How to Adapt to the Labour Shortage Situation

Hiring Difficulties Are Not Going Away
# Table of contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message from the Chief Economist</td>
<td>3</td>
</tr>
<tr>
<td>Highlights</td>
<td>4</td>
</tr>
<tr>
<td>A resurgence in labour scarcity</td>
<td>5</td>
</tr>
<tr>
<td>Why are labour shortages happening?</td>
<td>11</td>
</tr>
<tr>
<td>Solutions and advice</td>
<td>15</td>
</tr>
<tr>
<td>Data and methodology</td>
<td>37</td>
</tr>
</tbody>
</table>

## Author

Isabelle Bouchard, Economist, isabelle.bouchard@bdc.ca

## Acknowledgements:

Martin Beaulé, Pierre-Olivier Bédard-Maltais, Alexandra Fioriello, Mathieu Galliot, Sijia Li, Magalie Nadeau, Laura Paquet and Isabelle Simard

---

On the cover
Behnaz Alijani, Co-Owner, Miracle Prescriptions

This study is based on survey data analyzed and interpreted by BDC. Any errors or omissions are the sole responsibility of BDC. The reader is solely responsible for the use of the information presented in these pages.

2021, Business Development Bank of Canada
Hiring difficulties reach worrying heights

Labour shortage is not a new phenomenon in Canada, yet the pressure has intensified in recent years. More than half (55%) of Canadian entrepreneurs are struggling to hire the workers they need, leaving them with no choice but to work more hours, as well as delay or refuse new orders. In addition, more than a quarter (26%) are having difficulties retaining their employees.

As the economy recovers, this scarcity of workers is reaching worrying heights, putting economic growth at risk and compromising the competitiveness of Canadian businesses.

What’s even more alarming is that labour scarcity is here to stay. The growth of Canada’s labour force will continue to slow for years as the country’s population ages.

Entrepreneurs will have to spend more time hiring and retaining workers than they did before. This underscores the importance to small and medium-sized enterprises (SMEs) of adopting new solutions to sustain their growth and productivity in the long run.

Luckily, this study shows that proven solutions can help Canadian SMEs reduce the impact of labour scarcity.

These strategies include the following:

- adopting new technologies and automation
- using formal hiring processes
- offering a total compensation package

We hope that this report will help you find the right solutions for your business.

Pierre Cléroux
Vice President, Research and Chief Economist
How to Adapt to the Labour Shortage Situation

Hiring Difficulties Are Not Going Away

Highlights

This study is based on two BDC surveys: a survey of 1,251 Canadian entrepreneurs on labour market conditions conducted in May 2021 and a survey of 3,000 Canadians on their jobs and related challenges conducted in June 2021.

Labour shortage is here to stay

- Canada’s labour force problem did not begin with the pandemic. It is the result of the aging population and related declining labour force participation, which started over 20 years ago. The pandemic has amplified the problem by destabilizing an already-precarious situation.

Entrepreneurs experiencing difficulty in hiring face many drawbacks

- 64% report that labour shortage limits their growth
- 61% must increase their hours and/or their employees’ hours
- 49% must increase wages and benefits
- 44% have delayed or are unable to deliver orders to clients

Proven solutions exist

<table>
<thead>
<tr>
<th>Difficulties</th>
<th>Solutions</th>
<th>Description</th>
<th>Companies are...</th>
</tr>
</thead>
<tbody>
<tr>
<td>In hiring employees</td>
<td>New technology and automation</td>
<td>Adopting technology that can complete repetitive and easily replicable tasks with reduced human input, freeing up workers for more value-added tasks.</td>
<td>2.0 times more likely to find hiring easy</td>
</tr>
<tr>
<td></td>
<td>Formal hiring process</td>
<td>Using an organized hiring procedure to reach a pool of candidates and to select one of them for a job offer.</td>
<td>1.4 times more likely to find hiring easy</td>
</tr>
<tr>
<td>In retaining employees</td>
<td>Total compensation package</td>
<td>Offering customizable elements such as competitive salaries and benefits, flexible work arrangements and employee mentoring.</td>
<td>1.4 times more likely to find retaining workers easy*</td>
</tr>
</tbody>
</table>

*companies that offer competitive salaries and benefits
A resurgence in labour scarcity

The recovering job market is heightening Canada’s labour scarcity.

Driven by the rising vaccination rate and the easing of restrictions over the summer, Canada’s job market has bounced back with vigour. However, this recovery generates both a stronger demand for workers and a tightening of the labour market.

Entrepreneurs are experiencing great difficulties in finding the workers they need.

55% are struggling to hire workers. Many entrepreneurs have been unable to fill jobs for three or four months.

26% are having difficulty retaining their workers. The situation could worsen as economic activity returns to pre-pandemic levels.

Source: BDC, Survey on Labour Shortage, May 2021. Base: All respondents who provided an answer (n=1,251).
A resurgence in labour scarcity

Not enough candidates are applying to job openings

We are now in a cycle where there are not enough candidates applying for job openings. Many entrepreneurs say that they receive no CVs after publishing a job offer.

Coming in a close second as a reason for hiring difficulties is the fact that the people who do apply lack the hard or soft skills required for the jobs. Entrepreneurs reported being unable to find staff with the skill mix they need.

**Figure 1: Why entrepreneurs find it difficult to hire**

- Lack of candidates: 45%
- Lack of required hard or soft skills: 44%
- Lack of experience: 35%
- Salaries and benefits are lower than applicants’ expectations: 30%
- Lots of competitive offers from other employers: 22%
- Work environment: 10%
- Lack of required physical strength: 7%
- No money available to hire: 2%
- Other: 1%

Base: Respondents who experienced difficulty hiring employees, excluding those who answered “I don’t know” (n=560).
A resurgence in labour scarcity

**Hiring is most difficult in Quebec and for rural businesses**

**Figure 2: Hiring difficulty by region**

<table>
<thead>
<tr>
<th>Region</th>
<th>Hiring Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic</td>
<td>55%</td>
</tr>
<tr>
<td>Quebec</td>
<td>60%</td>
</tr>
<tr>
<td>Ontario</td>
<td>55%</td>
</tr>
<tr>
<td>Prairies</td>
<td>61%</td>
</tr>
<tr>
<td>British Columbia</td>
<td>55%</td>
</tr>
</tbody>
</table>

**Figure 3: Hiring difficulty by city size**

<table>
<thead>
<tr>
<th>City Size</th>
<th>Hiring Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large urban centre (100,000 or more inhabitants)</td>
<td>51%</td>
</tr>
<tr>
<td>Medium-sized urban area (30,000 to 99,999 inhabitants)</td>
<td>55%</td>
</tr>
<tr>
<td>Small city or rural area (29,999 or fewer inhabitants)</td>
<td>66%</td>
</tr>
</tbody>
</table>

**Figure 4: Hiring difficulty by sector**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Hiring Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and warehousing</td>
<td>65%</td>
</tr>
<tr>
<td>Retail and wholesale</td>
<td>83%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>63%</td>
</tr>
<tr>
<td>Education and health care services</td>
<td>60%</td>
</tr>
<tr>
<td>Agriculture, fishing and forestry</td>
<td>57%</td>
</tr>
<tr>
<td>Technology information and cultural industries</td>
<td>55%</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>55%</td>
</tr>
<tr>
<td>Construction</td>
<td>50%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>47%</td>
</tr>
<tr>
<td>Arts, entertainment and recreation</td>
<td>45%</td>
</tr>
<tr>
<td>Mining, oil and gas</td>
<td>41%</td>
</tr>
</tbody>
</table>

Note: * represents a result that is significantly different than numbers for other regions, with a confidence level of 95%.
Employees looking for better wages and benefits are driving retention difficulty

The surge in job openings is providing workers with more options, thereby putting pressure on employers to offer competitive pay and benefits to keep their workers.

We also surveyed employees to understand their point of view. We found that a desire for higher wages is by far the main reason explaining why workers want to change jobs in the next year, followed by a desire for more benefits.

Figure 5: Why employees want to leave their job, according to employers

- Higher wages: 41%
- New opportunities in the market: 32%
- More benefits: 21%


Figure 6: Why employees want to leave their job, according to employees

- Higher wages: 57%
- More benefits: 32%

Retention is most difficult in Quebec and in the arts, entertainment and recreation sector

Figure 7: Retention difficulty by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Retention Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic</td>
<td>16%</td>
</tr>
<tr>
<td>Quebec</td>
<td>34%†</td>
</tr>
<tr>
<td>Ontario</td>
<td>26%</td>
</tr>
<tr>
<td>Prairies</td>
<td>24%</td>
</tr>
<tr>
<td>British Columbia</td>
<td>25%</td>
</tr>
</tbody>
</table>

Retention difficulty

Figure 8: Retention difficulty by city size

<table>
<thead>
<tr>
<th>City Size</th>
<th>Retention Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large urban centre (100,000 or more inhabitants)</td>
<td>26%</td>
</tr>
<tr>
<td>Medium-sized urban area (30,000 to 99,999 inhabitants)</td>
<td>31%</td>
</tr>
<tr>
<td>Small city or rural area (29,999 or fewer inhabitants)</td>
<td>23%</td>
</tr>
</tbody>
</table>

Retention difficulty

Figure 9: Retention difficulty by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Retention Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, entertainment and recreation</td>
<td>39%</td>
</tr>
<tr>
<td>Agriculture, fishing and forestry</td>
<td>32%</td>
</tr>
<tr>
<td>Technology, information and cultural industries</td>
<td>29%</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>28%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>27%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>26%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>26%</td>
</tr>
<tr>
<td>Construction</td>
<td>25%</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>24%</td>
</tr>
<tr>
<td>Mining, and oil and gas extraction</td>
<td>20%</td>
</tr>
<tr>
<td>Education and health care</td>
<td>18%</td>
</tr>
</tbody>
</table>

Note: † represents a result that is significantly different than numbers for other region, with a confidence level of 95%.

A resurgence in labour scarcity
A resurgence in labour scarcity

**Nearly two in three entrepreneurs have lost business opportunities**

Businesses suffering from labour shortages miss out on new business opportunities and potential growth, as they are forced to refuse or delay sales and postpone projects. Moreover, across sectors, both employees and owners are carrying increased amounts of work on their shoulders.

**Figure 10: Impacts of labour shortages on businesses**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business growth has been limited</td>
<td>64%</td>
</tr>
<tr>
<td>Existing employees and/or the owner(s) have had to work more hours</td>
<td>61%</td>
</tr>
<tr>
<td>The business has had to raise wages and salaries or improve benefits for employees</td>
<td>49%</td>
</tr>
<tr>
<td>The business has been unable to meet or have delayed delivery of orders/deliverables to clients</td>
<td>44%</td>
</tr>
<tr>
<td>The business has become less competitive</td>
<td>32%</td>
</tr>
<tr>
<td>The quality of the goods and/or services provided to customers has deteriorated</td>
<td>24%</td>
</tr>
</tbody>
</table>

Base: Respondents who experienced difficulty hiring or retaining employees, excluding those who answered “I don’t know” (n=632).
Why are labour shortages happening?

Canada’s labour scarcity has been a challenge for a decade, but the pandemic worsened it. It is important to distinguish between the two levels of the situation:

- The short-term imbalances caused by the pandemic, which has affected industries differently.
- The aging population and the accompanying decrease in labour force participation, which are also central to the problem and will last well into the next decade.

Figure 11: Cumulative change in labour demand and supply since April 2011

Note: Labour demand is the total of employed workers and open vacancies. Labour supply is the total working population aged between 15 and 65 years old. Sources: Statistics Canada’s Labour Force Survey and Job Vacancy and Wage Survey; Employment and Social Development Canada’s Canadian Occupational Projection System (COPS) projections (2019 to 2028); BDC calculations.
Why are labour shortages happening?

**Sectoral imbalances will persist in the short-term**

The unemployment rate jumped from 6% in February 2020 to 14% in May 2020. While some sectors have seen significant job losses, others have seen job gains to the point where the number of jobs is even higher than it was before the crisis.

The pandemic has allowed (or forced, in certain cases) workers who lost their jobs to look for jobs in new sectors, so mobility between sectors has risen significantly.

Moreover, many furloughed workers in the sectors most affected by the pandemic are waiting to be recalled. Until these asymmetries decrease with a full recovery, the economy will remain in an unusual state.

**Figure 12: Change in employment between February 2020 and August 2021 (in thousands)**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Change (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional and business services</td>
<td>202.1</td>
</tr>
<tr>
<td>Educational services</td>
<td>72.9</td>
</tr>
<tr>
<td>Public administration</td>
<td>70.5</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>50.6</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>-27.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-36.6</td>
</tr>
<tr>
<td>Primary industries*</td>
<td>-41.8</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>-42.7</td>
</tr>
<tr>
<td>Technology, information and cultural industries</td>
<td>-43.7</td>
</tr>
<tr>
<td>Construction</td>
<td>-62.1</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>-153.6</td>
</tr>
</tbody>
</table>

Sources: Statistics Canada’s Labour Force Survey; BDC calculations.
*Primary industries include agriculture, forestry, fishing, mining, quarrying, oil and gas extraction.

**20%** of workers who lost their job during the pandemic changed fields of employment*.

Sources: BDC, Survey on Labour Market Conditions, June 2021. Base: All respondents who provided an answer (n=2,998).
*Between March 2020 and June 2021.
Labour force growth is slowing

The aging population will continue to put downward pressure on labour force participation and growth. There are four reasons explaining this long-term trend.

1. The working population is aging, and baby boomers are leaving the labour market in such large numbers that entrants are unable to fill all the gaps.
2. Retirements are expected to remain high until at least 2026.
3. Young people are taking much longer to complete their education and begin their careers.
4. Immigration helps compensate for the number of people leaving the labour force, but it is not enough to maintain labour force growth.

Projections show that labour force growth will continue to slow for years. Given the downward trend, entrepreneurs must adapt their business practices to sustain their growth over the long run.

Figure 13: Participation rate and labour force growth, by five year period

Note: The base case assumes that labour force growth continues at a steady 0.7%, fertility is a constant 1.67 children per woman, immigration holds steady at 8.3 immigrants per 1,000 Canadians and the participation rate of older workers continues to increase.

The future depends on better integration of diverse workers

There are large groups of underutilized people who could join the workforce or be more fully employed. Youth and immigrants could be better integrated and offered more opportunities. Additionally, Canada could take a note from Japan and keep older workers active longer. Offering workplace flexibility and phased retirement would incentivize the participation of older workers.

SMEs that understand the value of diversity will widen their potential talent pool.

Why are labour shortages happening?

Figure 14: Differences in participation and unemployment rates of underutilized groups

Making full use of Canadian diversity could add 2 million workers

998,000 potential younger workers
753,000 potential older workers
246,000 potential immigrant workers

Sources: Statistics Canada; Statistics Bureau of Japan; BDC calculations, June 2021.
Note: See “Data and methodology” for the potential additional workers calculation.
Solutions and advice: What really works

Three out of four entrepreneurs have made attempts to address labour shortages. The two most common actions are offering more flexibility and internally training less-qualified workers to help them gain necessary skills.

However, some questions remain:

→ Do these actions really address labour shortages?
→ Are entrepreneurs putting their energy in the right place?

Figure 15: What businesses have done in the last 12 months

- Offered flexible work arrangements (e.g., telework, flex time, compressed work weeks): 37%
- Internally trained less-qualified workers: 35%
- Recruited younger workers and/or students: 26%
- Hired freelancers or contractual or independent workers: 25%
- Recruited immigrants and/or foreign workers: 10%
- Automated certain areas (e.g., by using robotics, cognitive agents, smart workflows or advanced analytics): 10%
- Recruited older/previously retired workers: 9%
- None of the above: 27%

Source: BDC, Survey on Labour Shortage, May 2021, Base: All respondents who provided an answer (n=1,249).
BDC conducted an advanced statistical analysis to determine the most effective solution to hiring and retention problems. We found that the right solution will depend on the problem being faced.

For difficulties in hiring:

→ **Adopt new technologies and automation**

→ **Use a formal hiring process**

For difficulties in retention:

→ **Offer a total compensation package**
Hard data indicates proven solutions

Do these results hold regardless of industry, region and business size?

We’ve tested each business practice to see which ones had a real impact on the ease of hiring and retaining workers, and on business growth. To do this, we used logistic regression to measure how each practice that a company implemented increased its chances of achieving the desired result, compared to similar businesses that did not implement the practice, taking into account all other variables that could have had an impact.

Using this advanced statistical analysis technique, we uncovered the following results. They were true regardless of other solutions implemented or company characteristics. (See Table 1 for more details.)

- Companies that had automated certain areas of the business are 2.0 times more likely to find hiring easy and 1.9 times more likely to see sales growth above the industry average, compared to companies that had not automated.
- Companies that had put a formal hiring process in place are 1.4 times more likely to find hiring easy, compared to companies that had not put in place a formal process.
- Companies that offer competitive salaries and benefits are 1.4 times more likely to find retaining workers easy and 1.7 times more likely to have sales growth above the industry average, compared to companies that do not offer such salaries and benefits.

Other results are interesting but not as robust due to a confidence level of less than 95%.

- Companies that offer flexible work arrangements could be 1.4 times more likely to find retaining workers easy, compared to companies that do not offer such arrangements.
- Companies that offer mentoring could be 1.3 times more likely to find it easy to retain workers, compared to companies that do not offer mentoring.

---

1. See “Data and methodology” for regression analysis methodology.
2. Control variables included annual sales, number of employees, province/region, sector of activity, years in business, city size, and the gender, age and diversity of owners.
3. “Automated certain areas of the business” means the firm has fully automated processes in at least one function or business unit.
4. Interpret with caution: Results with a confidence level of less than 95% are less robust and should be interpreted with caution.
How to Adapt to the Labour Shortage Situation

Hiring Difficulties Are Not Going Away

Table 1: Increased chance of outcome (odd ratio\(^5\)) based on the business practice implemented

<table>
<thead>
<tr>
<th>Business practice</th>
<th>Ease of hiring</th>
<th>Ease of retention</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation of certain areas of the business(^6)</td>
<td>2.04****</td>
<td>1.32</td>
<td>1.89***</td>
</tr>
<tr>
<td>Formal hiring process</td>
<td>1.44**</td>
<td>1.17</td>
<td>1.31</td>
</tr>
<tr>
<td>Competitive pay and benefits</td>
<td>1.17</td>
<td>1.42**</td>
<td>1.72***</td>
</tr>
<tr>
<td>Flexible work arrangements</td>
<td>1.06</td>
<td>1.37*</td>
<td>0.77</td>
</tr>
<tr>
<td>Mentoring of less-experienced employees</td>
<td>0.9</td>
<td>1.26(^4)</td>
<td>1.04</td>
</tr>
</tbody>
</table>

Understanding odd ratios

In our context, odd ratios indicate how many times more likely you are to get a result if you apply a given business practice, compared to a company that does not do so.

Example:
A business that has a formal hiring process is **1.44 times more likely to find it easy to hire** workers, compared to a business that does not have a formal process. We could then say that a business using a formal hiring process is 44% more likely to find hiring easier.

Source: BDC econometric model based on BDC Survey on Labour Shortage, May 2021. Base: All respondents who provided an answer (n=1,251).

** Significance with a confidence level of 99.9%.
*** Significant with a confidence level of 99%.
** Significant with a confidence level of 95%.
* Significant with a confidence level of 90%.
A Significant with a confidence level of 84%.

---

5. See “Data and methodology” for the definition of “odd ratio.”
6. “Automation of certain areas of the business” means the firm has fully automated processes in at least one function or business unit.
7. Interpret with caution: Results with a confidence level of less than 95% are less robust and should be interpreted with caution.
8. Interpret with caution: Results with a confidence level of less than 95% are less robust and should be interpreted with caution.
Difficulties in hiring

Adopt new technologies and automation

What is automation?

“Automation” is the use of any technology that can complete repetitive and easily replicable tasks with reduced human input, freeing up workers for more value-added tasks.

Examples of new technologies and automation include:

- automated email marketing campaigns
- chatbots and automated text messages
- touchscreen order terminals
- self-checkout registers
- robot chefs and hotel staff

How does it affect labour shortages?

The fear that technology and automation could replace workers and create mass unemployment is not new. However, the greatest problem in the next few decades is more likely to be enduring labour shortages, rather than mass unemployment. What’s more, improving productivity through new technology and automation benefits employees by freeing them up for more interesting tasks. As output per hour worked increases, so does the business’s profits and its capacity to increase wages.
Entrepreneurs who invest in new technologies and automation find it twice as easy to hire workers

61% of businesses who adopted new technologies and automation find it very easy or somewhat easy to hire.

38% of businesses who didn’t adopt new technologies and automation find it very easy or somewhat easy to hire.

7% Very easy
31% Somewhat easy
25% Very easy
36% Somewhat easy

Source: BDC, Survey on Labour Shortage, May 2021. Base: All respondents, excluding those who did not provide an answer (n=1,053).

Figure 17: Businesses that found it easy to hire employees, with and without new technologies and automation

<table>
<thead>
<tr>
<th>Industry</th>
<th>Businesses with new technologies and automation</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and food services</td>
<td>38%</td>
<td>86%</td>
</tr>
<tr>
<td>Agriculture, fishing and forestry</td>
<td>33%</td>
<td>86%</td>
</tr>
<tr>
<td>Construction</td>
<td>40%</td>
<td>82%</td>
</tr>
<tr>
<td>Education and health care services</td>
<td>26%</td>
<td>68%</td>
</tr>
<tr>
<td>Mining, and oil and gas extraction</td>
<td>26%</td>
<td>67%</td>
</tr>
<tr>
<td>Technology, information and cultural industries</td>
<td>30%</td>
<td>58%</td>
</tr>
<tr>
<td>Arts, entertainment and recreation</td>
<td>30%</td>
<td>59%</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>42%</td>
<td>57%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>26%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Figure 16: Hiring difficulty in the current context

25% Very easy
36% Somewhat easy
Only one in four Canadian SMEs have fully automated at least one business function

While our results indicate that new technologies and automation are key to helping entrepreneurs overcome the labour shortage, few businesses are automated.

Of SMEs that have automated, 43% reported that their biggest challenge was the high upfront cost. Many business owners believe that technology and automation are only for big businesses with big budgets. However, with the development of cloud-based platforms, more and more of these tools are now accessible to even the smallest companies.

### Figure 18: The biggest challenges entrepreneurs face in adopting new technologies and automation

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High upfront investment cost</td>
<td>43%</td>
</tr>
<tr>
<td>Security and safety</td>
<td>32%</td>
</tr>
<tr>
<td>Selecting the right tools/machines</td>
<td>29%</td>
</tr>
<tr>
<td>Effective communication and collaboration</td>
<td>27%</td>
</tr>
<tr>
<td>Finding skilled IT workers</td>
<td>21%</td>
</tr>
<tr>
<td>Fear of new technology adoption among workers/management</td>
<td>20%</td>
</tr>
<tr>
<td>Inadequate training in tool use</td>
<td>20%</td>
</tr>
<tr>
<td>Scaling up</td>
<td>15%</td>
</tr>
<tr>
<td>Lack of tool availability</td>
<td>13%</td>
</tr>
<tr>
<td>Lack of management support</td>
<td>9%</td>
</tr>
<tr>
<td>No particular challenges</td>
<td>4%</td>
</tr>
</tbody>
</table>

4 steps to get started with automation

A BDC expert explains how to buy and implement new technologies in a cost-efficient way.

1. **Analyze your needs**
First, observe your process flow and look for waste, recurring problems or gaps. You’re trying to identify such problems as bottlenecks, extensive and repetitive efforts and day-to-day activities that take up a lot of time. Talk to your employees and map out your processes. Before shopping for technology solutions, make sure you stay focused by documenting your needs.

2. **Eliminate waste**
Can you solve any of the problems from Step 1 without adding technology? In other words, can you eliminate waste? Waste can come from many sources, such as excess inventory, poor workspace layout or insufficient information. Very often, these are generated from non-optimized processes or the wrong execution of tasks. Technology won’t solve all your problems. It will only enable you to do better, and needs optimized conditions to really pump up productivity. A nice starting point is to use technology to monitor waste itself.

3. **Evaluate possible solutions**
Now, it is time to do your research. Make a list of different collaborators, vendors and companies, and rate each one based on how well they meet your requirements. Before you commit to a new technology investment, make sure you ask whether you’re using all the functionalities of your existing tools. Maximize the use of your current systems before investing in new ones.

For any kind of automation or robotic solutions, these steps are the same. Get advice from at least three integrators before you commit.

4. **Use your internal resources**
Armed with research, speak to your team members about your plans for change. Ask them for feedback, then identify any employees who are interested in technology and who can help you adopt it. The change will be smoother if you encourage your team to play a part.

Stéphane Chrusten, Senior Business Advisor, BDC Advisory Services
A medication-sorting machine improves processing time for orders by over 80% at Miracle Prescriptions

Arash Pourzare had already experienced hiring difficulties at the bustling pharmacy that he and his wife, Behnaz Alijani, own in North Vancouver. Then, the pandemic hit.

Miracle Prescriptions lost 80% of its pre-pandemic employees. Some quit to care for family members; others changed jobs or careers. Finding replacements was extremely difficult.
The labour shortage was made worse by employee illnesses and isolation requirements.

The result was an extreme workload and elevated stress for Pourzare and Alijani, both pharmacists. Pourzare says they often worked 180 hours per week while also parenting their two children.

“Labour shortages are the most important challenge we face,” Pourzare says. “It’s a huge, huge problem.”

Labour shortages have hit many Canadian SMEs, but health-related companies have struggled especially, particularly during the pandemic. A key solution for many businesses has been to accelerate automation.

That is what Pourzare and Alijani did. As their pool of employees dwindled, the couple invested in equipment to speed up the labour-intensive processing of complex prescriptions.

Many of their customers are seniors who often take five or more medications each day. The new machine automates the process of creating blister packages for these clients. These packages are customized strips of medications that help people with many prescriptions remember what to take and when. A single package may contain a week’s worth of medications.

Pourzare’s machine holds more than 200 different medications that it uses to automatically fill orders received electronically. A pharmacist then checks each package to make sure no errors were made.

The machine has improved the processing time for these packages by over 80%, and it makes 90% fewer errors than a human doing the same task manually.

Now, when the pharmacy is short of employees, Pourzare or his wife aren’t obliged to fill in and abandon their other work. They can just run the machine more to make up for the absent worker. “It has reduced our stress enormously, and it gives us security in terms of our labour needs,” Pourzare says.

“Labour shortages are the most important challenge we face,” Pourzare says. “It’s a huge, huge problem.”

Arash Pourzare
Co-Owner
What is a formal hiring process?

A “formal hiring process” refers to a fully organized hiring procedure. The business identifies its recruitment needs, puts out a detailed job posting that lists the relevant roles and responsibilities, advertises the job opening, and selects the candidate who will be offered the position.

These are the steps in a formal hiring process:

1. **planning**—identify organizational needs
2. **recruitment**—post the job opening and advertise to reach a pool of candidates
3. **selection**—pre-screen candidates and evaluate them before making a job offer

How does it affect labour shortages?

A formal hiring process minimizes the time needed to recruit and hire employees. Moreover, it helps businesses find strong matches and high-quality employees, which, in turn, boosts business performance and reduces employee turnover.

Difficulties in hiring

Use a formal hiring process
Entrepreneurs with a formal hiring process are more likely to find it easy to hire workers

51% of businesses who adopted a formal hiring process find it very easy or somewhat easy to hire.

42% of businesses who didn’t adopt a formal hiring process find it very easy or somewhat easy to hire.

Source: BDC, Survey on Labour Shortage, May 2021, Base: All respondents who provided an answer (n=1,053).

Figure 19: Hiring difficulty in the current context

Figure 20: Businesses that found it easy to hire new employees, with and without a formal hiring process
Put a formal hiring process in place

Entrepreneurs often have a harder time hiring. They lack size, brand recognition and capacity, and therefore rely heavily on informal processes for recruitment. Most small businesses can’t afford dedicated human resources (HR) staff, or lack the capacity and expertise needed to put one in place.

In a recent BDC survey, 77% of entrepreneurs reported having no formal hiring process, and 63% had no dedicated full- or part-time HR resources.

Entrepreneurs often spend a lot of time thinking about growth and strategies, but rarely think about HR. However, as the labour shortage continues, HR is becoming more and more important. Not surprisingly, more than two in five business owners surveyed said their interest in HR-related topics has increased over the past year.

Source: BDC, Survey on HR advisory services: SME use and interest, May 2021. Base: All respondents who provided an answer (n=526).

Market yourself to potential employees

Marketing isn’t just for reaching customers—you can also market your business to potential employees. It could be something as simple as keeping an up-to-date website with a clear description of your business and your contact information. Consider adding a “careers” section with your open job postings and formal job descriptions. Writing down exactly what you’re looking for does not take long, but it will help you find the right employee for that role.

Jacques Légaré, Director of Business Strategy at BDC Advisory Services
Case study

Relying on human resources for growth

For Momentum Technologies, the extra touches make all the difference

“Recruiting is almost like fighting a war, and in tech it’s an international struggle,” says Nicolas Clusiault, Vice President, Human Resources and Special Projects, at Momentum Technologies. The Quebec City-based company, founded in 2003, specializes in acquiring, managing and using digital data.

Hired as a recruiter in 2011, when the company had just 110 employees, he was promoted when the labour shortage highlighted the importance of his role. Gone are the days when resumes would pour in without companies having to lift a finger.
When I was brought onboard, the company had an HR officer, but it was just a general role,” says Clusiault. “Department heads mostly did their own hiring. Then the labour shortage made that model untenable. Now, we must make a continued effort to develop our brand as an employer.”

That means constantly working to improve the various stages of the hiring process. This includes reaching out personally to candidates who have sent in their résumé, while also handling onboarding for new employees.

“We’re interested in the whole journey from candidate to employee, because, of course, we have to deliver the goods,” says Clusiault. We have to make sure that they’re satisfied with their experience, so that they feel like staying and saying good things about us.”

To rapidly expand its pool of candidates, the company first agreed to hire internationally trained professionals and then moved on to international recruitment. These strategies have proven successful.

By 2015, Momentum Technologies had grown to roughly 200 employees. It even hired someone to specifically manage the logistics of international recruitment. The company handles everything: applying for work permits, scheduling relocation times around the kids’ school year, buying the plane tickets—it even greets employee families at the airport and helps them get settled.

“These extra touches make all the difference. We’re competing with other countries for candidates and the competition is fierce,” says Clusiault.

“We put ourselves in the employees’ shoes to look at every aspect of their relocation, to increase the chances that things will work out.”

The result?

“Even though we have to turn down projects on a daily basis due to lack of staff, we’re managing to attract top-notch talent and continue to grow. If it weren’t for our hard work, we would be in decline,” says Clusiault.
What is a total compensation package?

A “total compensation package” includes all types of customizable benefits. We often think about compensation as salary, yet salary is only a small part of a total compensation package.

Here are some components of a total compensation package:

→ flexible work arrangements
→ perks and bonuses
→ paid vacation
→ health and wellness support
→ a supportive workplace culture
→ diversity and inclusion initiatives

How does it affect labour shortages?

The total compensation package helps to make employees feel valued and appreciated and, therefore, acts as a strong retention tool.
Entrepreneurs who offer elements of a total compensation package* are more likely to retain their workers

77% of businesses that offer elements of a total compensation package finds it very easy or somewhat easy to retain.

71% of businesses that don’t offer elements of a total compensation package finds it very easy or somewhat easy to retain.

---

*A total compensation package includes at least two of the following elements: competitive salaries and benefits, flexible work arrangements, and employee mentoring.

Source: BDC, Survey on Labour Shortage, May 2021, Base: All respondents who provided an answer (n=1,196).
Elements of a total compensation package

Competitive salary and benefits

To be competitive, whatever the industry, you need to make sure your firm’s salaries and benefits are in line with employee expectations. Keep in mind that there are many creative ways to provide monetary compensation. These include commissions, bonus pay, recognition pay and stock options.

Check how much you’re losing in turnover cost

Onboarding new employees takes time and costs money. Légaré suggests that you look up the employee turnover rate in your industry. This lets you evaluate whether your cost of doing business is higher than your competitors’. A high number of departing employees can create a big drain on your bottom line. In some cases, offering a combination of better HR policies and higher compensation is an investment, not an expense.

Flexible work arrangements

Many employers are incorporating flexible work arrangements in their arsenal to better retain employees. In the aftermath of the pandemic, many employees have enjoyed working from home and don’t want to return to the office.

Entrepreneurs report that tracking efficiency and performance is the biggest challenge posed by flexible work arrangements. A third also report that managing collaboration among all team members is an important issue.

Figure 23: The biggest challenges of flexible work arrangements for entrepreneurs

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees’ productivity and performance</td>
<td>39%</td>
</tr>
<tr>
<td>Workers’ work-life balance</td>
<td>35%</td>
</tr>
<tr>
<td>Collaboration among all team members</td>
<td>34%</td>
</tr>
<tr>
<td>Communication with employees</td>
<td>27%</td>
</tr>
<tr>
<td>Company’s culture</td>
<td>25%</td>
</tr>
<tr>
<td>Trust between employees and managers</td>
<td>24%</td>
</tr>
<tr>
<td>Integration of new members into a remote team</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td>No particular challenges</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: BDC, Survey on Labour Shortage, May 2021. Base: Respondents who offered flexible work arrangements in the last 12 months (n=478).
How to Adapt to the Labour Shortage Situation

Hiring Difficulties Are Not Going Away

Offer a total compensation package

Examples of flexible work arrangements

Flexibility in the scheduling of hours worked ➔ Flexibility in the number of hours worked ➔ Flexibility in the place of work

Give them a mentor

Mentoring can be key to creating a total compensation package, but only 38% of SMEs offer mentorships to less-experienced employees. Having a mentor helps an employee integrate into a new job and promotes the worker’s continued growth and development. Employees, especially Millennials and Gen Zs, want to work for businesses that give them opportunities for guidance and growth.

Give them a mentor

Mentoring can be key to creating a total compensation package, but only 38% of SMEs offer mentorships to less-experienced employees. Having a mentor helps an employee integrate into a new job and promotes the worker’s continued growth and development. Employees, especially Millennials and Gen Zs, want to work for businesses that give them opportunities for guidance and growth.

Examples of flexible work arrangements

Flexibility in the scheduling of hours worked ➔ Flexibility in the number of hours worked ➔ Flexibility in the place of work

Give them a mentor

Mentoring can be key to creating a total compensation package, but only 38% of SMEs offer mentorships to less-experienced employees. Having a mentor helps an employee integrate into a new job and promotes the worker’s continued growth and development. Employees, especially Millennials and Gen Zs, want to work for businesses that give them opportunities for guidance and growth.

Examples of flexible work arrangements

Flexibility in the scheduling of hours worked ➔ Flexibility in the number of hours worked ➔ Flexibility in the place of work

Give them a mentor

Mentoring can be key to creating a total compensation package, but only 38% of SMEs offer mentorships to less-experienced employees. Having a mentor helps an employee integrate into a new job and promotes the worker’s continued growth and development. Employees, especially Millennials and Gen Zs, want to work for businesses that give them opportunities for guidance and growth.

Give them a mentor

Mentoring can be key to creating a total compensation package, but only 38% of SMEs offer mentorships to less-experienced employees. Having a mentor helps an employee integrate into a new job and promotes the worker’s continued growth and development. Employees, especially Millennials and Gen Zs, want to work for businesses that give them opportunities for guidance and growth.
Centennial Glass couldn’t find employees, so it trained them itself

Kerri McArthur was having problems recruiting employees even before the pandemic. The COVID-19 health crisis made things a whole lot worse. “There’s just no one available,” says McArthur, owner of Ottawa-based Centennial Glass, a quickly growing glass and glazing installation and repair company. “We simply can’t find people to hire.”

Case study

Mentorship fills the labour gap
Mentorship fills the labour gap

Even before COVID, the labour shortage meant McArthur’s team had to pick up the slack by working evenings and weekends. The result was a tired-out workforce, increased overtime and opportunities lost when the firm had to turn down jobs.

Centennial Glass isn’t unique. With 55% of Canadian SMEs struggling to hire employees, many are improving their employee training, upskilling and mentoring—an approach that’s paying off at Centennial Glass.

When McArthur lost several employees during the pandemic, she says she had to “get creative.” Her answer: expanding recruitment to anyone with carpentry or general contracting experience, instead of just hiring those already skilled at glass and glazing installation.

Her plan was to ask more experienced employees to mentor the new workers on the job.

Mentoring employees nearly from scratch takes time—several months of apprenticing under various lead hands and project managers. “It’s very hands-on, on-the-job training,” McArthur says. “My team wants to train people. They’re excited to pass on their skills.”

The openness to untrained new hires has allowed McArthur to expand her recruitment to new pools of candidates, such as students in college and high school trades programs.

She has used the same approach to cross-train her installers to work in both her commercial and residential divisions, which require different skills. The mentorship of new workers gives the company more flexibility to move workers back and forth as the volume of work goes up and down in each division.

“The new approach has been a big success. Centennial Glass was able to find and mentor enough employees to handle a 30% boom in residential projects during the pandemic, even as commercial work began rebounding to pre-COVID levels.

Now, McArthur’s team is looking at using metrics to improve the new mentorship strategy. “In our industry, there’s no template for this,” she says. “We’re building it as we go.”

“Mentorship fills the labour gap. It’s very hands-on, on-the-job training,” McArthur says. “My team wants to train people. They’re excited to pass on their skills.”
Conclusion

The scarcity of workers is reaching worrying heights.

While short-term imbalances account for the simultaneous high unemployment and job vacancy numbers, long-lasting factors—such as the aging population and decreasing labour force growth—will continue to exacerbate the labour shortage problem, putting economic growth at risk and compromising the competitiveness of Canadian businesses. Better integration of underutilized groups can alleviate part of the problem, but won’t serve as a solution on its own.

Labour shortages will not vanish as the economy recovers but will instead last for the foreseeable future. As such, the labour shortage is here to stay.

To recap, these solutions have been statistically proven to reduce the impact for SMEs:

→ adopting new technologies and automation
→ using formal hiring processes
→ offering a total compensation package

By taking action now to adapt to the labour shortage situation, entrepreneurs will build the foundation for a stronger and more productive business in the years to come.
Data and methodology

The results of this study come from two online surveys and an econometric analysis.

Survey on Labour Shortage
The BDC Economic Research team developed a questionnaire to assess the labour market conditions and labour shortage for small and medium-sized enterprises (SMEs) in Canada. BDC then asked Maru/Blue to conduct an online survey from May 17 to May 28, 2021, with 1,251 business owners across Canada. Members of the Maru/Blue panel received an email invitation to complete the survey. The results were weighted by region and size of business to ensure findings were representative of Canadian SMEs. For comparison purposes, a probability sample of this size would carry a margin of error of ±2.8 percentage points, 19 times out of 20.

Survey on Labour Market Conditions
The BDC Economic Research team developed a questionnaire to assess the pulse of the Canadian workforce—more specifically, the post-pandemic labour market conditions and challenges for workers. BDC asked Maru/Blue to conduct an online survey from June 21 to June 25, 2021, with 3,000 respondents across Canada. Maru/Blue invited the members of the Maru Voice Canada panel to participate in this survey. The sample is representative of the Canadian working-age population. For comparison purposes, a probability sample of this size would carry a margin of error of ±1.8 percentage points, 19 times out of 20.

Econometric model
This study investigates the impact of trends and human resources practices on different success indicators. The analysis was conducted using a series of binary logistic regressions.

Three success indicators were used. They were the probability of experiencing facility to hire, the probability of experiencing facility to retain and the probability of being a high performer relative to other businesses. We defined high performers as businesses reporting higher business growth compared to other businesses in their sector of activity. To define the facility to hire and retain, we asked entrepreneurs to rate their level of ease. The responses “Somewhat easy” and “Very easy” were regrouped under “Easy,” and responses “Somewhat difficult” and “Very difficult” were regrouped under “Difficult.”

We asked entrepreneurs to select which trends and human resources practices they were applying in their business.
**Trends** were regrouped under five categories:

- flexible work arrangements
- automation of certain areas of the business
- training, reskilling and upskilling
- diversity recruitment
- gig, contract or independent workers

**Human resources practices** were defined as follows:

- employee manual and written job description
- formal hiring process
- competitive compensation and benefits
- career development and training
- mentoring of less experienced employees
- anti-harassment and/or non-discrimination policy
- safety and health policy

We used a multivariate binary logistic regression model to isolate the impact of different trends and human resources practices, while controlling for other factors that may have had an impact on success. These control variables included the company’s number of employees, annual sales, sector of activity, age, location and size of city; and its owners’ gender, age and diversity. The regression equations measured whether the variables of interest—the trends and human resources practices—were statistically significant predictors of success with p-values equal to or below 5%.

**Odd ratio definition**

According to the University of Toronto, odd ratios are the odds of an event occurring given exposure to a particular factor versus no exposure to the factor. Odd ratios are a very effective way of determining association between two variables. If that association is strong enough, and the statistical analysis robust enough, it can determine predictive relationship.

An odd ratio of above 1 means that there is a greater likelihood of having the outcome and an odds ratio of below 1 means that there is a lesser likelihood of having the outcome. The likelihood of having the event is represented as XX% higher odds. That means that if the odd ratio is 1.24, the likelihood of having the outcome is 24% higher than it is in the comparison group. If the odd ratio is 1.66, the likelihood of having the outcome is 66% higher.

**Data and methodology**
**Potential additional workers calculation**

The potential additional workers calculation is based on methodology from Statistics Canada.\(^9\) It is calculated based on two elements:

1. The difference in unemployment rates between the interest group and the comparison group, multiplied by the population of the interest group.

2. The difference in labour force participation rates between the interest group and the comparison group, multiplied by the employment rate of the comparison group and the labour force of the interest group. The employment rate is the number of employed people divided by the labour force.

For example, young people have an unemployment rate difference of 6.8% and a participation rate difference of 18% with their comparison group. The 6.8% is multiplied by the population of youth (4.5 million). The 18% is multiplied by both the labour force of youth (2.9 million) and the employment rate of the comparison group (93.2%).

---

\(^9\) Statistics Canada; Addressing Labour Shortages, Employment and Social Development Canada, 2019.
How to Adapt to the Labour Shortage Situation

Hiring Difficulties Are Not Going Away

Build a winning team with our advisory solutions.

Meet your HR training and recruitment needs with working capital financing from BDC.

Get details and apply at bdc.ca.