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Research article

Survival and growth of women-owned and immigrant-owned businesses during the COVID-19 pandemic

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Abstract

The COVID-19 pandemic has had an unprecedented impact on the Canadian economy. This impact was uneven across different workers and businesses. However, there is little information available on how businesses were affected by and survived through the pandemic according to the characteristics of their owners, especially those owned by certain groups such as women and immigrants. These businesses tend to be more financially constrained, operating more in service sectors that require in-person contacts, and hence more vulnerable to the crisis.

This article uses a linkage of the monthly business openings and closures with the Canadian Employer-Employee Dynamics Database and the Canada Emergency Wage Subsidy (CEWS) to study the survival rate and employment growth of businesses by gender, and immigrant status of owners. Specifically, the goal of this analysis is to determine the survival, closure and growth rates of women-owned (WOBs) and immigrant-owned (IOBs) businesses and compare them with men-owned (MOBs) and Canadian-owned (COBs) businesses, respectively.

The results suggest that CEWS take-up rates were similar between MOBs and WOBs at the aggregate level but there were some gender differences across sectors. In addition, at the business sector level, WOBs and MOB's showed comparable survival rates. However, although the gap in survival rates between MOBs and WOBs decreased compared to the pre-pandemic period, WOBs were proportionally less likely to survive than MOBs in some sectors. Furthermore, the difference in survival rates between MOBs and WOBs were generally higher among businesses that did not receive the CEWS. Finally, WOBs that did not use the CEWS were more likely to close during the first year of the pandemic than MOBs.

Compared to COBs, IOBs were more commonly found in service sectors and were less inclined to use the CEWS across most sectors. Immigrant-owned businesses were also generally smaller, with over three-quarters of them employing fewer than five employees. Regardless of CEWS usage, IOBs had lower survival rates than COBs across most sectors, especially among smaller businesses. However, the survival rate of IOBs was higher than that of COBs among businesses that did not use the CEWS in the accommodation and food services sector. Among businesses that did not use the CEWS, IOBs were more prone to closure in 2020 or 2022 and less likely to expand their workforce.

Keywords: firm performance, size, diversification, scope, entrepreneurship, COVID-19

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Introduction

The COVID-19 pandemic has had a devastating effect on the economies of many countries. However, its impact has been disproportionate and varied according to individual and business characteristics. Using data from several countries, including China and the United States, Dang and Nguyen (2021) found that women were more likely than men to lose their jobs permanently because of the pandemic. In Canada, Grekou and Lu (2021) showed that the impact of the pandemic on year-over-year job losses was uniformly more severe for women than for men. In addition, immigrants who landed within the 10 years prior to the pandemic were more likely to transition from employment to non-employment during the pandemic (Hou, Picot and Zhang, 2020). The rate of transition out of employment was higher among recent immigrant women.

In terms of businesses in Canada, the impact of the pandemic has also varied by business characteristics. On the one hand, small businesses were more likely to close (Leung and Liu, 2022) or to exit (Lafrance-Cooke and McDougall, 2023), and on the other hand, businesses in certain service sectors experienced the sharpest declines in revenues from 2019 and 2020 (Grieder et al., 2021). In addition, Tam, Sood and Johnston (2021) found that immigrant-owned businesses (IOBs) and women-owned businesses (WOBs) were more likely to experience a revenue decline of more than 30% from 2019 to 2020. Leung and Liu (2022) also found that businesses that used the Canada Emergency Wage Subsidy (CEWS) were more likely to remain active than businesses that did not use the CEWS. Other studies outside Canada have also observed disproportionate impacts of the pandemic on businesses depending on the characteristics of the owners. Using data from 24 countries, Liu, Wei and Xu (2021) found that women-led businesses were more likely to close and to remain closed for a longer period than men-led businesses. Choi, Harrell and Watkins. (2022) also found that businesses owned by senior women or older racialized people (e.g., Black, Hispanic or Asian people, or other races) were more affected by the pandemic.

This paper combines business and owner characteristics to analyze the survival and employment growth of WOBs and IOBs, compared with men-owned businesses (MOBs) and Canadian-owned[1] businesses (COBs), respectively. In particular, this paper focuses on businesses that were active at the beginning of the pandemic and provides a more granular analysis of their evolution by combining business characteristics with those of their owners. Specifically, the purpose of this descriptive paper is to determine how survival, closure and growth differ between WOBs and MOBs, and between IOBs and COBs, controlling for sector, business size and use of the CEWS. The article is based on data derived from a linkage of the monthly business openings and closures with the Canadian Employer–Employee Dynamics Database (CEEDD) and the CEWS from the Canada Revenue Agency.

In line with Statistics Canada's Disaggregated Data Action Plan, this article tries to address an important information gap on the impact of the pandemic on WOBs and IOBs. The article is divided into five sections. The following section presents the data and methodology. The third section is about the characteristics of the businesses before the pandemic and their use of the CEWS. The fourth section discusses the results and limitations, and the fifth section concludes.

1 Canadian-owned businesses refer to businesses owned by Canadian-born individuals. Businesses owned by Canadian citizens who have held an immigrant status in Canada are considered immigrant-owned.

Data and methodology

The data used in this article are the result of a linkage between various administrative data sources. The primary data source is the monthly business openings and closures data. These are built upon the payroll deduction (PD7) files from the Canada Revenue Agency linked to Statistics Canada's Business Register. The PD7 files contain information on the number of employees, payroll and remittances for both incorporated and unincorporated employer businesses. The addition of the Business Register provides business characteristics, such as sector and geographic location. Lafrance-Cooke, Macdonald and Willox (2020) describe how these data are used to produce statistics on business dynamics. The data on business openings and closures cover the period from January 2015 to July 2023. However, the analysis presented in this article is up to February 2022 for two reasons. First, macroeconomic factors that could affect the survivability of businesses occurred from the end of February 2022, including the Russian invasion of Ukraine on February 24 and the continual increase of the Bank of Canada's policy interest rate since March. Second, because the base sample is composed of businesses that were active—that is, businesses with at least one employee—in February 2020, using February as the month of comparison avoids a potential bias in the survival rate by the appearance or disappearance of seasonal businesses.

The CEEDD is also used. The CEEDD is an essential component in that it provides information on the demographic characteristics of business owners. Thus, it allows for the analysis of the intersection between business characteristics (e.g., sector and number of employees) and owner characteristics (e.g., gender,[2] immigrant status and racialized group membership). In the CEEDD, the assignment of an individual characteristic to a business follows the definition of majority ownership described by Grekou, Li and Liu (2018). In other words, a business is considered to be owned by a given group (e.g., women, men, immigrants, racialized individuals[3]) if more than half of its shares are held by individuals who identify with that group.

One limitation of using the CEEDD is that it does not cover the entire analysis period of interest for this study. Indeed, the most recent data from the CEEDD are available through 2019. Thus, for the period from 2020 to 2022, the article assumes that the majority ownership structure remained the same as in 2019. For example, if a business was a WOB in 2019, it is assumed that this business remained a WOB from 2020 to 2022. Historical data from the CEEDD show that in the 2005-to-2019 period, the ownership structure of a given business remained relatively stable from year to year, and even over a period of three consecutive years. From 2005 to 2019, the majority gender of ownership remained the same from year to year for 97.7% of businesses, on average. The rate varies from 97.4% to 98.2%, depending on the year. The proportion of businesses for which the gender of ownership remained unchanged over a two-year period ranged from 95.9% to 97.1%, with an average of 96.3%. The rates were 94.6% to 96.1% when a three-year period is considered. The same is true for immigrant status, but with higher proportions. Over a three-year period, the majority immigrant status of ownership remained the same for 97.8% of businesses, on average. In summary, very few businesses change ownership structure from year to year.

Data on the CEWS[4] are also used in the analysis presented in this paper. The CEWS was a program put in place by the federal government to support Canadian employers affected by the COVID-19 pandemic. Through this program, eligible[5] businesses could benefit from a subsidy of 75% of their employees' wages

2. The CEEDD collects information on the sex of business owners. Although sex and gender refer to two different concepts, terminology related to gender is used throughout this article.
3. See Gueye, Lafrance-Cooke and Oyarzun (2022) for more information on the linkage of the CEEDD with the Census of Population and the National Household Survey that allowed for the identification of businesses owned by Indigenous and racialized individuals.
4. There were other support programs for businesses, but the CEWS was the most important one (Lin and Hoffarth, 2023).
5. To find out more about CEWS eligibility, see Frequently asked questions: Canada emergency wage subsidy (CEWS).

for a period of up to 24 weeks. The CEWS could therefore enable businesses to reduce or even avoid layoffs related to COVID-19. The addition of this file allows for the identification of businesses that have benefited from this program at least once from March 2020 to October 2021. This indicator reveals the degree to which businesses used this program, depending on the owners' characteristics. It also makes it possible to highlight differences and similarities, in terms of survival, between recipients and non-recipients of the CEWS. Leung and Liu (2022) showed that, among businesses that were active in February 2020, those that used the CEWS were more likely to remain active from October 2020 to March 2021.

During the reference month of February 2020, there were 883,000 active employer businesses. Given that this article is primarily interested in businesses in terms of the demographic characteristics of their owners, 302,000 businesses that are not Canadian-controlled private corporations (CCPC) or unincorporated businesses with employees were removed from the sample. In addition, 85,400 businesses were not found in the CEEDD and were therefore excluded from the final analysis file, because gender and immigrant status could not be determined. The final sample is therefore composed of 496,000 CCPCs or unincorporated employers. Men owned 56.6% of these businesses, while 16.4% were owned by women. Immigrants owned 25.2% of the businesses. The rest of the businesses are those that were equally owned or whose private ownership did not reach 50%. The category "all" in tables 1 and 2 includes businesses equally owned by men and women or by immigrants and Canadian-born individuals. However, the remaining tables focus on businesses that are majority-owned by men or women on the one hand, and by immigrants or Canadian-born individuals on the other.

Pre-pandemic characteristics and Canada Emergency Wage Subsidy use

This section discusses the characteristics of the businesses before the onset of the COVID-19 pandemic (February 2020). It shows the distribution of WOBs and MOBs and their CEWS use by sector and by employment size. The same differences and similarities are also shown between IOBs and COBs.

Gender differences in the distribution of businesses and Canada Emergency Wage Subsidy use by sector

As illustrated in Table 1, 23.2% of the businesses operated in the goods-producing sector.[6] However, differences between WOBs and MOBs were noted. MOBs (27.8%) were more than three times more likely than WOBs (8.6%) to operate in the goods-producing sector. This was mainly driven by construction, where 20.4% of MOBs operated, compared with 4.7% of WOBs. Differences were also observed in the transportation and warehousing sector, which accounted for 2.6% of WOBs and 9.6% of MOBs. In addition, WOBs were more likely to be found in sectors that are less likely to allow for teleworking or that require face-to-face contact with consumers and thus may have been at greater risk of closing because of public health restrictions imposed during the COVID-19 pandemic. For example, 8.3% of WOBs were in the accommodation and food services sector, which posted the lowest proportion of teleworkers from April 2020 to June 2021 (Statistics Canada, 2021a), compared with 5.5% for MOBs. WOBs (12.9%) were also more likely than MOBs (9.6%) to be in retail trade, which had the third-lowest proportion of teleworkers. WOBs (21.9%) were more than twice as likely as MOBs (8.1%) to operate in health care and social assistance, which had the fifth-lowest proportion of teleworkers. Construction and

6. The goods-producing sector includes forestry, fishing and hunting; mining, quarrying, and oil and gas extraction; utilities; construction; and manufacturing. The other sectors represent the services-producing sector.

transportation and warehousing, where MOBs were predominant, were the sectors with the second- and fourth-lowest proportions of teleworkers.

Table 1
Distribution of businesses and share of Canada Emergency Wage Subsidy users by sector and ownership type

	Distribution of businesses					Share of CEWS users				
	All	Men	Women	Immigrant	Canadian-born	All	Men	Women	Immigrant	Canadian-born
	percent									
Forestry, fishing and hunting	0.6	0.8	0.2	0.0	0.9	42.9	43.7	45.1	20.4	41.9
Mining, quarrying, and oil and gas extraction, and utilities	0.8	0.8	0.2	0.1	1.1	42.1	39.8	45.7	33.0	39.4
Construction	16.2	20.4	4.7	9.8	19.0	48.8	48.7	43.5	30.3	50.7
Manufacturing	5.6	5.8	3.5	3.6	5.8	63.5	63.0	59.9	51.0	64.0
Wholesale trade	5.1	5.3	3.4	4.0	5.1	54.5	53.6	51.9	43.2	55.3
Retail trade	10.8	9.6	12.9	11.0	10.5	47.0	47.5	46.5	36.1	49.5
Transportation and warehousing	7.2	9.6	2.6	14.5	5.3	27.5	24.7	36.0	11.8	39.4
Information and cultural industries	1.1	1.2	1.0	0.8	1.2	49.6	48.6	47.8	35.4	50.9
Real estate and rental and leasing	3.2	2.7	3.6	2.0	3.3	29.0	30.6	25.2	23.3	29.6
Professional, scientific and technical services	15.1	14.7	17.5	17.1	14.8	37.2	36.2	38.5	25.1	39.8
Administrative and support, waste management and remediation services	4.6	4.6	5.3	4.1	4.9	45.4	44.7	45.9	34.1	47.2
Finance and insurance, and management of companies and enterprises	2.6	2.4	2.7	1.3	2.8	25.7	26.2	21.4	28.6	24.2
Educational services	1.0	0.7	2.2	1.2	1.0	59.5	56.3	61.9	53.4	60.6
Health care and social assistance	11.3	8.1	21.9	12.0	11.2	47.4	48.2	46.1	46.8	46.4
Arts, entertainment and recreation	1.1	1.0	1.5	0.5	1.3	61.0	58.2	57.7	51.3	59.1
Accommodation and food services	6.8	5.5	8.3	11.5	4.6	72.0	70.2	69.1	65.6	73.8
Other services (except public administration)	6.8	6.8	8.4	6.4	7.3	54.9	52.4	58.6	49.3	54.9
Business sector	100.0	100.0	100.0	100.0	100.0	46.8	45.6	46.7	36.1	48.4

Notes: CEWS stands for Canada Emergency Wage Subsidy. The sample is made up of businesses that were active in February 2020, the last month before the onset of the COVID-19 pandemic.
Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2019; monthly business openings and closures, February 2020; and Canada Emergency Wage Subsidy, 2020 to 2021.

From March 2020 to October 2021, businesses that met certain eligibility criteria could apply to access the CEWS. On average, 46.8% of private businesses used the CEWS at least once during this period (Table 1). The proportion of businesses that used the CEWS was comparable between WOBs (46.7%) and MOBs (45.6%). However, the distribution by sector showed gender differences in some sectors. For example, WOBs were more likely than MOBs to use the CEWS in transportation and warehousing (36.0% vs. 24.7%) and educational services (61.9% vs. 56.3%) but less likely to do so in construction (43.5% vs. 48.7%) and real estate and rental and leasing (25.2% vs. 30.6%).

The ranking of sectors according to their incidence of CEWS use was comparable between MOBs and WOBs. Whether owned by men or women, nearly 70% of businesses in the accommodation and food services sector used the CEWS. Moreover, the top six sectors with the highest proportion of CEWS use were identical for both types of ownership, although the order was different. The bottom four sectors were also similar between MOBs and WOBs in terms of CEWS use.

Immigrant-owned businesses are predominant in services and are less likely to use the Canada Emergency Wage Subsidy

Table 1 shows that IOBs were generally found in professional, scientific and technical services (17.1%); transportation and warehousing (14.5%); health care and social assistance (12.0%); accommodation and food services (11.5%); and retail trade (11.0%). These five sectors accounted for nearly two-thirds (66.1%) of IOBs, while they accounted for 46.4% of COBs. The distribution of IOBs is consistent with Green et al. (2016), also based on the CEEDD but for the year 2010. In addition, IOBs were almost half

as likely to operate in the goods-producing sector as COBs; 13.5% of IOBs were in this sector, compared with 26.8% of COBs.

There were notable differences in the use of the CEWS between IOBs (36.1%) and COBs (48.4%), with a gap of 12.3 percentage points in the overall CEWS use rate (Table 1). In 15 of the 17 sectors, the proportion of IOBs that obtained the CEWS was at least 5.6 percentage points lower than that of COBs. The CEWS use gap between IOBs and COBs exceeded 12 percentage points in nine sectors and reached 20.4 percentage points in construction; 21.5 percentage points in forestry, fishing and hunting; and 27.6 percentage points in transportation and warehousing.

Data for the second quarter of 2021 from the Canadian Survey on Business Conditions (CSBC) showed that IOBs were proportionally more likely to be unaware of financing or credit programs because of the COVID-19 pandemic (6.6% vs. 5.9% for all businesses) or not to meet eligibility requirements (34.5% vs. 27.8%) (Statistics Canada, 2021b). However, the CSBC does not show which of the criteria were not met; IOBs could, for example, have experienced a lower revenue decline than the threshold that would have allowed them to obtain the CEWS. They may also be more likely to be new businesses and therefore not qualify for the subsidy. In addition, IOBs (10.6%) were more likely to find the application process complex and demanding than all businesses (6.7%).

About two-thirds of both men-owned businesses and women-owned businesses had fewer than five employees in February 2020

Among businesses that were active in February 2020, those with fewer than five employees had a closure rate at least twice as high as larger businesses did from October 2020 to March 2021 (Leung and Liu, 2022). Moreover, the closure rate was inversely related to business size. Therefore, it is worth looking at the distribution of businesses by size and owner characteristics.

The majority of private businesses had fewer than five employees, regardless of the gender or immigrant status of ownership (Table 2). Indeed, 67.2% of MOBs and 66.9% of WOBs that were active in February 2020 had fewer than five employees. Businesses with 5 to 19 employees represented 26.8% of those owned by women and 25.1% of those owned by men. This means that, on average, 9 out of 10 private businesses employed fewer than 20 people, whether they were owned by women or men. Men were slightly more likely than their women counterparts to own larger businesses: 5.4% of MOBs had 20 to 49 employees, while 2.3% had 50 or more. Among WOBs, 4.7% employed 20 to 49 workers and 1.6% had 50 or more employees.

Table 2

Distribution of businesses and share of Canada Emergency Wage Subsidy users by employment size and ownership type

	Distribution of businesses					Share of CEWS users				
	All	Men	Women	Immigrant	Canadian-born	All	Men	Women	Immigrant	Canadian-born
	percent									
1 to 4 employees	64.5	67.2	66.9	76.1	64.2	34.7	34.3	35.8	26.5	37.3
5 to 19 employees	26.6	25.1	26.8	20.5	27.3	67.0	66.8	67.9	65.9	66.6
20 to 49 employees	6.1	5.4	4.7	2.7	6.0	75.5	75.7	73.0	74.3	74.8
50 or more employees	2.7	2.3	1.6	0.8	2.5	71.9	71.6	67.3	65.5	71.0

Notes: CEWS stands for Canada Emergency Wage Subsidy. The sample is made up of businesses that were active in February 2020, the last month before the onset of the COVID-19 pandemic.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2019; monthly business openings and closures, February 2020; and Canada Emergency Wage Subsidy, 2020 to 2021.

The CEWS use rate also varied with business size, although the relationship was not linear (Table 2). For both MOBs (34.3%) and WOBs (35.8%), businesses with fewer than five employees had the lowest CEWS use rate. For both MOBs and WOBs, the CEWS use rate was about 32 percentage points higher among businesses with 5 to 19 employees (66.8% of MOBs and 67.9% of WOBs) than among businesses employing fewer than 5 workers (34.3% of MOBs and 35.8% of WOBs). Regardless of the gender of ownership, businesses with 20 to 49 employees were proportionally more likely to use the CEWS. These results are consistent with those of Liu, Lu and Willox (2021) and Leung and Liu (2022), who found that CEWS use increases with employment size. MOBs and WOBs had generally comparable CEWS use rates by employment size; the highest gap was a 4.3 percentage point difference observed among businesses with 50 or more employees (71.6% of MOBs vs. 67.3% of WOBs).

Immigrant-owned businesses are relatively smaller than businesses owned by Canadian-born individuals

The size distribution of businesses by number of employees showed noteworthy differences between IOBs and COBs. While 64.2% of COBs had fewer than five employees, the proportion was 76.1% for IOBs (Table 2). Moreover, among IOBs, 20.5% had 5 to 19 employees, compared with 27.3% of COBs. Immigrants (2.7%) were half as likely to have 20 to 49 employees as their Canadian-born counterparts (6.0%). Businesses with 50 or more employees accounted for 0.8% of IOBs and 2.5% of COBs.

With respect to the use of the CEWS, there were differences and similarities between IOBs and COBs by business size (Table 2). Among businesses with fewer than five employees, the rate of CEWS use was proportionately higher among COBs (37.3%) than among IOBs (26.5%). CEWS use was also higher among COBs (71.0%) than IOBs (65.5%) for businesses with 50 or more employees. By contrast, the use of the CEWS among businesses with 5 to 19 employees or those with 20 to 49 employees was comparable between IOBs and COBs.

Survival, closure and employment growth of women-owned businesses

To estimate the impact of the pandemic on businesses, different indicators can be considered. While Liu, Lu and Willox (2021) looked at changes in employment, Leung and Liu (2022) looked at business growth and survival. In addition, Tam, Sood and Johnston (2020) established the impacts on income, debt and liquidity of businesses. This paper examines business survival by sector and by size, as measured by the change in the number of employees during the pandemic. The analysis of closure rates by year of closure provides information not only on the resilience, but also on the vulnerability of businesses. The major addition of this paper is the inclusion of business-owner characteristics, but also the inclusion of additional months of data. Leung and Liu (2022) previously stated that the impact of the pandemic on the probability of survival varied depending on business characteristics before the onset of the pandemic. However, the differences and similarities were not explored by controlling for business-owner characteristics, such as gender and immigrant status.

This section presents the survival rates of businesses based on their sector and size, combined with the gender and immigrant status of the owners. Surviving businesses are those that were active in February 2020 and remained active in February 2022. The survival rate is therefore the number of active businesses in both February 2020 and February 2022 expressed as a percentage of the number of active businesses in February 2020. To better contextualize the results, it is important to compare them with pre-pandemic survival rates to determine whether there has been a decline, compared with historical rates. In tables 2, 3, 6 and 7, the average survival rate from February 2015 to February 2020 is calculated as the average of the survival rates over all the two-year periods from 2015 to 2020. For example, the average survival rate for all WOBs from February 2015 to February 2020 is obtained by taking the

average of the survival rates from 2015 to 2017, 2016 to 2018, 2017 to 2019 and 2018 to 2020 with February as the reference month.

Women-owned businesses generally had a lower survival rate than men-owned businesses, but the survival rate gap decreased in some sectors

In the business sector, there did not appear to be a decline in the overall survival rate in 2022, relative to the historical average from 2015 to 2020 (Table 3). The survival rate of MOBs from February 2020 to February 2022 (82.5%) was similar to its 2015-to-2020 historical pre-pandemic average (82.4%). By comparison, the survival rate of WOBs was 1.7 percentage points higher from February 2020 to February 2022 (80.7%) than from 2015 to 2020 (79.0%).

The results varied across sectors and by gender of ownership. Survival rates increased or remained relatively unchanged across the majority of sectors, regardless of the owners' gender. Among WOBs, forestry, fishing and hunting (+7.8 percentage points) showed the greatest improvement in the survival rate. This was followed by finance and insurance, and management of companies and enterprises (+4.6 percentage points) and by information and cultural industries (+4.0 percentage points). The same was true for MOBs, but to a lesser extent, with less than a 3 percentage point increase in each of those sectors. By contrast, in the sectors where the survival rate dropped, compared with the pre-pandemic average, the decline was less than 3 percentage points in all sectors, regardless of the gender of ownership.

Table 3

Survival rate by sector, Canada Emergency Wage Subsidy use and gender of ownership

	Men-owned businesses				Women-owned businesses			
	2020 to 2022			2015 to 2020	2020 to 2022			2015 to 2020
	All	No CEWS	CEWS	All	All	No CEWS	CEWS	All
	percent							
Forestry, fishing and hunting	80.8	75.1	88.3	78.1	80.7	73.7	89.1	72.9
Mining, quarrying, and oil and gas extraction, and utilities	74.6	67.8	84.9	73.2	68.7	58.8	80.5	69.2
Construction	83.5	76.3	90.9	82.2	79.3	72.1	88.5	76.3
Manufacturing	86.7	76.6	92.6	86.7	83.6	72.9	90.5	82.5
Wholesale trade	85.4	77.8	91.9	84.7	80.9	72.6	88.4	81.1
Retail trade	84.7	78.8	91.1	84.1	80.2	73.5	87.9	81.0
Transportation and warehousing	73.8	69.8	86.0	76.8	76.3	69.4	88.4	76.4
Information and cultural industries	78.3	69.1	88.0	76.3	78.1	68.1	88.6	74.1
Real estate and rental and leasing	78.7	74.2	89.0	78.2	76.9	73.6	86.7	75.4
Professional, scientific and technical services	78.8	73.1	88.7	77.0	78.1	72.0	87.8	75.7
Administrative and support, waste management and remediation services	81.8	76.0	88.9	81.5	76.0	66.1	87.3	78.4
Finance and insurance, and management of companies and enterprises	79.8	77.1	87.2	77.2	78.7	76.9	85.2	74.1
Educational services	76.9	61.7	88.6	79.8	77.9	62.4	87.5	80.0
Health care and social assistance	85.6	81.3	90.3	87.4	85.1	80.0	91.1	86.2
Arts, entertainment and recreation	76.3	62.3	86.4	77.4	72.7	55.8	84.9	75.5
Accommodation and food services	79.5	61.6	87.0	81.3	77.2	57.6	85.8	78.4
Other services (except public administration)	83.6	76.1	90.3	83.9	78.4	64.5	88.2	80.1
Business sector	82.5	75.4	90.9	82.4	80.7	72.9	89.4	79.0

Note: CEWS stands for Canada Emergency Wage Subsidy.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy, 2020 to 2021.

The overall survival rate of MOBs (82.5%) was comparable to that of WOBs (80.7%) from February 2020 to February 2022 (Table 3). However, there were some gender differences, generally in favour of MOBs, when the sector is considered. In the retail trade sector (84.7% for MOBs vs. 80.2% for WOBs) and other services (except public administration) sector (83.6% for MOBs vs. 78.4% for WOBs), two of the five sectors with the highest number of WOBs, the survival rate of MOBs was 4.5 percentage points and 5.2 percentage points higher than that of WOBs, respectively.

Although the survival rate remained higher for MOBs across the majority of sectors during the pandemic, the gap with that of WOBs contracted in many sectors, compared with the pre-pandemic period (Table 3). For example, in transportation and warehousing, the survival rate gap between MOBs and WOBs was, on average, 0.4 percentage points before the pandemic (76.8% for MOBs vs. 76.4% for WOBs) and dropped to 2.5 percentage points in favour of WOBs during the pandemic (73.8% for MOBs vs. 76.3% for WOBs).

The survival rate gap between men-owned businesses and women-owned businesses was generally higher among businesses that did not use the Canada Emergency Wage Subsidy

According to Leung and Liu (2022), use of the CEWS was associated with a higher probability of survival. This is consistent with the results presented in this section. Businesses that used the CEWS had a survival rate that was 16.5 percentage points (89.4% of CEWS recipients vs. 72.9% of non-recipients among WOBs) and 15.5 percentage points (90.9% of CEWS recipients vs. 75.4% of non-recipients among MOBs) higher than businesses that did not use it (Table 3). This difference ranged from 8.3 percentage points in finance and insurance, and management of companies and enterprises to 29.1 percentage points in arts, entertainment and recreation for WOBs and from 9.0 percentage points in health care and social assistance to 26.9 percentage points in educational services for MOBs. This suggests that use of the CEWS and other government assistance programs may have helped mitigate the decline in survival rates. It should be noted that pre-pandemic business characteristics may have an impact on survivability. Therefore, these differences should not be interpreted as based solely on the impact of the CEWS.

The survival rate of businesses that did not use the CEWS was 6.1 percentage points (72.9% vs. 79.0%) and 7.0 percentage points (75.4% vs. 82.4%) below the historical average among WOBs and MOBs, respectively (Table 3). With the exception of forestry, fishing and hunting (+0.8 percentage points) and finance and insurance, and management of companies and enterprises (+2.8 percentage points) for WOBs, the survival rate of businesses that did not use the CEWS in all sectors was lower than or comparable to the respective historical average, regardless of the gender of ownership. In addition, the difference between the survival rate of businesses that did not use the CEWS and the historical average survival rate was generally higher in sectors with higher CEWS use rates. This is not surprising because these sectors were also among the most sensitive to the public health restrictions imposed in response to the COVID-19 pandemic.

The survival rate gap between MOBs and WOBs was higher among businesses that did not use the CEWS in most sectors. For example, in other services (except public administration), the survival rate gap between MOBs and WOBs was 2.1 percentage points among CEWS recipients (90.3% for MOBs vs. 88.2% for WOBs) and 11.6 percentage points among non-recipients (76.1% for MOBs vs. 64.5% for WOBs). The gap was 1.2 percentage points among CEWS users and 4.0 percentage points among businesses that did not use the CEWS in accommodation and food services. This means that, all things equal elsewhere, the overall survival gap between WOBs and MOBs during the pandemic was mitigated by the CEWS.

It is worth mentioning that, regardless of CEWS use, survival rates of MOBs and WOBs were comparable in health care and social assistance, an essential sector during the pandemic, and in professional, scientific and technical services, among the sectors with the highest share of teleworkers.

Regardless of employment size and Canada Emergency Wage Subsidy use, men-owned businesses and women-owned businesses had comparable survival rates

Survivability may also depend on business size. Leung and Liu (2022) found that the closure rate decreased as business size increased, with the closure rate among businesses with fewer than 5 employees (12.6%) at least six times higher than that among businesses with 100 or more employees (2.0%). As previously noted, regardless of gender, businesses with fewer than five employees represented about two-thirds of private businesses and were less likely to use the CEWS. As with the results by sector, the introduction of the CEWS and other business assistance programs appears to have mitigated business closures. Indeed, regardless of the gender of ownership and business size, the business survival rate from 2020 to 2022 was generally higher than its 2015-to-2020 average (Table 3).

Regardless of the gender of owners, the difference in survival rates between CEWS users and non-users was higher among business sizes with lower CEWS use rates. Among businesses with fewer than five employees (the group with the lowest CEWS use rate), the survival rate was 14.7 percentage points higher for MOBs that used the CEWS (87.6% for recipients vs. 72.9% for non-recipients) and 15.6 percentage points higher for WOBs that used the CEWS (86.4% for recipients vs. 70.8% for non-recipients). The gap was smaller among businesses with 20 to 49 employees (+7.1 percentage points for WOBs vs. +6.9 percentage points for MOBs), the group with the highest proportion of CEWS users. The gap ranged from +7.7 percentage points to +11.8 percentage points for the other size categories.

Regardless of employment size and CEWS use, the survival rate of MOBs was generally comparable to that of WOBs, with an overall gap varying from 1.5 percentage points to 2.7 percentage points (Table 3). The only exception was the 5.4 percentage point gap among businesses with 5 to 19 employees that did not use the CEWS (85.5% for MOBs vs. 80.1% for WOBs). Furthermore, for the two smaller size classes, the gap in survival rates between MOBs and WOBs was slightly higher among businesses that did not use the CEWS than among CEWS users.

Table 4

Survival rate by employment size, Canada Emergency Wage Subsidy use and gender of ownership

	Men-owned businesses				Women-owned businesses			
	2020 to 2022			2015 to 2020	2020 to 2022			2015 to 2020
	All	No CEWS	CEWS	All	All	No CEWS	CEWS	All
	percent							
1 to 4 employees	78.0	72.9	87.6	77.7	76.5	70.8	86.4	74.0
5 to 19 employees	90.9	85.5	93.6	91.0	88.2	80.1	91.9	88.1
20 to 49 employees	94.6	89.4	96.3	94.1	93.1	87.9	95.0	92.3
50 or more employees	95.1	89.6	97.3	94.6	92.6	87.3	95.2	93.2

Note: CEWS stands for Canada Emergency Wage Subsidy.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy, 2020 to 2021.

Gender differences in employment growth among larger business size categories

The survival rates presented in the previous section implicitly provide closure rates. Because closures are defined as businesses that were active (at least one employee) in February 2020 but not active in February 2022, a survival rate of 90% can also be interpreted as a closure rate of 10%. In addition to providing information on the employment growth of businesses that remained open from February 2020 to February 2022, this section also highlights the resilience of businesses through the year of closure. Tables 5 and 8 present the distribution of businesses that were active in February 2020 by size, status in February 2022 (active or closed), CEWS use and ownership type (gender or immigrant status).

For the February 2022 status, the businesses that were active in both February 2020 and February 2022 (the incumbents) are split into two groups: businesses for which the number of employees in February 2022 was greater than or equal to its February 2020 level (growing incumbents) and those for which employment declined during this period (declining incumbents). Businesses that closed are divided into three mutually exclusive groups based on their year of closure. Thus, businesses closed in 2020 are those that closed from March to December 2020 and were still closed in February 2022. Following the Longitudinal Employment Analysis Program, these businesses are defined as exits. Businesses closed in 2021 are those that closed from January to December 2021 and were still closed in February 2022, while businesses closed in 2022 are those that closed in January or February 2022.

Table 5
Distribution of businesses by gender of ownership, Canada Emergency Wage Subsidy use, employment size and February 2022 status

Gender of ownership, CEWS use and status	1 to 4 employees	5 to 19 employees	20 to 49 employees	50 or more employees
		percent		
Men				
No				
Growing incumbents	36.5	39.0	47.5	49.0
Declining incumbents	36.3	46.5	42.0	40.6
Closed in 2022	6.5	3.0	1.5	0.8
Closed in 2021	10.3	5.6	4.8	4.9
Closed in 2020	10.3	5.9	4.3	4.7
Yes				
Growing incumbents	47.5	40.3	38.2	37.4
Declining incumbents	40.1	53.3	58.0	59.8
Closed in 2022	4.5	2.3	1.1	0.9
Closed in 2021	6.3	3.2	2.2	1.6
Closed in 2020	1.7	0.9	0.5	0.3
Women				
No				
Growing incumbents	36.8	35.9	44.6	42.1
Declining incumbents	34.0	44.3	43.3	45.3
Closed in 2022	6.0	3.3	2.0	X
Closed in 2021	10.5	6.9	4.1	X
Closed in 2020	12.7	9.7	6.0	X
Yes				
Growing incumbents	46.3	37.2	30.1	29.4
Declining incumbents	40.0	54.8	64.9	65.7
Closed in 2022	4.7	2.5	1.4	1.4
Closed in 2021	7.1	4.4	3.0	2.8
Closed in 2020	1.9	1.1	0.6	0.6

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Note: CEWS stands for Canada Emergency Wage Subsidy.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy,

Table 5 shows that MOBs were generally more likely than WOBs to experience employment growth from February 2020 to Februar y 2022. With the exception of businesses with fewer than five employees, the share of growing incumbents was at least 3 percentage points higher among MOBs than among WOBs.

The gap between the proportion of MOBs and WOBs that showed growth in the number of employees increased with business size among businesses that used the CEWS. Thus, while 37.2% of WOBs with 5 to 19 employees that used the CEWS had more employees in February 2022 than in February 2020, the proportion was slightly higher for similar MOBs (40.3%), a gap of 3.1 percentage points (Table 5). The gap remained in favour of MOBs and was more than double (about 8 percentage points) among businesses with 20 to 49 employees and those with 50 or more employees. For businesses that did not use the CEWS, the gap was higher among businesses with 50 or more employees (6.9 percentage points).

Among businesses that used the CEWS, the share of declining incumbents was higher among WOBs than among MOBs in the two larger business size categories (Table 5). The gap in the share of declining incumbents between MOBs and WOBs was 6.9 percentage points among businesses with 20 to

49 employees (64.9% for WOBs vs. 58.0% for MOBs) and 5.9 percentage points among those with 50 or more employees (65.7% for WOBs vs. 59.8% for MOBs). For businesses that did not use the CEWS, the gap was highest among businesses with 50 or more employees (4.7 percentage points).

Among businesses that did not use the Canada Emergency Wage Subsidy, women-owned businesses were more likely to close in 2020

The business closure rate—the number of closed businesses (with no employees) as a percentage of the number of active businesses in February 2020—generally decreased as the size of businesses increased for both MOBs and WOBs, regardless of CEWS use (Table 5). Moreover, as observed by Leung and Liu (2022), businesses that used the CEWS had lower closure rates than those that did not.

Among businesses with fewer than 5 employees or with 5 to 19 employees that did not use the CEWS, the closure rate decreased over time. In other words, for both MOBs and WOBs, the number of such businesses that closed in 2020 (10.3% of MOBs vs. 12.7% of WOBs) among those active in February 2020 was greater than or equal to that in 2021 (10.3% of MOBs vs. 10.5% of WOBs), which was higher than that in 2022 (6.5% of MOBs vs. 6.0% of WOBs). This suggests that smaller businesses, which accounted for more than two-thirds of both MOBs and WOBs, would have felt the impact of the pandemic in the early months of 2020. In addition, closure rates among businesses with fewer than 5 employees that did not use the CEWS were, on average, at least two times higher than among businesses with 20 to 49 employees or 50 or more employees, regardless of the year of closure.

Regardless of size, WOBs were more likely to close in 2020 than MOBs, among businesses that did not use the CEWS. Businesses with 5 to 19 employees posted the highest gap between MOBs and WOBs in both 2020 (5.9% of MOBs vs. 9.7% of WOBs) and 2021 (5.6% of MOBs vs. 6.9% of WOBs). Among businesses with fewer than five employees that did not use the CEWS, the gap was 2.4 percentage points (10.3% of MOBs vs. 12.7% of WOBs) in 2020, but the closure rates were comparable in 2021 (10.5% of MOBs vs. 10.3% of WOBs).

Among CEWS users, the closure rate was generally comparable between WOBs and MOBs. The closure rate gap between MOBs and WOBs was generally smaller among CEWS users, compared with businesses that did not use the CEWS, especially for the year 2020. The gaps were higher in 2021 and ranged from 0.8 percentage points to 1.2 percentage points among CEWS users.

Among businesses that had taken advantage of the CEWS, 2021 was the year with the most closures, followed by 2022. It is also important to note that businesses that used the CEWS were more likely to experience a decline in the number of employees than those that did not. These results could suggest that CEWS recipients would have shed some of their workforce upon completion of the program[7] or at the end of their grant-eligibility period. It could be relevant to do further analysis on these where other potential shocks are controlled for.

Survival, closure and employment growth of immigrant-owned businesses

According to Tam, Sood and Johnston (2021), the pandemic disproportionately affected businesses depending on the immigrant status of owners. While 43.0% of IOBs experienced a revenue decline of 30% or more from 2019 to 2020, the rate was 31.2% for all private sector businesses. This is consistent with the results below in terms of survival.

7. The CEWS program ended in October 2021.

Lower survival rates among immigrant-owned businesses than among businesses owned by Canadian-born individuals in most sectors

Businesses that were active in February 2020 showed notable differences in survival rates based on whether they used the CEWS. Indeed, there was a 17.0 percentage point difference between IOBs that used the CEWS (88.1%) and those that did not (71.1%; Table 6). The gap was smaller among COBs but was still over 10 percentage points. The higher survival rate among businesses that used the CEWS was widespread across all sectors, regardless of the owners' immigrant status.

The survival rate from 2020 to 2022 for businesses that did not take advantage of the CEWS was lower than the historical average among both IOBs (-6.6 percentage points; 71.1% vs. a 77.7% historical average) and COBs (-5.9 percentage points; 76.7% vs. 82.6%; Table 6). This occurred across all sectors. In addition, for both COBs and IOBs, the survival rate gap between businesses that used the CEWS and those that did not was generally higher in the sectors with the largest proportions of businesses that used the CEWS. This suggests that while CEWS use may not be the only characteristic that influenced business survival, it would still be positively correlated with the probability of business survival.

There were differences in survival rates between COBs and IOBs, and these were generally to the advantage of the former. Indeed, 83.7% of COBs that were active in February 2020 were still active in February 2022, compared with 77.2% of IOBs, a 6.5 percentage point difference. The gap reached 8.4 percentage points in retail trade (85.4% for COBs vs. 77.0% for IOBs) and 10.6 percentage points in transportation and warehousing (79.5% for COBs vs. 68.9% for IOBs), two of the five sectors with the largest number of IOBs. Considering all else equal, use of the CEWS mitigated the survival rate gap between COBs and IOBs. The survival rate gap between COBs and IOBs was generally higher among businesses that did not use the CEWS. It is worth noting that, in accommodation and food services, IOBs (62.9%) posted a higher survival rate than COBs (57.4%) among businesses that did not use the CEWS. Regardless of CEWS use, IOBs and COBs had comparable survival rates in health care and social assistance.

Differences in survival rate between immigrant-owned businesses and businesses owned by Canadian-born individuals among smaller businesses

The survival rate gap between COBs and IOBs widened among businesses with fewer than five employees. From 2015 to 2020, the survival rate among IOBs with fewer than five employees (74.6%) was 3.1 percentage points lower than that of COBs of the same size (77.7%; Table 7). The gap grew to 5.7 percentage points from 2020 to 2022 (79.4% for COBs vs. 73.7% for IOBs). The gap decreased slightly or remained relatively unchanged for other business size categories.

Businesses that used the CEWS had higher survival rates than those that did not. The difference in survival rates between CEWS recipients and non-recipients was highest among businesses with fewer than five employees (+13.9 percentage points for COBs vs. +15.5 percentage points for IOBs), the group with the lowest proportion of CEWS users. Businesses with 20 to 49 employees (+7.1 percentage points for COBs vs. +6.5 percentage points for IOBs), the group with the highest proportion of CEWS users, posted the smallest difference in survival rates between CEWS recipients and non-recipients.

Table 6
Survival rate by sector, Canada Emergency Wage Subsidy use and immigrant status of ownership

	Businesses owned by Canadian-born individuals				Immigrant-owned businesses			
	2020 to 2022			2015 to 2020	2020 to 2022			2015 to 2020
	All	No CEWS	CEWS	All	All	No CEWS	CEWS	All
	percent							
Forestry, fishing and hunting	80.9	75.5	88.6	77.8	60.4	57.1	X	68.7
Mining, quarrying, and oil and gas extraction, and utilities	74.3	67.4	85.1	72.9	71.7	65.7	X	65.9
Construction	84.3	77.3	91.1	82.5	76.7	72.1	87.2	77.2
Manufacturing	87.0	76.8	92.7	86.5	82.0	74.2	89.5	83.0
Wholesale trade	85.6	77.8	92.0	84.8	79.6	73.4	87.8	80.4
Retail trade	85.4	79.7	91.2	84.8	77.0	72.3	85.3	78.3
Transportation and warehousing	79.5	74.4	87.5	79.8	68.9	67.3	81.3	72.8
Information and cultural industries	80.0	70.7	89.0	76.8	70.5	63.0	83.6	70.5
Real estate and rental and leasing	78.6	74.5	88.3	77.7	73.1	68.8	87.5	73.4
Professional, scientific and technical services	79.8	73.8	88.9	77.5	74.6	70.7	86.1	72.7
Administrative and support, waste management and remediation services	81.9	75.6	88.8	81.5	75.5	69.7	86.6	77.5
Finance and insurance, and management of companies and enterprises	79.9	77.6	87.2	76.7	75.2	71.7	83.8	73.2
Educational services	78.6	63.9	88.1	80.1	73.7	58.2	87.3	80.1
Health care and social assistance	85.7	81.4	90.6	87.1	86.0	81.1	91.5	87.1
Arts, entertainment and recreation	75.2	59.6	86.1	77.1	69.9	59.7	79.3	75.4
Accommodation and food services	79.7	57.4	87.5	82.5	78.0	62.9	85.9	78.0
Other services (except public administration)	83.8	76.0	90.1	83.6	77.1	66.5	88.0	80.5
Business sector	83.7	76.7	91.1	82.6	77.2	71.1	88.1	77.7

x suppressed to meet the confidentiality requirements of the *Statistics Act*

Note: CEWS stands for Canada Emergency Wage Subsidy.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy, 2020 to 2021.

Among smaller businesses, the survival rate gap was higher for businesses that did not use the CEWS. Among businesses with fewer than five employees, the gap was 2.9 percentage points (88.0% for COBs vs. 85.1% for IOBs) for CEWS users and 4.5 percentage points (74.1% for COBs vs. 69.6% for IOBs) for businesses that did not use the CEWS (Table 7). The gap was 2.3 percentage points for CEWS recipients and 4.4 percentage points for non-recipients among businesses with 5 to 19 employees. Regardless of CEWS use, the survival rate was comparable between IOBs and COBs among businesses with 20 to 49 employees and among those with 50 or more employees.

Table 7
Survival rate by employment size, Canada Emergency Wage Subsidy use and immigrant status of ownership

	Businesses owned by Canadian-born individuals				Immigrant-owned businesses			
	2020 to 2022			2015 to 2020	2020 to 2022			2015 to 2020
	All	No CEWS	CEWS	All	All	No CEWS	CEWS	All
	percent							
1 to 4 employees	79.4	74.1	88.0	77.7	73.7	69.6	85.1	74.6
5 to 19 employees	90.8	85.2	93.6	91.1	87.7	80.8	91.3	86.9
20 to 49 employees	94.4	89.0	96.1	93.9	92.8	88.0	94.5	91.7
50 or more employees	94.6	89.1	96.9	94.4	94.1	89.1	96.7	92.3

Note: CEWS stands for Canada Emergency Wage Subsidy.
Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy, 2020 to 2021.

Immigrant-owned businesses were less likely to experience employment growth among businesses that did not use the Canada Emergency Wage Subsidy

In addition to closure rates, this section looks at the change in employment among businesses that were active in February 2020 and remained active in February 2022. Among businesses that were active in February 2020 and had not used the CEWS, COBs had higher shares of growing incumbents than IOBs (Table 8). While 38.0% of COBs with fewer than five employees that did not use the CEWS had higher employment levels in February 2022 than in February 2020, the rate was 34.7% among IOBs with similar characteristics (-3.3 percentage points relative to COBs). The gap increased with business size and reached 9.6 percentage points among businesses with 50 or more employees.

IOBs were more likely to experience a decline in employment among larger businesses that did not receive the CEWS. Indeed, 45.4% of IOBs with 20 to 49 employees had fewer employees in February 2022 than in February 2020, 3.1 percentage points less than COBs (42.3%) of similar size that did not use the CEWS (Table 8). The gap (9.6 percentage points) was larger among businesses with 50 or more employees (50.2% for IOBs vs. 40.6% for COBs).

Among businesses that received the CEWS, COBs had a larger share of growing incumbents than IOBs among businesses with 5 to 19 employees (40.1% of COBs vs. 35.7% of IOBs) and among those with 20 to 49 employees (36.8% of COBs vs. 31.5% of IOBs; Table 8). By contrast, IOBs were less likely to experience a decline in the number of employees among businesses with fewer than five employees that used the CEWS (40.8% of COBs vs. 37.6% of IOBs). However, the opposite was true among businesses with 20 to 49 employees that used the CEWS, where IOBs (63.0%) had higher shares of businesses that downsized than COBs (59.4%).

Closure rates were higher for immigrant-owned businesses than for businesses owned by Canadian-born individuals in both 2020 and 2022 among businesses that did not use the Canada Emergency Wage Subsidy

Of the IOBs that were active in February 2020 but not in February 2022 and that had not used the CEWS, the majority closed from March to December 2020. As shown in Table 8, the closure rate among IOBs

that did not use the CEWS was higher in 2020 and declined over time, regardless of business size. Moreover, regardless of the year of closure, the closure rate for IOBs that had not used the CEWS decreased as business size increased. For example, IOBs with fewer than 5 employees (12.0%) were more likely to close in 2020 than IOBs with 5 to 19 employees (9.0%) or 20 to 49 employees (5.4%).

Table 8
Distribution of businesses by immigrant status of ownership, Canada Emergency Wage Subsidy use, employment size and February 2022 status

Immigrant status of ownership, CEWS use and status	1 to 4 employees	5 to 19 employees	20 to 49 employees	50 or more employees
		percent		
Canadian-born				
No				
Growing incumbents	38.0	39.0	46.8	48.5
Declining incumbents	36.2	46.2	42.3	40.6
Closed in 2022	5.6	2.8	1.7	0.7
Closed in 2021	10.0	5.8	4.9	5.3
Closed in 2020	10.2	6.2	4.4	4.9
Yes				
Growing incumbents	47.1	40.1	36.8	35.8
Declining incumbents	40.8	53.5	59.4	61.1
Closed in 2022	4.2	2.2	1.2	0.9
Closed in 2021	6.1	3.3	2.2	1.8
Closed in 2020	1.6	0.9	0.5	0.3
Immigrant				
No				
Growing incumbents	34.7	35.0	42.6	38.9
Declining incumbents	34.9	45.9	45.4	50.2
Closed in 2022	7.6	4.0	2.8	X
Closed in 2021	10.8	6.2	3.8	X
Closed in 2020	12.0	9.0	5.4	X
Yes				
Growing incumbents	47.5	35.7	31.5	34.3
Declining incumbents	37.6	55.6	63.0	62.4
Closed in 2022	5.4	2.9	1.2	X
Closed in 2021	7.4	4.6	3.6	X
Closed in 2020	2.0	1.3	0.7	X

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Notes: CEWS stands for Canada Emergency Wage Subsidy. Growing incumbents are businesses whose employment in February 2022 was greater than or equal to its February 2020 level. Declining incumbents are businesses whose employment in February 2022 was lower than its February 2020 level.

Sources: Statistics Canada, Canadian Employer–Employee Dynamics Database, 2015 to 2019; monthly business openings and closures, February 2015 to February 2022; and Canada Emergency Wage Subsidy, 2020 to 2021.

Although IOBs and COBs showed similarities in the evolution of closure rates by business size and CEWS use, there were differences between these two groups. Among businesses that did not use the CEWS, the closure rate was generally higher among IOBs than among COBs in both 2020 and 2022. However, in 2021, COBs (4.9%) posted higher closure rates than IOBs (3.8%) among businesses with 20 to 49 employees that did not use the CEWS (Table 8).

For CEWS recipients, the business closure rate decreased as business size increased for both IOBs and COBs. In addition, the year 2020 had the lowest number of closures among businesses that were active in February 2020 and had benefited from the CEWS. As mentioned above for WOBs and MOBs, it is possible that CEWS-recipient businesses may have ceased operations after the program or their eligibility period ended. The closure rate for CEWS recipients was higher among IOBs than among COBs in 2021 for all size classes and in 2022 among businesses with fewer than five employees (4.2% for COBs vs. 5.4% for IOBs).

Limitations and future research

To the best of the author's knowledge, this article is the first in Canada to present the differences and similarities in terms of business survival, business closures and employment growth by gender and immigrant status of the owners during the COVID-19 pandemic. Although the results show how the pandemic may have disproportionately impacted businesses owned by women and immigrants, they should be interpreted with a certain level of caution. Indeed, the relationship here is one of correlation rather than causation and does not capture the impact of the pandemic on business closures.

The results control for sector and size separately. A limitation of such a strategy is that the differences between two groups (for example, men and women) could be driven by differences in the size distribution within sectors. It would also be interesting to explore the intersection between gender and immigrant status to see how businesses owned by immigrant women compare with those owned by Canadian-born women. Another area for future research is the comparison of businesses that have used the CEWS with those that have not (including the businesses that were not eligible). Given that survival rates can be correlated with eligibility, it would be useful to compare businesses that have benefited from CEWS with those that have not but were eligible to.

Future studies on this subject would benefit from incorporating an econometric analysis to establish the exclusive impact of the pandemic on businesses according to their characteristics and those of their owners, controlling for pre-pandemic characteristics at both the owner and business levels. Leung (2021) found that the risk of closure during the pandemic was associated with some pre-pandemic characteristics, such as employment size, business age, indebtedness, liquidity and profitability. Controlling for these characteristics, among others (for example, detailed sector codes, location and owner characteristics), in a regression analysis could help strengthen the results. Such an econometric analysis would also make it possible to control for the use of other business support programs implemented during the pandemic (e.g., the Canada Emergency Business Account) rather than the CEWS.

Conclusion

The literature has shown that women and immigrants have been disproportionately impacted by the pandemic in terms of job loss and business performance. The purpose of this paper was to identify differences and similarities in business survival by gender and immigrant status of owners, taking into account sector, business size measured by the number of employees and use of the CEWS. This article is built upon a linkage of monthly business openings and closures with the CEEDD and data on CEWS users from the Canada Revenue Agency.

The results suggest that the overall survival rate of businesses from 2020 to 2022 was comparable to its pre-pandemic historical average (2015 to 2020), but there were some differences across sectors.

Regardless of employment size and ownership structure, businesses that used the CEWS posted lower closure rates and were more likely to experience a decline in the number of employees than businesses that did not use the CEWS.

WOBs were more likely than MOBs to be in sectors that are consumer facing and that do not generally allow for teleworking. The overall CEWS use rate was comparable between MOBs and WOBs, but there were some gender differences across sectors. The distribution of businesses by employment size was similar between MOBs and WOBs, with about two-thirds employing fewer than 5 employees and about another quarter employing 5 to 19 employees. Smaller businesses were less likely to use the CEWS, regardless of the gender of the owners.

Although the aggregate picture shows similar survival rates between MOBs and WOBs, gender differences exist across sectors. Survival rates were generally lower among WOBs, but the gap in survival rates between MOBs and WOBs contracted, compared with the pre-pandemic period, in some sectors. Furthermore, the difference in survival rates between MOBs and WOBs was generally higher among businesses that did not receive the CEWS. Finally, WOBs that did not use the CEWS were more likely to close during the first year of the pandemic than MOBs.

IOBs were more prevalent in the service sectors and were less likely to use the CEWS in the majority of sectors, compared with COBs. IOBs were also relatively smaller than COBs, with over three in four IOBs employing fewer than five employees.

The survival rate of IOBs was lower than that of COBs in most sectors and among businesses with fewer than five employees, regardless of CEWS use. However, IOBs posted a higher survival rate among businesses that did not use the CEWS in accommodation and food services, and similar rates in health care and social assistance, regardless of CEWS use. Among businesses that did not use the CEWS, IOBs were more likely to close in 2020 or 2022 and less likely to increase their workforce.

It should be noted that this study did not take into account certain characteristics of businesses (e.g., profitability and liquidity prior to the pandemic) and their owners (e.g., age, experience in business ownership) that could influence their survivability. Therefore, this study does not capture the exclusive effect of the pandemic on business survival. In future research, it may be important to measure the impact of the pandemic through econometric modelling that accounts for the characteristics of businesses before the onset of the pandemic.

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