

The Economic Impacts of the Canadian Film Centre (Phase Two)

June 2015

By: Nordicity

For: The Canadian Film Centre (CFC)



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Executive Summary

Since 1988, the Canadian Film Centre (CFC) has attracted and developed top creative and entrepreneurial talent to its programs, cementing its pivotal role as a hub for ideas and innovation within the global entertainment landscape. As the media industry has evolved, so too has the CFC and its approximately 1,500 individual graduates¹, by proactively responding to the changing needs of content creators by developing new programs, increasing access to international markets, attracting and engaging industry partners, mentors and instructors of the highest caliber.

The CFC has successfully leveraged public and private funding commitments and partnerships to create cutting-edge programs and develop new initiatives to build capacity in the Canadian media and entertainment industry.

Mandate

One measure of the CFC's ongoing impact on Canada's media and entertainment industry are the activities, productions, companies and products led by its alumni. Nordicity first analyzed the economic impact of the CFC's alumni in 2012 and was engaged again in the spring of 2014 to develop a "Phase Two" report. This report assesses once again how attending the CFC has had an impact on alumni career trajectories and productivity, and the ensuing economic impacts of those activities. As in Phase One, Nordicity's economic impact analysis focused on a five-year span – that is to say, CFC residents who graduated between **2008 and 2013**.² Throughout the report Nordicity refers to these graduates as the "Phase Two Cohort."

Evidence-based economic analysis

Nordicity drew from several key data sources in order to undertake this impact analysis:

- 1) The results of a detailed online survey to CFC alumni;
- 2) Data collection through the Internet Movie Database (IMDb);
- 3) Interviews with alumni;
- 4) Economic impact analysis that determined, direct, indirect and spinoff effects; and
- 5) Assessment of the fiscal impact, i.e., the ROI for the Province on its investment.

¹ N.B. this report emphasizes individual graduates, or persons, rather than enrollments, which exceed 1,600

² Separate to this report, Nordicity is supporting the CFC in its efforts to collect, analyze and leverage data on its alumni' careers on an ongoing basis - in effect building the CFC's organizational capacity to conduct impact research.

As in Phase One, Nordicity adopted an analytical framework which recognized that a hub such as the CFC makes a contribution to the economy primarily through two channels: (i) the **human capital** effect and the (ii) **intellectual property** (IP) effect.

- The **human capital** effect arises from the increased employment opportunities and income earned by CFC graduates resident in Ontario, and across Canada, in comparison to their likely earnings in the absence of CFC training.
- The **IP** effect arises from the economic impact associated with the screen-based content – i.e., intellectual property – developed, created and commercialized by companies founded by CFC graduates.³⁴

Key performance indicators: working and earning more

Attending the CFC has a measurable impact on the careers of its graduates. According to the survey results for all alumni, the following key work indicators were observed:

- More than a third (35%) of CFC graduates ranked their employment stability after attending the CFC as **high**, while nearly half (43%) ranked their employment stability as **moderate**.⁵
- The average number of film, television and digital media **projects** undertaken by respondents per year increased since graduating from the CFC. The growth was particularly striking in film, where the average number of projects doubles, from 2.1 to 4.2 and in digital media, where projects per year increased from 3.3 to 5.2.
- On average, graduates of film programs work on nearly 60% more projects (of any type) per year post-graduation.
- The average number of **weeks** worked per year also increased for graduates of all programs after attending the CFC.
- The greatest increase in weeks worked was reported by digital media program graduates, who worked on average 1.3 times more weeks (or seven more weeks) per year since graduating from the CFC than they did before enrolment.

³ Note that the IP effect as defined in this report may understate the total economic impact of IP developed by CFC graduates, when those graduates develop IP outside of an incorporated entity or contribute to the development of IP controlled by other corporate entities. The economic impact of these other scenarios for IP development and commercialization may be captured by the human capital effect, in so far as these activities increase the income premium earned by CFC graduates.

⁴ By "company" we mean a production company, production services company, interactive digital media studio, or any other entity that directly contributes to the development, production and/or distribution of media content.

⁵ "High" was defined as "employed in your desired career, stable income" while "Moderate" was defined as "employed or fewer periods of unemployment, relatively stable flow of work."

Nearly half of all survey respondents (46%) have established a media company. Company-level survey results indicated that:

- Full-time employment today at companies established by CFC graduates is, on average, more than three times its pre-enrolment level. Contract and freelance employment today is nearly four times its pre-CFC level.
- Similarly, the survey data indicated that some 53 Ontario-based media companies produced 36 more projects (e.g., films, TV series, and digital media products) per year than prior to exposure to the CFC program.

Graduates also increased the average number of projects **in development** and **commercialized** since attending the CFC:

- On average, the number of film projects more than doubles from approximately 1.4 projects in development per year pre-CFC, to on average, 3.4 projects in development since the CFC;
- The number of projects commercialized increases across all types of projects, resulting in an average of just over one (1.1) film project commercialized per year since the CFC, two or more (2.4) “Other Media” projects commercialized since the CFC.

This work was taking place on projects of significant sizes. According to the survey:

- TV projects led by CFC graduates had an average production budget of \$1,184,000;
- The overall average film project budget was \$948,000. About half of the films actually had a budget below \$500,000 but about 10% were \$3 million or higher. The greatest reported budget was \$5.6 million.
- Survey respondents reported an average budget of \$198,000 per digital media project – which is greater than the average project budget for a “convergent digital media production” as reported in Profile 2013 - \$134,000.⁶

Human capital– overall economic impact

Based on IMDb data collected, which had some limitations, the project team observed that:

- **While attending the CFC**, on average, all graduates experience a **decrease** in earnings;
- **The pre-enrolment income level** is reached about **1.5 years** after graduation, and
- **Peak income** follows shortly thereafter, approximately **two** years after program completion and slightly decreases thereafter.

By providing training and hands-on experience to workers in the screen-based industries, the CFC enhances its graduates’ skills, or human capital. With this enhanced human capital CFC graduates can

⁶ Convergent digital media production comprises screen-based content and applications for digital media platforms (e.g., video games, interactive web content, on-demand content, podcasts, webisodes, and mobisodes).

earn higher incomes through either higher rate of pay or longer duration of employment. Either way, CFC graduates can experience higher incomes, which, in turn, provide economic benefits for the province:

- We estimate that CFC graduates (2008-2013) will earn a cumulative income differential of \$40.5 million over their careers, including any historical income premiums earned following graduation but prior to 2014, and the present value of their future income premiums.
- This income differential also directly created \$40.5 million in GDP for the Ontario economy as well as 710 FTEs of employment.
- After taking into account the spin-off impact of this increased household income and GDP, we estimate that the human capital effect of the CFC will add \$48.4 million in household income and \$56.9 million in GDP to the Ontario economy. This increased household income and GDP would yield the equivalent of 870 FTEs of employment in the provincial economy.

Intellectual property (firm level) – overall economic impact

When CFC graduates launch media companies, they not only gain an opportunity to improve their employment prospects and income, they also create IP, which can have much wider economic impact. Through the creation of IP, entrepreneurial graduates introduce an element of economic leverage into the economic-benefits equation. They are not only generating economic benefits for themselves, but also developing the IP that will create employment and income for dozens of workers – whether the cast, crew, and other skilled personnel on a production, or designers, developers and manufacturers when a product is brought to market.

Between 2008 and 2013:

- 80 graduates of the CFC program went on to establish media companies.
- Of this total, 53 graduates established media companies in Ontario.⁷
- Following graduation, these 53 graduates increased their annual productivity by a combined total of 36 projects, after adjusting for attribution and intensity of program use.
- These 36 incremental projects translated into \$61.6 million in production volume (i.e., budgets) between 2008 and 2013.
- This level of production volume ultimately generated \$44.6 million in household income for Ontario residents and contributed \$54.8 million in GDP to the Ontario economy.
- The economic impact of this production volume also supported 970 FTEs of employment between 2008 and 2013.

The creation and production of IP by graduates also attracted considerable financing from outside the province and country. The IP-effect production of \$61.6 million attracted an estimated \$12.1 million in international financing and a further \$24.6 million in interprovincial financing. The total

⁷ These 137 companies are not necessarily mutually exclusive and may include some personal services firms.

inward financing for CFC's IP-effect production amounted to \$36.6 million between 2008 and 2013, or 60% of the total production volume.

Total economic impact summary and fiscal impact

Between 2008 and 2013, the CFC has once again generated a positive human capital, IP and fiscal impact on Ontario's economy, and contributed to the strength of its creative economy.

In total, the CFC program generated:

- \$93.0 million in incremental household income for Ontario residents, and;
- \$111.7 million in GDP for the Ontario economy.
- This incremental economic activity generated:
 - 1,850 FTEs of employment within the Ontario economy; and
 - \$20.1 million in provincial tax revenue.

When compared to the Ontario government's contribution of \$13.0 million to CFC for programs available to the 2008-2013 graduate cohort, we find that the CFC generated a net fiscal benefit of \$7.1 million for the Province. As the financial outcomes from the quantitative questions were discounted substantially, the economic analysis is based on solid and conservative assumptions with respect to attribution of alumni performance and success in the industry.

With graduates also residing and working outside Ontario, the CFC made an even larger contribution to the Canadian economy.

In total, the CFC program generated:

- \$134.2 million in incremental household income for Canadian residents, and;
- \$163.3 million in GDP for the Canadian economy.

This incremental economic activity generated 2,680 FTEs of employment within the Canadian economy, and \$55.3 million in federal and provincial taxes.

Beyond economic impacts, Insight Studies based on interviews with CFC graduates confirmed that the role of the CFC in Canada's screen-based infrastructure is becoming ever more vital as a generator of talent to fuel the increasing sophistication and constant evolution of the screen-based sector. The global competitive advantage in the media and entertainment landscape is shifting to those with the best talent, including those storytellers whose careers are nurtured and elevated at the CFC.

1. Introduction

Since 1988, the Canadian Film Centre (CFC) has attracted and developed top creative and entrepreneurial talent to its programs, cementing its pivotal role as a hub for ideas and innovation within the global entertainment landscape. As the media industry has evolved so too has the CFC, by proactively responding to the changing needs of content creators by developing new programs, increasing access to international markets, attracting and engaging industry partners, mentors and instructors of the highest calibre. This analysis focused on the acceleration of professional careers of talent enrolled in CFC film, television, digital media, acting, music, and marketplace programs and initiatives, including integrated creative and business development programs for on-and-off-screen talent.

1.1 Mandate

One measure of the CFC's ongoing impact on Canada's media and entertainment industry are the activities, productions, companies and products led by its alumni. Nordicity first analyzed the economic impact of the CFC's alumni in 2012. The report ("Phase One"), released in December 2012, found that CFC graduates between **2006 and 2011** (i.e., the "Phase One Cohort") were working more and earning more than before they attended the CFC. As well, of the 137 graduates who formed media companies, some 53 media projects and \$80.3 million in production volume (i.e., budgets) between 2006 and 2011 could be attributed to the CFC.⁸

In the spring of 2014, the CFC engaged Nordicity to develop a follow-up to the Phase One report, to assess once again how attending the CFC has had an impact on alumni career trajectories and productivity, and the ensuing economic impacts of those activities. As in Phase One, Nordicity's economic impact analysis in this phase is focused on a five-year cohort, i.e., CFC residents who graduated between **2008 and 2013** (the "Phase Two Cohort").

As well, separate to this report, Nordicity provides continuing support to the CFC in its efforts to collect, analyze and leverage data on its graduates' careers on an ongoing basis. As part of this support, Nordicity will develop a custom economic impact analysis tool structured for CFC's distinct needs and which aligns with their systems and processes. The result will be a tool that can be used in the future by CFC staff to refresh their impact data on a regular basis. This component of the project is in effect building the CFC's capacity to conduct impact research with less outside support.

⁸ Nordicity, *Study of the Economic Impacts of the Canadian Film Centre*, December 2012.

1.2 Analytical framework and methodology

This study was conducted in three stages, which are described below:

- **Stage 1: Data Gathering**
 - Online Survey: The design and deployment of a detailed online survey to CFC alumni which ran from June 18th until October 10th, 2014.
 - The Internet Movie Database (IMDb) Collection: In Phase Two, Nordicity expanded tracking of film, television, acting and music graduates from approximately 110 graduates in the Phase One Cohort to 499 graduates between 2008 and 2013⁹.
 - Elevation Studies: Nordicity conducted desk research and interviewed ten CFC alumni and two staff to develop insight studies which showcase both the tangible and intangible benefits of participating in CFC's programs. These seven insight studies are presented throughout the report, indicated by the outlined boxes.
- **Stage 2: Analysis**
 - As in Phase One, Nordicity adopted an analytical framework which recognized that a hub such as the CFC makes a contribution to the economy primarily through two channels: (i) the **human capital** effect and the (ii) **intellectual property** (IP) effect.
 - The **human capital** effect arises from the increased employment opportunities and media-related income earned by CFC graduates resident in Ontario, and across Canada, in comparison to their likely earnings in the absence of CFC training.
 - The **IP** effect arises from the economic impact associated with the screen-based content – i.e., intellectual property – created by companies founded by CFC graduates. The IP effect can either lead to incremental company revenues from the sale or licensing of content or applications, or new film, television, or digital media production projects that employ numerous Canadians and often attract foreign financing (inward investment). Our methodology quantified both of these effects.¹⁰
 - In this report, Nordicity also extended its analysis of activities and outcomes to the *CFC program stream* attended by alumni (and captured by IMDb), i.e., **Film, Television, Digital Media, Acting** and, where possible, **Music**.¹¹

⁹ See "Appendix A: Notes on Methodology" for more detail on IMDb Data Collection

¹⁰ Note that the IP effect as defined in this report may understate the total economic impact of IP developed by CFC graduates, when those graduates develop IP outside of an incorporated entity or contribute to the development of IP controlled by other corporate entities. The economic impact of these other scenarios for IP development and commercialization may be captured by the human capital effect, in so far as these activities increase the income premium earned by CFC graduates.

¹¹ Note that CFC graduates will regularly work across disciplines regardless of their program stream, but for the purposes of this report, some program-level analysis was required.

- **Stage 3: Tool Development and Calibration**

- As described previously, separate from this report, Nordicity is developing an economic impact tool that can be used by the CFC in order to refresh the data on a regular basis internally, with less reliance on outside support. Once this report is accepted, the final tool will be calibrated and Nordicity will support the training required in order for the CFC to integrate the tool into its systems.

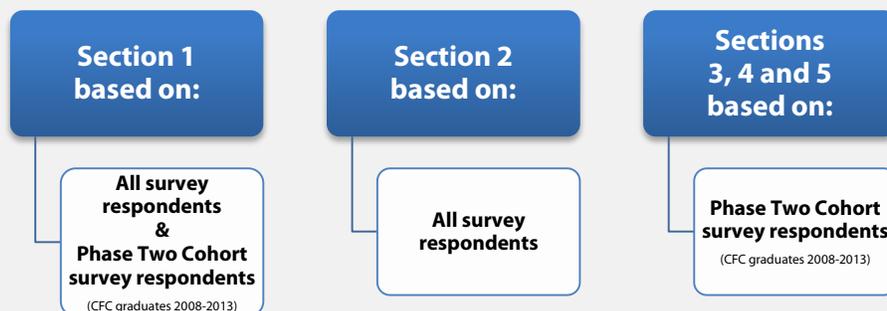
Key methodological clarifications for readers:

- In Section 2, which describes key performance indicators for CFC graduates, the results are based on survey responses from all alumni. In other words, these results are not limited to graduates from the years 2008 to 2013 (the Phase Two Cohort);
- Conversely, in Section 3, 4 and 5 (the economic impact tabulations), the results are based solely on the responses from CFC residents who graduated between 2008 and 2013 (i.e., the Phase Two Cohort).

Why we focused the economic impact analysis on graduates from 2008 to 2013 - the “Phase Two Cohort”

There are three main reasons for analyzing the economic impact of this five-year cohort:

- 1) As in Phase One, it helps to align impact results more closely with the time span of government funding.
- 2) Focusing on a five-year cohort, permits *some* comparability with Phase One, bearing in mind that four years of the Phase One and Phase Two cohorts overlap.[†]
- 3) One can conservatively assume that the CFC’s impact on its graduates’ career trajectories is at its highest during the first five to ten years after graduation and so it is logical to focus on the activities undertaken by more recent graduates.



[†]As such activity reported by CFC alumni who graduated between 2008 and 2011 has been included in both studies. However, the results reported in Phase Two are based mainly on the survey and IMDb data collected in 2014.

1.2.1 Economic impact analysis

Nordicity prepared the economic impact analysis on the basis of the survey data, as well as secondary data from Canadian Media Production Association (CMPA), the Association québécoise de la production médiatique (AQPM) and Department of Canadian Heritage, *Profile 2013: Economic Report on the Screen-based Media Production Industry in Canada* (“CMPA Profile 2013”); Statistics Canada; the Ontario Media Development Corporation (OMDC); and other industry reports.

To measure the economic impact of the human capital effect, Nordicity analyzed data from the survey related to CFC graduates’ income and employment performance before and after attending the CFC. From this analysis, we were able to estimate the *incremental* income earned by CFC graduates.

To measure the IP effect of CFC programs, Nordicity used the survey data to estimate the *incremental* production activity and commercialization revenue associated with films, TV programs and digital media products developed by CFC graduates.

For both the human capital and IP effects, we used Statistics Canada’s Input-Output tables and other economic data to prepare estimates of the direct and spin-off economic impacts.

The **direct economic impact** refers to the household income, GDP and jobs generated within the screen-based industry itself. This economic impact is largely in the form of wages and salaries paid to workers in the screen-based industry, but it also includes the operating surplus (i.e., operating profits and sole proprietors’ income) earned by production companies. To estimate the direct economic impact Nordicity reviewed statistics on budget expenditures of film, TV and digital media projects to provide us with reliable breakdowns of the components of household income and GDP. We used average salary data from the *CMPA Profile 2013* to estimate the jobs impact.

The **spin-off economic impact** includes both the indirect and induced impacts.

- The **indirect economic impact** refers to the increase in economic activity that occurs when productions purchase goods and services from suppliers. These purchases of goods and services increase income and employment at the supplier companies; they also, in turn, increase demand for other upstream suppliers – i.e., the suppliers’ suppliers. Given the nature of the human capital effect, there is no indirect economic impact, *per se*. As such, Nordicity only estimated the indirect impact for the IP effect. To estimate the indirect economic impact of the IP effect, we used Statistics Canada’s Input-Output (I-O) tables for the Ontario economy to construct a model that we could use to estimate the household income, GDP and jobs created by increased demand in the supplier industries.
- The **induced economic impact** refers to the increase in household income, GDP and jobs that can be attributed to the re-spending of income by Ontario households that earned income at both the direct and indirect stages of the economic impact. Nordicity estimated induced economic impacts for both the human capital and IP effects. To estimate the induced economic impact, Nordicity derived induced impact economic multipliers. The multiplier for the human capital effect was derived from Statistics Canada’s input-output tables. The induced impact multiplier for the IP effect was implicit in the economic ratios for film, TV and digital media production obtained from the *CMPA Profile 2013*.

Nordicity summed the estimates of the direct and spin-off economic impacts to arrive at estimates of the total economic impact of both the human capital and IP effects.

On the basis of these estimates of the total economic impact, the project team also prepared a fiscal impact analysis. This fiscal impact analysis provides estimates of the incremental Ontario tax revenue generated by the human capital IP effects of CFC alumni. It then compares this incremental tax revenue to the total value of the Ontario government's contribution to the CFC in order to determine the net fiscal benefit (or cost) generated for the Province.

1.2.2 Calculation of the attribution to the CFC

In assessing the economic impact of the CFC, it was important to recognize that:

- 1) The CFC was not the sole contributor or factor in the success of a graduate's career, and;
- 2) There was a need to account for the "intensity" of a given survey respondents association with the CFC (e.g., whether a survey respondent had attended one or multiple CFC programs).

As such, all economic impacts reported in Section 3, both in terms of the human capital and intellectual property effect, were *discounted* in order to assess the effects which could truly be attributed to the CFC.

Assessing degree of attribution to the CFC

In order to assess this degree of attribution, Nordicity included questions in the survey questionnaire that asked respondents to rate the role or impact of the CFC on their individual career success. In particular, one question asked survey respondents what percentage of their annual income they felt was a direct result of projects they completed while enrolled in the CFC (i.e., what percentage of their income *would not have been earned* had they not attended the CFC). For example, if an individual who earned \$50,000 in 2013 indicated that 50% of his or her income was attributable to their education and experience at the CFC, then \$25,000 (i.e., $\$50,000 \times 50\%$) would be used as an input in the economic impact modeling.

- Related to the human capital impact, on average, graduates between 2008 and 2013 reported an increase in average income after their time at the CFC. In order to assess what portion of that premium could be directly attributed to the CFC, the survey asked graduates to estimate what percentage of their media-related income was directly attributable to skills developed while at the CFC.
- For each respondent, an attributed income premium was calculated based on the raw income boost they reported (their current income minus their pre-CFC income). This raw premium was then discounted by both the percentage of income derived from media activities and the percentage of media income deemed directly attributable to the CFC.
- For example, a graduate with a raw income premium of \$20,000 who had 50% media income attribution and 100% CFC attribution of media income would have an attributed income premium of $(\$20,000) \times (0.5) \times (1) = \$10,000$.

The report assessed the direct economic impact attributable to the IP effect using a premium similar to the income premium described above, except that it was based on the number of projects commercialized by graduates who founded a media company before, during or after their time at the CFC. Again, the development of an attribution discount from this raw project premium was abetted by the responses to a question in the survey to company owners about the importance of the CFC to the success of their business.

Accounting for the “intensity” of a graduate’s participation with CFC programs

In order to capture the impact of attending multiple CFC programs, an intensity score was compiled using the information provided by the CFC on program attendance and duration. Full length programs such as the Film Program were granted a score of 1, with shorter programs having values less than 1. For example,

- If a graduate attended the Film Program (value 1), the Short Dramatic Film Program (1) and the Comedy Lab (0.5), they would have a final intensity score of 2.5.
- This program intensity score was used to weight the contribution of each respondent to the average income premium for each graduation year in the cohort.
- The effect of this weighting was to lend more weight to the income premiums of graduates who attended multiple or “more intense” programs in calculating the overall average.
- For the IP effect, the intensity scores were used to weight the contributions to the average projects commercialized premium in the same way.

1.3 Survey response base

As described previously, an online survey to CFC alumni was a key source of data for the analytical process in this study. In order to promote the survey to alumni:

- Both Nordicity and the CFC emailed alumni directly and promoted the survey link on social media and in various newsletters;
- Program directors made direct, one-to-one appeals for alumni to participate;
- Nordicity ran a booth at the CFC’s annual barbecue in September 2014, at which it promoted a “slim” version of the survey along with volunteers.
- In the last weeks of the survey, a special prize was introduced: the chance for alumni who participated in the survey to win an Oculus Rift Developer Kit.

With regard to response rates, Nordicity collected usable responses¹² from:

¹² A usable response contains at least some project or income data.

- 251 CFC alumni out of a total universe of some 1453 graduates¹³ - a response rate of approximately 17%.

For the economic impacts reported later in this report, however, results were based on our Phase Two Cohort, i.e., graduates of CFC programs from 2008 to 2013. Within the Phase Two Cohort, Nordicity received responses from:

- 129 CFC alumni out of a total universe of 515 – leading to a response rate of approximately **25%**.

As such, the Phase Two Cohort (the target group) represented about half the total survey respondents. The rest of this section serves to further characterize the nature of both the full survey response base, and the Phase Two Cohort. For the most part, the results of these two (overlapping) samples are presented side by side.

Location of Graduates

For both the total survey response base and for the Phase Two cohort, approximately 90% of respondents were located in Canada, 7% in the US and 3% abroad. For the purposes of the economic impact analysis of the cohort, Nordicity estimates that 65% of graduates were based in Ontario. This share of Ontario-based graduates – 65% - is lower than the share used in the Phase One study – 76%.

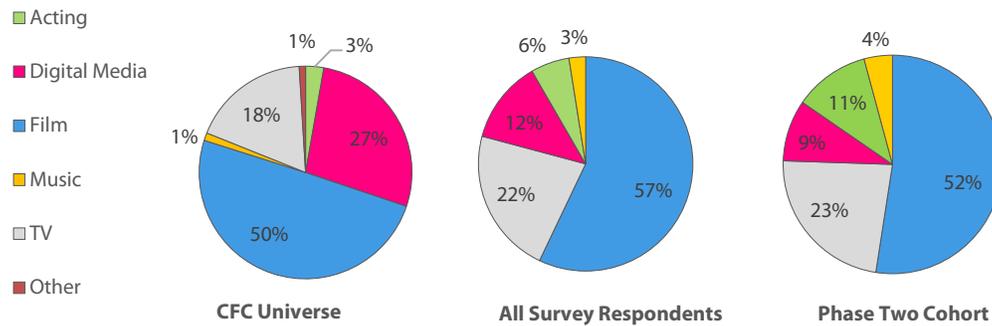
One factor in the fluctuation is that between 2008 and 2013, the CFC expanded its national reach and ran a number of BC-based initiatives which may have increased the number of non-Ontario-based graduates eligible to respond to the survey. As well, talent is highly mobile and many Ontario-based residents will go to wherever the work is located and so may find themselves temporarily reporting from Vancouver or Montreal. The drop in the share of Ontario-based residents will have had an impact on comparisons between the CFC's economic impact in Ontario, but the share of Canadian-based graduates overall was comparable between Phase One and Phase Two.

Program Type

The charts below show, at left, the CFC graduate universe by the type of program they attended. In the centre is the distribution of all survey respondents by type of program they attended and to the right is the chart for survey respondents within the Phase Two Cohort. For a breakdown of the specific CFC programs each program type comprises, please see appendix A.

¹³ CFC estimates some 1,700 *enrollments* since 1988 but Nordicity reduced this figure to account for return attendees who have completed more than one program at the CFC. As such 1453 relates to the individuals who have participated in a CFC program.

Figure 1: Responses by CFC program



Source: Nordicity survey to CFC graduates, 2014

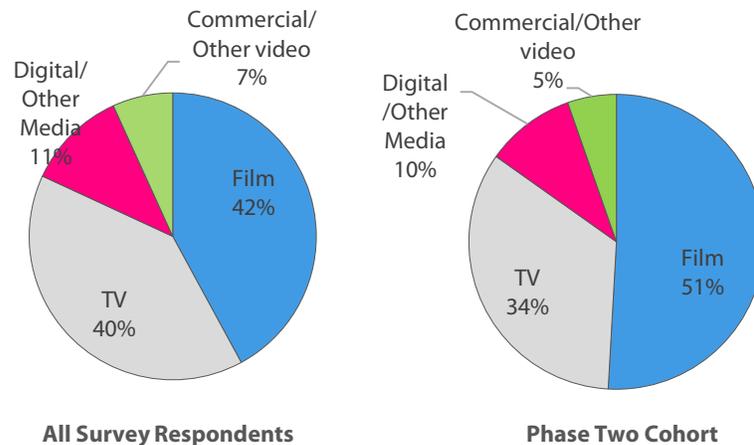
In the charts above one can see that:

- Digital media program graduates were slightly underrepresented within the survey sample.
- More than half of all survey respondents, and within the Phase Two Cohort, were graduates of one of the Film programs offered by the CFC (57% and 52% respectively).
- Music program graduates formed just 3% of the total survey response base but that is not unexpected given that the Slight Family Music Lab launched in 2012 and so has seen fewer graduates.
- At 11%, Acting program graduates constituted a higher share of Phase Two Cohort survey responses, possibly indicating growth in that program stream.

Primary Activities

The figure below shows the breakdown of survey respondents by their primary area of activity. This metric was constructed based on the number of weeks respondents reported working in each industry segment. As such, for the chart below a graduate's primary activity was defined as the medium in which he or she spends the most time working in a given year.

Figure 2: Responses by primary activity, based on weeks worked



Source: Nordicity survey to CFC graduates, 2014

Note that when reviewed alongside the CFC program distribution presented in Figure 1, a relatively higher share of CFC graduates reported television as their primary work area (as measured by weeks worked) than the share of television stream graduates in the sample:

- For all survey respondents, 40% reported working primarily in television vs. 22% having graduated from a television program.
- For the Phase Two Cohort, 34% reported working primarily in television vs. 23% having graduated from a television program.

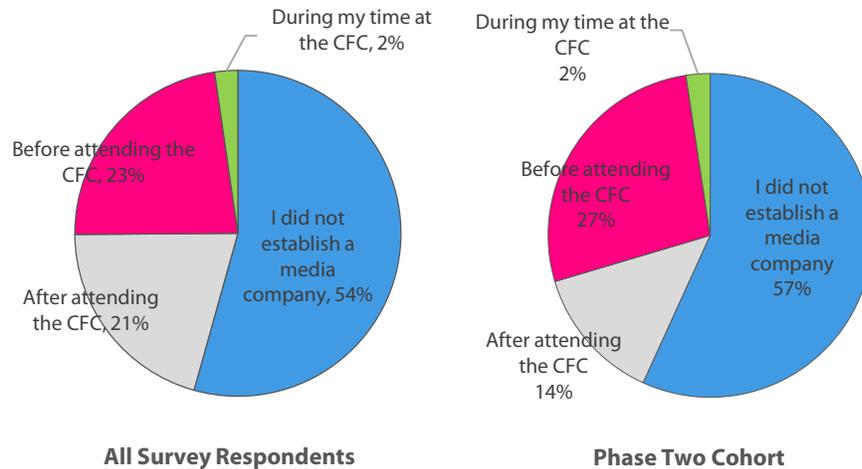
This result is likely due to the absorption of Acting and Music graduates into the Film and Television industry segments but it also reminds us to consider the multi-disciplinary reality for CFC graduates who may work across multiple media and industry segments in the course of their careers – whatever program stream they attended.

Company Founders

The survey to CFC alumni allowed respondents to respond as individuals but also on behalf of the companies they led, if applicable. The following figure provides a breakdown of all respondents and Phase Two Cohort survey respondents by whether they have established media companies, and if they did, at what stage (i.e., before, during or after having attended the CFC.)

Figure 3: Company formed, before during or after attending the CFC

“I established a media company....”



Source: Nordicity survey to CFC graduates, 2014

As the figures above show:

- Nearly half of all survey respondents, and within the Phase Two Cohort, have established a media company (46% and 43% respectively).
- A slightly higher share of respondents from within the Phase Two Cohort (27%) had already founded a company before entering the CFC, as compared to 23% of all survey respondents.
- Just 2% of all survey respondents, and within the Phase Two Cohort, founded a company *while* attending the CFC.

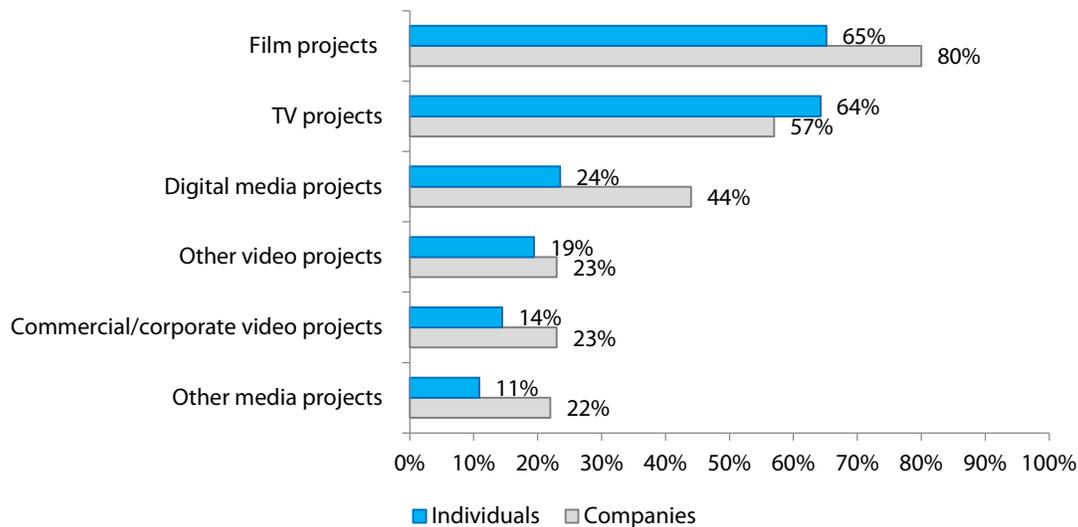
The CFC supports and provides a fertile environment for company acceleration and growth, and participants are increasingly entrepreneurial. As such, company development, business planning and investment strategy guidance have been integrated into the majority of the CFC’s program activities.

Primary Activities: Companies vs. Individuals

The following charts provide a breakdown of respondents’ involvement in media production activities at the company and individual levels for 2013.¹⁴ In other words, a graduate was counted as having been involved in a given media production activity if they reported even one project in that medium.

¹⁴ The individual results are, constructed from survey responses in which graduates described the time spent working in each production area. Those who responded on behalf of companies were also asked to indicate the media activities in which they were involved over the previous year.

Figure 4: Individual and company involvement in media production activities (all respondents)



Source: Nordicity survey to CFC graduates, 2014

**Will not sum to 100 as question option was “check all that apply” and so respondents could check multiple activities

In the chart above one can observe that, in 2013, CFC graduates:

- When describing their work as *individuals*, reported working primarily on film (65%) and TV (64%) projects over the past year;
- When describing their work at the helm of a *company*, the highest share (80%) of CFC graduates reported doing for film projects;
- CFC graduates engaged on digital media projects were more likely to do so at the helm of a company (44%) than as individual workers (24%);
- Company respondents were also slightly more likely to work on “other” projects whether other video (23%), commercials and corporate videos (23%) or other media (22%) as opposed to individual workers.

Survey Response Base - Conclusion

In summary, though digital media program graduates were slightly underrepresented within the survey sample, on the whole our survey response base is representative of the CFC’s participants, programs and activities. For our prime target respondents, the Phase Two Cohort, the response rate attained was **25%** of the total possible universe of graduates.

Insight Case Studies

Throughout this report, readers will find insight studies which show how attending the CFC supported and furthered the careers of graduates and led to the development and commercialization of projects, products and companies which have had tangible impacts on the economy. These insight studies are intended to showcase some of the talent behind the figures described in this report. The seven insight case studies found in this report are as follows:

- 1) Future-oriented, career-changing programming
- 2) The network effect
- 3) Inspiration at any career stage
- 4) The business of creativity and sustainability
- 5) Nurturing success at every stage from development to distribution
- 6) Advancing digital media entertainment companies to new heights
- 7) Entertainment moves to the valley

Insight Study 1: Future-oriented, career-changing programming

In the spring of 2012, the CFC announced the launch of The Slight Family Music Lab, completing – in the words of CEO Slawko Klymkiw - “the circle of integrated programs offered at the CFC.”

The Slight Music Residency is a creative and business initiative for composers and songwriters. The program focuses on the space where artistic expression, creative collaboration and current market demands overlap. The eight-month, part-time residency aims to integrate music creators into the onscreen process and elevate their careers in the process. It also supports business opportunities and connections which will lead to the increased use of Canadian music in film and TV globally. According to SOCAN, Canadian music composers for screens, both big and small, generated approximately \$100-million in domestic and international royalties for their music in TV and film in 2014.

Still in its nascency, the Slight Music Residency has already been described as one participant’s “biggest career-changer.”¹⁵ Todor Kobakov is a composer from the program’s inaugural year. Kobakov explains that while he was always busy professionally, the caliber and prestige of his workload has grown significantly since attending the CFC. Shortly after leaving the CFC, Kobakov scored Bruce McDonald’s 2013 feature *The Husband* and later, *Hellions*, which made its world premiere at Sundance. Kobakov also wrote the score for the hit TV series *Bitten* and was touted by *Playback* as one of Canada’s most cutting-edge sound artists.

The CFC helps to reinforce and retain Canadian talent

Kobakov also credits his participation in the program for helping him see that he could develop his career from Canada. He had been contemplating a move to LA in order to take his career to the next stage. Instead, through the residency, he was able to identify and set goals for the future which involved developing deeper relationships with Canadian talent, including his mentor Mychael Danna (the Oscar and Golden Globe-winning Canadian film composer for *Life of Pi*).

The CFC enables unparalleled access to industry leaders

Kobakov recalled a trip to LA led by the CFC during which every day was packed with meetings with top composers and filmmakers. He was astonished that he and his fellow residency participants were welcomed as industry peers rather than “tourists.” In these meetings, residents experienced rare and in-depth discussions with industry leaders about career goals, pitfalls and successes.

The CFC understands the multidisciplinary nature of the screen-based industries

Though a participant in the music program, Kobakov also enriched his education in filmmaking and television. From setting up shots to lighting considerations, the program explored the art of taking script to pictures. A direct impact or outcome of this education has been Kobakov’s ability to converse more effectively with filmmakers. He explains that there can be many communication barriers in creative collaborations. Because of the Slight Music Residency, he is better able to speak both a filmmaking and music language in order to communicate what is best for a given project. Kobakov describes the entertainment industry as “a tree with branches that are constantly evolving” and believes that the CFC excels at developing the musical talent that the screen industry needs.

2. Key Performance Indicators

In this section, we demonstrate first how attending the CFC altered the careers of its alumni by examining certain key performance indicators (KPIs). A reminder to readers that the majority of the results reported in this section are based on averages of all survey responses, that is to say from all alumni and thus were *not* limited to the Phase Two Cohort of graduates between 2008 and 2013. In contrast, the economic impact data, reported later in this document, was based on responses from the Phase Two Cohort.

The Music program results reported throughout this section are limited because just one year of Music program graduates were eligible to participate in the survey. As such, other supporting material has been provided to shed light on the post-CFC careers of Music program graduates.

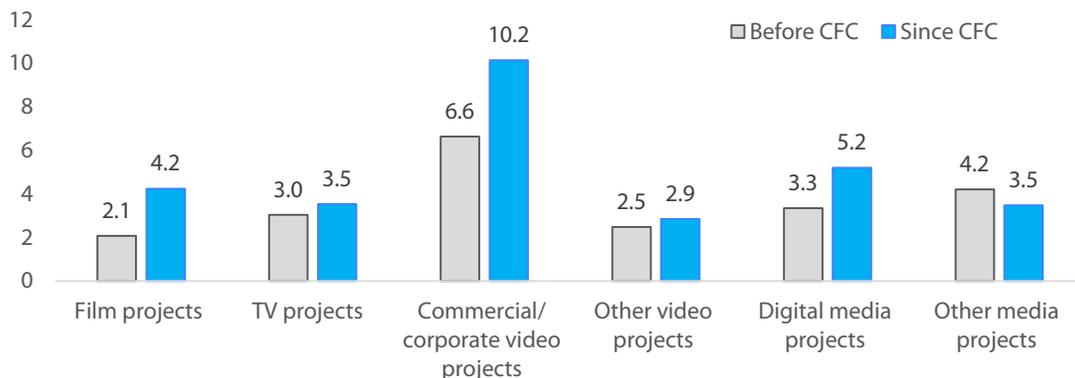
2.1 Human capital KPIs

This section reviews how the productivity, earnings and careers of CFC graduates have been affected as compared to before their time there, based on responses to the *Nordicity survey to CFC graduates, 2014*. In this section, these impacts, or KPIs, were assessed as they related to individual graduates.

Number of Projects

The following chart provides a breakdown of the average number of projects completed per year by graduates before and since their time at the CFC.

Figure 5: Average number of projects per year before and since attending the CFC – all graduates



Source: Nordicity survey to CFC graduates, 2014

In the chart above one can observe that:

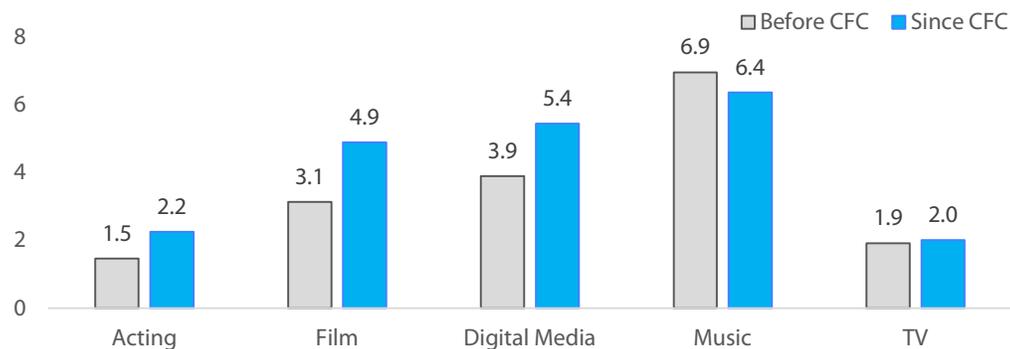
- In all but one type of media activity, the average number of projects undertaken by respondents per year increased since graduating from the CFC.

¹⁵ Playback Online, June 22, 2012. Retrieved from: <http://playbackonline.ca/2014/10/16/the-new-establishment-todor-kobakov/#ixzz3GWbU7I1b>

- The growth was particularly striking in film, where the average number of projects doubled, from 2.1 to 4.2.
- The average number of digital media project undertaken per year increased from about three projects (3.3) to just over five (5.2) per year.
- Commercial/corporate video projects and digital media projects also increased by greater than 50%, post-CFC.

While the chart above shows the average number of projects by media *type*, the chart below relates the average number of projects in total completed by respondents, before and since they attended the CFC and according to the CFC program they attended.

Figure 6 Average number of projects per year, before and since attending the CFC (by program)



Source: Nordicity survey to CFC graduates, 2014

For most categories, the average number of projects per year since attending the CFC increases among survey respondents.

- On average, graduates of film programs work on nearly 60% more projects per year post-graduation.

However, it is important to remember that this figure represents only an average count of projects. A greater count of projects, while positive, is somewhat limiting. It does not recognize those alumni who are working on fewer, but higher budget (and higher quality) productions and whose roles and responsibilities may have increased from “supporting” to higher capacity/leadership roles. For example, while music program graduates experienced a decrease in their average projects per year after graduation, individual follow-ups with inaugural alumni (including Todor Kobakov, featured above) show that careers have been enhanced significantly:

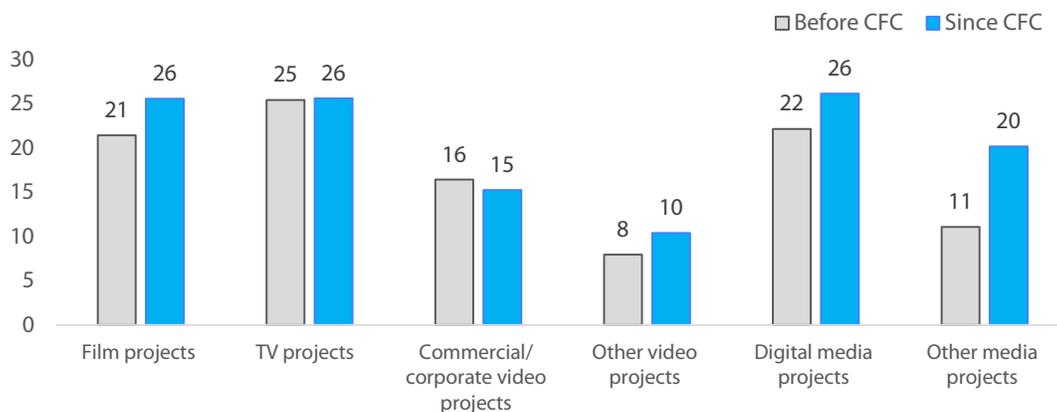
- Inaugural alumni Jeff Morrow, was nominated for a 2015 Canadian Screen Award for Achievement in Music – Original Score for his first feature film score for *Cast No Shadow*
- Joseph Murray and Lodewijk Vos of *Menalon* (2013), scored five films that premiered at the 2014 Toronto International Film Festival and released a new album in January 2015

In other words, while the number of projects is one indicator of alumni success, there are other important dimensions to consider alongside this result.

Weeks of Work

The following chart provides a breakdown of the average number of weeks worked per year by CFC graduates – according to the type of project - before and since their time at the CFC. In other words, regardless of what program the respondent attended. While not always the case, increasingly, CFC graduates work in an inter-disciplinary fashion, across multiple project types/formats experimenting with new forms of content creation and distribution (e.g., web-series).

Figure 7: Average number of weeks worked per year by project type (all graduates)



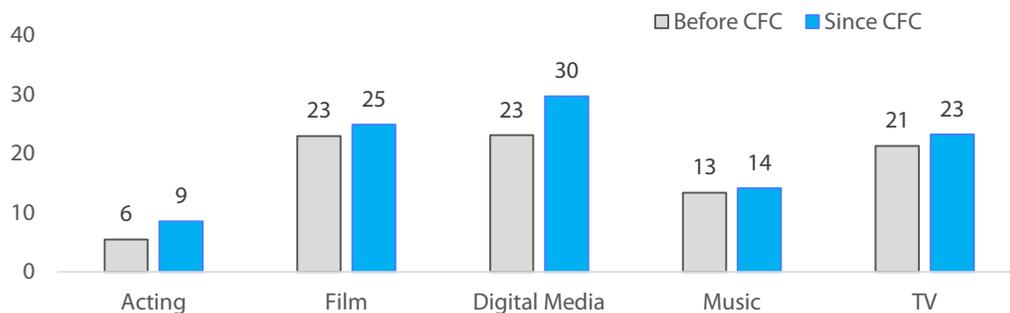
Source: Nordicity survey to CFC graduates, 2014

On the whole, respondents reported that the average number of weeks worked per year tended to increase after attending the CFC:

- Of particular note is the roughly one quarter increase in weeks worked on film and digital media projects relative to their pre-CFC values.
- The almost twofold increase in weeks worked on Other Media projects after graduation which may suggest an issue of categorization (e.g., some of those weeks may be better attributed to digital media projects).
- Survey respondents only reported decreases in time worked on Commercial/Corporate video projects post-CFC.

While the chart above related weeks worked to media *type*, the chart below relates the average number of total weeks worked per year (across all/any type of project) according to the CFC program category the survey respondent attended- prior to and since their time at the CFC.

Figure 8 Average number of weeks worked per year, before and since attending the CFC (by Program)



Source: Nordicity survey to CFC graduates, 2014

- Graduates in all program categories reported at least slight increases in their annual number of weeks worked after attending the CFC.
- The greatest increase was reported by digital media program graduates, who worked on average 1.3 times more weeks since graduating from the CFC than they did before enrolment.

Career sustainability can be highly elusive in the creative and media industries, yet in this volatile field, about three in four graduates (78%) ranked their employment stability as “moderate” or “high” since having completed their training at the CFC.¹⁶

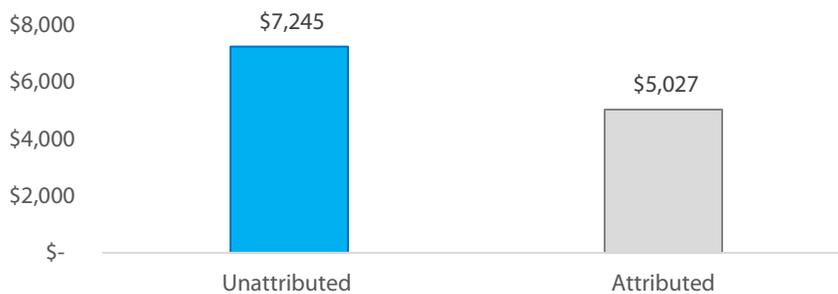
Income

The following chart shows the average per-year income premium earned by survey respondents who graduated between 2008 and 2012.¹⁷ The matriculation year 2013 is omitted due to a relative lack of data (i.e., the results presented are for matriculation years 2008-2012, but including work done in 2013).

¹⁶ Respondents could select one of: High: employed in your desired career, stable income; Moderate: employed or few periods of unemployment, relatively stable flow of work; Low: unemployed or frequent periods of low or no freelance/part-time/full-time work.

¹⁷ I.e. graduates’ income in the most recent fiscal year less their income prior to attending the CFC divided by the number of years since graduation.

Figure 9: Average per-year income premium (unattributed and attributed)



Source: Nordicity survey to CFC graduates, 2014

According to the chart above, the total unattributed yearly income premium for all Phase 2 Cohort graduates was **\$7,245**. This figure is the boost in earnings graduates experienced on an annual basis after attending the CFC. In order to tabulate the economic impact of the CFC, however, we needed to take into account the share or portion of that premium that could be directly attributed to the CFC. This tabulation is based on survey responses and, when adjusted, this total yearly *attributed* premium is just over **\$5,027**. In other words, graduates attribute nearly 70% of their income boost directly to the CFC.

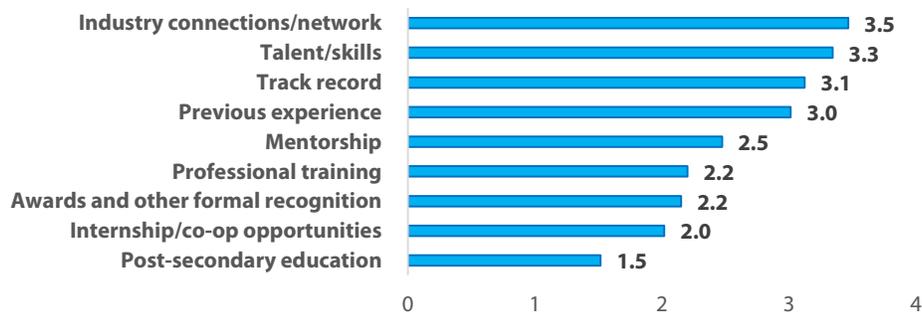
Insight Study 2: The network effect

The strength of both the CFC’s network, but also the relationships among alumni, is vital to project and product development in a network-oriented business.

The CFC enables unparalleled access to national and international industry leaders, investors, mentors and talent which leads to a measurable “Network Effect.” For example, when asked, “*What percentage of the projects you’ve worked on since attending the CFC have included one or more other CFC graduates, mentors, consultants, or guests?*” survey respondents reported that on average, **49%** of projects included at least one other CFC graduate. In addition some **83%** of respondents indicated working on at least one project with a fellow graduate since completing his or her program.

When asked, “*To what degree did knowing other CFC graduates (or instructors) help you get access to the projects you’ve worked on since attending the CFC?*” Survey respondents could choose from a range between “It had no impact whatsoever” and “It was the only reason I could have gained access.” Fully **80%** of all respondents indicated that the CFC network had *at least some impact* on their ability to access new projects with **19%** suggesting that attending the CFC was the only reason they could have gained access.

The following chart displays the breakdown of factors important to obtaining *desirable* work as rated by survey respondents. In other words, for each factor, respondents were asked to provide a rating between zero (‘no importance’) and four (‘of paramount importance’).



Source: Nordicity survey to CFC graduates, 2014

According to CFC graduates, industry connections and network are the most important factors in one’s career success, slightly ahead of even “talent/skills.” Consultations with CFC alumni revealed a shared sense that having attended the CFC represented a threshold of talent and a stamp of approval from an institution that demands excellence and this stamp was enormously beneficial to building a career in the industry. For graduates who are now themselves in hiring positions, one explained, “Somebody who has gone through [the CFC] will speak the same language, having had the same experience. [The CFC] instills a kind of standard of excellence for collaborating that is appealing to people in the industry.”

For one graduate of the IDEABOOST program, “the knowledge that comes from being in the CFC network is still the greatest value to me and helps me prepare for the future.” According to another successful graduate, “The industry is only as good as the quality of talent that is making it” and suggests this is why the CFC is such a well-respected node in the media and entertainment industry. He goes on to say that, “It is rare to come out of an experience and to have an emotional relationship with a school, and yet many graduates do with the CFC.”

2.2 Intellectual Property KPIs

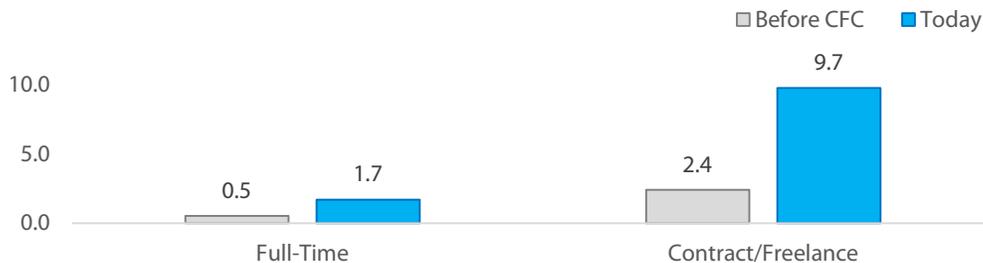
In this section, we begin by looking at KPIs related to the companies which have either been a) formed by CFC graduates, or b) accelerated as part of a media lab or IdeaBOOST cohort. Again, these results were based on all survey respondents and not limited to the Phase Two Cohort.

Previously, Nordicity examined how attending the CFC created an impact on the careers of its individual alumni. In this section the team examined survey respondents' *company* data to understand key performance indicators from a company or IP perspective. The following charts represent data solely from those respondents who reported starting a company before, during or after their time at the CFC. One point of context for this section is that the analysis counts activity (e.g., employment, number of projects) at companies founded during or after the CFC as having no prior employees.

Employment

The following chart provides a breakdown of the average number of full-time workers employed by survey respondents' companies (of all types) before and after those respondents attended the CFC.

Figure 10: Average annual company employment before the CFC vs. Today (by type of employment)



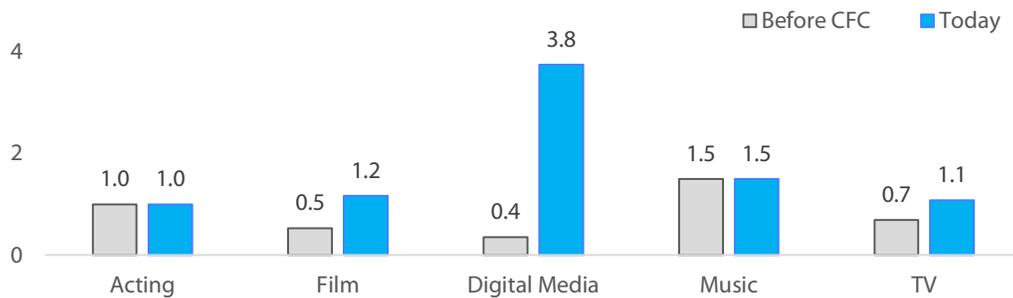
Source: Nordicity survey to CFC graduates, 2014

Overall, there was a noted increase in both full-time and part-time employees after graduation from the CFC for companies established by CFC graduates. In particular:

- Full-time employment at companies established by CFC graduates today is on average more than three times its pre-enrolment level;
- Contract and freelance employment today is nearly four times its pre-CFC level, which may be related to production, or the nature of working for start-ups and other growth-oriented companies.

The chart below relates the average annual number of full-time employees at companies before and since the CFC, according to the program attended by the survey respondent.

Figure 11: Average number of full time employees at companies founded by CFC graduates (by program attended)



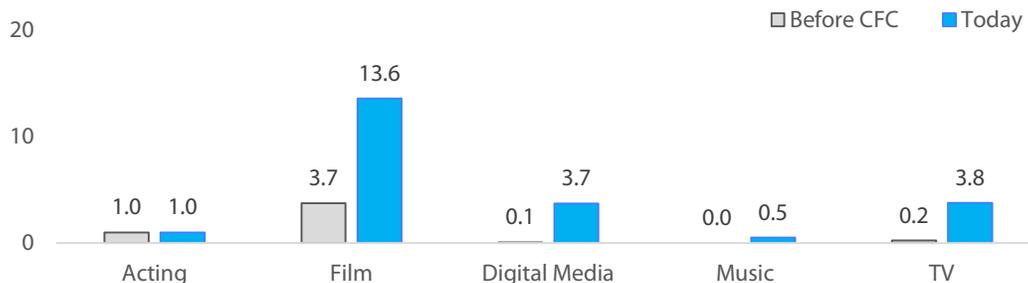
Source: Nordicity survey to CFC graduates, 2014

In the chart above one can see that for those CFC graduates who reported starting a company before, during or after the CFC:

- Graduates of digital media programs' companies experienced the greatest growth in full-time employees, increasing to nearly 10 times their pre-CFC level.
- Film program graduates' companies also saw more than 100% growth.
- For Music graduates it is likely be too early to observe the CFC's impact, again due to the early stage of the program and the small sample of graduates eligible to participate in the survey.

The chart below relates the average annual number of contract and freelance employees at companies before and since the CFC, according to the program attended by the survey respondent.

Figure 12: Average number of part-time/contract employees at companies founded by CFC graduates (by program attended)



Source: Nordicity survey to CFC graduates, 2014

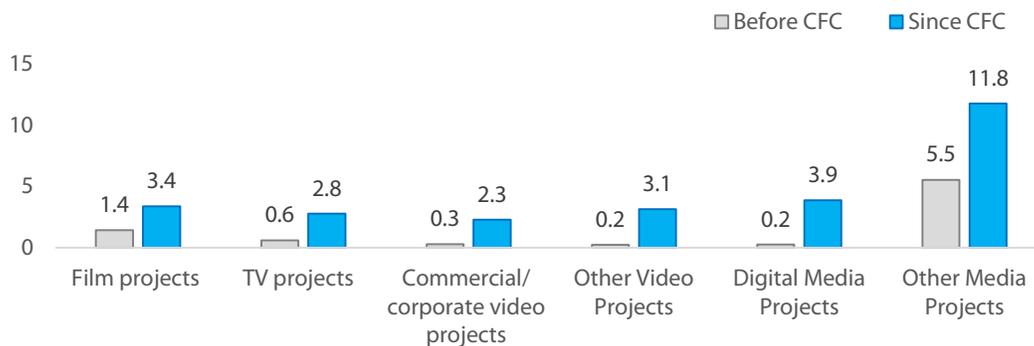
In the chart above one can see that the employment of contract and freelance workers grew at companies founded by graduates of all programs, but most notably for those led by graduates of Film programs, whose companies' employment of such workers grew on average to more than three times their pre-CFC levels.

For both of the results presented above, it is important to note that though companies are regularly formed as a result of their activities, the TV, Acting and Music programs are not designed primarily for this purpose (i.e., to form companies which go on to employ screen-based workers). Typically, the talent emerging from those programs would be themselves hired to join other production companies, for example.

Projects

The following chart provides a breakdown of the average number of projects in development per year for survey respondents' companies before and since those respondents attended the CFC (this chart is not analyzed on a program-basis, instead it shows the type of project in development and so also captures crossover activities).¹⁸

Figure 13: Average annual projects in development before and since the CFC by type of project



Source: Nordicity survey to CFC graduates, 2014

As one can see in the chart above:

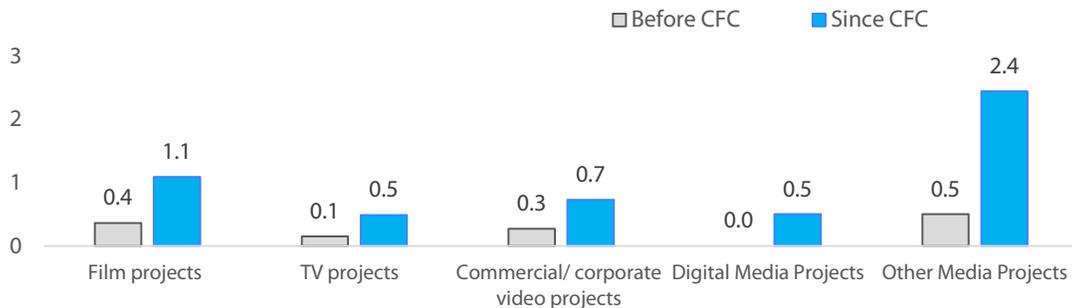
- The number of projects in development increases across all types of projects.
- On average, the number of Film projects more than doubles, from approximately 1.4 projects in development per year pre-CFC, to, 3.4 projects in development since the CFC.
- Film and Other Media projects aside, however, the growth in number of projects “in development” stems from a very low base, suggesting little development activity before the CFC.

The chart below provides a breakdown of the annual average number of projects commercialized by survey respondents' companies before and since the survey respondent attended the CFC (this chart

¹⁸ In this context "develop" referred to pre-production activities prior to greenlighting (for Film, TV and Other Video projects) and/or the development of a prototype/alpha build (for Digital Media projects)

is not analyzed on a program-basis, instead it shows the type of project in development and so also captures crossover activities).¹⁹

Figure 14: Average annual projects commercialized before and since the CFC by type of project



Source: Nordicity survey to CFC graduates, 2014

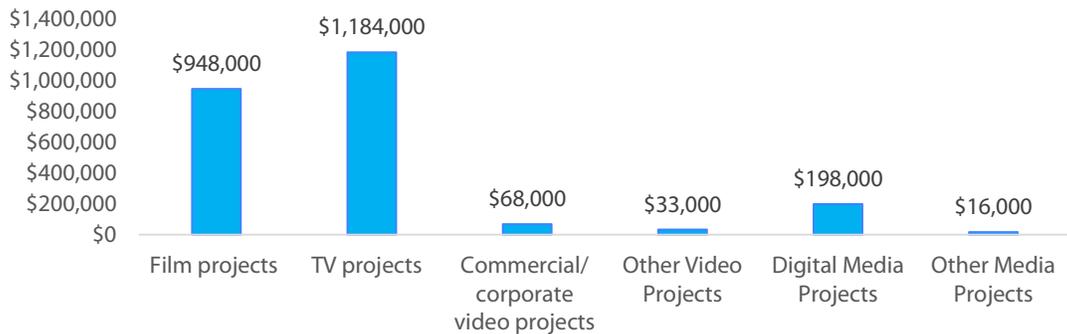
As one can see in the chart above, the number of projects commercialized increases across all types of projects, resulting in an average of:

- More than one (1.1) Film project commercialized per year since the CFC; and
- Two or more (2.4) Other Media projects commercialized since the CFC.

Project Budgets

The chart below provides a breakdown of average production budgets for the commercialized projects of CFC graduate companies. The averages given are calculated for all survey respondents who reported starting a company before, during or after having attended the CFC.

Figure 15: Average production budget for commercialized projects (by type of project, all companies)



Source: Nordicity survey to CFC graduates, 2014

¹⁹ In this context "commercialize" refers to pre-sales, bringing to market, or licensing a given product.

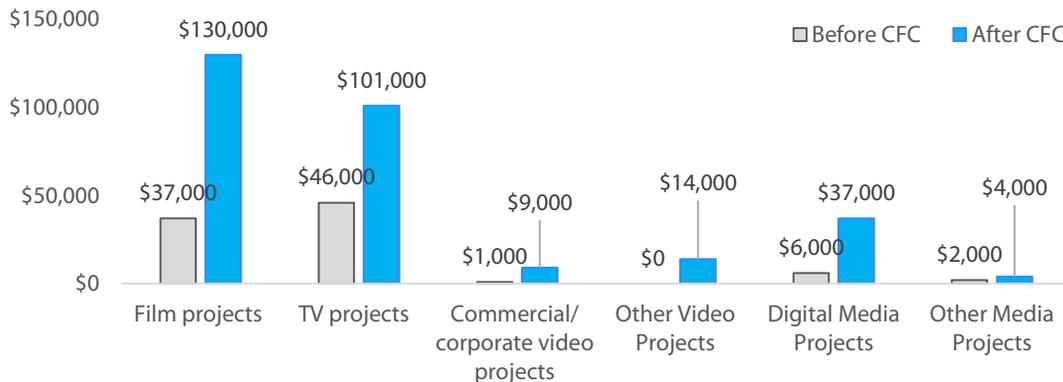
From the chart above one can make the following observations:

- TV projects tend to have the greatest average production budgets, at \$1,184,000.
- The overall average for film production budgets was \$948,000. Within this average, however, was a broad range of film budgets. About half of the films actually had a budget below \$500,000 but about 10% were \$3 million or higher. The greatest reported budget was \$5.6 million. For context, the average budget for Canadian theatrical fiction feature films in 2012/13, was \$4 million.²⁰
- In Profile 2013, the average project budget for a “convergent digital media production” is described as \$134,000, less than the \$198,000 average budget for a Digital Media project reported above.²¹

Project Revenue

For survey respondents who reported results on behalf of a company, average revenue derived from projects increased across all types of projects as compared to before the CFC.

Figure 16 Average gross company revenue generated from projects (by project type)



Source: Nordicity survey to CFC graduates, 2014

²⁰ Profile 2014 - The average budget for English-language theatrical fiction feature films was \$4.6 million, compared to \$3 million for French language theatrical fiction feature films.

²¹ Convergent digital media production comprises screen-based content and applications for digital media platforms (e.g., video games, interactive web content, on-demand content, podcasts, webisodes, and mobisodes).

Insight Study 3: Inspiration at any career stage

For one award-winning writer, the CFC was a direct path into a new world of storytelling and creative collaboration. For one highly successful alumnus, coming back to the CFC as a mentor resulted in new creative productivity.

The career pivot

Despite recognition from the Giller Prize and the Governor General Awards, after 14 years working as a freelance fiction writer and journalist, Lynn Coady was in need of new challenges. As for many writers, teaching, not writing, was paying the rent and she felt herself in a rut. Then, she explains, she found out about the CFC Bell Media Prime Time TV Program. The transition to writing for TV was one she had contemplated for years, but never knew how to initiate. Looking into the CFC in more detail, the program seemed tailor made for her and her career goals.

After her first interview, Coady describes feeling “total conviction” that the CFC was the right step for her. The CFC was just the professional intervention she needed at this stage in her career. That meant understanding the industry itself, from the economics to the lingo. While Coady had outstanding editorial experience, what she needed was, “a sense of writers’ room dynamics, professional dynamics, and that mass collaboration experience.” Through the CFC, Coady was not only able to test the television writing environment, but also her own skills within it. She explains, “It was understood that this was a program for professionals, taught by professionals, to professional standards.”

Since graduating from the CFC, Coady has worked on the Emmy-nominated *Orphan Black* as a Junior Story Editor. She is now writing for a series airing on HBO Canada and has a one hour crime drama in development with Bell.

The mentor

A graduate of two CFC programs in the late 1990s, Michael MacLennan has been in near constant demand as a writer and showrunner over the course of his career. From his early success writing for *Anne of Green Gables* and *The Wind at My Back*, through to *Queer as Folk* - in 2013 he wrapped the series he co-created, show-ran and wrote, the award-winning *Bomb Girls*.

His appreciation for the CFC compelled him to agree to being a mentor, but what surprised him was how rewarding and inspiring the experience turned out to be. A crucial component for MacLennan was that his investment as an educator not land “on dry ground.” He describes pouring his heart into teaching and believes that the CFC successfully attracts the best possible talent to its programs. As a mentor, he sensed that the people he was teaching stood a greater chance of, both doing something with the knowledge and skills they acquired at the CFC and actively contributing to his own creative knowledge in the process.

MacLennan has first-hand knowledge of the learning experience at the CFC and recognized and appreciated that everything about the program was designed to help him succeed in the industry. He recognizes that teaching individuals to become writers is not the CFC’s prime focus – it is expected that a degree of talent and experience is present *before* one is accepted. The time spent at the CFC is about honing one’s craft and learning the habits of successful people in the industry.

For MacLennan it has become impossible to envision the Canadian entertainment business without the CFC. In his view it is the primary contributor to the current health of Canada’s \$2.29 billion television industry (*Profile 2014*) and the high quality of Canadian TV content we now enjoy - stemming from the values and ethos of founder Norman Jewison and the respect of those who construct and amplify participants’ learning experiences.

3. Human Capital Effect

The human capital effect refers to increased employment and income experienced by CFC graduates on account of the skills development that arises from the training and hands-on experience they gain from the CFC. While in Section 2.1 we provided several KPIs that measure this human capital effect this section presents an analysis of how the human capital effect experienced by CFC graduates impacts the Ontario economy. In particular, Nordicity analyzed the economic activity associated with human capital effect experienced by CFC graduates for the years, 2008 through 2013 (our Phase Two Cohort). The analysis focuses on how these graduates realized an income premium and what that income premium means for the Ontario economy.

Company-level activity will be covered in the next section (Section 4), “Intellectual Property Impact.”

Career Sustainability in the Creative Industries: Key Considerations

The creative industries, and the film business in particular, are high-risk, highly-competitive, uncertain and insecure. In *Careers in Creative Industries*, Chris Mathieu describes uncertainty as a “perennial condition” for work in the creative industries because of: 1) competition; 2) economic fluctuations; 3) the collective nature of production processes; and 4) the opacity of many judgment and decision-making processes. Similarly, Pierre-Michel Menger has observed that for creative industry workers, “Uncertainty plays a major role not only during the early part of a career but also through the whole span of the professional lifetime.” And, at a Research and Policymaking for Film Symposium held by NESTA in 2011, attendees described the creative career progression as one that “does not follow a straight line” or the “ladder of opportunity” and instead it is an irregular, ‘feast or famine’ practice where periods of intensive work are followed by periods of no work.

In recognition of these realities, one of the CFC’s core areas of focus is to support *sustainable* careers for its graduates. For example, in 2011, the CFC created a new role, “Executive in Charge of Project Development, Marketplace & Packaging” to enable its participants to have a greater understanding of the marketplace and to be able to elevate and extend the reach of their projects. Such work includes developing necessary entrepreneurial skills, key international networks and understanding new forms of monetization, business models, distribution and marketing. This work is intended to help both elevate the careers of CFC’s graduates and also to accelerate the pace at which work is being green-lit. The efforts so far, seem to have paid off, with the CFC reporting that where it used to take a graduate up to five years after graduation to make and release their first feature film, this time frame is dropping, on average to three years.

3.1 Percentage change in predicted earnings

Nordicity also analyzed the CFC’s human capital effect by tracking how Phase Two Cohort’s (2008-13 graduates) incomes changed relative to pre-enrolment levels based on data collected from IMDb’s professional edition database, IMDb Pro.²² To do so, the project team:

- Obtained wage rates from the National Occupation Classification System (NOCS).
- Collected data on the amount of time CFC graduates worked from IMDb.
- Estimated income using known wage rates and the amount of time graduates worked in a given year.²³

There are some limitations to the data gathered from IMDb. In particular:

- **Date Limitations:** A project’s production year as listed on IMDb may not be the year in which the majority of work was undertaken and other information is not always up to date. In addition, the running time of a given film or television episode do not reflect the amount of time spent working on the project or other ancillary earning sources such as distribution deals;
- **Digital Media Limitations:** IMDb data are composed of Film- and Television-related projects and do not capture other work completed in, for example, digital media, non-traditional forms of distribution such as web-series, commercial or corporate work. Neither will IMDb consistently capture corporate and development roles such as Development Executive;
- **Development Limitations:** As well, projects which are in *development*, which can represent significant credits and annual income for CFC graduates (and particularly graduates in Film and Television), are unlikely to be captured on IMDb until an official release date has been set for a given production.²⁴

Nevertheless, IMDb does provide detailed information about our sample and as such our income measures have captured a snapshot of graduates’ productivity levels before and after the CFC, and thus help serve to illustrate the human capital effect. For one, an individual’s on-screen minutes as reported by IMDb are tied to the number of credits they earn. The NOCS wage rates also ensure that different production roles are weighted according to their importance to the project (e.g. directors receive more weight than directors’ assistants). For more information on the how predicted earnings and matriculation year were determined, please see Appendix A.

The following five figures estimate the path of 2008-13 CFC graduates’ earnings before and after attending their first CFC program. From this point on in Section 3.1, the words “earnings,” and “income” refer to estimates of graduates’ compensation levels. The figures are organized in the following manner:

²² IMDb Pro is an edition of the Internet Movie Database that provides additional contact and credit information for entertainment industry professionals. From here on we refer to IMDb Pro simply as “IMDb.”

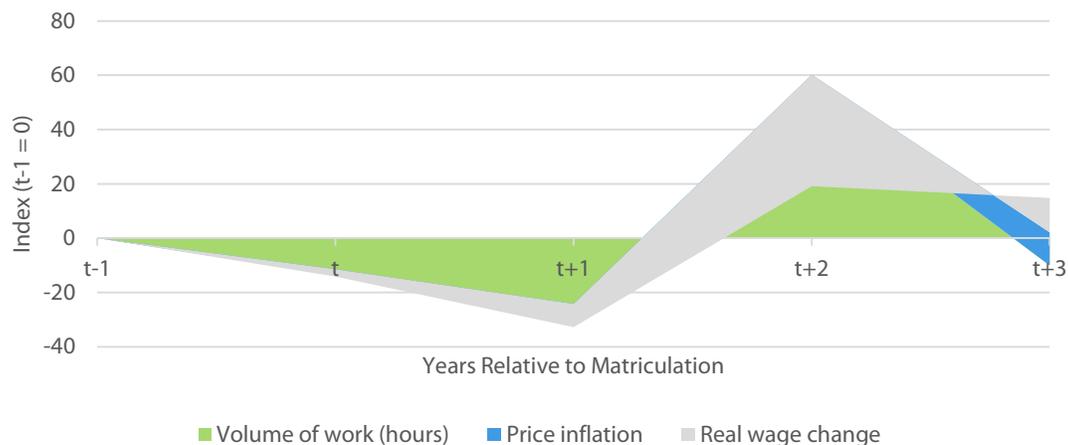
²³ Data were not available on the annual salaries earned by CFC graduates.

²⁴ With the possible exception of very high profile projects which are occasionally listed as “in development.”

- On the horizontal axis, “t” represents an individual’s matriculation year. “t+1” thus represents the year immediately after graduation, and so on.
- Earnings are indexed such that an individual’s estimated annual compensation is equal to 0 in the year immediately prior to matriculation. As such, the vertical axes show the percentage change in estimated annual income relative to pre-CFC levels.
- The proportion of the change in income resulting from variation in the number of hours worked (i.e., the “volume effect”) are shown in **Green**. **Blue** represents the fraction of the income change impacted by inflation, and **Grey** illustrates the portion of the change in income attributable to changes in graduates’ real wages.
- The changes in Phase Two Cohort earnings presented below are the sum of the real wage, volume, and price inflation effects.²⁵

The figure below illustrates the post-graduation earnings progression of all CFC alumni in the Phase Two Cohort sample collected from IMDB:

Figure 17: Index of change in all graduate earnings (year prior to matriculation = 0)



Source: Nordicity calculations based on IMDB data

One can observe three overall findings in the figure above:

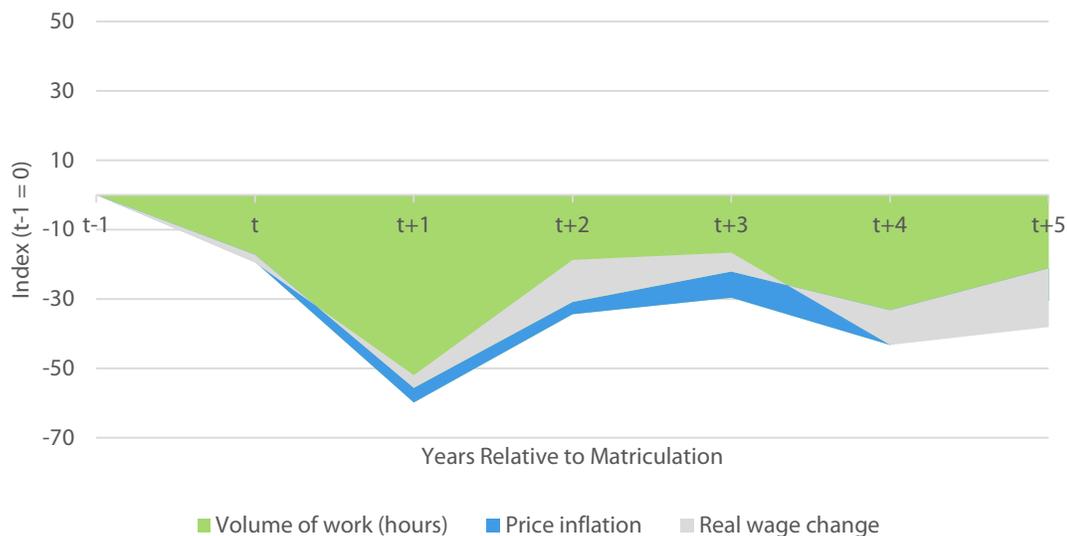
- **While attending the CFC**, on average, all graduates experience a **decrease** in earnings;
- **The pre-enrolment income level** is reached about **1.5 years** after graduation, and

²⁵ Nordicity divided CFC programs into five broad program categories – acting, film, digital media, music and TV – in the final economic impact assessment. Percentage changes in income were computed for the entire sample of graduates and for every category but music, which was excluded due to a lack of available data. The specific CFC programs that comprise each category are summarized in Appendix A

- **Peak income** follows shortly thereafter, approximately **two** years after program completion and slightly decreases thereafter.

The figure below shows the earning trajectory of CFC film program graduates in the IMDb sample.

Figure 18: Index of change in film program graduate earnings (year prior to matriculation = 0)



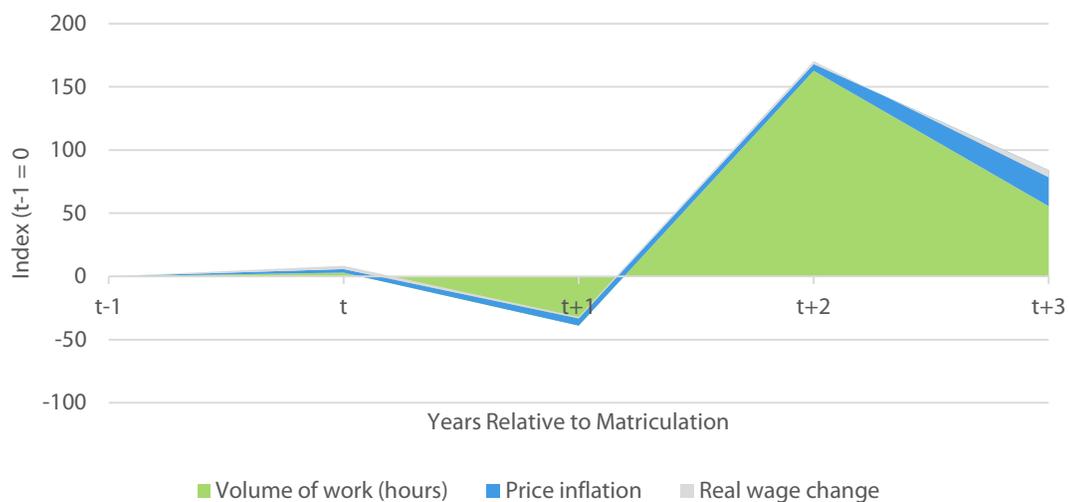
Source: Nordicity calculations based on IMDb data

Unlike graduates of other program types, film program graduates appeared to earn relatively less than their pre-CFC earnings level in all years observed after matriculation on IMDb. Possible explanations for this trend include:

- The gap in capturing work for some roles (writers in particular), which falls under the umbrella of development. Credits which are “in development” can represent a significant career for writers in particular, though production may not occur for some years. Conversely, some producers who are not “for hire” may take longer to generate the opportunities and assemble the productions which are, in turn, employing Canadian talent;
- A trend the CFC reported observing closely - the increasing share of its graduates in both film and television who are working on the *business side* of production, rather than as the creative lead of a production. For example, one recent CFC film program graduate is currently the Director of Development and Production at a top Canadian company which is a highly successful role with strong career sustainability but one that would *not* be captured by IMDb;
- The fact that some film program graduates have attempted to circumvent film’s long development lifecycle by experimenting in web series and short digital productions (while they nurture their feature towards completion) –domains not documented in IMDb;
- The unpredictable, “feast or famine” nature of film industry career trajectories described at the top of this section.

The following figure shows the earnings of CFC Acting program graduates in the IMDb sample.

Figure 19: Index of change in acting graduate earnings (year prior to matriculation = 0)



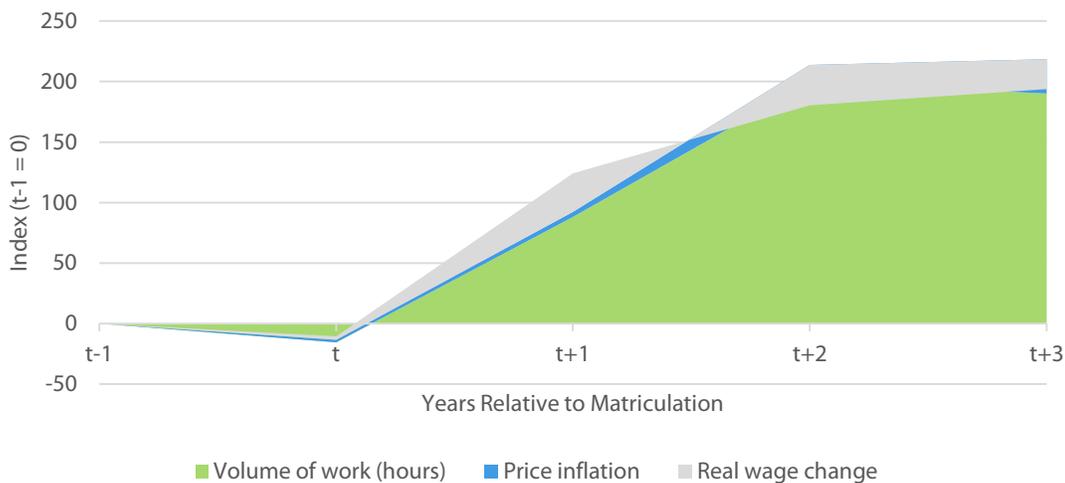
Source: Nordicity calculations based on IMDb data

Three trends were identified in the figure above:

- **While attending the CFC**, annual incomes for Acting program graduates **increase slightly** and then drop in the first year post-graduation - though this may relate more to IMDb's release dates, rather than the year the work took place;
- **The pre-enrolment income level** is reached approximately **1.2 years** after graduation; and
- **Peak income** occurs about **two years** after graduation and slightly decreases thereafter.

The figure below tracks the progression of CFC television program graduates' annual earnings, based on the data collected from the IMDb.

Figure 20: Index of change in television program graduate earnings (year prior to matriculation = 0)



Source: Nordicity calculations based on IMDb data

One can observe the following three trends for television program graduates:

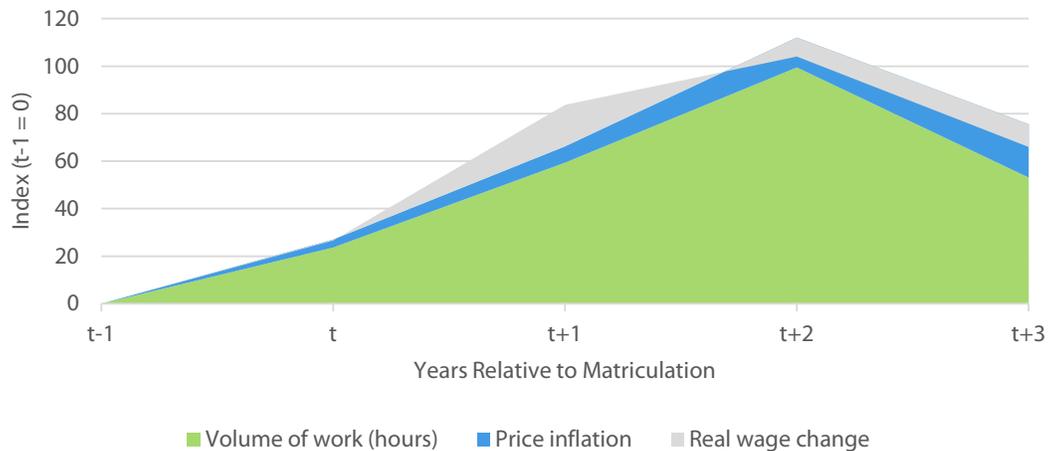
- **While attending the CFC, earnings decrease;**
- **The pre-enrolment income** level is earned **before one year** after graduation, and
- **Earnings continue to rise** more than two years post-matriculation, but at a slower rate than they did before two years.

The chart above, in many ways, demonstrates the very different nature of careers in the Canadian film industry vs. the Canadian television industry – particularly with regards to sustainability. In television, there is a more steady schedule and employer, on a series for example, as opposed to the more piecework nature of film projects.

The figure below illustrates the progression of CFC digital media program graduates' film and TV earnings, based on the IMDb sample.²⁶

²⁶ IMDb only publishes information on individuals' production minutes on Film- and Television-related projects. As such these data may not be representative of the full spectrum of work done by graduates of digital media-related CFC programs in their early careers.

Figure 21: Index of change in digital media program graduate Film and TV earnings (year prior to matriculation = 0)



Source: Nordicity calculations based on IMDb data

Four trends were identified:

- **Digital media program graduates' earnings from film and television increase the most** relative to the other categories, but the boost may be exaggerated because of how little film and television work may have been occurring prior to enrolment;
- **While attending the CFC, annual income from film and television activities increases;**
- **Income is above the pre-enrolment level** for all years after graduation; and
- **Earnings peak** approximately **two** years post-graduation, and then decrease at a slower rate than they increased.

The increase in the figure above suggests that digital media program attendees are, perhaps as a direct result of their program at the CFC, being exposed to more opportunities to work in film and television than before they enrolled in the program.

Overall, based on IMDb data for the Phase Two cohort, it would suggest that attaining career sustainability is more of a challenge for CFC film program graduates than it is for other program graduates, and particularly television. Film graduates – particularly producers - are very often generating the activities and the productions that hire a broad range of screen-based talent. This environment is one that the CFC is monitoring with keen focus, in particular so that its film graduates can seize opportunities to leverage their content and IP in the global marketplace.

Insight Study 4: The Business of Creativity and Sustainability

Graduates of the CFC Producers', Editors' and Directors' Labs are finding innovative ways to balance their passion for content creation, desire for creative control and the industry's demands, in order to achieve career sustainability.

"The system is starting to crumble" explains **Laura Perlmutter**, *Producers' Lab* graduate as she reflects on the changes which have taken place this past year including threats to the tax credits in Nova Scotia and Saskatchewan, the outcome of the CRTC hearings and funding shifts at the OMDC, Telefilm and National Film Board. She is in the third year of her company, First Love Films, with partner Andrew Nicholas McCann Smith "We have to be adaptable and ready to try new things in order to help us project where the market is going. We're looking at private investment for a slate of projects, rather than one-offs. We're exploring different formats such as web series. We're thinking internationally. We're looking at merchandising. It's all about how we can adapt, how we can continue to grow and be sustainable." Indeed, First Love Films is experiencing some incredible success with *Riftworld Chronicles*, picked up by CBC PUNCHLINE, an online comedy channel, after the trailer received millions of views online and a successful crowdfunding campaign. Perlmutter credits her CFC experience for providing her the time to "change [her] framework of understanding about the film world" and understanding the importance of strategic partnerships which have been crucial to her company's success.

For *Directors' Lab* graduate and award-winner, **Stephen Dunn**, the CFC directly accelerated his ability to reach and exceed his professional career goals. At the top of the list? Getting his feature film *Closet Monster* into development (Dunn's short *Life Doesn't Frighten Me* was a breakout success at the TIFF and Tribeca Film Festivals). Dunn wrote the second draft of the *Closet Monster* script halfway through the program, completed it before graduating and, just after, signed a deal with Niv Fichman at Rhombus Media. One year later they were in production. The film was shot during the summer of 2014 with a \$2 million budget and stars Connor Jessup and Isabella Rossellini. Since then Dunn hasn't slowed down at all. He says being a director is highly competitive and he still needs to "fight for it." He had three short films screening at the Sundance Film Festival in 2015. Dunn explains that the CFC gave him everything he needed professionally, saying, "There isn't a code to crack that will make everything easier but the CFC provides a six month program which is about integrating business and creativity, connections and inspiration. During this time you meet people who will open doors, you feel empowered, entrepreneurial and you feel critically challenged to be better at what you do." Dunn's mentor at the CFC connected him to both his Canadian agents and his U.S. representation at William Morris Endeavor – none of which would have happened, he explains, without his experience at the CFC.

For **Chris Agoston**, *Producers' Lab* alumnus, the decision to go to the CFC was based on the recognition that he was no longer satisfied working in predominantly freelance and support roles on low-budget productions and was ready to take his career and creative control to the next level. Agoston describes the CFC as vital both in terms of how he understands the film system in Canada but also for being exposed to new models of production and distribution and varied career trajectories. Agoston's work with fellow CFC graduate, Christian Sparkes (*Directors' Lab*), resulted in the award-winning coming-of-age film *Cast No Shadow* which garnered numerous nominations and awards across Canada. Today, Agoston strikes a balance between freelance employment in film, TV, and commercials to support a moderate slate of his own projects. Every coming year skews more in favor of his own work, as he builds on the network he has developed in Canada while aiming to push further into the US and abroad. From a career sustainability perspective, in time Agoston hopes to get away from legacy practices and the focus on a public funding system that he feels isn't built to last. For now he is experimenting with alternative content delivery

methods with his new series *The Plateaus*, which began as a 10-part IPF-funded web series but now set for digital release on CBC Music, before being repackaged for a 2-hour CBC broadcast special in prime time. Given his career trajectory to date and the closest professional allies that surround him, he explains “it is hard to fathom what my universe would look like without the CFC. There is such a direct line between our experience there and our success now; my world would look a whole lot different without it”.

For *Editors’ Lab* alumnus **Jorge Weisz**, attending the CFC represented a chance to progress up the film-making career ladder and returning to his original passion of storytelling. His technical editing skills were top notch and he had been working successfully in the field for nearly a decade but that experience was gained primarily on corporate projects. The CFC helped him redirect his focus and accelerate his career in the field he loved. Through the intensive CFC Program he worked mainly on fine-tuning his storytelling skills (an “entirely different part of his brain” as Weisz explains), being more “adaptable” as an editor as well as expanding his network and portfolio. Since graduating he describes himself as incredibly fortunate – the work has been “non-stop” and includes editing roles on seven feature films, a TV series and five short films. He credits his network and circle of references developed at the CFC for the momentum his career now enjoys. Today he can be selective about taking only the work that challenges him.

3.2 Direct economic impact

Household income and GDP

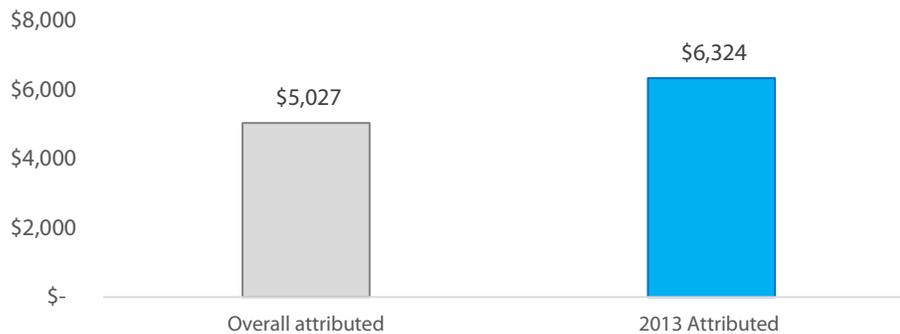
To estimate the total annual household income attributable to the CFC, we first prepared an estimate of the *cumulative* income premium earned by 2008-2013 graduates since 2008. The process for estimating this cumulative income premium included the following steps:

- From the survey research, we obtained the average attributable income premium (**\$5,027**) observed across 2008-2013 for the 2008-2012 matriculation years (Figure 9).
- This income premium of \$5,027 was multiplied by the number of Ontario-resident graduates²⁷ in each matriculation year to arrive at an estimate of the annualized aggregate income premium (i.e. aggregated across all graduates in a particular matriculation year).
- This annualized aggregate income premium was multiplied by the number of years each graduation cohort had been in the workforce post-graduation to arrive at the cumulative income premium. For example, for the 2010 graduation cohort, the annualized aggregate income premium was multiplied by four years, since graduates would have been in the workforce in 2010, 2011, 2012 and 2013.

This calculation process is outlined in Figure 23. As an example, based on the average annual income premium of \$5,027, the 31 Ontario-resident graduates from the 2008 matriculation year earned a cumulative income premium of \$935,022 between 2008 and 2013 ($\$5,027 \times 31 \times 6 \text{ years} = \$935,022$).

Summing these cumulative income premiums across the six graduation-year cohorts, we find that the overall cumulative income premium was \$5.4 million. In other words, CFC alumni who graduated between 2008 and 2013 had earned a cumulative incremental income of \$5.4 million between 2008 and 2013.

Figure 22: Attributed CFC graduate yearly income premium (overall and 2013 only)



Source: Nordicity survey to CFC graduates, 2014

²⁷ Based on the survey data and discussions with CFC, we have assumed that 65% of 2008-2013 graduates were resident in Ontario during the period of analysis.

Figure 23: Calculation of cumulative of income premium

	Income premium (\$) [A]	Number of Ontario-resident graduates [B]	Aggregate annualized income premium (\$) [C=A×B]	Number of years in the workforce [D]	2008-2013 cumulative income premium (\$) [E=C×D]
2008	5,027	31	155,837	6	935,022
2009	5,027	59	296,593	5	1,482,965
2010	5,027	63	316,701	4	1,266,804
2011	5,027	46	231,242	3	693,726
2012	5,027	65	326,755	2	653,510
2013	5,027	71	356,917	1	356,917
Total	--	335		--	5,388,944

Source: Nordicity calculations based on data from survey of CFC graduates.

Long-term impact

The economic impact of education and training not only manifests itself in historical and current periods; for a graduate, the effects of education and training often persist into future periods. For that reason, we also modelled the *present value* of the income premium experienced by graduates over the span of their career.

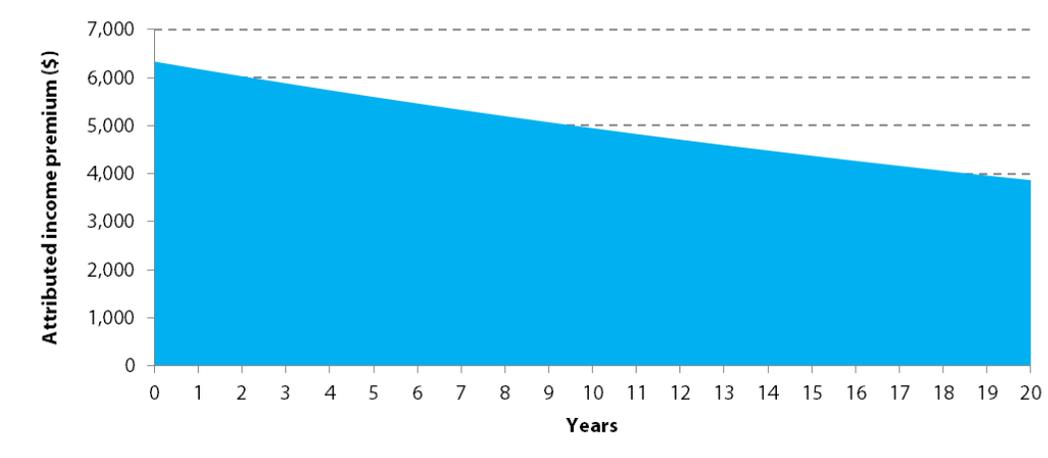
To model the present value of the future income premium, we used the weighted average income premium (**\$6,324**) earned by CFC graduates in 2013 (the most recent period) rather than the average income premium of \$5,027 observed across all work years stretching back to 2008.. By using survey data for the most recently observed annual income premium, we have a much better indicator of future income premiums than if we were to use historical income premium data.

We then assumed that each graduate would continue to earn an income premium over a 20-year career.²⁸ However, rather than apply the full value of the 2013 income in future years, we assumed that the income would erode (i.e., depreciate) by 10% by per year as each graduate moved further away from their graduation year. We also applied a 2.5% discount rate to convert these future income premiums into present value that could be incorporated in the economic impact analysis.

The sum of the present values of income premium for each year (i.e., the area under the curve in Figure 24) can be added to the historical impact to arrive at an estimate of the long-term impact of CFC training on household income (Figure 25).

²⁸ A 20-year career post-graduation from the CFC is a conservative estimate which takes into account both longer-term careers as well as graduates that may exit from the industry altogether.

Figure 24 Forecast present value of attributed CFC income premium



Source: Nordicity calculations based on data from survey of CFC graduates.

Based on the approach described above, the present value of the forecast income premium is equal to \$35.1 million. We add this amount to the value of cumulative income effect for 2008-2013 (\$5.4 million) to arrive at an estimate of the total long-term impact of CFC training on household income in Ontario. We find that all 335 CFC graduates (2008-2013) resident in Ontario would earn a combined income premium totalling \$40.5 million over their careers. That is, household income in Ontario would be \$40.5 million greater as a result of the CFC. Since household income is the only component of direct GDP in the human capital effect, we can also conclude that Ontario’s GDP would be \$40.5 million higher as a result of the CFC.

Figure 25 Calculation of human capital effect on household income (\$)

	Amount
A. Cumulative income effect, 2008-2013	5,388,994
B. Present value of the forecast income premium	35,143,126
C. Total long-term impact on household income	40,532,070

Source: Nordicity calculations based on data from survey of CFC graduates.

Employment

To estimate the incremental impact on employment we divided the total long-term impact on household income (\$40.5 million) by the average FTE salary for a film and TV production worker in Ontario (\$57,436).²⁹ Based on this approach, the incremental household income of \$40.5 million yields a total of 710 FTEs of employment in Ontario, over the career of a CFC graduate.

²⁹ CMPA, *Profile 2013*, pp. 103-105.

Figure 26 Calculation of human capital effect on jobs

	Amount
A. Total long-term impact on household income (\$)	40,532,070
B. FTE salary (\$)	57,436
C. Total number of FTEs [=A÷B]	710

Source: Nordicity calculations based on data from survey of CFC graduates and CMPA, *Profile 2013*.

Summary

In summary, the human capital effect associated with CFC programs led to \$40.5 million in incremental household income for Ontario workers in the screen-based industries. This increase in household income included the present value of the income premium that would persist into the future. This increase in household income, in turn, would generate \$40.5 million in direct GDP and lead to the creation of 710 FTEs of employment within Ontario's screen-based industries. Note that these results do not pertain to a single year, but rather, reflect the incremental economic benefits over the career of CFC graduates who graduated between 2008 and 2013.

Figure 27 Summary of direct economic impact, human capital effect

	Amount
Household income (\$M)	40.5
GDP (\$M)	40.5
Jobs (FTEs)	710

Source: Nordicity calculations based on data from survey of CFC graduates and CMPA, *Profile 2013*.

3.3 Spin-off and total economic impact

The increased household income earned by CFC graduates also yields a spin-off economic impact in other industries in the province as CFC graduates re-spend their incremental household income throughout the province on everyday goods and services, such as food, shopping, communications and entertainment. This spin-off income is entirely in the form of the induced economic impact that arises from the re-spending of household income.

To estimate the induced-impact, Nordicity used a model based on Statistics Canada's input-output tables. That model indicated that the \$40.5 million in incremental household income associated with CFC programs led to an additional \$7.9 million in spin-off household income and \$16.4 million in spinoff GDP within the Ontario economy. This spin-off impact also generated an additional 170 FTEs in the province.

Figure 28 Human capital effect, spin-off and total economic impact

	Direct impact	Spin-off impact	Total impact
Household income (\$M)	40.5	7.9	48.4
GDP (\$M)	40.5	16.4	56.9
Jobs (FTEs)	710	170	880

Source: Nordicity calculations based on data from survey of CFC graduates and CMPA, *Profile 2013*; and Statistics Canada.

Summing the direct and spin-off impacts, we arrive at the total economic impact of the human capital effects of the CFC program. In total, 2008-2013 graduates of the CFC program have generated \$48.4 million in household income for Ontario residents. The bulk of this increase was experienced by CFC graduates, themselves, who work in the screen-based industries. The human capital effects of the CFC program also contributed \$56.9 million in GDP to the Ontario economy. The bulk of this GDP increase was composed of increased household income.

The CFC program also generated the equivalent of 880 FTEs of employment in Ontario. Again, most of this employment (710 FTEs) was associated with CFC graduates working in the screen-based industries.

3.4 Summary

By providing training and hands-on experience to workers in the screen-based industries, the CFC enhances its graduates' skills, or human capital. With this enhanced human capital CFC graduates can earn higher incomes through either higher rate of pay or longer duration of employment. Either way, CFC graduates can experience higher incomes, which, in turn, provide economic benefits for the province.

We estimate that CFC graduates (2008-2013) will earn a cumulative income differential of \$40.5 million over their careers, including any historical income premiums earned following graduation but prior to 2014, and the present value of their future income premiums. This income differential also directly created \$40.5 million in GDP for the Ontario economy as well as 710 FTEs of employment.

After taking into account the spin-off impact of this increased household income and GDP, we estimate that the human capital effect of the CFC will add \$48.4 million in household income and \$56.9 million in GDP to the Ontario economy. This increased household income and GDP would yield the equivalent of 880 FTEs of employment in the provincial economy.

Insight Study 5: Nurturing success at every stage from development to distribution

Writer/director/editor and CFC Feature(s) alumnus (2012), Jeff Barnaby, has garnered awards and recognition as a bold, new voice in Canadian cinema since his feature debut, *Rhymes for Young Ghouls*.

Born on a Mi'gmaq reserve in Listujug, Quebec, Barnaby's work explores post-colonial aboriginal life and culture through a style inspired by grindhouse films and graphic novels. Before the release of his debut feature, he was developing his self-described "bare-knuckle" filmmaking through series of short films, including the Sundance Official Selection *From Cherry English* (2004), Jutra-nominated *The Colony* (2007) and the Genie-nominated *File Under Miscellaneous* (2010).

Barnaby's feature debut, *Rhymes for Young Ghouls*, was created through CFC Features, a demanding development and production focused program. He credits the CFC's Justine Whyte with trumpeting his films since 2007, and for asking him to write a feature for the program. Creatively, the script came together in just a few months. Set on the Red Crow reserve in 1976, it tells the story of Aila, a young Mi'gMaq teen, who is struggling with the recent suicide of her mother and plotting against an oppressive Indian agent who runs the local residential school. CFC was supportive of the production and it was developed and financed under the CFC Features program.

Through its affiliation with the Tribeca Film Institute, the CFC also sent the Canadian filmmaking team to New York to participate in the 2012 Tribeca All Access Program. The feature screenplay for *Ghouls* ended up winning the \$10,000 Tribeca 2012 Creative Promise Award and benefited enormously from the added exposure. Barnaby found that the CFC opened doors and unlocked participation from key industry players, including Astral's TMN, Corus' Movie Central and E1, which is handling international sales.

Ghouls had its world premiere at TIFF in 2013, which kicked off a successful festival run and theatrical release across Canada. During a TIFF panel discussion as part of the Telefilm Canada's *Class of 2013: New Directors to Watch*, Barnaby explained that CFC support was key to his success on the project. "You actually want all your eggs in one basket," Barnaby stated, "as opposed to running around and collecting the eggs, you find them in one basket, which is the CFC, and they give you all the eggs. This is nice because it's not easy making a first feature."

Hailed by audiences and critics alike, *Ghouls* went on to share the prize for Best First Canadian Feature at the Vancouver International Film Festival and to be chosen as one of Canada's Top Ten by TIFF in 2013. Released in theatres across Canada and the U.S., Barnaby also won Best Director of a Canadian Film by the Vancouver Film Critics Circle, was selected by Norman Jewison to receive the Toronto Film Critics Association's Technicolor Clyde Gilmour Award and, in 2014, he was recognized with the inaugural APTN Award at the First People's Festival in Montreal. CFC Executive Producer, Justine Whyte explains, "We are thrilled to have audiences, industry players and critics alike responding so positively to this film; and ultimately, all sharing our anticipation for more from Jeff Barnaby."

4. The Intellectual Property Effect of the CFC

In Section 3, we analyzed the effect that CFC has on its graduates' human capital. CFC programs also help some graduates transition into key creative roles (producer, writer, director) and entrepreneurs to bring new products to market. Many of these production "entrepreneurs and key creatives" go on to form their own production companies and start-ups, and develop, produce and commercialize media projects in Ontario. These projects generate employment and economic benefits for the province, which go well beyond the graduates' own personal income benefits. Because this type of economic benefit is associated with the creation of intellectual property (IP), we refer to it as the IP effect. This process, whereby the CFC graduate transitions from a creator or technician to an entrepreneur can have a significant economic leverage effect, as it creates additional employment in Ontario.

The economic impact of the IP effect is followed by a look at the export value and inward investment associated with CFC's IP effect.

4.1 Direct economic impact

To estimate the direct economic impact associated with CFC's IP effect, we first determined the extent to which CFC programs contributed to the *commercialization* of screen-based projects. In the context of the survey and this analysis, the commercialization of screen-based projects includes any type of pre-sale, licensing, or bringing-to-market of film, TV or digital media content. From the survey data, we isolated the CFC graduates who founded media companies. We then compared the pre-CFC and post-CFC levels of project commercialization at these companies.³⁰

Through our sampling process, we estimated that out of the 515 persons who graduated from the CFC between 2008 and 2013, 80 went on to establish media companies. Out of this total of 80 media companies, 53 were Ontario-based in 2014. From the survey data, we determined the average annual incremental number of media projects, by type, produced by these media companies – these averages have already been adjusted to account for attribution to CFC and program intensity of each graduate – by comparing their project-production performance before and after the CFC program.

Based on this approach, we found that the Ontario-based companies started by CFC graduates produced, in aggregate:

- **Eight** more film projects on an annualized basis following the exposure to CFC programs;
- **Seven** more television projects;
- **Nine** additional commercials;
- **Four** digital media projects, and;
- For other forms of screen media it was **eight** on an annualized basis.

³⁰ For digital media projects, we analyzed the annual number of prototypes or proofs of concept that were developed into commercially viable products.

Overall, the survey data indicated that the 53 Ontario-based media companies produced 36 more projects per year than prior to exposure to the CFC program.

Figure 29 Calculation of annualized incremental number of media projects produced by companies in Ontario founded by CFC graduates

	2008	2009	2010	2011	2012	2013	Total
Incremental attributed number of projects per company							
Film	0.00	0.06	0.27	0.20	0.15	0.10	--
TV	0.03	0.00	0.55	0.00	0.20	0.00	--
Commercial	0.00	0.00	0.00	0.60	0.00	0.00	--
Digital Media	0.00	0.00	0.00	0.27	0.00	0.00	--
Other	0.00	0.60	0.10	0.10	0.20	-0.03	--
Number of companies started by CFC graduates							
Ontario	3	8	11	15	4	12	53
Global	4	12	16	23	6	19	80
Incremental number of projects (annualized)							
Film	0.00	0.46	2.97	2.95	0.60	1.23	8.00
TV	0.09	0.00	6.09	0.00	0.80	0.00	7.00
Commercial	0.00	0.00	0.00	9.00	0.00	0.00	9.00
Digital Media	0.00	0.00	0.00	4.00	0.00	0.00	4.00
Other	0.00	4.80	1.12	1.43	0.80	-0.30	8.00
Total							36.00

Source: Nordicity calculations based on data from survey of CFC graduates.

We converted our estimates of attributed impact to estimates of production volume (i.e., to dollar values of production budgets) by multiplying the annualized number of incremental projects by the corresponding average project size. For each type of media, we obtained data for the average project sizes from the survey.

Based on this approach, we estimate that the annualized value of the incremental production associated with graduates (2008-2013) was \$17.6 million. After adjusting for the composition of the CFC graduate pool between 2008 and 2013, we estimate that the cumulative impact in terms of production volume was \$61.6 million.³¹ In other words, between 2008 and 2013, graduates' media companies based in Ontario commercialized \$61.6 million worth of screen-based production. This total included \$26.6 million in film production, \$29.4 million in television production, \$2.2 million in commercial video production, \$2.8 million in digital media production and \$560,000 in other types of screen-based production.

³¹ Column C represents the increased production associated with a single year of work of graduates; whereas column D represents the commensurate level of increased production after taking into account that graduates from 2006 have had six years' worth of production activity.

Figure 30 Estimation of incremental production volume

	Incremental number of projects	Average production budget per project (\$)	Production volume (\$ value of budgets) (=A×B)	Cumulative impact† (\$)
Film	8	950,000	7,600,000	26,600,000
TV	7	1,200,000	8,400,000	29,400,000
Commercial	9	70,000	630,000	2,205,000
Digital media	4	200,000	800,000	2,800,000
Other	8	20,000	160,000	560,000
Total	36		17,590,000	61,565,000

Source: Nordicity calculations based on data from survey of CFC graduates.

†Cumulative impact calculated using a multiplier that reflects a scenario in which graduates from 2008 experience six years of incremental activity, graduates from 2009 experience five years of incremental activity, graduates from 2010 experience four years of incremental activity, graduates from 2011 experience three years of incremental activity, graduates from 2012 experience two years of incremental activity and graduates of 2013 experience one year of incremental activity.

To estimate the direct economic impact of this incremental production activity, Nordicity determined the household income, GDP and employment generated by this level of production volume. The total production volume of \$61.6 million generated \$31.5 million in household income for the cast and crews working on these productions (Figure 31). This household income, combined with the operating surplus (i.e., operating profits and sole proprietors' income) earned by film, TV and digital media companies generated \$33.2 million in GDP. This level of production also supported 690 FTEs of employment, including 660 FTEs of cast and crew employment in film and TV production, and 30 FTEs of employment in the digital media industry.

Figure 31 Intellectual property effect, direct economic impact

	Film and TV	Digital media	Total
Production volume (\$M)	58.8	2.8	61.6
Household income (\$M)	29.4	2.1	31.5
GDP (\$M)	31.0	2.2	33.2
Jobs (FTEs)	660	30	690

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

4.2 Spin-off economic impact

The creation and commercialization of IP also has a spin-off economic impact in Ontario, as production companies purchase supplies and services from other Ontario businesses (“indirect impact”) and the household income generated at both the direct and indirect stages of the economic impact is re-spent throughout the Ontario economy (“induced impact”).

On the basis of Statistics Canada’s input-output tables, we prepared estimates of the spin-off impact (indirect and induced economic impacts) generated by the production of film, TV and digital media projects commercialized by graduates. The IP effect generated by graduates led to spin-off household income of \$16.0 million for Ontario residents between 2008 and 2013. It also contributed \$26.2 million in spin-off GDP to the Ontario economy and generated spin-off employment of 340 FTEs within the Ontario economy.

Figure 32 Intellectual property effect, spin-off economic impact, 2008-2013

	Film and TV	Digital media	Total
Household income (\$M)	11.9	1.3	13.2
GDP (\$M)	19.1	2.5	21.6
Jobs (FTEs)	250	30	280

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

4.3 Total economic impact

We sum the direct and spin-off economic impacts to arrive at an estimate of the total economic impact on the Ontario economy of the IP effect. Overall, the film, TV and digital media productions commercialized by graduates (2008-2013) generated \$44.6 million in household income for Ontario residents, contributed \$54.8 million in GDP to the provincial economy, and supported 970 FTEs of employment in Ontario between 2008 and 2013.

Figure 33 Intellectual property effect, total economic impact, 2008-2013

	Direct impact	Spin-off impact	Total impact
Household income (\$)	31.5	13.2	44.6
GDP (\$)	33.2	21.6	54.8
Jobs (FTEs)	690	280	970

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

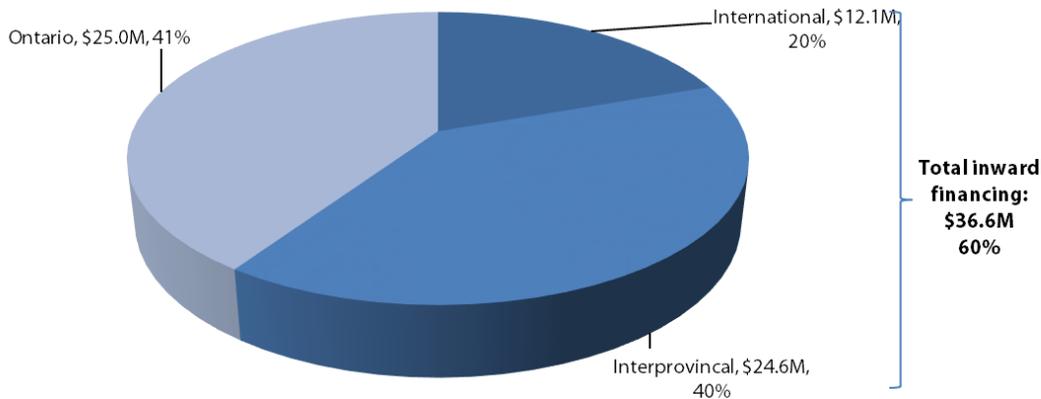
4.4 Value of inward financing

Thus far we have analyzed CFC’s economic impact in terms of the household income, GDP and jobs it generates for the Ontario economy. It is also important to recognize that a large portion of the economic impact of CFC’s IP effect is due to the attraction of financing from outside Ontario and Canada.

On the basis of average financing structures for Canadian production we prepared an estimate of the export value of production associated with CFC’s IP effect. Out of the total production volume of \$61.6 million, an estimated \$12.1 million (20%) originated from outside Canada in terms of pre-sales to foreign broadcasters or advances from foreign distributors or other financiers.

The incremental production associated with CFC’s IP effect also attracted \$24.6 million in financing from other provinces. This interprovincial financing, which accounted for 40% of the total financing of CFC IP effect production, included other provinces’ pro-rated shares of various national and federal sources of financing, such as Canadian broadcaster licences, federal tax credits, and funding from CMF and Telefilm Canada. All told, CFC’s IP effect production attracted \$36.6 million in inward financing to Ontario’s production industry between 2008 and 2013. This inward financing accounted for 60% of the total financing of CFC’s IP effect production.

Figure 34 Value of inward financing associated with CFC IP effect production

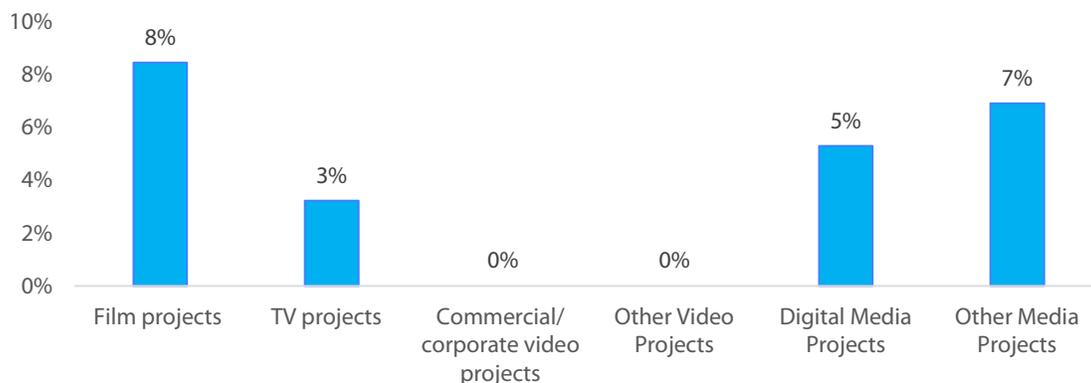


Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013*; Statistics Canada; and OMDC.
 Note: Some totals may not sum due to rounding.

4.5 International partnerships and export sales

As part of the IP effect, CFC graduates also forge international partnerships and generate significant revenue from and through the distribution or licensing of content after their production is complete. Companies started by CFC graduates (2008-2013) report that 8% of their film projects involved some type of partnership with a company outside of Canada. For television the share was 3% and for digital media it was 5%. Such partnerships are a core focus of the CFC’s expanded international marketplace initiative, which aims specifically to expand residents’ access to global business opportunities.

Figure 35 Share of commercialized projects that involved partnerships with companies from outside of Canada (all respondents)



Source: Nordicity survey to CFC graduates, 2014

To assess CFC graduates' relative performance in the area of international partnerships we compared the incidence of film and television partnerships to the share of all of Canadian film and television projects between 2008 and 2013 that were completed as international treaty coproductions.³² During that six-year period, approximately 20% of Canadian theatrical features films and 4% of Canadian television projects were completed via treaty coproductions,³³ In other words, CFC graduates' propensity for involvement in international partnerships was somewhat less than the rate observed for all Canadian theatrical feature film production, but on par with the rate for all Canadian television production.

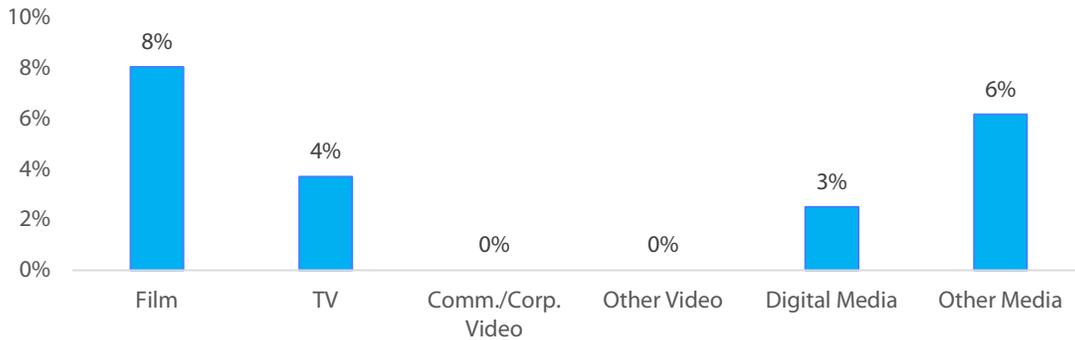
As the following chart indicates, 8% of the revenue earned by Film projects commercialized by companies started by CFC graduates (2008-2013) originated from outside Canada. For Television projects, the percentage was 4% and for Digital Media the share was 3%.³⁴

³² Canadian producers can still enter into international production partnerships outside of International treaty coproductions. However, because reliable data only exist for treaty coproductions, we have used it as a proxy for international partnerships within the Canadian production sector.

³³ Nordicity calculations based on data obtained from CMPA, AQPM and Department of Canadian Heritage (2014) *Profile 2014: Economic Report on the Screen-based Media Production Industry in Canada*. Between 2008 (2008/09) and 2013 (2013/14), treaty coproductions accounted for 125 out of 624 theatrical feature films and 258 out of 6,907 television projects.

³⁴ This low export figure may be due in part to how different financial structures are set, for example whether export is treated as international distribution and accounted for in pre-sale or whether additional export revenue may be derived at a later stage. In addition, export sales reporting may be slightly depressed due to the early career segment we have captured for graduates between 2006 and 2011.

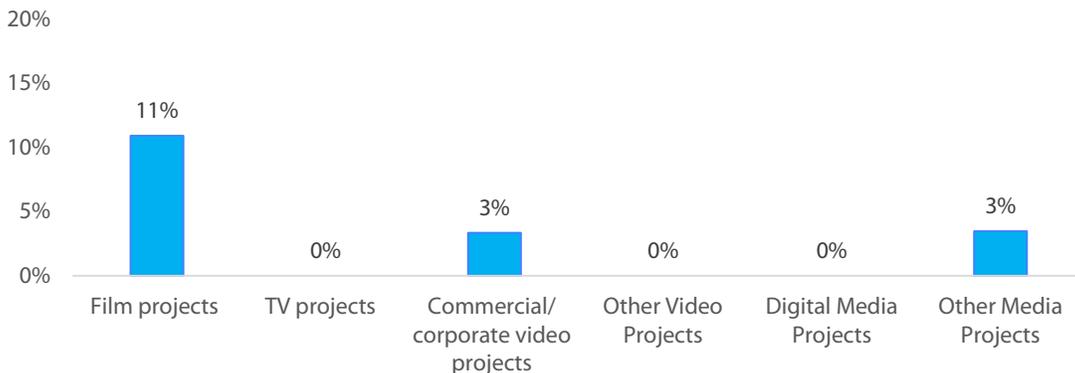
Figure 36 Share of revenue from commercialized projects earned from outside Canada



Source: Nordicity survey to CFC graduates, 2014

CFC graduates also work with foreign investors in order to assemble project funding, particularly in film. As the following chart indicates, 11% of Film projects driven by CFC graduates (2008-2013) relied in some part on foreign pre-sales and equity investments by foreign investors. Though no Television or Digital Media projects relied on foreign pre-sales or equity investments from foreign investors, 3% of Commercial and Corporate Video projects as well as Other Media projects did so.

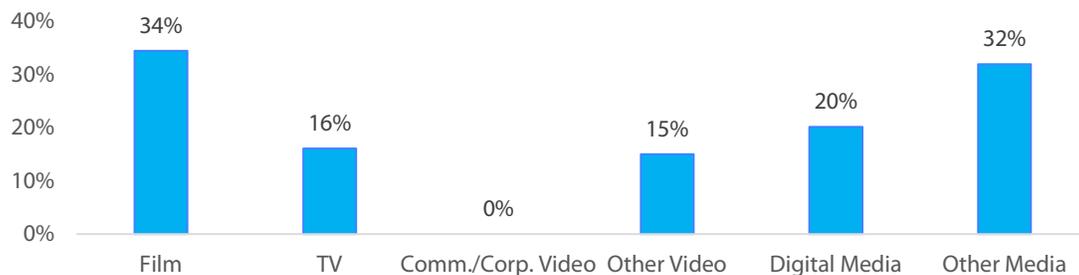
Figure 37 Share of projects funded by foreign pre-sales or equity investments from foreign investors (by project type)



Source: Nordicity survey to CFC graduates, 2014

Owned content or IP is a crucial revenue source for content creators. Some 34% of Film project revenue was from owned content and 32% of Other Media for CFC graduates (2008-2013). For Digital Media, TV and Other Video that share was 20%, 16% and 15% respectively.

Figure 38 Share of revenues earned from owned content (by project type)



Source: Nordicity survey to CFC graduates, 2014

4.6 Summary

When CFC graduates launch media companies, they not only gain an opportunity to improve their employment prospects and income, they also create IP, which can have much wider economic impact. Through the creation of IP, entrepreneurial graduates introduce an element of economic leverage into the economic-benefits equation. They are not only generating economic benefits for themselves, but also developing the IP that will create employment and income for dozens of cast, crew, and other skilled personnel when production takes place.

Between 2008 and 2013:

- 80 graduates of the CFC program went on to establish media companies.
- Of this total, 53 graduates established media companies in Ontario.³⁵
- Following graduation, these 53 graduates increased their annual productivity by a combined 36 projects, after adjusting for attribution and intensity of program use.
- These 36 incremental projects translated into \$61.6 million in production volume (i.e., budgets) between 2008 and 2013.
- This level of production volume ultimately generated \$44.6 million in household income for Ontario residents and contributed \$54.8 million in GDP to the Ontario economy.
- The economic impact of this production volume also supported 970 FTEs of employment between 2008 and 2013.

The creation and production of IP by graduates also attracted considerable financing from outside the province and country. The IP effect production of \$61.6 million attracted an estimated \$12.1 million in international financing and further \$24.6 million in interprovincial financing. The total inward financing for CFC's IP effect production amounted to \$36.6 million between 2008 and 2013, or 60% of the total production volume.

³⁵ These 137 companies are not necessarily mutually exclusive and may include some personal services firms.

Insight Study 6: Advancing digital media entertainment companies to new heights

IDEABOOST helped enhance and expand the value proposition for Mediazoic's RadioMogul, leading to groundbreaking business partnerships.

Mediazoic joined the Spring 2014 cohort of IDEABOOST, with the objective of expanding client leads for its RadioMogul software. Launched in 2011, the custom solution allows businesses to create branded radio stations through a one-stop service that includes licensing, curation and analytics. As it entered IDEABOOST, the software company's clients included the fast-growing Canadian food chain Quesada. Veteran radio broadcaster, Alan Cross, was also using Radio Mogul to present his weekly top 11, and the New Canadian Music portal had adopted the platform to feature its 'Best Of' tracks. Through IDEABOOST, founder Greg Nisbet was aiming to expand these relationships and achieve ambitious business development goals.

IDEABOOST as a catalyst and partner for growth

Nisbet was drawn to IDEABOOST for the potential of tapping into the CFC's network and the interesting mix of the program's founding partners (e.g., Google, Corus Entertainment and Shaw). He also appreciated that the experience was customizable to each individual participant's skills needs and goals, from investment attraction and marketing to developing client leads. During many challenging pitch sessions, Nisbet received presentation and product feedback, while simultaneously building new business relationships. At one IDEABOOST event, he unveiled his branded radio station service to over 300 entertainment professionals, which he describes as invaluable.

IDEABOOST experience integral to strategic planning

"The IDEABOOST experience was overwhelmingly positive - it definitely allowed us to refine and improve strategy and storytelling, as well as generate client leads and produce better marketing materials" said Nisbet. For instance, assisting on the strategy development side, the CFC organized a focus group at a digital agency, which allowed Nisbet to improve and understand the RadioMogul feature set and to better reflect what the market wanted. In addition, the program also helped him generate new ideas, such as pursuing event-specific applications for the custom radio solution. Post-program, the CFC continues to foster networking opportunities that provide learning and other benefits - "My experience with IDEABOOST hasn't really stopped - not even close" says Nisbet.

IDEABOOST as game changer

The IDEABOOST experience also enabled Nisbet to augment and reinforce Mediazoic's relationships with existing clients, helping him demonstrate the value of their partnership. When the CFC joined Mediazoic's Hogtown Hang event (a studio hangout for unsigned artists in Toronto) as a key sponsor, it showed clients such as Quesada that it was invested in RadioMogul's future. In fact, Mediazoic's relationship with Quesada has soared exponentially this year. The two companies have just entered into an innovative partnership, the details of which will be announced in due course. Suffice to say, it stands to have a positive benefit for numerous emerging musicians in Canada and marks a groundbreaking leap for Mediazoic.

5. Summary of the Economic and Fiscal Impact in Ontario

In this section we summarize the combined economic impact in Ontario arising from both the human capital and IP effects and then utilize tax ratios from Statistics Canada to estimate the provincial tax revenue generated in Ontario by the combined economic impact.

5.1 Summary of combined economic impact

We can sum the total economic impacts from both the human capital and IP effects to arrive at an estimate of the overall economic impact of the CFC program in Ontario between 2008 and 2013. In total, the CFC program generated \$93.0 million in incremental household income for Ontario residents and \$111.7 million in GDP for the Ontario economy. This incremental economic activity generated 1,850 FTEs of employment within the Ontario economy.

Figure 39 Summary of total economic impact in Ontario

	Direct impact	Spin-off impact	Total impact
Human capital effect			
Household income (\$)	40.5	7.9	48.4
GDP (\$)	40.5	16.4	56.9
Jobs (FTEs)	710	170	880
IP effect			
Household income (\$)	31.5	13.2	44.6
GDP (\$)	33.2	21.6	54.8
Jobs (FTEs)	690	280	970
Total economic impact			
Household income (\$)	72.0	21.0	93.0
GDP (\$)	73.7	38.0	111.7
Jobs (FTEs)	1,400	450	1,850

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013*; OMDC; and Statistics Canada.

5.2 Fiscal impact

To derive a tax ratio for Ontario personal income tax, we compared the amount of personal income tax collected by the Ontario government to the total value of wages in the Ontario economy. To calculate tax ratios for provincial corporation income tax, consumption tax (e.g., sales tax and fuel tax), and property tax, we compared the amounts collected by the Province to the Province's total GDP. The data used to calculate these tax ratios can be found in Figure 40.

Figure 40 Calculation of Ontario tax ratios for fiscal impact analysis

	Ontario tax revenue (\$M)*	Base amount (\$M)*	Tax ratio
Personal income tax	29,249	325,142 [†]	9.0%
Corporate income tax	7,048	543,809 ^{††}	1.3%
Consumption tax	25,307	543,809 ^{††}	4.7%
Property taxes and user fees	24,941	543,809 ^{††}	4.6%

Source: Nordicity calculations based on data from Statistics Canada CANSIM matrices 384-0001, 384-0002, and 385-0002. See Appendix for additional data.

* Data for 2009

[†] Total wages in the Ontario economy

^{††} Total GDP in the Ontario economy

To estimate the provincial tax revenues attributable to CFC's economic impact, we multiplied the tax ratios by the appropriate base amount. For personal income tax, we multiplied the tax ratio by the total amount of household income generated by CFC's economic impact. For the corporation, consumption, and property taxes and user fees, we multiplied the tax ratios by the total GDP generated by CFC's economic impact. The results are summarized in Figure 41.

The household income generated by CFC's economic impact led to an estimated \$8.4 million in Ontario personal income tax between 2008 and 2013. The economic activity generated by CFC's economic impact also led to an estimated \$1.4 million in provincial corporation income, \$5.2 million in provincial consumption taxes, and \$5.1 million in local taxes and fees.

In total, the economic impact of CFC led to an estimated \$20.1 million in incremental tax revenue for the Ontario government, including the present value of future income premiums earned by CFC graduates. The Ontario government contributed of \$13.0 million to the CFC to help fund programs available to the 2008-2013 graduate cohort. Based on this level of provincial government funding, the CFC generated a net fiscal benefit of \$7.1 million for the Province between 2008 and 2013.

Figure 41 Estimate of Ontario government tax revenues, 2008-2013

	Tax ratio	Base amount (\$M)	Provincial and local government tax revenue (\$M)
Personal income tax	9.0%	93.0 [†]	8.4
Corporation income tax	1.3%	111.7 ^{††}	1.4
Consumption taxes	4.7%	111.7 ^{††}	5.2
Local taxes and fees	4.6%	111.7 ^{††}	5.1
		Total tax revenue	20.1
		Government of Ontario's contribution to CFC (2008-2013)	(13.0)
		Net fiscal benefit/(cost)	7.1

Source: Nordicity calculations based on data from Statistics Canada CANSIM matrices 384-0001, 384-0002, and 385-0002. See Appendix for additional data.

[†] Total household income impact

^{††} Total GDP impact

Insight Study 7: Entertainment moves to the valley

Today the excitement is palpable, but not long ago a 360 degree camera was thought to be the domain of R&D labs. In 2011, Sean Ramsay changed the game by launching the affordable, portable spherical image capture technology, known universally as Bubl.

With 20 years of experience, including at the helm of start-ups and in digital and video production, Ramsay was uniquely capable of spotting the market opportunity for Bubl technology. He assembled a team who could help him build the necessary hardware and software for his concept. Then, in 2013 the team closed their blow-out Kickstarter campaign – raising more than three times their goal of \$100,000. Bubl earned media coverage from top tech news outlets, who were fascinated by the innovative technology. While the business opportunity was clear, Ramsay recognized that developing a corporate structure and investor and media relationships was a necessary next step. IDEABOOST was a direct fit for Bubl’s start-up and growth needs.

A Business In Need of Structure

The Bubl team’s diverse professional experience was part of what made the company successful, but Ramsay admits that they were inexperienced at working together. IDEABOOST provided the guidance and development which Bubl’s management required, and access to relevant and qualified mentors and professionals who helped them grow and solidify the direction they envisioned for the company.

According to Ramsay, IDEABOOST was also integral to helping Bubl get to the stage of “being fundable.” This preparation came through softer supports, such as media training and more tangible benefits such as direct introductions to potential investors. It was through the CFC that Bubl attracted a key external mentor and eventual financial and investment advisor. The company expects to begin shipping its Bubl Developer Kits in the summer – a milestone reached by very few technology start-ups.

The Business of Entertainment Technology

The CFC’s history and relationships with top-rated content creators also appealed to the team. One of Bubl’s highest priority goals was to showcase the incredible content which could be created using its technology. Bubl has numerous potential applications across sectors from real estate and tourism to defense. It is in the media and entertainment space, however, where Bubl anticipated (and continues to anticipate) having its strongest growth. For example, as Bubl has grown, so has the virtual reality (VR) market and it is becoming a major focus for the company. The CFC facilitated Bubl’s access to cutting edge VR content creators and to experts who provided the feedback Bubl required to succeed in the space.

When asked to describe the CFC’s role in the media and entertainment space, Ramsay reflects that the CFC excelled at enabling his businesses to access new forms of content creation, storytelling and consumption. Because of its future-oriented vision and capacity, Ramsay believes that the CFC will always attract top talent, because it represents the type of storytelling people want to be a part of.

6. Summary of the Economic and Fiscal Impact in Canada

In the following section we present results of our analysis of the economic impact of CFC on the Canadian economy, including Ontario and other provinces. While the majority of CFC graduates remain resident in Ontario following graduation, a large number return or move to other provinces. These graduates outside Ontario contribute to the Canadian economy. We consider separately the human capital and IP effects, and also sum the impact of these two effects to arrive at a total impact.

6.1 Human capital effect

Of the 515 alumni who graduated from CFC between 2008 and 2013, approximately 90% (463 graduates) were resident in Canada in 2014. These 463 graduates earned a cumulative income premium of \$7.4 million between 2008 and 2013 and would earn the equivalent of \$48.6 million in incremental income, going forward, over the span of their career (on a present value basis). This income premium generated direct household income of \$56.1 million. This additional household income, in turn, generated total household income of \$68.7 million within the Canadian economy (including spin-off impacts), as well as \$82.8 million in GDP and 1,250 FTEs of employment.

Figure 42 Human capital effect, summary of economic impact, Canada

	Direct impact	Spin-off impact	Total impact
Cumulative impact of income premium (\$M)	7.4	--	--
Present value of future income premium (\$M)	48.6	--	--
Household income (\$M)	56.1	12.6	68.7
GDP (\$M)	56.1	26.7	82.8
Jobs (FTEs)	980	270	1,250

Source: Nordicity calculations based on data from survey of CFC graduates and CMPA, *Profile 2013*.

6.2 Intellectual property effect

An estimated 80 CFC graduates resident in Canada who also started companies and commercialized projects between 2008 and 2013 generated the equivalent of \$90.4 million in production expenditures, during that six-year period. This total included an estimated \$86.2 million in film and TV production, and \$4.2 million in digital media production. This production activity generated \$46.2 million in direct household income, \$48.8 million in direct GDP and 1,010 FTEs of direct employment in the Canadian economy during that period.

Figure 43 Intellectual property effect, direct economic impact, Canada

	Film and TV	Digital media	Total
Production volume (\$M)	86.2	4.2	90.4
Household income (\$M)	43.1	3.2	46.2
GDP (\$M)	45.5	3.3	48.8
Jobs (FTEs)	960	50	1,010

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

Including the spin-off impacts, the production activity associated with projects commercialized by CFC graduates generated \$60.5 million in household income, \$73.5 million in GDP and 1,430 FTEs of employment for the Canadian economy between 2008 and 2013.

Figure 44 Intellectual property effect, total economic impact, Canada, 2008-2013

	Direct impact	Spin-off impact	Total impact
Household income (\$)	46.2	19.3	65.5
GDP (\$)	48.8	31.7	80.6
Jobs (FTEs)	1,010	420	1,430

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

6.3 Total economic and fiscal impact in Canada

On a combined basis, the human capital and IP effects associated with CFC graduates (2008-2013) resident in Canada generated \$134.2 million in household income, \$163.3 million in GDP and 2,680 FTEs of employment within the Canadian economy.

Figure 45 Total economic impact, Canada

	Direct impact	Spin-off impact	Total impact
Household income (\$)	102.3	31.9	134.2
GDP (\$)	104.9	58.4	163.3
Jobs (FTEs)	1,990	690	2,680

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013* and Statistics Canada.

This economic activity, in turn, generated an estimated \$53.3 million in tax revenue for federal and provincial governments in Canada. For the federal government, the fiscal impact was \$27.2 million. For provincial governments (Ontario and others), the fiscal impact was \$28.1 million.

Figure 46 Fiscal impact analysis, Canada

	Federal government	Provincial governments	Total
Personal income tax	18.8	12.3	31.2
Corporate income tax	3.6	2.2	5.7
Consumption tax	4.8	7.3	12.2
Property taxes and user fees	0.0	6.2	6.2
Total	27.2	28.1	55.3

Source: Nordicity calculations based on data from survey of CFC graduates; CMPA, *Profile 2013*, Statistics Canada CANSIM matrices 384-0001, 384-0002, and 385-0002.

7. Conclusions

Between 2008 and 2013, the CFC has once again generated a positive human capital, IP and fiscal impact on Ontario's economy, and contributed to the strength of its creative economy

In total, the CFC program generated:

- \$93.0 million in incremental household income for Ontario residents, and;
- \$111.7 million in GDP for the Ontario economy.

This incremental economic activity generated 1,840 FTEs of employment within the Ontario economy.

When compared to the Ontario government's contribution of \$13.0 million to CFC between 2007/08 and 2012/13, we find that the CFC generated a net fiscal benefit of \$7.1 million for the Province between 2008 and 2013. As the financial outcomes from the quantitative questions were discounted substantially, the economic analysis is based on solid and conservative assumptions as to attribution of alumni performance and success in the industry.

With graduates also residing and working outside Ontario, the CFC made an even larger contribution to the Canadian economy

In total, the CFC program generated:

- \$134.2 million in incremental household income for Canadian residents, and;
- \$163.3 million in GDP for the Canadian economy.

This incremental economic activity generated 2,680 FTEs of employment within the Canadian economy, and \$55.3 million in federal and provincial taxes.

On average, CFC graduates are working more and earning more from media production activities than before they enrolled in the CFC

Similarly, the survey data indicated that some 53 Ontario-based media companies produced 36 more projects per year than prior to exposure to the CFC program.

In terms of earning patterns, overall, graduates appear to experience:

- A decrease in earnings while attending the CFC;
- About 1.5 years after graduation, program attendees reach their pre-enrolment income level;
- A sharp increase in earnings follows, approximately two years after program completion, before settling somewhat (though still above pre-enrolment income levels).



The CFC's network effect, industry-aligned programming and leading edge understanding of the future of media and entertainment provide tangible benefits to its alumni, partners and the Province

Beyond economic impacts, *Insight Studies* based on interviews with new and less-recent graduates to start-ups company leaders, confirmed that CFC alumni perceive numerous positive influences on their careers, on the development of their networks and contacts, and on their ability to work successfully in their chosen field. As well, that the role of the CFC in Canada's screen-based infrastructure is becoming ever more vital as a generator of talent to fuel the industry. The global competitive advantage in the media and entertainment landscape is shifting to those with the best talent, including those storytellers whose careers are nurtured and elevated at the CFC.

A Appendix A: Notes on Methodology

CFC Program Taxonomy

CFC programs were sorted into five core program types for this analysis, per the taxonomy employed by the CFC.

Figure 47: Core categories into which CFC programs were sorted

Category	CFC Program(s)
Film	<ul style="list-style-type: none"> ▪ Film Program ▪ Director's Lab ▪ Editor's Lab ▪ Producer's Lab ▪ Writer's Lab ▪ Short Dramatic Film Program ▪ CFC Features ▪ CFC NFB Documentary Program ▪ Telefilm Features Comedy Lab ▪ Telefilm Features Comedy Exchange ▪ Tribeca All Access ▪ GO WEST Project Lab ▪ Comedy Bootcamp for Film ▪ Summer Lab (Film) ▪ Fall Lab (Film) ▪ Producers Workshop ▪ Whistler Writer Workshops ▪ Sundance ▪ Micro-budget
TV	<ul style="list-style-type: none"> ▪ Prime Time TV Program ▪ Showrunner Bootcamp ▪ NBCU Canada TV Series Exchange ▪ TV Pilot Program ▪ Web Pilot Program ▪ Content Creator Program ▪ Professional Screenwriting Program ▪ TV Workshop
Acting	<ul style="list-style-type: none"> ▪ Actors Conservatory
Digital Media	<ul style="list-style-type: none"> ▪ IDEABOOST ▪ Interactive Art & Entertainment Program ▪ OCADU Graduate Futures Program ▪ Multiplatform Matchmaking Program ▪ Interactive Project Lab ▪ Interactive Narrative Feature Project
Music	<ul style="list-style-type: none"> ▪ Slight Family Music Lab

IMDb Data Collection

IMDb data were collected on the production minutes of each alumnus from 2007 to 2013.

- For instance, an individual who directed a 90-minute film and edited two 30-minute television episodes in 2007 would be assigned 90 directing minutes and 60 editing minutes that year.

Data collection was limited to a list of 580 alumni composed of 2007 to 2013 graduates as well as Phase 1 and Phase 2 survey respondents. This timeframe is not related to the key cohorts this study focuses on. The years from 2007 to 2013 were chosen as a sample for the IMDb collection because a similar period was chosen in the previous CFC EIA and 2013 was the most recent complete year of data available, not because they aligned with the graduation years of our cohorts of interest. A total of 452 alumni (or 78%) on this list were 2008 to 2013 graduates.

The following table details the roles for which IMDb data on production minutes of CFC alumni were collected. The IMDb does *not* publish data on the digital media-related activities of Film and Television Industry professionals and as such digital media-related production roles were not included in this analysis.

Figure 48: Roles for which IMDb production data were collected

Segment	Specific Roles	Segment	Specific Roles
Scenario	<ul style="list-style-type: none"> ▪ Writer ▪ Storyboard ▪ Editor ▪ Clearance ▪ Story Coordinator ▪ Script Coordinator ▪ Creative Consultant 	Technical	<ul style="list-style-type: none"> ▪ Technical Supervisor ▪ Technical Director ▪ Lighting Director ▪ Cameraperson ▪ Boom Operator/Sound Technology ▪ Director of Photography ▪ Electrical/Best Boy ▪ Composer
Cast	<ul style="list-style-type: none"> ▪ Actor ▪ Casting ▪ Choreographer 	Direction	<ul style="list-style-type: none"> ▪ Director ▪ Director's Assistant
Production	<ul style="list-style-type: none"> ▪ Executive Producer ▪ Producer ▪ Line/Supervising Producer ▪ Co-Producer ▪ Associate Producer ▪ Producer's Assistant 	Production Staff	<ul style="list-style-type: none"> ▪ Post-Production Supervisor ▪ Production Manager ▪ Assistant Production Manager ▪ Production Coordinator
Design Labour	<ul style="list-style-type: none"> ▪ Production Designer ▪ Art Director 	Special Effects	<ul style="list-style-type: none"> ▪ Special Effects Supervisor ▪ Special Effects Assistant

- Canadian Entertainment Industry wage data from the National Occupation Classification (NOC) Wage Report were also used in the calculation the annual earnings index calculations. The calculation procedure is described below.

Calculation of Predicted Earnings

The procedure employed to predict CFC graduates' annual earnings was as follows:

1. A variable, **T**, was defined for all alumni. An alumnus' T value in a given year indicates their position relative to the year in which they attended the CFC. For instance,
 - A year 2009 observation of an individual who graduated in 2009 would have a T value of "t." A year 2011 observation of the individual would have a T value of t+2;
 - A year 2007 observation of that same individual would have a T value of "t-1," and their income that year would be called their "t-1 income."

From this point on in this appendix, the word "year" refers to T-values rather than calendar years. T-values are presented on the horizontal axis of the figures in Section 4.

2. Average production minutes in each year were converted to hours. The NOC average hourly wage rate for each production role was then applied to the hours worked by individuals in that role to derive income estimates in each year.
3. In order to compare pre- and post- CFC incomes, the year t-1 (i.e., the year immediately prior to CFC graduation) was assigned a value (i.e., "index") of 0. An earnings index (i.e., a number relative to 0) was calculated for each subsequent year by comparing the annual income in each year to its t-1 level.

Using year-to-year changes in volume (i.e., hours worked), wage rates and the price level (obtained from the Consumer Price Index), Nordicity isolated the portion of each year's total income change attributable to changes in each of these factors. Each of these factors was then indexed to its t-1 level for each year. The final index of graduate earnings changes presented in Section 4 is the sum of the real wage, volume, and price inflation indices.



B Appendix B: The Alumni Survey Questionnaire

Welcome to the Survey

Your participation in this survey will help ensure the future success of the CFC and its ability to continue to promote and support the work of talented alumni like yourself. Thank you for participating. Please note your individual survey results will never be shared outside of the CFC and Nordicity. Survey results will only be used anonymously. You can review the CFC privacy policy here. If you have any questions or concerns, please do not hesitate to get in touch with Julie Whelan at Nordicity (jwhelan@nordicity.com) or Rick Sherman at the CFC (rsherman@cfccreates.com).

FAQs (and Answers)

Q: How long does the survey take?

A: We would set aside 15 minutes to complete the full questionnaire.

Q: Do we need exact numbers?

A: Credible estimates are fine. Most responses can be provided in ranges.

Q: I'm an IDEABOOST grad, the questions don't exactly apply to me... Should I take the survey?

A: Yes. You may want to skip to page four, when the survey asks more company-appropriate questions.

Q: I'm in Montreal/Vancouver (etc.) and the survey says Ontario impact... Should I take the survey?

A: Yes, please take the survey.

Getting to know you

In this section we will ask a few general questions about you.

- Name
- Completion year (of your latest program)
- Email

How did you hear about this survey? (Please check all that apply)

- An email from the CFC/Nordicity
- A post on social media (e.g. Twitter, Facebook)
- A CFC Event
- Other (please specify)

Your projects

In this section we'll try to understand how your projects have changed before and after your time at the CFC. Please note that if you have attended more than one program at the CFC, the "before" year is the year immediately prior to the first program you attended. For example, if you attended the CFC Features program in 2010 and the Prime Time TV Program in 2011, the "before" year would be 2009.

On average, how many projects (e.g., films, TV series, scripts, musical arrangements, digital media products, etc.) do you work on per year?

Please indicate the average number of projects per year before and after your time at the CFC.

On average, how many weeks of full time work in the media production industries do you work per year?

Please indicate the average number of weeks per year before and after your time at the CFC.

What percentage of the projects you've worked on since attending the CFC have included one or more other CFC graduates, mentors, consultants, or guests?

To what degree did knowing other CFC graduates (or instructors) help you get access to the projects you've worked on since attending the CFC?

Of those projects you've worked on since attending the CFC, what portion (as a percentage) were based in Ontario?

Career path

In this section we will ask you about your career path, including your employment before and since attending the CFC. Please note your individual survey results will never be shared outside of the CFC and Nordicity. Survey results will only be used anonymously. You can review the CFC privacy policy [here](#).

What has been your approximate average income range in each of the last three years?

What percentage of this income was derived from work in the media industries?

Of your annual media production income, what percentage would you estimate came from a project (or projects) related to programs you attended at the CFC?

Tell us about what you did before your time at the CFC

What was your LAST production role or job title prior to enrolling in the CFC (for the first time)?

What was your average yearly income immediately prior to enrolling in the CFC?

Please provide a little more detail on your career.

[TRUE/FALSE]

- The program(s) you completed at the CFC (e.g., directing, producing, writing, editing, digital media creation, acting, music) are representative of the type of career you would like to have in the future.
- You are currently employed in the same field as the program(s) you completed at the CFC (e.g., directing, producing, writing, editing).
- Your primary income comes from a job that is unrelated to your CFC training.
- Your primary income comes from a combination of work related to your CFC training and other jobs

How would you rank your employment stability in the media industries since you completed your training at the CFC?

Career success factors

On this page, we'll ask you about those factors that help to establish your career.

To obtain desirable work in your field, how important are the following factors?

Factors

- Talent/skills
- Industry connections/network
- Track record
- Post-secondary education
- Previous experience
- Professional training
- Internship/co-op opportunities
- Mentorship
- Awards and other formal recognition

Please share any further thoughts or reflections on the impact attending the CFC has had on your career in the media industries.

Did you establish an incorporated media company before, during or after your time at the CFC?

By "media company" we mean a production company, productions services company, interactive digital media studio, or any other company that directly contributes to the development, production and/or distribution of media content. If you operate more than one media company, please respond on behalf of the company most related to your CFC experience.

- I established a media company before attending the CFC
- I established a media company during my time at the CFC
- I established a media company after attending the CFC
- I did not establish a media company

What types of media products does your media company create?

Your company

You have reached this page because you have indicated that you have started a company before, during or after going through one or more CFC programs. Again, if you operate more than one media company, please respond on behalf of the company most related to your CFC experience. Please note that if you have attended more than one program at the CFC, the "before" year is the year



immediately prior to the first program you attended. For example, if you attended the CFC Features program in 2010 and the Prime Time TV Program in 2011, the "before" year would be 2009.

On average, how many people does your company employ (including you) in any given year?

On average, how many projects (e.g., films, TV series, digital media products) does your company develop in a typical year?

How many projects (e.g., films, TV series, digital media products) does your company commercialize (i.e., pre-sell, bring to market, license) in an average year?

What was the approximate average production budget for these commercialized projects?

Approximately what percentage of these commercialized projects were funded by foreign pre-sales and/or equity investments from foreign investors?

Approximately what percentage of these commercialized projects involved partnerships with companies from outside of Canada?

What was the approximate average (gross) revenue your company generated from its projects?

Approximately what percentage of your company's total (gross) revenue was generated outside of Canada?

Approximately what percentage of your company's total (gross) revenue is generated from content for which you own the copyright?

To what extent would you attribute your company's success to your involvement with the CFC?

Does your company distribute some or all of its products (or the products of others)?

In an average year, what percentage of your company's revenue is derived from its distribution or publishing arm?

Thank you