

# Canada's Workforce in Transition

How Al Is Shaping the Future of Work



The Future Skills Centre (FSC) is a forward-thinking centre for research and collaboration dedicated to driving innovation in skills development so that everyone in Canada can be prepared for the future of work. We partner with policymakers, researchers, practitioners, employers and labour, and post-secondary institutions to solve pressing labour market challenges and ensure that everyone can benefit from relevant lifelong learning opportunities. We are founded by a consortium whose members are Toronto Metropolitan University, Blueprint, and The Conference Board of Canada, and are funded by the Government of Canada's Future Skills Program.





# Contents

4

**Key findings** 

5

Al is redefining roles, not just replacing them

6

Competing or augmenting human labour

7

Al-augmented roles show stronger employment growth

9

Job postings reveal shifting labour demand

11

Reshaping skill demands across roles

14

Al skills demand shows strong industry-specific patterns

15

**Actionable insights** 

16

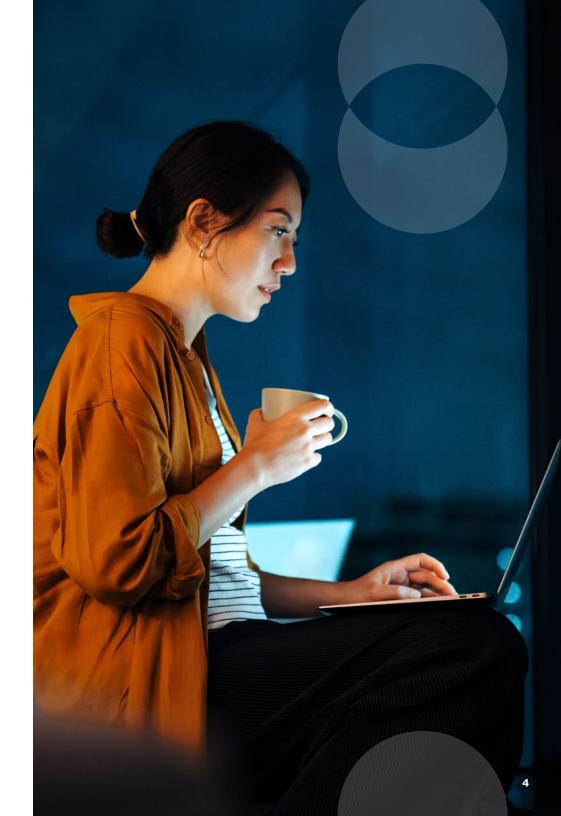
**Appendix A**Methodology

21 Appendix B

Bibliography

### Key findings

- Al is transforming work in Canada. It's changing tasks, reducing demand for some jobs, and reshaping others.
- In 2024, 57.4 per cent of Canadian jobs were classified as highly exposed to Al. Of these, 49.0 per cent are Al-competing roles where Al can automate core tasks with limited need for human judgment, while 51.0 per cent are Al-augmenting roles where Al applications can enhance human capabilities by handling repetitive tasks and allowing more focus on judgment, creativity, and human interaction.
- Demand for AI skills is rising fastest in AI-competing roles.
   This shows that companies are trying to transform these roles—not cut them entirely. Still, as AI improves, some roles could disappear.
- Al-augmented roles are growing faster than Al-competing roles. From 2023 to 2024, Al-augmenting roles grew by 2.9 per cent, while both Al-competing roles—and the overall job market—grew by just 1.6 per cent. Similarly, Al-augmenting roles show smaller year-over-year job posting declines compared to Al-competing roles.
- Since 2022, industries with high exposure to AI have been demanding AI-related skills at a rate above the economy-wide average, and the gap has widened since, showing how fast AI is changing hiring needs.



## Al is redefining roles, not just replacing them

Artificial intelligence (AI) is destined to fundamentally alter work—redefining tasks, reducing demand for specific roles, and giving rise to entirely new roles.<sup>1</sup>

For example, the CEO of Amazon has been clear to his employees regarding the impact of AI on jobs: "As we roll out more generative AI and agents, it should change the way our work is done. We will need fewer people doing some of the jobs that are being done today, and more people doing other types of jobs. It's hard to know exactly where this nets out over time, but in the next few years, we expect that this will reduce our total corporate workforce." This sentiment exemplifies the situation in most technology companies.

Unlike past technology automation waves that targeted routine physical tasks, AI extends into cognitive work—analyzing data, recognizing patterns, and drawing conclusions. This puts even high-skill jobs at risk of disruption, challenging long-held assumptions about their immunity to automation. Given that 57.4 per cent of workers are in roles highly susceptible to AI-driven disruption in 2024,<sup>3</sup> this technological transformation is already reshaping the Canadian workforce. (See Chart 1.)

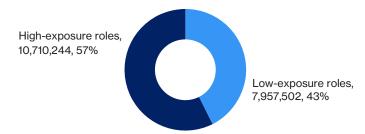
To examine how AI is impacting the labour market, we:

- analyzed over 19 million job postings to track changes in the demand for Al skills;
- assessed the demand for roles competing with or augmented by AI;
- surveyed 1,000 decision-makers in firms in AI-exposed industries to understand how businesses are managing workforce transitions in response to AI adoption.

Please see Appendix A for our full methodology.

#### Chart 1

The majority of jobs in Canada are highly exposed to Al (occupational employment in 2024, per cent)



Sources: Statistics Canada; The Conference Board of Canada's MOST (Modeling Occupations, Skills, Technologies).

<sup>1</sup> Cazzaniga and others, Gen-Al; and Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada."

<sup>2</sup> Milano, "Amazon boss tells staff Al means their jobs are at risk in coming years."

<sup>3</sup> Conference Board of Canada, The, The Labour Market of Tomorrow: Projections from the Model of Roles, Skills, and Technology (MOST).

## Competing or augmenting human labour

We classify roles with high exposure to AI into two groups based on their degree of augmentation with AI<sup>4</sup>:

- Al-competing roles: Al can take over core tasks with little need for human judgment or interaction. Examples include administrative assistants, customer service reps, accountants, lab technologists, graphic designers, and editors. In 2024, 28.1 per cent of Canada's workforce held these jobs.
- Al-augmenting roles: Al boosts productivity by handling routine tasks while people focus on decision-making, creativity, or people skills. These include positions like research scientists, physicians, real estate agents, lawyers, and senior managers. In 2024, 29.2 per cent of the Canadian workforce held these roles.

All is changing the nature of these positions—the shift is already under way.

### How AI is shaping jobs

#### Al-competing role: Medical laboratory technologists

Al will likely replace medical laboratory technologists who perform routine test interpretation. An Al tool can automatically process blood samples, analyze microscopic images, identify cell abnormalities, perform quality-control checks, and generate standardized reports for common tests.

#### Al-augmenting role: Physicians

Al will likely help physicians analyze medical images and patient data to highlight potential concerns while physicians maintain decision-making authority. During patient evaluations, an Al diagnostic tool can pre-screen Xrays for abnormalities, analyze lab results for patterns, and compare the patient's history against similar cases to suggest possible diagnoses. Physicians integrate this information with their clinical judgment, patient interaction, and medical expertise to determine diagnoses and treatment plans. In this case, Al augments the physician's capabilities rather than replacing them, allowing more time for patient interaction and complex cases.

<sup>4</sup> Cazzaniga and others, Gen-Al; and Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada."

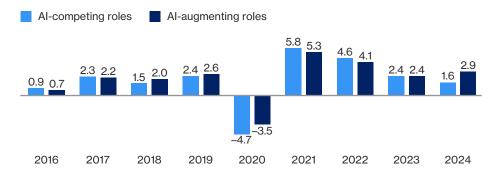
# Al-augmented roles show stronger employment growth

Our research shows that Canada's job market is at a turning point, with AI beginning to exert an uneven influence across roles. (See Chart 2.) In 2024, AI-augmenting roles grew by 2.9 per cent, while AI-competing roles grew by only 1.6 per cent.<sup>5</sup> This change breaks from past patterns and marks a shift in Canada's labour market, where a greater demand exists for roles that work with AI than those that compete with it.

Chart 2

Employment for Al-augmenting roles grew at a faster rate in 2024 compared to Al-competing roles

(annual percentage growth rate in occupational employment)

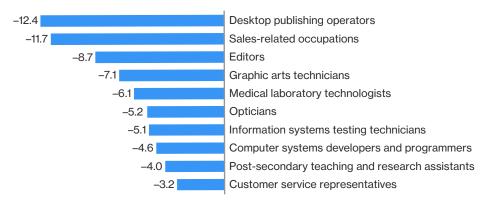


Source: The Conference Board of Canada's MOST (Modeling Occupations, Skills, Technologies).

In Al-competing roles, we're already seeing sharp declines in both technical and customer service positions. (See Chart 3.) From 2022 to 2024, desktop publishing—operator jobs fell by 12.4 per cent, sales-related roles by 11.7 per cent, and editor positions by 8.7 per cent. Al is taking over tasks like routine analysis, templated writing, and scripted support, which mirrors our previous findings on Al disruption and automation.<sup>6</sup>

#### Chart 3

Top 10 Al-competing roles with steepest employment decline include technical and customer-facing positions (percentage growth rate in employment, 2022 to 2024)



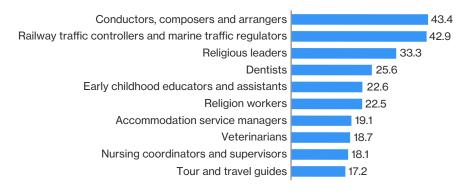
Source: The Conference Board of Canada's MOST (Modeling Occupations, Skills, Technologies).

<sup>5</sup> A t-test shows that the difference in growth rates between the two role groups is not statistically significant.

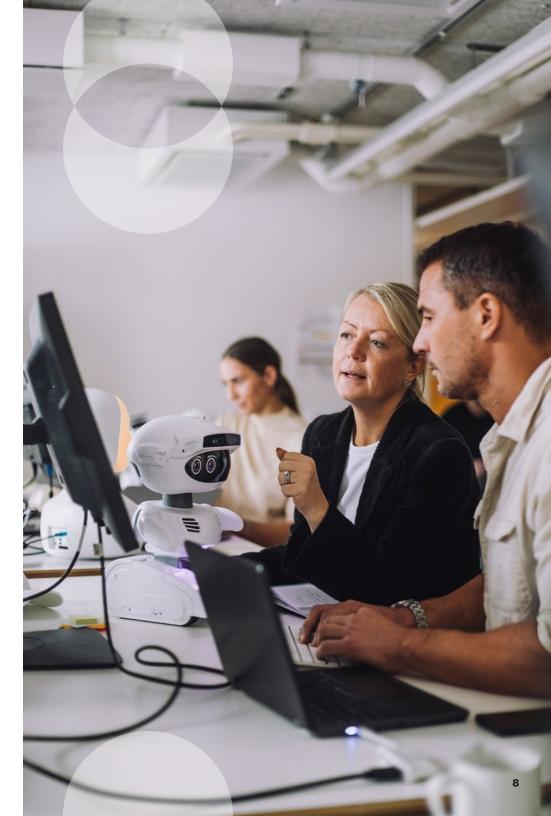
<sup>6</sup> Conference Board of Canada, The, AI Talent in Canada: Emerging AI Skills and Future Workforce.

On the other hand, jobs that rely on human creativity, emotional intelligence, and complex decision-making are growing. (See Chart 4.) For instance, between 2022 and 2024, jobs for conductors, composers, and arrangers grew by 43.4 per cent, railway traffic controllers and marine traffic regulators by 42.9 per cent, and early childhood educators and assistants by 22.6 per cent.

Chart 4
Top 10 Al-augmenting roles with largest employment growth are mainly positions valuing creativity and judgment (percentage growth rate in employment, 2022 to 2024)



Source: The Conference Board of Canada's MOST (Modeling Occupations, Skills, Technologies).



### Job postings reveal shifting labour demand

While job numbers reflect past hiring decisions, job postings show where employers are heading next.

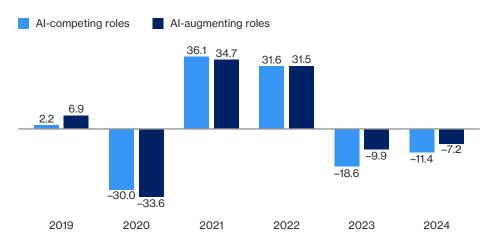
### Al-competing roles see steeper decline in demand in job postings

Recent job posting trends show a clear divide. (See Chart 5.) In 2023, postings for Al-competing jobs dropped by 18.6 per cent, followed by an 11.4 per cent drop in 2024, where Al-augmenting roles saw smaller declines – 9.9 per cent in 2023 and 7.2 per cent in 2024.

#### Chart 5

Demand for Al-augmenting roles showed lesser decline in 2023 and 2024 compared to Al-competing roles

(annual percentage growth rate in the number of job postings)



Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

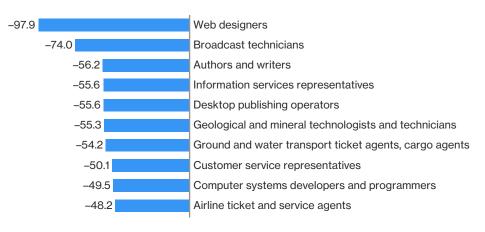
Overall, this indicates that jobs that use Al may be more resilient than those that Al can replace.

The biggest drops in postings among Al-competing roles were for digital content and customer service roles. Web designer postings fell by 97.9 per cent, and information service jobs dropped by 55.6 per cent. (See Chart 6.) These cuts show that employers are moving away from jobs that Al tools like chatbots can now handle well.<sup>7</sup>

#### Chart 6

Top 10 Al-competing roles with steepest job postings decline include technical and customer-facing positions

(percentage growth rate in the number of job postings, 2022 to 2024)



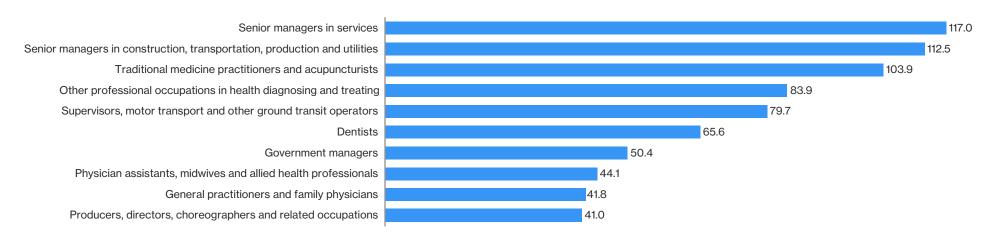
Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

7 Wah, "Revolutionizing e-health."

Over the same period, postings for AI-augmented roles were on the rise. Between 2022 and 2024, senior management positions in services rose by 117.0 per cent and those in construction by 112.5 per cent. (See Chart 7.) These jobs demand judgment, strategy, and experience, all skills that AI can't replace.



Chart 7
Top 10 Al-augmenting roles with the largest job postings growth are mainly positions valuing creativity and judgment (percentage growth rate in the number of job postings, 2022 to 2024)



Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

### Reshaping skill demands across roles

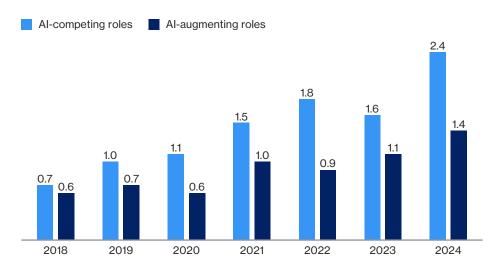
#### Demand is higher in Al-competing roles

As Al changes the nature of positions, it also affects the skills people need in order to be successful.

Al-competing roles show a higher demand for Al skills than Al-augmenting roles.<sup>8</sup> In 2024, 2.4 per cent of job postings in these roles listed Al skills compared to 1.4 per cent in Al-augmenting posts.<sup>9</sup> (See Chart 8.) Even though fewer of these roles are posted overall, employers expect more from those that remain, especially when it comes to proficiency with Al. This suggests that organizations are redesigning vulnerable roles to include advanced Al skills—creating smaller, more tech-savvy teams. As a result, workers aiming to become more adaptable and resilient should learn how to work with Al.

#### Chart 8

Al skills demand rising faster in Al-competing roles (percentage share of job postings requiring at least one Al skill)



Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

<sup>8</sup> Al skills refer to one of the following: Al, machine learning, deep learning, neural networks, generative Al, large language models, and natural language processing.

<sup>9</sup> A t-test for the difference in share for two groups of roles is statistically significant at the 0.05 level.

### Social and emotional skills matter more in Al-augmenting roles

The Conference Board of Canada's research on social and emotional skills in the workplace<sup>10</sup> groups these skills into six buckets:

- · ability to learn
- · analytical skills
- · change management
- · critical thinking
- leadership
- · problem-solving

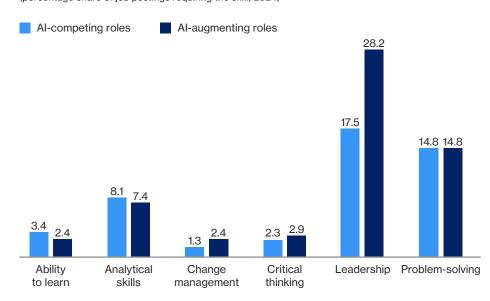
Al-competing and Al-augmenting roles have distinct skill patterns across these six measured skills. (See Chart 9.)

When comparing Al-augmenting roles with Al-compete roles, employers asked more often for leadership (28.2 per cent versus 17.5 per cent) and change management skills (2.4 per cent versus 1.3 per cent). While Al-augmenting roles tend to be concentrated among senior and leadership positions, this corroborates our earlier findings that leaders need both Al literacy and the ability to build trust in new tools. Practically speaking, they accomplish this through solid Al governance, privacy controls, and strong communication.<sup>11</sup>

These skills reflect the strategic roles each group plays and underscore seniority differences. Al-augmenting roles lead change; Al-competing roles adapt to it.

#### Chart 9

Different skills demand by occupation groups (percentage share of job postings requiring the skill, 2024)



Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

Meanwhile, Al-competing roles focused more on adaptability and analysis. Learning ability appeared in 3.4 per cent of postings of Al-competing roles (versus 2.4 per cent) and analytical skills in 8.1 per cent (versus 7.4 per cent). Problem-solving and critical thinking were equally in demand across both groups, underscoring their universal importance.

<sup>10</sup> Conference Board of Canada, The, Heart of the Matter: Understanding Hiring Demand for Social and Emotional Skills; and Conference Board of Canada, The, SES in the Workplace: Insights from Canadian Employers.

<sup>11</sup> Conference Board of Canada, The, Al Talent in Canada: Emerging Al Skills and Future Workforce.

Findings from our survey, conducted online in March 2025, reinforce both the job postings and skills analysis. Survey respondents agreed across the board that the following skills are becoming increasingly important as organizations adopt Al: adaptability (74.1 per cent), interpreting Al output (73.8 per cent), creativity (71.2 per cent), critical thinking (71.0 per cent), and leadership (69.6 per cent). Organizations now see success with Al as a mix of technical know-how and human strengths. (See Chart 10.)

Seventy per cent also said that basic Al literacy is a must for every employee. (See Chart 11.) Al skills are no longer reserved for tech teams; they're now expected in many roles.

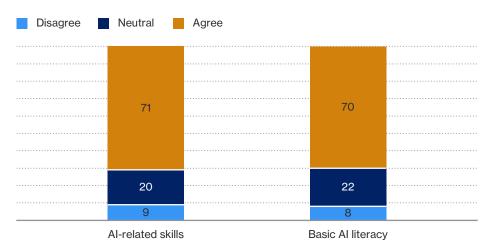
#### Chart 11

The importance of Al literacy in the contemporary workforce

Q: To what extent do you agree or disagree with the following statements about

the skills necessary in today's workplaces, given the increasing use of AI?

(per cent of respondents)

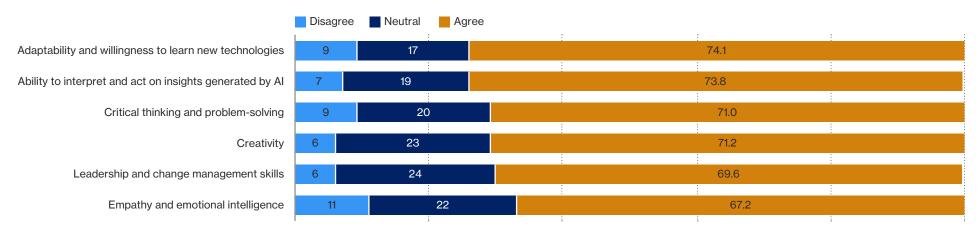


Source: The Conference Board of Canada.

#### Chart 10

Assessment of the importance of skills for the contemporary workplace

Q: To what extent do you agree or disagree with the following statements about the skills necessary in today's workplaces, given the increasing use of AI? (per cent of respondents)



Source: The Conference Board of Canada.

# Al skills demand shows strong industry-specific patterns

Our analysis found that jobs most at risk from AI also require stronger AI skills. To dig deeper, we focused on industries with high exposure to AI (see Table 2 in "Methodology") and examined if they are demanding more AI skills.

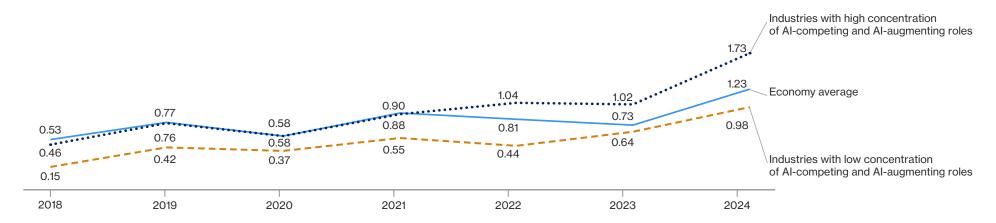
The short answer is yes, and they're responding faster than others. From 2018 to 2024, job postings asking for AI skills nearly tripled across the economy (0.53 per cent to 1.23 per cent), but in high-exposure industries, that number rose from 0.46 per cent to 1.73 per cent. (See Chart 12.) The inflection point came in 2022—just as generative AI tools like ChatGPT launched, showing an almost instantaneous impact.

Al is clearly reshaping the Canadian job market. Jobs that work with Al are growing, and employers are adding Al skills to more job descriptions, even among roles at risk of being automated. And as this field evolves, we should carefully monitor the situation, as today's snapshot may look very different in the future.

Overall, our results indicate that workers need to build AI skills now. The more they can use AI to strengthen their work, the more future-proof their jobs will be. We present the following guidelines to assist workers and organizations aiming to stay ahead of the curve.

#### Chart 12

Industries with high concentration of Al-competing and Al-augmenting roles require more Al skills than the economy average (percentage share of postings requiring Al skills, 2018 to 2024)



Note: Industries having a high concentration of Al-competing and Al-augmenting roles are those in which 50 per cent or more are such roles. Source: The Conference Board of Canada's analysis of High-Frequency Labour Market Data (formerly Vicinity Jobs).

### Actionable insights

#### For workers:

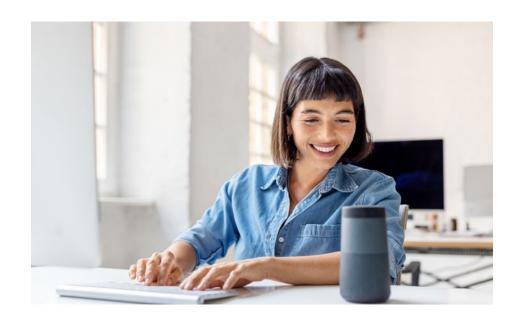
• Invest in skills that help you use Al and stay future-ready: Programs such as the Skills for Success program by Employment and Social Development Canada,<sup>12</sup> Al primer and applied courses offered by post-secondary institutions (e.g., the University of Waterloo's Watspeed initiative<sup>13</sup>), and Microsoft Applied Skills,<sup>14</sup> strengthen essential abilities like digital literacy, problem-solving, and adaptability, which can improve your long-term employability.

#### For businesses:

- Develop an internal classification for jobs to know whether jobs are Al competing or Al augmenting: Classifying roles will help with planning and identifying vulnerabilities and will support the organization in adapting training programs. Use Statistics Canada's classification as a starting point.<sup>15</sup>
- Tailor internal training programs to maximize employee development for both Al-competing and Al-augmenting roles, respectively: Given the rapid pace of Al development and integration, organizations that want to stay ahead of the curve could create parallel development tracks, emphasizing analytical skills and learning agility for Al-competing roles and leadership and change management for Al-augmenting roles to optimize workforce adaptability by the end of 2025.

#### For workforce development agencies:

• Expand human-centric Al skill development: Creativity, leadership, and critical thinking matter just as much as technical skills. Build programs that teach people how to use Al thoughtfully, not just how to operate it. Consider developing these programs over the next 12 months to align with current and anticipated workforce demand.



- 12 Employment and Social Development Canada, "Skills for Success."
- 13 University of Waterloo, "Digital Transformation."
- 14 Microsoft, "Microsoft Ignite."
- 15 Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada."

#### Appendix A

### Methodology

#### About the research

The problem that motivates this research is the lack of empirical evidence regarding the impact of AI on Canada's workforce. As AI is expected to transform Canada's workforce, there is an urgent need to understand whether AI exposure is directly causing a decline in demand for AI-competing positions while simultaneously creating upskilling requirements for AI-augmenting roles in order to develop effective workforce adaptation strategies that address this technological disruption. We address the following research questions:

- Has there been a slowing demand for roles that have high exposure and low complementarity with AI (i.e., AI-competing roles)?
- Has there been an increasing demand for Al skills for roles that have high exposure and high complementarity with Al (i.e., Al-augmenting roles)?
- How does Al adoption influence labour demand, roles, and skills within organizations, and what factors affect the rate of Al adoption?
- What organizational initiatives are effective in managing the impact of AI, and how do these strategies shape expectations for future workforce management?

This issue briefing covers the first two questions, drawing on research from job postings data, Statistics Canada, and a survey of 1,000 organizational decision-makers across Canada. We cover the other questions in companion research entitled <u>Work Reimagined:</u> Roles, Skills, and Workforce Development in the Age of AI.

#### Analytical approach

We analyzed labour market trends in the last 10 years (i.e., 2016 through 2024) with a particular focus on trends after 2022, when ChatGPT was released. The year 2022 constitutes the inflection point in our observations. First, we grouped roles into Al competing and Al augmenting using the classification developed by Statistics Canada.¹ Second, we identified the annual number of job postings for each group of roles as well as for the economy as a whole. We used The Conference Board of Canada's high-frequency labour market data (formerly Vicinity Jobs) for this. Third, we calculated annual percentage growth rates in job postings for roles individually and as a group (i.e., Al-competing roles, Al-augmenting roles, and all roles).

Fourth, we performed a two-sample test (also known as an independent t-test) between the range of growth rates for Al-competing roles and Al-augmenting roles. We specified a two-tailed test since we were open to the possibility of the means being statistically significantly different in either direction.

Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Role Exposure in Canada."

#### Classification of roles: Al competing versus Al augmenting

Our classification of roles as AI augmenting and AI competing is based on Statistics Canada definitions. AI-competing roles correspond to roles with high exposure and low complementarity to AI, while AI-augmenting roles correspond to roles with high exposure and high complementarity.<sup>2</sup> Readers who want to compare this report with Statistics Canada's report need to keep this difference in mind.

Statistics Canada developed this classification based on a combination of two measures. The first measure is exposure, which is defined as the degree of overlap between AI applications (see Table 1) and required human abilities in roles. The larger the overlap, the higher the exposure level. These are roles in which AI tools can complete routine cognitive tasks without substantial human oversight (e.g., accountants, data entry clerks, receptionists). Roles with above-the-median exposure level are classified as high-exposure roles. Roles with below-the-median exposure level are classified as low-exposure roles.

**Table 1**Al applications considered in determining exposure levels of occupations

Al Application	Definition
Abstract strategy games	The ability to play abstract games involving sometimes complex strategy and reasoning ability, such as chess, go, or checkers, at a high level
Real-time video games	The ability to play a variety of real-time video games of increasing complexity at a high level
Image recognition	The determination of what objects are present in a still image
Visual question answering	The recognition of events, relationships, and context from a still image
Generating images	The creation of complex images
Reading comprehension	The ability to answer simple reasoning questions based on an understanding of text
Language modeling	The ability to model, predict, or mimic human language
Translation	The translation of words or text from one language into another
Speech recognition	The recognition of spoken language into text
Instrumental track recognition	The recognition of instrumental musical tracks

Source: Felten and others, "Occupational, industry, and geographic exposure to artificial intelligence."

The concentration of AI-exposed roles shows substantial variation across industries in the Canadian economy. (See Table 2.) AI exposure is most concentrated in knowledge- and information-intensive industries such as finance, management, professional services, education, and information. In contrast, industries that rely more on manual or physical tasks—like construction, agriculture, and food services—show considerably lower levels of AI exposure.

**Table 2**Percentage of high-Al-exposure occupations across industries

NAICS 2-digit industry	Percentage of high-Al-exposure occupations
Finance and insurance	98
Management of companies and enterprises	95
Professional, scientific and technical services	92
Educational services	92
Information and cultural industries	88
Real estate and rental and leasing	78
Public administration	76
Wholesale trade	66
Health care and social assistance	61
Retail trade	60
Utilities	60
Arts, entertainment and recreation	54
Administrative and support, waste management and remediation services	53
Other services (except public administration)	47
Mining, quarrying, and oil and gas extraction	41
Manufacturing	36
Transportation and warehousing	34
Construction	27
Agriculture, forestry, fishing and hunting	22
Accommodation and food services	11

Source: Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada."

<sup>2</sup> Mehdi and Morissette, "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada."

The second measure is complementarity, which Statistics Canada defines as the extent to which AI applications augment or enhance the capabilities of workers. The higher the augmentation, the higher the complementarity level. These are roles in which errors could have detrimental consequences, requiring humans to make final decisions or take actions (e.g., judges, doctors, airline pilots). Roles with an above-the-median complementarity level are classified as high-complementarity roles. Roles with a below-the-median complementarity level are classified as low-complementarity roles.

Finally, complementarity scores are incorporated into exposure scores in a way that reduces the overall exposure score for roles. The resulting score is called "complementarity-adjusted AI occupational exposure" or C-AIOE.<sup>3</sup> AI-competing roles are those that rank above median on the exposure index but below the median on the complementarity index. AI-augmenting roles are those that rank above median both on exposure index ranks and on the complementarity index.

#### Survey methodology

We sought to understand how firms adopt and integrate AI, along with any resulting changes in labour demand, organizational initiatives, and future skill development.

We asked the following:

- What factors affect the rate of Al adoption?
- How does Al adoption influence labour demand, roles, and skills within organizations?
- What strategies are organizations using to manage the impact of AI?

To answer these questions, we surveyed 1,000 organizational decision-makers working in human resources, information technology, or artificial intelligence roles in small-, medium-, and large-sized businesses across Canada.

The survey included a mix of Likert-scale and multiple-choice questions. The survey also captured demographic information such as firm size, location, and industry. (See Table 1.) Survey responses were anonymous.

We used Abacus Data, a Canadian market research firm, to distribute the survey online in March 2025. The sample obtained was a non-probability (convenience) sample based on their panel of respondents. The survey was pre-tested among 55 respondents (45 completes and 10 partial completes) before fielding to ensure its external validity and to identify any wording problems.

Since the survey data was derived from a non-probability (convenience) sample, we used proportional sampling weights to ensure that our survey results reflected the national distribution of businesses.

The weighting process focused on two factors:

- 1. Enterprise size: We used three enterprise size categories for weighting purposes:
  - Small: 1-99 employees
- Medium: 100-499 employees
- Large: 500 or more employees

We then aligned the sample with the national distribution of these groups using data from Statistics Canada.<sup>4</sup> This adjustment ensured that each size group contributed to the analysis in proportion to its actual share in the Canadian economy.

 Industry representation: After applying size-based weights, we incorporated additional adjustments, so the weighted data reflected national industry patterns.<sup>5</sup>
 The tables below present the weighted and unweighted respondent profiles by enterprise size and industry.

- 3 For methodological details, please see Cazzaniga and others, Gen-Al; and Pizzinelli and others, Labour Market Exposure to Al.
- 4 Statistics Canada, Table 3310076101.
- 5 Statistics Canada, Table 3310076101.

**Table 3**Survey respondent profile (per cent)

Size of organization (weighted)	Per cent
Large (>500 employees)	2.1
Medium (100-499 employees)	14.9
Small (0-99 employees)	83.1

Alberta       15.4         British Columbia       14.1         Manitoba       2.2         New Brunswick       2.1         Newfoundland and Labrador       0.4         Northwest Territories       0.5         Nova Scotia       2.1         Ontario       46.4         Prince Edward Island       0.1         Quebec       15.0         Saskatchewan       1.8	Location (post-weight)	Per cent
Manitoba         2.2           New Brunswick         2.1           Newfoundland and Labrador         0.4           Northwest Territories         0.5           Nova Scotia         2.1           Ontario         46.4           Prince Edward Island         0.1           Quebec         15.0	Alberta	15.4
New Brunswick         2.1           Newfoundland and Labrador         0.4           Northwest Territories         0.5           Nova Scotia         2.1           Ontario         46.4           Prince Edward Island         0.1           Quebec         15.0	British Columbia	14.1
Newfoundland and Labrador         0.4           Northwest Territories         0.5           Nova Scotia         2.1           Ontario         46.4           Prince Edward Island         0.1           Quebec         15.0	Manitoba	2.2
Northwest Territories         0.5           Nova Scotia         2.1           Ontario         46.4           Prince Edward Island         0.1           Quebec         15.0	New Brunswick	2.1
Nova Scotia 2.1 Ontario 46.4 Prince Edward Island 0.1 Quebec 15.0	Newfoundland and Labrador	0.4
Ontario         46.4           Prince Edward Island         0.1           Quebec         15.0	Northwest Territories	0.5
Prince Edward Island 0.1 Quebec 15.0	Nova Scotia	2.1
Quebec 15.0	Ontario	46.4
	Prince Edward Island	0.1
Saskatchewan 1.8	Quebec	15.0
	Saskatchewan	1.8

Industry (weighted)	Per cent
Administrative and support; Waste management and remediation services	5.2
Arts, entertainment, and recreation	4.3
Construction	2.3
Educational services	4.8
Finance and insurance	14.0
Health care and social assistance	7.3
Information and cultural industries	11.3
	(continued)

Industry (weighted)	Per cent
Management of companies and enterprises	8.1
Manufacturing	1.5
Utilities	3.3
Professional, scientific and technical services	19.4
Public administration	1.5
Real estate and rental and leasing	4.1
Retail trade	8.1
Wholesale trade	4.8

Size of organization (unweighted)	Per cent
Large (>500 employees)	35.5
Medium (100-499 employees)	36.6
Small (0-99 employees)	27.9

Location (pre-weight)	Per cent
Alberta	14.8
British Columbia	12
Manitoba	3.2
New Brunswick	1.7
Newfoundland and Labrador	0.5
Northwest Territories	0.4
Nova Scotia	2.2
Ontario	45.7
Prince Edward Island	0.5
Quebec	16.9
Saskatchewan	1.7

ndustry (unweighted)	Per cent
Administrative and support; Waste management and remediation services	4.6
Arts, entertainment, and recreation	3.7
Construction	1.9
Educational services	4.5
Finance and insurance	12.4
Health care and social assistance	7.3
nformation and cultural industries	18.1
Management of companies and enterprises	7.8
Manufacturing	1.5
Utilities	3
Professional, scientific and technical services	18.2
Public administration	2.3
Real estate and rental and leasing	3.5
Retail trade	7.1
Wholesale trade	4.1

Source: The Conference Board of Canada.

The survey data was analyzed in SPSS. Where applicable, multiple-response Likert-scale questions were numerically coded to facilitate the development of contingency tables and frequency analysis. We do not apply inferential statistical techniques here; rather, we present these findings as a cross-sectional exploration into the adoption of Al across various industries.

Since the survey was administered online, this cannot be considered a random probability sample. Therefore, a margin of error cannot be applied to this data set.

Although weighting improved representativeness, it did not fully eliminate discrepancies. For example, in the weighted data set, large enterprises account for about 2.1 per cent of responses, while their actual share in the national distribution is approximately 0.3 per cent.<sup>6</sup> Hence, the weighted data should be interpreted with caution, as the results have limited generalizability beyond the sample surveyed.

Note: We did not include geography as a weighting factor because the survey was based on a non-probability sample and our research questions did not examine regional variation in technology adoption. While AI technologies are broadly available across Canada, regional ecosystems can influence adoption patterns, and assessing these dynamics was outside the scope of this study.

However, since we applied weights at the enterprise size and industry levels, this also resulted in shifts in the provincial distribution. The tables above present both pre-weighting and post-weighting location profiles to illustrate these differences.

The sample does not fully match the national geographic distribution of business headquarters by province. For example, Quebec represents 20.6 per cent of firms nationally, compared to 16.9 per cent pre-weight and 15.0 per cent of our weighted sample. Ontario accounts for 37.5 per cent nationally, while our sample includes approximately 46.4 per cent. These differences should be considered when interpreting location-based insights, which we have actively avoided.

<sup>6</sup> Innovation, Science and Economic Development Canada. Key Small Business Statistics 2024.

<sup>7</sup> Statistics Canada, Table 3310076101.

#### Appendix B

### Bibliography

Cazzaniga, M., M. F. Jaumotte, L. Li, M. G. Melina, A. J. Panton, C. Pizzinelli, E. J. Rockall, and M. M. Tavares. *Gen-Al: Artificial Intelligence and the Future of Work*. International Monetary Fund, January 14, 2024. <a href="https://www.imf.org/en/Publications/Staff-Discussion-Notes/lssues/2024/01/14/Gen-Al-Artificial-Intelligence-and-the-Future-of-Work-542379">https://www.imf.org/en/Publications/Staff-Discussion-Notes/lssues/2024/01/14/Gen-Al-Artificial-Intelligence-and-the-Future-of-Work-542379</a>.

Conference Board of Canada, The. *Al Talent in Canada: Emerging Al Skills and Future Workforce*. Ottawa: CBoC, October 30, 2024. <a href="https://www.conferenceboard.ca/product/artificial-intelligence-talent-in-canada.oct2024/">https://www.conferenceboard.ca/product/artificial-intelligence-talent-in-canada.oct2024/</a>.

Conference Board of Canada, The. The Heart of the Matter: Understanding Hiring Demand for Social and Emotional Skills. Ottawa: CBoC, June 13, 2024. https://www.conferenceboard.ca/product/the-heart-of-the-matter june2024/.

Conference Board of Canada, The. *The Labour Market of Tomorrow: Projections from the Model of Roles, Skills, and Technology (MOST)*. Ottawa: CBoC, October 11, 2022. <a href="https://www.conferenceboard.ca/product/the-labour-market-of-tomorrow-projections-from-the-model-of-occupations-skills-and-technology-most/">https://www.conferenceboard.ca/product/the-labour-market-of-tomorrow-projections-from-the-model-of-occupations-skills-and-technology-most/</a>.

Conference Board of Canada, The. SES in the Workplace: Insights from Canadian Employers. Ottawa: CBoC, June 13, 2024. https://www.conferenceboard.ca/product/ses-in-the-workplace 2024/.

Employment and Social Development Canada. "Sectoral Workforce Solutions Program." Government of Canada, April 4, 2022. <a href="https://www.canada.ca/en/employment-social-development/services/funding/sectoral-workforce-solutions-economic-recovery.html">https://www.canada.ca/en/employment-social-development/services/funding/sectoral-workforce-solutions-economic-recovery.html</a>.

Employment and Social Development Canada. "Skills for Success." Government of Canada, July 18, 2024. https://www.canada.ca/en/services/jobs/training/initiatives/skills-success.html.

Felten, E., M. Raj, and R. Seamans. "Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses." *Strategic Management Journal*, 42(12) (April 28, 2021): 2195–2217. https://onlinelibrary.wiley.com/doi/10.1002/smj.3286.

Innovation, Science and Economic Development Canada. *Key Small Business Statistics 2024*. Government of Canada, April 1, 2025. <a href="https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-statistics/key-small-business-statistics-2024">https://ised-isde.canada.ca/site/sme-research-statistics/en/key-small-business-statistics/key-small-business-statistics-2024</a>.

Mehdi, T., and R. Morissette. "Experimental Estimates of Potential Artificial Intelligence Occupational Exposure in Canada." Statistics Canada, Catalogue no. 11F0019M No. 478. September 3, 2024. <a href="https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2024005-eng.htm">https://www150.statcan.gc.ca/n1/pub/11f0019m/11f0019m2024005-eng.htm</a>.

Microsoft. "Microsoft Ignite." Accessed July 2, 2025. <a href="https://learn.microsoft.com/en-us/credentials/applied-skills/">https://learn.microsoft.com/en-us/credentials/applied-skills/</a>.

Milmo, Dan, "Amazon boss tells staff Al means their jobs are at risk in coming years." The Guardian, June 18, 2025. <a href="https://www.theguardian.com/technology/2025/jun/18/amazon-boss-tells-staff-ai-means-their-jobs-are-at-risk-in-coming-years">https://www.theguardian.com/technology/2025/jun/18/amazon-boss-tells-staff-ai-means-their-jobs-are-at-risk-in-coming-years</a>.

National Research Council Canada. "NRC IRAP support for SMEs innovating with artificial intelligence." Government of Canada, October 22, 2024. <a href="https://nrc.canada.ca/en/support-technology-innovation/nrc-irap-support-smes-innovating-artificial-intelligence">https://nrc.canada.ca/en/support-technology-innovation/nrc-irap-support-smes-innovating-artificial-intelligence</a>.

Pizzinelli, C., A. Panton, M. M. Tavares, M. Cazzaniga, and L. Li. *Labour Market Exposure to Al: Cross-country Differences and Distributional Implications*. IMF Working Paper 2023/216. International Monetary Fund, October 4, 2023. <a href="https://www.imf.org/en/Publications/WP/lssues/2023/10/04/Labour-Market-Exposure-to-Al-Cross-country-Differences-and-Distributional-Implications-539656">https://www.imf.org/en/Publications/WP/lssues/2023/10/04/Labour-Market-Exposure-to-Al-Cross-country-Differences-and-Distributional-Implications-539656</a>.

Statistics Canada. Table 3310076101, "Canadian Business Counts, with employees, June 2024." Government of Canada, August 15, 2024. <a href="https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3310076101">https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3310076101</a>.

University of Waterloo. "Digital Transformation." Accessed July 2, 2025. <a href="https://watspeed.uwaterloo.ca/programs-and-courses/course-digital-transformation.html?id=1025000">https://watspeed.uwaterloo.ca/programs-and-courses/course-digital-transformation.html?id=1025000</a>.

Wah, J. N. K. "Revolutionizing e-health: the transformative role of AI-powered hybrid chatbots in healthcare solutions." *Frontiers in Public Health* 13, 1530799 (February 12, 2025). <a href="https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1530799/full">https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1530799/full</a>.

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