Alberta Film and TV Labour Market Survey

Developed by Nordicity

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Nordicity

Contents

Nordicity

Executive Summary

The following report outlines the current and projected labour market needs required to support the continued growth of Alberta's film and TV production industry. The reports main findings are as follows:

- Given the current trends in the production of audiovisual content, there is every reason to believe that the demand for production services, particularly from non-Canadian producers, will continue to be strong in the foreseeable future.
- There has been a general uptick in the demand for – and use of – Alberta-based production crew and facilities over the past few years, likely stimulated to an extent by the enhancement of provincial production incentives in 2021. Nordicity estimates that **production volume in Alberta reached $560 million in 2021 and remained roughly constant in 2022 (at $550 million)**.
- Nordicity estimates that the current production workforce is approximately **4,000 workers across all positions,** which includes a 71% growth in the workforce from 2017 (in terms of days worked). Moreover, between 2020 and 2021 the number of unique individuals working in the industry more than tripled. The production volume data also suggests that approximately **5,900 workers would be required to completely absorb 2021 (and 2022) production volume levels (i.e., roughly 45% more workers than are currently employed in the workforce).**
- The available data thus suggests that that the **supply of crew in Alberta is not able to fully meet the demand**, particularly as it relates to foreign and location service production – despite recent growth in the workforce. Indeed, the portion of production labour sourced from out of the province (as measured in days worked) roughly quadrupled from 2020 to 2021. While future growth will continue to require non-Alberta-based labour, the priority for the Work Action Plan is to develop the local talent pool to capture the benefit of future industry growth.
- The capacity of production infrastructure (i.e., studios and soundstages) do not appear to be a constraint on the industry's growth trajectory. Rather, the available evidence suggests that available labour is the primary constraint on future growth.
- As such, it appears that the labour force in Alberta will need to grow by approximately 45% to fully meet the *current* level of demand (i.e., expected roles in 2022 filled by Alberta residents). It is also likely the case that further growth will be constrained by the level of available labour.
- While the suggested level of growth will require across-the-board labour growth, **some positions are more in-demand than others**. The available payroll, survey, and interview data suggests that the following are in the highest demand (listed in no particular order):
  - Production accountants
  - Construction coordinator
  - Head greensperson
  - First assistant director
  - Transportation
  - Hair and makeup
  - Props buyers
  - Editors
  - Department heads
  - Technical roles
  - Mid-level producers

- This labour challenge can likely be resolved by a combination of **training programs and attraction from other jurisdictions.** In some cases, it may be possible to target Alberta-based workers with comparable skills in other sectors of the economy, although many in-demand positions depend on very specific skill sets.

1. Introduction

Given the increasing global demand for production services, Calgary Economic Development and the Edmonton Screen Industries Office – in conjunction with the Province of Alberta -- commissioned Nordicity to conduct an analysis of the film and television labour market in the Province of Alberta. The need for this labour market survey is based on observations made by industry stakeholders regarding the availability of Alberta-based labour needed to crew productions occurring within the province. To provide a grounded, data-driven picture of production labour availability in Alberta, Nordicity has adopted a robust, evidence-based approach to documenting any labour challenges or gaps currently present in Alberta's production sector.

This analysis also represents the creation of baseline data against which the results of future workforce action plans can be measured. Absent such a baseline it would be difficult to measure the relevance and/or efficacy of any such programs.

Because any production activity requires appropriately trained – and available – crews, the primary focus of the labour market survey is "below-the-line"[1] positions. That said, above-the-line positions (e.g., actors, directors) were not excluded from the analysis and are still represented in the data presented herein.

Given that the demand for production services is likely to continue to grow in the foreseeable future, the analysis also includes a projection of likely production volume levels over the next few years. To that end, Nordicity will continue to use the data presented in this report to develop recommendations as to how to appropriately grow the production workforce in Alberta, as well as to inform the work action plan in Phase 2 of this engagement.

1.1 Document Map

The report includes the following key sections:

- Following the methodology in the subsections below, Section 2 describes the context for a growing audiovisual sector globally, nationally, and in Alberta.
- Section 3 provides a detailed profile of the existing workforce including a current headcount from payroll data and demographic information from census and survey data.
- Section 4 describes the supply and demand for production labour, identified both through payroll/union data as well as firsthand accounts through survey and interview responses.
- Section 5 illustrates key skills and training considerations including the current state of film and TV training as well as opportunities for retraining, identified through skills mapping.
- Section 6 introduces preliminary key considerations to be expanded on during the strategic planning phase of the work as well as examples of other workforce development initiatives.

1.2 Methodology and Data Sources

[1] What Does "Below the Line" Mean? Below the line credits (also called BTL) in film production refers to the positions responsible for the day-to-day work of making the film—during pre-production, production, and post-production

This report presents the results and analysis from the data collected in a survey of workers and hiring managers in Alberta's production sector; data provided by film and TV unions and guilds; and Census data obtained from Statistics Canada (as described below).

1.2.1 Survey

Nordicity conducted a survey of workers, contractors, and hiring managers who work in the film and television sector in Alberta to ask them about:

- Current opportunities,
- Challenges and barriers to entry,
- Number and efficacy of training programs, and
- Ability to recruit talent.

The survey contained questions about the respondents' backgrounds (e.g., demographics and previous occupation), income, challenges, training, and career satisfaction. Individuals in hiring positions responded to additional questions about occupations that they find difficult to fill. The survey collected key data on training needs and the effectiveness of different types of training in the film and television sector. The results of the survey will inform other analyses (e.g., skills mapping) to validate the findings and to provide additional context.

The survey was open to respondents from February 14 to March 14, 2022, and it was developed on the online survey platform Voxco. Calgary Economic Development and its partners distributed the survey.

The survey received 408 complete responses. Based on Nordicity's census mapping estimate of 2,830 workers in film and television residing in Alberta, this is a response rate of 14% of the total worker population. Almost all (98%) survey respondents indicated that they primarily reside in Alberta. In terms of gender, women were well-represented in the sample with 38% of respondents indicating that they identify as women. In comparison, 40% of all workers in film-related occupations in Alberta identify as women.[2]

People of colour were also well-represented with 16% of respondents identifying as such. This number is slightly higher than the 11% of all industry workers who identify as belonging to a visible minority group. Table 1 summarizes the demographic data of the survey sample.

Table 1: Survey respondent demographic data

Respondent Gender	% of Total Respondents	% Who Identify as "White"	% Who Identify as "Person of Colour"
Cisgender man	47%	81%	15%
Cisgender woman	38%	79%	16%
All other genders	6%	79%	14%

n = 408

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

One part of the survey was optional, and respondents could exit the survey at any point, so different questions collected different response counts (i.e., "n-values").

[2] Census 2016, Custom Tabulation.

1.2.2 Skills Mapping

For the purposes of this study, Nordicity employed skills mapping to identify opportunities for transitions from other sectors into positions within the film and television industry. Nordicity measured job skill requirements and related job characteristics with the use of Occupational Informational Network (O*NET), a free online database with occupational definitions and information on occupational characteristics such as *work activities*, *skills*, and *tasks*. Nordicity drew upon O*NET to understand the characteristics that detail each occupation. In addition to O*NET, considerations regarding the importance of certain skills were derived from stakeholder engagement. Nordicity also considered salary differences when identifying potential labour retraining opportunities (i.e., if a certain occupation currently earned significantly more than what is possible in the equivalent film and TV role, it was not considered a target for retraining).

By incorporating the use of *work activities* as the determining characteristic, Nordicity was able to create a skills map and illustrate which occupations can be re-trained to transition to other occupations most easily. Nordicity calculated an importance factor based on which skills were most common to industry occupations and how important the skill was to be working in that occupation. This factor was used to find occupations with similar skills needs as those in production.

1.2.3 Interviews

Nordicity conducted 21 interviews with relevant stakeholders in Alberta's film and television industry. Interviews began in December 2021 and were completed in February 2022. Interviewees included:

- Business agents and representatives from unions and guilds,
- Domestic and foreign producers,
- Representatives from industry associations,
- Program directors, academic chairs, and industry liaisons from postsecondary institutions, and
- Representatives from independent training organizations.

Interview questions focused on Alberta's film and television industry in general, as well as on the workforce and/or training environment. The types of questions were tailored to the interviewees and their specific roles, expertise, or experiences within the Alberta film and television ecosystem.

1.2.4 Indicators

Workforce indicators – specifically, total wages earned and total days worked – were calculated from payroll data provided by companies covering productions in Alberta. Nordicity mapped occupational descriptions from these companies to each other and to departments, resulting in a concordance table that combined the various datasets into one consolidated table without duplicates. For this mapping, several occupations needed to be aggregated at a level supported by both datasets.

The team compiled payroll company data into three tables (days, payroll, workers) based on the list of occupations in the concordance table. These tables were used to estimate days worked and daily rates for every occupation available in the dataset. There were several gaps that were filled based on union data from other jurisdictions analyzed for other Nordicity studies. High-level totals were compared with union data where available.

The data does not cover productions that did not use the two payroll companies (e.g., small domestic projects). The days worked were compared with data provided by unions, but the two sources together do not represent the entire industry. However, insights drawn from this data can be assumed to apply to the industry as a whole.

Table 1: Workforce Indicator Data Source Summary

Source	Wages	Days Worked	Number of Workers/Members
IATSE 212	By Occupation Years: 2021	By Occupation Years: 2021	
IATSE 669	Total Years: 2020, 2021	Total Years: 2020, 2021	
DGC	Total Years: 2017, 2018, 2019, 2020, 2021	Total Years: 2017, 2018, 2019, 2020, 2021	Total Years: 2017, 2018, 2019, 2020, 2021
ACTRA			Total Years: 2021
Payroll Data	By Occupation Years: 2017, 2018, 2019, 2020, 2021	By Occupation Years: 2017, 2018, 2019, 2020, 2021	By Occupation Years: 2017, 2018, 2019, 2020, 2021

While payroll companies did provide number of workers, they are not a count of unique workers and hence had to be scaled down using ratios from other Nordicity labour market studies. Total workers were estimated using average earnings derived from union data in other studies applied to total wage data provided by payroll companies.

1.2.5 Production Volume Forecast

Production volume was forecast for 2022–2024 using historical data from 2015 onwards from the same administrative data used in CMPA's *Profile 2021* (for which Nordicity conducted the economic analysis) as this data represents the best available production data in Alberta.

For production capacity estimates, Nordicity used its Soundstage database which includes soundstages in Alberta and limited occupancy data. Estimates of workforce size needed to service this capacity of production volume was calculated using ratios from CMPA's *Profile 2021* to derive labour expenditure and size of workforce.

2. Context: Audiovisual Production in Alberta (and Canada)

2.1 Global Audiovisual Production Trends

The global film and television production industry has seen an enormous influx of investment from Subscription Video on Demand (SVOD) services. As more SVOD services emerge and existing services vie for consumer attention and dollars in an increasingly segmented market, there is a consistent, high demand for film and television content. The primary growth strategy of all SVOD providers is to produce exclusive content to attract viewers to their service, and the increasing number of providers demands new content, talent, and production facilities. This demand is overwhelming the supply abilities of some jurisdictions, leading to significant film and television production booms in regions worldwide.

Based on historical data and forecasts, this boom is expected to continue over the near term due to continued spending growth from new and existing SVOD providers. Global video-on-demand revenue has been climbing steadily for many years, with a combined annual growth rate (CAGR) of 26.2% between 2017 and 2021 and a projected CAGR of 11% between 2021 and 2025. Subscriptions have also been growing steadily, with a 16.9% growth in global SVOD subscriptions between 2020 and 2021. Subscriptions are projected to increase by a CAGR of 7.2% between 2021 and 2026. While demand for SVOD is projected to continue to grow in the short to medium term, consumer fatigue with an increasingly fragmented streaming market may lead to declines in the longer term.

2.2 New Developments in the Audiovisual Sector

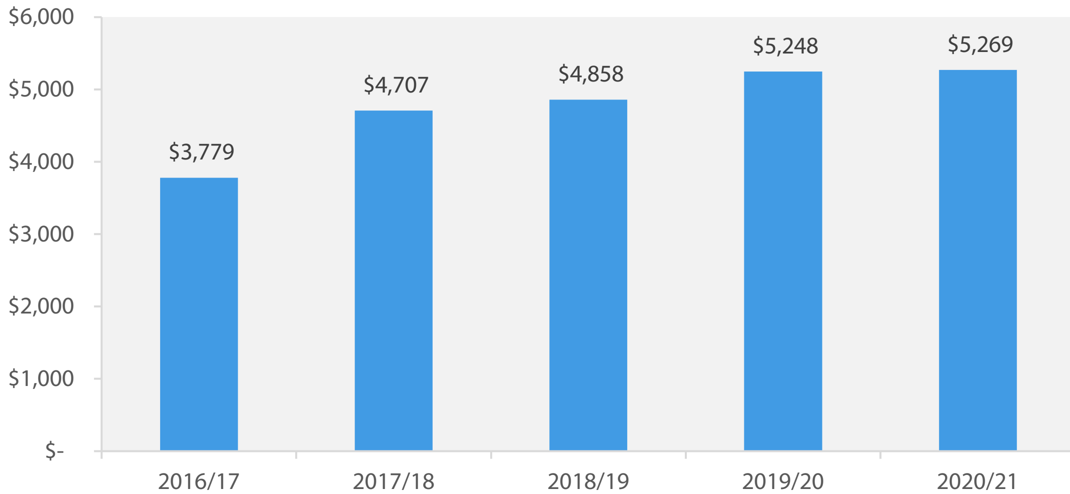
The film and television shutdowns during COVID-19 negatively impacted the industry in several ways. However, the need for new methods and workarounds in the face of COVID-related restrictions led to an explosive expansion of virtual production as a filming tool. Virtual production encompasses some solutions that allow a production team to combine live footage and computer graphics in order to get real-time feedback and make decisions on set about the VFX and animation. Virtual production has revolutionized filmmaking workflows and has allowed small and independent production companies to compete with the larger companies by giving them access to virtual locations and sets that would previously have been prohibitively expensive. Virtual production also addresses the increasing concerns of the environmental impact of the film and television industry, as using virtual locations and sets reduces travel and waste.

Not only has the film and television industry seen technological changes in recent years, but it has also increasingly faced calls for sociopolitical change. As in many industries, diversity and representation are current issues in the film and television sector. Particularly following the Black Lives Matter movement in 2020, conversations were started about the lack of diversity in the film and television industry, both in front of and behind the lens. Some companies have made pledges to increase racial representation as well as 50/50 pledges to hire women and men equally, but diversity is often still lacking at an executive level. Advocacy groups have been working to ensure that underrepresented voices are heard in the industry. In Canada, several advocacy groups have been established in recent years, namely the Indigenous Screen Office in 2017, the Black Screen Office in 2020, and the upcoming Disability Screen Office.

2.3 Canadian Foreign Location and Service Production

The production boom is impacting jurisdictions across Canada. Key Canadian production hubs include Vancouver, Toronto, and Montreal, with secondary hubs in Calgary and Winnipeg. Overall, Canada's foreign location and service (FLS) production volume has increased by a CAGR of 8.7% over the last five fiscal years, even increasing slightly between 2019/20 and 2020/21, despite COVID-related restrictions. Figure 1 shows the volume of Canadian FLS production from 2016 until 2021.

Figure 1: Canadian FLS production volume in millions



Source: Profile 2021 Economic Report on the Screen-Based Media Production Industry in Canada.

2.4 Audiovisual Production Trends in Alberta

Within the Canadian context described above, Alberta competes for its share of FLS production. It does so with a combination of talent (crews to work on projects), infrastructure (e.g., soundstages), and production incentives. While Section 3 will expand upon Alberta's current production workforce, the following subsections elaborate upon the environment in which that workforce operates.

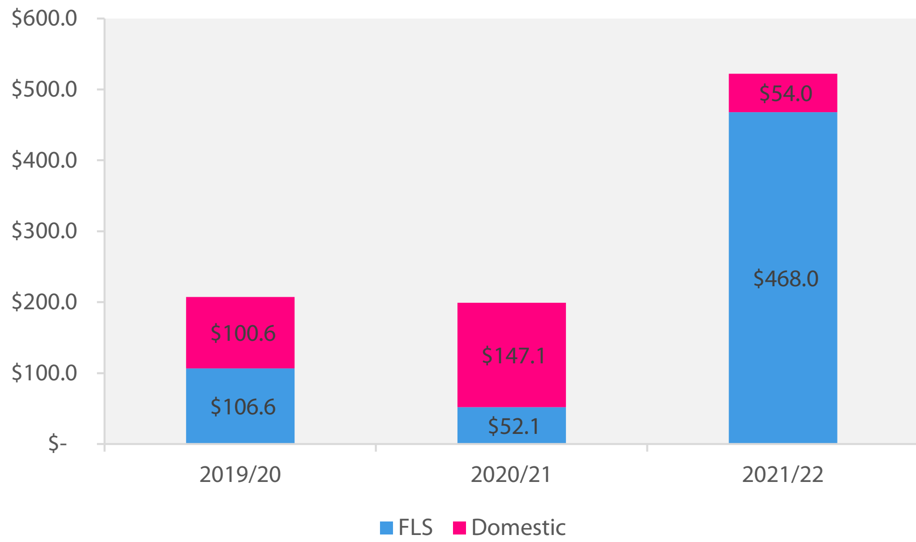
2.4.1 Alberta Production Volume

Overall production volume in Alberta reached **$560 million in 2021 and is expected to remain relatively flat in 2022 at $550 million.**[3] At the same time, Alberta still lags significantly behind the three biggest production hubs of BC, Ontario, and Quebec in terms of overall production activity and FLS production, leaving some room to grow within the Canadian media production industry.

Despite this gap, FLS activity has grown significantly in Alberta in recent years. As Figure 2 illustrates, both the total level of production – and the portion of that production accounted for by FLS project has risen since 2019/20 (noting that the 2020/21 year was significantly impacted by the onset of the COVID-19 pandemic).

[3] Audited figures provided by Calgary Economic Development that includes all projects undertaken in Alberta in 2021 – both supported by the incentive system and otherwise.

Figure 2: Production volume in Calgary by type in millions (2019/20 to 2021/22)



Source: Audited data provided by Calgary Economic Development

The Government of Alberta credits the introduction of the new film and television tax credit as well as the removal of the per-project cap, that was present early in the program, with drawing FLS to the province (see Section 2.4.2 for more on the changes to Alberta's incentive programs). Indeed, FLS production in Southern Alberta alone reached $468 million in 2021/22 – almost twice the combined total production volume of the preceding two years. This rapid year-on-year growth speak directly to the need for commensurate workforce expansion.

2.4.2 Production Incentives in Alberta

Alberta's Film and Television Tax Credit is currently competitive, but it has had a somewhat turbulent history. Prior to 2019, the Province had a grant program that allowed applicants to receive up to 30% of eligible production expenditures to a maximum of $7.5 Million per production, and an overall annual program budget of $45 million. However, demand on the program outpaced available annual funding, leading to a program oversubscription and lack of sufficient funding for new projects, restricting industry growth.

Industry criticized the per-project cap and the fixed program budget of the prior grant program as restricting the province's ability to attract large scale projects, as well as placing local productions in direct competition with potential FLS productions. The resulting decrease in productions was also observed by the industry and led to companies and crews leaving Alberta in favour of better opportunities and incentives in other jurisdictions (e.g., Vancouver)

In 2019, the grant program was concluded and was replaced with a tax credit in 2020. At the same time, Government implemented a targeted program for small budget, Albertan owned projects, called the Alberta Made Production Grant, with an annual program budget of $1 million.[4]

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[4] Data provided to Nordicity by the Government of Alberta Program which depicts results to September 2022.

2.4.3 Alberta Soundstage Development

Increasing global demand and Alberta's new, more competitive production incentives are bringing soundstages to the province. In early 2021, major studio operator William F. White International opened Fortress Studio in Calgary, a 97,500-square-foot soundstage with nearby facility Fortress Support offering 70,000 square feet of support space and 20,000 square feet of office space. Fortress Studio and Fortress Support join seven other soundstages in the province, further increasing Alberta's capacity for supporting large scale productions.

Based on this context, there is an opportunity for Alberta to capture a greater share of global film and television production. Although the production facilities are now in place, the challenge remains to ensure that the right Alberta-based crews are available to serve productions housed within these facilities. By addressing this challenge, Alberta could see sustainable long-term growth in this sector, as expressed through employment growth and increased production activity.

3. Profile of the Existing Workforce

This section describes the film and television industry workforce residing in Alberta in terms of size and demographic makeup including age, gender, educational attainment, ethno-racial background, education, and place of residence 10 years ago (i.e., immigration status). This profile of the workforce will provide context to the challenges faced by workers when entering the industry and by hiring managers when finding talent. It also helps uncover areas of underrepresentation in terms of gender, ethno-racial identities, and location. More importantly, this profile forms the basis of the occupation-skills mapping exercise which will help articulate skill demand and gaps.

It is important to note that demand to enter the industry continues to exist as many see the industry as an exciting opportunity to pursue creative freedom and live an interesting lifestyle.[5] Many also see the industry as one that provides them flexibility and higher pay than other entry-level opportunities. At the same time, access to opportunities, burnout, and unrealistic expectations can mean that some do not stay in the industry for long (see Section 3.7). This balance indicates the important opportunity to further build on the attractive features of the industry and address some of the challenges to retain workers.

3.1 Current Headcount

Nordicity estimates that there were approximately **4,000 industry workers** in the province working in a variety of industry occupations in 2021. This estimate was derived from payroll data and tested against worker estimates for other jurisdictions in Canada (e.g., from CMPA's annual *Profile*). The following table provides a breakdown of this estimate by a standardized set of roles.[6]

Table 2: Estimated number of workers by role in Alberta in 2021

Role	Estimated Number of Workers
Accounting	40
Actor - Extra	1690
Actor - Screen	270
Actor - Voice	Under 10
Art	40
Assistant Director	40
Producer	50
Camera	160
Casting	30
Catering	20
Construction	130
Costume	100
COVID Safety	30
Director	Under 10

[5] https://www.pulsecollege.com/why-work-in-film-production

[6] Note: Because the data provided to Nordicity from various sources differs in its description of roles, the list provided here represents Nordicity's attempt to standardize such roles.

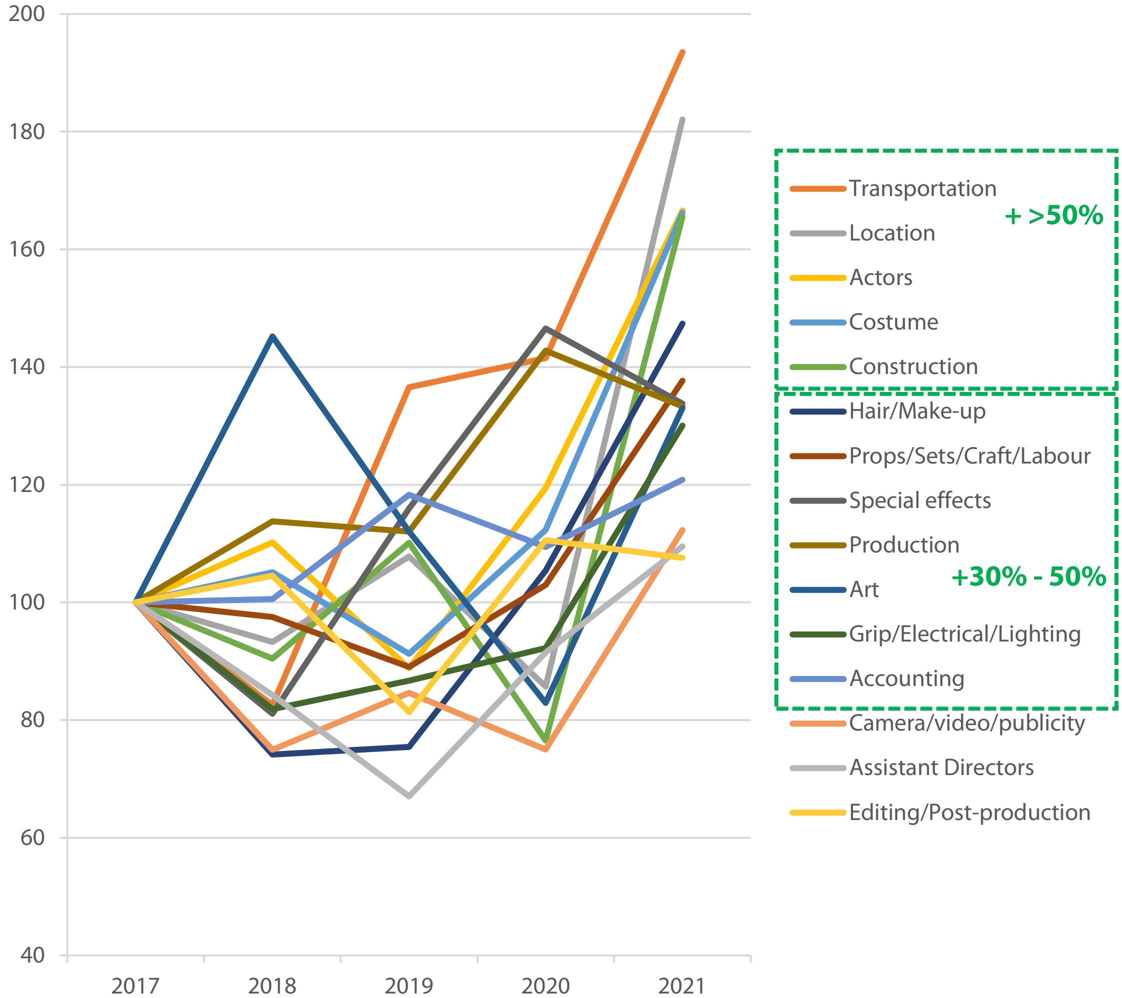
Role	Estimated Number of Workers
Editors - Picture	Under 10
First Aid / Craft Service	80
Greensperson	20
Grip	110
Hair	40
Lighting / Electrics	110
Locations	50
Makeup	30
Paint	60
Paramedic	Under 10
Post-production	Under 10
Production Assistants, Coordinators, and Managers	240
Props	40
Publicity	Under 10
Script	Under 10
Security	40
Set Decorating	100
Sound	20
Special Effects	50
Stills	Under 10
Stunts	90
Transportation	280
Tutors	Under 10
Visual Effects	Under 10
Wrangling	50
Unknown	10
Total	**4,000**

Source: Data provided by payroll companies for Alberta productions and Alberta-based unions/guilds.

Between 2017 and 2021, average number of days worked increased by 76% at an industry-wide level, demonstrating an across-the-board increase in demand for production services. Roles that showed the largest year-over-year increases included in transportation, locations, acting, and costuming. Only workers in sound and writing/script/continuity saw a decline in average days worked over that period. At the same time, where there are “under 10” workers available in Alberta for a given position, it is likely that the supply of such labour may constrain practical production capacity and/or require out-of-province hires.

The implication of the growth in demand is twofold. First, it suggests that growth in Alberta’s production sector has leaned to some extent on location-based production (hence the over-indexing to location and transportation positions). At the same time, growth was also observed in positions directly related to facility-based production.

Figure 3: Average days per worker by department over 2017–2021 (indexed to 2017)

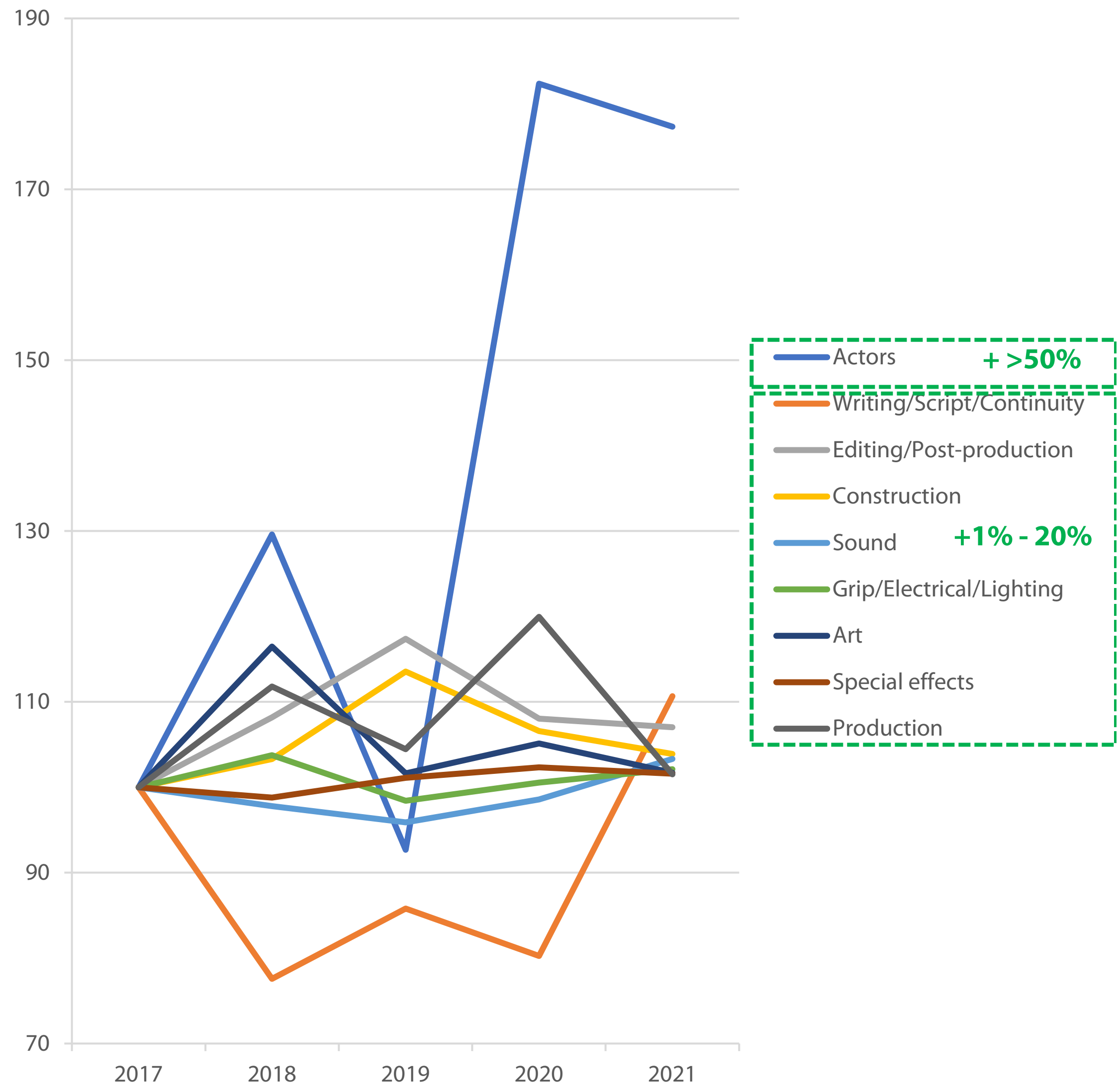


Source: Data provided by payroll companies for Alberta productions.

In terms of daily rate or income earned per day of work, workers in acting, writing/script/continuity, construction, and sound roles saw a compensation increase over the same period, as visualized below. On the contrary, transportation, location, assistant directors, and costume roles all saw a very small decrease in their indexed daily rates. This observation suggests that while there was more activity in these areas, the roles have been appropriately filled to date. Decreasing daily rates for transportation roles may be contributing to a smaller number of available drivers in the industry, which was noted during interviews. If so, transportation may emerge as challenge for future productions.

Appendix D illustrates that senior level roles in the Film and TV sector can earn more, on average, than similar senior roles in other sectors (including natural resources). At the same time, some of the more junior roles are earning below comparably junior roles in other sectors. It is important to note that NOCs data (required for industry comparison) is historical data and does not allow the same nuance as payroll data and should be taken as illustrative only.

Figure 4: Average wage per day worked by department over 2017 – 2021

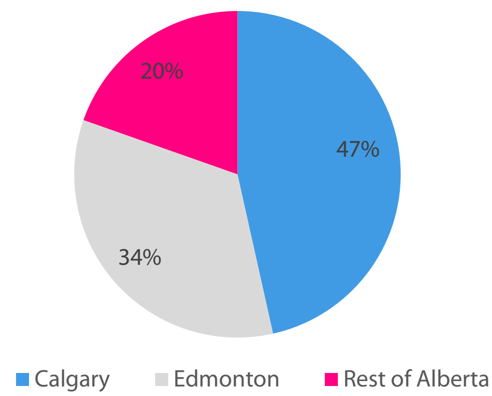


Source: Data provided by payroll companies for Alberta productions.

3.2 Location

In terms of geographical distribution, the workforce is concentrated in urban areas (80%) with 47% of the workforce residing in Calgary and 34% residing in the Edmonton. Given that the overall workforce residing in these two metropolitan areas constitutes 68% of Alberta's total workforce, the film and television industry is definitively more urban that other sectors. This finding is consistent with the nature of the cultural industries in general. For example, in Ontario over 80% of cultural industry workers live in large urban centres.[7] Figure 5 shows the geographic distribution of the film and television workforce.

Figure 5: Geographical distribution of the film and television workforce in Alberta



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

3.3 Gender and Age Distribution

As Figure 6 shows, women are less prevalent in the film and television workforce (38%) than in Alberta's workforce overall (47%).[8] The percentage of women in the survey sample is equal to the overall share of women in the film and television sector, as approximately 38% of survey respondents indicated that they identify as cisgender women.

While limited research was available to compare this number to the film and television workforce in other jurisdictions, a Motion Picture Industry Labour Market Study was conducted in BC in 2019 that found that women counted for 34% of the film and television workforce in BC.[9] Therefore, Alberta's film and television industry is employing more women than its provincial neighbor by 4%.

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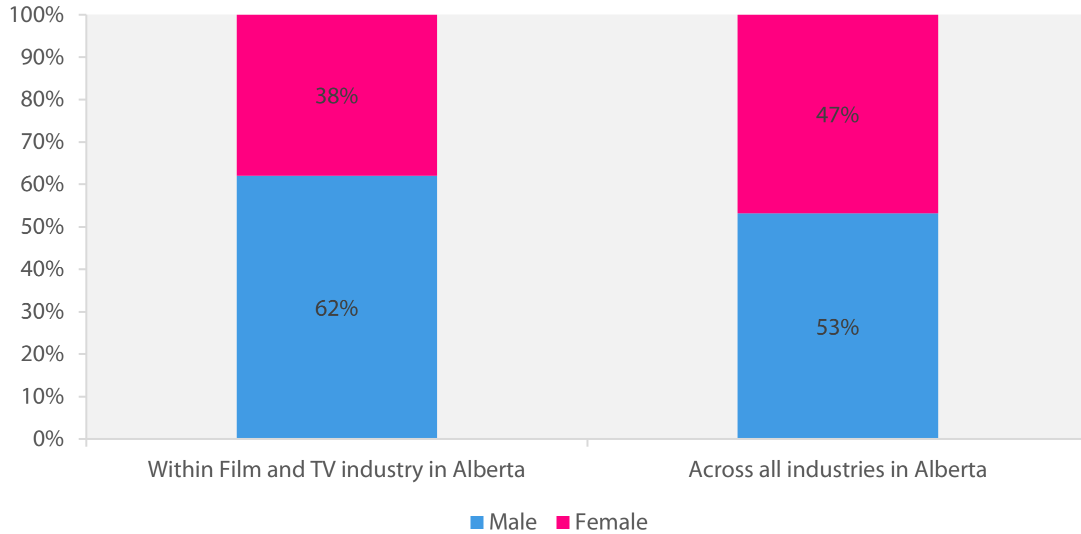
[7] *MakingItWork: Pathways Toward Sustainable Cultural Careers*

[8] According to Statistics Canada, "For the 2016 Census of Population, transgender, transsexual, and intersex Canadians were asked to indicate the sex (male or female) with which they most associated themselves. Respondents who could not select one category had the option of leaving the question blank and indicating in the Comments section, the reason(s) for which they had chosen to leave this question unanswered." In this context, respondents may have answered based on gender rather than birth or biological sex. In any case, we are limited to reporting as a binary – 2016 Census of Population: Age and sex release https://www12.statcan.gc.ca/census-recensement/2016/ref/98-501/98-501-x2016002-eng.cfm

[9] Work BC 2019. BC-Motion-Picture-Industry-Labour-Market-Study-July-2019.pdf (workbc.ca)

Figure 6: Gender distribution of film and television workforce in Alberta, compared with the provincial workforce

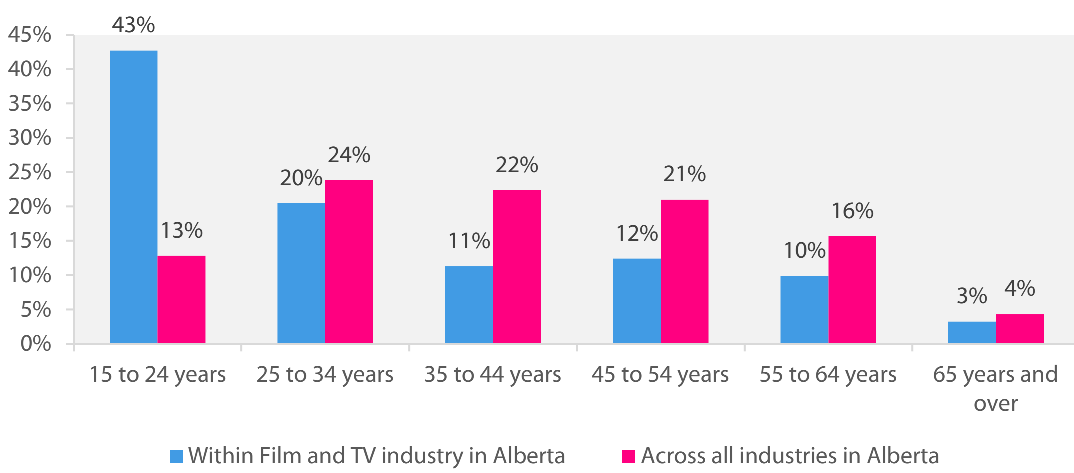


Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

Figure 7 illustrates the distribution by age of workers in Alberta's film and television industry compared with the entire provincial workforce. As evident in this chart, the film and television industry in Alberta is much younger than the overall provincial workforce. Over four in 10 workers (43%) are between the ages of 15 and 24 years, compared to 13% of the overall workforce. In fact, almost two-thirds (63%) of the film and television workforce is 34 years or younger, which is much higher than the provincial workforce (37%).

The average age of workers in the film and television industry is estimated to be 33 years and that of Alberta's overall workforce is approximately 41 years. This skew towards younger demographics may indicate growing interest from younger populations and potentially reflect the need to be flexible and willing to work longer hours (which can be more difficult for olders workers that are more likely to have families and other commitments).

Figure 7: Age distribution of film and television in Alberta in proportion to provincial workforce



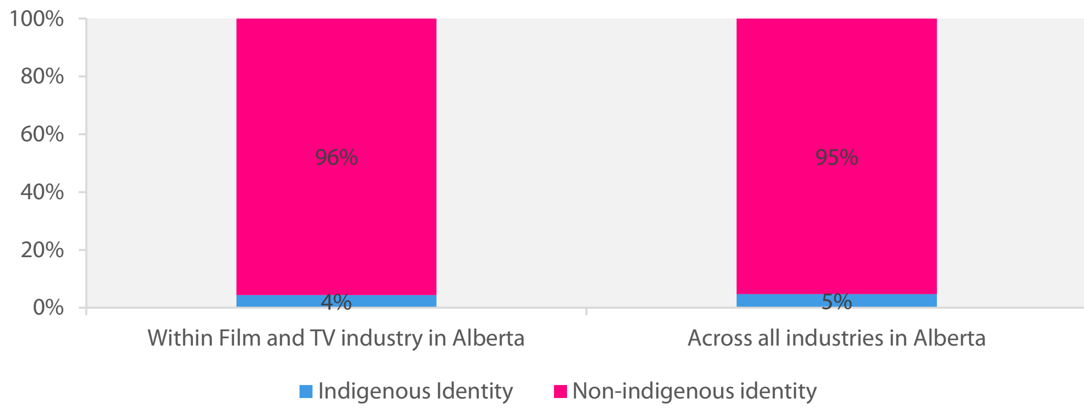
Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

3.4 Equity-Deserving Groups

In terms of Indigenous identity, about 4% of the film and television industry workforce identified as having one or more Indigenous identities. This representation lags the provincial workforce (5%). While a 1% difference may seem low, it is a significant difference given that Indigenous people constitute only 5% of the overall workforce. These findings are shown in Figure 8 below.

Comparatively, in BC it was found that 6% of the film and television industry workforce identified as Indigenous. However, it is important to note that a direct comparison can be challenging to make as other factors, such as BC having a higher proportion of Indigenous people, may impact this finding.

Figure 8: Distribution of film and television workforce in Alberta, compared with the provincial workforce, by Indigenous identity(ies)[10]



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

Analysis of the demographics of the workforce also shows that people of colour are underrepresented compared to the provincial average. Figure 9 shows that only 14% of workers in the film and television industry identify as people of colour, whereas they represent 22% of Alberta's total workforce. Low participation of people with Indigenous identities and people of colour in the film and television industry suggests that there are barriers to entry. This is particularly notable in an industry that is experiencing demand for more workers.

Similarly, it was found that visible minorities participate in the film and television industry at 15% in BC (lagging 14% behind BC's provincial number of 29%). Additionally, a study conducted by Screen Nova Scotia found that BIPOC and visible minorities represent approximately 4.5% of the total workforce.[11] The participation by BIPOC professionals in Nova Scotia is also low compared to the provincial population, in which 6.5% of Nova Scotians and 11.4% of citizens of Halifax identified as members of a visible minority.[12]

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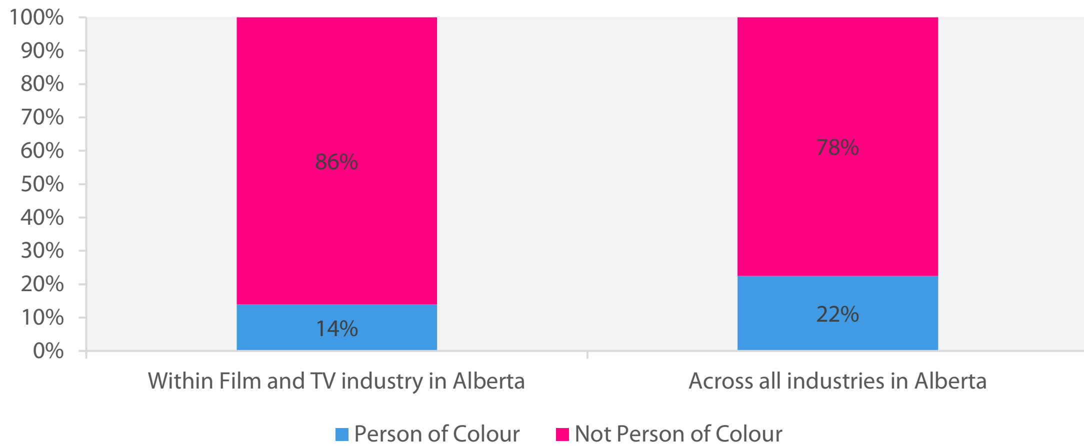
[10] Indigenous identity encompasses those who are First Nations (North American Indian), Métis, or Inuk (Inuit). Census 2016 refers to Indigenous people as "aboriginal people" but in this report, Nordicity will refer to "aboriginal people" as "people with Indigenous identity(ies)."
https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/pop001-eng.cfm

[11] Screen Nova Scotia. Microsoft Word - FINAL REPORT JULY 15 SNS Survey of Diverse Industry Professionals 2021.docx (screennovascotia.com)

[12] Stats Canada. Census Profile.

Nationally, visible minority workers accounted for 16.1% of the cultural workforce and 20.8% of the total Canadian workforce.[13] Internationally, a study conducted by the Creative Diversity Network in the UK found that Black, Asian, and Minority Ethnic (BAME) contributions increased from 9.7% to 12.3% from 2017 to 2020. This is nearly equal to the UK BAME population (12.8%) but well below the BAME population of London (40.2%).[14]

Figure 9: Distribution of film and television workforce in Alberta, compared with the provincial workforce, by people of colour[15]



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

Barriers to entry are also reflected in the data collected through the survey. When asked about barriers to entering the industry, a large share of workers who identified as a person of colour indicated that *Lack of representation* (39%) and *Systemic racism or discrimination* (30%) presented challenges.

3.5 Educational Attainment

As mentioned in Section 3.3, the film and television industry in Alberta has a workforce that comprises a higher number of younger workers (ages 15-24) compared to the overall provincial workforce. As such, it is not surprising that the educational attainment follows the same pattern. The film and television industry has a higher number of workers (22%) with no postsecondary education than the overall provincial workforce (10%). Furthermore, fewer employees within the film and television sector hold higher-level educational degrees with 20% of workers having obtained a university degree compared to 27% for Alberta overall. This reflects the perceptions of training detailed in Section 5.3 that place greater value on on-set training compared to formal degrees. Figure 10 provides a visualization of this data.

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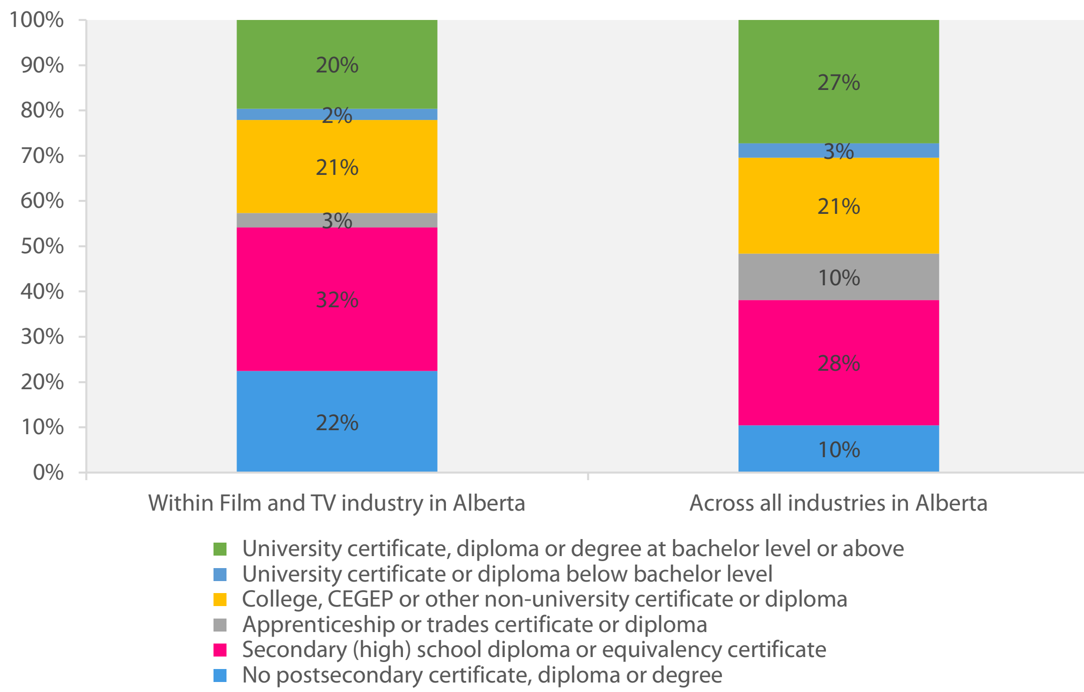
[13] Cultural Human Resources Council, Labour market Information for Canada's Cultural Sector 2019-2022.

[14] Creative Diversity Network. RED-Full-Report-121020.pdf (creativediversitynetwork.com)

[15] People of colour refers to whether a person is a visible minority or not, as defined by the Employment Equity Act. The Employment Equity Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean and Japanese. In this report, Nordicity will refer to "visible minority" as "people of colour." https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=45152

Similar dynamics are found in BC, with 72% of employees having some level of postsecondary education. In Nova Scotia, 4% of film and television workers hold a university degree, 23% a college certificate or diploma, 13% a high school diploma, 9% a university certificate or diploma, and 1% an apprentice or trades certificate.

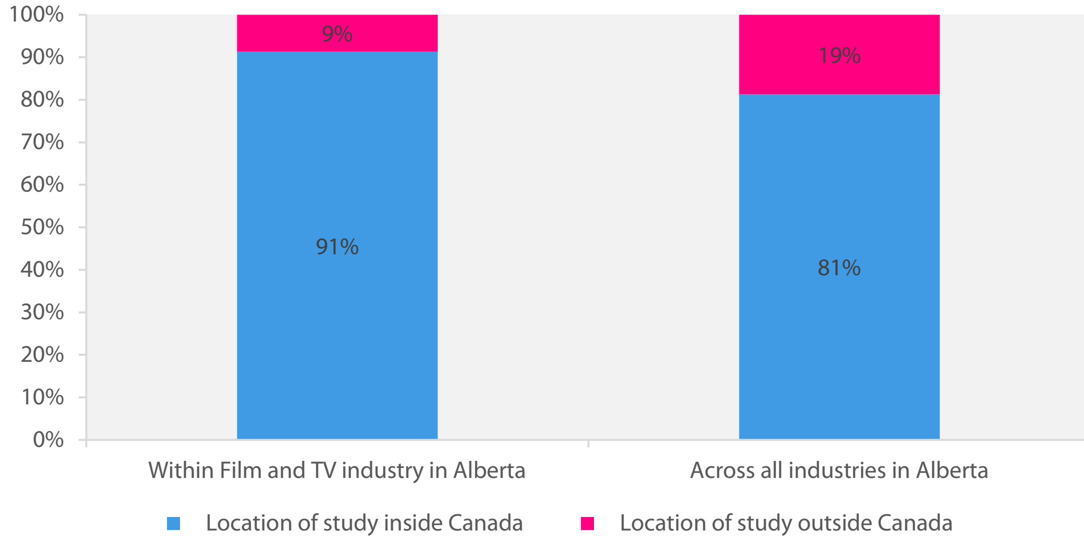
Figure 10: Educational attainment of film and television workforce in Alberta, compared with the provincial workforce



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

A large majority (91%) of industry workers completed their studies in Canada. This is higher than the provincial workforce (81%), implying that people educated outside of the country are less likely to enter Alberta's film and television sector.

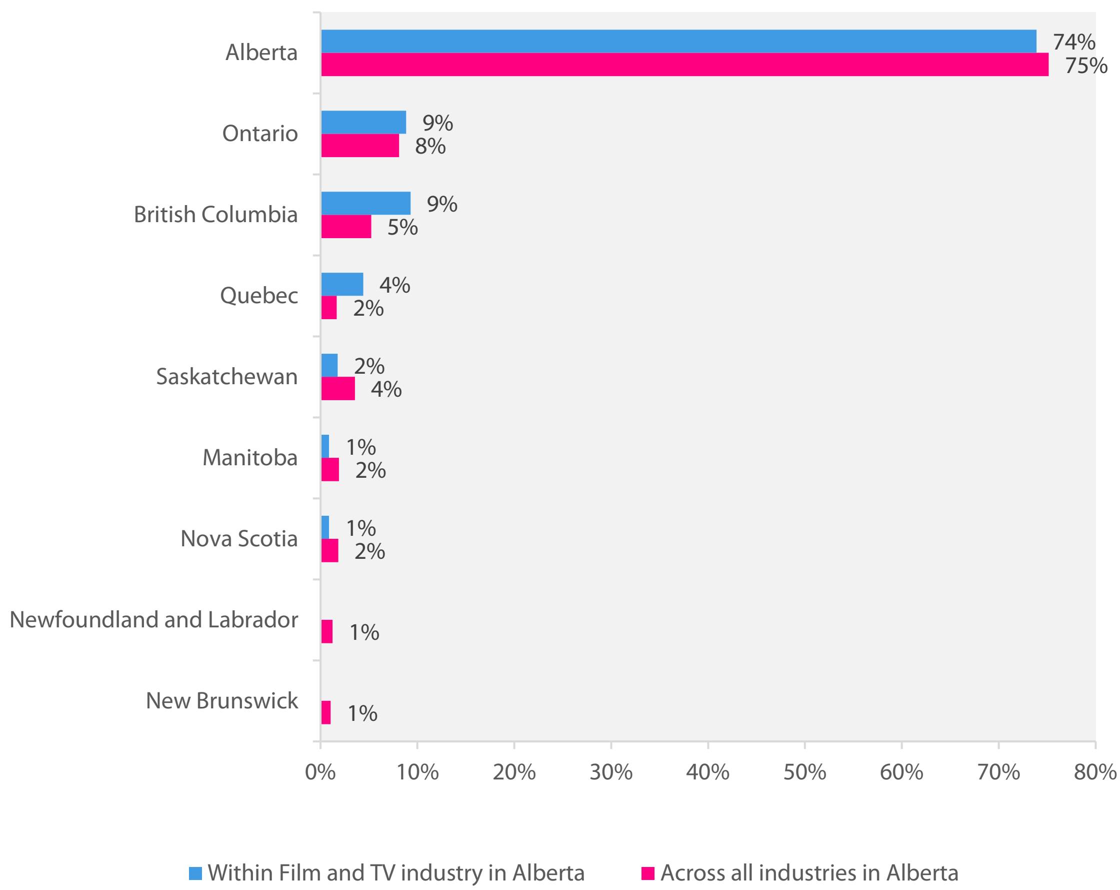
Figure 11: Location of study of film and television workforce in Alberta, compared with the provincial workforce



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

Almost three-quarters (74%) of industry workers who completed their studies in Canada did so in Alberta. About 9% of industry workers completed their studies in Ontario and another 9% in BC, both of which are higher than the provincial workforce (at 8% and 5%, respectively). This finding may have alternative although not exclusive explanations. It could suggest that Alberta's film and television industry is able to attract graduates from Ontario and BC, both of which have large film and television workforces, or that Albertans leave the province to complete their studies and return following graduation. A closer analysis would confirm these interpretations. A breakdown of location of study is shown in Figure 12.

Figure 12: Location of study within Canada of film and television workforce in Alberta, compared with the provincial workforce



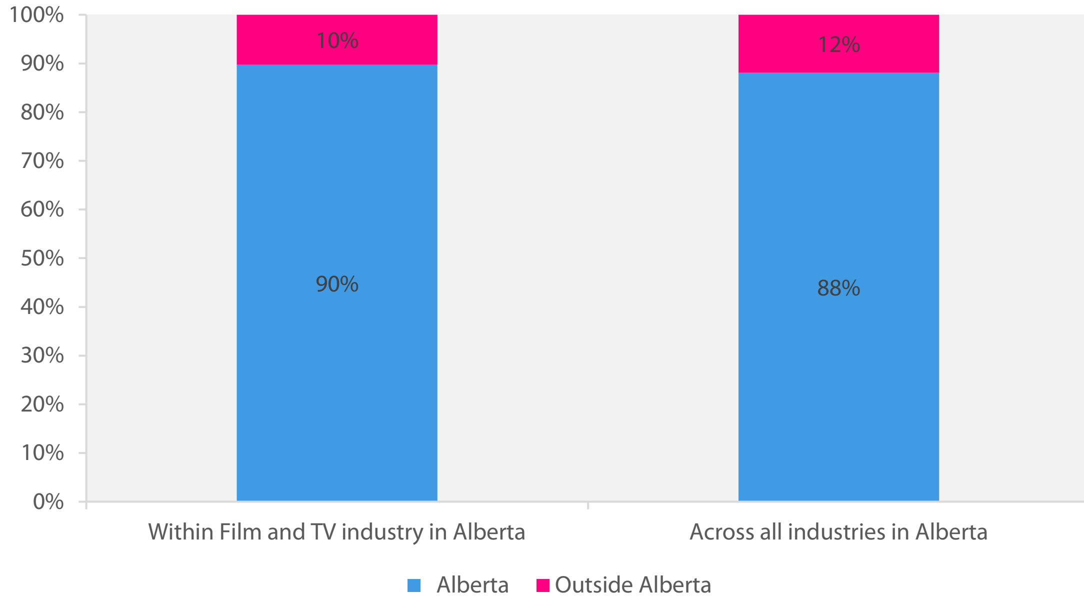
Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

3.6 Immigration

A large majority (90%) of industry workers resided in Alberta in 2011, which is slightly higher than the provincial workforce (88%), as visualized in Figure 14. This implies that 90% of employees in film and television have lived in Alberta from 2011 to 2016, the date of the census data collection. Moreover, this suggests that the workforce in Alberta is mostly comprised of Alberta natives and immigrants who have settled in Alberta prior to 2011.

Speaking further to labour flows, interviewees shared that, historically, individuals in Alberta's film and television workforce have been pulled to leave the province and work in other jurisdictions where work opportunities appear to be more prevalent and consistent. One interviewee noted that this is especially true of creative types (e.g., directors, writers), as they feel there are very few opportunities for them in Alberta and have little incentive to stay.

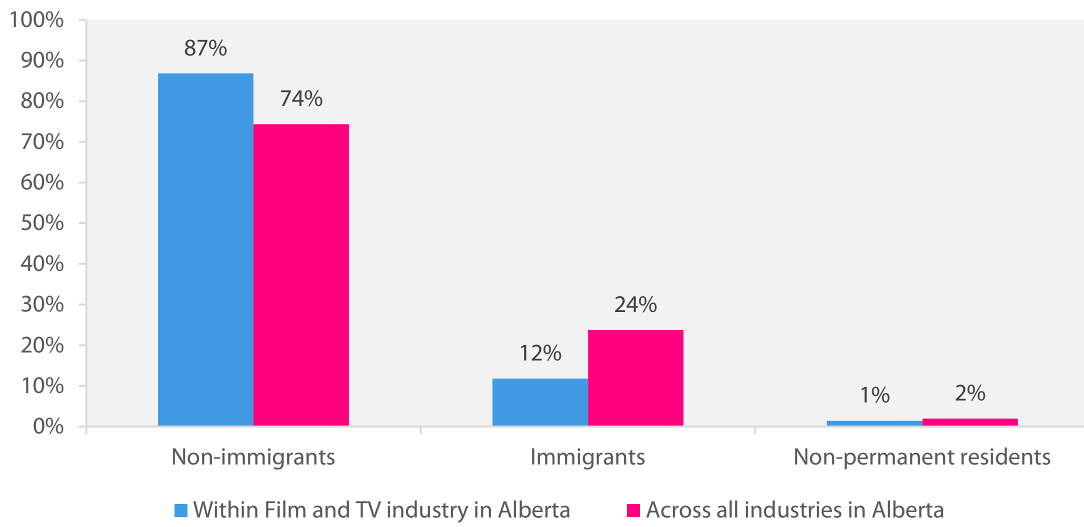
Figure 13: Distribution of film and television workforce in Alberta, compared with the provincial workforce, by where workforce resided 5 years ago (in 2011)



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

As Figure 14 shows, about 12% of industry workers are immigrants and another 1% are non-permanent residents. Both percentages are lower than the provincial averages of 24% and 2%, respectively. This finding suggests that either the film and television industry is unable to attract immigrants and non-permanent residents, or that immigrants and non-permanent residents face barriers to entering the film and television industry. The underrepresentation of immigrants and non-permanent residents in the film and television sector is consistent with the underrepresentation of people of colour in film and television (see Figure 9: Distribution of film and television workforce in Alberta, compared with the provincial workforce, by people of colour), which implies that individuals who identify as a person of colour in the industry may also be immigrants or non-permanent residents.

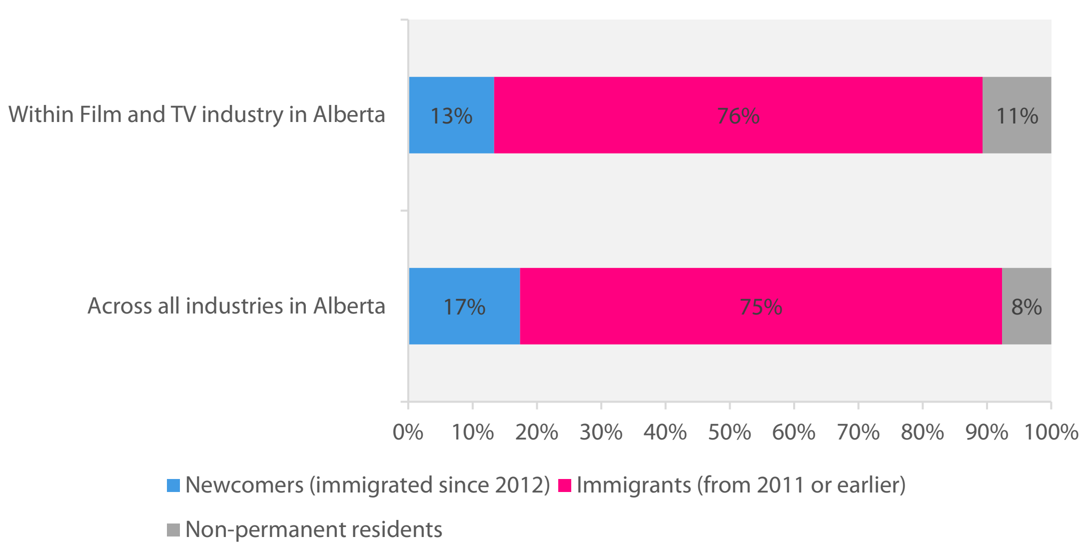
Figure 14: Immigration status of film and television workforce in Alberta, compared with the provincial workforce



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

It is also important to note that the significant majority of immigrants in the film and TV sector are not newcomers, as visualized in Figure 15. That is, Immigrants, defined as having immigrated prior to 2011, represent 76% of the film and television industry which is slightly higher than the 75% share found in all Albertan industries. Non-permanent residents make up 11% of film and television compared with 8% of all other industries. However, the proportion of newcomers, defined as having immigrated since 2012, in the film and television sector represents a smaller share than in the total provincial workforce (13% compared to 17%).

Figure 15: Distribution of immigration status of film and television workforce in Alberta, compared with the provincial workforce



Source: Statistics Canada, 2016 Census of Population, Custom tabulation.

3.7 Access and Inclusion

The profile data above and stakeholder engagement findings illustrate an industry that is difficult to access. The graph in Figure 16 illustrates the top barriers to entry into the film and television industry that survey respondents faced. The barriers selected most often were *Lack of professional opportunities*, selected by 49% of respondents, and *Limited networking opportunities*, selected by 29% of respondents.

Figure 16: Barriers to entry in film and television

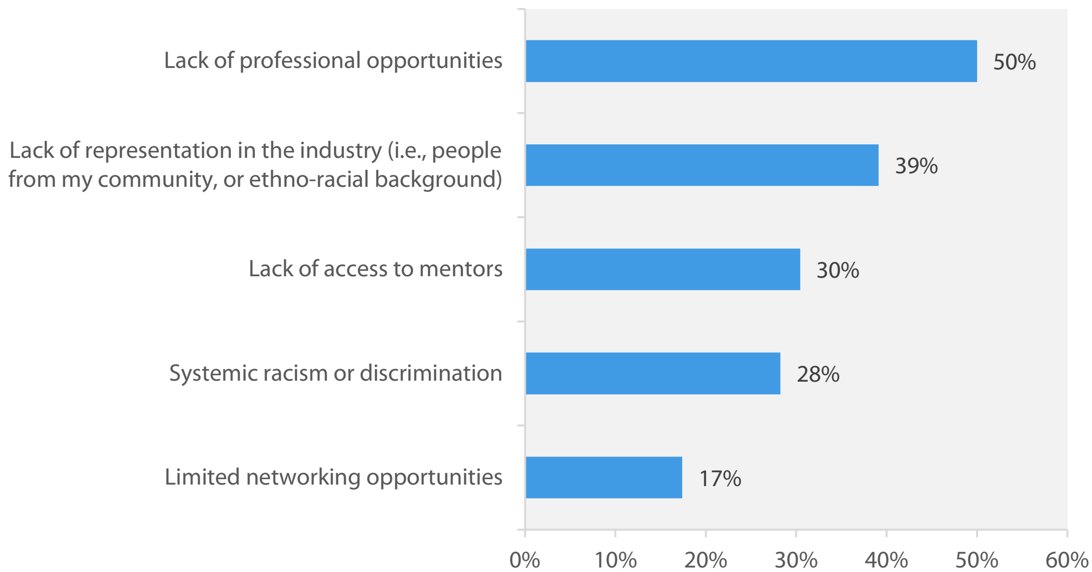
n = 285
Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Similar themes were reported by respondents who identified as a person of colour with the notable addition of barriers posed by a *Lack of representation* in the industry (39%). *Systemic racism* was also noted as a key barrier by 28% of respondents. This disparity in barriers faced most frequently by people of colour may be explained in part due to the lack of representation within the film and TV industry.

A similar question was also posed to survey respondents in Nova Scotia, who identified lack of access to job opportunities in field/role/specialization, unaware of job opportunities, and overlooked for job opportunities as their top three barriers faced. Other barriers to accessing professional development opportunities identified included high cost, lack of awareness to the opportunities, and lack of access to subsidy or grant as high.

In addition, these findings were echoed during interviews where many noted that most in the industry do not have the training required to foster an inclusive workforce, starting with a lack of transparency during the hiring process. Some union representatives shared that many new members were exposed to the industry through family members and there is a precedent for multiple generations on set, indicating that there are some biases in the hiring process. Despite these barriers, there have been efforts in recent years on the part of some stakeholders to improve access to the industry to underserved communities. For example, the organization Creative Empowered has worked with Warner Bros. Discovery Access Canada, Access to Action Canada, and the DGC – Alberta District Council to facilitate a training initiative for Black, Indigenous, people of colour, LGBTQ2AI+, people with disabilities, and women. The training program has had many applicants to date (see further details in a breakout box in Section 6.2.

Figure 17: Barriers to entry in film and television for people of colour



n = 46

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

3.7.1 Career Satisfaction

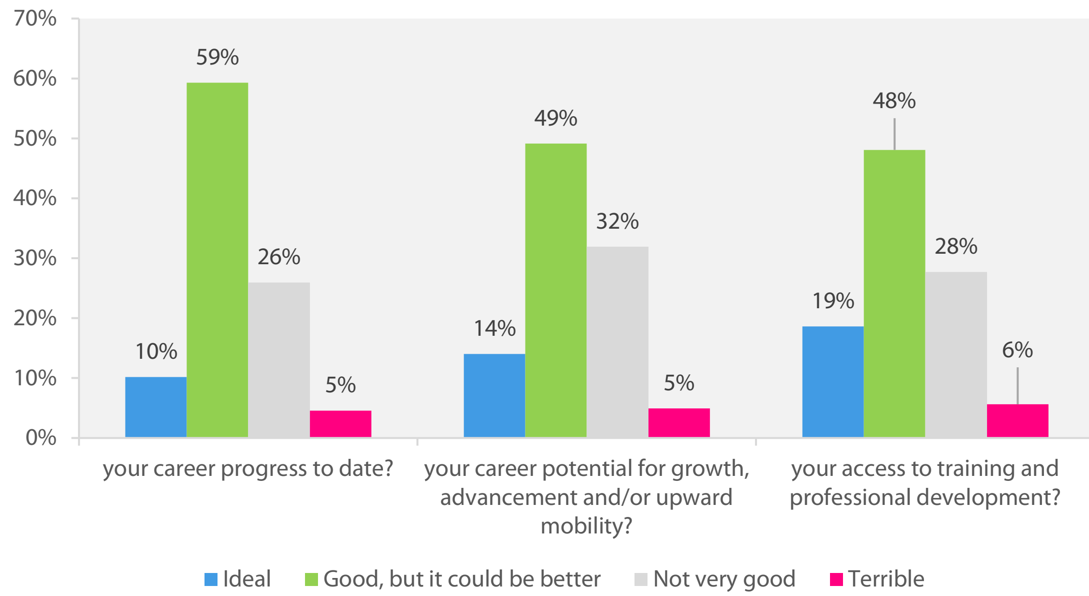
Survey respondents were asked to evaluate different aspects of their career such as their overall impression of their *career to date*; their *career potential for growth, advancement, and/or upward mobility*; and their *access to training and professional development*.

Most survey respondents had an overall positive experience with their *career progress to date* (69%), adding that their career to date has been either *ideal* (10%) or *good, but it could be better* (59%). Nearly two-thirds of survey respondents (63%) also had a positive impression of their *career potential for growth, advancement, and upward mobility* with 14% of respondents describing it as *ideal* and 49% identifying it as *good, but it could be better*. It is also important to note that film and TV workers are mobile, often moving between jurisdictions to work on large productions.

However, while 63% of industry workers and hiring managers expressed satisfaction in *their career potential for growth, advancement, and/or upward mobility*, the remaining 37% of workers expressed displeasure, citing their career potential as *not very good* (32%) or *terrible* (5%). This finding illustrates that the workforce is divided in their career outlook. Survey respondents who expressed dissatisfaction with their career potential listed the issue of limited opportunities for finding roles. Stakeholders note that this challenge was due both to a limited number of roles but also having to compete with non-Alberta native talent. Furthermore, survey respondents shared that the issue of limited opportunity is further exacerbated for older individuals, as fewer positions are available for this demographic.

Survey respondents were most satisfied with their *access to training and professional development*. The majority of respondents rated their experience as either *ideal* or *good* (67%), with nearly one-fifth (19%) of total respondents evaluating their experience as *ideal* (19%).

Figure 18: Career satisfaction ("Satisfaction with…")



n = 285
Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Interviewees also noted that the typical work schedule of the film and television industry presents a barrier to access (which affects recruitment) and can be a driver of lower career satisfaction (which affects retention). The long hours and seasonal nature of work in the film industry make many individuals susceptible to burnout. Additionally, as productions have gotten larger and crew sizes have increased, many in production roles (production manager, production coordinators, etc.) are feeling especially burned out as they now have to manage more people, oftentimes doing so independently.

Many looking to enter the industry begin as Production Assistants (PAs) to learn hands-on skills and the inner workings of film and television sets. However, it is a challenging first role given the demands of the position – there is a high susceptibility to burnout – and this may deter people from pursuing long-term careers in the industry.

Interviewees, especially those representing postsecondary institutions and training organizations, noted that many of the students they have met have a false sense of what is involved and have very unrealistic, "Hollywood" expectations that need to be tempered. That is, a false or exaggerated sense of what working in the film industry is due to associations between film and TV and celebrity/pop culture. Some expect that fame and success will come easily, that creativity or talent will automatically open doors, and that working in a creative field means that work is always fun and/or easy.

Oftentimes, the initial introduction to the industry dissuades individuals from pursuing a career in film because the realities of the industry do not meet their expectations. In a broad sense, although it can be very rewarding and fulfilling, the realities are that it involves long hours, self-motivation, and personal sacrifice. When these realities are presented to those starting out in the industry who may have other expectations (described above), they can be dissuaded from continuing to work in the industry.

3.8 Key Takeaways

Based on the evidence presented in this analysis, the following observations can be made about the current production workforce in Alberta:

- The current headcount is 4,000 workers.
- Many key positions in film and television have seen increases in average days worked as well as daily rates.
- It is concentrated in urban areas (80%), with nearly half of the workforce (47%) located in Calgary.
- It has a higher proportion of males and young people than other industries in Alberta.
- It has less representation of individuals who identify as Indigenous or as a person of colour.
- The workforce has a slightly lower level of educational attainment than other industries in the province, and it is home to far fewer immigrants.
- The lack of professional opportunities and representation in the industry indicate an industry that may be difficult to access (e.g., for people of colour).
- The long hours and demanding schedule of the industry can make for a challenging career, and nearly one-third of the workforce indicates that their career advancement/upward mobility opportunities were *not very good* (with another 5% indicating *terrible).*

4. Meeting Demand

As suggested in Section 2, there is a significant opportunity for Alberta to increase its ability to accommodate more production – with a focus on FLS production (which has accounted for much of global industry growth in recent years). To do so, it will need to ensure that the supply of labour meets the demands of inbound productions and that the available supply is best used by inbound productions.

To that end, this section presents the current and envisioned gaps in the supply of labour that may constrain Alberta's ability to continue to grow its production sector.

4.1 Supply & Demand of Production Labour

An increase in average days worked would imply that there is a greater availability of paid work, and an increase in the daily rate could indicate higher demand due to shortage of available talent, cost of living, or higher budget productions. Essentially, increase in work activity (days worked) and pay (daily rate) would suggest an increase in demand. This finding holds true for actors, workers in construction, and workers in hair and make-up who have seen their average days worked increase by more than 50% over the last five years. Workers in editing and post-production also saw moderate (<10%) increase in days worked and daily rates.

While workers in transportation, locations, and costumes have also seen a dramatic increase in days worked, their daily rates have remained steady implying that these roles are likely easier to fill. Based on payroll data and stakeholder engagement, roles currently in high demand include the following (listed in no particular order):

- Production accountants
- Construction coordinators
- Head greenspersons
- First assistant directors
- Transportation (drivers)
- Hair and makeup
- Props buyers
- Editors
- Department heads
- Technical roles
- Mid-level producers

4.2 Reported Gaps in the Existing Labour Pool

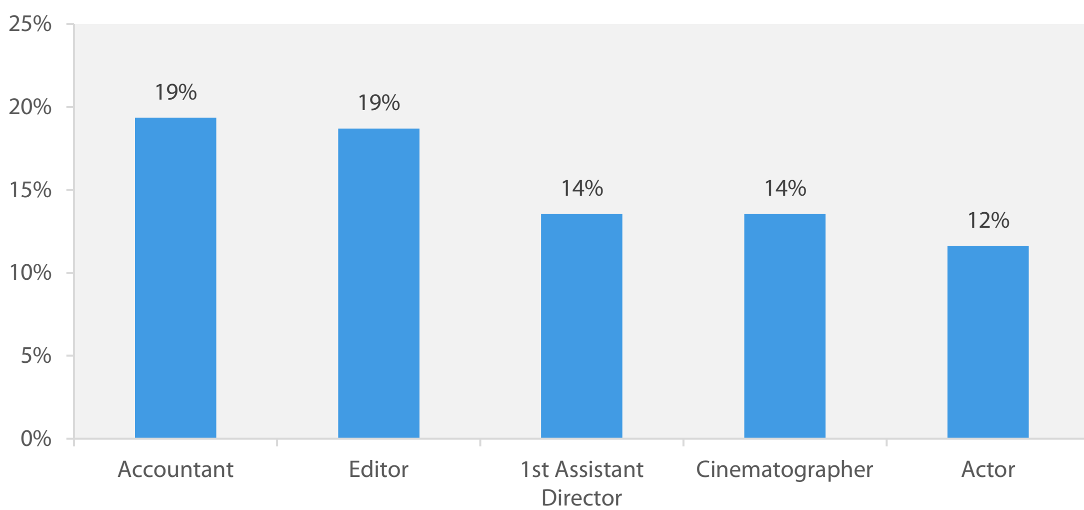
From the survey, hiring managers identified key roles that have been difficult to hire for in the past year. They indicated that accountants and editors were both positions that were difficult to fill, with nearly 20% of total hiring mangers listing these two positions (see Figure 19). Specifically, the most sought-after accounting positions in the film and television industry were **production and payroll accountants,** an observation reinforced by the analysis of payroll data (per Section 4.1). Respondents expressed the need for accountants with knowledge of union and guild agreements, tax credits and audits, and other industry-relevant knowledge. Interviewees also emphasized the difficulty in finding production accountants, in part because crew sizes have drastically increased and more accountants are now required per production. This shortage is true for the entire Canadian film and television industry, and it is not an issue specific to the Albertan context.

While the survey did not differentiate between guild and non-guild editors, filling these roles was noted as a challenge by hiring managers. This may be due to the wide variety of specialized editing roles needed (e.g., sound, colour correction), creating challenges for hiring managers to connect to the right type of editor. Importantly, this comes at a time when most productions are doing their post-production work in other jurisdictions. If post-production incentives change, attracting more post-production work to Alberta, there could be further demand for editors. At the same time, available payroll data seems to suggest a small uptick in the use of Alberta-based editors, suggesting that the demand for such work is seeing some growth. It should be noted that that Calgary Economic Development (CED) and Edmonton Screen Industry Office (ESIO) have also commissioned a sector strategy to further develop the province's post-production capacity, at least in part to help Alberta become more of a full-service production centre.

Hiring managers also indicated a need for production roles such as first assistant directors (14%), cinematographers (14%), and actors (12%). This confirms conclusions drawn from interviews, as individuals in the local industry reported that creatives (e.g., screenwriters, directors, actors) are difficult to find. Given the significant uptick in the use of actors in the province (per Section 3.1) this finding is indeed reflected in the available payroll data.

These hiring managers also noted that individuals with intermediate skill levels are especially likely to leave the province or the industry entirely, because there is "not enough work to go around" for these specific individuals. Additionally, the demand for actors can in part be attributed to the kind of productions in Alberta. Long-running series have large casts and require many extras. Productions do not want to rehire actors who have already appeared in their production for different roles. Furthermore, many actors are working part time in the industry and supplementing their income through employment elsewhere.

Figure 19: Roles that are difficult to hire for according to hiring managers



n = 155
Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

In addition to the gaps reported by hiring managers, we also heard common themes identified through interviews with producers and other key stakeholders. Many of these themes are echoed in jurisdictions outside of Alberta.

Department Heads

A general challenge expressed by many interviewees was that Alberta crews were largely inexperienced. Interviewees shared that generally, it has been difficult to find department heads and keys. Prior to the recent boom, the lack of job opportunities in Alberta resulted in many experienced crew members leaving the province to go find work in jurisdictions with more consistent jobs (primarily in BC). This migration has contributed to the overall lack of experienced crews and department heads in Alberta. Although incentives have returned, those lost crew members have not yet come back to Alberta in sufficient numbers.

The interviews conducted further indicated that there were different opinions on the quality of crews in Alberta. Unions have a supply of talent; however, domestic and foreign producers maintain that many of the crews are not experienced enough to work on their productions. Due to the lack of supply of experienced keys, those who are still learning or developing their skills are prematurely being promoted to higher positions resulting in an inability to meet the demands required of them. Interviewees also shared that many of these individuals do not feel supported in their roles and need access to mentors or advice to help navigate these new job roles. In response to the lack of experienced department heads and crews, foreign producers have been forced to bring in labour from other jurisdictions. In doing so, they are met with many challenges and bureaucratic roadblocks. For example, they become less eligible to meet tax credit thresholds for labour, thus presenting a deterrent. In addition, these heads from outside the province are sometimes less likely to hire local staff.

Technical Roles

In general, interviewees expressed that there is a lack of technical/below-the-line workers in Alberta. Foreign producers noted that in coming to Alberta they anticipated that finding experienced department heads would be challenging, however, they were surprised to find that there was also a lack of experienced technical positions (e.g., construction, carpentry).

Interviewees also noted that Class 1 drivers, who can drive commercial trucks/tractor-trailers, are very much in demand. This is in part due to recent changes to requirements for a Class 1 license. Additionally, drivers are not drawn to the film and television industry because of the rapid pace and constant changes in a typical filming day. Transportation teams struggle with the last-minute adjustments and demand in typical productions.

Some interviewees also shared that it is difficult to attract catering professionals specifically to the film industry because historically this sector has not offered year-round employment. Additionally, catering on set is very demanding and involves long hours (e.g., 16-hour days). This can result in burnout and retention issues.

Interviewees noted that in general there is a high turnover rate for entry-level trainees due to the long working hours and Alberta's harsh weather conditions.

Mid-Level and Domestic Producers

Interviewees shared that there is a lack of domestic mid-career producers and individuals who can make the transition to line or associate producer. This is in part due to mid-career producers being unable to compete with larger productions in acquiring labour and filming in general (e.g., because location fees have increased).

This presents an issue for the overall workforce. As foreign productions cannot find local line producers to hire, they bring instead their own producers onto productions in Alberta. This in turn reduces the likelihood of local talent working on a production, as foreign line producers are more likely to hire foreign crews and foreign keys if local talent is difficult to find.

Domestic producers who produce high-end television are challenged because top-tier crews have been consistently employed on American productions. Furthermore, it is difficult for domestic producers to bring talent in from other jurisdictions like Toronto or Vancouver. This reality forces many mid-level and domestic producers to delay their productions significantly or go to other jurisdictions, taking their skillsets and productions elsewhere.

Soft Skills

Interviewees noted that emerging talent and alumni of postsecondary programs are lacking the soft skills needed to advance in the industry. For example, they are reluctant to relocate to smaller communities temporarily for entry-level work on smaller productions or are unwilling to make cold calls for work opportunities. Interviewees also noted that there was a lack of leadership skills across many departments and experience levels.

4.3 Out of Province Recruitment

Interviewees maintain that a major deterrent to Alberta's growing workforce is that workers and talent are recruited by out-of-province productions in Vancouver and Toronto, two jurisdictions that are also struggling to meet labour demands as a result of increased production volume. Some interviewees estimate that there are currently two to three Alberta crews in Vancouver who have become experienced keys or department heads during their time away from home.

Available payroll data suggests that, over the last five years, **17% of days worked in Alberta's production industry were staffed by non-Alberta residents**, indicating an opportunity to add more Albertans to the film and television workforce. This figure appears to have **grown to one quarter of days worked in 2021**, despite relatively flat production volume growth (as depicted in Section 2). The data also suggests that, over the last five years, productions in Alberta have consistently brought in **workers from outside the province for principal actors, directors, and directors of photography**. Given that a significant portion of Alberta's production volume derives from foreign location and service production, this observation is not surprising as those positions are commonly associated with the guest production company.

At the same time, other roles commonly filled by more non-Alberta residents include special effects make-up artists, first assistant camera, and second camera assistant. While these roles are in-demand, they should be somewhat easier to fill with available Alberta-based labour as they are less "senior" roles. This observation does not necessarily imply that such labour does not currently exist, but rather that it is not being deployed on productions in Alberta.

Section 5.5 illustrates some of the other industries in Alberta where those skills may be found.

4.4 Future Needs for Talent

As noted in Section 2.4.1, it is estimated that Alberta's production volume reached approximately **$560 million in 2021 and $550 million in 2022.**[16] Of that amount, an analysis of **soundstage availability and occupancy data suggests that approximately $459 million** of production volume can be supported by soundstages in the province in 2022 and onwards, or up to 83% of the current total production volume. Given that much of the production attracted to Alberta does so to take advantage of the province's natural landscapes (for location production), infrastructure will likely not be a limiting factor considering new soundstages coming online in 2022. In other jurisdictions, soundstage infrastructure can be a limiting factor for production growth, suggesting a potential opportunity for Alberta to attract more productions with available space. In addition, this theoretical

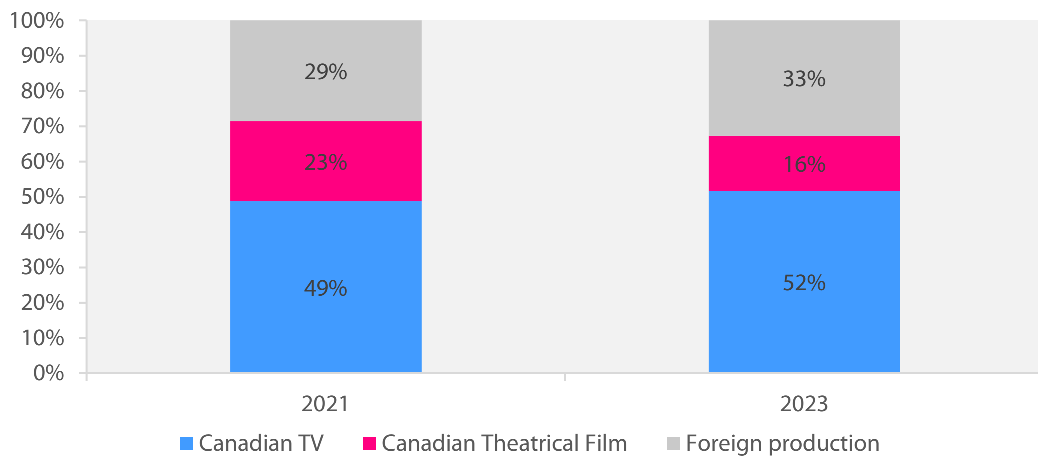
[16] Audited figures provided by Calgary Economic Development that includes all projects undertaken in Alberta in 2021 – both supported by the incentive system and otherwise.

capacity does not consider outdoor or location shoots so there is plenty of room for increased production activity.

Irrespective of the type of production, it is estimated that **approximately 5,900 workers** are required to sustain that level of production. As such, the industry would need to grow by almost 2,000 workers to fully absorb the 2021 and 2022 production volume. Of that amount, roughly **one third (or roughly 650 workers) will need to assume supervisory roles.** Given the reported shortage of such workers (as observed in Section 4.2), it is likely that added emphasis will be required to fill this need.

As the following chart illustrates, production activity in Alberta comprises three distinct forms of production: domestic television, domestic film, and foreign productions. Given the sorts of infrastructure to be available by 2023, it is likely that the facilities will attract more production activity in all three categories. That said, the types of facilities suggest a larger proportion of Canadian TV productions.

Figure 20: Change in types of production volume capacity in available soundstages (excludes location-based production)



Source: APTFA Survey of Screen-based Production Activity and Nordicity's Soundstage database.

By 2023, it is expected that the soundstage infrastructure in Alberta will be able to house approximately $526 million in production volume – which would constitute most of the production activity in that year. Again, this observation does not speak to the ability of the province to attract location-based production, as such production is not dependent on available soundstage space. **The principal factor limiting the growth of Alberta's production capacity will be its ability to create/attract production – and the labour pool to service that demand for production service should it exist**.

Due to growing levels of production, **there will be a need for new workers across most industry roles**. While actors and writers are in high demand, the table below illustrates high future demand for a number of cross-cutting below-the-line roles, ranging from props and set design (e.g., head greensperson) to construction and technical roles.

Table 3: Expected future # of new Film and TV positions

Department	Workers in 2022 (Alberta and Non-Alberta)	Alberta workforce needed to reach 2022 level	Per $50M of additional prod volume
Actors	2350	730	210
Props/Sets/Craft/Labour	570	180	50
Camera/video/publicity	170	50	20
Costume	140	40	10
Directors	80	20	10
Assistant Directors	110	30	10
Grip/Electrical/Lighting	250	80	20
Hair/Make-up	100	30	10
Editing/Post-production	240	70	20
Sound	100	30	10
Transportation	360	110	30
Writing/Script/Continuity	350	110	30
Production	120	40	10
Location	80	30	10
Accounting	90	30	10
Art	130	40	10
Special effects	150	50	10
Construction	410	130	40
Total	**5,800**	**1,800**	**530**

Given that labour appears to be the main factor limiting further growth, the table above also shows the number of new workers for each $50 million of additional production beyond 2022. In other words, if production volume were to grow by 10% in 2023 over 2022 levels (i.e., by $56 million), the industry would need to add approximately 590 more workers across a variety of positions (which would variety slightly by the nature of the production activity).

5. Skills and Training

To meet the demands expressed in Section 4, institutions in Alberta will have to undertake some additional training and/or skills development. To that end, the following sub-sections provide an overview of the existing training environment and point to some parts of the provincial economy where analogous skill sets may be found.

5.1 Overview of Postsecondary and Training Programs

Postsecondary and Training Institutions

Most film and television programs at postsecondary institutions are very generalist. Program directors state that the general nature of these programs is deliberate in order to introduce students to the many facets of the industry and to teach broad fundamentals (e.g., introductory courses on scriptwriting, directing, producing, cinematography, editing, film business). Interviewees note that despite the breadth of their coursework, students typically find their areas of passion and explore their interests in a more in-depth manner through program practicums and/or co-ops. As students are learning a broad range of skills, alumni end up in a wide array of job roles and in some cases across different sectors.

Most of the representatives from training programs that participated in interviews noted that they stay current with the needs of the industry primarily through program advisory committees. Interviewees also note that many instructors work in the industry as well. However, some expressed that it can be difficult to communicate with domestic and foreign producers to discuss their potential training needs. This indicates that barriers between postsecondary institutions and the broader industry exist.

Unions and Guilds

Unions, guilds, and industry associations offer training opportunities to both entry-level and mid-career workers. Through courses, workshops, apprenticeships, and mentorship opportunities, training at this level is fundamental. It is often focused and specific, and it frequently involves hands-on, practical training that is crucial in the film and television industry. The demand for training opportunities among members is very high, although some unions and guilds expressed that because members are so in demand and busy they do not have the time to participate in training. Additionally, several interviewees shared that in recent years, the pandemic-imposed on-set restrictions and social distancing protocols have made training especially difficult.

Findings

Overall, interviewees involved in the education and training of Alberta's film and television workforce expressed that demand for training is high. Some noted that there is more demand from more entry-level positions, while those in more senior roles are busy working and don't feel they have the capacity to attend more training. It should be noted that although there is a lot of interest in entry-level and introductory programs and courses, there is also a high amount of drop-off. Interviewees shared that many individuals decide they are no longer interested in pursuing a career in the industry once they are exposed to the realities of it.

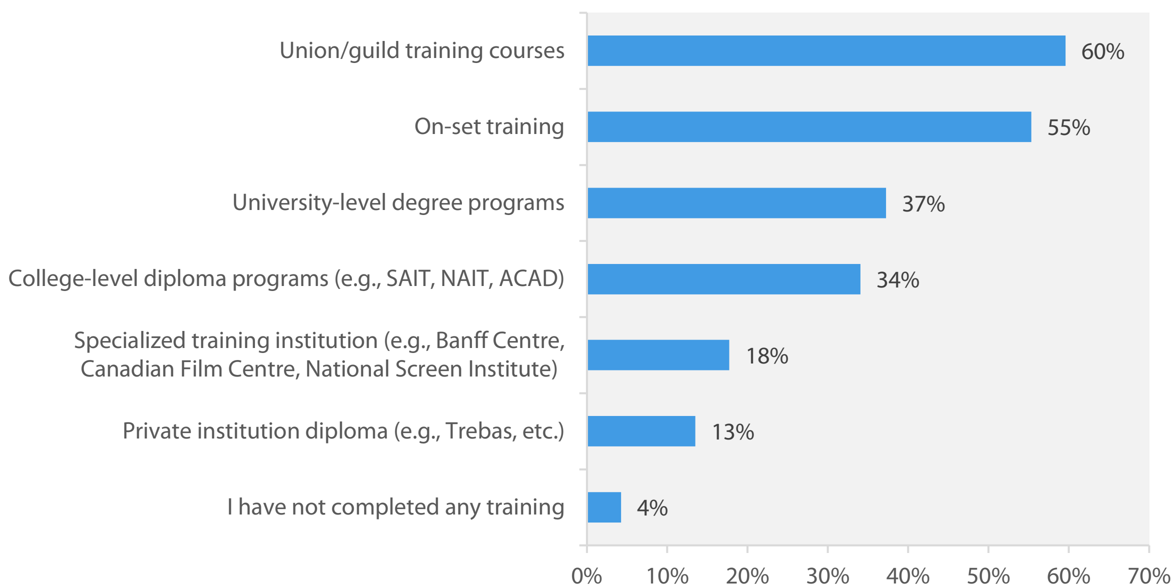
In areas where they cannot meet gaps in training, unions and guilds are actively working with postsecondary institutions to develop programs and/or micro-credentials to meet specific demands. A central aim of these programs and/or micro-credentials is to address the specific needs of the industry (e.g., production accounting) and help Alberta's displaced labour pool take their existing skills and transfer them to the film industry. Additionally, many institutions are currently expanding their programs or exploring more on-set/hands-on and co-op and mentorship opportunities for students.

It is evident that there is awareness of training shortcomings, and there are efforts to find solutions. However, through interviews, Nordicity found that many training initiatives are still in development or in their early stages of discussion. Therefore, it was difficult to determine whether these initiatives were effective in meeting the growing needs of the industry. Interviews suggest that there is a general lack of communication across the industry on the incoming training opportunities. Nordicity found that there was a lack of awareness among institutions concerning what programs other institutions were planning on developing, and therefore there is the risk of unnecessarily duplicating efforts to address specific needs.

5.2 Training Completed

Almost all workers (96%) reported having completed some sort of training, with the most common training being particular to their prescribed role within the industry. Many workers received *union/guild training courses* (60%) and *on-set training* (55%). This highlights the importance of training programs that are particular to the film and television industry. Other trainings that industry workers have completed included university-level degree programs (37%) and college-level diploma programs (34%). The lagging attainment of education, compared to industry-specific training, suggests that while academic attainment is achieved by some workers, training courses and on-set training is given more importance and is therefore more readily available. A visual overview of completed training programs is provided in Figure 21.

Figure 21: Training completed by workers



n = 46

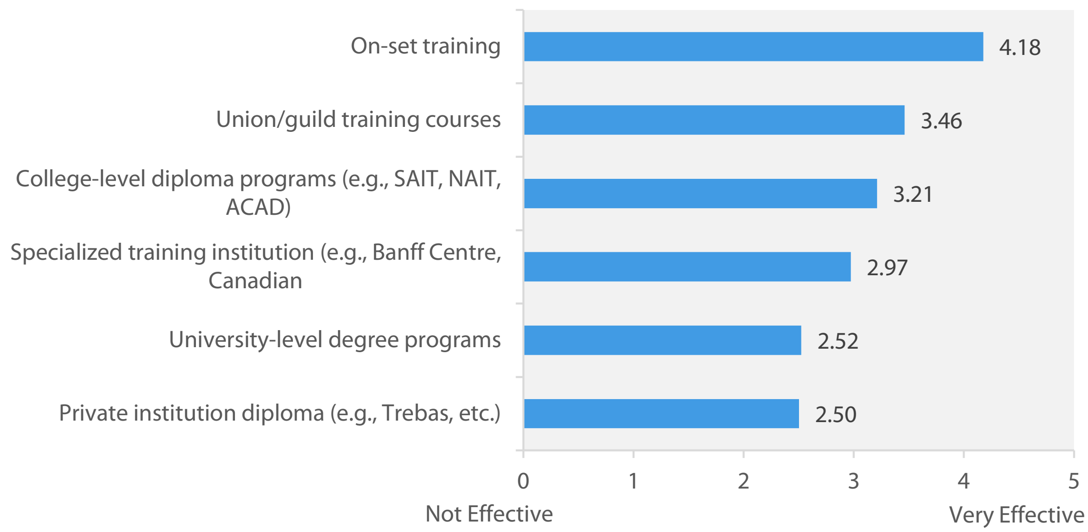
Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

5.3 Perceptions of Training

Hiring managers were asked to rate the effectiveness of the training received by workers on a scale of 1 to 5, with 1 being *not effective* and 5 being *very effective*. Hiring managers identified on-set training as the most effective (4.18) followed by union/guild training courses (3.46). It should be noted that this has impacts on the accessibility of the most effective type of training as Section 3.7 indicates that the industry is not always accessible, especially to equity-deserving groups. In addition, training time is not always paid, which further impacts the accessibility due to the opportunity cost from turning down paid work to train.

The type of training that hiring managers identified as the most effective is consistent with the type of training workers reported completing. This suggests that hiring managers value real-life skill application from the training's high efficacy in the workplace. However, the low rating of degree programs implies that hiring mangers perceive *university-level degree programs* (2.52) and *private institution diploma* (2.50) as ineffective for preparing people to work in film and television, with hiring managers rating them as the least effective. These findings are displayed in Figure 22.

Figure 22: Training effectiveness rated by hiring managers



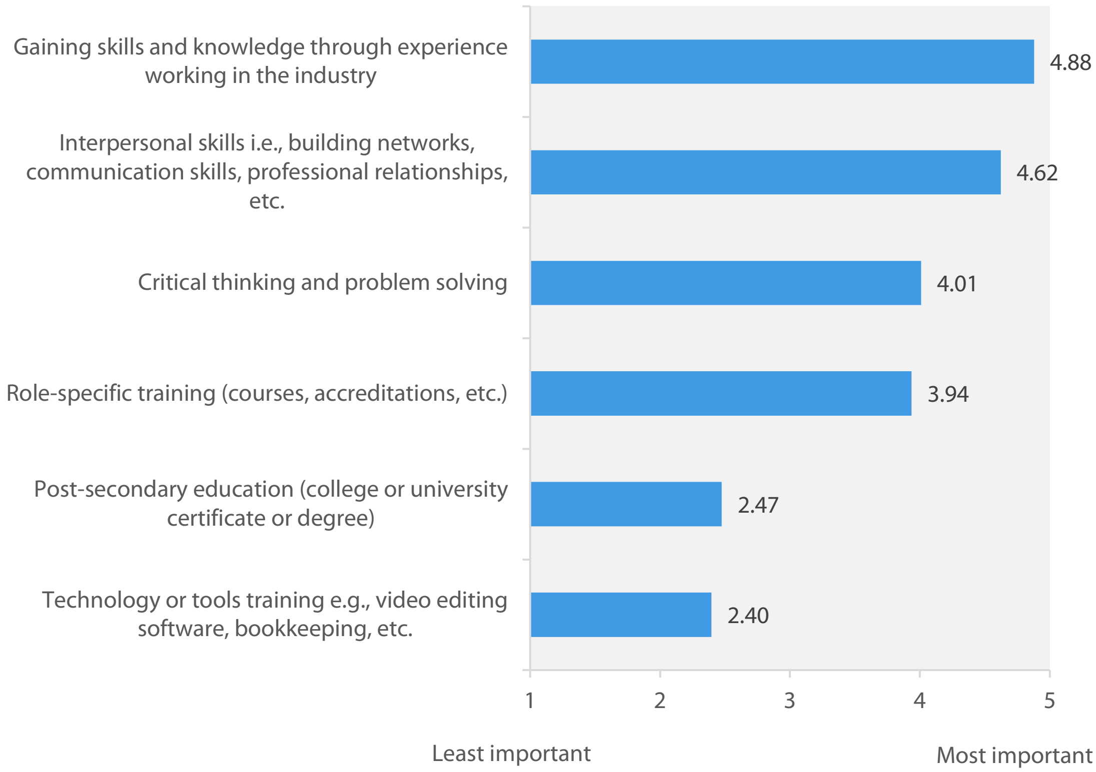
n = 147

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

When workers themselves were asked to rank several factors that have positively impacted their career and success in film and television, they ranked *gaining skills and knowledge through experience working in the industry* (4.88) and *interpersonal skills* (4.62) as the most important factors in their career success. Workers, however, ranked skills and knowledge gained through educational attainment and programs such as *postsecondary education* (2.47) and *technology or tools training* (2.40) as least important.

It can be reasonably assumed that the most important career success factor identified by workers are skills and knowledge gained from *already* working in the industry. This insight, complemented by the understanding that survey respondents' biggest barriers to entry in film and television were *lack of professional opportunities* and *lack of networking opportunities* (Figure 16: Barriers to entry in film and), indicates that the skills and knowledge to enter and advance in the industry are often limited.

Figure 23: Career success factors (Workers)



n = 147

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

5.4 Emerging Roles

Hiring managers that currently work within the industry reported that within the past year, they have filled new roles. Out of the 54 responses submitted, approximately half (52%) of the new roles created and filled were in response to COVID-19, such as COVID-19 compliance officers. These roles were, and continue to be, fundamental in ensuring health and safety on set and that productions proceed without major interruptions. Roles that were in relation to workers' health and wellbeing were similarly filled, such as intimacy coordinators and wellbeing officers. Additionally, as sci-fi, superhero, and action long-form television series have increased in popularity, there has been a demand for niche and specialized talent related to these genres, such as specific skillsets in the areas of hair/makeup, special effects, stunts, and set design.

Technological advancements are transforming production and post-production workflows and as a result, new skills and methods of creation are rapidly being integrated into filmmaking. Although these were not emphasized through the survey or interviews, new skills are required to meet the demand for these emerging roles, which include virtual production supervisors, virtual production art directors, virtual production designers, motion-capture operators, LED technicians, and game engine programmers, among others. Virtual production requires specialized and flexible IT staff for pipeline development and requires workers to be agile and remain current on cutting-edge technologies and practices.

5.5 Alberta Retraining Opportunities

Through firsthand accounts and analysis of payroll data, Nordicity determined the most in-demand occupations within the industry (as described in Section 4). All things being equal, it is unlikely that demand will be met with the existing labour pool. Therefore, training existing workforce in Alberta to fill these roles may be a feasible method of satisfying the demand from employers.

In order to identify training opportunities, Nordicity applied a skills mapping methodology.[17] First, the top *work activities* performed by each role were identified. These activities within their occupational functions serve as a framework for determining which occupations in Alberta share the most similar *work activities,* and thus have the most compatibility. The sections below illustrate in-demand roles where similar occupations could be identified.

By considering the distribution of the Alberta workforce by occupation, the skills map provides guidance to film and television employers and directs them towards a supply of readily available workforce. Importantly, the **skills map identifies talent that is capable of laterally transitioning into a needed production role**. Furthermore, the analysis of *work activities* (visualized in the radio charts) serve as a guideline to help employers identify which workplace competencies will be most in need of development to ensure that individuals can transition smoothly into new roles.

Other in-demand roles where there were fewer compatible occupations (other than the "same" role) include (but are not necessarily limited to): 1st Assistant Director, Driver, Hairstylist, Key Makeup Artist, Costume Designer, and Props Buyers. That is, these **roles are highly specialized, making it difficult to augment the workforce with anything other than more workers in the same field**. However, Nordicity did identity industries where there may be overlap such as:

- NAICS 5151 Radio and television broadcasting
- NAICS 7111 Performing arts companies
- NAICS 8121 Hair care and esthetic services

As a result of the niche skills required for the positions described above, the skills mapping in the sub-sections below focus on high-demand roles where it is most realistic to easily fill gaps from retraining other roles.

[17] Please refer to Section 1.2.2 and Appendix B for further discussion on the skills mapping methods.

5.5.1 Production Accountant

The in-demand occupation of production accountants has several occupations with transferrable *work activities*. Table 4 presents the top accessible occupations (beyond other accountants) in Alberta, from which individuals could most easily be trained to fill this much-needed role.

Table 4: Most similar occupations to production accountant, weighted by census count

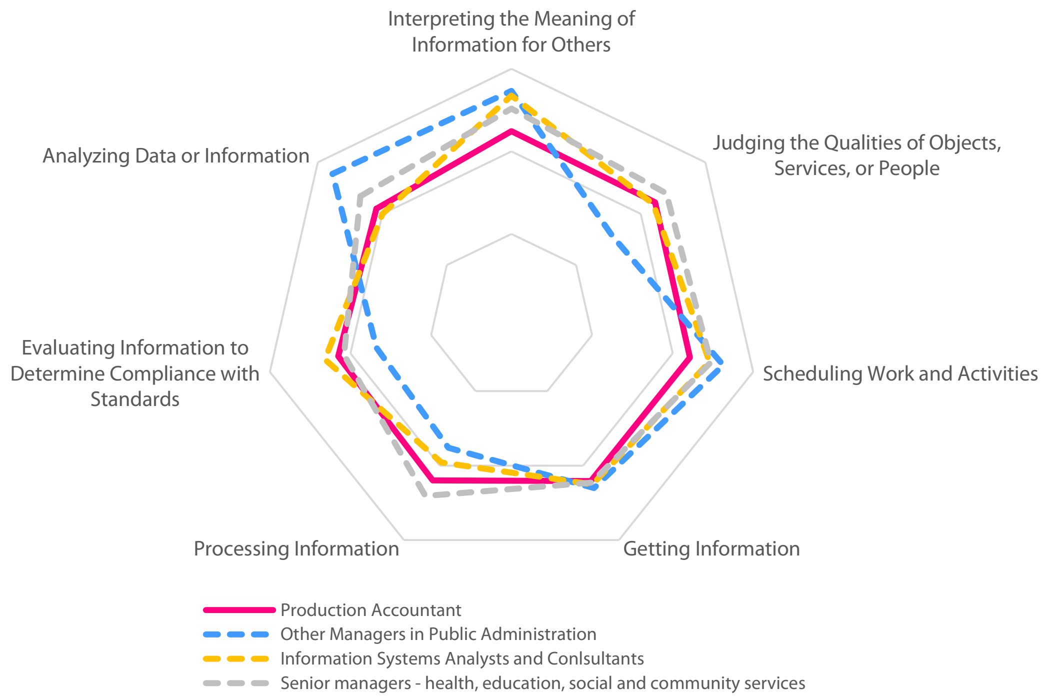
NOC 2016 Version 1.3 Code	NOC 2016 Version 1.3 Title	SOC 2018 (US) Code
0414	Other managers in public administration	11-9161.00
2171	Information systems analysts and consultants	15-1211.01
0014	Senior managers – health, education, social and community services, and membership organizations	11-9111.00
2281	Computer network technicians	15-1299.09
5131	Producers, directors, choreographers, and related occupations	27-2012.03
4166	Education policy researchers, consultants, and program officers	25-9031.00

Using O*NET skills lists, Nordicity identified the following key compatible skills for production accountants:

- Processing Information
- Evaluating Information to Determine Compliance with Standards
- Analyzing Data or Information
- Interpreting the Meaning of Information for Others
- Judging the Qualities of Objects, Services, or People
- Scheduling Work and Activities
- Getting Information

Figure 24 illustrates the three most compatible skills for production accountants and shows that administrative officers are the most compatible. For example, other managers in public administration would transition easily into the role of production accountants; however, they exhibit deficits in *judging the qualities of objects, services, or peoples* and *evaluating information to determine compliance with standards*. This visualization thus highlights to employers where they would need to direct their training efforts. Each occupation has differing degrees of *work activity* compatibility and thus, employers should tailor training efforts to focus on making up for a given occupation's deficits.

Figure 24: Production Accountant Skills Mapping



Of course, *Financial auditors and accountants* who work in other industries could be re-trained to work as production accountants. Nordicity has also identified *industries* where these occupations/skills may be most commonly found, tabulated below:

Table 5: Industries with similar occupations

NAICS Industry Code	# of Similar Occupations
5412 Accounting, tax preparation, bookkeeping, and payroll services	9,255
2111 Oil and gas extraction	3,215
9112-9119 Other federal government public administration	1,020

In summary, the potential to retrain for production accountant can be found in a variety of other roles and industries. It should be noted that in comparison to other roles required for the growth of film and TV production in Alberta, the foundational transferable skills for production accountants are much more commonly found in other sectors of Alberta's broader economy.

5.5.2 Construction Coordinator

Construction coordinators also have several occupations with transferrable *work activities*. Table 6 presents the most accessible occupations in Alberta with the potential to support filling high-demand construction roles.

Table 6: Most similar occupations to construction coordinator, weighted by census count

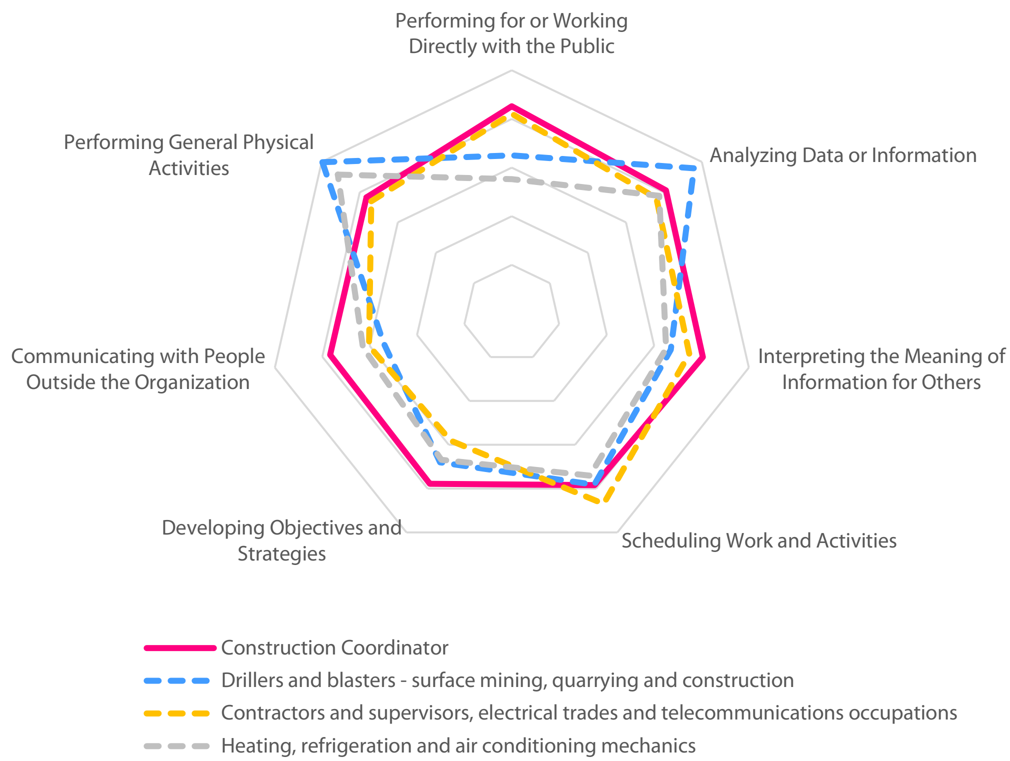
NOC 2016 Version 1.3 Code	NOC 2016 Version 1.3 Title	SOC 2018 (US) Code
7372	Drillers and blasters – surface mining, quarrying, and construction	47-5032.00
7202	Contractors and supervisors, electrical trades, and telecommunications occupations	49-1011.00
7313	Heating, refrigeration, and air conditioning mechanics	49-9021.00
8255	Contractors and supervisors, landscaping, grounds maintenance, and horticulture services	37-1012.00
8422	Silviculture and forestry workers	45-4011.00
2223	Forestry technologists and technicians	19-4071.00
7202	Contractors and supervisors, electrical trades, and telecommunications occupations	49-1011.00

Using O*NET skills lists, Nordicity identified the following key compatible skills for constructions coordinators:

- Performing for or Working Directly with the Public
- Analyzing Data or Information
- Interpreting the Meaning of Information for Others
- Scheduling Work and Activities
- Developing Objectives and Strategies
- Communicating with People Outside the Organization
- Performing General Physical Activities

Figure 25 illustrates the three most compatible skills for construction coordinators and visualizes the relevance of drillers and blasters except for potential limitations in *communicating with people outside the organization*. Contractors and supervisors in electrical trades would bring a well-rounded skillset, with particular strengths in *schedule work and activities.*

Figure 25: Construction Coordinator Skills Mapping



Other industries where similar occupations can be found are identified in the table below.

Table 7: Industries with similar occupations

NAICS Industry Code	# of Similar Occupations
8113 Commercial and industrial machinery and equipment (except automotive and electronic) repair and maintenance	260
3323 Architectural and structural metals manufacturing	250
2389 Other specialty trade contractors	165

Given the natural crossover with other industries in Alberta (e.g., resource extraction), efforts to attract and retrain construction coordinators from other roles could be oriented towards those which are more part-time or in flux based on commodity prices.

5.5.3 Head Greensperson

As with the positions above, several similar occupations have been identified for head greensperson below.

Table 8: Most similar occupations to head greensperson, weighted by census count

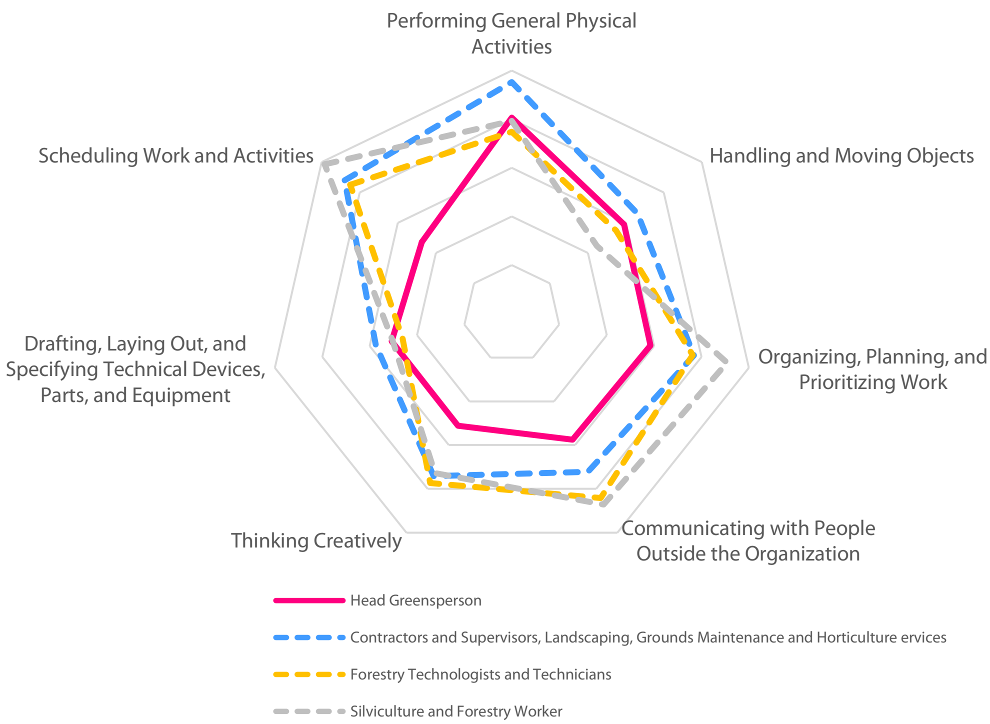
NOC 2016 Version 1.3 Code	NOC 2016 Version 1.3 Title	SOC 2018 (US) Code
8255	Contractors and supervisors, landscaping, grounds maintenance and horticulture services	37-1012.00
2223	Forestry technologists and technicians	19-4071.00
8422	Silviculture and forestry workers	45-4011.00
8432	Nursery and greenhouse workers	37-3012.00

Nordicity identified the following key compatible skills for head greenperson:

- Performing General Physical Activities
- Drafting, Laying Out, and Specifying Technical Devices, Parts, and Equipment
- Scheduling Work and Activities
- Handling and Moving Objects
- Organizing, Planning, and Prioritizing Work
- Communicating with People Outside the Organization
- Thinking Creatively

Figure 26 visualizes the skill competencies for the three most compatible occupations for head greensperson. While silviculture and forestry workers have strengths in *organizing, planning, and prioritizing work,* contractors may bring stronger aptitudes in *performing general physical activities.*

Figure 26: Head Greensperson Skills Mapping



The following table illustrates industries where similar occupations are most likely to be found.

Table 9: Industries with similar occupations

NAICS Industry Code	# of Similar Occupations
5617 Services to buildings and dwellings	800
7139 Other amusement and recreation industries	340
9130 Local, municipal, and regional public administration	180
1114 Greenhouse, Nursery, and Floriculture Production	70
5413 Architectural, engineering and related services	50

Initiatives to attract and retrain head greensperson roles could be focused on similar occupations or industries which are more seasonal (e.g., landscaping services).

6. Summary and Key Considerations

The **workforce profile** provided a breakdown of an industry of more than 3,500 workers that, according to historical payroll data, have mostly been seeing increases in days worked each year as well as daily rates. The workforce is concentrated in urban areas (80%) with nearly half of the workforce (47%) located in Calgary. The film and television workforce is 62% male, 9% higher than the average across all industries. It is also a very young industry with more than triple the number of workers between 15 and 24, as compared to the Alberta average. The industry shows slightly less representation of those with Indigenous identity (4% compared to 5% across all industries) and significantly less representation of those identifying as a person of colour (14% compared to 22% across all industries). The workforce has a slightly lower level of educational attainment when compared to other industries, though a higher proportion of individuals who have studied in Canada. The industry is also home to far fewer immigrants than other industries (12% compared to 24%).

The workforce profile summarized above indicates an industry that may be **difficult to access**. A lack of professional opportunities was noted as the most common barrier to access. For those identifying as a person of colour, a lack of representation in the industry was also very commonly identified as a barrier to entry. Another commonly indicated challenge was the long hours and demanding schedule of the industry, especially for larger productions. This challenge is amplified by the fact that many are seeking to enter the industry as production assistants, a role which can be one of the more demanding positions. While most in the industry were generally satisfied, nearly one-third indicated their career advancement/upward mobility was *not very good* (with another 5% rating it *terrible)*.

Looking ahead, a **near tripling of the workforce size could be required** to meet potential demand based on increasing soundstage and infrastructure capacity. In order to meet demand, the research indicated several key high demand occupations in the industry:

- Production accountants
- Construction coordinators
- Head greenspersons
- First assistant directors
- Transportation (drivers)
- Hair and makeup
- Props buyers
- Editors
- Department heads
- Technical roles
- Mid-level producers

Skills and training research investigated the opportunity to redeploy existing workers to fill the production accountant gap. Key skills include communication, processing information, and organizational and planning skills. The analysis also identified large Albertan workforces in similar roles such as other managers in public administration roles, contractors, and landscapers.

In addition to specific roles and skills, many industry workers expressed that soft skills are lacking across the industry, ranging from leadership skills to "work ethic." This gap also points to the need for more mentoring and on the job training where junior positions can learn the soft skills required to fill more senior roles.

Speaking to existing industry training, most indicated having been trained through guilds (60%) or on-set (55%). This reality aligns with the perception that on-set experience and gaining skills through hands-on experience is the most effective means for training and a key to career success. Engagement revealed high demand for additional training which is currently limited by a dearth of resources ranging from equipment to instructors. Micro-credentialing is being leveraged to fill specific training needs and many institutions are exploring more hands-on and co-op placements for students.

6.1 Preliminary Considerations

With the above in mind, the engagement and research indicated several preliminary considerations, including feedback from the steering committee (to be further unpacked in the full Workforce Action Plan). These are presented below with some illustrative examples of actions within each identified theme.

- Barriers to Access
  - Develop Diversity, Equity, Inclusion, and Accessibility training for the film industry, with a focus on transparent hiring practices.
  - Increase awareness, and coordination between providers, of set-etiquette training as a means for accessible entry point into a film and TV career.
  - Provide easier reporting pathways for discrimination (e.g., ombudsperson).
  - Create targeted career marketing and visible pathways for industry careers, starting with youth.
- Workforce Sustainability
  - Support domestic productions and creations of Alberta-owned IP/stories as interviewees maintain that the key to building up the workforce is rooted in supporting the domestic industry.[18]
  - Develop standardized aptitude/maturity definitions (e.g., on a spectrum) so it is clearly understood where crew fit within different positions.
  - Meet near-term demand (and thereby minimize burden on existing industry workers) by identifying and redeploying underutilized labour (e.g., administrative officers to fill production accounting gap).
  - Build training infrastructure that supports the development of IT skills specific to the industry (e.g., virtual production) that are estimated to increasingly grow in demand.
- Streamlined and Accessible Training

> As part of the California Film and Television Tax Credit Program, applicants are required to make a contribution to fund the Pilot Career Pathways Training Program. This program provides life and professional craft skills training for individuals from underserved communities to enter the entertainment industry. This program makes counsellors and mentors available to students.

> The Nova Scotia Netflix Screenwriter Internship Program helped emerging and mid-level Nova Scotian screenwriters grow their network, sharpen their professional skills, and bring new perspectives and ideas to the writers' rooms of established television series.

[18] Nordicity has observed from numerous jurisdictions that smaller or indie productions are important options for emerging labour to gain experience and hone their skills, as there is higher tolerance for experimentation and a more conducive environment for learning opportunities. Due at least in part to the limited affordable production space available, opportunities to work on varied types of productions are dwindling for emerging labour. As a result, there are fewer opportunities to get hands-on experience that has historically been a prerequisite to work on large scale productions. As high-budget series productions in Alberta increase and smaller productions consider alternative locations to Calgary and Edmonton, opportunities to include trainees, apprentices, and emerging talent on all sizes and types of productions will be key in continuing to develop a highly skilled workforce.

- Ensure that training is targeted (e.g., micro-credentialing) and accessible to those with full-time jobs (e.g., evening and weekend availability).
- Work closely with industry to ensure that curriculum is evolving and includes relevant soft skills that have been identified as missing.
- Develop a "mentor hotline" to provide a safe space for those in the industry to seek advice.

- On-set Mentorship and Knowledge Transfer
  - Incentivize on-set training, job shadowing, and mentorship.
  - Establish standardized requirements and outcome goals for on-set training to ensure valuable experiences, minimizing the opportunity to take advantage of this as a means for cheaper labour.
  - Develop a mechanism for those leaving the industry to pass on knowledge to new entrants by continuing apprenticeship-based on-set training.

> The New Mexico State Film Office (NMFO) – Film Crew Advancement Program (FCAP) provides on-the-job training to New Mexico residents working in technical industry positions as an incentive for participating companies to provide more job opportunities through a 50% reimbursement of qualified participants' wages.

- "Realtime" Industry Insights
  - Share data and align government/proprietary databases (e.g., payroll data), where possible, to monitor changing workforce needs.
  - Use this study as a benchmark to evaluate changes to the workforce over time.

- Labour Attraction
    - Build on Alberta's strengths (e.g., lifestyle, affordability) to develop film and television workforce attraction campaigns.
    - Explore opportunities to incentivize post-production work to stay in Alberta as a means for attracting editors and related post-production workers to Alberta.
    - Engage Alberta crew back that are currently living in other provinces as part of a "come home" campaign.
    - Incentivize instructors and teachers from other jurisdictions to (temporarily) come to Alberta and share knowledge with the workforce through union and/or training institution workshops or courses.

6.2 Additional Workforce Development Examples

ScreenSkills is an industry-led skills body for the screen industries (film, televisions, VFX, animation, and games) in the UK. Its mission is to support continued growth and future innovation across the country by investing in the skilled and inclusive workforce who are critical to the UK screen industries' global success.

ScreenSkills leverages data to identify skills gaps to provide an evidence base for investment in skills and training. It also providing training, mentoring and apprenticeship opportunities, career information, and professional pathways to improve entry-level diversity and work readiness, and bursaries to those interested in training or entering the industry. Its approach is shaped by research, business intelligence, and industry demands. The organization works with partners across the industry including trade bodies, guilds, broadcasters, producers, and post-secondary institutions.

When the need for a dedicated film school was identified, the State of Georgia brought together the entire University System and Technical College Systems, as well as private institutions, and launched a collaborative effort to establish the Georgia Film Academy (GFA). This unique, statewide effort allows GFA classes to be offered for college credit through more than 25 partner institutions across Georgia. The widespread participation from various institutions breaks down barriers to accessible film education opportunities. GFA also has Professional or Continuing Education programs that offer rigorous professional training, and may lead to union-covered film and television production craft internships and placement in creative industry apprenticeships and job.

Additionally, GFA offers high school teachers training in production, content creation, and post-production, in partnership with the Georgia Department of Education. These provide professional film and television experiences and training, as well as curriculum and resources for teachers across the state.

As a result of HBO's *Game of Thrones* and its positive impact on Northern Ireland's screen sector and the economy, a case was made for a high-end television (HETV) tax relief in the UK. Through the tax relief, the High-end TV Skills Fund was established to invest in the next generation of talent behind high-end television in the UK.

Productions that benefit from UK tax relief for HETV productions contribute 0.5% of their production budget spent in the UK into the Skills Fund. Under the HETV Skills Fund are several programs, including:

- **First Break**: Aims to de-mystify entry into the industry for individuals from under-represented backgrounds, offers non-jargon industry information events, hands-on bootcamps, paid work shadowing, etc.
- **Trainee Finder:** Entry-level placement scheme that matches trainees with HETV productions, offering paid on-the-job experience.
- **Leaders of Tomorrow:** Three-year inclusion program focused on providing tailored support to mid-level professionals working in High-end TV.
- **Make a Move:** A program that encourages on-the-job training of crew members that have been identified as ready to move up to a more senior role.

Since 2013, the HETV Skills Fund has collected and invested just over £23 million in skills and training for the HETV industry.

Foreign producers filming in Quebec, with a total yearly payroll of over $2 million, must contribute an investment that is equal to at least 1% of their total payroll to the development of the industry's skilled labour through the Workforce Skills Development and Recognition Fund (WSDRF). This funding, which is managed and administered by L'INIS (L'institut national de l'image et du son), ensures the continuous training of labour that aligns with producers' needs and, in return, benefits their production and future projects in Quebec.

In 2021 and 2022 Creatives Empowered (CE) partnered with Warner Bros. Discovery Access Canada and the DGC – Alberta District Council to facilitate an incredible film + television training initiative for Black, Indigenous, People of Colour, LGBTQ2AI+, People with Disabilities and women.

CE successfully conducted a strategic outreach and engagement campaign to authentically recruit candidates from these underrepresented communities, meeting 100% of the target set by Warner Bros. Discovery Access Canada (maximum 20 candidates), with 80% placement. 100% of the candidates put forward met or exceeded Warner Bros. Discovery Access Canada's standards, including those with no prior industry experience or education.

CE's selected candidates then went on to receive free online training, and became registered DGC Alberta permittees, which lead to Production Assistant positions with large studio productions in Alberta's booming film + tv industry.

This is unprecedented work to create equitable below-the-line training opportunities for underrepresented communities, and demonstrates CE's ability to increase and diversify Alberta's labour workforce.

Appendix A. Survey Participation

A.1 Survey Background

Nordicity conducted a survey of workers, contractors, and hiring managers who work in the film and television sector in Alberta, to ask them about:

- current opportunities,
- challenges and barriers to entry,
- number and efficacy of training programs, and
- ability to recruit talent.

This survey contained questions about their background (e.g., demographics and previous occupation), income, challenges, training, and career satisfaction. Those in a hiring position were asked about occupations that are difficult to hire for.

The results of this survey were used to develop an understanding of who works in the industry, what they had to do to enter the industry, and how training can help fill some of the in-demand gaps in the labour market.

The survey was open to respondents from February 14, 2022, to March 14, 2022, and was developed on an online platform called Voxco. It was distributed through Calgary Economic Development and their partners.

A.2 Response Rate

The survey received **408 complete responses**, which works out to a response rate of an estimated **8%** of total worker population based on the current workforce estimate of 5,000 workers in film and television in Alberta.

A part of the survey was optional, and respondents could leave the survey at any point, so different questions have different response counts.

A.3 Respondent Profile

Almost all (98%) of the survey respondents indicated that they primarily reside in Alberta. In terms of gender, women were well-represented in the sample with about 38% of respondents indicating that they identify as women. In comparison, 40% of all workers in film-related occupations in Alberta identify as women.[19]

People of colour are also well-represented with 16% of the respondents identifying as such, slightly higher than the 11% of all industry workers who identify as being a visible minority[20].

Other demographics are summarized in the table below.

[19] Census 2016, Custom Tabulation.

[20] Census 2016, Custom Tabulation.

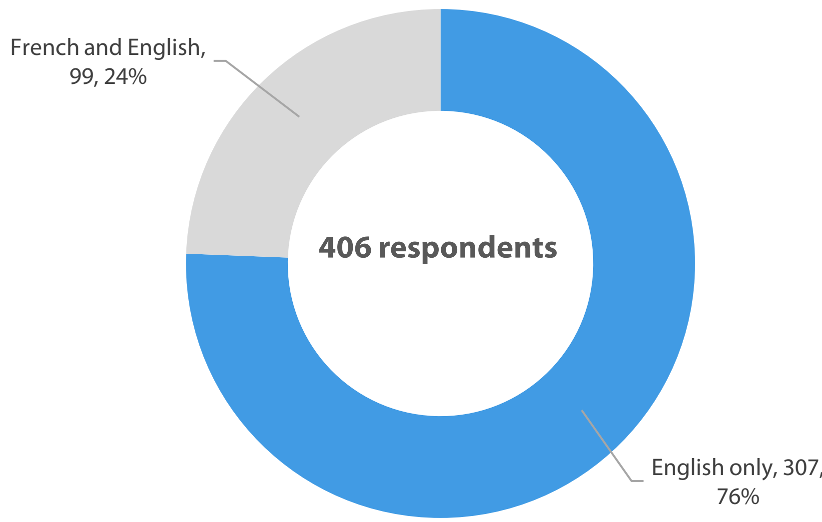
	% of Respondents	% of Respondents identifying as "White"	% Respondents identifying as "Person of Colour"
Cisgender man	47%	81%	15%
Cisgender woman	38%	79%	16%
All other genders	6%	79%	14%

n = 408

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Respondents were asked about their knowledge of Canada's official languages, and 76% indicated they know English and 24% indicated some knowledge of both English and French.

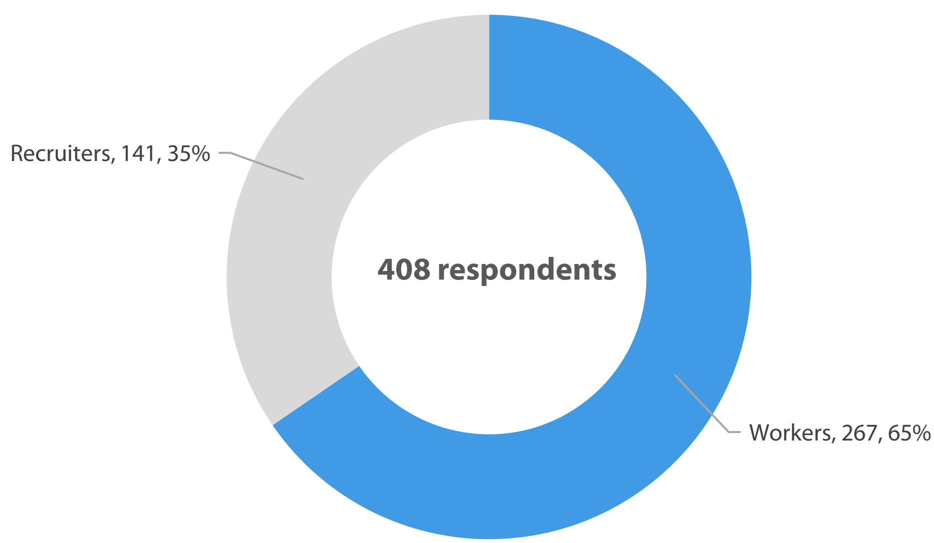
Figure 27: Respondents' knowledge of Canada's official languages



Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Of the complete responses, 267 (65%) came from workers, and 141 (35%) from recruiters or hiring managers.

Figure 28: Hiring managers and workers in the sample



Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

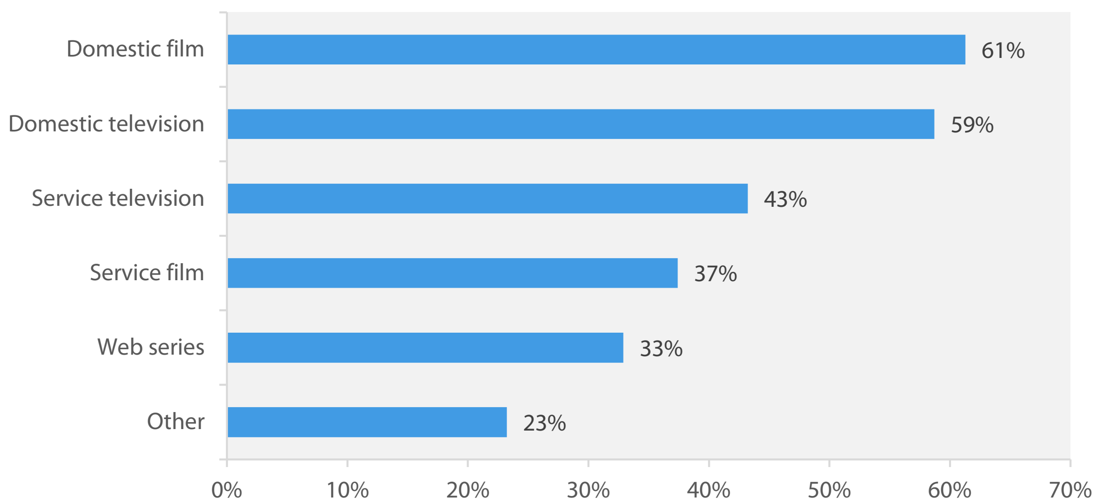
Of the workers, respondents work in 54 different job roles, with Actors and Production Assistants being the most common ones.

Role	Number of respondents
Actor	76
Production Assistant	16
Background	14
Class 4 Drivers	12
Assistant Production Coordinator	9
Make-up Artist	9
Stunts	7
Art Department	6
Editor	6
Costumer	5

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Hiring managers in the sample represent the gamut of productions in Alberta, with 61% recruiting for domestic film, 59% for domestic television, and 43% for service television.

Figure 29: Types of productions for which hiring managers recruit workers



n = 408

Source: Survey of Workers and Hiring Managers conducted by Nordicity, 2022.

Appendix B. Skills Mapping

Skills mapping is a visual representation of occupational skills. For the purposes of this study, Nordicity employed skills mapping to identify opportunities for transitions from other sectors into positions within the film and television industry. Nordicity measured job skill requirements and related job characteristics with the use of Occupational Informational Network (O*NET), a free online database with occupational definitions and information on occupational characteristics such as *work activities*, *skills*, and *tasks*. Nordicity drew upon O*NET to understand the characteristics that detail each occupation.

Through the evaluation of these characteristics, Nordicity determined that the characteristic *work activities* was the most appropriate measure for occupational skills mapping. In the O*NET database, *work activities* encompass a total of 39 activities that employees may undertake, such as "getting information" or "thinking creatively." For a complete list, please refer to Table 10.

Furthermore, the O*NET database provides numerical measures for each *work activity*, namely *importance*[21] and *level*[22]. These measures allow analysts to determine the degree of importance and necessity a given *work activity* has for a specific occupation.

The skills map that was generated from these factors was a similarity index that considers reality, and as a result, a weighted ceiling was determined from the cubed average total compensation of an in-demand occupation and divided by cubed average total compensation of all other occupations, and a floor of 10% was considered. This allows the model to consider income as a core facet of reality and accentuate which occupations could realistically make a transition as individuals in the workforce would be unwilling to take a disproportional pay cut to transition to a different role.

O*NET lists 89 occupations within the film and television sector and 874 occupations total. To conduct the comparison, the product of values of *work activities* per corresponding occupation served as a preliminary scoring valuation and was further weighted by the frequency of vital *work activity* that hiring managers reported to holistically consider attributes that are crucial within the film and television industry.

By incorporating the use of *work activities* as the determined characteristic, and factoring in both occupational average total compensations and a modified weighting of *work* activities based upon input from hiring managers from the survey, Nordicity was able to create a skills map and illustrate which occupations can be re-trained to transition to other occupations most easily. Table 10 provides an overview of O*NET *work activities* analyzed in this project.

Table 10: Overview of O*NET work activities

Work Activity
Getting information

[21] O*NET defines *importance* as a rating which indicates the degree of importance a particular descriptor has to the occupation. The possible rating ranges from "Not Important" (1) to "Extremely Important" (5).

https://www.onetonline.org/help/online/scales#:~:text=Definition,Extremely%20Important%22%20(5).

[22] O*NET defines *level* as a rating which indicates the degree or point along a continuum to which a particular descriptor is required or needed to perform the occupation. The possible rating ranges from 0 to 7 with the ordinal value signifying an occupations competency level to performing the work activity.
https://www.onetonline.org/help/online/scales#:~:text=Definition,Extremely%20Important%22%20(7).

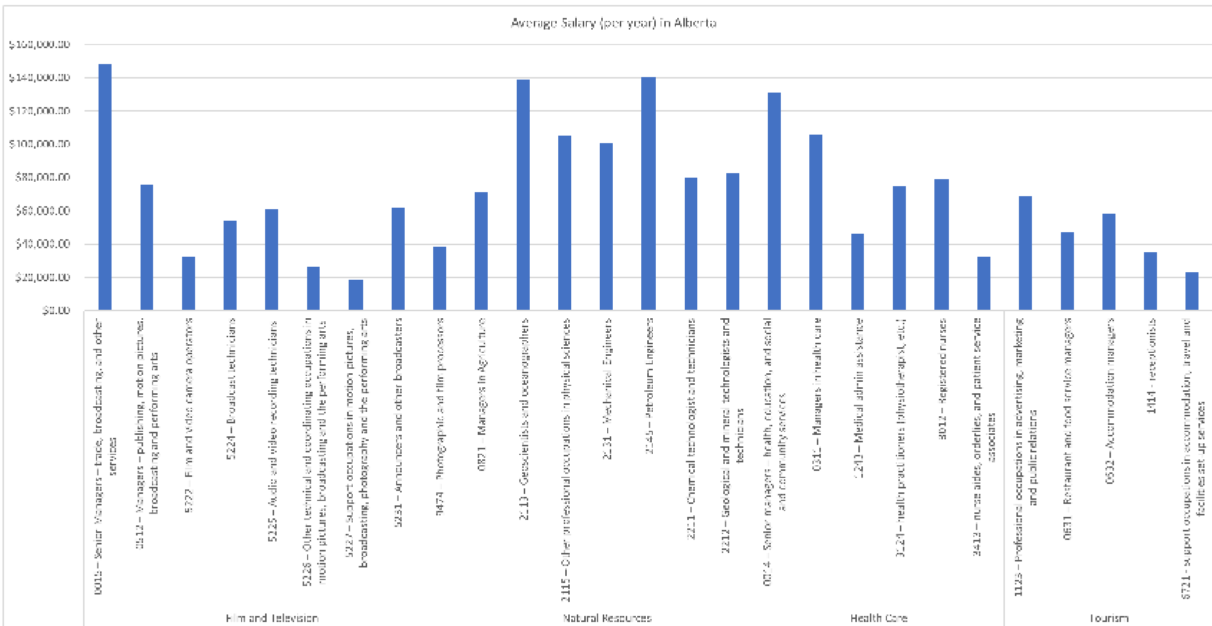
Work Activity
Communicating with supervisors, peers, or subordinates
Working with computers
Making decisions and solving problems
Establishing and maintaining interpersonal relationships
Organizing, planning, and prioritizing work
Updating and using relevant knowledge
Thinking creatively
Communicating with people outside the organization
Identifying objects, actions, and events
Processing information
Analyzing data or information
Performing for or working directly with the public

*Source: Occupational Information Network (O*NET), Version 26.2 Database, Custom tabulation.*

Appendix C. Salary Comparison

The following visualization uses NOCs data from the province of Alberta to illustrate wage comparisons across three key sectors in the Alberta economy. [23]

Figure 30: Salary comparison breakdown



[23] The latest version of 2016 1.3 NOC codes were used to search key film and television related occupations (Search by job title - Results - Canada.ca (esdc.gc.ca)) in the industry (looking at a variety of employment levels). From these codes, Government of Alberta data/profiles on each NOC code were used to determine the average wage of that occupation in Alberta (www.alis.alberta.ca) and then to compare it against some of the other key industries found in Alberta and their occupations (Highlights of the Alberta Economy).

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