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ENTERTAINMENT SOFTWARE ASSOCIATION OF CANADA

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Canada's Video Game Industry

Powering the Future of Play

Table of Contents

Introduction 3

Industry Profile 6

Employment 11

Economic Impact 21

Other Insights 29

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A Message from the CEO

The video game industry remains a growing and vital part of Canada's economy, with 821 companies employing 34,010 people and creating $5.1 billion in economic impact across the country from coast to coast.

Video games also play an important part in the day-to-day lives of millions of Canadians. Our industry is proud to create accessible and enjoyable games to help foster relationships between players, and to contribute significantly to the economy of every province across the country.

Like all industries, we had to navigate the challenges of the pandemic, but we have come out of that experience a stronger and more mature industry. This is reflected both in the incredible games that are produced in Canada every year, as well as the quality of jobs the industry offers, which last year had an average salary of $102,000 across all roles.

I would like to thank our partners at Nordicity for putting together this insightful report, which both reflects the importance of our industry, and underscores the work ahead in continuing to build a creative, inclusive and successful video game industry in Canada.



Paul Fogolin
President and CEO,
Entertainment Software Association of Canada

Key Stats

The following high-level data points reflect the economic impact of the video game industry to the Canadian economy. Each of these is explored in more depth in the relevant sections of the report.



821
Video Game Studios



$5.1B
Total GDP Contribution



34,010
Employees



$102,000
Average Salary



88%
Revenue from Exports



34
Average Age

Across the Country



British Columbia

Total Studios: 146
Total Employees: 10,930

Alberta



Total Studios: 68
Total Employees: 810



Prairies

Total Studios: 33
Total Employees: 210

Ontario



Total Studios: 276
Total Employees: 6,090



Quebec

Total Studios: 257
Total Employees: 15,220

Atlantic



Total Studios: 41
Total Employees: 750

About this Report

The Entertainment Software Association of Canada (ESAC) is committed to supporting Canada's video game industry through raising awareness, policy development, programming and stakeholder engagement.

ESAC regularly engages Nordicity, a leading research and analysis firm, to conduct economic impact assessments of Canada's video game industry. This year's research is the first report in three years. To develop these assessments, Nordicity independently collects, analyzes, and reports on data collected directly from the video game industry in Canada. Details regarding Nordicity's methodology can be found in Appendix, as well as a Glossary of Terms.

The data presented in this study is drawn principally from an online survey of Canadian-based video game companies conducted by Nordicity between May and July 2024. Information from other sources is cited accordingly.The research herein was prepared by Nordicity; and constitutes Nordicity's independent interpretation of industry data collected in 2024.

Methodological Note

Nordicity has been conducting this study since 2013 and regularly improves the underlying methodology. For the 2024 edition, we have made a more substantive change introducing more size categories to better reflect differences between each segment and bring more nuance and accuracy to the gross-up exercise.

By doing so, Nordicity more accurately models the impact of each segment where the previous strata (Micro, Standard, Large and Outlier) could lead to an over (or under-) estimation depending on the actual distribution of companies each region.

To allow for the accurate comparison between 2021 and 2024, the new methodology was applied to the 2021 data. As a result, the 2021 data presented in this report may not match the numbers reviewed in ESAC's Profile released in 2021.

For more details on the impact of this revision, see the Appendix.



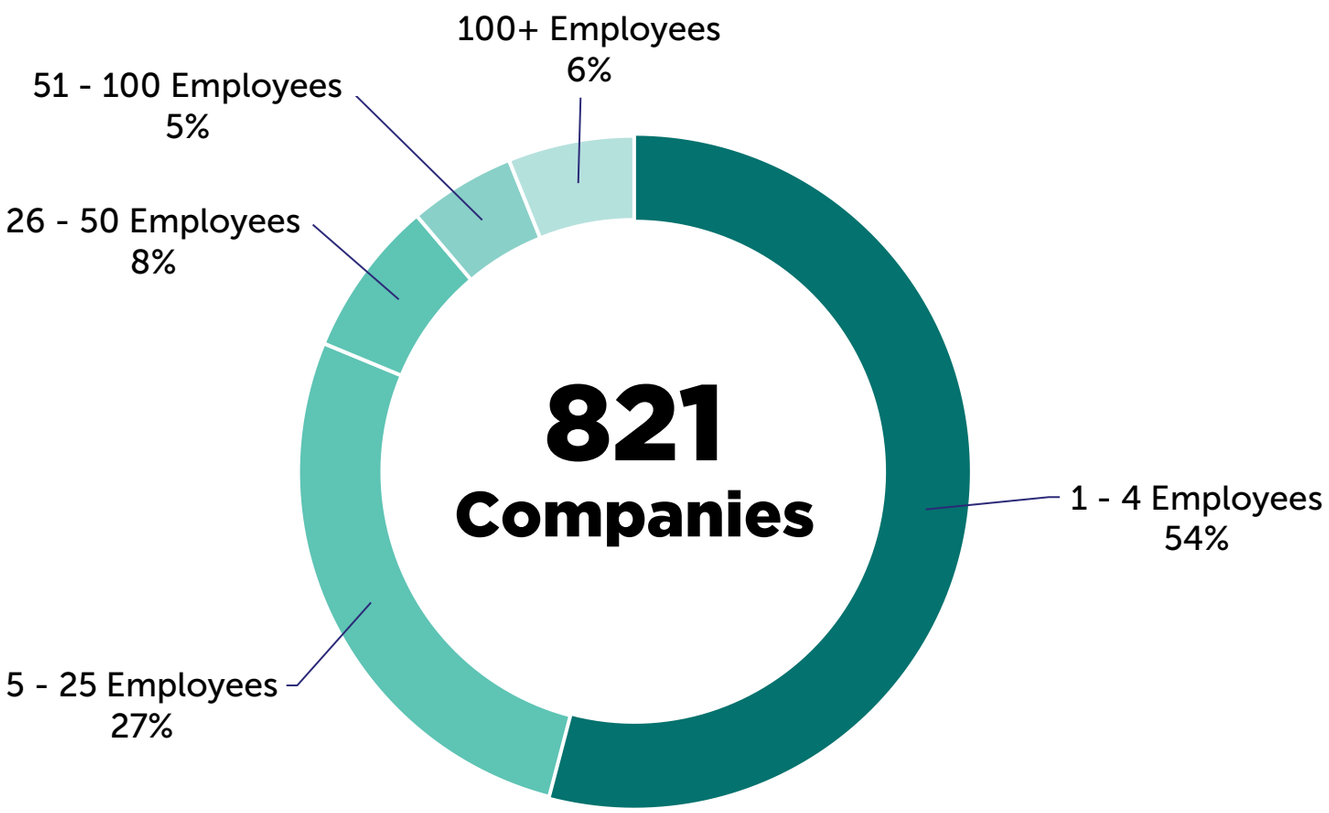


Industry Profile

Industry Profile
Introduction

Canada continues to have a vibrant ecosystem of video game companies, with 821 actively operating in Canada in 2023-24. This was a 9% decline from the peak in 2020-21, with most of the decrease coming from companies with less than 25 employees, while the number of large companies increased slightly during this time. There has not been a significant change in the distribution of companies, with video game companies continuing to operate from coast to coast.

The biggest concentrations are in Ontario, British Columbia and Quebec, which contain 83% of all companies between them. While most companies remain Canadian-owned (an estimated 76%), foreign-owned companies account for 88% of the total industry employment.



n=821 | Source: estimates based on ESAC 2024 Industry Survey, Nordicity secondary research and data provided by provincial industry associations



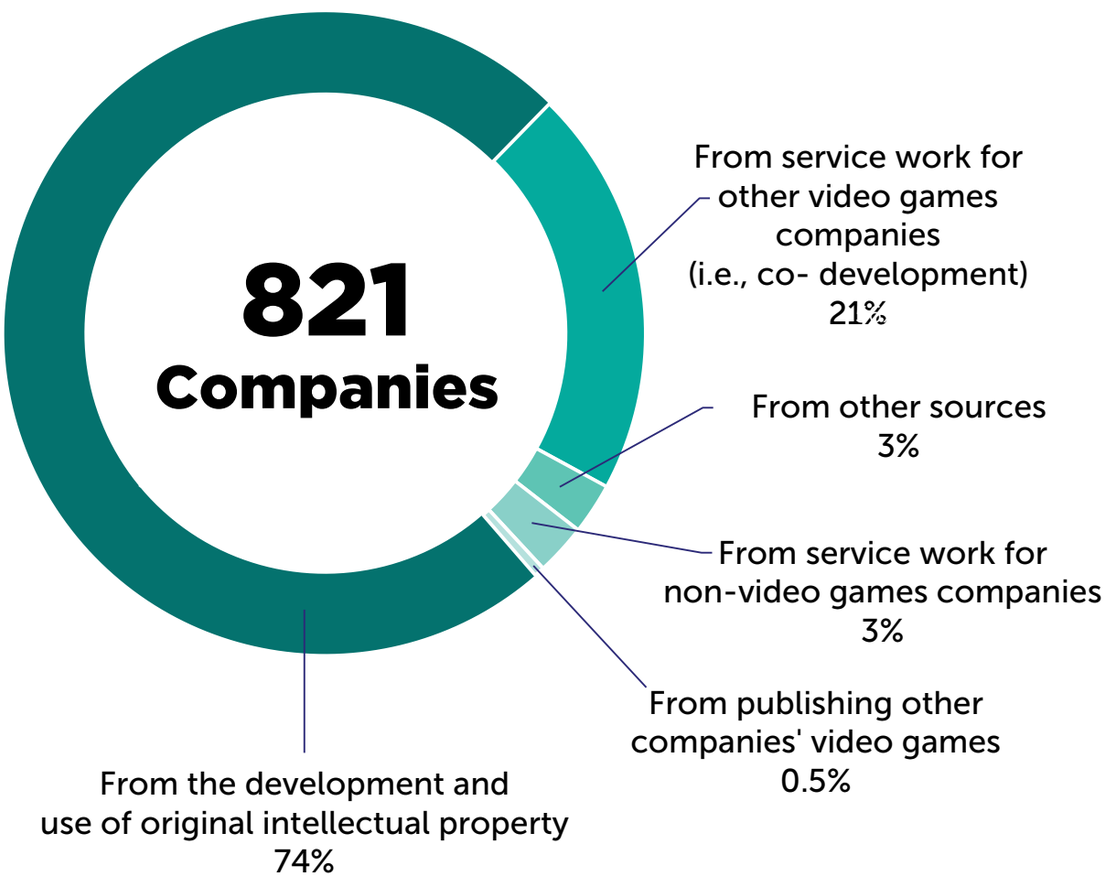
Number of Companies
Size, 2021-2024

The total number of video game companies operating in Canada has decreased by 9% since 2021. Most of the decline in the number of companies took place in the Micro category (2 to 4 employees), which lost a combined 111 companies.

In a challenging environment, micro companies likely closed or have downsized, which may explain the growth in Sole proprietorships.

	2024	2021	Change
Sole Prorietorship (1)	103	52	+98%
Micro (2-4)	341	452	-25%
Very Small (5-10)	112	128	-13%
Small (11-25)	111	117	-5%
Medium (26-50)	62	62	0%
Large (51-100)	42	38	+11%
Very Large (100+)	50	50	0%
Total	**821**	**899**	**-9%**

n=821 | Source: estimates based ESAC 2024 and 2021 Industry Surveys, Nordicity secondary research and data provided by provincial industry associations



n=194 | Source: estimates based on ESAC 2024 Industry Survey

Number of Companies
Regions 2021-2024

Most (83%) Canadian video games companies are in Ontario, Quebec and British Columbia. Ontario has a higher concentration of Micro companies (2 to 4 employees) and Sole proprietorships than the two other leading provinces.

There has not been a significant change in the distribution of games companies across Canada since 2021.

	Canada	Prairies	Alberta	Atlantic	Ontario	Quebec	BC
Sole proprietorship (1)	103	9	15	6	33	26	14
Micro (2-4)	341	14	36	12	144	101	34
Very Small (5-10)	112	5	7	5	36	33	26
Small (11-25)	111	3	6	12	26	41	23
Medium (26-50)	62	1	0	2	16	23	20
Large (51-100)	42	1	3	3	11	12	12
Very Large (100+)	50	0	1	1	10	21	17
2024 Total	821	33	68	41	276	257	146
As % of 2024		4%	8%	5%	34%	31%	18%
2021 Total	899	40	87	58	289	267	158
As % of 2021		4%	10%	6%	32%	30%	18%

n=937 | Source: estimates based on CIAIC and ESAC 2024 Industry Surveys, Nordicity secondary research and data provided by provincial industry associations

All regions showed a decrease in the number of companies, from the cumulative loss of 7 companies in the Prairies to 19 companies in Alberta.

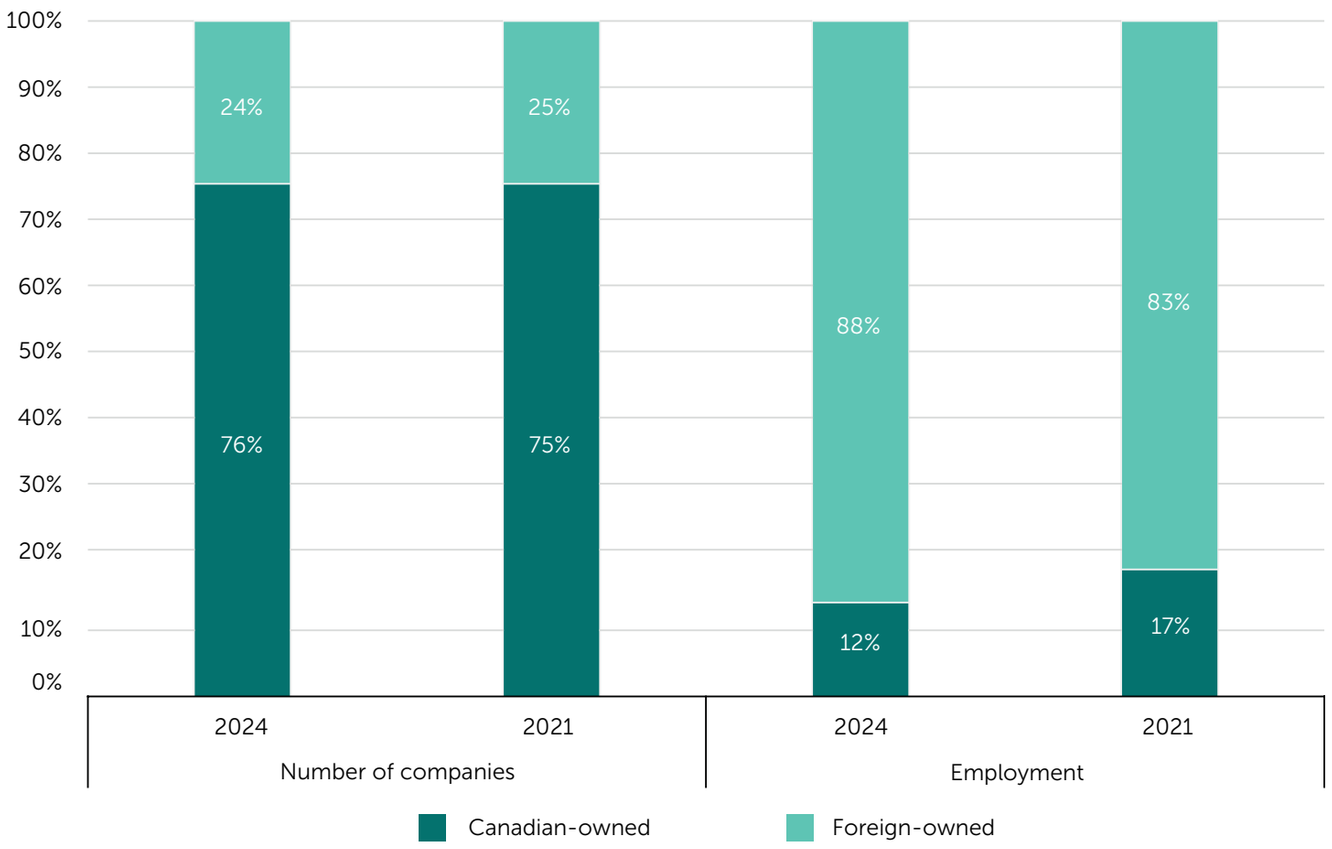
2021 - 2024 % Change	Prairies	Alberta	Atlantic	Ontario	Quebec	BC
Sole proprietorship (1)	+50%	+36%	+20%	+200%	+117%	+100%
Micro (2-4)	-33%	-37%	-50%	-11%	-26%	-35%
Very Small (5-10)	-17%	+17%	-38%	-33%	+27%	-7%
Small (11-25)	-25%	-33%	-8%	-10%	+5%	0%
Medium (26-50)	-50%	-100%	0%	+33%	-4%	-5%
Large (51-100)	0%	+200%	-25%	+10%	+20%	0%
Very Large (100+)	0%	-50%	-50%	-9%	+5%	+13%
Total	-18%	-22%	-29%	-4%	-4%	-8%

n=821 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys, Nordicity secondary research and data provided by provincial industry associations

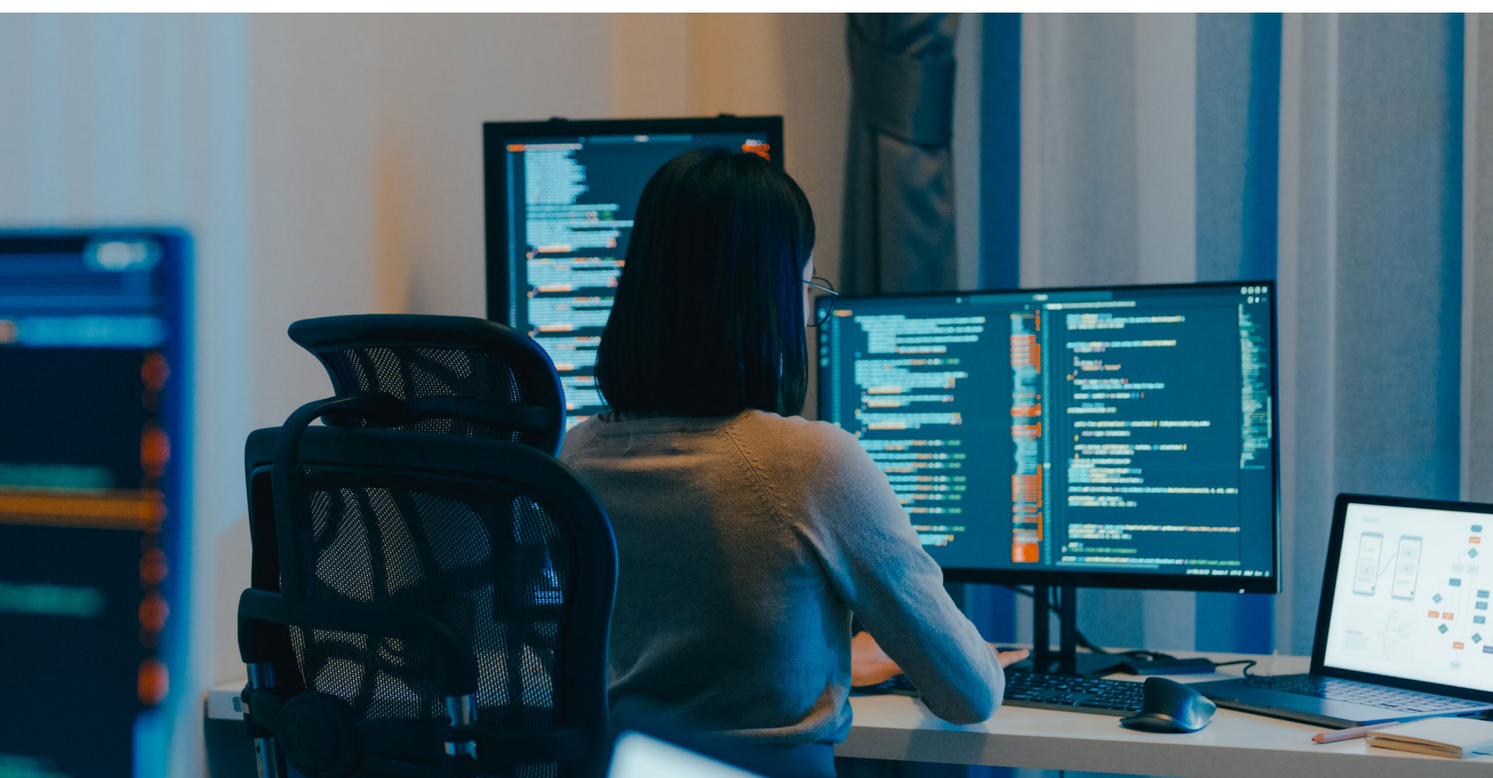
Industry Profile
Ownership

Most (76%) respondent companies remain Canadian-owned, but foreign companies capture a slightly higher share of the total employment (+5 p.p.).

While acquisitions have occurred in the recent years, fewer new studios are opened in Canada by foreign-owned companies – and some notable closures have hit Canadian subsidiaries.



n=198 | Source: ESAC 2024 Industry Survey





Employment

Employment
Introduction

Canada's video games industry directly supported an estimated 34,010 Full-Time Equivalents (FTEs) of employment in 2023- 24.

The following section describes employment in the industry, the spin-off employment it generates, and provides information about average salaries at video games companies across Canada. The section also provides a description of some industry workforce demographics.

Overall employment in the industry is down slightly since 2020-21, but the number of senior level jobs and the average salary of employees have increased significantly, highlighting the overall maturation of the industry.

There has also been an increase in the number of women employed in the industry, from 23% to 26% of overall employment.

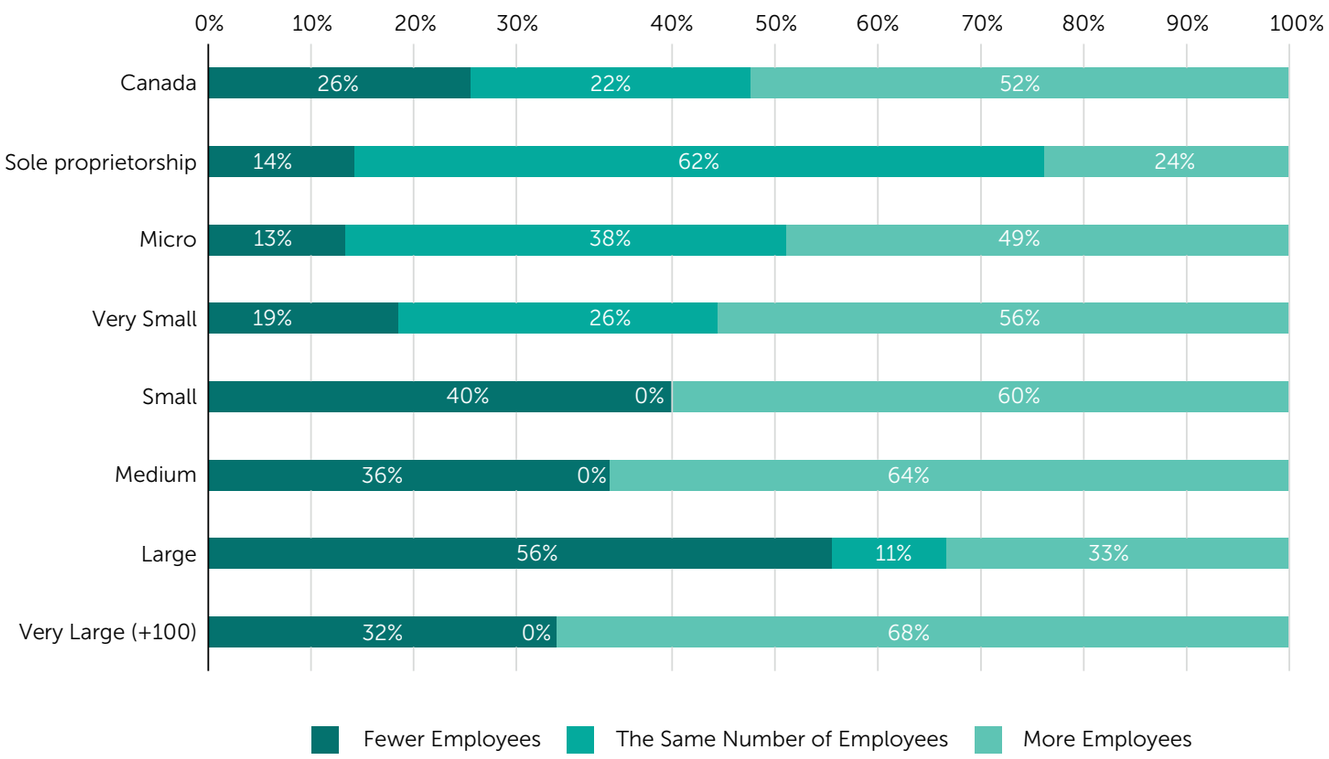
34,010 Direct FTEs



Employment
Change

Overall, most companies that completed the survey saw an increase or a stagnation in their workforce.

This observation suggests that the 3.5% decline in employment is due to the decline in the number of companies (consolidation, studio closures), and some substantial layoffs from a few larger companies.



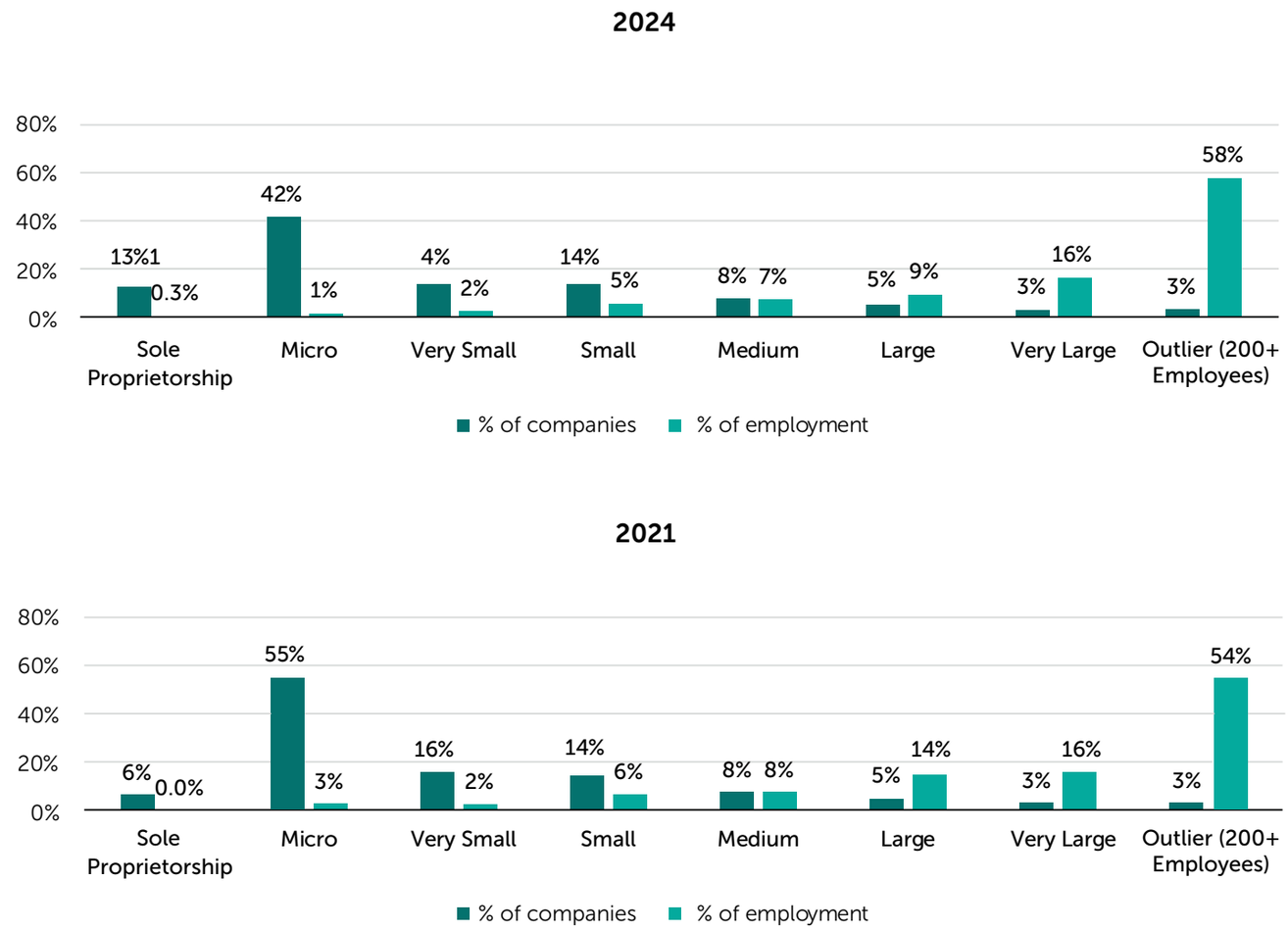
n=172 | Source: estimates based on ESAC 2024 Industry Survey



Employment
Company Size

Most of the direct employment generated by the industry can be attributed to a small number of massive companies.

The largest 25 companies supported 58% of the industry's FTEs, slightly more than in 2021.



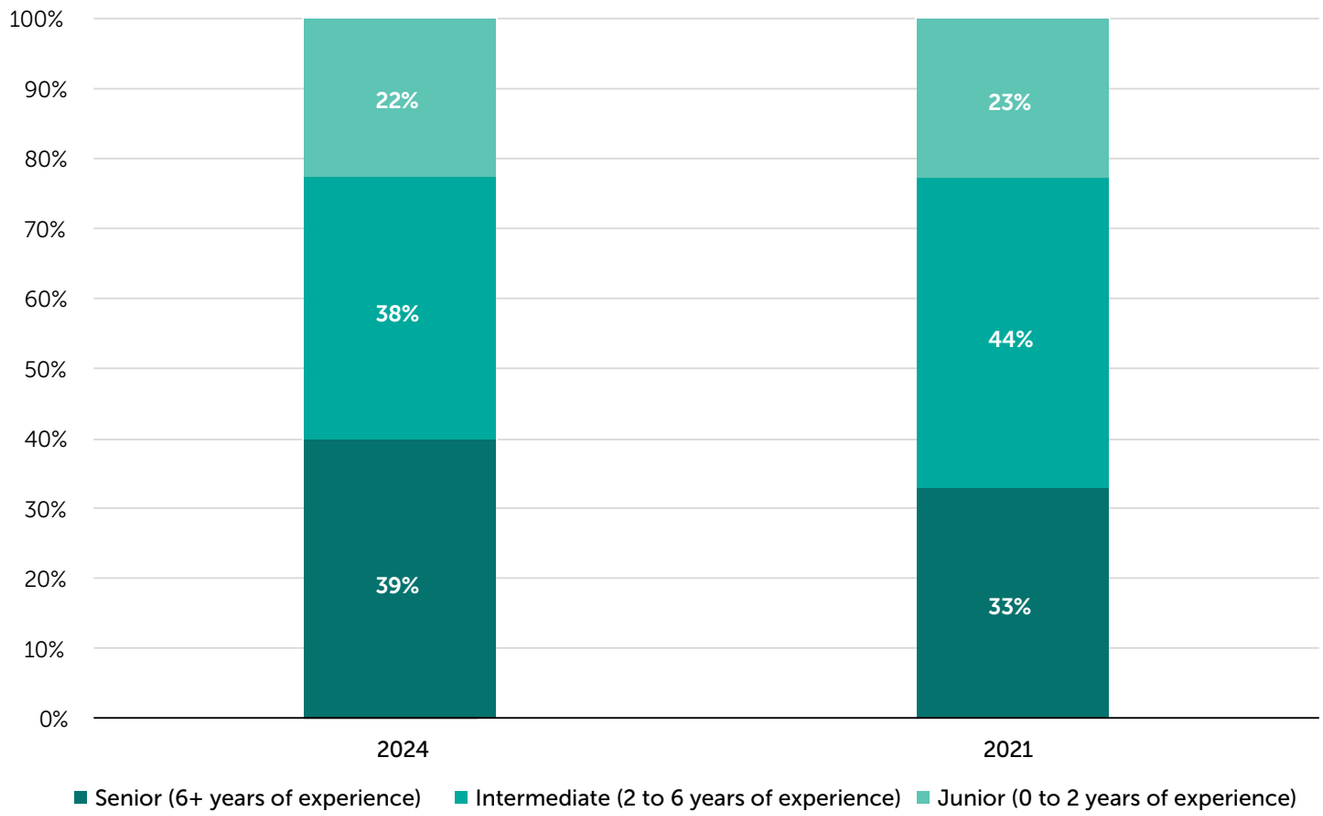
n=166 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys, Nordicity secondary research and data provided by provincial industry associations



Employment
Seniority and Regions

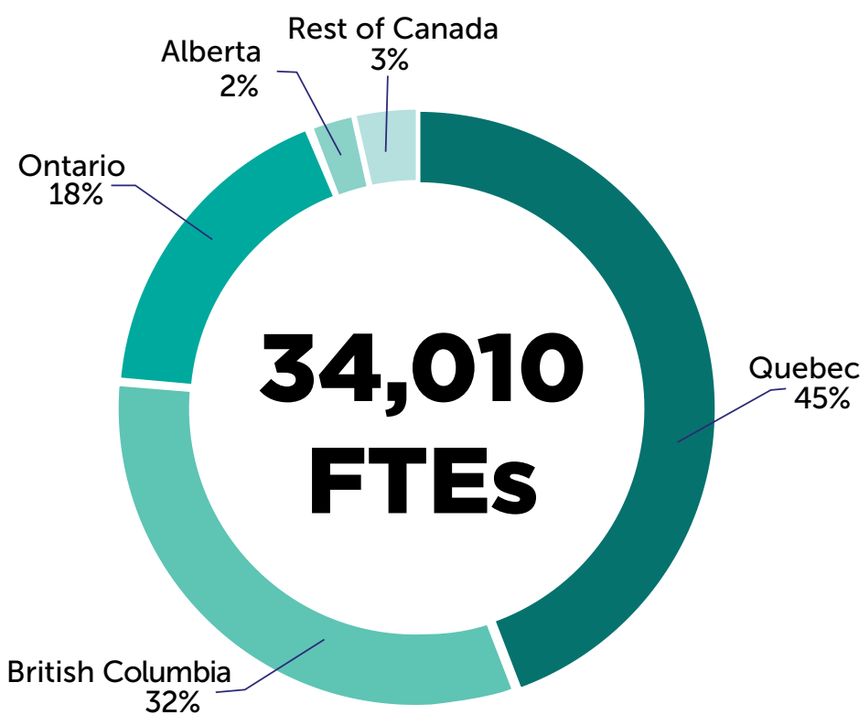
Senior workers now account for 39% of the video games workforce in Canada in 2024, while they represented 33% in 2021.

The data suggests that companies have responded to market pressures by keeping experienced senior staff, while decreasing mid- career employment.



n=166 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

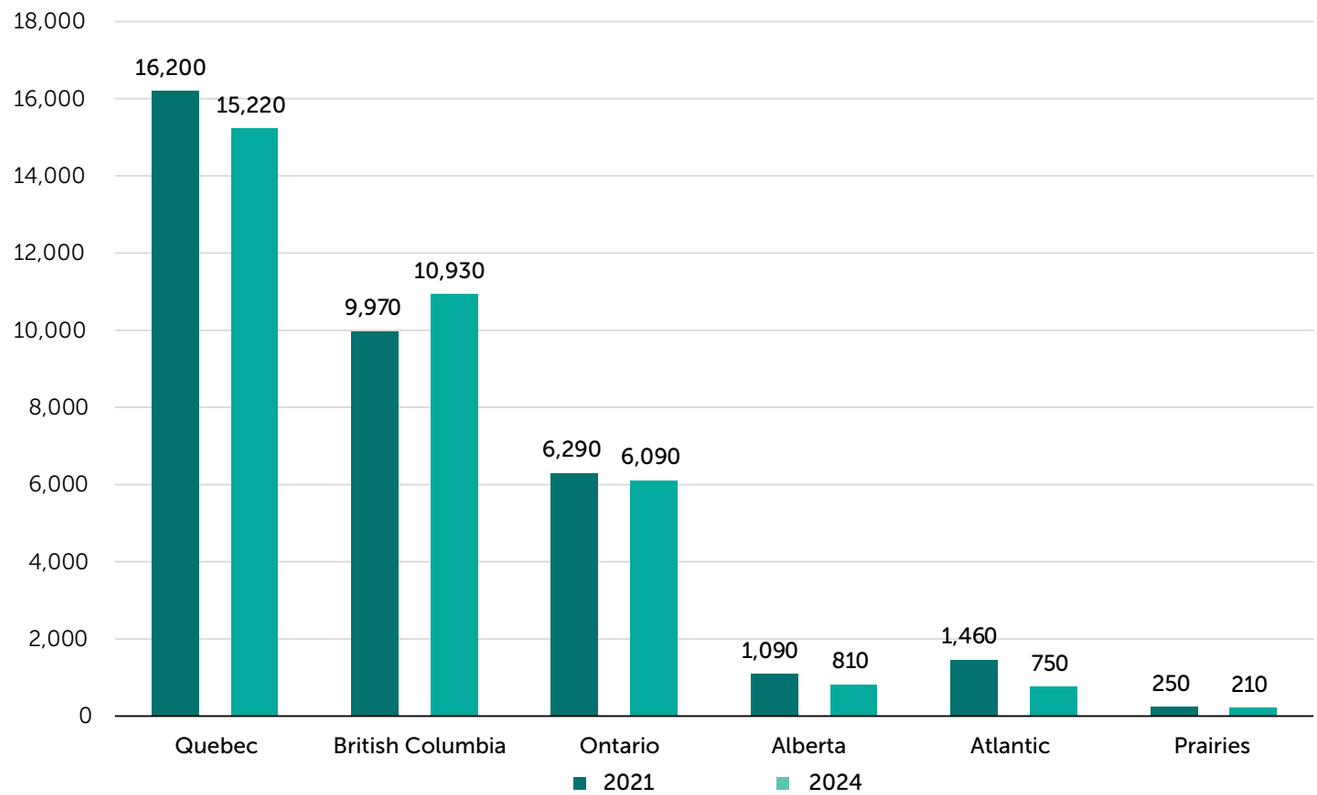
Quebec, British Columbia and Ontario account for 95% of Canada's video games FTEs.
This share was 92% in 2021, illustrating a slight consolidation of the Canadian video games industry in the three leading provinces.



n=166 | Source: estimates based on ESAC 2024 Industry Survey

Employment
Regions and Modes

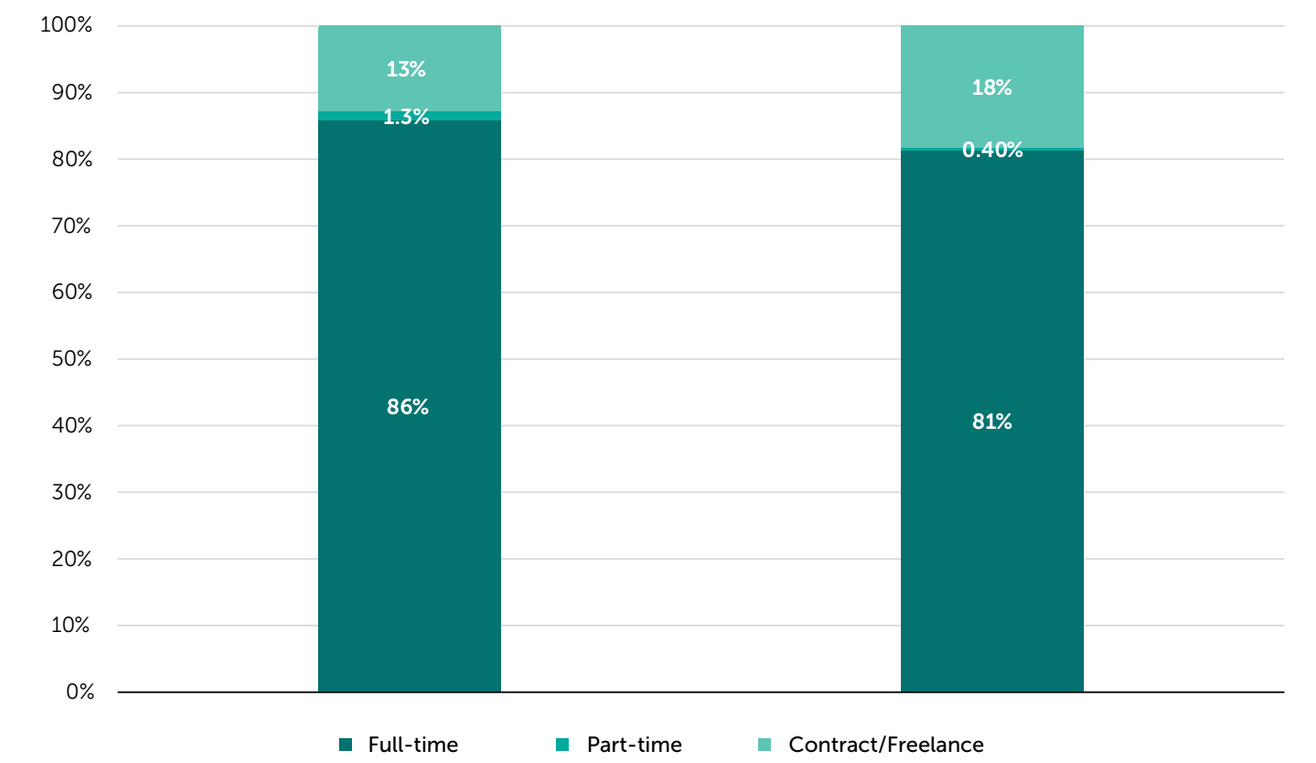
Most regions have seen a slight decrease in direct employment, with the most notable declines observed in the Atlantic region (relative decline of -50%) and in Quebec (absolute decline of 980 FTEs). British Columbia recorded a 10% increase in direct employment from 2021.



n=166 | Source: estimates based on ESAC 2024 Industry Survey

The workforce is still primarily made up of individuals employed on a full-time basis (86%), with the proportion of full-time employees is even higher than it was in 2021 (81%).

The proportion of contract/freelance workers has declined from 2021, which may be due to companies focusing on longer-term projects and a lack of resources to hire additional temporary talent.



n=166 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

Employment
Spinoff and Average Salary

In addition to direct impacts, the video games industry in Canada also generates significant indirect and induced impacts (i.e., spin-off impacts) in the economy.

The total employment impact (direct + spin-off) declined to an estimated 44,910 FTEs, a 18% decreased from 2021.

This decline is likely related to an overall reduction in non-labour expenditures since 2021 (e.g., studio rental fees).

	Canada	Quebec	British C.	Ontario	Alberta	Atlantic	Prairies
Video Games Industry	34,010	15,220	10,930	6,090	810	750	210
Indirect Impact	4,010	2,170	1,030	620	80	100	10
Induced Impact	6,890	4,240	1,630	790	140	70	20
Total	44,910	22,230	13,260	7,280	1,010	900	230
% from 2021 Total	-18%	-17%	-9%	-25%	-15%	-32%	-18%

n=178 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

The video games industry saw a considerable increase in salaries since 2021.
The redistribution of the workforce towards more senior resources, coupled with the inflation and wage competition drove average salaries up (+21% over three years).

	2024	2021	%Change
Senior (6+ years of experience)	$131,000	$100,000	+31%
Intermediate (2 to 6 years of experience)	$91,000	$77,000	+18%
Junior (0 to 2 years of experience)	$67,000	$62,000	+8%
Overall	$102,000	$81,000	+21%

Note that the average 2021 salary adjusted for inflation would be $92,000.
As such the 2021-2024 increase would be 10.8% over the period, or a compound annual growth rate of 3.5%.

n=150 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

Average Salary
Company Size

Larger companies have offered the most notable salary increase in order to attract and retain talent in a competitive and globalized market.

	2024	2021	%Change
Sole proprietorship (1)	$54,000	$27,000	+100%
Micro (2-4)	$51,000	$55,000	-7%
Very small (5-10)	$88,000	$63,000	+40%
Small (11-25)	$86,000	$78,000	+10%
Medium (26-50)	$106,000	$78,000	+36%
Large (51-100)	$102,000	$78,000	+31%
Very large (100+)	$106,000	$84,000	+29%
Overall	$102,000	$81,000	+21%

n=150 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

In addition to salaries, companies pay non-wage compensation such as bonuses and benefits to their employees. Combined, the wage and non-wage compensation make up the effective cost-per-FTE paid by companies to their employees.

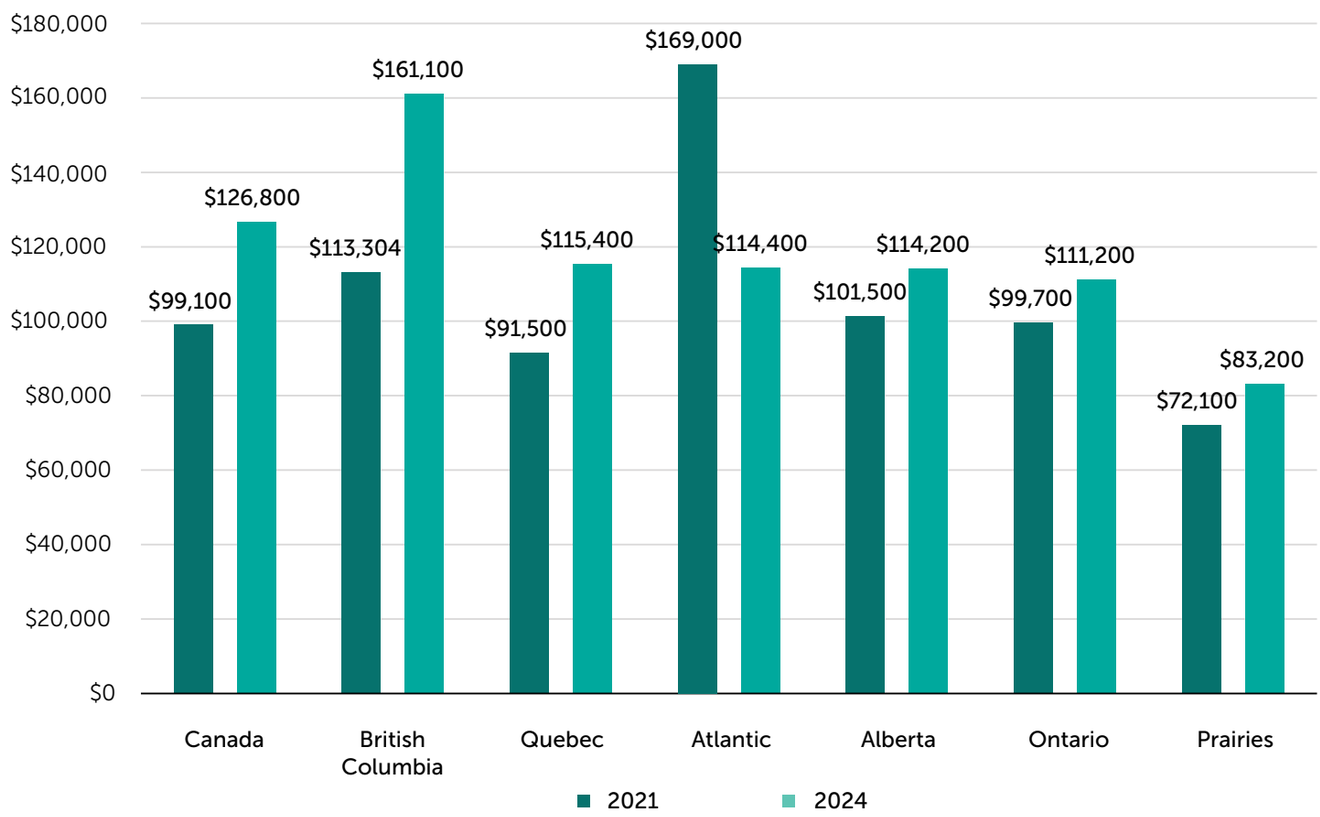
The effective cost-per-FTE for Canadian video game companies was $99,100 on average in 2021. This figure has increased by 28% to reach $126,800.

In addition to the increase in average salaries, this type of fluctuation is likely the result of changes in the amount and number of bonuses distributed, which largely depends on the number of projects completed in a given year and the success of titles released in that year.



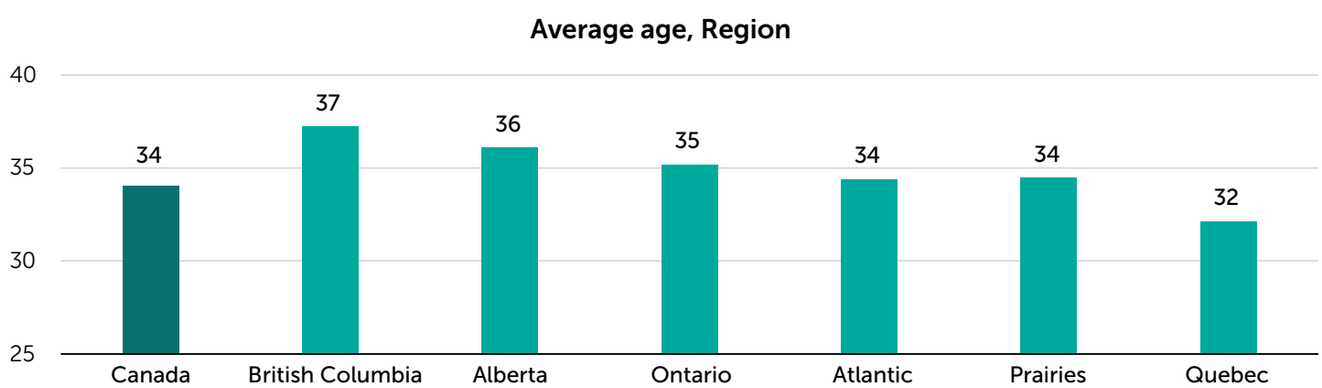
Effective cost-per-FTE
Regions and Average Age

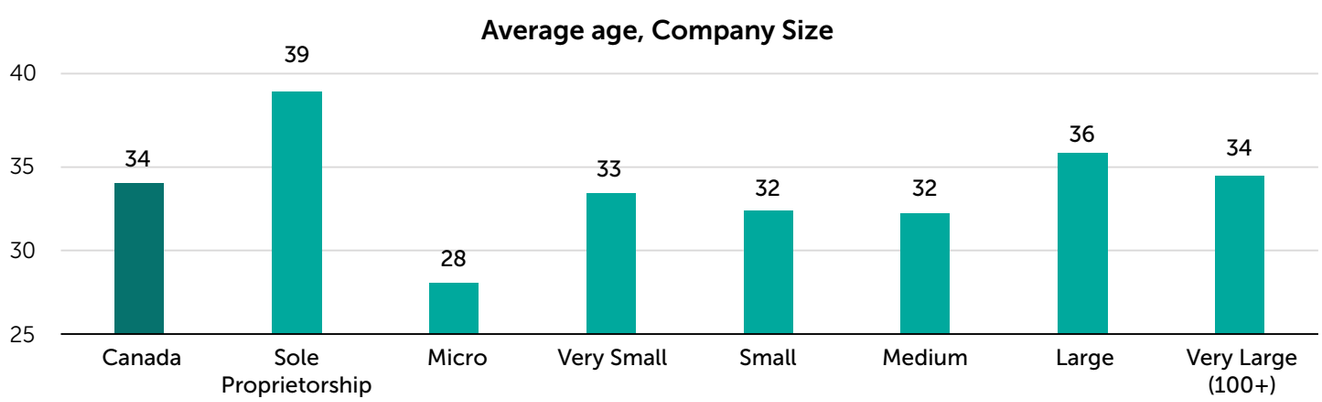
The effective cost-per-FTE has increased in all regions but the Atlantic provinces.
Most notably, British Columbia has seen a +42% increase, Quebec +26%, and Ontario the lowest increase with +12%.



n=150 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys

Workers in the Canadian video games industry are on average 34 years old.
When compared to other leading provinces British Columbia and Ontario, Quebec seems to attract younger talent.





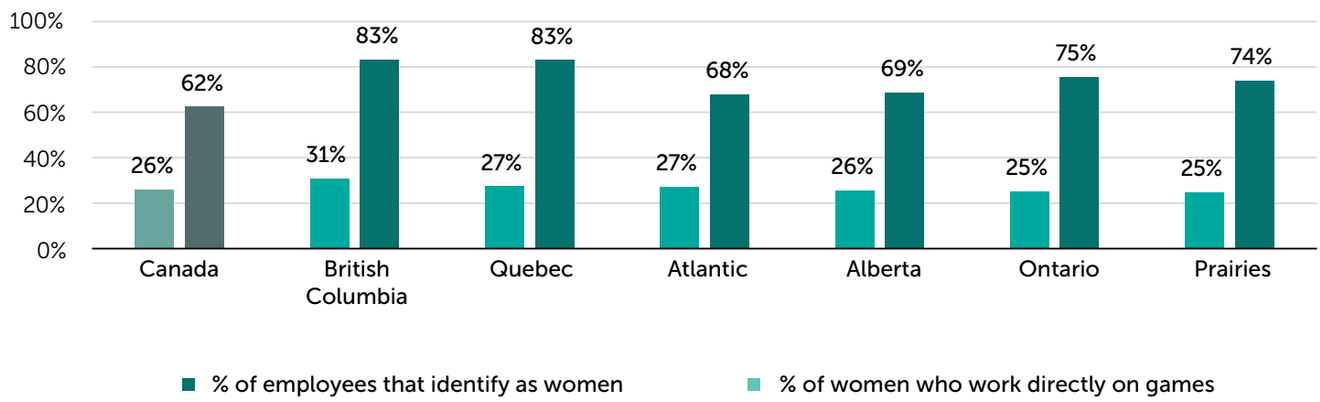
n=175 | Source: estimates based on ESAC 2024 Industry Survey

Women in Games

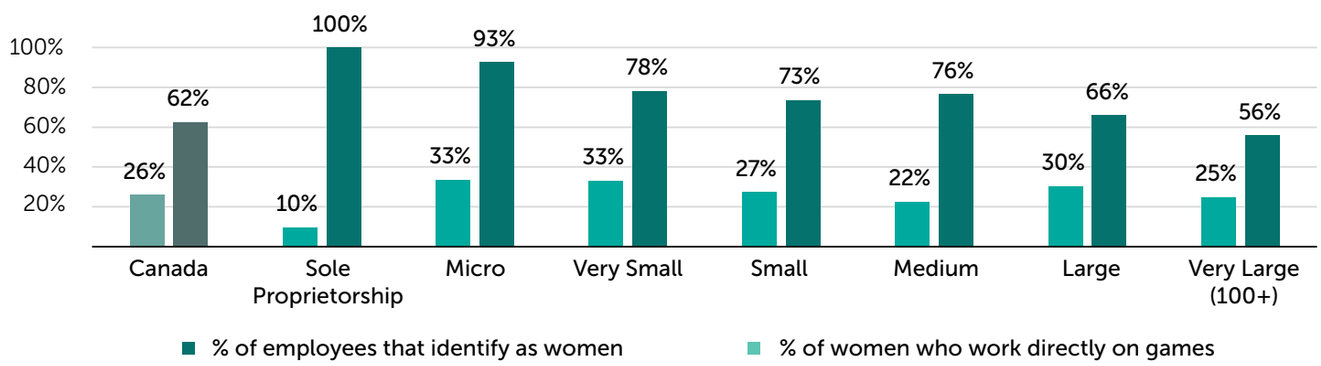
An estimated 26% of video games workers are women. They made up 23% of the industry in 2021 and 19% in 2019.

On average 62% of these women work directly on games. Women are more likely to work directly on games when working at smaller companies.

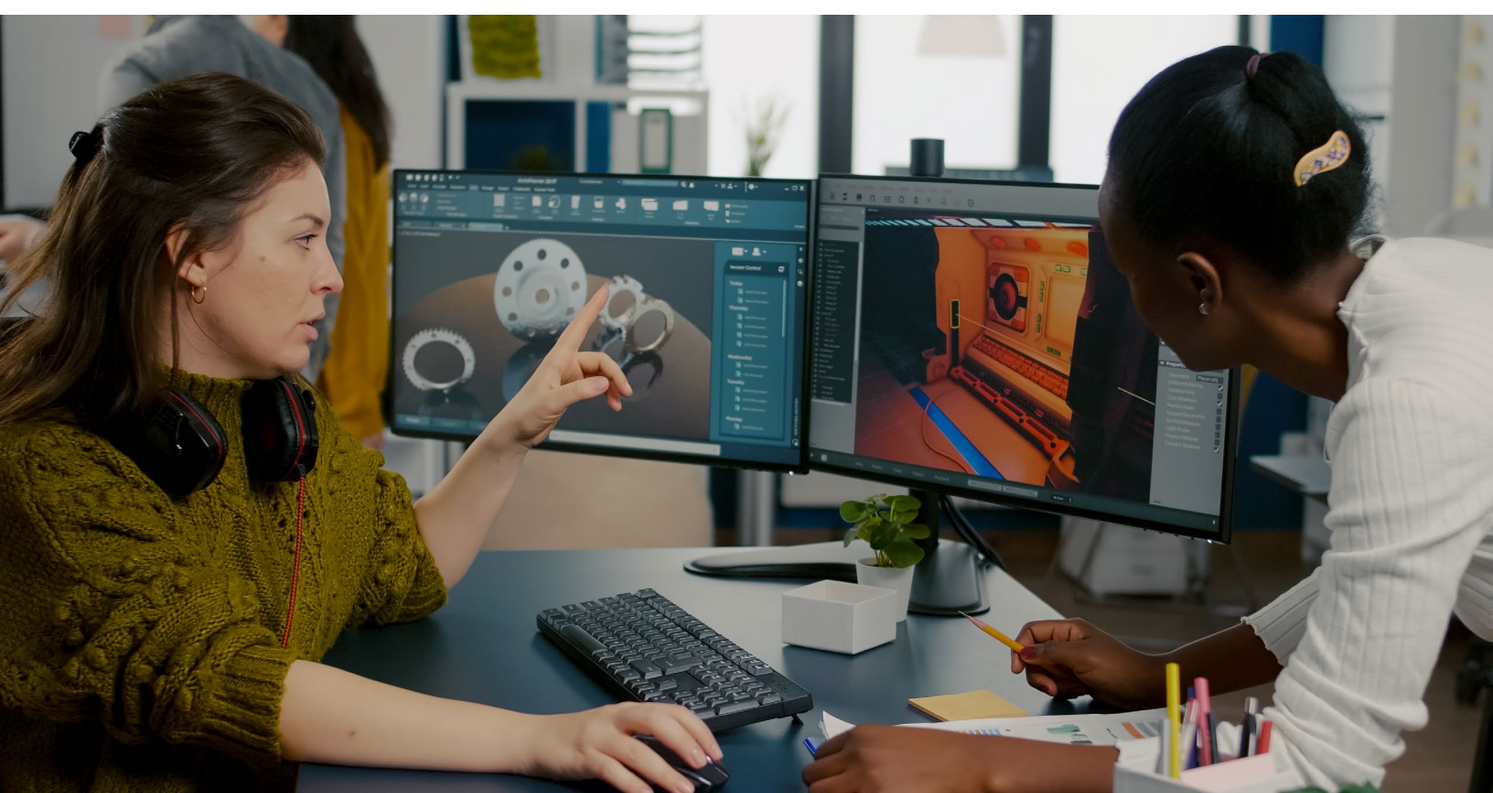
Women in Video Games, Regions



Women in Video Games, Company Size



n=175 | Source: estimates based on ESAC 2024 Industry Survey





Economic Impact

Economic Impact
Introduction

The video game industry contributed a total of $5.1 billion to Canada's economy in 2023-24. This includes an estimated $3.9 billion directly, and a further $1.2 billion through indirect and induced impacts.

This reflects the fact that although employment decreased slightly, the sector has continued to mature, with more senior employees and an increase in overall wages.

In total, the video game industry generated $5.1 billion in revenue and spent an estimated $4.8 billion in 2023-24 for an overall margin of 7%.

As with previous years, a significant share (72%,+6pp) of spending relates to labour, accounting for approximately $3.5 billion in direct labour income. The indirect and induced employment generated $600 million in additional labour income.

$5.1B Total GDP



Economic Impact
GDP

The main measure of economic impact in any industry is Gross Domestic Product (GDP), which refers to the total value generated by a company or industry in the development and production of a good or service. In other words, the money paid to or generated by individuals. As such, the GDP contribution of video games companies in Canada is estimated by summing the labour income of workers in Canada, plus an allocation of the operating surplus (which can be understood as income for the companies' owners).

In addition to the direct impact, economic activity also has what can be called "spin-off" impacts, which represent the ripple effects that an industry has on the broader economy. These impacts include indirect impacts (the employment and value added by suppliers from which video game companies purchase goods and services), and induced impacts (the re-spending of labour income by employees of video game companies and their suppliers). Nordicity estimates that the video games industry directly contributed an estimated $3.9 billion to GDP in Canada in 2023-24, a 29% increase from 2020-21.

The industry also generated $1.3 billion in indirect and induced impacts. The total GDP contribution is estimated to be $5.1 billion, which is 3% higher than in 2021.

	2024	2021	%Change
Video Game Industry	$3,884M	$3,018M	+29%
Indirect Impact	$473M	$1,122M	-58%
Induced Impact	$753M	$815M	-8%
Total Impact	$5,110M	$4,955M	+3%

n=170 | Source: estimates based on ESAC and CIAIC 2024 Industry Surveys, Statistics Canada Input-Output Tables, Nordicity's MyEIA tool



Operating Capital
Sources

Total revenue earned by Canada's video game companies in 2023-24 is estimated to be $5.1 billion, a growth of 16% since 2021.

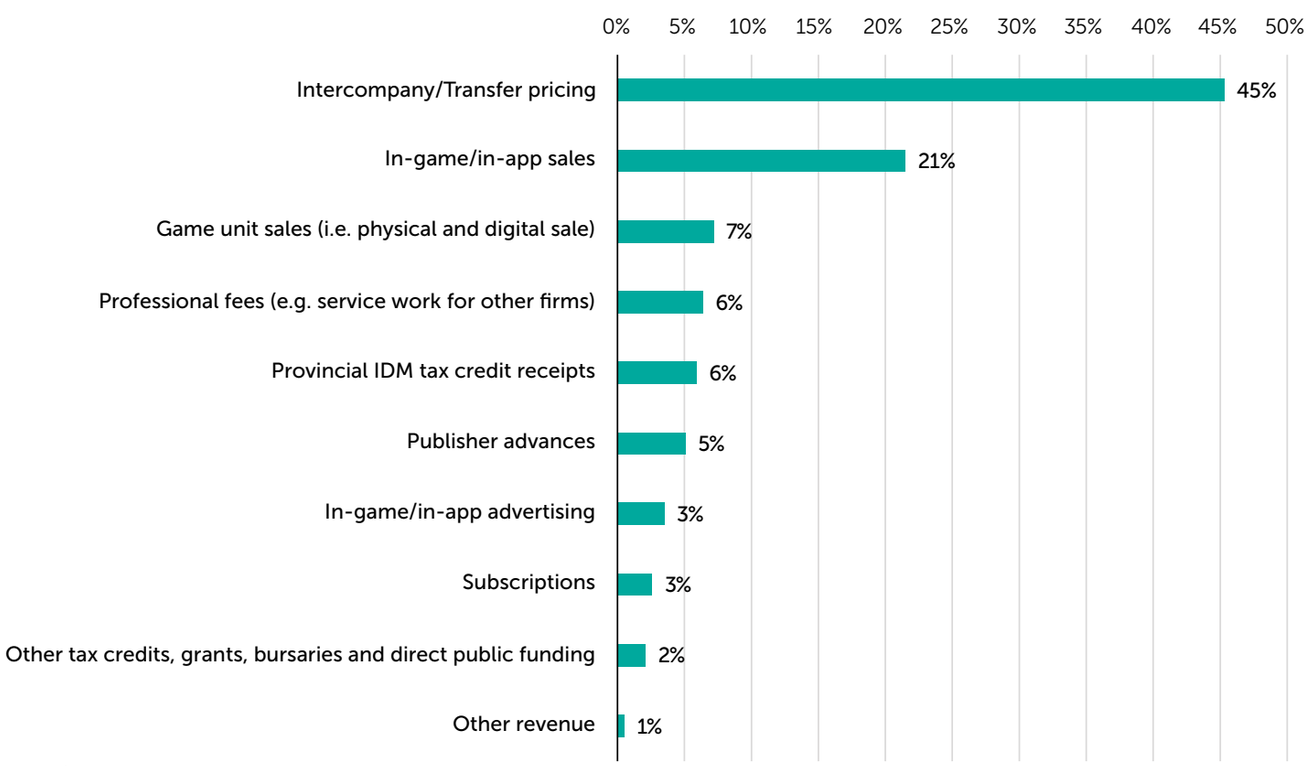
The figure below shows the primary sources of revenue for companies in this industry. Roughly 45% of the industry's total revenue was derived from intercompany/transfer pricing. Given that most of the industry's revenue is generated by larger companies with international headquarters, a significant portion of revenue comes from intercompany transfers, particularly during development cycles.

In-game/in-app sales made up 21% of the total revenue while provincial games industry tax credits contributed 6% to total revenue.

The share of revenue generated by professional fees has doubled to account for 6% of the total revenue in 2023-24. With financing challenges and uncertainty, companies have shifted, to an extent, towards service work.

$5.1B Total Revenue

The largest share of revenue for Canadian video games companies is intercompany/ transfer pricing, which reflects the fact that the largest companies are foreign-owned.
Various public support mechanisms accounted for 8% of the total revenue in 2024, against 10% in 2021.

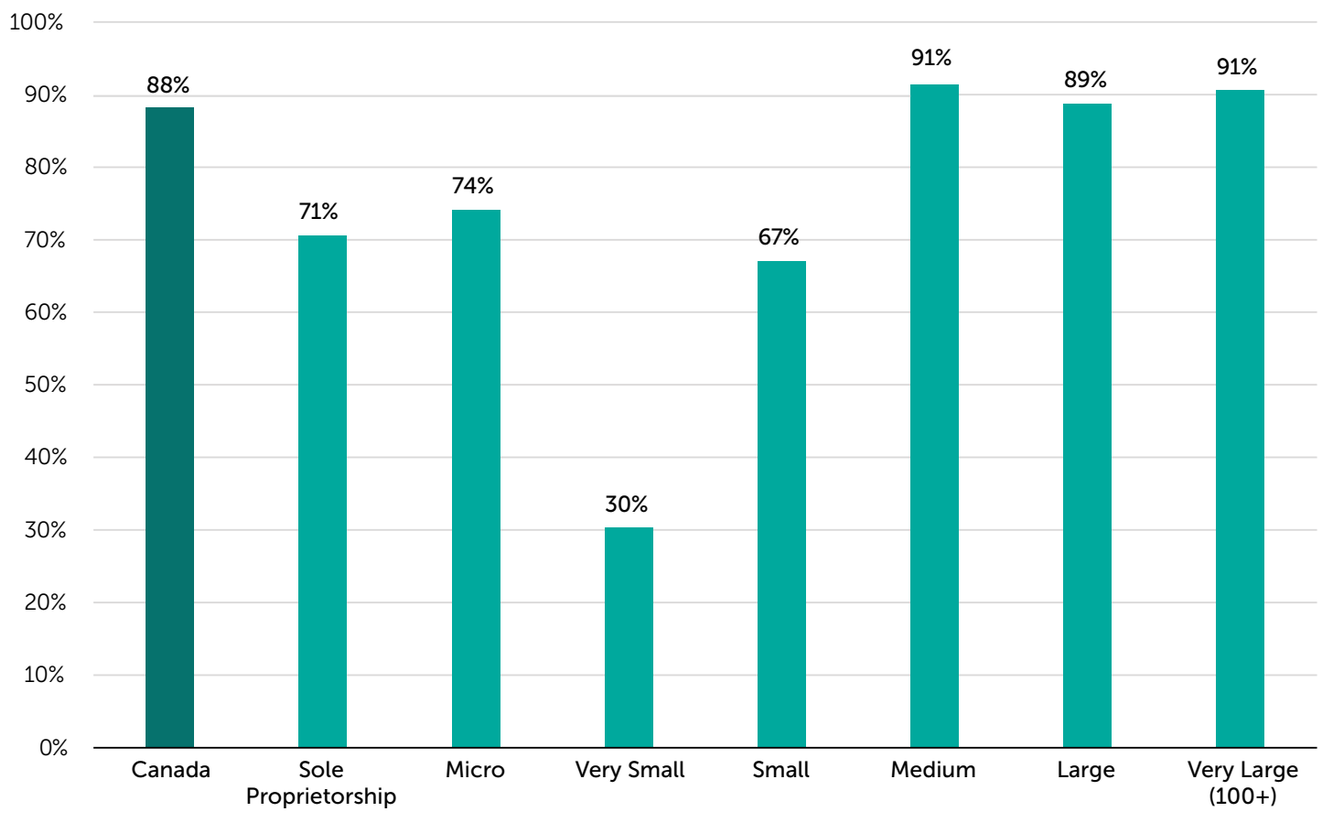


n=159 | Source: estimates based on ESAC 2024 Industry Survey
Other revenue includes: Technology and/or process licensing and sales, Content IP licensing (eg. royalties), Merchandising & peripherals.

Revenue
Exports

The video games industry in Canada is largely export- driven with 88% of its revenue being generated from exports, up from 84% in 2021.

Exports are the principal source of revenue for most companies, with exports accounting for about 90% of revenue of Medium, Large and Very Large companies.



n=159 | Source: estimates based on ESAC 2024 Industry Survey



Expenditure
Sources

Given that the video game industry in Canada is composed of several integrated studios (that cannot account for their revenue as a separate business unit), company expenditure is a more reliable indicator of the size of the video game industry in Canada.

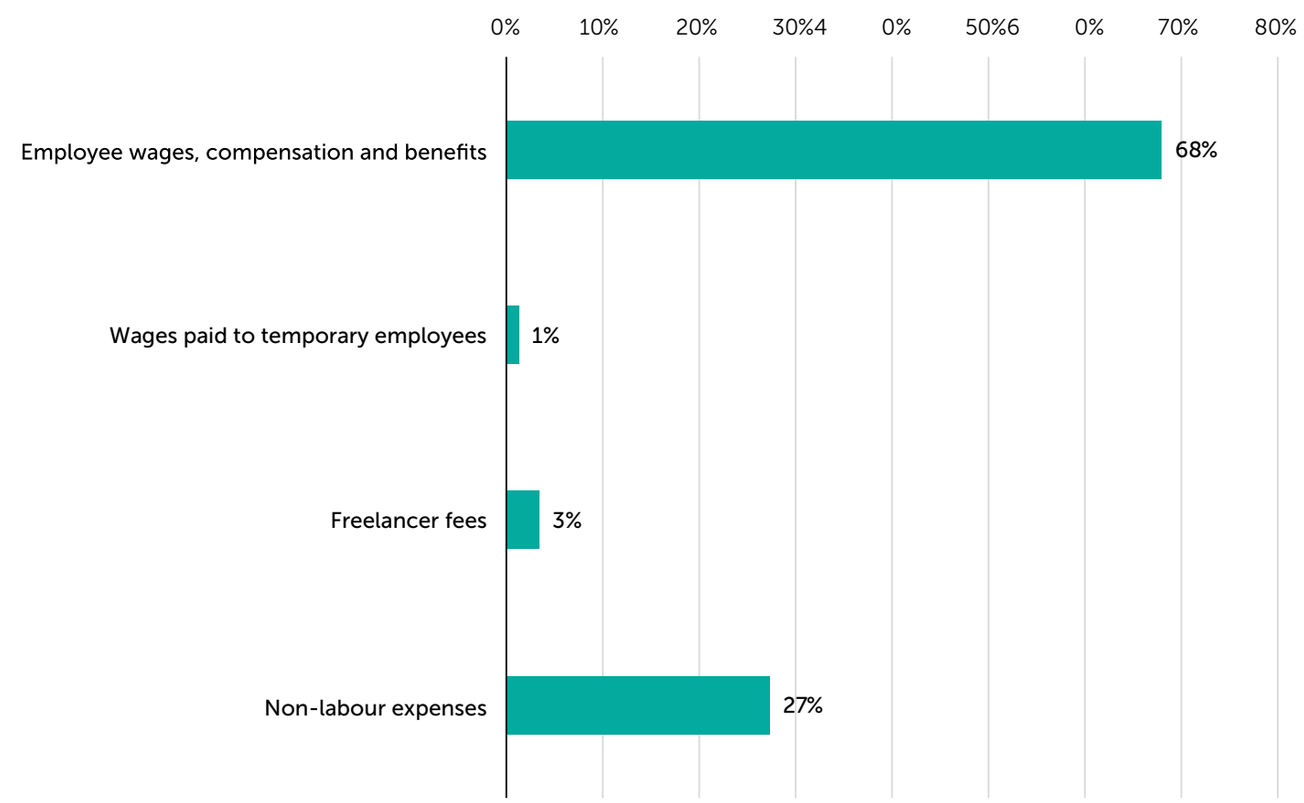
Canadian video game companies spent an estimated $4.8 billion in 2024, an increase of 11% over reported expenditure in 2021.

Given that the number of companies and employment numbers have declined, the increase in the industry's total expenditure is likely due to inflation driving costs up and the subsequent increase in salaries observed.

Indeed, between 2017 and 2021, the share of the industry's total expenditure related to labour remained around 66%. This share is now 72% in 2024, pointing to the rapid expansion of labour costs in the video games industry.

$4.8B Total Expenditure

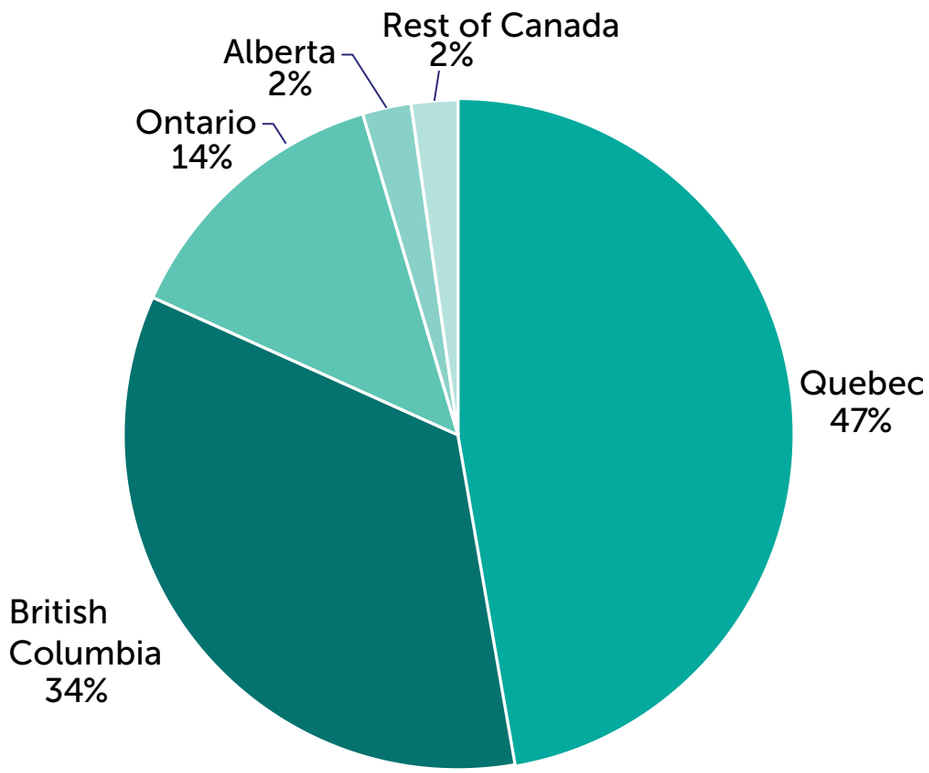
Combining all forms of employment, 72% of the total expenditure relates to labour.



n=166 | Source: estimates based on ESAC 2024 Industry Survey

Expenditure
Regions

Quebec accounts for the largest share of total industry expenditure (47%), followed by British Columbia (34%) and Ontario (14%).

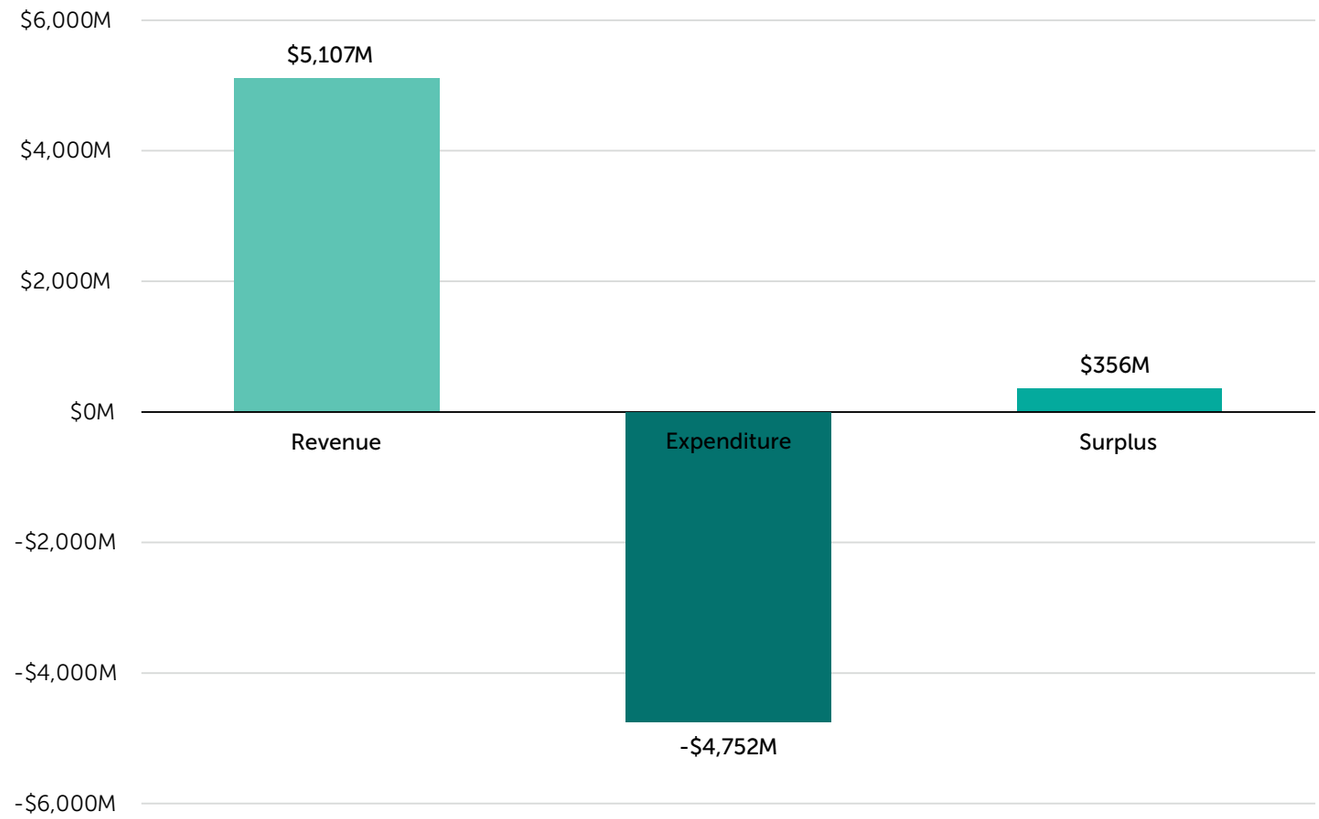


n=166 | Source: estimates based on CIAIC and ESAC 2024 Industry Surveys



Economic Impact
Operating Surplus and Labour Income

Operating surplus for the industry was estimated to be $356 million for 2023-24, or a margin of 7%.



n=159 | Source: estimates based on ESAC 2024 Industry Survey

Workers employed in the video games industry in Canada collectively generated a total of $3.5 billion in labour income, a 21% increase from 2021.

In addition, the indirect and induced employment collectively generated a total of $600 million in labour income.

Most of the economic impact of the industry is derived from income earned by employees of video games companies and the labour income associated with indirect and induced employment generated by the industry.

	2024	2021	%Change
Video Game Industry	$3,454M	$2,843M	+21%
Indirect Impact	$252M	$645M	-61%
Induced Impact	$361M	$391M	-8%
Total Impact	$4,067M	$3,878M	+5%

n=170 | Source: estimates based on ESAC 2024 and 2021 Industry Surveys, Statistics Canada Input-Output Tables, Nordicity's MyEIA tool



Other Insights

Other Insights
Introduction

The way Canadian video game companies work has changed significantly, with flexible work policies now widespread. Hybrid is now the preferred mode of work for companies that employ more than 25 people, and remote preferred for smaller companies.

The average time to ship a game has increased by 5 months for larger Studios that employ 100+ people, while smaller companies have become somewhat quicker.

Another interesting development is the use of generative AI, with 48% of companies now using it, primarily as a brainstorming or idea generating tool. 25% more intend to explore AI use cases.

The challenges companies face vary greatly depending on their size, with smaller companies finding it difficult to access funding programs while very large companies are struggling with securing talent.

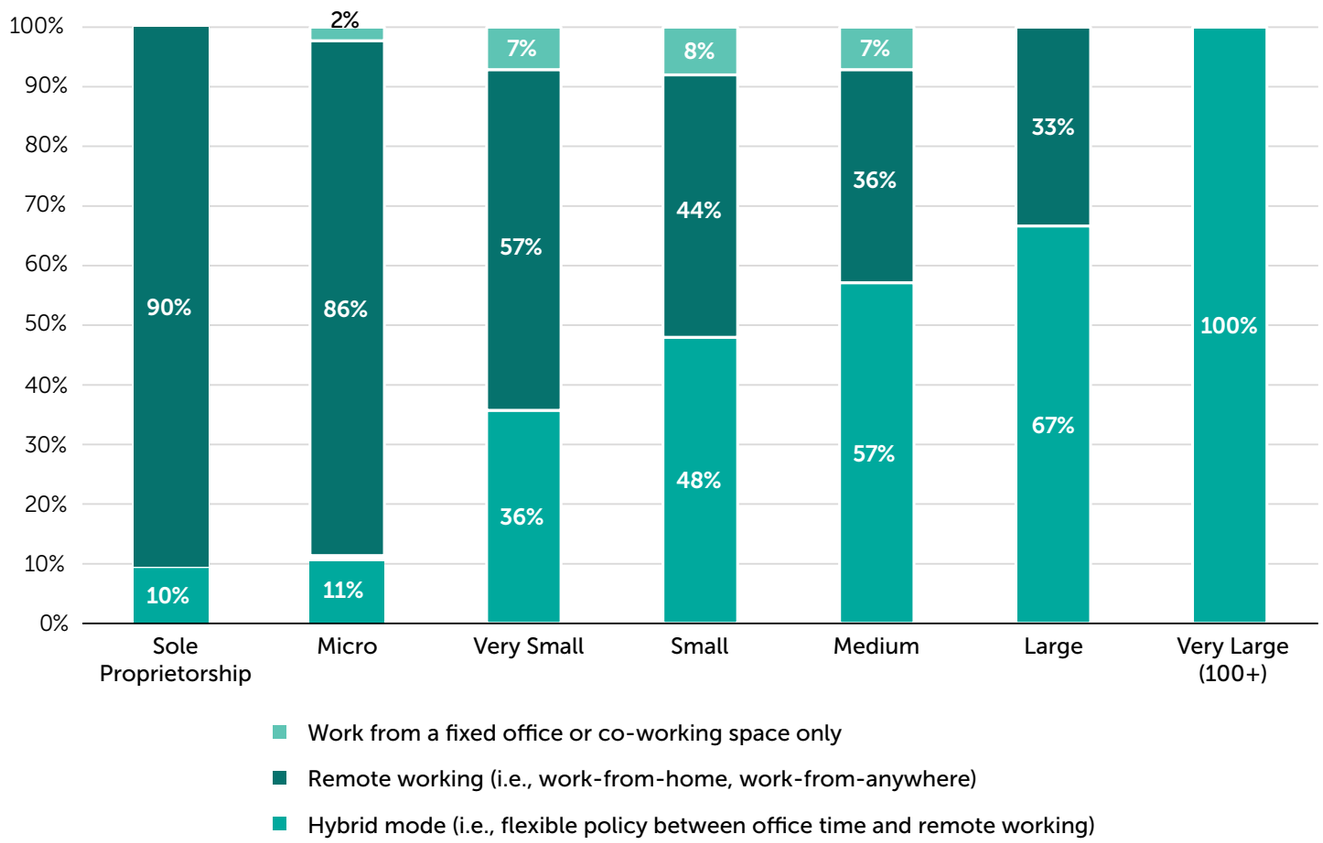


Other Insights
Mode of Work

Flexible work policies are now widespread in the video games industry: hybrid is now the preferred mode for Large and Very Large (100+) companies, which employ 83% of workers.

Indeed, there is a clear relationship between the size of a company and the likely mode of work.

On average, companies have indicated requiring 2 days of presence in the office per week. Smaller companies have embraced a fully remote model.



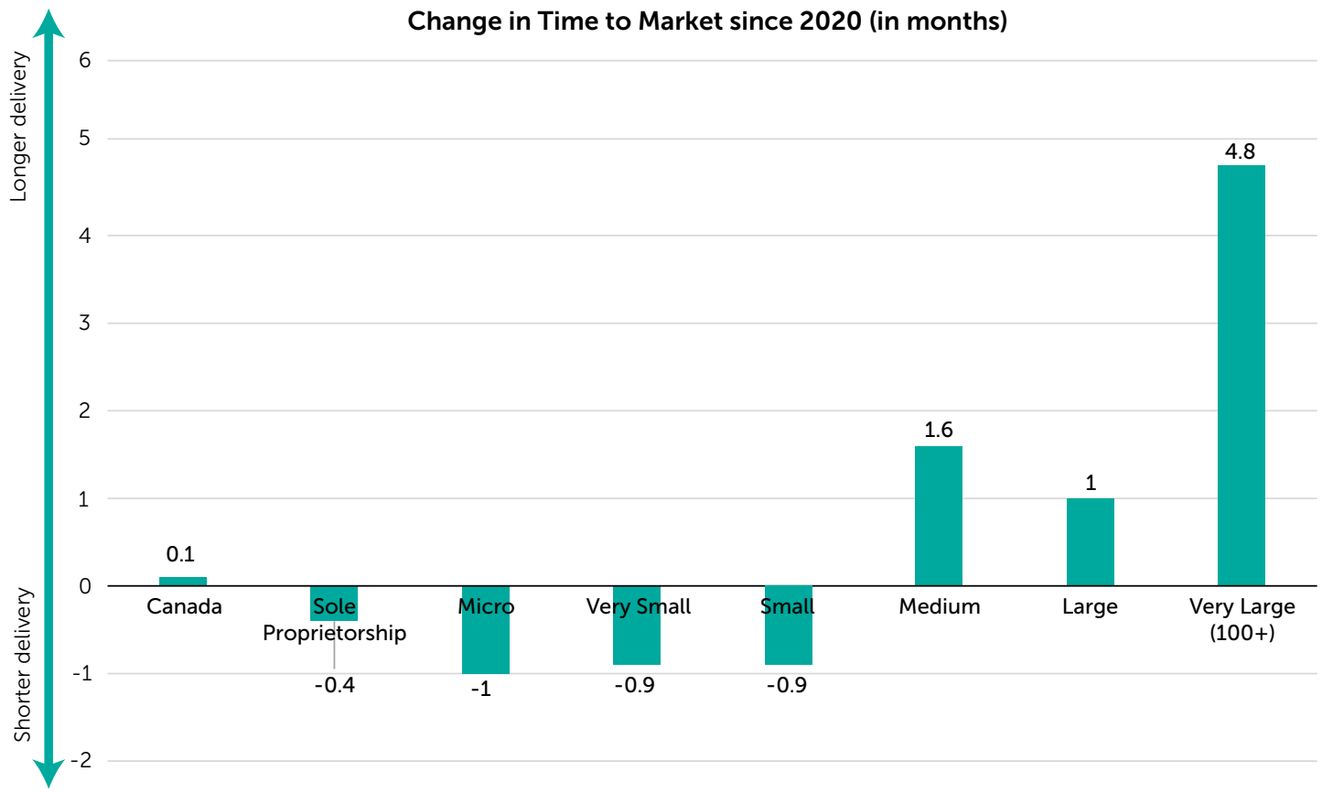
n=178 | Source: estimates based on ESAC 2024 Industry Survey



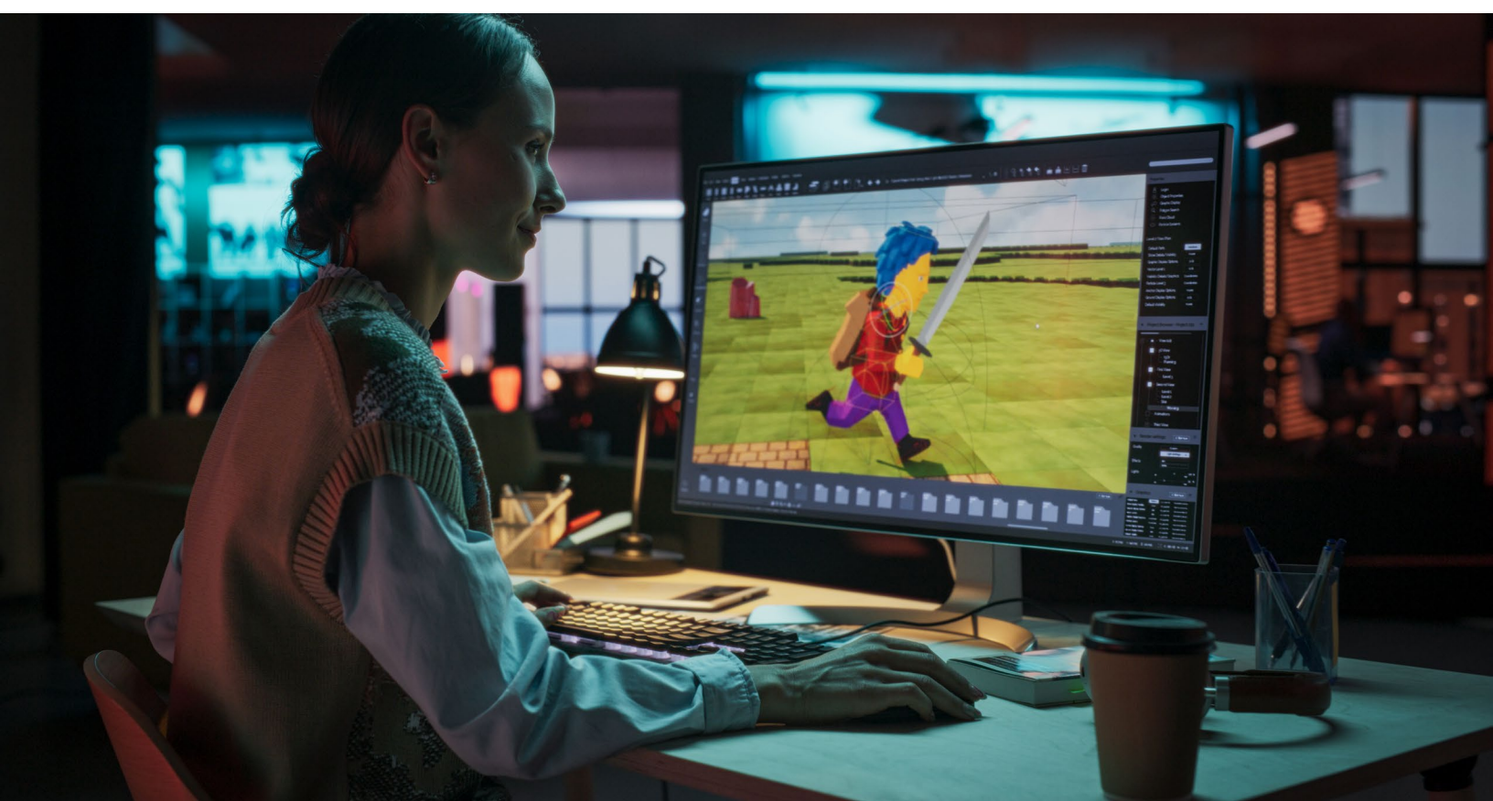
Other Insights
Change in Time to Market

While smaller companies do not seem to have been particularly impacted by the shifting working practices, large companies have reported that projects now take more time to be delivered.

For Very Large companies, it takes about five months longer (on average) to ship a game. As such, the risks associated with larger games has increased.



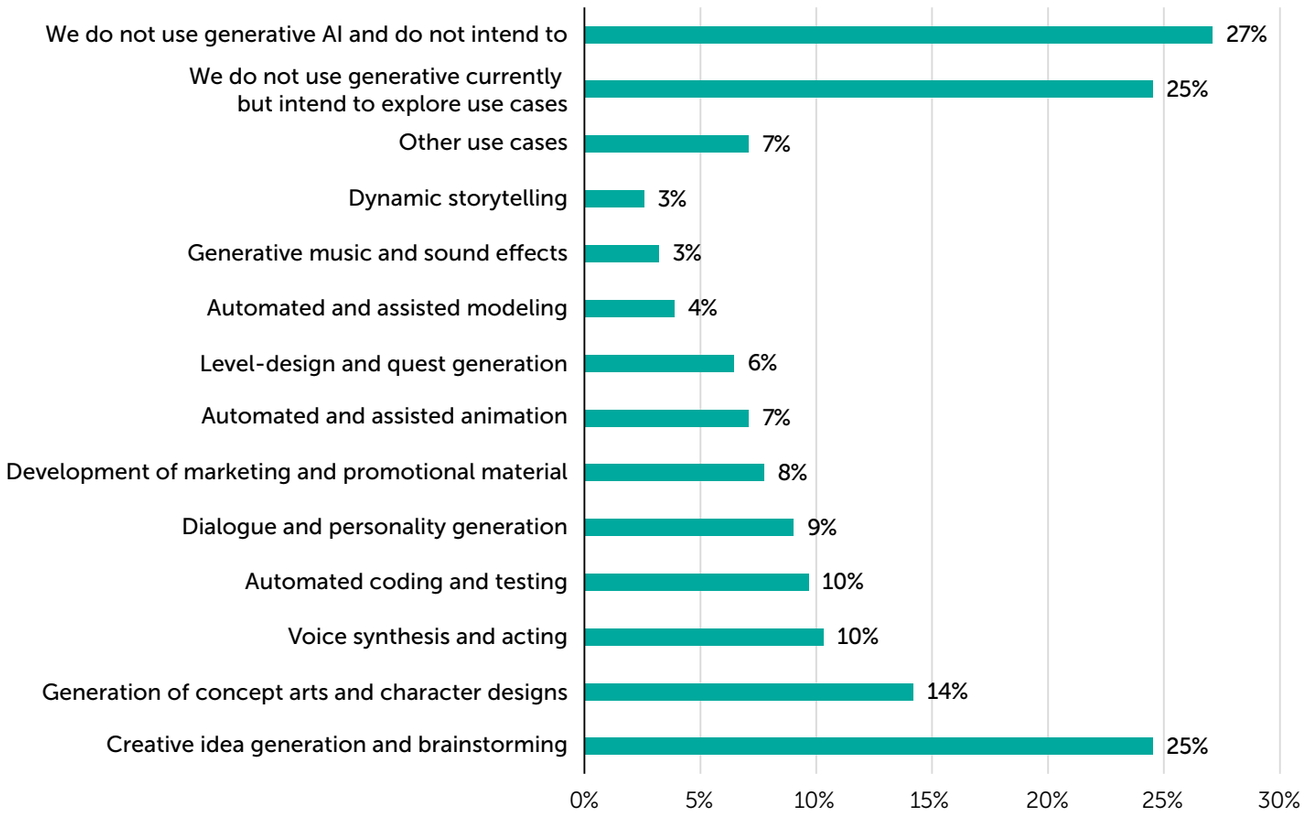
n=178 | Source: estimates based on CIAIC and ESAC 2024 Industry Surveys



Other Insights
Use of Generative AI

AI tools have been used in the video games industry for well over a decade. With the recent interest around new AI models, video games studios are more widely adopting generative Artificial Intelligence, primarily as a brainstorming and idea generation tool.

25% of respondent companies are currently not using generative AI but still intend to explore its use. This share increases to 33% for Very Large companies (100+).



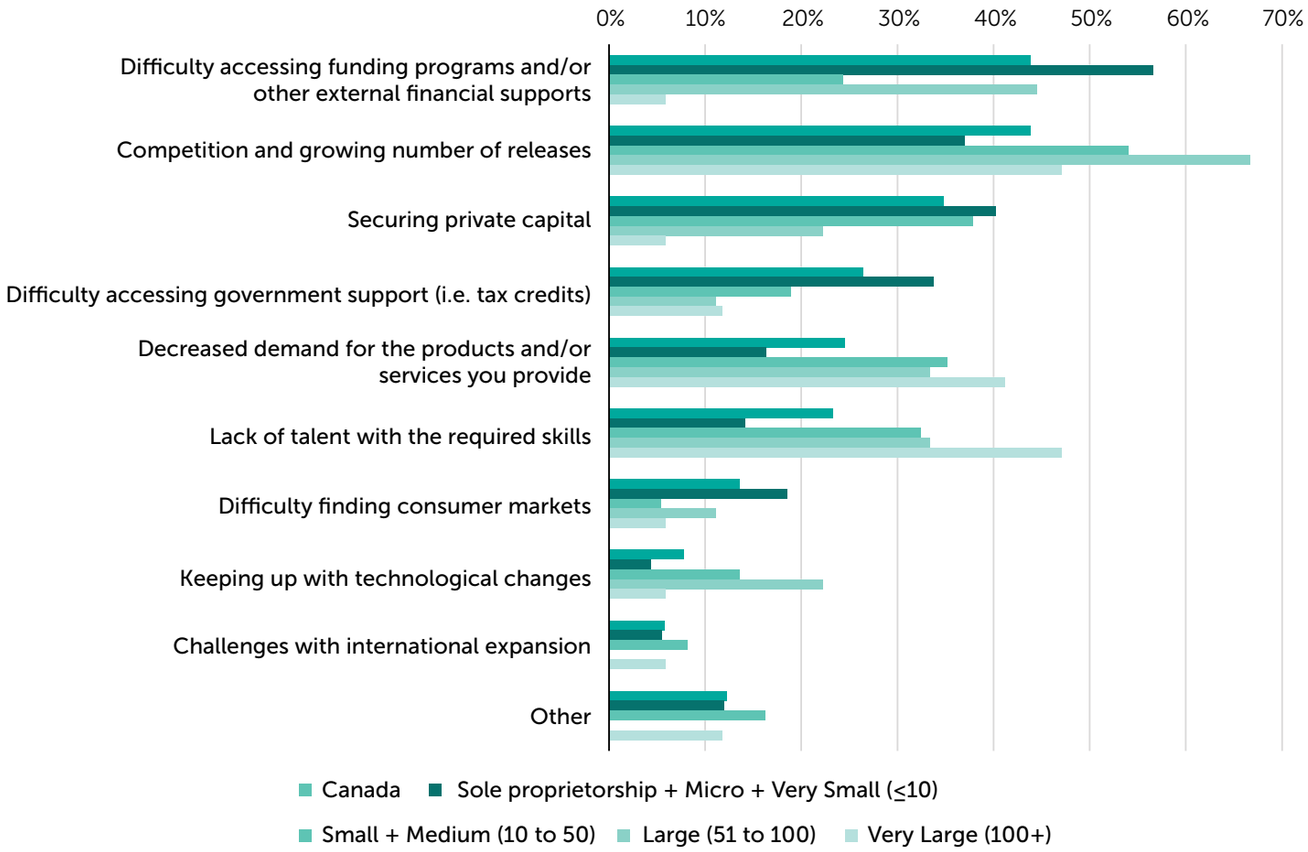
n=155 | Source: estimates based on ESAC 2024 Industry Survey

Other use cases include: grants, loans and business documentation writing, translation and localization, references, compositing, business-related questions...

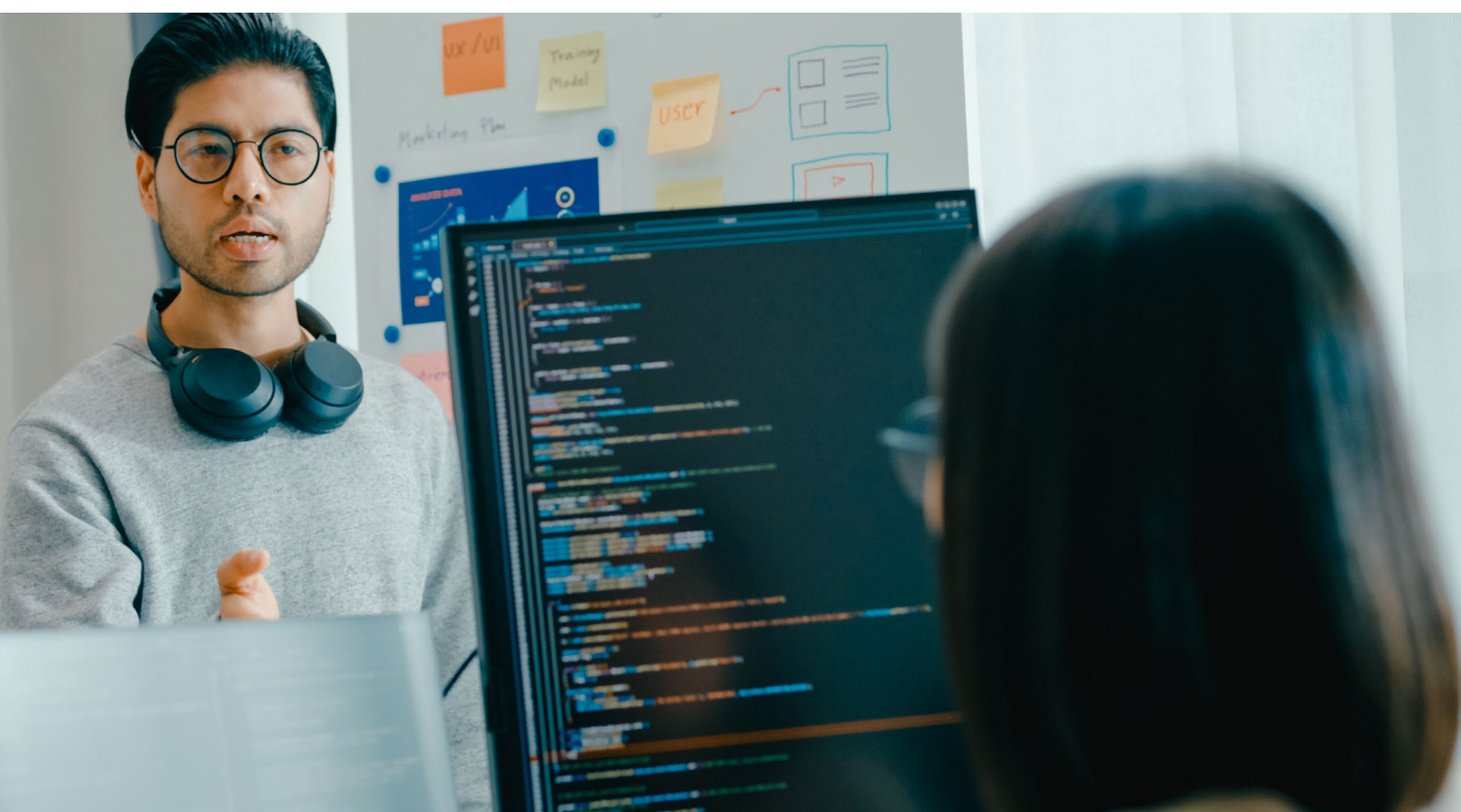


Other Insights
Barriers to Growth

Challenges vary greatly depending on the size of the companies. For example, smaller companies are facing difficulty accessing funding programs and external financing while Very Large companies are struggling with securing talent and a decreasing demand. Companies of all sizes are facing discoverability challenges in a competitive market.



n=155 | Source: estimates based on ESAC 2024 Industry Survey



The Global Video Games Industry

Since the last edition of this report in 2021, the global video games industry has seen significant change. That change can largely be divided into two segments: 2021 to mid-2022, and mid-2022 to the present.

In the first period, the industry received record investment driven (in part) by a low cost of capital and strong pandemic-era demand for cost effective at-home entertainment. In that time, there was a strong demand for experienced labour around the world, leading to the rapid increase of salary costs. At the same time, many projects were initiated without rigorous assessments of their commercial potential.

$260.3B

Global revenue generated by the video game industry in 2021

Newzoo, 2024; converted from USD to CAD

$13.4B

Total gaming VC funding for 2021; industry peak

Investgame.net, 2024; converted from USD to CAD

0.25%

Posted Bank of Canada interest rate through 2021

Bank of Canada, 2024

In mid-2022, the cost of capital rose sharply contributing to a steep decline in investment into games. At the same time, the pandemic ended, allowing for more consumer choices (outside of the home). As a result, many games companies around the world has inflated cost structures and were unable to raise financing to complete or adequately support their projects.

As a result, many companies have recently been forced to lay off employees or to close entirely. Meanwhile, although project financing is still available, it has become increasingly contingent on strong evidence that the game has the potential to resonate with audiences, and thus be commercially successful.

-4.3%

Year-on-year decline in global games industry revenue in 2022; first decline since 1995

Gamesindustry.biz, 2024

22,700+

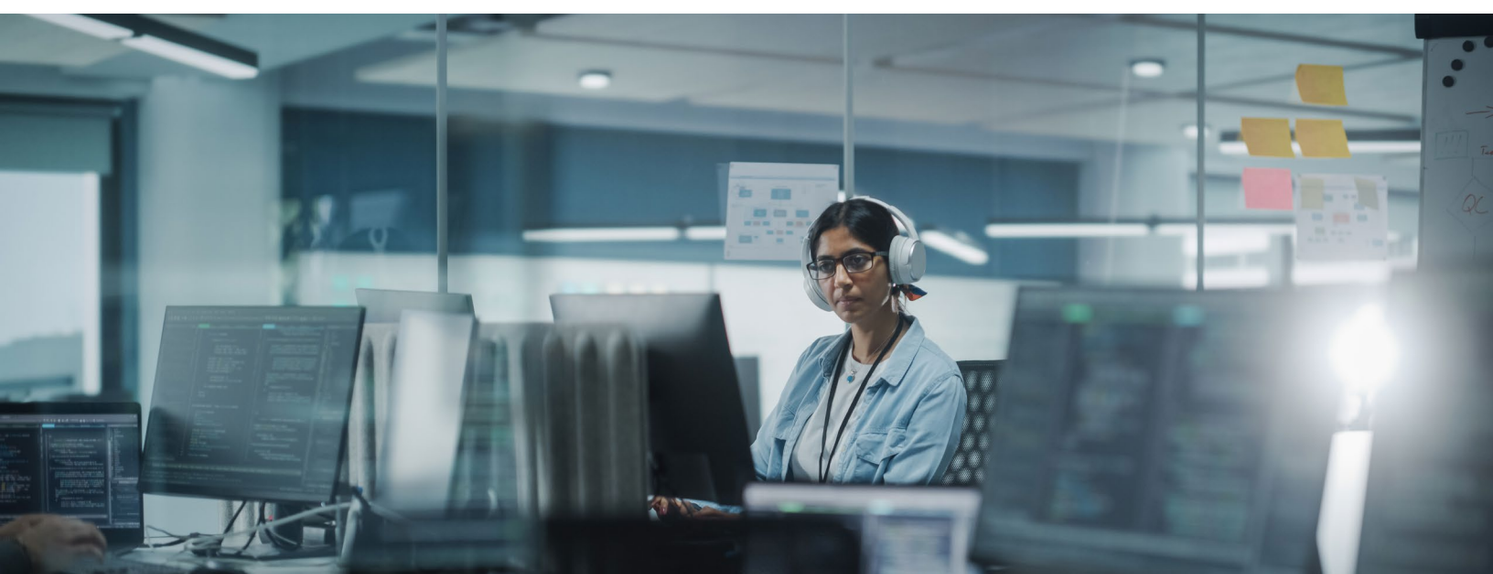
Jobs cut in mass layoffs across the video game industry from 2023 to mid-2024

Obsidian Publish, 2024

-90%

Decline in VC funding from peak in Q4-2021 to Q4-2023

Investgame.net, 2024



Appendix

Appendix
Glossary of Terms

Company sizes: Companies are divided into eight segments ranging from Sole proprietorship (0 to 1 employee) to Outlier companies (200+ employees). In this report, the two largest categories (Very Large, 100-200 employees, and Outlier, 200+ employees) are presented together as Very Large (100+) to respect the confidentiality of these companies. Outlier companies are only reported as a different category in one chart of the Employment section.

n-values: The number of respondents to a survey question, which is often used in the data analysis related to that question. Direct GDP: The economic activity generated directly by the video game industry.

Indirect GDP: The increased economic activity generated by business sectors broadly associated with the video game industry in Canada—i.e., sectors that are supplying goods and services to companies in the industry.

Induced GDP: The increase in economic activity attributable to re-spending of labour income within an economy by workers at the direct and indirect levels. In other words, people employed at the direct and indirect level take home salaries and re-inject that income into the economy through their day-to-day spending.

Direct employment: Those people employed by a video game company.

Spin-off employment: Employment resulting from economic activity generated by business sectors that supply the video game industry in Canada and from the re-spending of labour income within an economy by workers at the direct and indirect levels. In other words, employment related to the indirect and induced economic impact of the video game industry.

FTE: Full-time equivalent is a measure of employment that can mean, for example, that three part-timers each working a third of a year make up one FTE. Labour income: Salaries and benefits paid to employees of video game companies.

Prairies: A term used to designate Manitoba and Saskatchewan throughout this report.

Atlantic: A term used to designate New Brunswick, Nova Scotia, Newfoundland & Labrador, and Prince Edward Island throughout this report.

Methodology
Data Collection and Analysis

Data Collection

The data presented in the above report was collected primarily through an online survey, although some secondary research was conducted to provide context to the findings.

For this study, much of the data presented was derived from the results of two online surveys that Nordicity conducted between May and July 2024 for ESAC. Prior to deploying this iteration of the survey, Nordicity and the studies' partners (ESAC and provincial industry associations) developed and expanded the list of video games companies (the universe) to which the survey was distributed.

In this context, a "video games company" was defined as a company directly involved in the development and/or sale of video games, and/or the provision of services directly related to the development and sale of video games.

The survey was also distributed and promoted by ESAC and provincial industry associations through newsletters, direct outreach to video game companies, and via social media channels. Upon closing the survey, Nordicity had received responses with some data from 150 video game companies which were able to provide detailed financial data. As this financial data lies at the heart of this exercise (e.g., because it is the primary input into the economic impact analysis), Nordicity used these 150 responses to estimate the degree to which the sample collected reflects the universe of video game activity in Canada.

The n-value for some questions can vary depending on the number of usable responses received by Nordicity.

Regarding references to dates, any reference to data from 2024 is from the ESAC 2024 Industry Survey and could refer to data related to the 2023 fiscal year or the current state of business in 2024. Similarly, any reference to data from 2021 refers to the revised data based in ESAC 2021 Industry Survey. Data from 2021 may refer to data related to the 2020 fiscal year or the state of business in 2021

Data Analysis

A survey will only ever capture a portion of the potential respondents. Having collected the online survey data, the first step was to estimate the degree to which the sample reflects the universe of video game activity in Canada. In effect, the survey sample needs to be "grossed-up" to the size of the universe. In this case, that meant extrapolated data from the 150 firms that supplied employment and financial data to the 937 companies in the final list of potential respondents. In the video games industry, firms range in size from a few employees to several hundred employees, with a very small number of outlier companies whose employment is in the thousands.

Nordicity split this gross-up exercise into eight segments:

- Sole proprietorships: 1 employee
- Micro companies: 2 to 4 employees
- Very small companies: 5 to 10 employees
- Small companies: 11 to 25 employees
- Medium companies: 26 to 50 employees
- Large companies: 51 to 100 employees
- Very large companies: 100 to 200 employees
- Outlier companies: 200+ employees

To do so, Nordicity first classified the 821 active video games companies identified across Canada into the eight groups based on a review of their websites, socials and based on their potential response to the survey.

Methodology
Data Analysis and Economic Impact Analysis

Averages were calculated for expenditure and revenue foreach of the size categories from survey data.

For confidentiality purpose, Very Large (100+) regroups Very large and Outlier companies in this report.

For each region, the averages calculated above were multiplied with the number of companies in that size group, in that region, to arrive at a gross expenditure and revenue for each region.

Labour and non-labour expenditure percentages from the survey were used to allocate the gross expenditure into categories. For non-labour expenditure, survey data from previous Nordicity projects were used to develop an expenditure profile of video games companies which was then applied to the gross expenditure less labour.

Note that a few massive companies were not included in the gross-up exercise – but added as is - if they completed the survey and indicated more than 500 employees. This accommodation was made to ensure than the Outlier segment is not overestimated.

Other industry data, such as the industry average salary was estimated using a weighted average. For example, firms were asked to provide average salary data for three levels of seniority (junior, intermediate, senior). First, average salary levels were developed for each type of employee at each size of firm (the eight segments). These averages were then weighted by the relative employment in each type to arrive at a single average salary for each size group. These company size-based averages were then combined (and weighted by the relative employment of each size group) to arrive at a final average salary.

Economic Impact Analysis

The economic impact modelling drew upon data from the online survey, secondary sources and Statistics Canada's Input-Output (I-O) tables, to derive estimates of direct, indirect and induced impacts of the video game industry on the Canadian economy in terms of employment (i.e., full-time equivalents [FTEs]), labour income (i.e., wages, salaries and benefits) and gross domestic product (GDP).

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

To estimate the direct economic impact, we compiled data from the online survey on industry activity (i.e., operating revenue and expenditures, total wages and salaries, average salaries) and a representative breakdown of cost structures for the video game industry. These data were used to estimate labour income and employment.

To estimate direct GDP, the ratio of operating surplus to labour income for Canada's software publishing industry was obtained from Statistics Canada's input-output tables and used to estimate the amount of operating surplus to add to the estimate of labour income in order to derive an estimate of GDP.

Methodology
Economic Impact Analysis and 2021 Revision

The indirect impact refers to the increase in employment, labour income and GDP in the industries that supply inputs to the video game industry (e.g., utilities, real estate, telecommunications services). The conversion of data for industry activity into estimates of the indirect economic impact required an I-O model of the Canadian economy. Nordicity used Statistics Canada's I-O tables to construct a model that could be used to estimate the indirect economic impact. This model took into account the pattern of re-spending by the video game industry's supplier industries, and the degree to which these supplier industries' purchases leaked from the Canadian economy in the form of imported inputs. This I-O model was used to derive estimates of indirect employment,
labour income, and GDP.

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

2021 Revision

Nordicity has been conducting this study for ESAC for over a decade and regularly updates and improves the underlying methodology. For the 2024 edition of the Video Games Industry Profile, a more substantial change to the methodology has been implemented following discussion with ESAC and study partners.

The 2024 Profile introduces more size categories to better reflect differences between each segment and bring more nuance and accuracy to the gross-up exercise. By doing so, Nordicity more accurately models the impact of each segment where the previous strata (Micro, Standard, Large and Outlier) could lead to an over (or under-) estimation depending on the actual distribution of companies in a given region.

Given the importance of this methodological change, the new approach was also applied to the 2021 data in order to allow for the accurate comparison between 2021 and 2024. As such, the 2021 results have been revised as follows:

- FTEs

Canada			Prairies			Alberta			Atlantic			Ontario			Quebec			British Columbia		
Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change
35,250	32,300	9%	250	300	-17%	1,090	1,300	-16%	1,460	1,600	-9%	6,290	7,000	-10%	16,200	13,500	20%	9,970	8,700	15%

- Labour Income

Direct			Indirect			Induced			Total		
Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change
$2,843M	$2,530M	12%	$645M	$570M	13%	$391M	$570M	-31%	$3,878M	$3,670M	6%

- GDP

Direct			Indirect			Induced			Total		
Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change	Revised	Initial	Change
$3,018M	$3,240M	-7%	$1,222M	$1,020M	20%	$815M	$1,240M	-34%	$4,955M	$5,500M	-10%

About Us

ENTERTAINMENT SOFTWARE ASSOCIATION OF CANADA
ASSOCIATION CANADIENNE DU LOGICIEL DE DIVERTISSEMENT

ESAC is the national voice of the video game industry in Canada. We work for our members – Codename Entertainment, Certain Affinity, Glu, EA, Epic Games, Eidos Montreal, Gameloft, Ubisoft, Kabam, Ludia, Microsoft, Nintendo, NetEase Games, Other Ocean Interactive, Sony Interactive Entertainment, Relic Entertainment, Roblox, Solutions 2 Go, WB Games, Take-Two Interactive, and Tencent –to ensure legal, regulatory and public affairs environment are favourable to long-term business development.

For more information, visit theESA.ca.

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