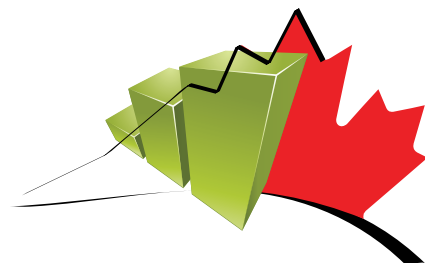


Economic and Social Reports

Employer responses to labour shortages



by René Morissette

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Abstract

This study documents the strategies that private sector businesses which expected labour shortages at the beginning of 2022 plan to use during that year to deal with personnel recruitment, retention and training. Businesses that expected labour shortages at the beginning of 2022 were far more likely to report that they would start increasing the wages of new and existing employees in the same year, compared with other businesses that did not report expected labour shortages. They were also more likely to report that they would provide flexible work arrangements and increase the human capital of their workforce. In line with these differences, the growth in mean wages expected in 2022 in establishments expecting labour shortages is, on average, higher (6.1%) than among other establishments (3.6%).

Keywords: labour job shortages; job vacancies; telework; wage growth

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Introduction

Over the last few quarters, job vacancy rates have reached record levels in Canada.¹ Population aging, declines in immigration inflows during the COVID-19 pandemic, and career reorientation among some individuals previously employed in sectors hit hard by economic lockdowns have been cited as potential drivers of the increase in job vacancies.

As the labour market recovers from the COVID-19 pandemic, it is imperative to assess which strategies Canadian employers plan to use over the next few months to cope with labour scarcity. These strategies have important implications for: the costs and profitability of firms; the rates of pay, working conditions and training opportunities of Canadian workers; and wage-price loops feeding inflation. This study uses data from the Canadian Survey on Business Conditions (CSBC), which were collected during the first quarter of 2022 (henceforth, CSBC Q1 2022) to highlight the strategies that Canadian businesses plan to use in 2022 to deal with labour shortages. CSBC Q1 2022 identified businesses for which labour shortages are expected to be an obstacle in the short term, and collected a rich set of information regarding the measures that businesses plan to start implementing over the next twelve months. This information allows for a detailed analysis of the margins along which employers are expected to adjust in 2022 to cope with labour scarcity.

One obvious strategy is to increase the wages and benefits of new and existing employees. Alternative strategies include introducing flexible work arrangements—such as flexible scheduling or the option to telework—or implementing measures that increase the human capital of new employees. For example, firms may encourage new employees to participate in on-the-job training or to acquire micro-credentials. They may also provide tuition support for courses or programs. The degree to which Canadian employers expecting labour shortages plan to implement specific measures more often than other employers is currently unknown, and deserves an investigation. The goal of this paper is to provide this assessment.

The greater frequency of the adoption of a given strategy by employers facing labour shortages may vary across industries. For example, the possibility of attracting new applicants by offering the option to work from home more frequently is substantial for employers operating in high-knowledge service industries, but almost non-existent for those operating in retail trade or accommodation and food services. Likewise, the ability to offer flexible scheduling to cope with labour shortages might be more limited in manufacturing than in some service industries. This study assesses whether this is the case.

After outlining the survey questions used to conduct the analysis, the study compares the degree to which businesses plan to start implementing specific measures in 2022, depending on whether they expect to face labour shortages in the short term. Fifteen strategies are considered. The next section focuses on two important non-monetary strategies—telework and flexible scheduling—and shows that the greater frequency of the adoption of a given strategy by employers expecting labour shortages varies substantially across industries. The fourth and fifth sections of this study assess the extent to which a) the growth of average wages expected in 2022 by businesses facing labour shortages exceeds that of other businesses, and b) real wage increases can potentially increase labour force participation. Concluding remarks follow.

1. *The Daily* — Job vacancies, fourth quarter 2021.
<https://www150.statcan.gc.ca/n1/daily-quotidien/220322/dq220322a-eng.htm>

Data and samples

This study uses the three following CSBC questions, which were asked to employers at the beginning of 2022:²

Q5. Over the next three months, which of the following are expected to be obstacles for this business or organization? (Select all that apply)

- shortage of labour force
- recruiting skilled employees
- retaining skilled employees
- ...
- difficulty acquiring inputs, products or supplies from within Canada
- insufficient demand for goods or services offered
- ...”

Q16. Over the next 12 months, does this business or organization plan to start doing any of the following? (Select all that apply)

- increase wages of new employees
- increase wages of existing employees
- increase benefits for new employees
- increase benefits for existing employees
- offer signing bonuses or incentives to new employees
- offer the option to work remotely
- offer flexible scheduling
- apply for learning and development programs provided by governments in order to upskill or reskill current employees
- work with education and training institutions to offer work-integrated learning programs such as co-ops, internships, and apprenticeships
- provide tuition support to employees to take courses or programs
- provide employees with paid time to engage in learning and development programs
- provide training to employees to take other positions within this business or organization
- encourage employees to participate in on-the-job training
- encourage employees to acquire micro-credentials, which help individuals develop job-related competencies

2. CSBC Q1 2022 was conducted between January 4 and February 7, 2022. During that period, some businesses in some provinces (e.g., Quebec and Ontario) were temporarily closed or operated under capacity limits because of restrictions linked to COVID-19. This may have affected their survey responses.

Q21: Over the next 12 months, does this business or organization plan to adopt new or additional digital technologies? E.g., artificial intelligence, robotics, automation, cloud computing services, collaboration tools, security software tools, software or databases for purposes other than telework and online sales.

Employers who identified “shortage of labour force” as one obstacle in Question 5 are deemed to expect labour shortages in the short term.³ Question 16 outlines 14 strategies that employers can use to cope with labour shortages. Question 21 highlights a 15th strategy that might be considered to alleviate labour shortages.⁴ These three questions are analyzed for a sample of 15,500 private sector businesses that—at the beginning of 2022—did not plan to close over the next three months.

Businesses plan to use several strategies in 2022 to cope with labour shortages

Of all the private sector businesses considered in this study, 38% expected labour shortages to be an obstacle for the organization at the beginning of 2022 over the next three months.⁵

These businesses plan to implement several measures to deal with personnel recruitment, retention and training in 2022. Close to half of them (46%) plan to increase the wages of new employees, four times the rate of 11% reported among other businesses (Table 1). Almost two-thirds (64%) plan to increase the wages of existing employees, compared with 34% of other businesses. Twelve percent plan to offer signing bonuses or incentives to new employees, four times the rate of 3% reported among other businesses.

3. This likely underestimates the true percentage of employers expecting labour shortages because, for some, labour shortages might not be an obstacle for the organization.

4. This list of strategies is far from exhaustive. Employers may also restrict hours during which businesses are open to customers, lobby governments to increase immigration inflows and to introduce wage subsidies that would help them deal with growing labour costs.

5. Establishments most likely to report labour shortages as an obstacle were in construction, manufacturing, retail trade, and accommodation and food services. Weighted estimates from CSBC indicate that establishments reporting labour shortages as an obstacle accounted for 60% of total paid employment of the establishments considered in this study.

Table 1
Percentage of businesses planning to implement specific measures over the next 12 months

Over the next 12 months, does this business or organization plan to start doing any of the following?	Labour shortages will be an obstacle over the next three months		
	No	Yes	Difference
	percent		
Increase wages and benefits			
Increase wages offered to new employees	11.0	45.9	34.9
Increase wages offered to existing employees	33.6	64.4	30.8
Increase benefits offered to new employees	4.1	17.5	13.4
Increase benefits offered to existing employees	8.9	20.7	11.8
Offer signing bonuses or incentives to new employees	2.8	12.0	9.2
Introduce flexible work arrangements			
Offer option to work remotely	9.6	13.7	4.1
Offer flexible scheduling	16.5	33.8	17.3
Increase the human capital of the workforce			
Apply for learning and development programs provided by governments in order to upskill or reskill current employees	4.3	13.5	9.2
Work with education and training institutions to offer work-integrated learning programs such as co-ops, internships, and apprenticeships	4.9	17.7	12.8
Provide tuition support to employees to take courses or programs	7.2	12.6	5.4
Provide employees with paid time to engage in learning and development programs	8.7	15.2	6.5
Provide training to employees to take other positions within this business or organization	7.0	23.2	16.2
Encourage employees to participate in on-the-job training	13.2	31.1	17.9
Encourage employees to acquire micro-credentials which help individuals develop job-related competencies	5.6	14.8	9.2
Adopt new or additional digital technologies	4.1	9.3	5.2

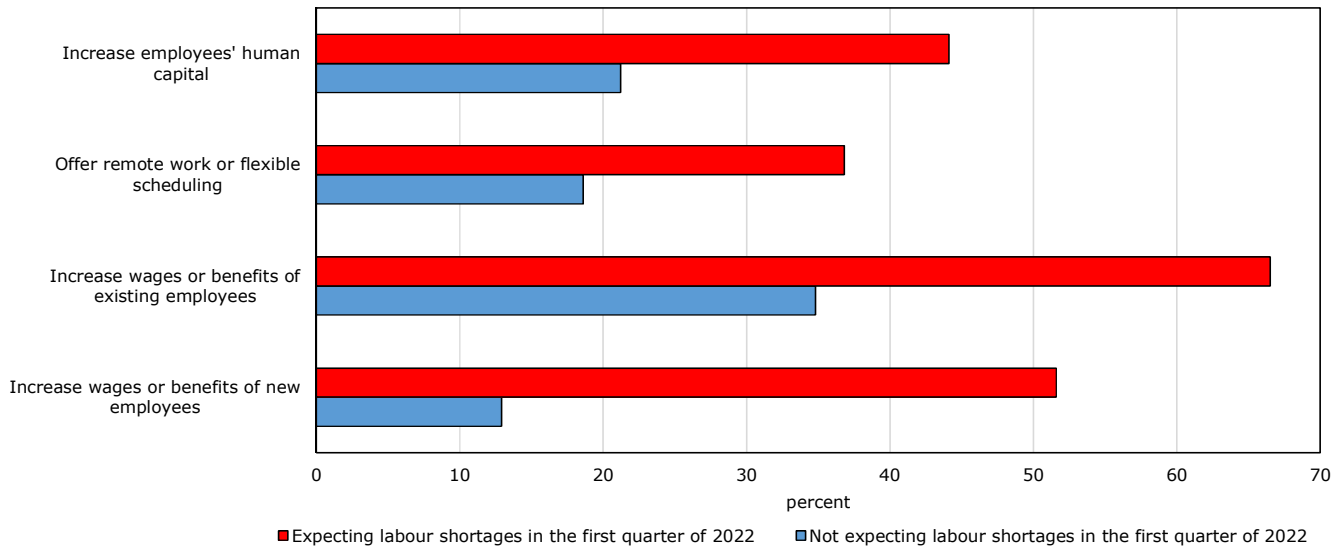
Note: The sample (N=15,500) consists of private sector businesses that do not plan to close over the next three months.

Source: Statistics Canada, Canadian Survey on Business Conditions, first quarter of 2022.

Establishments facing labour shortages also consider introducing flexible work arrangements or increasing the human capital of their workforce (Chart 1).⁶ Overall, 34% plan to start offering flexible scheduling over the next 12 months, compared with 17% of other businesses (Table 1). Fourteen percent plan to offer the option to work remotely, a slightly higher proportion than that reported among other businesses (10%). Three in ten (31%) plan to encourage employees to participate in on-the-job training, compared with 13% of other businesses. Twenty-three percent plan to provide training to employees to take other positions within the organization, more than three times the rate of 7% reported among other businesses. Finally, 18% plan to offer co-ops, internships and apprenticeships, more than three times the rate of 5% reported by other businesses.

6. Increasing the human capital of the workforce means using any of the last seven strategies outlined in Question 16. It is worth noting that, regardless of whether they face labour shortages, some establishments may have already offered flexible work arrangements in response to the COVID-19 pandemic and thus may not plan to do so in 2022.

Chart 1
Selected strategies that businesses plan to use in 2022



Note: Private sector businesses that do not plan to close over the next three months.
Source: Statistics Canada, Canadian Survey on Business Conditions, first quarter of 2022.

Businesses facing labour shortages are also more likely (9%) to plan to adopt new or additional digital technologies than other businesses (4%).

For each of the 15 strategies considered in Table 1, most of the differences in adoption rates observed in the raw data (between businesses facing labour shortages and other businesses) remain in multivariate analyses.⁷

In sum, Canadian businesses expecting labour shortages plan to use a wide variety of strategies to cope with these labour shortages in 2022.

Telework and flexible scheduling responses to labour shortages vary across industries

The numbers shown in the last three columns of Table 1 highlight the greater frequency of adoption of a given strategy by employers facing labour shortages, relative to other businesses. These numbers are averages and therefore, may mask considerable heterogeneity in employer responses to labour shortages.

Table 2 highlights this heterogeneity for two important non-monetary strategies: offering the option to work remotely and offering flexible scheduling.

7. Multivariate analyses are based on logit models that are estimated separately for each strategy. These logit models include binary indicators for industry (two-digit), establishment size, province, importers, exporters, women-owned businesses, whether businesses lack the cash or reserves required to operate over the next three months, and whether businesses expect, over the next three months: a) sales, profits and cash reserves to increase or decrease, b) insufficient demand to be an obstacle, c) maintaining sufficient cash flow or managing debt to be an obstacle, or d) labour shortages to be an obstacle.

Table 2
Percentage of establishments planning to offer remote work or flexible scheduling in 2022, by industry and presence of labour shortage

	Measure considered					
	Offer remote work			Offer flexible scheduling		
	Labour shortages will be an obstacle over the next three months					
	No	Yes	Difference	No	Yes	Difference
			percent			
All	9.6	13.7	4.1	16.5	33.8	17.3
Industry						
Agriculture, forestry, fishing and hunting	1.5	2.9	1.3	14.1	27.9	13.7
Mining and oil and gas extraction	5.5	18.3	12.9	6.7	38.0	31.3
Construction	1.4	8.3	6.9	7.4	25.3	17.9
Manufacturing	7.7	12.2	4.5	21.2	30.5	9.3
Wholesale trade	13.5	23.0	9.5	19.1	30.5	11.4
Retail trade	1.3	6.5	5.2	20.4	34.7	14.3
Transportation and warehousing	4.8	10.9	6.0	7.7	27.5	19.8
Information and cultural industries	25.8	63.9	38.1	21.9	63.0	41.2
Finance and insurance	16.9	44.8	27.8	18.2	45.9	27.7
Real estate and rental and leasing	12.0	13.1	1.1	14.2	21.5	7.4
Professional, scientific and technical services	25.4	52.2	26.9	26.7	57.6	30.9
Administrative and support, waste management and remediation services	9.5	15.2	5.7	12.5	30.6	18.1
Educational services	7.1	9.3	2.2	13.8	34.9	21.2
Arts, entertainment and recreation	9.0	22.7	13.7	27.0	36.5	9.4
Accommodation and food services	0.4	3.7	3.3	20.7	37.5	16.8
Other services (except public administration)	1.9	6.4	4.4	8.6	34.2	25.6

Note: The sample (N=15,500) consists of private sector businesses that do not plan to close over the next three months.

Source: Statistics Canada, Canadian Survey on Business Conditions, first quarter of 2022.

As shown above, businesses expecting labour shortages in the short term are, on average, 4 percentage points (i.e., 13.7% minus 9.6%) more likely than other businesses to offer the option to work remotely over the next 12 months.⁸ However, the difference between the two groups of employers varies substantially across industries. In information and cultural industries; finance and insurance; and professional, scientific and technical services, establishments expecting labour shortages are 27 to 38 percentage points more likely to offer telework than other establishments. In manufacturing, retail trade, and accommodation and food services—three sectors where most jobs cannot be done from home⁹—the corresponding difference amounts to 5 percentage points at most.

Sizable inter-industry differences are also observed regarding the offer of flexible scheduling. In information and cultural industries; finance and insurance; and professional, scientific and technical services, establishments expecting labour shortages are 28 to 41 percentage points more likely to offer flexible scheduling than other establishments. By contrast, the difference observed in manufacturing amounts to 9 percentage points. Part of the differences observed between manufacturing firms and employers in the aforementioned service industries might reflect the scheduling constraints manufacturing firms face when trying to optimize the use of machinery and equipment.

8. As mentioned above, some businesses that have jobs conducive to telework may have, in response to the COVID-19 pandemic, offered this work arrangement prior to the first quarter of 2022. See: <https://www150.statcan.gc.ca/n1/daily-quotidien/210804/dq210804b-eng.htm>.

9. See Deng et al. (2020), Morissette et al. (2021) and Statistics Canada (2021).

Businesses expecting labour shortages expect greater wage growth in 2022

Since businesses that expect labour shortages are far more likely than others to consider increasing the wages of new or existing employees, wage growth in 2022 should be higher among the former group than among the latter. This is indeed the case. The growth in mean wages expected in 2022 averages 6.1% among establishments expecting labour shortages in the short term, 2.5 percentage points higher than the wage growth of 3.6% expected among other establishments (Table 3).¹⁰ The extra wage growth expected in establishments facing labour shortages, relative to other establishments, is less than 1.0 percentage point in retail trade, finance and insurance and in arts, entertainment and recreation, but varies between 4.0 and 5.3 percentage points in mining, oil and gas extraction; information and cultural industries; and professional, scientific and technical services. Since employer survey responses were collected at the beginning of 2022, these results might change over time if subsequent inflation rates keep exceeding the levels observed then.

Table 3
Average growth in mean wages expected in 2022 in establishments, by industry and presence of labour shortage

	Labour shortages will be an obstacle over the next three months		
	No	Yes	Difference
		percent	
All	3.6	6.1	2.5
Industry			
Agriculture, forestry, fishing and hunting	3.5	6.6	3.1
Mining and oil and gas extraction	1.9	6.6	4.7
Construction	2.9	5.2	2.3
Manufacturing	3.2	4.9	1.8
Wholesale trade	3.1	5.7	2.6
Retail trade	4.7	5.5	0.8
Transportation and warehousing	3.3	5.9	2.6
Information and cultural industries	3.0	7.0	4.0
Finance and insurance	4.1	4.2	0.1
Real estate and rental and leasing	2.4	5.9	3.5
Professional, scientific and technical services	4.3	9.6	5.3
Administrative and support, waste management and remediation services	3.9	7.1	3.2
Educational services	3.7	6.1	2.4
Arts, entertainment and recreation	4.9	5.0	0.1
Accommodation and food services	4.8	7.5	2.7
Other services (except public administration)	2.3	4.6	2.3

Note: The sample consists of private sector businesses that do not plan to close over the next three months.

Source: Statistics Canada, Canadian Survey on Business Conditions, first quarter of 2022.

10. This finding holds in multivariate analyses that control for industry (at the two-digit level) and establishment size. To obtain wage-growth estimates, wage growth is assumed to equal zero for establishments expecting average wages to “stay approximately the same.”

Adjustment strategies and labour force participation

In the current context of record-high job vacancies, the degree to which the various adjustment strategies documented so far can increase labour force participation overall is an important question. For example, increases in real wages can potentially boost the labour force participation of youth. Offering the option of working from home might induce some older workers to delay retirement. Flexible scheduling or part-time work might attract in the labour market some individuals who are time-constrained because of family responsibilities related to care for children or elderly parents.

While the potential increases in labour force participation resulting from the option to work from home or to have flexible schedules have not been assessed yet in Canada, the degree to which growth in real wages might increase youth participation has been quantified recently. Using movements in world oil prices observed during the 2000s as an exogenous source of variation in real wages, Morissette et al. (2015) estimate that a 10% increase in after-tax real hourly wages raises the labour force participation rate of Canadian men aged 17 to 24 by 3.5 to 4.7 percentage points, and reduces the percentage of young men who are neither employed nor enrolled in school by 1.4 to 1.7 percentage points. If one assumes that parameters for young women are similar,¹¹ and because the population of young men and women aged 17 to 24 was estimated (by the Labour Force Survey) to 3.7 million in April 2022, these parameters suggest that a 10% increase in after-tax real hourly wages could increase the number of young men and women participating in the labour market by about 146,000. That is roughly three-quarters of the number of job vacancies observed in retail trade, and accommodation and food services in February 2022 (194,800).¹² Perhaps more realistically, a 5% increase in after-tax real hourly wages might increase youth participation by about 73,000.

Concluding remarks

In addition to increasing the wages and benefits of new and existing employees, businesses that expected labour shortages at the beginning of 2022 plan to implement several measures during that year to deal with personnel recruitment, retention and training. Their capacity to use specific strategies—such as offering telework or flexible scheduling—is not uniform and depends instead on the nature of the jobs they provide, and the technological and budget constraints they face. For example, those operating in information and cultural industries were far more likely to start offering telework than those in retail trade and far more likely to start offering flexible scheduling than those in manufacturing.

In line with the fact that businesses expecting labour shortages are far more likely than others to consider increasing the wages of new or existing employees in 2022, wage growth expected in 2022 for these businesses is higher than that expected in other businesses. Lastly, recent Canadian evidence indicates that increases in real wages have the potential for attracting more youth in the labour market, and for alleviating some of the labour shortages that Canadian employers report experiencing.

11. Morissette et al. (2015) provide an estimate of the responsiveness of labour force participation to wages—based on instrumental variables—for young men but not for young women. For simplicity, it is assumed here that the responsiveness is the same for young men and women.

12. The assumption here is that a 10% increase in real after-tax hourly wages would increase the participation rates of young men and women aged 17 to 24 by 4.0 percentage points. The estimate of 194,800 vacant positions is obtained from Table 3, from <https://www150.statcan.gc.ca/n1/daily-quotidien/220428/dq220428a-eng.htm>. Because recent months have shown that jobs in retail trade, and accommodation and food services are likely to be interrupted during pandemics, the increase in youth labour force participation—even if it were to materialize—would not necessarily be oriented towards these sectors.

References

Deng, Z., Messacar, D., & Morissette, R. (2020). Running the Economy Remotely: Potential for Working from Home During and After COVID-19. *StatCan COVID-19: Data to Insights for a Better Canada*, no. 26. Statistics Canada Catalogue no. 45280001. Ottawa: Statistics Canada.

<https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00026-eng.htm>

Morissette, R., Chan, P.C.W., & Lu, y. (2015). Wages, youth employment, and school enrollment: Recent evidence from increases in world oil prices. *Journal of Human Resources* 50(1): 222–253.

Morissette, R., Deng, Z., & Messacar, D. (2021). Working from home: Potential implications for public transit and greenhouse gas emissions. *Economic and Social Reports* 1(4). Statistics Canada Catalogue no. 36-28-0001. <https://www150.statcan.gc.ca/n1/pub/36-28-0001/2021004/article/00005-eng.htm>

Statistics Canada. (2021, August 4). Working from home during the COVID-19 pandemic: April 2020 to June 2021. *The Daily*. <https://www150.statcan.gc.ca/n1/daily-quotidien/210804/dq210804b-eng.htm>