Preface
Alberta's employers understand that a skilled workforce is critical to economic competitiveness. This report shares findings from a provincial survey of employers, shedding light on the sets of skills, credentials, and occupations that employers look for in Alberta's evolving economy. It examines the extent to which employers engage in work-integrated learning activities and the strategies they deploy to fill in-demand occupations.

Acknowledgements
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The report was reviewed internally by Stephen Higham, Research Associate, Future Skills, The Conference Board of Canada, and by Sam Goucher, Economist, The Conference Board of Canada. It was reviewed externally by the project's Advisory Committee (Dr. Kazem Mashkournia, Dean of Arts, Science and Upgrading, Grande Prairie Regional College; Michael Crowe, Vice-President, Academic, Lakeland College; Dr. Terry Chapman, Interim Vice-President, Academic, Medicine Hat College; Dr. Misheck Mwaba, Vice-President Academic, Bow Valley College; and Dr. Paulette Hanna, Vice-President Academic, Red Deer College). Thank you as well to Norma Schneider, Vice-President, Teaching & Learning and Chief Academic Officer, NorQuest College, for leading the Advisory Committee.

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Key findings

• In 2018, The Conference Board of Canada conducted a survey of 382 Alberta employers in key economic sectors to determine the skills, occupations, and credentials they need to thrive.

• The majority of employers said they were transitioning to a more highly skilled workforce or would be doing so in the next three to five years.

• If unable to meet their skills needs, employers said they would face consequences such as reduced productivity, inconsistent or lower product/service quality, reduced profitability, and reduced sales or loss of new opportunities.

• Employers identified a range of challenges related to human skills, including employability and management skills, innovation skills, and technical or occupation-specific skills.

• Most employers said they were seeking recruits with post-secondary education (PSE) credentials, especially university degrees and professional designations, but there was also demand for polytechnic degrees, college and polytechnic diplomas, certificates, and trades.

• Many employers indicated they were investing in their skills needs by participating in work-integrated learning (WIL) programs, with co-op being one of the most popular options.

• While most said they had good or excellent opportunities to communicate skills and training needs to PSE institutions, nearly a third perceived the opportunities to be limited and 5.6 per cent believed they were non-existent.

• When asked what more Alberta PSE institutions could do to address their skills and training needs, employers called for more engagement and collaboration between industry and PSE. Other desires included curricula that integrate industry content and balance theory and practice; and teaching the knowledge and skills (both soft and technical) that employers seek.

• Respondents also stressed the importance of a PSE system that reflects Alberta’s economic realities and can respond quickly to evolving industry needs.
Introduction

Despite weak economic growth in 2019, employment rates in Alberta are expected to rise. By 2020, Alberta’s GDP growth is expected to bounce back.¹ And for Alberta employers, finding candidates with the right credentials and skills remains as important as ever.

This report continues The Conference Board of Canada’s Building Skills Connections Series—a research project that examines the post-secondary skills needed to ensure Alberta’s current and future economic prosperity. The first two reports in the series provided a broad overview of skills supply and demand in the province; explored the disruptors that are shaping the province’s economy; and examined skills needs in seven key Alberta sectors.² Both of these reports engaged Alberta’s employer community, drawing on more than 40 interviews from industry. Perspectives of Alberta Employers resumes the conversation by sharing results from a survey of almost 400 Alberta employers. (See “About the Conference Board’s 2018 Alberta employer survey.”) The findings are clear: employers recognize that skills gaps can have dire consequences for their operations and bottom line. In an environment where many organizations are transitioning to a more highly skilled workforce, worried about impending retirements, and competing with other firms for skilled talent, Alberta employers are seeking PSE-educated recruits to meet their future skills needs.

¹ Conference Board of Canada, The, Provincial Outlook Economic Forecast.
² Kachulis and McKean, Building Skills Connections Series: Alberta in a Nutshell. Sectors examined included oil, gas, and mining; finance, insurance, and real estate; health and medical; agriculture and agri-food; renewable energy and environmental products and services; technology; and creative and cultural industries.
About the Conference Board’s 2018 Alberta employer survey

From September to December 2018, the Conference Board conducted an online survey asking employers to identify the skill sets, PSE credentials, and occupations their organizations need to be prosperous. The survey was distributed via e-mail to nearly 8,000 contacts from the Conference Board’s proprietary database and was shared over Twitter, Facebook, and LinkedIn, reaching approximately 30,850 followers. It was also distributed by partner organizations from post-secondary education and industry.

The survey received a total of 382 valid responses from employers in the following key sectors:

- oil, gas, and mining (135 responses)
- finance, insurance, and real estate (49 responses)
- health and medical (91 responses)
- agriculture and agri-food (11 responses)
- renewable energy and environmental products and services (16 responses)
- technology (57 responses)
- creative and cultural industries (22 responses)

Regional representation

Respondents were asked where the majority of their Alberta workforce was located. While all eight of Alberta’s economic regions were represented, respondents’ workforces were concentrated in Edmonton (49.9 per cent) and Calgary (34.6 per cent), regions that account for a majority of Alberta’s population. Respondents also had workforces

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3 “Valid responses” refers to responses from employers who indicated they were operating in one of the seven sectors targeted in this report, and who provided answers beyond the survey’s first four questions (which focused on organizational background).

4 These sectors were selected in consultation with the project partners based in part on their need for skilled workers with appropriate credentials. While aerospace was initially a sector covered by the survey, it was excluded from the analysis due to insufficient responses.

5 Statistics Canada, Province of Alberta.
based in Wood Buffalo–Cold Lake (7.9 per cent), Athabasca–Grande Prairie–Peace River (2.9 per cent), Lethbridge–Medicine Hat (1.8 per cent), Red Deer (1.6 per cent), Camrose–Drumheller (1 per cent), and Banff–Jasper–Rocky Mountain House (0.3 per cent).

**Time operating in Alberta**
Most respondents represented firms that were well established in Alberta: 89.5 per cent had been operating in the province for 10 or more years; 7.9 per cent had been operating in the province for four to 10 years; and 1.8 per cent had been operating in the province for one to three years. Only 1 per cent of respondents said they had been in the province for less than a year.

**Size of businesses**
Respondents represented firms of varying sizes. The highest proportion of respondents (37 per cent) came from organizations with between 1 and 99 employees; 20.5 per cent were from organizations with between 100 and 499 employees; and 9.4 per cent were from organizations with between 500 and 999 employees. Approximately a third (33.1 per cent) came from organizations with 1,000 or more employees.

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**What challenges are employers facing?**
Alberta employers’ skills needs are evolving—and in many cases, this means a requirement for workers with increasingly advanced skill sets. When asked whether they had shifted to a more highly skilled workforce in the past three to five years, 87.3 per cent of respondents said they had done so to some extent. Even more employers (89.7 per cent) indicated they expected to do so in the next three to five years. (See Chart 1.) They cited reasons such as:

- industry or market changes (e.g., increasingly complex operating or regulatory environments, changing customer needs, increased competition);
- shifts in business models or strategic directions (e.g., the desire to grow);
- the need to increase efficiency and do more with fewer resources;
- the desire to stay ahead of technological developments (e.g., integration of big data and emerging technologies);
- automation or workforce reduction in lower skilled occupations.
Those who were not shifting to a more highly skilled workforce had varying reasons. Some noted higher salary requirements for more highly skilled workers or difficulties with recruitment even at the current skill level. In addition, many of those not experiencing a shift said this was because their workforce was already highly skilled.

Where is this competition for labour coming from? When asked to identify their main rivals for skilled talent over the next three to five years, almost half of respondents (42.7 per cent) pointed to other Alberta companies in their industry and over a quarter (26.1 per cent) pointed to companies and industries outside of Alberta. A minority of respondents (21.2 per cent) identified other Alberta industries.

As skills requirements become more advanced, retaining employees with specialized skills is as important as ever. But many employers are worried about losing these employees to retirement or competing employers. When asked about retiring skilled workers, 42.9 per cent of respondents said they were concerned or very concerned. Even more respondents (48.5 per cent) were concerned or very concerned about losing skilled workers to competitors. (See charts 2 and 3.)
If Alberta employers are unable to find employees with the right skills, they face a variety of consequences. A majority (62.7 per cent) of respondents suggested productivity would decline, and nearly half said they would face a risk of inconsistent or lower product/service quality, reduced profitability, and reduced sales or loss of new opportunities. (See Chart 4.) Beyond the options listed in the survey, respondents mentioned other impacts such as an inability to remain in business; loss of an existing customer base or decreased client satisfaction; reduced hours of operation; and lower employee morale and engagement. They also indicated a potential need to lower recruitment criteria or to adopt business processes and technologies that reduce the need for workers.

The skills employers seek

Respondents were clear that skills gaps can have dire consequences for employers—but what specific skill sets do Alberta employers need? Survey results indicate that employers believe their greatest skills challenges over the next three to five years will relate to employability/essential skills (e.g., problem-solving, critical thinking, teamwork, and communication). Such skills are also often referred to as social, emotional, or human skills. These were identified by 66.6 per cent of respondents, in line with national employer surveys confirming that skills like self-awareness, adaptability, resilience, relationship management, team work, and ethical judgment are in high demand. Technical/occupation-specific skill sets are also in high demand, identified by 60.3 per cent of respondents.

Chart 4
For Alberta employers, skills gaps have a wide range of perceived consequences
(percentage of respondents, n = 255)

Note: Percentages total more than 100 because of multiple responses given within the question categories.
Source: The Conference Board of Canada.

6 For a more detailed explanation of employability skills, see Conference Board of Canada, The, “Employability Skills.”
7 Cukier, Hodson, and Omar, “Soft” Skills Are Hard.
While human and technical skills lead the pack, almost half of respondents (41.9 per cent) suggested they would experience challenges pertaining to management/leadership skills (e.g., the ability to manage projects, people, and finances) and about a third (31.3 per cent) expected challenges related to innovation/commercialization skills (e.g., creativity, risk assessment, capital-raising, sales and marketing skills).8 (See Chart 5.)

Respondents who selected “other” elaborated on specific skills related to the categories above. They also identified a range of additional skills challenges related to the broader labour market—for instance, changes in the economy or government legislation; an insufficient number of graduates; or difficulty finding candidates willing to work away from home for long periods of time.

8 For a more detailed explanation of innovation and commercialization skills, see Conference Board of Canada, The, “Innovation Skills Profile” and “Commercialization Skills Profile.”

Identifying or attracting employees with the right balance of employability and essential skills is among the greatest challenges that employers face.

Employability/essential skills

What this means, then, is that identifying or attracting employees with the right balance of employability and essential skills is among the greatest challenges that employers face.

When asked to choose from a list of specific employability and essential skills, most employers indicated that human skills such as critical-thinking and problem-solving skills were at the top of the list (87.6 per cent). In addition, more than half of employers said they faced challenges recruiting new workers with communications skills (65.7 per cent), who were adaptable (53.3 per cent), and who worked well with others (52.4 per cent). (See Chart 6.)
Management/leadership skills

Across Canada, employers have reported that leadership and management talent is in short supply.9 Alberta employers indicated that their province is no exception and that they face difficulties in responding to this apparent skills gap.

Developing existing employees’ management and leadership skills was a major challenge for 64.3 per cent of employers. Attracting and hiring new employees with the necessary skills was also a frequently cited challenge, at 62 per cent. In addition, 43.4 per cent of respondents identified retention as a challenge.

Specific management and leadership skills in high demand include problem-solving and decision-making skills (65.4 per cent), followed closely by leading skills (64.7 per cent). Strategic thinking and planning skills were also identified by at least half of respondents, at 53.4 per cent and 52.6 per cent, respectively. (See Chart 7.)

Innovation/commercialization skills

As with management and leadership skills, the majority of respondents (63.6 per cent) seeking innovation and commercialization skills identified developing existing employees’ skills as their...
biggest challenge when seeking to address these types of skills gaps. Attracting and hiring new employees was a close second, at 59.6 per cent. Retaining individuals with the necessary skills was less of a concern, with just 35.4 per cent of respondents stating that this was one of their biggest challenges.

When asked about specific innovation and commercialization skills, employers highlighted non-technical, human skills; 68.7 per cent of employers said creativity and continuous improvement skills were in demand. This was followed by risk assessment and risk-taking skills (56.6 per cent) and relationship-building and networking skills (51.5 per cent). (See Chart 8.)

**Chart 8**
When it comes to innovation skills, creativity and risk-taking lead the pack
(percentage of respondents, n = 99)

<table>
<thead>
<tr>
<th>Skill Set</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity and continuous improvement skills</td>
<td>69</td>
</tr>
<tr>
<td>Risk assessment and risk-taking skills</td>
<td>57</td>
</tr>
<tr>
<td>Relationship-building and networking skills</td>
<td>52</td>
</tr>
<tr>
<td>Business management skills</td>
<td>43</td>
</tr>
<tr>
<td>Sales and marketing skills</td>
<td>39</td>
</tr>
<tr>
<td>Capital-raising skills</td>
<td>27</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Percentages total more than 100 because of multiple responses given within the question categories.
Source: The Conference Board of Canada.

When asked about specific innovation and commercialization skills, employers highlighted creativity and continuous improvement skills; risk assessment and risk-taking skills; and relationship-building and networking skills.

**Technical/occupation-specific skill sets**

Respondents were also asked to identify which technical or occupation-specific skill sets their companies will need the most over the next three to five years. Natural and applied sciences and related skill sets were the most in demand, identified by over a third (35.4 per cent) of respondents. This was followed by finance, insurance, real estate, business, and administration occupations and skill sets (26.1 per cent); occupations and skill sets unique to primary industry (24.3 per cent); and trades and related occupations/skill sets (23.6 per cent). (See Chart 9.) Employers require a variety of occupations and skill sets within each of these categories, as Table 1 depicts.
Chart 9
Science, business, and primary industry skill sets are in highest demand
(percentage of respondents, n = 280)

Note: Percentages total more than 100 because of multiple responses given within the question categories.
Source: The Conference Board of Canada.

Table 1
Top technical/occupation-specific skill sets needed in the next three to five years

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural and applied sciences and related (n = 97):</td>
<td></td>
</tr>
<tr>
<td>1. Civil, mechanical, electrical, and chemical engineers</td>
<td>45.4</td>
</tr>
<tr>
<td>2. Computer and information systems professionals</td>
<td>33.0</td>
</tr>
<tr>
<td>3. Managers and supervisors</td>
<td>28.9</td>
</tr>
<tr>
<td>4. Technical occupations in civil, mechanical, and industrial engineering</td>
<td>26.8</td>
</tr>
<tr>
<td>5. Physical science professionals</td>
<td>25.8</td>
</tr>
<tr>
<td>Finance, insurance, real estate, business and administration (n = 70):</td>
<td></td>
</tr>
<tr>
<td>1. Managers and supervisors</td>
<td>45.7</td>
</tr>
<tr>
<td>2. Human resources and business service professionals</td>
<td>27.1</td>
</tr>
<tr>
<td>3. Auditors and accountants</td>
<td>25.7</td>
</tr>
<tr>
<td>4. Finance, insurance, and real estate service representatives</td>
<td>24.3</td>
</tr>
<tr>
<td>5. Investment and securities professionals</td>
<td>20.0</td>
</tr>
<tr>
<td>Primary industry (n = 59):</td>
<td></td>
</tr>
<tr>
<td>1. Managers and supervisors</td>
<td>35.6</td>
</tr>
<tr>
<td>2. Underground miners, oil and gas drillers, and related workers</td>
<td>33.9</td>
</tr>
<tr>
<td>3. Other—including pipeline operators, data scientists, biologists, and engineers; and skill sets related to technology (including biomedical technology), environmental sciences, transportation logistics, instrumentation, and automation</td>
<td>23.7</td>
</tr>
<tr>
<td>4. Mine service workers and operators in oil and gas drilling</td>
<td>15.3</td>
</tr>
<tr>
<td>5. Agriculture, horticulture, and aquaculture workers; and land surveyors</td>
<td>13.6 each</td>
</tr>
</tbody>
</table>

(continued ...
In addition, smaller numbers of respondents expressed a need for skill sets or occupations in processing, manufacturing, and utilities (e.g., central control and process operators); transport, equipment operator, warehouse, and related (e.g., heavy equipment operators); and arts, culture, recreation, and sport (e.g., digital media).

### Table 1 (cont’d)
**Top technical/occupation-specific skill sets needed in the next three to five years**

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trades (n = 59):</strong></td>
<td></td>
</tr>
<tr>
<td>1. Electricians</td>
<td>40.7</td>
</tr>
<tr>
<td>2. Millwrights</td>
<td>35.6</td>
</tr>
<tr>
<td>3. Plumbers, pipefitters, steamfitters, and gas fitters; and welders</td>
<td>32.2 each</td>
</tr>
<tr>
<td>4. Heavy-duty equipment mechanics and industrial instrument mechanics</td>
<td>28.8 each</td>
</tr>
<tr>
<td>5. Trades helpers and labourers</td>
<td>25.4</td>
</tr>
<tr>
<td><strong>Health (n = 57):</strong></td>
<td></td>
</tr>
<tr>
<td>1. Medical technologists and technicians, except dental health</td>
<td>36.8</td>
</tr>
<tr>
<td>2. Assisting occupations in support of health services</td>
<td>33.3</td>
</tr>
<tr>
<td>3. Managers and supervisors</td>
<td>29.8</td>
</tr>
<tr>
<td>4. Nurse supervisors and registered nurses</td>
<td>28.1</td>
</tr>
<tr>
<td>5. Therapy and assessment professionals and other technical occupations in health care, except dental</td>
<td>24.6 each</td>
</tr>
<tr>
<td><strong>Sales and service (n = 55):</strong></td>
<td></td>
</tr>
<tr>
<td>1. Technical sales specialists, wholesale trade</td>
<td>43.6</td>
</tr>
<tr>
<td>2. Customer and information services representatives</td>
<td>34.5</td>
</tr>
<tr>
<td>3. Managers and supervisors</td>
<td>29.1</td>
</tr>
<tr>
<td>4. Sales representatives, wholesale trade</td>
<td>23.6</td>
</tr>
<tr>
<td>5. Other sales and related occupations</td>
<td>18.2</td>
</tr>
</tbody>
</table>

Note: Percentages total more than 100 because of multiple responses given within the question categories. The responses of managers and supervisors are specific to each category.

Source: The Conference Board of Canada.

Preparing for the future of work

Nearly a third (29.8 per cent) of respondents indicated that they would be looking to fill new or non-traditional occupations in the future. They said they would be recruiting in areas like cyber security, artificial intelligence, robotics, machine learning, GPS and GIS, the Internet of things, autonomous navigation, drone operation, data management and analytics, deep learning, cloud technologies, virtual and augmented

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10 Refers to global positioning systems and geographic information systems.
reality, and blockchain/cryptocurrency. Several respondents also foresaw an increased need for workers with expertise in user experience and digital communication.

Respondents in the finance sector said they would be seeking fintech and digital banking expertise, while respondents in the health sector mentioned clinical/health informatics, health policy development, and expertise in Connect Care—a shared provincial clinical information system that will replace almost 1,300 disparate systems currently being used across Alberta Health Services. Some health respondents also foresaw expanding roles for those working in pharmacy and paramedicine.

**Skills for the future: the Alberta context**

While social, emotional, or human skills and other traditional skill sets are as important as ever for Alberta employers, respondents also indicated a requirement for emerging skill sets that can meet their evolving needs. In 2011, the Institute for the Future (IFTF) identified 10 key work skills that will be important leading up to 2020. (See full list of skills in Chart 10.) The 2018 Alberta Employer Survey asked respondents to indicate which, if any, of these skills they were seeking. Over half of employers said they were seeking computational thinking skills, defined by the IFTF as the “ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning.” In addition, 44 per cent identified novel and adaptive thinking and 40 per cent identified virtual collaboration. Approximately 40 per cent identified transdisciplinarity, or the ability to work across multiple subjects.

**Chart 10**

Employers are seeking new skills sets for Alberta’s evolving economy

(percentage of respondents, n = 224)

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computational thinking</td>
<td>56</td>
</tr>
<tr>
<td>Novel and adaptive thinking</td>
<td>44</td>
</tr>
<tr>
<td>Virtual collaboration</td>
<td>40</td>
</tr>
<tr>
<td>Transdisciplinarity</td>
<td>39</td>
</tr>
<tr>
<td>Social intelligence</td>
<td>39</td>
</tr>
<tr>
<td>Design mindset</td>
<td>37</td>
</tr>
<tr>
<td>Cross-cultural competency</td>
<td>37</td>
</tr>
<tr>
<td>Sense-making</td>
<td>36</td>
</tr>
<tr>
<td>New media literacy</td>
<td>29</td>
</tr>
<tr>
<td>Cognitive load management</td>
<td>27</td>
</tr>
</tbody>
</table>

While social, emotional, or human skills and other traditional skill sets are as important as ever, there will also be a requirement for emerging skill sets that can meet employers’ evolving needs.

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11 Alberta Health Services, “Connect Care.”
12 See Davies, Fidler, and Gorbis, Future Work Skills 2020; and Fidler, Future Skills.
13 Davies, Fidler, and Gorbis, Future Work Skills 2020, 10.
The demand for PSE credentials

Employers were clear on the need for post-secondary education, with only 2.7 per cent stating that PSE credentials would not be required for new recruits in the next three to five years. University degrees were the credentials in highest demand (67.3 per cent), followed by professional designations (43.6 per cent). Respondents also said new recruits would need polytechnic diplomas (36.6 per cent) and degrees (30 per cent), as well as college (28.4 per cent), trades (25.7 per cent), and certificates (23 per cent). (See Chart 11.)

Addressing skills needs

Work-integrated learning

Many Alberta employers are investing in their talent pipeline through work-integrated learning (WIL). WIL refers to a broad range of hands-on learning opportunities, from co-ops and internships to applied research projects, and is often used interchangeably with terms like “experiential learning” and “practice-based learning.”

Respondents indicated that they were participating in various forms of WIL, with co-op being the most popular at 55.4 per cent, followed by mentoring at 50.9 per cent and paid internships at 43.6 per cent. In addition, over a third of respondents said they were participating in research and development collaboration with PSE and over a quarter said they were offering apprenticeships. Unpaid internships were the least common form of WIL, at just 17.8 per cent. (See Chart 12.) Respondents who said they participated in other forms of WIL mentioned student practicums, summer student positions, rotational development programs for new graduates, apprenticeships at the high school level (offered through Alberta’s Registered Apprenticeship Program), and provision of industry content for inclusion in PSE curricula.

Chart 11
Nearly all respondents require PSE, with university degrees and professional designations in highest demand (percentage of respondents, n = 257)

<table>
<thead>
<tr>
<th>Credential Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University degrees</td>
<td>67</td>
</tr>
<tr>
<td>Professional designations</td>
<td>44</td>
</tr>
<tr>
<td>Polytechnic diplomas</td>
<td>37</td>
</tr>
<tr>
<td>Polytechnic degrees</td>
<td>30</td>
</tr>
<tr>
<td>College diplomas</td>
<td>28</td>
</tr>
<tr>
<td>Trades</td>
<td>26</td>
</tr>
<tr>
<td>Certificates</td>
<td>23</td>
</tr>
<tr>
<td>Does not apply (no PSE credentials required)</td>
<td>3</td>
</tr>
<tr>
<td>Do not know</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Percentages total more than 100 because of multiple responses given within the question categories. Source: The Conference Board of Canada.

Across Alberta’s sectors, there was variation in the types of WIL that employers accessed. For example, while more than two-thirds (68 per cent) of surveyed employers in the oil, gas, and mining sector reported using co-op/work-integrated learning positions, less than 8 per cent indicated the use of unpaid internships. Conversely, responses from those in Alberta’s creative and cultural industries suggest that the use of unpaid internships is slightly more common than co-op/work-integrated learning positions (35 per cent versus 29 per cent, respectively) in that sector.

Employers could indicate which types of WIL they were currently using and which types they were not using. When asked why they were not using certain types of WIL, 34.3 per cent said they were unaware of opportunities and their value, and 32.8 per cent suggested their employees were too busy to mentor and manage. Nearly a quarter (24.2 per cent) of respondents cited too much administration and “red tape,” pointed to the cost of implementation, or said they did not see the value. Very few respondents (8.1 per cent) cited bad experiences with WIL in the past. (See Chart 13.)

In addition to the reasons described above, some employers said they were not using all types of WIL because current programs were already meeting their needs. Some also indicated that certain types of WIL were not applicable to their industry or line of business (e.g., apprenticeship for those working outside the trades). When it came to unpaid internships, respondents pointed to ethical or equity concerns, contradiction with company philosophy, or the belief that fair compensation is needed to attract quality candidates.
Employers use a variety of strategies beyond WIL to meet skills needs in occupations that are difficult to fill, including in-house training and development.
As with types of WIL that employers used, responses varied by sector when individuals were asked to identify challenges that prevent the use of or interest in different forms of WIL. A perception that employees are too busy to mentor and manage was the most common challenge cited in both the finance, insurance, and real estate sector and the renewable energy and environmental products and services sector. In the health and medical sector, the cost of implementing WIL activities was seen as a barrier more often than other challenges. Despite these variations, and across sectors, employers consistently chose a lack of awareness of opportunities and their value as a top challenge.

Other employer strategies
Employers use a variety of other strategies beyond WIL to meet skills needs in occupations that are difficult to fill. A majority of respondents identified in-house training and development, at 75.4 per cent. Over half of respondents (51.3 per cent) said they were providing flexible work environments and 43.6 per cent said they were increasing compensation, wages, or benefits (22.2 per cent). Nearly half (41.1 per cent) said they were hiring from out of province or attending job fairs or career days; over a third (36.4 per cent) said they were hiring from competitors; and almost a quarter (23.7 per cent) said they were hiring internationally. (See Chart 14.)

Respondents also identified additional strategies, such as offering mentorship opportunities; providing access to conferences and other external professional development; pursuing additional student recruitment methods (e.g., offering scholarships, holding student recruitment dinners); conducting targeted advertising campaigns; hiring contract workers; and rehiring employees who had been let go.

When asked about expected investment in employee training and development in the next three to five years, 54.8 per cent of respondents said they planned to continue investing at current
levels and 43.1 per cent said they planned to invest more or substantially more. Only 2 per cent of respondents were planning on investing less. (See Chart 15.)

Communication with PSE

When we asked employers how they would characterize their opportunities to communicate skills/training needs to PSE institutions, 62.9 per cent of respondents said they thought their opportunities were good or excellent.15 Almost a third, however, believed their opportunities were limited, and 5.6 per cent believed their opportunities were non-existent. (See Chart 16.) While employers were asked about their perceptions relating to the PSE sector as a whole, further research could shed light on how these perceptions vary by institution type.

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15 Because post-secondary partners assisted in distributing the survey, employers who already have relationships with PSE may be over-represented in the findings.
Additional opportunities

The survey also asked employers what more they thought Alberta’s post-secondary education institutions should do to address their skills and training needs. Several key themes emerged.

Engagement and collaboration with industry was the most popular theme, mentioned in nearly half of responses. Specific recommendations included the following:

- Request employer feedback regularly. Create more opportunities for employers to communicate their skills needs and identify gaps in training through formal or informal meetings, focus groups, surveys, advisory boards, personal contact, and other forms of outreach (including outreach from specific programs to specific employers).
- Work with employers to offer work-integrated learning opportunities like apprenticeships, internships, and co-op (and provide support to employers who wish to establish these programs).
- Ensure employers are aware of an institution’s offerings, including programs that may serve as a source of new recruits. It was noted that employers are not always aware of the skill sets cultivated by different programs and credentials. Awareness can be raised by contacting employers directly or by engaging in broader outreach (e.g., through open house events).
- Explore opportunities to strengthen employer (and employee) ties with students, such as networking events, site visits to employer facilities, mentorship programs, collaborative research, guest lectures, and sponsorship of student competitions.
- Collaborate with employers to address equity and diversity challenges in the workforce. Some employers noted a lack of diversity in their industry. It was recommended that PSE institutions provide opportunities to recruit diverse students and, beyond that, make efforts to ensure representation in lecturing and leadership roles.
- Work with employers to facilitate the upskilling of current employees—for example, through non-traditional learning formats like mini-courses.
PSE curricula featured in more than a third of responses, with respondents highlighting content they would like to see incorporated into PSE programs. Recommendations included integrating best practices, tools, and standards from industry; providing interdisciplinary learning opportunities; and achieving the right balance of practice and theory. Some respondents stressed the need for awareness and education around Indigenous culture and practices, as well as engagement with Indigenous communities. Respondents also mentioned specific soft and technical skills they thought PSE programs should cultivate, including:

- social skills (e.g., collaboration, teamwork, cross-cultural understanding)
- communications skills (e.g., public speaking, language skills)
- ability to problem-solve and think quickly and critically
- goal-setting and continuous development
- ability to put theory into practice
- computer skills, with specific software and functions varying by industry

Finally, some respondents (approximately a fifth) discussed PSE in the broader context of economic and industrial trends. It was stressed that PSE must anticipate and adapt quickly to changes in Alberta's economy and industry needs. While creating or altering post-secondary programs can be time-consuming given provincial review requirements, agility may be more feasible for certain types of programming that are not subject to review (e.g., continuing education programs). Some respondents reiterated the need for graduates from certain disciplines and programs (e.g., STEM, computer programming, health care aide), while others recommended that PSE prepare students across disciplines to work in sectors and regions where there is demand.

Summary

This report concludes the Alberta leg of our Building Skills Connection Series. The three-report series aimed to shed light on the skills, post-secondary credentials, and occupations needed for Alberta to be prosperous now and in the future. It built on existing research about the future of work, skills, and Alberta's economy by capturing the perspectives of employers and other stakeholders from key Alberta industries. The major findings of each report—including specific take-aways for post-secondary institutions and employers—will be summed up in an infographic, and all materials related to the project will be made available on The Conference Board of Canada’s website. We plan to expand the Building Skills Connections Series to include other provinces and territories.

16 Government of Alberta, "Post-Secondary Program Standards and Oversight."
Appendix A

Bibliography


Where insights meet impact

Building Skills Connections Series: Perspectives of Alberta Employers
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