this FLS production is an engine of export value for Canada's film and television production sector, generating significant economic activity and employment.

### Exhibit 74 Film and television sector in British Columbia, key performance indicators, 2011



Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants and MPTAC.

#### Notes:

Share of national totals in parentheses.

Theatrical exhibition box office is an estimate based on the province's share of the national box office in 2010, as published by Statistics Canada.

British Columbia also boasts a vibrant Canadian production segment, as the home of many of Canada's leading live-action and animation producers, including Omnifilm Entertainment, Nerd Corps Entertainment and Paperny Entertainment. Altogether, film and television production in the province totalled nearly \$1.6 billion in 2011-12, or 27% of the national total – more than double the province's 13% share of the national population. In 2011, direct employment in the province totalled 14,200 FTEs.

Over the past decade, British Columbia has been the location for numerous blockbuster films and long-running television series. The province's feature film credits include *Rise of the Planet of the Apes*, *X-Men: The Last Stand* and *Mission Impossible: Ghost Protocol*. British Columbia's television credits include *Battlestar Galactica*, *Smallville* and *Supernatural*. The province is also the filming location for ABC's prime-time series *Once Upon a Time*.

British Columbia has also emerged as one of North America's computer animation clusters. Many of the global animation giants, including Pixar, Sony Pictures Imageworks, Digital Domain Productions, Rhythm & Hues and Lucasfilm's Industrial Light & Magic, have studios in Vancouver. With estimated computer animation production totalling \$127.1 million in 2011, British Columbia leads all Canadian provinces. With an estimated \$214.4 million in VFX expenditures in 2011, the province is also Canada's leading centre in the rapidly growing VFX market.

With approximately 1.1 million sq. ft. of soundstage and studio space, experienced performers and crews, close proximity to Hollywood, and burgeoning computer animation and VFX clusters, British Columbia is likely to remain an important player in the national and global film and television sectors for years to come.

In Canada there are several anecdotes that illustrate how film-induced tourism has developed in this country – drawing on international as well as domestic television series and film productions. The following vignettes highlight some examples of major productions filmed in Canadian locales that have shown evidence of generating tourism.

### ***The Twilight Saga***



Image courtesy of Entertainment One Ltd.

The *Twilight Saga* series of movies is based on the highly popular series of teen novels by Stephenie Meyer.

The story centres on a love triangle between a teenage girl (Bella) who just moved to Forks, Washington to live with her father, a teenage vampire (Edward Cullen) and a teenage werewolf (Jacob).

Although the story is set in Forks, the locations in and around Vancouver were used as substitutes for the film's Washington-state setting. Indeed, many of the films' key settings – such as Bella's home, Jacob's home, Edward's home, and other locations where key events in the story occur – were actual locations in British Columbia or sets built in specific locations in British Columbia.

During filming and following the release of each of the movies in the series, fans of the films flocked to Vancouver in the hopes of catching a glimpse of one of the film series' stars when they were on location or simply to be able see and take pictures in the actual settings where the movies were filmed. Tourists drawn to British Columbia for *Twilight* were primarily from the US or from other parts of Canada, although there were also tourists coming all the way from Australia or Europe, according to Dr. Hudson.

A tour operator in Vancouver who ran a successful business based primarily on film location tours related to *Twilight* had steady business throughout the filming and following the release of each film



in the series. However, now that the series is completed and many of the purpose-built sets have been torn down, that tour operator has observed that demand for *Twilight*-themed tours has dwindled, although it has not disappeared completely.

## ***Supernatural***



Image courtesy of Warner Bros. Entertainment Inc.

*Supernatural* (Warner Bros. Television, TV Series, 2005 – present) is a drama television series that follows two brothers as they hunt supernatural beings in a fight against evil. The series is currently in its eighth season and has won a number of awards as well as a large fan base.

The series is filmed entirely in and around Vancouver.

Fans of the films are drawn to Vancouver during filming to try and catch a glimpse of the production in the works and its stars. Tourists to Vancouver are also interested in taking tours of key filming locations for *Supernatural* in and around the city.

According to a former tour operator, perhaps the most significant source of film-induced tourism related to *Supernatural* is the annual *Salute to Supernatural* convention held annually in Vancouver just as filming on a new season launches. The convention is hosted by Creation Entertainment, which produces a number of major conventions for fans of popular sci-fi, fantasy and horror film and television productions. The *Salute to Supernatural* convention draws crowds of fans of the television series to Vancouver every year, from around the world.

Season 7 of this long-running series shot in Vancouver brought in a total of \$48.7 million in local spending in just one season of filming. Of that total, over \$28 million was spent on local hires, an additional \$2.2 million on local cast and extras, \$4 million on location fees, and over \$1 million was spent on construction and lumber supplies. Season 7 was filmed over 181 days on location with a total hire of 2,993 cast, crew and extras.

## Smallville



Image courtesy of Warner Bros. Entertainment Inc.

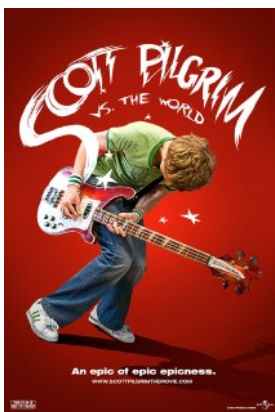
*Smallville* (Warner Bros. Television, TV Series, 2001 – 2011): A successful television series spanning ten years, *Smallville* spent over \$39 million dollars locally each full season in Vancouver, of which more than half was spent on hiring local crew.

*Smallville* ran for ten seasons on WB in the US, from 2001-2011. It was filmed in and around Vancouver. The show enjoyed great success and enjoyed a large fandom following throughout its entire run. Indeed, the show boasts a wealth of fan sites from around the world.<sup>44</sup>

Even now, almost two years after the end of the show's final season, fans travel to the area to visit shooting locations, including: the farm that doubled as the Kent Farm; and the historic town of Cloverdale, British Columbia, which posed as *Smallville's* Main Street, where most of the shops and businesses adopted new names and underwent a re-design to fit the needs of the production.<sup>45</sup>

## Scott Pilgrim vs. the World

*Scott Pilgrim vs. the World* (Universal Pictures, Feature Film, 2010) is a comedy based on a graphic novel series written by Canadian cartoonist, Bryan Lee O'Malley. The graphic novels are set in Toronto and the movie was entirely filmed in Toronto, mostly at the original locations featured in the graphic novels. *Scott Pilgrim vs. The World* filmed in Toronto for 89 days. Forty-five million dollars was spent on production in Canada. In addition to \$1 million spent for visual effects, \$25 million was spent on labour and fringe for cast and crew.



Use of image courtesy Universal Studios LLC

The movie had a fairly wide release in North America and received or was nominated for a number of awards, including several *Teen Choice Awards* in 2010.

A former tour operator noted that the film developed a devoted "fandom," in addition to existing fans of the original graphic novel and many fans (primarily from the US and other parts of Canada) travel to Toronto in order to visit the locations in the film.

What makes this case study unique is that virtually every set in the film is a real place in the city and is featured as itself in the film, making it very easy for fans to find and identify the locations. Indeed, the *Torontoist* published an edition of its *Reel Toronto* dedicated to *Scott Pilgrim vs. the World*, listing all the key Toronto locations featured in the film.<sup>46</sup>

<sup>44</sup> "Cloverdale on Film," *Cloverdale*, accessed April 17, 2013, <http://www.cloverdale.bc.ca/clovfilm.php>.

<sup>45</sup> Victoria Weller, Executive Director of Film, Thompson-Nicola Film Commission, interview conducted in January 2013; "Cloverdale on Film," *Cloverdale*, accessed April 17, 2013, <http://www.cloverdale.bc.ca/clovfilm.php>.

## Republic of Doyle

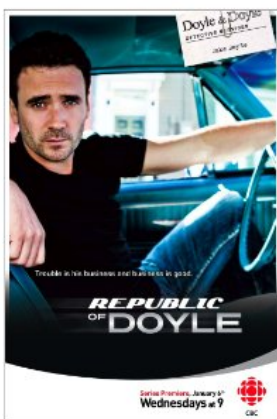


Image courtesy of CBC/Radio-Canada

*Republic of Doyle* is a Canadian comedic drama television series set in St. John's, Newfoundland and Labrador, currently in its fourth season. The show follows a father-son duo who work together as private investigators in St. John's.

The show is filmed entirely in St. John's and enjoys an international viewership, airing in 96 countries, including the UK and Australia.<sup>47</sup> The show is the biggest television production to ever be produced in Newfoundland and Labrador, and one of Canada's most highly rated television shows.

In addition to generating about \$22 million dollars in production activity per season in the province, the show also has had a significant tourism impact in the province and in St. John's in particular.<sup>48</sup>

On the one hand, *Republic of Doyle* offers a unique opportunity for destination tourism. The show's setting provides an opportunity to showcase the uniqueness and beauty of St. John's and the surrounding area. On the other hand, fans of the show from across Canada and around the world travel to St. John's in the hopes of catching a glimpse of the stars on set or simply to be able to have a beer at the main character's favourite local pub, the Duke of Duckworth.<sup>49</sup>

These examples illustrate the concrete impact that the film and television industry can have on tourism in Canada and demonstrate that there is potential for increasing that impact in the future. While Canada is a prime filming destination for major film and television productions, Canadian jurisdictions have not been as successful in harnessing the potential of film-induced tourism as some other jurisdictions, such as the UK and New Zealand.

Canada has had a few challenges, such as the tendency of foreign productions disguising Canadian locations as real locations. However, as more television series get produced in Canada with authentic Canadian scenes, more opportunities will spring up. For example, the sci-fi series *Continuum*, which is broadcast in the US, makes no effort to hide Vancouver as the city of location.

From interviews with various tourism and film commissioners in Canada, it appears that this area of potential economic impact may be under-recognized. With more production and more presence of

<sup>46</sup> David Fleischer, "Reel Toronto: Scott Pilgrim vs. The World," *Torontoist.com*, November 9, 2010, accessed January 30, 2013, [http://torontoist.com/2010/11/reel\\_toronto\\_edgar\\_wright\\_talks\\_scott\\_pilgrim\\_vs\\_the\\_world/](http://torontoist.com/2010/11/reel_toronto_edgar_wright_talks_scott_pilgrim_vs_the_world/).

<sup>47</sup> CBC News, "Doyle a boost to tourism in St. John's," CBC News, July 6, 2011, accessed April 17, 2013, <http://www.cbc.ca/news/canada/newfoundland-labrador/story/2011/07/06/nl-doyle-tourism-706.html>.

<sup>48</sup> CBC/Radio-Canada, "Republic of Doyle: A Wildly Popular Show with Enormous Economic Spin-off," *Social Responsibility and Public Value at CBC/Radio-Canada*, August 28, 2012, accessed April 17, 2013, <http://public-value.cbc.radio-canada.ca/story/21/>.

<sup>49</sup> CBC News, "Doyle a boost to tourism in St. John's."



the industry's stars in Canada, there are growing opportunities for the film and television production, and tourism sectors to work together. Greater dialogue and collaboration among film commissioners, city economic development offices, film and television producers, and talent agents would lead to new tourism initiatives.

There are many case studies from around the world that illustrate that film-induced tourism has real economic impacts, and a wealth of anecdotal evidence that shows that film-induced tourism exists in Canada and has significant potential for growth and development. However, the impact of film tourism does not appear to be measured in any concrete way in Canada, reflecting a lack of priority that should be reviewed by film commissions and tourism promotion agencies. While film-induced tourism is not easy to measure, given the many variables affecting the motivations of tourists, economic impacts can be measured through assessing the relative weight of different influencers. Therefore, there is a real upside for the measurement of economic impact if the relevant stakeholders focus on it in a collaborative way.

## 6. Summary

In this section, we provide a summary of the key findings from our research and analysis of the contribution that the film and television sector makes to the Canadian economy.

### 6.1 Film and television value chain

The film and television sector's value chain is undergoing a period of rapid evolution. The content consumption side of the value chain continues to experience fragmentation, as audiences expand the types of technologies and platforms that they use to find and watch film and television content. Release windows continue to experience compression in the time that they have any rights exclusivity; and what was once an orderly release schedule has given way to shorter windows and even simultaneous release. Some industries within the value chain – such as film-printing – have all but disappeared. Canada has, by no means, been immune to this global value chain evolution.

Canadians continue to enjoy the theatre experience. In 2011, they spent \$1 billion at the box office. Indeed, the **theatrical exhibition** industry in Canada has displayed tremendous resilience and stability in recent years, in spite of the rapid emergence of digital and high-definition technologies, which enhance the home-theatre experience.

The **DVD/Blu-ray sales and rentals** market in Canada has not been as stable as the theatrical exhibition market. Between 2007 and 2011, total revenue in the DVD/Blu-ray sales and rentals industry fell by more than one-third. Still, Canadians spent nearly \$1.8 billion on purchases and rentals of DVD/Blu-ray discs in 2011. Clearly, the DVD/Blu-ray sales and rentals industry remains a sizable one in Canada and supports thousands of retail-sector jobs – but is on a definite downward trend that one would have to consider as irreversible.

A portion of the decline in the DVD/Blu-ray sales and rentals market has been offset by the rapid growth experienced in Canada's **VOD and online digital** market. Between 2007 and 2011, Canadians' spending on VOD and online digital services doubled to nearly \$500 million. VOD accounted for approximately one-half of total revenue in 2011. Indeed, VOD and online digital services are poised for even further growth in Canada. In 2011, 33% of Canadian adults watched television programming online; 21% watched a full television episode online. So, there is still considerable room for growth in this market in Canada. However, this segment does not use as much labour, nor does it contribute as much to GDP.

Canada's **broadcasting** industry (excluding VOD/PPV) also continues to experience steady growth. The 2008-09 recession caused a sharp drop in the broadcasting industry's advertising sales, which fell largely on the private conventional broadcasters that rely upon them for revenue. The wider broadcasting industry – including private conventional, specialty and pay, and CBC/Radio-Canada – which relies on a combination of advertising, subscription fees and parliamentary funding (in the case of CBC/Radio-Canada), experienced a CAGR of 3.7% in total revenue between 2007 and 2011. In 2011, the broadcasting industry earned over \$6.8 billion in revenue. Just over one-half of that revenue came from advertising; 35% came from subscription fees; and 12% from parliamentary funding of CBC/Radio-Canada.



Canada's **broadcasting distribution** industry displayed even stronger financial performance than the broadcasting industry, between 2007 and 2011. In 2011, there were nearly 11.8 million subscribers to BDUs (i.e. cable, DTH satellite, IPTV or MDS). While the total number of BDU subscribers in Canada increased by a CAGR of 2.2%, total revenue in the broadcasting distribution industry grew at a CAGR of 8.0%. Indeed, in 2011, the broadcasting distribution industry earned total revenue of \$8.6 billion. A large portion of that revenue base, of course, flowed through to other value chain industries. In 2011, over \$3.3 billion, or 39% of broadcasting distribution revenue, flowed through to broadcasters in the form of carriage fees (\$3.0 billion) or directly to producers in the form of contributions to Canadian production (\$362 million), a major portion of which was administered by the CMF.

Canada's **production** industry was also relatively resilient in recent years, in the face of rapid changes and disruptions to the value chain, and the added pressures from a rising Canadian dollar and global competition for Hollywood's FLS production slate. In 2011, total production volume reached an all-time high of \$5.9 billion. Although Canada's annual levels of FLS production were lower in 2011, an increasing number of high-budget drama and lifestyle series produced by Canadians for Canadian and American broadcasters helped propel the production segment to an all-time high in terms of revenue in 2011.

The production industry also continues to be a major source of employment in Canada. In 2011, it generated 52,100 FTEs of employment. This employment was distributed across all provinces and territories, although Ontario, Quebec and British Columbia accounted for the vast majority of it.

The high level of film and television production budgets and employment is due to the combination of stable and supportive government programs, regulation, and tax credits, and the capacity of the talent in the industry to grow and regenerate itself in the face of new challenges. Canadians are getting better in the business, taking on more elements of the value chain. They are handling large budget features, high-end coproduction drama series, and complex post-production services including VFX. Canada is a full participant in technical innovation and training in motion capture, 3D, large-screen format, 4K processing and other production innovations.

Canada's **distribution** industry is largely foreign-controlled – approximately 75% of revenue was earned by foreign-controlled distributors in 2011<sup>50</sup> – and underpinned by foreign content, which accounted for an estimated 83% of total revenue in 2011. Overall revenue in the distribution industry was dragged down in recent years by dropping receipts from the wholesaling of pre-recorded videos; however, earnings from the distribution of film and television content continued to grow steadily between 2007 and 2011. In total, distribution revenue in Canada was an estimated \$1.9 billion in 2011, down from a five-year peak of \$2.0 billion in 2009.

**Film festivals** have become important venues for raising awareness for feature films destined for theatrical exhibition release. Canada is home to some of the leading international film festivals, including TIFF, Hot Docs, the Montreal World Film Festival and VIFF. In total, there are some 40 major film festivals operating in Canada on an annual basis, which are notable enough to receive financial support from Telefilm Canada; there are countless other smaller festivals.

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<sup>50</sup> Nordicity calculations based on special tabulation supplied by Statistics Canada.



Those 40 major film festivals – including TIFF, Hot Docs, the Montreal World Film Festival and VIFF – drew an estimated audience of 1.9 million in 2011. They also attracted an estimated 18,000 delegates. Festival operations, visitor spending and delegate spending were worth a combined \$163 million in 2011 and generated 2,000 FTEs of employment.

Of all the value chain segments, the **media manufacturing and DAM** industry has perhaps experienced the greatest disruption from the value chain evolution in recent years. Employment in media manufacturing fell by 50% between 2007 and 2011. And although precise data on media manufacturing revenue in Canada is not available, there is little doubt that it probably fell by just as much.

The global move from film prints to digital distribution has virtually shuttered this type of activity in Canada. However, some of the companies that once provided film lab services are moving into the provision of DAM services to not only Canadian broadcasters but a host of international clients. DAM services were worth an estimated \$25 million in Canada in 2011; however, as more and more film and television content is distributed over alternative digital platforms, it is certain to grow.

## 6.2 Total economic and tax revenue impacts

Canada's film and television sector was a source of both significant direct and spin-off economic impacts in 2011. The economic activity across the film and television value chain in Canada supported 108,600 FTEs of employment directly within the film and television sector in 2011, and a further 154,100 FTEs of spin-off employment throughout the Canadian economy. In total, the film and television sector in Canada supported **262,700 FTEs of employment** in 2011.

Canadian workers employed in the film and television sector earned \$6.4 billion in labour income in 2011. Workers in spin-off employment earned an additional \$6.4 billion in labour income. In total, the film and television sector generated **\$12.8 billion in labour income** for Canadian households.

The film and television sector itself generated just under \$9.7 billion in GDP in 2011. Through both indirect economic impacts (i.e. the purchase of supplies from other industries in Canada) and induced economic impact (i.e. the impact from the re-spending of direct and indirect labour income) an additional \$10.7 billion of GDP was created in the Canadian economy. In total, the film and television sector generated **\$20.4 billion in GDP** for the Canadian economy in 2011.

The economic activity stimulated by the film and television sector also generated significant **tax revenue** for federal and provincial governments in Canada. In 2011, the total economic impact of the film and television sector generated an estimated **\$5.5 billion** in personal income, corporate income, consumption and property taxes in Canada.

**Exhibit 75 Summary of economic and tax revenue impacts, 2011**

|  | Direct impact | Spin-off impact | Total impact   |
|--|---------------|-----------------|----------------|
| Employment (FTEs)                          | 108,600       | 154,100         | <b>262,700</b> |
| Labour income (\$M)                        | 6,356         | 6,439           | <b>12,795</b>  |
| GDP (\$M)                                  | 9,721         | 10,684          | <b>20,405</b>  |
| Tax revenue (federal and provincial) (\$M) | --            | --              | <b>5,499</b>   |

Source: Nordicity estimates based on data from CMPA, Statistics Canada, CRTC, TCI Management Consultants, MPTAC and IHS Screen Digest.

### 6.3 Ancillary economic benefits

The economic contribution of the film and television sector does not stop with the economic and tax revenue impacts originating from activity in the value chain. The sector's economic contribution also manifests itself over time through *industry development*, and through spillover effects captured by the construction and tourism sectors.

As Canada's film and television sector now enters its third wave of industry development, it is experiencing the emergence of an increasing number of larger integrated production companies that also manage rights libraries, and utilize specialized studios to deliver computer animation, VFX and post-production services to foreign and domestic producers. The level of activity and the ability to deliver the high-quality production has led to increased private investment in production facilities and other infrastructure.

Canada has a long history of producing top-level animation talent from institutions such as Oakville, Ontario's Sheridan College or Montreal's Centre national d'animation et design (Centre NAD). Indeed, computer animation studios, including Pixar (in Vancouver) are now important elements in Canada's overall production environment. Canada's computer animation studios not only perform fee-for-service work for other domestic and foreign producers, they also create their own IP.

Nordicity estimates that the total value of computer animation production in Canada – IP-generating and fee-for-service – totalled \$279.7 million in 2011. This represented an 11.3% increase from two years earlier, 2009.

While computer animation studios tend to produce completed scenes for producers or their own completed content, Canada's VFX studios tend to conduct only fee-for-service work. There are numerous VFX studios operating in Canada (at least 60 VFX studios operating in British Columbia alone); however, the industry is dominated by the larger firms such as SPIN, Mr. X, Image Engine and Rodeo FX.

Nordicity estimates that the total value of VFX production in Canada reached \$435.0 million in 2011. Over half of that production was in British Columbia. Canada's VFX segment has also experienced tremendous growth in recent years. Nordicity estimates that the total value of VFX production rose by 67% between 2009 and 2011.

Through the construction, renovation and retrofitting of soundstages, the film and television sector also has a significant spillover effect on Canada's construction sector. There is currently 2.8 million sq.





ft. of soundstage and studio capacity in Canada. Thousands of additional square feet of capacity are slated to come into operation in coming years, particularly in Ontario, where the introduction of an all-spend tax credit in 2009 has increased the competitiveness of the province and stimulated demand for additional space to accommodate tent-pole productions.

During the past five years, approximately 365,000 sq. ft. of additional soundstage space has opened in Canada. The construction activity associated with these new facilities is estimated to have generated between 450 and 650 FTEs of employment.

Film-induced tourism is another type of economic spillover associated with the film and television sector. And while there are no statistics available on the economic contribution from film-induced tourism in Canada, anecdotal evidence indicates that several notable television series and feature films shot in Canada have generated tourist activity. *The Twilight Saga*, *Smallville* and *Supernatural* all attract visitors to British Columbia for conventions and to simply catch a glimpse of filming locations. Outside of British Columbia, *Scott Pilgrim vs. The World* has a fandom following that visits the shooting location in Toronto, while the internationally popular *Republic of Doyle* draws loyal fans to St. John's, Newfoundland.

The sum total of this activity has positioned the Canadian production and distribution system as a significant economic engine. The third wave of integrated production companies and the sophisticated services built up around them is based on the talent and expertise of Canadians offering new opportunities to the coming generations of talent emerging from the complete range of post-secondary institutions participating in this industry.

The exhibition, broadcasting and broadcasting distribution segments of the value chain are, by definition, more stable in that they rely on a global source of content, not just Canadian. However, they too face challenges, and leadership is required to keep them in a growth position in face of new competition from international OTT operators. Continued success and support from the public sector will lead to increased private sector investment in what is a large and growing film and television sector.

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## Appendix A: Calculation of Direct Economic Impact

- In the following appendix we provide additional data and description of the calculation of direct economic impacts (i.e. GDP and labour income [wages and salaries]) in each industry in the film and television sector. For some industries, we also provide additional information on the derivation of estimates of direct employment, where this information may not have been presented in Section 3.
- In addition to calculating the GDP generated by each industry in the film and television sector, we also isolated any payments made to other industries in the film and television sector. We refer to this revenue amount net of intra-sector payments as *unduplicated revenue*.

### Production

- Data for total expenditures sourced from *Profile 2012: An Economic Report on the Canadian Screen-based Production Industry in Canada* ("Profile 2012").
- Breakdown of total expenditures into purchases of goods and services from other industries, wages and salaries, and operating surplus also based on economic impact analysis results reported in *Profile 2012*.
- GDP (\$3,014 million) equal to the sum of cast and crew wages and salaries (\$2,879 million) and the estimated operating surplus earned by production companies (\$118 million).

#### Exhibit A - 1 Calculation of unduplicated revenue and GDP, film and television production, 2011

|   |  |   |                                |
|---|--|---|--------------------------------|
|   | Purchases of goods and services from other industries:<br>\$2,879M |   |                                |
| <b>Total production expenditures</b><br><b>\$5,893M</b> | Cast and crew wages and salaries:<br>\$2,896M                      | <b>Unduplicated revenue:</b><br><b>\$5,893M</b> | <b>GDP:</b><br><b>\$3,014M</b> |
|   | Operating surplus:<br>\$118M                                       |   |                                |

Source: Nordicity estimates based on data from *Profile 2012*.

- See Section 3.2 for calculation of employment.

## Distribution

- Data for industry revenue and expenditures sourced from Statistics Canada, catalogue no. 87F0010X.
- Out of total revenue of \$1,855 million, \$1,016 million flowed to the rights holders in the form of licensing fees, leaving unduplicated revenue of \$839 million.
- GDP (\$432 million) equal to the sum of wages and salaries (\$89 million) and operating profit (\$343 million).

### Exhibit A - 2 Calculation of unduplicated revenue and GDP, distribution, 2011

|   |   |                              |   |  |
|---|---|------------------------------|---|--|
| <b>Total revenue</b><br><b>\$1,855M</b> | Licensing costs (rights, royalties and other fees):<br>\$566M |                              | <b>Unduplicated revenue:</b><br><b>\$839M</b> |  |
|   | Cost of goods sold:<br>\$450M                                 |                              |   |  |
|   | Advertising, marketing promotion:<br>\$215M                   |                              |   |  |
|   | Other operating expenses:<br>\$192M                           |                              |   |  |
|   | Wages and salaries:<br>\$89M                                  |                              |   |  |
|   | Operating profit:<br>\$343M                                   | <b>GDP:</b><br><b>\$432M</b> |   |  |

Source: Statistics Canada cat. no. 87F0010X.

- FTE estimates based on an average FTE cost of \$87,400. The FTE cost was derived on the basis of wage and employment data published by Statistics Canada for 2009. Total wages and salaries (\$79.7 million) were divided by estimated FTEs (948; part-time workers were given a weight of 50% of full-time workers) to arrive 2009 FTE cost of \$84,000. This FTE cost was adjusted by the rate of consumer price index (CPI) inflation to arrive at an FTE cost of \$87,400 in 2011. On the basis of this FTE cost, we derived an estimate of 1,020 FTEs for 2011 ( $\$89 \text{ million} \div \$87,400 \approx 1,020$ ).

## Media manufacturing and digital asset management

- Total revenue in media manufacturing arrived at by deriving an estimate of total number of workers in the segment on the basis of Statistics Canada data and the average revenue per worker based on CINRAM's historical financial reports. Revenue and expenditures data sourced from Statistics Canada, catalogue no. 87F0010X.
- Total DAM revenue and employment based on industry interviews. Breakdown of total DAM revenue into wages and salaries, other operating expenditures and operating profit based on statistics reported by Statistics Canada for the post-production industry in Canada (see Statistics Canada, catalogue no. 87-009-X).

### Exhibit A - 3 Calculation of unduplicated revenue and GDP, media manufacturing and digital asset management, 2011

|                                       |                                     |   |                             |
|---------------------------------------|-------------------------------------|---|-----------------------------|
| <b>Total revenue</b><br><b>\$192M</b> | Other operating expenses:<br>\$102M | <b>Unduplicated revenue:</b><br><b>\$192M</b> | <b>GDP:</b><br><b>\$90M</b> |
|                                       | Wages and salaries:<br>\$88M        |   |                             |
|                                       | Operating profit:<br>\$2M           |   |                             |

Source: Nordicity estimates based on data from Statistics Canada, CANSIM table 281-0027; Statistics Canada, "Film, television and video post-production," catalogue no. 87-009-X; CINRAM financial statements, various years; and industry interviews.

- Estimation of employment, and wages and salaries in the media manufacturing segment outlined in Exhibit A - 4. Employment in DAM segment was estimated on the basis of industry interviews.

### Exhibit A - 4 Calculation of revenue, wages and employment in the media manufacturing segment

|   | 2007   | 2008   | 2009    | 2010   | 2011   |
|---|--------|--------|---------|--------|--------|
| Number of workers in media manufacturing [1]    | 4,598  | 3,763  | 2,678   | 2,516  | 2,339  |
| DVD/Blu-ray share of employment [2]             | 74%    | 74%    | 78%     | 80%    | 80%    |
| DVD/Blu-ray manufacturing employment [3]        | 3,403  | 2,785  | 2,089   | 2,013  | 1,871  |
| Revenue per worker (\$) [4]                     | --     | --     | 104,503 | 94,087 | 89,384 |
| Estimated media manufacturing revenue (\$M) [5] | --     | --     | 218.4   | 189.4  | 167.3  |
| Media manufacturing employment (FTEs) [6]       | 2,552  | 2,088  | 1,567   | 1,510  | 1,403  |
| Average weekly earnings (\$) [7]                | 821.82 | 845.77 | 829.29  | 844.51 | 863.36 |
| Total wages in media manufacturing (\$M) [8]    | 137.0  | 115.4  | 84.9    | 83.3   | 79.2   |

Source: Statistics Canada and CINRAM.

Notes:

1. Employment in the manufacturing and reproduction of magnetic and optical media (NAICS 3346) in Canada; source: Statistics Canada, CANSIM table 281-0027
2. DVD/Blu-ray share based on 2009 share of revenue reported in CINRAM financial statements.
3. Number of workers in media manufacturing × DVD/Blu-ray share of employment.
4. Based on revenue and employment data report in CINRAM 2009 Annual Report. Figures for 2010 and 2011 assume 10% and 5% reductions, respectively, in the average revenue per employee.
5. DVD/Blu-ray manufacturing employment × revenue per worker.
6. Assumes that 50% of workers are full-time and 50% are part-time.
7. Source: Statistics Canada, CANSIM table 281-0027. Data for 2010 and 2011 were not published, so the CPI was used to



estimate average weekly earnings for the missing years.  
 8. DVD/Blu-ray FTEs × by average weekly earnings × 49 weeks

### Film festivals

- Total revenue estimated on the basis of estimates of total attendees and delegates, and metrics reported at film festival web sites and in *Economic Activity Associated with the 2008-2009 Operations of TIFF*.
- Wages and salaries for festival operating expenditures were estimated on the basis of labour income share of total output in the Arts, Entertainment and Recreation industry (17%); for visitor spending and industry spending on delegates, estimates of wages and salaries were based on labour income share of total output in Retail Trade industry (44%). In both cases, the shares were obtained from Statistics Canada, "Input-output tables, inputs and outputs, detailed level, basic prices, 2009," CANSIM table 381-0022.
- Operating surplus estimates were based on the operating surplus share for Retail Trade industry (17%), also reported in Statistics Canada, CANSIM table 381-0022.
- The residual total revenue was assigned to the other operating expenses category.

#### Exhibit A - 5 Calculation of unduplicated revenue and GDP, film festivals, 2011

|                                       |                                    |   |                             |
|---------------------------------------|------------------------------------|---|-----------------------------|
| <b>Total revenue</b><br><b>\$163M</b> | Other operating expenses:<br>\$93M | <b>Unduplicated revenue:</b><br><b>\$163M</b> |                             |
|                                       | Wages and salaries:<br>\$53M       |   |                             |
|                                       | Operating surplus:<br>\$16M        |   | <b>GDP:</b><br><b>\$70M</b> |

Source: Nordicity estimates based on data from Statistics Canada, TCI Management Consultants, and annual reports and web sites of film festivals.

- See Section 3.5 for calculation of employment.



## Theatrical exhibition

- At the time of writing, Statistics Canada had not yet published data for 2011. Therefore, box office data was sourced from MPTAC. The other categories of revenue were estimated based on the 2011 growth rates reported in Cineplex Inc., "Annual General Meeting Presentation," May 16, 2012.
- Theatrical exhibitors traditionally have to share their box office revenue with distributors on a 50-50 basis. The historical share (2008-2010) of box revenue paid in film rental and royalty payments was 51.9%. Therefore, Canada's theatrical exhibitors remitted an estimated \$519 million to Canadian distributors in 2011. These film rentals and royalty payments left the theatrical exhibition segment with \$1,112 million (which includes concession sales and other revenue) in unduplicated revenue.
- Breakdown of total revenue into revenue sources and operating expenditures based on the historical averages (as a percentage of revenue) for 2008-2010, as reported in Statistics Canada, cat. no. 87F0009X.

### Exhibit A - 6 Calculation of unduplicated revenue and GDP, theatrical exhibition, 2011

|   |  |   |                              |
|---|--|---|------------------------------|
| <b>Total revenue</b><br><b>\$1,631M</b> | Film rental and royalty payments:<br>\$519M* | <b>Unduplicated revenue:</b><br><b>\$1,112M</b> | <b>GDP:</b><br><b>\$415M</b> |
|   | Cost of goods sold:<br>\$107M*               |   |                              |
|   | Other operating expenses:<br>\$590M*         |   |                              |
|   | Wages and salaries:<br>\$219M*               |   |                              |
|   | Operating profit:<br>\$196M*                 |   |                              |

Source: Nordicity estimates based on data from MPTAC and Statistics Canada, cat. no. 87F0009X.

\* Estimates based on historical averages.

- See Section 3.6 for calculation of employment.

## DVD/Blu-ray sales and rentals

- Total revenue and payments to distributors sourced from IHS Screen Digest.
- Data from IHS Screen Digest indicates that an estimated \$886 million was remitted back to distributors in 2011 from DVD/Blu-ray sales and rentals. Thus, the DVD/Blu-ray industry was left with \$874 million in unduplicated revenue.
- The estimates of wages and salaries were based on the 2011 average for the electronics and appliance store segment of the Canadian retail sector, as reported in Statistics Canada, CANSIM tables 080-0023 and 281-0027.
- Given the recent weakness in the DVD/Blu-ray sales and rentals market, operating profit was assumed to be nil.
- Other operating expenses represent the residual amount of unduplicated revenue, after deducting wages and salaries. See Section 3.7 for calculations of wages of salaries in the DVD/Blu-ray sales and rentals industry.

### Exhibit A - 7 Calculation of unduplicated revenue and GDP, DVD/Blu-ray sales and rentals, 2011

|   |                                      |   |                              |
|---|--------------------------------------|---|------------------------------|
| <b>Total revenue</b><br><b>\$1,760M</b> | Payments to distributors:<br>\$886M  | <b>Unduplicated revenue:</b><br><b>\$874M</b> | <b>GDP:</b><br><b>\$236M</b> |
|   | Other operating expenses:<br>\$638M* |   |                              |
|   | Wages and salaries:<br>\$236M*       |   |                              |
|   | Operating profit:<br>nil             |   |                              |

Source: IHS Screen Digest and Nordicity estimates based on data from Statistics Canada, CANSIM tables 080-0023 and 281-0027.

\* Based on averages for electronics and appliance retail sector.



### VOD and online digital

- Revenue data for the VOD segment from CRTC. Revenue data for online digital segment from IHS Screen Digest.
- The VOD and online digital segment in Canada licenses content directly from Canadian producers, but also acquires Canadian and foreign content rights through Canadian distributors. Payments to Canadian producers were an estimated \$17 million in 2011, while payments for foreign content totalled \$311 million. Both amounts were estimated on the basis of data from CRTC.
- The breakdown of VOD revenue into programming expenditures and other operating expenditures was sourced from CRTC.
- For online digital: programming expenditures were assumed to be 67% of revenue. Wages and salaries were assumed to be one-third of the wage share (of revenue) observed for Canadian VOD services (as published by CRTC). Marketing expenses assumed to be \$7.50 per subscriber. The balance of operating revenue was assumed to be in the other operating expenditures category.

**Exhibit A - 8 Calculation of unduplicated revenue and GDP, VOD and online digital, 2011**

|                                 |  |   |                       |
|---------------------------------|--|---|-----------------------|
| <b>Total revenue<br/>\$495M</b> | Canadian programming expenditures:<br>\$17M      | <b>Unduplicated<br/>revenue:<br/>\$168M</b> | <b>GDP:<br/>\$82M</b> |
|                                 | Non-Canadian programming expenditures:<br>\$311M |   |                       |
|                                 | Other operating expenses:<br>\$86M               |   |                       |
|                                 | Wages and salaries:<br>\$24M                     |   |                       |
|                                 | Operating profit:<br>\$58M                       |   |                       |

Source: Nordicity estimates based on data from CRTC and IHS Screen Digest.

- VOD employment (180 FTEs) statistics were sourced from CRTC. To estimate employment in the online digital segment, the estimated total wages and salaries (\$2.1 million) were divided by the average salary in the distribution sector (\$87,400). The result of this calculation, 24 FTEs, was rounded to 20 FTEs.

## Broadcasting

- Data for revenue and operating expenditures sourced from CRTC.
- The Canadian broadcasting industry commissions Canadian producers to create content in exchange for licence fees and will license foreign programming from Canadian distributors. In 2011, the broadcasting industry made payments to the Canadian production industry worth \$2.5 billion. This amount included the value of licence fees for original and secondary-window content and \$1.2 billion in in-house production expenditures, which have already been captured in this analysis in the production industry. Canadian broadcasters' payments for foreign content through distributors totalled just over \$1.6 billion. Taking into account these intra-sector payments to the production and distribution industries reduced the broadcasting industry's gross revenue of \$6.8 billion to \$2.7 billion in unduplicated revenue.

### Exhibit A - 9 Calculation of unduplicated revenue and GDP, broadcasting, 2011

|   |  |                                |   |
|---|--|--------------------------------|---|
| <b>Total revenue</b><br><b>\$6,838M</b> | Expenditures on In-house production:<br>\$1,232M     |                                | <b>Unduplicated revenue:</b><br><b>\$2,715M</b> |
|   | Payments to Canadian rights holders:<br>\$1,273M     |                                |   |
|   | Payments to non-Canadian rights holders:<br>\$1,618M |                                |   |
|   | Other operating expenses:<br>\$873M                  | <b>GDP:</b><br><b>\$1,677M</b> |   |
|   | Interest expenses:<br>\$166M                         |                                |   |
|   | Wages and salaries:<br>\$497M                        |                                |   |
|   | Operating profit:<br>\$1,179M                        |                                |   |

Source: Nordicity estimates based on data from Statistics Canada.

- Data for employment sourced from CRTC. The total employment in 2011 (18,300 FTEs [excluding VOD and PPV]) was reduced to 7,100 FTEs to account for employment generated by in-house production, which was already counted in the production industry employment statistics.

## Broadcasting distribution

- Revenue and operating expenditure data are estimates derived from published CRTC data. Data includes estimates of operating expenditures for non-reporting BDUs.
- The broadcasting distribution industry must pay fees to carry Canadian specialty and pay services; these fees vary with the number of subscribers to each service. In 2011, these carriage fees amounted to \$3.0 billion. Canadian BDUs also make contributions directly to the production of Canadian programming through the CMF, LPIF and various independent production funds. In 2011, these contributions to Canadian production totalled \$362 million. Taken together, the broadcasting distribution industry's payments to the broadcasting and production industries reduced its revenue of \$8.6 billion to just under \$5.2 billion in unduplicated revenue.

### Exhibit A - 10 Calculation of unduplicated revenue and GDP, broadcasting distribution, 2011

|                                   |   |  |   |                          |
|-----------------------------------|---|--|---|--------------------------|
| <b>Total revenue<br/>\$8,588M</b> | Affiliate payments to<br>broadcasters:<br>\$3,036M        |  | <b>Unduplicated<br/>revenue:<br/>\$5,190M</b> | <b>GDP:<br/>\$3,706M</b> |
|                                   | Contributions to<br>Canadian programming:<br>\$362M       |  |   |                          |
|                                   | Other operating<br>expenses:<br>\$1,081M                  |  |   |                          |
|                                   | Interest expenses:<br>\$403M                              |  |   |                          |
|                                   | Wages and salaries:<br>\$2,253M                           |  |   |                          |
|                                   | Operating profit*<br>(less interest expense):<br>\$1,453M |  |   |                          |

Source: Nordicity estimates based on data from CRTC.

Note: Some totals may not sum due to rounding.

\* Includes depreciation expenses.

- Data for employment sourced from CRTC.

## Appendix B: Modelling of Indirect and Induced Economic Impacts

- As discussed in Section 2.3, because Statistics Canada does not publish Type II multipliers<sup>51</sup>, one must develop a model that estimates the indirect and induced impacts separately and then sums these two impacts to arrive at an estimate of the total spin-off impact. The spin-off impact can be added to the direct economic impact to arrive at an estimate of the total economic impact.

### Indirect economic impact

- The indirect impact for the production segment was sourced from *Profile 2012*. The indirect impacts for all other segments of the film and television sector were derived using Statistics Canada's 2009 I-O tables for Canada.<sup>52</sup>
- The non-labour expenditures in each value chain segment were allocated across the 35 commodities in the Statistics Canada's I-O tables. Where an allocation profile was not available for a specific industry segment (e.g. film festivals) the commodity allocation for an adjacent industry segment or some combination of similar industry segments were used. For example, in the case of film festivals, the commodity allocation for the motion picture and video exhibition industry segment was used.
- Exhibit A - 11 provides a summary of the mapping of each industry in the film and television sector to an industry-allocation table in the in Statistics Canada's I-O tables.

#### Exhibit A - 11 Commodity allocation mapping

| Industry                             | Input-Output allocation table industry                           |
|--------------------------------------|--|
| <b>Production</b>                    | Not applicable   |
| <b>Distribution</b>                  | Motion picture and video industries (except exhibition)          |
| <b>Media manufacturing</b>           | Other electronic product manufacturing                           |
| <b>Film festivals</b>                | Motion picture and video exhibition                              |
| <b>Theatrical exhibition</b>         | Motion picture and video exhibition                              |
| <b>DVD/Blu-ray sales and rentals</b> | Sporting goods, hobby, book and music stores                     |
| <b>VOD and online digital</b>        | Radio and television broadcasting / Pay and specialty television |
| <b>Broadcasting</b>                  | Radio and television broadcasting / Pay and specialty television |
| <b>Broadcasting distribution</b>     | Telecommunications   |

Source: Nordicity research based on Statistics Canada, "Input-output tables, inputs and outputs, detailed level, basic prices, 2009," CANSIM table 381-0022.

<sup>51</sup> A Type II multiplier is one that takes into both the indirect and induced impacts. Type I multipliers only takes into account the indirect impact.

<sup>52</sup> The latest published I-O tables are for 2009.

Exhibit A - 12 provides the detailed commodity allocation table for each industry.

**Exhibit A - 12 Commodity allocation table**

| Commodity  | Distribution  | Media manufacturing and DAM | Festivals     | Theatrical exhibition | DVD/Blu-ray sales and rentals | VOD and online digital | Broadcasting  | Broadcasting distribution |
|--|---------------|-----------------------------|---------------|-----------------------|-------------------------------|------------------------|---------------|---------------------------|
| 1 Crop and animal production   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 2 Forestry and logging   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 3 Fishing, hunting and trapping  | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 4 Support activities for agriculture and forestry                            | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 5 Mining, quarrying, and oil and gas extraction                              | 1.6%          | 0.1%                        | 0.5%          | 2.5%                  | 0.5%                          | 0.2%                   | 0.2%          | 0.1%                      |
| 6 Utilities  | 1.6%          | 1.4%                        | 4.5%          | 4.3%                  | 4.5%                          | 1.3%                   | 1.3%          | 1.1%                      |
| 7 Residential construction   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 8 Non-residential building construction                                      | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 9 Engineering construction   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 10 Repair construction   | 4.9%          | 2.3%                        | 30.0%         | 4.7%                  | 30.0%                         | 5.4%                   | 5.4%          | 8.7%                      |
| 11 Other activities of the construction industry                             | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 12 Manufacturing   | 19.6%         | 60.1%                       | 6.6%          | 2.5%                  | 6.6%                          | 7.5%                   | 7.5%          | 27.0%                     |
| 13 Wholesale trade   | 3.3%          | 7.3%                        | 0.3%          | 0.4%                  | 0.3%                          | 0.8%                   | 0.8%          | 1.3%                      |
| 14 Retail trade  | 8.6%          | 4.2%                        | 4.8%          | 13.2%                 | 4.8%                          | 1.3%                   | 1.3%          | 3.1%                      |
| 15 Transportation and warehousing  | 2.4%          | 2.4%                        | 2.7%          | 1.8%                  | 2.7%                          | 2.2%                   | 2.2%          | 2.7%                      |
| 16 Information and cultural industries                                       | 5.2%          | 0.9%                        | 0.2%          | 1.2%                  | 0.2%                          | 21.0%                  | 21.0%         | 19.9%                     |
| 17 Finance, insurance, real estate, rental and leasing and holding companies | 11.0%         | 4.9%                        | 19.2%         | 43.8%                 | 19.2%                         | 8.5%                   | 8.5%          | 7.5%                      |
| 18 Owner occupied dwellings  | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 19 Professional, scientific and technical services                           | 17.1%         | 4.8%                        | 9.9%          | 3.9%                  | 9.9%                          | 15.3%                  | 15.3%         | 15.2%                     |
| 20 Administrative and support, waste management and remediation services     | 4.1%          | 5.5%                        | 4.9%          | 11.5%                 | 4.9%                          | 11.2%                  | 11.2%         | 5.0%                      |
| 21 Educational services  | 0.0%          | 0.0%                        | 0.1%          | 0.0%                  | 0.1%                          | 0.0%                   | 0.0%          | 1.8%                      |
| 22 Health care and social assistance   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 23 Arts, entertainment and recreation  | 0.0%          | 0.0%                        | 0.5%          | 0.0%                  | 0.5%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 24 Accommodation and food services   | 5.5%          | 2.9%                        | 0.4%          | 1.4%                  | 0.4%                          | 7.7%                   | 7.7%          | 0.0%                      |
| 25 Other services (except public administration)                             | 2.3%          | 0.3%                        | 2.2%          | 5.8%                  | 2.2%                          | 1.6%                   | 1.6%          | 3.9%                      |
| 26 Repair, maintenance and operating and office supplies                     | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 27 Advertising, promotion, meals, entertainment, and travel                  | 12.6%         | 1.7%                        | 13.1%         | 3.1%                  | 13.1%                         | 15.1%                  | 15.1%         | 2.5%                      |
| 28 Transportation margins  | 0.3%          | 0.9%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.1%                   | 0.1%          | 0.0%                      |
| 29 Non-profit institutions serving households                                | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 30 Government education services   | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 31 Government health services  | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 32 Other federal government services   | 0.0%          | 0.3%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.7%                   | 0.7%          | 0.0%                      |
| 33 Other provincial and territorial government services                      | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 34 Other municipal government services                                       | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| 35 Other aboriginal government services                                      | 0.0%          | 0.0%                        | 0.0%          | 0.0%                  | 0.0%                          | 0.0%                   | 0.0%          | 0.0%                      |
| <b>Total</b>   | <b>100.0%</b> | <b>100.0%</b>               | <b>100.0%</b> | <b>100.0%</b>         | <b>100.0%</b>                 | <b>100.0%</b>          | <b>100.0%</b> | <b>100.0%</b>             |

Source: Nordicity tabulations based on data from Statistics Canada, "Input-output tables, inputs and outputs, detailed level, basic prices, 2009," CANSIM table 381-0022.

- Statistics Canada's I-O tables<sup>53</sup> were also used to construct a model to estimate how the increase in domestic demand for each commodity ultimately led to an increase in output across all industries of the Canadian economy, through initial purchases of inputs by each industry in the film and television sector and subsequent follow-on purchases of inputs through each industry's supply chain. This model, therefore, took into account the pattern of re-spending by the film and television sector's supplier industries.
- The model also took into account the degree to which these supplier industries' purchases leaked from the Canadian economy in form of imported inputs. The import of inputs to Canadian production was incorporated into Nordicity's economic impact model using a matrix of the import ratios for each input commodity. The import ratio for each commodity was derived from the final demand tables (included in Statistics Canada's published I-O tables), which indicate the degree to which each commodity is imported into the Canadian economy.
- This I-O model produced estimates of the change in output in each industry. The change in output for each industry was then converted to labour income and GDP in each industry using the industry-specific ratios of *wages-and-salaries-and-supplementary labour income-to-output*, and *GDP-to-output*.
- Total indirect employment (FTEs) was estimated by dividing labour income by the average salary in each industry.

## Induced economic impact

- The induced economic impact arises as households that earn income at the direct and indirect impact stages re-spend their income throughout the economy. While Statistics Canada's I-O tables do provide a basis for calculating the indirect economic impact of a given economic activity, they do not permit one to directly calculate the induced economic impact. In the absence of multipliers from Statistics Canada, Nordicity has developed a simple approach for deriving an induced economic impact multiplier, which follows the general principle of re-spending in an open economy and infinite mathematical series.
- As noted previously, the induced economic impact arises from re-spending that occurs throughout the economy. This rate of re-spending is a function of the marginal propensity to consume (MPC) within an economy, that is, the percentage of total income that households spend on the purchase of goods and services. For example, if households' MPC is 0.7 then they will spend 70% of their income on the purchase of goods and services. The recipients of the income from these purchases will then spend 70% of their income on the purchases of goods and services, and so on. The resulting mathematical series,  $1+0.7+0.7^2+0.7^3+0.7^4+\dots$ , can be expressed as an infinite geometric sum that is equal to  $1/(1-0.7)$ , or approximately 3.33.
- With an estimate of the MPC, one can derive an induced impact multiplier by using the following formula:  $1/(1-MPC)$ . We use this approach with an additional adjustment for the marginal propensity to import (MPM) to arrive at an induced impact multiplier for the Canadian economy.

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<sup>53</sup> Statistics Canada, "Input-output tables, final demand, detailed level, basic prices, annual, 2009," CANSIM table 381-0023.



- The induced impact component of our economic impact model also takes into account imports of the Canadian economy by way of the MPM. In that regard, import leakage is accounted for at both stages – indirect and induced. However, the model does not double count import leakage, since the induced impact multiplier is only applied to the labour income generated in the indirect impact stage. Since labour income is a non-commodity input to the production process, it merely a result of the model and, therefore, is not subject to the import ratio used in the indirect impact stage.
- Data published by Statistics Canada indicate that the MPC for the Canadian economy between 1981 and 2010 was equal to 0.77.<sup>54</sup> These data also indicate that the MPM between 1981 and 2010 was equal to 0.37.<sup>55</sup> Based on these data, we used the following formula to arrive at an induced impact multiplier of 1.67.

$$\begin{aligned}
 \text{Induced impact multiplier} &= \frac{1}{1 - (MPC - MPM)} \\
 &= \frac{1}{1 - (0.77 - 0.37)} \\
 &= \frac{1}{1 - 0.4} \\
 &= \frac{1}{0.6} \\
 &= 1.67
 \end{aligned}$$

- This multiplier of 1.67 was applied to the total labour income generated at the direct and indirect stages of the economic impact to arrive at an estimate of the level of induced impact *output*. This induced impact output was then converted to GDP using the Canada-wide ratio of GDP-to-output (0.51) as reported in Statistics Canada’s I-O tables.<sup>56</sup> The induced impact output was converted to labour income using the Canada-wide ratio of *wages, salaries and supplementary labour* income to-output ratio (0.28), as reported in Statistics Canada I-O tables.<sup>57</sup> Induced impact employment was estimated by dividing the estimate of total induced impact wages by an average FTE cost of \$46,000.

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<sup>54</sup> Calculations based on data in Statistics Canada, *Provincial and Territorial Economic Accounts: Data Tables*, catalogue number 13-018-X.

<sup>55</sup> *Ibid.*

<sup>56</sup> Statistics Canada, “Input-output tables, inputs and outputs, detailed level, basic prices, 2009,” CANSIM table 381-0022.

<sup>57</sup> *Ibid.*

## Appendix C: List of Key Research Informants

| <b>Name:</b>      | <b>Organization/Affiliation:</b>  |
|-------------------|---|
| Steve Waddell     | ACTRA   |
| Bob Wong          | BC Film + Media   |
| Hans Fraikin      | Quebec Film and Television Council  |
| Kelly Beaton      | Department of Canadian Heritage   |
| Lynn Foran        | Department of Canadian Heritage   |
| David Hardy       | William F. White  |
| Sarah Ker-Hornell | FilmOntario   |
| Dan McLellan      | Deluxe Canada   |
| Michael Hennessy  | Canadian Media Production Association   |
| Susanne Vaas      | Canadian Media Production Association   |
| Tracey Wood       | Alliance of Motion Picture and Television Producers   |
| Raina Wells       | Ontario Media Development Corporation   |
| Peter Leitch      | North Shore Studios   |
| Amir Nasrabadi    | Pixar Canada  |
| John Lewis        | IATSE   |
| Richard Beaulieu  | Telefilm Canada   |
| Gilbert Ouellette | Evolumedia Group  |
| Nader Elm         | IMAX  |
| Sylvie Marceau    | Observatoire de la culture et des communications du Québec  |
| Karen Lamare      | British Columbia Film Commission  |
| Victoria Weller   | Thompson Nicola Film Commission   |
| Karen McKnutt     | Nova Scotia Department of Economic and Rural Development and Tourism  |
| Dr. Simon Hudson  | Center of Economic Excellence in Tourism and Economic Development,<br>University of South Carolina (formerly University of Calgary) |