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Labour Market Experience, Gender Diversity and the Success of Women-owned Enterprises

by Douwere Grekou

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Analytical Studies Branch Research Paper Series

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Abstract

This study investigates the relationships between ex-ante (i.e., prior to entry) socio-economic characteristics of entrants into business ownership (defined as ownership of private incorporated businesses) and two performance indicators of their enterprises (revenues and number of employees). The entrants into business ownership are defined as those who are business owners in the current year but were not in the previous year. This means that an individual can become an entrant by starting an enterprise or acquiring shares of an existing private enterprise. The study takes advantage of the Canadian Employer-Employee Dynamics Database (CEEDD), which allows the analysis of the role of personal characteristics, labour market experience, and family characteristics of the entrants over the 2001-to-2015 period. In the data, majority men-owned enterprises with entrants performed better than their majority women-owned and equally-owned counterparts. The analysis contributes to the explanation of these patterns by showing how labour market experience differs across gender and how important it is for performance. Specifically, the descriptive statistics show that men entrants were more likely than their women counterparts to be the owner of an unincorporated business in the year preceding entry, more likely to have experience in the same industry as the business owned over the five years preceding entry, and more likely to have worked in the same firms as their business partners. The regression-based analysis indicates that these factors were strongly and significantly correlated with performance across all ownership types of enterprise. Interestingly, the analysis also shows that adding gender diversity to the ownership structure of the enterprise is positively correlated with both performance indicators. The results are robust to different specifications including restricting the analysis to new enterprises only.

Keywords: business ownership, gender, gender diversity, men-owned enterprises, women-owned enterprises, equally-owned enterprises, business performance

Executive summary

Studies have found that women-owned enterprises lag men-owned enterprises in business performance such as sales, profits and employment. This lower performance has been attributed to several factors like financial constraints, industrial sector or lack of prior relevant experience. However, the studies that investigated the role of prior experience often lacked detailed quantitative evidence. This paper fills this gap by taking advantage of the Canadian Employer–Employee Dynamics Database (CEEDD) over the 2001-to-2015 period.

Business ownership in this paper is defined as ownership of private incorporated businesses captured through an administrative tax schedule (T2 Schedule 50). The entrants into business ownership are identified as the business owners who are present in the current year but not in the previous year. This means that an entrant can do so by starting an enterprise or acquiring shares of an existing private enterprise.

The paper starts by comparing the socio-economic characteristics of men and women in the years preceding entry into business ownership. The results show important differences across gender, which suggest that men entrants seem to have more pertinent labour market experience than their women counterparts. Indeed, in the year preceding entry, women entrants were proportionately less likely to be self-employed (i.e., the owner of an unincorporated enterprise throughout this paper, which could serve as training for incorporated business ownership). Over the five years preceding entry, they were less likely to have acquired experience in the industry in which their enterprise operates, and earned about a third less income than their men counterparts. Although women entrants had a higher propensity to have business partners, they were twice as likely to have their spouse as a partner, and were less likely to have worked with their business partners in the same firm.

Women entrants had more children, accumulated a third less personal income but had a higher family income over the five years preceding entry.

The regression-based analysis shows that the labour market experience of entrants was strongly positively correlated with two business performance indicators (revenues and number of employees). Specifically, it is shown that having experience as a self-employed person, sharing work experience with business partners, and having experience in the industry in which the enterprise owned operates were all strongly correlated with performance across types of enterprises (majority men-owned, majority women-owned and equally-owned) and gender of entrants. The regression results do not identify a causal relationship because, for example, previous experience as a self-employed person could be related to an unobservable factor important for success such as personal wealth.

Interestingly, the results from the regressions also show that having women entrants in majority men-owned enterprises or men entrants in majority women-owned enterprises was positively correlated with performance. In other words, adding gender diversity to the ownership structure of the enterprise is correlated with better performance.

Finally, the results show a strong tendency for the correlations between ex-ante characteristics (personal, labour market experience, family characteristic) and both performance indicators to be in the same direction. The only exceptions are the three variables pertaining to having children in different age categories (under 7 years old, between 7 and 16 years old, and in both categories). These variables had positive correlations with performance for women entrants and men entrants in women-owned enterprises but non-significant correlations with revenues and negative correlations with employment for men entering majority men-owned or equally-owned enterprises. The consistency of these results with selection processes is discussed.

The paper contributes to the explanation of the difference in performance between men-owned and women-owned enterprises by highlighting how labour market experience differs across gender and how important it is for performance. The results are robust to different specifications including restricting the analysis to new enterprises only.

The policy relevance of the paper is twofold. First, it informs policymakers by providing a better understanding of important gender differences in the socio-economic profile of entrants. Second, it highlights characteristics that matter for performance and, therefore, it potentially helps the design of programs aiming at improving the performance of businesses owned by women. This is important in the post COVID-19 recovery context. Indeed, the pandemic is likely to affect women and their enterprises more severely than their male counterparts since they are prevalent in the service sector.

1 Introduction

Although initiatives promoting women's entrepreneurship have been adopted in Canada and in many other countries to stimulate stronger, better and fairer growth (Adema et al. 2014), majority women-owned private enterprises (WOE) still lag behind majority men-owned private enterprises (MOE) in terms of numbers, business performance such as sales, profits and employment (Fairlie and Robb 2009; Coleman and Robb 2009; Industry Canada 2015; Rosa and Sylla 2016; Grekou, Li and Liu 2018a) or survival rates (Couture and Houle forthcoming). This paper addresses three main questions: (1) What are the differences in socio-economic characteristics between women and men prior to the creation of their business? (2) What is the relationship between these characteristics, especially prior labour market experience, and the performances of their firms? (3) Are there major gender differences in the correlation of prior labour market experience and the success of their firms?

Previous studies have provided explanations for the lower performance of WOE. They have shown that, compared to their men equivalents, women entrepreneurs have less access to capital, weaker representation in key networks, less management experience, and are often more constrained with regards to business and technical education as well as access to training (Stevenson 1986; Adema et al. 2014). Also, the literature shows that the industrial sectors in which women entrepreneurs operate, their personal characteristics and preferences, as well as their management strategies play a role in explaining their lower business outcomes (Rosa and Sylla 2016). Some authors, however, argue that gender differences partly disappear once key characteristics of the business owners are controlled for (Gottschalk and Niefert 2011). Finally, it was found that, although the perception of opportunity to start a business was similar among Canadian men and women, their perception of necessary skills and experience differed (Gregson et al. 2017).

An important limitation of the literature, however, is the lack of quantitative evidence on the role of previous labour market experience. Although a few studies (e.g., Stevenson 1986; Fairlie and Robb 2009) discuss evidence of the adverse effect of women having less managerial experience and work experience, they do not offer an in-depth analysis of the importance of previous labour market experience. Generally, evidence of the role of prior labour market experience relies on anecdotal information (e.g., profile of women entrepreneurs like Entrepreneur.com 2008), case studies (Carter and Cannon 1992; Koehn 2001), or survey data with limits on the scope of such analysis (Fairlie and Robb 2009; Gatewood et al. 2009).

The paper investigates the relationships between ex-ante (i.e., prior to entering business ownership) characteristics of the business owners with the performance of their enterprises. It takes advantage of Statistics Canada's Canadian Employer–Employee Dynamics Database (CEEDD), a matched database developed using administrative data sources over the period 2001 to 2015. The CEEDD allows for the identification of individuals entering business ownerships, provides information on socio-economic characteristics of the individuals (e.g., age, immigration status, previous employment status, experience in a given industry) and their family (e.g., family

^{1.} Despite the fact that women are increasingly represented in management positions, they are still underrepresented in senior management positions or top income groups (Richards, 2019; Fortin, Bonikowska and Drolet, 2019). Similarly, although general educational attainment is now higher among women than men, women are persistently underrepresented in science, technology, engineering and mathematics (STEM), which are the fields associated with the highest earnings (Frenette and Frank 2016). For a review of the recent literature on the underrepresentation of women in STEM, see Shulamit and Ginther (2017), and for Canadian evidence see Ferguson (2016).

^{2.} There is also a literature studying the determinants of entry into business ownership in Canada. For example, Jeon and Ostrovsky (2016) focus on the transition from wage employment to business ownership, while Grekou and Liu (2018) analyze the entry into and exit out of different types of business ownership (incorporated or unincorporated). This paper does not analyze the determinants of entry per say but analyzes key differences in characteristics prior to entry.

income, children) during the years preceding entry, as well as information about the enterprise owned.

The importance of the paper for policymaking is twofold. On one hand, it informs about the important gender differences that exist in the socio-economic profile of entrants. On the other hand, it potentially helps the design of programs aiming at improving the performance of businesses owned by women by highlighting key characteristics.

The paper is organized as follows. Section 2 presents the data and methodology. Section 3 discusses the ex-ante characteristics of entrants. Section 4 discusses the multivariate analysis, which looks at the correlations between these characteristics and business performance. Section 5 concludes the paper.

2 Data and methodology

2.1 Data

The paper relies on Statistics Canada's CEEDD, which has been described in detail in Green et al. (2016), Grekou and Liu (2018), and Grekou, Li, and Liu (2018b).

The CEEDD is a matched database developed by linking several administrative tax files, including individual tax files (T1, Personal Income Tax and Benefit Return); individual employment remuneration files (T4, Statement of Remuneration Paid); individual business ownership files (T1 Financial Declaration [FD] for unincorporated business owner, and T2 Schedule 50 for incorporated business owner); Immigrant Landing File; family file (T1 Family File); corporate business tax files (T2, Corporation Income Tax Return) and unincorporated business tax files (T1 Business Declaration [BD]). All files are available from 2001 to 2015, except the unincorporated business files and the unincorporated business owners' files, which are available from 2005 to 2015.

The CEEDD therefore provides information on the individuals and the businesses they own or work for. Specifically, it contains detailed information about paid workers and business owners such as age, gender, marital status, immigrant status, earnings from paid jobs, self-employment income, and income from owned corporations. This information is augmented with information on their workplace, such as industry, number of employees, payroll, revenues and profits.

For the purpose of this paper, the universe of business owners is restricted to the T2 Schedule 50, i.e., the owners of private incorporated business with at least 10% ownership share.^{3,4}

^{3.} The T2 Schedule 50 file identifies the owners with at least 10% ownership share. The restriction on private incorporated enterprises aims at streamlining the analysis since it leaves out the unincorporated business owners (the self-employed in Grekou and Liu [2018]). It should be noted that all incorporated business owners are included in the analysis, whether they are employees of other firms or whether they own an unincorporated business in the same year. In other words, the selected individuals in this paper are not necessarily primarily incorporated business owners since their major source of income could originate from employment or self-employment.

^{4.} The main distinction between unincorporated and incorporated enterprises is the fact that the latter have a separate legal identity. As discussed in Subsection 2.2 in Grekou and Liu (2018), the separate legal identity "enables a company to enter into contracts and own property independently from its owners, survive longer than its owners, and continue to operate without much interruption even when the ownership is traded; protection from creditors via limited liability." Grekou and Liu (2018) provide evidence that incorporated businesses generated more income and accounted for about 89% of all employers in 2013 as most unincorporated businesses did not hire employees (Subsection 2.4).

2.2 Defining entrants and variables of interest

The entrants into business ownership in this paper are defined as those who are business owners in the current year but were not in the year before.⁵ This means that an entrant can do so by starting a business or acquiring shares of an existing private enterprise. The multivariate analysis in Section 4 below will discuss the important differences that exist between the two cases. For each year, the analysis is restricted to individuals aged 18 to 80.

One objective of the paper is to depict the profile (e.g., age, immigrant status, family income, number of children) and labour experience (e.g., employment status, experience in a given industry) of the entrants prior to entry and to determine differences that may exist across gender. The variables are constructed using information from the year preceding entry or, when applicable, by cumulating information observed over the five years preceding entry. For example, when looking at a 2010 entrant, variables are constructed using the year 2009 and cumulatively over the 2005-to-2009 period. The utilization of five years before entry implies that the analysis focuses on the 2006 to 2015 cohorts of entrants.

The correlations between these characteristics and two performance indicators of the enterprise (revenues and number of employees) are then explored through multivariate analysis in the year of entry into business ownership.⁶ The detailed definition of variables can be found in Table A.1 in the Appendix.⁷

3 What are the ex-ante characteristics of the entrants?

Over the 2006-to-2015 period, the number of entrants fluctuated around 143,000 (Table 1). Men accounted for about 62% of the total number of entrants while women accounted for about 38% (Table 1). The trends for men and women were the same over this period. Hence, the number of entrants started at the peak in 2006 and declined until they reached a minimum in 2009 during the economic crisis. This result is consistent with BDC (2012), Fairlie (2014), Cao et al. (2015), and Grekou and Liu (2018) who found a decrease in entry rates due to the global financial crisis. Afterwards, the number of entrants increased, although a decline can be observed after 2012.

Table 1
Number of entrants into business ownership

	Years										
	Average	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
						number					
Men	88,720	97,290	94,460	90,840	80,660	85,670	88,910	90,420	90,140	85,220	83,600
Women	54,540	55,790	55,300	54,850	49,780	53,420	55,930	56,840	55,990	54,130	53,360
Total	143,260	153,080	149,760	145,690	130,440	139,090	144,840	147,260	146,130	139,350	136,960

Note: Entrants are defined in the text. Numbers are rounded to the nearest 10 for disclosure purposes.

^{5.} The definition of entrants allows for multi-entry. For example, an individual creates a business in 2006, the business vanishes in 2009 and the individual creates another business in 2012. Under the definition of the paper, the individual would be considered an entrant in 2006 and 2012.

^{6.} In the analysis file, about 92% of the entrants had only one enterprise. For the individuals owning multiple enterprises in a given year, the average revenues and the average employment were computed. Very similar results were obtained with an alternative methodology where only the enterprise yielding the highest revenues is selected. Also, it should be noted that entrants could be entering same businesses.

^{7.} All current dollar variables have been deflated using the Consumer Price Index (Statistics Canada 2018) with 2006 as the base.

This section shows that men and women have statistically significant differences with respect to ex-ante characteristics, which include demographic characteristics, total income, labour market experience and networking, and family characteristics (Table 2). The aim is not to explain why these differences exist but rather to expose them before analyzing their correlations with performance by means of multivariate analysis (Section 4 below).

Table 2
Ex-ante characteristics of entrants into business ownership (averages over the 2006-to-2015 time period)

	Men	Women	Gap (men minus women)
	men	number	(sii iiiiius woilleii)
Demographics of the entrant			
Mean age	41	42	-1
	percent		percentage point
Share of immigrants among entrants	29.95	27.08	2.87
Share of recent immigrants among immigrants ¹	10.26	8.11	2.15
	СО	nstant dollars	
Cumulative personal income of the entrant over the five years			
preceding entry	222 222	200,000	444.000
Mean	323,000	209,000	114,000
Median	204,000	142,000	62,000 percentage point
I show status of the entront in the year proceding entry	percent		percentage point
Labour status of the entrant in the year preceding entry Was employed only	49.02	48.47	0.55
Was self-employed only	20.39	17.23	3.16
Was employed and self-employed	19.55	17.23	1.67
Was non-employed	11.04	16.43	-5.39
Experience of the entrant as a business owner	11.0-1	10.40	0.00
Share of entrants with experience as a business owner over the 5			
years preceding entry	9.30	6.82	2.48
Experience of the entrant in the same industry (NAICS) as the			
business owned ²			
Share of entrants with experience in that industry over the 5 years	36.64	31.14	5.50
preceding entry	36.64	number	5.50
Number of years of experience in that industry over the 5 years		number	
preceding entry	3.3	3.2	0.1
proceding chiry	percent	5.2	percentage point
Business partners of the entrant	percent		percentage point
Share of entrants having a partner	49.48	66.31	-16.83
Share of entrants having a spouse as a business partner	24.53	50.51	-25.98
Share of partners who worked in same firm as the entrant over the			
five years preceding entry ³	0.33	0.29	4.15
Marital status of the entrant at entry	5.55		
Unstated	0.14	0.12	0.02
Married or common-Law	71.31	77.42	-6.12
Widowed, divorced or separated	6.41	8.27	-1.86
Single	22.14	14.19	7.95
Distribution of the number of children under 7 years old			
None	97.00	92.89	4.11
1	1.84	4.06	-2.22
2	1.02	2.63	-1.61
3 or more	0.14	0.42	-0.28
	со	nstant dollars	
Cumulative family income over the five years preceding entry			
Mean	430,000	497,000	-67,000
Median	321,000	365,000	-44,000
	percent		percentage point
Labour status of the spouse of the entrant in the year			
preceding entry			
Was employed only	34.83	27.04	7.79
Was self-employed only	8.02	11.65	-3.63
Was business owner only	0.60	2.33	-1.73
Was employed and self-employed	8.97	11.38	-2.41
Was employed and business owner	1.98	9.68	-7.7
Was employed, self-employed and business owner	0.83	4.45	-3.62
Was self-employed and business owner	0.59	3.05 30.43	-2.46 12.75
Was non-employed	44.18	30.43	13.75

^{1.} Recent immigrants are individuals who became permanent residents 5 years or less before entry into business ownership. The dollar values are rounded to the closest \$1,000.

Note: See the Appendix for details on the variables. All differences are statistically different at 1%.

^{2.} Industries are at the two-digit North-American Industry Classification System (NAICS) level. Experience is accumulated over the five years preceding entry either as an employee, as a self-employed or as a business owner (see Subsection 3.2 in the text).

^{3.} For each entrant with at least one partner, it is determined whether the entrant and the partners worked in the same firms over each of the five years preceding entry. The proportion is established by dividing the number of partners who worked in the same firms as the entrant over the total number of partners the entrant has.

3.1 Demographic characteristics

Women entrants were slightly older and were relatively less likely to be immigrants than their men counterparts.

On average, women entrants were slightly older than their men counterparts (42 versus 41 for men, Table 2).

The share of immigrants among men entrants was higher than the share of immigrants among women entrants (29.95% versus 27.08% for women). It can also be noted that the share of recent immigrants—defined as those who became permanent residents 5 years or less before entry into business ownership—is lower by a factor of about 3. This is likely related to the fact that recent immigrants have less time or ability to accumulate resources to become a business owner. Among recent immigrants, men were relatively more likely to enter into business ownership.

3.2 Income, labour market experience and networking (partners)

Women earned a third less income than their men counterparts over the five years preceding entry into business ownership.

Women entrants earned less (before-tax) income than their men counterparts over the five years preceding entry (Table 2). On average over the period of study, the cumulative income for men was higher by about a third whether one looks at the mean cumulative income (higher by \$114.000) or the median cumulative income (higher by \$62.000).

Women were relatively less likely to be self-employed in the year preceding entry into business ownership.

The CEEDD allows for the identification of mutually exclusive categories for entrants: employed only (paid job), owner of an unincorporated business (i.e., the "self-employed" throughout this paper) only, employed and self-employed (i.e., with both statuses), and non-employed (i.e., not in the other three categories).^{8,9} Presumably, experience as a self-employed prepares individuals to business ownerships as they would acquire management skills and networks of suppliers and clients.

Although men and women had very close proportions of employed only (49% for men versus 48% for women), men had higher labour market participation (Table 2). Indeed, the proportions of self-employed only (20% for men versus 17% for women), employed and self-employed (20% for men versus 18% for women) and non-employed (11% for men versus 16% for women) showed that men not only participated more but were also more likely to have acquired self-employed experience prior to entry. These results are qualitatively similar to Grekou and Liu (2018, Table A.1).

With respect to labour status over the five years that preceded entry, although a minority of men and women entrants had been business owners for at least one year, men entrants were proportionately more likely to have been so (9% versus 7%, respectively).

^{8.} Following Grekou and Liu (2018), the self-employed category in this paper refers to unincorporated business owners only. It does not include incorporated business owners.

^{9.} In the preceding year, other employment categories involving business owners can be derived. However, it should be clear that, by definition, entrants cannot be incorporated business owner in the preceding year. Non-employed are individuals with no income from paid jobs, from self-employment or from an incorporated business.

Women entrants had less experience in the industry in which their enterprise operates.

Prior experience in the industry of the enterprise owned can be constructed from the CEEDD in four steps. First, the two-digit North American Industry Classification System (NAICS) of the enterprise at entry is determined. Then, for each of the five years that precedes entry, the two-digit NAICS of the enterprises the entrant worked for, either as an employee or as a business owner (incorporated or unincorporated) are determined. Third, for each of these five years, a dummy indicator is created flagging whether the NAICS of the enterprises correspond to the NAICS at entry. Finally, the dummy variables are summed to generate two simple cumulative NAICS experience indicators: one indicating whether the entrant has such experience or not, and the other summing up the number of years of experience in that NAICS. ^{10,11}

Men were more likely to have experience in the same industry (37% versus 31% for women, Table 2), and, when they have such an experience, they tended to have accumulated it for slightly more time than women (3.3 years versus 3.2 years for women). Less industry-related experience might be disadvantageous since it could negatively affect the enterprise's performance.

Women entrants were relatively more likely to have business partners and more likely to have a spouse as a business partner.

From 2006 to 2015, women entering business ownerships had, on average, a higher propensity to have business partners than their men counterparts (66% of women entrants versus 49% of men entrants, Table 2). Furthermore, half of women had their spouse as a business partner, compared to one-quarter of men. Exploring the interactions between the entrants and their partners at entry shows that, over the five years that preceded entry, men were proportionately more likely to have worked in the same firms as their partners.

3.3 Family characteristics

Women entrants were relatively more likely than men entrants to be in couple or to have children.

Although both women and men were mainly in couples, the category "married or in common-law partnership" was proportionately more likely for women (77% versus 71% for men, Table 2). Men entrants were proportionately more likely to be single (22% versus 14%).

Women who entered business ownership were on average more than twice as likely to have at least one child under 7 years old than their men counterparts (7% versus 3%). Similar patterns apply to the number of children from 7 to 16 years old (not shown).

Like family-work balance that can affect the decision to enter business ownership (Jeon and Ostrovsky 2016), differences in family characteristics between men and women could play a role in the performance of their enterprise.

Women entrants had higher family incomes than their men counterparts and were more likely to have spouses who owned a business.

Although women entrants' own income tended to be lower than men entrants (Subsection 3.2 above), women's family income was 14% higher (about \$67,000) on average and 12% higher (\$44,000) when calculated using the median income (Table 2). This is not entirely surprising as women were more likely than men to be married or in a common-law relationship.

^{10.} See the Appendix for details.

^{11.} The term number of years is used to facilitate the discussion. Indeed, the source files are administrative files that do not provide the hours/time worked within the year.

The spouses of women entrants were more likely to be self-employed or business owners than the spouses of men entrants. Indeed, in all employment categories involving self-employment or business ownership, the shares of spouses of women entrants were proportionately higher than their men counterparts. This is in line with the fact that women were more likely to have their spouse as a business partner (Subsection 3.2 above). Importantly, the spouses of men entrants were more likely to be non-employed than their women counterparts.

4 What variables were correlated with the performance of the enterprises?

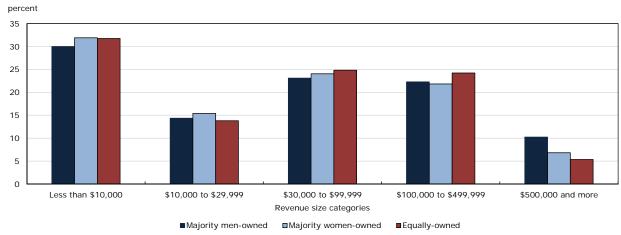
4.1 Estimation strategy

Variables of interest

As described in Subsection 2.2 above, two performance indicators (revenues and number of employees) are analyzed in the year of entry into business ownership. The analysis is implemented for majority men-owned private enterprises (MOE), majority women-owned private enterprises (WOE) and equally-owned private enterprises (EOE).¹²

The distribution of the performance indicators for enterprises with at least one entrant shows that MOE are more frequent in the top categories (more than \$500,000 in revenues in Chart 1 and 5 employees or more in Chart 2). Furthermore, the median revenues among enterprises with at least one entrant were higher for MOE (\$41,000 versus \$35,000 for WOE and \$38,000 for EOE). Similarly, the median number of employees was slightly higher among MOE (2 versus 1 for both WOE and EOE). The better performance of MOE are also found when analyzing the means (unconditional or focusing on enterprises with at least one employee during 6 months).

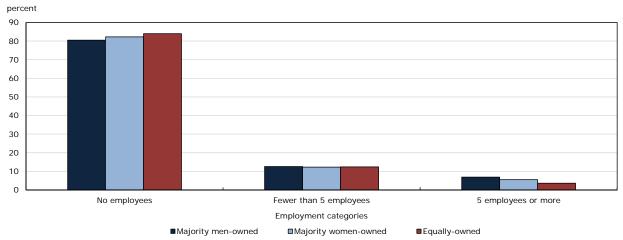
Chart 1
Distribution of private enterprises of entrants across average revenue size categories, by ownership type, 2006 to 2015



Note: The distributions are calculated by retrieving the revenues of private enterprises with at least one entrant (an enterprise can indeed have multiple entrants).

^{12.} An enterprise is defined as WOE if women have at least 51% share in the ownership of the enterprise. Similarly, an enterprise is MOE if men have at least 51%. An enterprise can also be EOE, if the shares owned by men are identical to that owned by women, that is, 50%. Following Grekou, Li and Liu (2018a), only private enterprises with a clearly defined gender structure of ownership are included.

Chart 2
Distribution of private enterprises of entrants across employment categories, by ownership type, 2006 to 2015



Note: The distributions are calculated by retrieving the number of employees of private enterprises with at least one entrant (an enterprise can indeed have multiple entrants).

Source: Statistics Canada, author's calculations based on data from the Canadian Employer-Employee Dynamics Database.

Sets of regressions

The goal of the regressions is to understand the relationships between the characteristics of entrants and the performance of their businesses (which may have more than one entrant in a given year).

The estimation strategy relies on ordinary least squares regressions that correct for heteroscedasticity and cluster residuals at the enterprise level. The dependent variables are the natural logarithms of the performance indicators and the regressions control for a set of characteristics in the year of entry (e.g., age, immigrant status, having a spouse, number of businesses and characteristics of the enterprise owned), ex-ante characteristics (e.g., income, own labour market experience and number of children by age category) (Table 3).

Two sets of regressions are estimated. In the first set, the regressions are implemented by type of enterprises (MOE, WOE or EOE). In the second set, the regressions are implemented by type of enterprises and gender of the entrants, which allows to analyse differences across gender *within* types of enterprises. The regressions pool all years together but include dummy variables for the year of entry into business ownership. ^{13,14}

Because individuals entering business ownership can do so by acquiring shares of existing enterprises, regressions focusing on new enterprises only are also shown in the Appendix. However, to keep the discussion concise, these results are mentioned only when notable differences exist.

^{13.} Outliers with respect to (In) revenues, (In) employment and (In) total potential income from the enterprise are dropped from the analysis file, where the total potential income is the sum of wages and potential dividends from the enterprise (Table A.1 in the Appendix). The outliers at the bottom of the distributions are the observations below Q1-5*IQR and the outliers at the top of the distributions are the observations above Q3+5*IQR, where Q1 is the 25th percentile, Q3 is the 75th percentile and IQR is the interquartile range. It should be noted that the usage of 5*IQR is less restrictive that the conventional 3*IQR (e.g., Kremp 1995). This intends to keep as many meaningful economic data as possible. The results are qualitatively robust to the inclusion of all observations.

^{14.} It can be noted that the results are robust to changes in the specification. Hence, qualitatively similar results (not shown here) were obtained when clustering at the provincial level, when using levels instead of natural logarithms or when using separate years (2006 to 2015).

Table 3
List of variables used in the main regressions

Type and level of information	Variable description						
Dependent variables – current characteristics							
 Enterprise owned 	(Ln) Revenues						
	(Ln) Number of employees						
Independent variables – current characteristics							
- Individual	Being a business owner is the main activity						
	Age						
	Age squared						
	Immigrant status						
	Recent immigrant status						
	Province of residence						
- Spouse	Has a spouse, the spouse is not a business partner						
	Has a spouse, the spouse is a business partner						
 Business-related information 	Number of enterprises owned by the individual						
	Year of entry into business-ownership						
 Features of the business owned 	Number of business partners in the enterprise						
	Flag of whether the enterprise is new (i.e., not existing in the preceding year)						
	Industry (4-digit NAICS)						
Ex-ante individual characteristics							
- Labour market experience and earnings (in the year	Cumulative personal income over the five years preceding entry						
preceding entry unless stated otherwise)	Number of years of experience in the same 2-digit NAICS industry over the five years preceding entry						
	4 mutually exclusive labour status: employed only, self-employed only, employed and self-employed, and non-employed						
	Number of years of experience as a business owner over the five years preceding entry						
	Has ever worked with the business partners over the five years preceding entry						
- Spouse and family (in the year preceding entry unless	Cumulative family income over the five years preceding entry						
stated otherwise)	Had children under 7 years old only						
	Had children aged 7 to 16 years old only						
	Had children under 7 years old and children aged 7 to 16						

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The variables are detailed in Appendix Table A.1. Current characteristics are characteristics in the year of entry and ex-ante characteristics are before entry.

Source: Statistics Canada, author's documentation.

Interpretation of the coefficients

It is important to note that the coefficients from the regressions should be interpreted as correlations rather than effects. Although lagged variables are introduced, simultaneity (for example a shock correlated with current firm revenues and lagged family income) remains a potential risk. Similarly, businesses performing well may attract or limit business ownership to entrants that have specific experiences/characteristics. The opposite applies to businesses that do not perform well.

In other words, a positive coefficient, for example, of family income on revenues, suggests that entrants with higher income tended to own enterprises with higher revenues. At the same time, it can also be interpreted as meaning that enterprises with higher revenues tended to have entrant owners who had higher income. In short, such a coefficient means that higher incomes are positively associated with higher revenues.

4.2 Results by type of enterprises

Adding gender diversity to the ownership structure was positively associated with both performance indicators in MOE and WOE.

The results show that having entrants from the minority gender was positively associated with revenues and number of employees. Specifically, the results suggest that MOE with at least one woman entrant and WOE with at least one man entrant tended to have higher revenues and more employees than their respective counterparts with only men or women entrants (Tables 4 and 5). ¹⁵ The results can also be interpreted as showing that MOE and WOE with better performance foster diversity. Interestingly, the results for EOE suggest that having at least one woman entrant is negatively associated with revenues and positively associated with the number of employees.

These results align with the growing body of evidence linking gender diversity within enterprises and performance. Recent reports by consulting firms suggest that enterprises with more women had (1) higher stock prices than their peers even after controlling for size, yield, profitability and risk (Morgan Stanley), (2) higher financial returns above their respective national industry medians (McKinsey) and (3) more overall innovation (Boston Consulting Group). Despite scarce quantitative evidence on the exact mechanisms under which gender-diversity fosters better performance, it seems gender-diversity relates positively with trust and employee engagement (Downey et al. 2015), which favor performance.

Being primarily a business owner, being older were positively associated with performance. Being an immigrant—especially a recent immigrant—was negatively associated with performance.

Unsurprisingly, there was a strong correlation between performance and the fact that business ownership was the main activity of the individual. Age was positively associated with both performance indicators and across all types of enterprises, however at a diminishing rate as captured by the negative coefficients on age squared.

Being an immigrant and being a recent immigrant were negatively associated with both performance indicators across all types of enterprises. The only exception was a non-significant coefficient associated with being a recent immigrant for employment in EOE (Table 4).

^{15.} It should be clear that existing WOE could have no women entering. Also, new WOE could be created by women who were already business owners (hence not technically entrant) and have only men entrants. The same applies to MOE and men entrants.

^{16.} The report by Morgan Stanley (Williams-Grunt 2019) is conducted between 2010 and 2019 on 1,875 firms on the MSCI World Index. Gender diversity is defined as a score, which factors in the percentage of women on boards, in the executive and management team, or in the workforce. The report by McKinsey (Hunt, Layton and Prince 2015) is conducted on 366 public companies between 2010 and 2014 across a "range of industries" in the United Kingdom, Canada, the United States, and Latin America. Gender diversity there is measured with a Herfindahl-Hirschman Index of the composition of top management and boards. The report by the Boston Consulting Group (Lorenzo et al. 2018) compiles information from surveys of "employees at more than 1,700 companies in eight countries (Austria, Brazil, China, France, Germany, India, Switzerland, and the US) across a variety of industries and company sizes." (under "Diversity gaining momentum worldwide"). The definition of gender-diversity is based on the perception of employees. Innovation is defined as the percentage of total revenue from new products and services launched over the past three years.

Table 4
Regression results for revenues using all enterprises

		Depe	ndent variable:	(Ln) Reve	nues	
			Majority wo	men-		
	Majority men	-owned	owned pri	vate	Equally-owned	d private
	private enter	prises	enterpris	es	enterpris	ses
	coefficient	p-value	coefficient	p-value	coefficient	p-value
Current characteristics						
Being a business ow ner is the main activity	1.225 ***	0.000	1.176 ***	0.000	1.156 ***	0.000
Woman entrant	0.166 ***	0.000			-0.055 ***	0.000
Man entrant			0.276 ***	0.000		
Age	0.056 ***	0.000	0.037 ***	0.000	0.048 ***	0.000
Age squared	-0.001 ***	0.000	0.000 ***	0.000	-0.001 ***	0.000
Immigrant	-0.272 ***	0.000	-0.191 ***	0.000	-0.198 ***	0.000
Recent immigrant	-0.139 ***	0.000	-0.187 ***	0.000	-0.160 ***	0.000
Has a spouse, spouse is not a partner	0.119 ***	0.000	0.003	0.784	0.141 ***	0.000
Has a spouse, spouse is a partner	0.138 ***	0.000	0.105 ***	0.000	0.078 ***	0.000
Number of enterprises ow ned	0.208 ***	0.000	0.139 ***	0.000	0.031	0.137
Enterprise ow ned is new	-0.784 ***	0.000	-0.683 ***	0.000	-0.689 ***	0.000
Number of partners	0.133 ***	0.000	0.123 ***	0.000	0.016 †	0.091
Ex-ante labour experience						
Years of experience in same 2-digit NAICS	0.075 ***	0.000	0.079 ***	0.000	0.051 ***	0.000
Was employed only	0.404 ***	0.000	0.489 ***	0.000	0.495 ***	0.000
Was self-employed only	0.756 ***	0.000	0.786 ***	0.000	0.766 ***	0.000
Was employed and self-employed	0.510 ***	0.000	0.595 ***	0.000	0.582 ***	0.000
Has business owner experience	-0.096 ***	0.000	-0.103 ***	0.000	-0.103 ***	0.000
Worked with partners	0.326 ***	0.000	0.186 ***	0.000	0.103 ***	0.000
Ex-ante family characteristics						
Family income over 5 years preceding entry	0.163 ***	0.000	0.117 ***	0.000	0.141 ***	0.000
Had children under 7 years old only	0.025 †	0.060	-0.008	0.693	0.041 *	0.022
Had children aged 7 to 16 only	0.030 *	0.046	0.090 ***	0.000	0.063 **	0.004
Had children under 7 years old and children						
aged 7 to 16	0.032 †	0.077	0.066 ***	0.009	0.064 **	0.006

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. The number of observations for majority men-owned private enterprises is 620,732 and the adjusted r-squared is 0.338. The number of observations for majority women-owned private enterprises is 197,493 and the adjusted r-squared is 0.272. The number of observations for the equallyowned private enterprises is 231,778 and the adjusted r-squared is 0.228.

^{*} significantly different from reference category (p < 0.05)

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

 $[\]dagger$ significantly different from reference category (p < 0.10)

Table 5
Regression results for number of employees using all enterprises

	Dependent variable: (Ln) Number of employees									
	Majority men-		Majority wo		Equally-owne	d private				
	private enter	prises	owned pri	vate	enterpri	ses				
	coefficient	p-value	coefficient	p-value	coefficient	p-value				
Current characteristics										
Being a business owner is the main activity	0.481 ***	0.000	0.420 ***	0.000	0.491 ***	0.000				
Woman entrant	0.102 ***	0.000			0.027 ***	0.000				
Man entrant			0.097 ***	0.000						
Age	0.026 ***	0.000	0.018 ***	0.000	0.031 ***	0.000				
Age squared	0.000 ***	0.000	0.000 ***	0.000	0.000 ***	0.000				
lmmigrant	-0.231 ***	0.000	-0.204 ***	0.000	-0.166 ***	0.000				
Recent immigrant	-0.052 ***	0.000	-0.061 **	0.002	-0.027	0.127				
Has a spouse, spouse is not a partner	0.130 ***	0.000	0.089 ***	0.000	0.079 ***	0.001				
Has a spouse, spouse is partner	-0.027 **	0.002	-0.058 ***	0.000	-0.077 ***	0.000				
Number of enterprises ow ned	0.258 ***	0.000	0.159 **	0.003	0.261 ***	0.000				
Enterprise ow ned is new	-0.713 ***	0.000	-0.661 ***	0.000	-0.563 ***	0.000				
Number of partners	0.173 ***	0.000	0.158 ***	0.000	0.092 ***	0.000				
Ex-ante labour experience										
Years of experience in same 2-digit NAICS	0.042 ***	0.000	0.046 ***	0.000	0.030 ***	0.000				
Was employed only	0.139 ***	0.000	0.178 ***	0.000	0.226 ***	0.000				
Was self-employed only	0.252 ***	0.000	0.204 ***	0.000	0.315 ***	0.000				
Was employed and self-employed	0.141 ***	0.000	0.170 ***	0.000	0.261 ***	0.000				
Has business owner experience	-0.043 ***	0.000	-0.039 ***	0.000	-0.053 ***	0.000				
Worked with partners	0.332 ***	0.000	0.219 ***	0.000	0.150 ***	0.000				
Ex-ante family characteristics										
Family income over 5 years preceding entry	0.139 ***	0.000	0.053 **	0.003	0.086 ***	0.000				
Had children under 7 years old only	-0.062 ***	0.000	-0.010	0.640	-0.031 †	0.096				
Had children aged 7 to 16 only	-0.017	0.263	0.063 **	0.002	0.018	0.416				
Had children under 7 years old and children										
aged 7 to 16	-0.055 **	0.002	0.051 †	0.052	0.061 **	0.010				

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. The number of observations for majority men-owned private enterprises is 257,408 and the adjusted r-squared is 0.455. The number of observations for majority women-owned private enterprises is 75,463 and the adjusted r-squared is 0.367. The number of observations for the equally-owned private enterprises is 82,993 and the adjusted r-squared is 0.315.

Source: Statistics Canada, author's calculations based on data from the Canadian Employer-Employee Dynamics Database.

Having a spouse, whether a business partner or not, tended to be positively associated with revenues. Having a spouse as a business partner was negatively associated with employment.

There were significant positive associations between having a spouse who is not a business partner and both performance indicators, except with revenues in WOE.

Having a spouse as a business partner was positively associated with revenues for all types of enterprises. However, the correlations suggest that businesses owned by both spouses tended to have fewer employees than their counterparts where the entrant does not have a spouse. These results are fairly intuitive. Businesses with both spouses as worker owners will require less additional employment than their counterparts with a single worker owner.

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

The strong correlations associated with having a spouse (as a business partner or not) and the fact that women were more likely to have a spouse (Table 2, Subsection 3.2 above) suggest that this variable is important for women entrants. ¹⁷

For new enterprises, although the sign and significance of the correlations associated with spouses remain the same for most cases, a few changes can be observed (Tables A.2 and A.3 in the Appendix). Specifically, the relationships change signs (spouse not a partner and revenues in WOE turned negative; spouse a partner and employment in MOE turned positive) or lose significance in employment (spouse not a partner in EOE and spouse a partner in WOE and EOE). Hence, the role of the spouse seems more relevant once an enterprise is already established.

The number of enterprises owned and the number of business partners were positively associated with performance contrary to owning a new enterprise.

The results pertaining to the number of enterprises owned were consistent with the literature showing that enterprises operated by serial entrepreneurs (i.e., individuals who own multiple enterprises) have better performance in terms of sales, productivity and longevity (Shaw and Sorensen 2017; Lafontaine and Shaw, 2016). However, the results restricted to new enterprises only suggest that enterprises owned by serial entrepreneurs tended to generate less revenues than their counterparts with only one enterprise (Table A.2 in the Appendix).

The number of business partners tended to be positively associated with revenues and with the number of employees. Because women were more likely to have business partners (Subsection 3.2, Table 2 above), the results suggest that this variable contributed more for enterprises owned by women. However, the results restricted to new enterprises only suggest that having multiple business owners was negatively associated with revenues in EOE (Table A.2 in the Appendix).

Also, as could be expected, owning a new enterprise is negatively associated with both performance indicators.

Having experience in the same industry in which the enterprise operates and sharing work experience with business partners were strongly positively associated with performance.

Positive associations were found between both performance indicators and two variables pertaining to experience: having experience in the industry in which one's enterprise operates and sharing work experience with business partners. Because men were more likely to have such experiences (Subsection 3.2, Table 2 above), the results suggest that the variables contributed more for enterprises owned by men.

Being self-employed only had strong positive correlations with both performance indicators. Being employed and self-employed or being employed only also had positive associations.

Across all regressions, the coefficients associated with being self-employed only had the strongest magnitude among labour status variables. Being employed and self-employed tended to have the second highest magnitude. These results highlight the importance of self-employment as a step helping individuals acquire experience and knowhow that serve them when their enterprise incorporates.¹⁸

^{17.} Although the labour force status of the spouse could play a role for the success of the business, its role is not assessed in this paper essentially to simplify the discussion and avoid risk of multi-collinearity with other variables pertaining to the spouses.

^{18.} One can also think that the self-employed also acquire a network of suppliers and clients. This cannot be tested with the data.

Interestingly, having previous experience as a business owner tended to yield negative correlations with both performance indicators and all types of enterprises. This result is surprising since it was expected to be positively associated with better performances. However, an entrant's previous status as a business owner might indicate that they had an earlier business which failed. It may therefore capture failure to maintain the business owner status rather than experience itself. The correlation between previous experience and performance shall be explored in a different setup than the one proposed in this paper by looking at all business owners, not just entrants, and for a period that goes beyond the year of entry.

Family cumulative income was associated with better business performance.

The correlations pertaining to family income were positive for both revenues and number of employees and across all types of enterprise. Better business performances were therefore associated with higher family income.

The fact that the levels of family income were higher for women (Subsection 3.3, Table 2 above) suggest that this variable is more important for the success women's enterprises.¹⁹

Having children tended to be positively associated with revenue but there were inconsistent signs and significance of correlations with employment.

Contrary to findings showing that having young children could affect entry into business ownership (Jeong and Ostrovsky 2016), the results here show inconsistent signs of correlation between having children and performance.

Positive correlations were found across all types of enterprises and age categories. The associations with employment, however, showed inconsistency. When significant, they were negative in MOE, positive in WOE and of both signs in EOE (negative for having children aged under 7 and positive having children in both categories).

Interestingly, when focusing on new enterprises only and having children, the only notable difference was the loss of significance for all correlations with employment in WOE (Table A.3 in the Appendix). In other words, the number of employees in new WOE with entrants having children were not significantly different than their counterparts with entrants without children.

4.3 Results by type of enterprises and gender of entrants

The second set of regressions adds the gender of the entrant as a dimension for the regressions. The tables present the coefficients for men and women across types of enterprises and also present the p-values from testing whether the coefficients are different across gender (Tables 6 and 7).²⁰ To avoid repetition and because results are qualitatively similar to the ones depicted above, the discussion focuses on the variables with opposite signs across gender that are statistically significant.

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^{19.} These results are consistent with studies showing that WOE are dependent on the wealth of their close network (own, family and friends) as they are less likely to apply for external equity or to use debt and equity financing than their men counterparts (e.g., Orser, Riding and Manley 2006; Coleman and Robb 2009).

^{20.} It should be noted that the coefficients from regressions of different samples are not directly comparable. Therefore, the tests of equality of the coefficients are implemented by pooling men and women together and then testing whether the coefficients associated with the interaction terms between gender and the variables of interest are significantly different from zero. The procedure is explained in detail in McDowell (n.d.).

There was a strong tendency for correlations to have the same signs across gender. However, significant differences in magnitudes were found.

For both performance indicators and across types of firms, the coefficients for men and women had the same signs and tended to follow the same patterns depicted in Subsection 4.2 above. This means that, despite the important ex-ante differences described earlier, characteristics and performance indicators tended to have the same association (positive or negative) for men and women.

Nevertheless, differences in the magnitudes of the correlations existed and were often statistically significant as illustrated by the number of cases with p-values lower than 0.1.

The age categories of children had positive associations with both indicators for women entrants and men entering WOE. However, they had non-significant associations with revenues and negative associations with employment for men entering MOE or EOE.

For women entrants, having children had positive associations with all performance indicators (Tables 6 and 7, Models 2, 4, and 6). For men, the correlations associated with having children tended to be non-significant with revenues (except positive associations in WOE, Table 6, Models 1, 3 and 5), negative with employment in MOE and EOE (Table 7, Models 1 and 5) and positive with employment in WOE (Table 7, Model 3).

These results mean that, overall, the enterprises with women entrants with children tended to outperform the enterprises with women entrants without children. Men entering WOE exhibited similar patterns. However, the relation for men entering MOE and EOE was non-significant with respect to revenues and reverse with respect to employment.

Although more evidence is necessary to fully explain the results, they are consistent with selection processes. For example, women with children who are able (and willing) to become business partners are likely to have unobserved characteristics (e.g., specific management skills, capacity/willingness to negotiate flexible work arrangements or benefits) that distinguish them from their counterparts with no children. Also, enterprises that perform well are more likely to offer packages that may be more attractive to women entrants with children than to their counterparts without children. These unobserved characteristics of entrants and firms would foster positive assortative matching and contribute to explain the results.

The results focusing on new enterprises only reinforce the hypothesis that selection processes play a role (Tables A.4 and A.5 in the Appendix). Indeed, the differences observed between men and women are still present but become blurred as the positive correlations observed for women having children turn into negative or non-significant correlations.

Table 6
Regression results for revenues using all enterprises, by sex of the entrants

		Dependent variable: (Ln) Revenues													
	Majority	y men-o	wned private	enterpr	ises	Majority v	women-	owned private	enterp	rises	Equa	lly-own	ed private ente	erprises	3
	Men		Womer	1	Test	Men		Womer	1	Test.	Men		Women	1	Test
					Diff=0					Diff=0					Diff=0
	Model		Model 2	2	(Prob>F) ¹	Model :		Model 4	4	(Prob>F)	Model		Model 6	6	(Prob>F)
	coefficient	p-value	coefficient	p-value	value	coefficient	p-value	coefficient	p-value	value	coefficient	p-value	coefficient	p-value	value
Current characteristics															
Being a business owner is the main activity	1.265 ***	0.000	1.063 ***	0.000	0.000	1.106 ***	0.000	1.189 ***	0.000	0.001	1.187 ***	0.000	1.145 ***	0.000	0.001
Age	0.060 ***	0.000	0.036 ***	0.000	0.000	0.031 ***	0.000	0.038 ***	0.000	0.209	0.049 ***	0.000	0.047 ***	0.000	0.465
Age squared	-0.001 ***	0.000	-0.001 ***	0.000	0.000	0.000 ***	0.000	0.000 ***	0.000	0.267	-0.001 ***	0.000	-0.001 ***	0.000	0.406
Immigrant	-0.265 ***	0.000	-0.225 ***	0.000	0.025	-0.213 ***	0.000	-0.182 ***	0.000	0.305	-0.213 ***	0.000	-0.187 ***	0.000	0.090
Recent immigrant	-0.127 ***	0.000	-0.152 ***	0.000	0.406	-0.110 *	0.038	-0.195 ***	0.000	0.107	-0.167 ***	0.000	-0.152 ***	0.000	0.445
Has a spouse, spouse is not a partner	0.121 ***	0.000	0.107 ***	0.000	0.572	0.186 ***	0.000	-0.005	0.627	0.000	0.190 ***	0.000	0.104 ***	0.001	0.024
Has a spouse, spouse is partner	0.174 ***	0.000	0.004	0.829	0.000	0.093 **	0.006	0.115 ***	0.000	0.537	0.133 ***	0.000	0.033	0.140	0.000
Number of enterprises owned	0.162 ***	0.000	0.343 ***	0.000	0.000	0.109	0.130	0.153 ***	0.000	0.555	0.003	0.911	0.048 **	0.030	0.061
Enterprise owned is new	-0.754 ***	0.000	-0.860 ***	0.000	0.000	-0.757 ***	0.000	-0.659 ***	0.000	0.000	-0.587 ***	0.000	-0.748 ***	0.000	0.000
Number of partners	0.131 ***	0.000	0.087 ***	0.000	0.000	0.080 ***	0.000	0.131 ***	0.000	0.000	0.022 *	0.044	0.014	0.169	0.365
Ex-ante labour experience															
Years of experience in same 2-digit NAICS	0.087 ***	0.000	0.067 ***	0.000	0.000	0.089 ***	0.000	0.082 ***	0.000	0.364	0.054 ***	0.000	0.063 ***	0.000	0.027
Was employed only	0.365 ***	0.000	0.521 ***	0.000	0.000	0.429 ***	0.000	0.493 ***	0.000	0.113	0.448 ***	0.000	0.516 ***	0.000	0.010
Was self-employed only	0.772 ***	0.000	0.517 ***	0.000	0.000	0.496 ***	0.000	0.826 ***	0.000	0.000	0.850 ***	0.000	0.669 ***	0.000	0.000
Was employed and self-employed	0.488 ***	0.000	0.561 ***	0.000	0.002	0.429 ***	0.000	0.620 ***	0.000	0.000	0.546 ***	0.000	0.598 ***	0.000	0.066
Has business owner experience	-0.093 ***	0.000	-0.115 ***	0.000	0.034	-0.118 ***	0.000	-0.097 ***	0.000	0.196	-0.092 ***	0.000	-0.118 ***	0.000	0.000
Worked with partners	0.436 ***	0.000	0.018	0.257	0.000	0.090 **	0.002	0.206 ***	0.000	0.000	0.139 ***	0.000	0.065 ***	0.000	0.000
Ex-ante family characteristics															
Family income over 5 years preceding entry	0.171 ***	0.000	0.158 ***	0.000	0.669	0.242 ***	0.000	0.103 ***	0.000	0.003	0.154 **	0.004	0.135 ***	0.000	0.731
Had children under 7 years old only	-0.033 *	0.043	0.116 ***	0.000	0.000	0.143 *	0.011	-0.025	0.253	0.005	0.040	0.239	0.044 *	0.043	0.925
Had children aged 7 to 16 only	-0.007	0.683	0.121 ***	0.000	0.000	0.268 ***	0.000	0.071 ***	0.001	0.002	0.055	0.164	0.067 *	0.015	0.794
Had children under 7 years old and children aged 7 to 16	-0.015	0.502	0.120 ***	0.000	0.000	0.230 **	0.003	0.049 †	0.067	0.026	0.051	0.216	0.074 **	0.010	0.657

^{*} significantly different from reference category (p < 0.05)

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. The number of observations for majority men-owned private enterprises (men) is 517,923 and the adjusted r-squared is 0.325. The number of observations for majority men-owned private enterprises (men) is 28,317 and the adjusted r-squared is 0.318. The number of observations for majority women-owned private enterprises (men) is 169,176 and the adjusted r-squared is 0.252. The number of observations for the equally-owned private enterprises (men) is 107,818 and the adjusted r-squared is 0.228. The number of observations for the equally-owned private enterprises (women) is 123,960 and the adjusted r-squared is 0.229.

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

^{1.} The test between men and women is described in Footnote 20 in the text.

Table 7
Regression results for number of employees using all enterprises, by sex of the entrants

		Dependent variable: (Ln) Number of employees													
	Majorit	y men-ow	ned private	enterpris	ses	Majority	women	owned private	enterpr	ises	Equa	ally-own	ed private ente	erprises	
	Men		Wome	Women		Men	Wo		n	Test	tMen		Womer	1	Test
					Diff=0										Diff=0
	Model		Model		(Prob>F) ¹	Model	-	Model		(Prob>F)	Model		Model 6		(Prob>F)
	coefficient	p-value o	oefficient	p-value	value	coefficient	p-value	coefficient	p-value	value	coefficient	p-value	coefficient	p-value	value
Current characteristics															
Being a business owner is the main activity	0.510 ***	0.000	0.411 ***	0.000	0.000	0.447 ***	0.000	0.423 ***	0.000	0.360	0.549 ***		0.450 ***	0.000	
Age	0.027 ***	0.000	0.025 ***	0.000	0.423	0.025 ***	0.000	0.016 ***	0.000	0.089	0.032 ***	0.000	0.031 ***	0.000	0.892
Age squared	0.000 ***	0.000	0.000 ***	0.000	0.873	0.000 ***	0.000	0.000 ***	0.000	0.061	0.000 ***	0.000	0.000 ***	0.000	0.951
Immigrant	-0.215 ***	0.000	-0.240 ***	0.000	0.119	-0.260 ***	0.000	-0.189 ***	0.000	0.013	-0.160 ***	0.000	-0.173 ***	0.000	0.346
Recent immigrant	-0.051 ***	0.000	-0.014	0.587	0.165	0.024	0.631	-0.077 ***	0.000	0.040	-0.031	0.134	-0.023	0.237	0.681
Has a spouse, spouse is not a partner	0.131 ***	0.000	0.156 ***	0.000	0.243	0.262 ***	0.000	0.075 ***	0.000	0.000	0.100 **	0.002	0.064 *	0.031	0.342
Has a spouse, spouse is partner	-0.016	0.145	-0.109 ***	0.000	0.000	-0.097 **	0.002	-0.029 †	0.094	0.036	-0.050 *	0.039	-0.098 ***	0.000	0.040
Number of enterprises owned	0.230 ***	0.000	0.327 ***	0.000	0.001	0.091	0.277	0.200 ***	0.000	0.216	0.259 ***	0.000	0.257 ***	0.000	0.954
Enterprise owned is new	-0.710 ***	0.000	-0.688 ***	0.000	0.164	-0.618 ***	0.000	-0.657 ***	0.000	0.147	-0.532 ***	0.000	-0.577 ***	0.000	0.000
Number of partners	0.174 ***	0.000	0.140 ***	0.000	0.000	0.141 ***	0.000	0.156 ***	0.000	0.196	0.092 ***	0.000	0.095 ***	0.000	0.731
Ex-ante labour experience															
Years of experience in same 2-digit NAICS	0.049 ***	0.000	0.054 ***	0.000	0.195	0.061 ***	0.000	0.046 ***	0.000	0.045	0.025 ***	0.000	0.044 ***	0.000	0.000
Was employed only	0.144 ***	0.000	0.138 ***	0.000	0.780	0.205 ***	0.000	0.173 ***	0.000	0.441	0.226 ***	0.000	0.212 ***	0.000	0.559
Was self-employed only	0.283 ***	0.000	0.131 ***	0.000	0.000	0.192 ***	0.000	0.210 ***	0.000	0.715	0.360 ***	0.000	0.266 ***	0.000	0.000
Was employed and self-employed	0.159 ***	0.000	0.106 ***	0.000	0.024	0.200 ***	0.000	0.167 ***	0.000	0.472	0.266 ***	0.000	0.244 ***	0.000	0.411
Has business owner experience	-0.045 ***	0.000	-0.031 ***	0.000	0.097	-0.051 ***	0.000	-0.034 ***	0.000	0.226	-0.048 ***	0.000	-0.060 ***	0.000	0.073
Worked with partners	0.408 ***	0.000	0.111 ***	0.000	0.000	0.137 ***	0.000	0.239 ***	0.000	0.001	0.153 ***	0.000	0.140 ***	0.000	0.284
Ex-ante family characteristics Family income over 5 years preceding															
entry	0.142 ***	0.000	0.139 ***	0.000	0.836	0.110 **	0.002	0.045 **	0.005	0.076	0.094 ***	0.000	0.081 ***	0.000	0.491
Had children under 7 years old only	-0.140 ***	0.000	0.049 *	0.025	0.000	0.126 *	0.040	-0.026	0.247	0.020	-0.124 ***	0.001	0.008	0.712	0.003
Had children aged 7 to 16 only Had children under 7 years old and children	-0.099 ***	0.000	0.123 ***	0.000	0.000	0.101 †	0.097	0.061 **	0.006	0.536	-0.084 *	0.035	0.065 *	0.016	0.002
aged 7 to 16	-0.151 ***	0.000	0.078 **	0.003	0.000	0.224 **	0.004	0.030	0.278	0.018	0.008	-0.861	0.083 **	-0.003	0.171

^{*} significantly different from reference category (p < 0.05)

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. The number of observations for majority men-owned private enterprises (men) is 202,459 and the adjusted r-squared is 0.458. The number of observations for majority men-owned private enterprises (men) is 13,930 and the adjusted r-squared is 0.386. The number of observations for majority women-owned private enterprises (women) is 61,533 and the adjusted r-squared is 0.353. The number of observations for the equally-owned private enterprises (men) is 138,438 and the adjusted r-squared is 0.318. The number of observations for the equally-owned private enterprises (women) is 44,555 and the adjusted r-squared is 0.311. **Source:** Statistics Canada, author's calculations based on data from the Canadian Employer–Employee Dynamics Database.

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

^{1.} The test between men and women is described in Footnote 20 in the text.

5 Conclusion

The paper has shown important differences in the socio-economic characteristics of men and women prior to entering business ownership but also important similarities in the correlations between these characteristics and two business performance indicators (revenues and number of employees).

The descriptive statistics suggest that men entrants seem to have more pertinent labour market experience than their women counterparts. Indeed, in the year preceding entry, women entrants were proportionately less likely to be self-employed. Over the five years preceding entry, they were proportionately less likely to have acquired experience in the industry in which their enterprise operates, and earned about a third less income than their men counterparts. Although women entrants had a higher propensity to have business partners, they were twice as likely to have their spouse as a partner, and were less likely to have worked with their business partners in the same firm.

Women entrants had more children, accumulated a third less personal income than their male counterparts but had a higher family income over the five years preceding entry.

The multivariate analysis shows that the labour market experience of the entrants (defined as having experience as a self-employed; having experience in the industry in which the enterprise operates; sharing work experience with business partners of the entrants) was positively associated with both revenues and the number of employees. Adding gender diversity to the business ownership structure was also positively associated with performance. Being older, being Canadian-born, the number of business partners (for existing enterprises), the number of enterprises owned (for existing enterprises), cumulative family income over the five years preceding entry, and having a spouse were positively associated with performance.

Running regressions by types of enterprises and gender of the entrants revealed similarities across gender. However, differences in the signs of the correlations exist with respect to children. The age categories of children had positive associations with both indicators for women entrants and men entering WOE but non-significant associations with revenues and negative associations with employment for other men entrants. These results seem consistent with selection processes fostering positive assortative matching between business performance and specific unobserved characteristics possessed by individuals who have children.

The results of the paper inform policymakers on the important gender differences in the socioeconomic profile of entrants and potentially helps the design of programs aiming at improving the performance of businesses owned by women.

It is interesting to note that the profile of women entering business ownership is different from the working women in the top 1% income distribution as described in Richards (2019), especially with respect to family characteristics. For example, working women in the top 1% had fewer children than their men counterparts to the contrary of women entering business ownership. This underlines the importance of studying multiple facets of working women for a better understanding of their profile.

The paper also stresses the importance of taking into account experience and family characteristics of entrants for the performance of firms. Future research shall investigate the role of these characteristics in determining entry into business ownership and understanding performance over periods beyond the entry year. This will help address the important question of whether women entrants are more opportunity-based or necessity-based. Also, the relationship between ex-ante characteristics and the ownership structure of the business (e.g., men majority or women majority) in terms of formation, performance and evolution deserves attention.

Appendix 1 6

6.1 Variable description

Table A.1 Variable description

Variable/Concept	Source	Description
Age	T1	Age of the individual, derived from the date of birth. When missing, imputed using other years.
Business partners Spouse is partner Proportion of partners who worked in same firm as the entrant	T1 T1 BD T2 Schedule 50 T4 T2 (NALMF)	For each entrant, the list of all of their business partners is established in the year of entry using T2 Schedule 50. It is then easy to determine whether the entrant's spouse is a partner using his/her personal identifier from the T1. The working path of each partner is established over the five years preceding entry. The working path of a partner is the list of firms he/she owned or where he/she was an employee. The path is determined using the business number from the T4 (employees) or T2 Schedule 50 (incorporated business owner) and the enterprise identifier from NALMF. For each year, the partner path is confronted to the entrant's path and a dummy variable indicates whether that's the case in any of the five years preceding entry. Finally, the proportion of partners who worked in same firm as the entrant is established by dividing the number of partners who worked in the same firms as the entrant over the total number of partners the entrant has. For entrants who owned more than one business, the proportion of partners apply to all the businesses owned. It is therefore the proportion among all partners across all businesses. It is not an average across businesses. It can be noted that the confrontation of job paths was not completed for the unincorporated businesses because of quality concerns (e.g., incomplete partnership and concerns with T4s).
Number of employees	PD7 (NALMF)	Average employees reported from PD7s recording a value of one or more. Calculated by taking the mean of all non-zero monthly employment submissions.
Entrant	T2 Schedule 50	Individual who is a business owner (i.e., present in T2 Schedule 50) in the current year but who was not in the previous year.
Family income	T1FF	The family total income after tax calculated deflated using CPI (unit: constant 2006 dollars).
ImmigrationImmigrantRecent Immigrant	Immigrant Landing File	Indicate whether the individual is not Canadian-born. Recent immigrants are the individuals whose year of landing (i.e., year where they enter Canada as a permanent resident) is within five years of the year of entry into business ownership.
Income Income year preceding entry Cumulative income over the five years preceding entry	T1	Total income before tax in the year preceding entry, calculated by CRA (line 150) as the sum of many income components (employment income, pension, capital gains, dividends, self-employment, rent, alimony, social assistance, universal child care benefits since 2006) deflated using CPI (unit: constant 2006 dollars). The cumulative income is obtained by summing available information on income over the five years preceding entry (unit: constant 2006 dollars). Negative incomes have been set to missing.
TPI from all businesses owned	T2 Schedule 50 T2 (NALMF)	Corporate owners can pay themselves wages, dividends, and put the rest into corporate retained earnings. Here, the total potential income from a business is defined as: wages plus percentage share multiplied by net_income of business where the net income of business is the variable <code>net_income_3680</code> in NALMF and the wage is retrieved from the T4. For individuals with multiple businesses, the TPI from each enterprise owned is summed.

Note: CRA: Canada Revenue Agency; CPI: Consumer Price Index; NAICS: North American Industry Classification System; NALMF: National Accounts Longitudinal Microdata File; PD7: statements of accounts and remittance vouchers; TPI: total potential income; T1: Income Tax and Benefit Return; T1 BD: T1 Business Declaration; T1 FD: T1 Financial Declaration; T1FF: T1 Family File; T2: Corporation Income Tax Return; T4: Statement of Remuneration Paid.

Source: Statistics Canada, author's documentation.

Table A.1 Variable description (continued)

Variable/Concept	Source	Description
 Labour status Entrant's labour status Spouse's labour status 	T1 T1 FD T2 Schedule 50 T4	Labour status in the year preceding entry. The status in any given year has four possible non-mutually exclusive categories: employed (received a T4), incorporated business owner (T2 Schedule 50), self-employed (i.e., unincorporated business owner, was in the T1-FD file), or non-employed if not in the three other categories. Mutually exclusive categories are then derived by identifying the individuals who were employed only, those who were self-employed only, those who were employed and self-employed in the same year, and those who were non-employed (not in the labour force if not in the three other categories). By definition an entrant in a given year cannot be an incorporated business owner in the year before entry. The spouse is identified using the T1.
Legal type	T2 (NALMF)	Variable legaltypecode.
Marital status	T1	Marital status in the year preceding entry
 NAICS experience Have experience Number of years 	T1 FD T2 Schedule 50 T4 T2 (NALMF)	The working path of the entrant is established over the five years preceding entry. The working path is the list of firms he/she owned or where he/she was an employee. The path is determined using the business number from the T4 (employees), T2 Schedule 50 (incorporated business owner), and T1 BD (unincorporated business owner). For each year (entry and five years preceding entry), the two-digit NAICS is obtained at the enterprise level from the NALMF (employees and incorporated business owners) or from the T1 BD (unincorporated business owners, variable BR_DERIVED_NAICS). The NAICS of each of the five years preceding entry are then confronted to the NAICS at entry and a dummy indicator is created flagging whether the NAICS before entry correspond to the NAICS at entry. Finally, the dummy variables are summed to generate two NAICS experience indicator: — one indicating whether the entrant as such experience or not; and — one summing up the number of years of experience in that NAICS Prior experience in unincorporated business is observable from the 2010 cohort only.
Number of children under 7 years old	T1FF	Number of children under 7 claimed child care expense in the year preceding entry. Variable cch7ccex.
Number of children from 7 to 16 years old	T1FF	Number of children from 7 to 16 years old for whom child care expenses were claimed in the year preceding entry. Variable <i>cchfccex</i> .
Payroll	T4 (NALMF)	Total payroll for the business. Calculated by summing all wages and salaries from submitted T4s with valid social insurance numbers.
Revenues	T2 (NALMF)	Non-farm total revenue.
Sex	T1	Sex of the individual. When missing, imputed using other years.

Note: CRA: Canada Revenue Agency; CPI: Consumer Price Index; NAICS: North American Industry Classification System; NALMF: National Accounts Longitudinal Microdata File; PD7: statements of accounts and remittance vouchers; TPI: total potential income; T1: Income Tax and Benefit Return; T1 BD: T1 Business Declaration; T1 FD: T1 Financial Declaration; T1FF: T1 Family File; T2: Corporation Income Tax Return; T4: Statement of Remuneration Paid.

Source: Statistics Canada, author's documentation.

Results restricting the population to new enterprises only 6.2

Table A.2 Regression results for revenues restricting on new enterprises only

	Dependent variable: (Ln) Revenues							
	Majority men-		Majority wome		Equally-owned	-		
	private enter	•	private enter	•	enterpris			
	coefficient	p-value	coefficient	p-value	coefficient	p-value		
Current characteristics								
Being a business owner is the main activity	1.137 ***	0.000	1.098 ***	0.000	1.069 ***	0.000		
Woman entrant	0.156 ***	0.000			-0.069 ***	0.000		
Man entrant			0.282 ***	0.000				
Age	0.038 ***	0.000	0.021 ***	0.000	0.029 ***	0.000		
Age squared	0.000 ***	0.000	0.000 ***	0.000	0.000 ***	0.000		
Immigrant	-0.239 ***	0.000	-0.166 ***	0.000	-0.184 ***	0.000		
Recent immigrant	-0.169 ***	0.000	-0.212 ***	0.000	-0.181 ***	0.000		
Has a spouse, spouse is not a partner	0.085 ***	0.000	-0.039 ***	0.001	0.149 ***	0.000		
Has a spouse, spouse is partner	0.270 ***	0.000	0.167 ***	0.000	0.169 ***	0.000		
Number of enterprises owned	-0.044 *	0.011	-0.137 ***	0.000	-0.197 ***	0.000		
Enterprise owned is new								
Number of partners	0.006	0.289	0.030 **	0.003	-0.072 ***	0.000		
Ex-ante labour experience								
Years of experience in same 2-digit NAICS	0.042 ***	0.000	0.053 ***	0.000	0.029 ***	0.000		
Was employed only	0.384 ***	0.000	0.448 ***	0.000	0.463 ***	0.000		
Was self-employed only	0.810 ***	0.000	0.830 ***	0.000	0.776 ***	0.000		
Was employed and self-employed	0.540 ***	0.000	0.605 ***	0.000	0.578 ***	0.000		
Has business owner experience	-0.031 ***	0.000	-0.068 ***	0.000	-0.041 ***	0.000		
Worked with partners	0.262 ***	0.000	0.089 ***	0.000	0.046 **	0.002		
Ex-ante family characteristics								
Family income over 5 years preceding entry	0.136 ***	0.000	0.131 ***	0.000	0.121 ***	0.000		
Had children under 7 years old only	0.029 †	0.081	-0.006	0.792	0.058 **	0.002		
Had children aged 7 to 16 only	0.030	0.109	0.075 **	0.002	0.078 ***	0.001		
Had children under 7 years old and children aged 7 to 16	0.044 †	0.054	0.069 *	0.016	0.071 **	0.005		

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. It should be clear that new majority women-owned enterprises can have no women entrants: they can be owned by women who were already business owners and have men entrants. Similarly for men-owned enterprises. The number of observations for majority men-owned private enterprises is 433,407 and the adjusted r-squared is 0.183. The number of observations for majority women-owned private enterprises is 141,423 and the adjusted r-squared is 0.174. The number of observations for the equally-owned private enterprises is 191,048 and the adjusted r-squared is 0.169.

^{*} significantly different from reference category (p < 0.05)

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

Table A.3 Regression results for number of employees restricting on new enterprises only

	Dependent variable: (Ln) Number of employees										
	Majority men- private enter	Majority wome		Equally-owned private enterprises							
	coefficient	p-value	coefficient	p-value	coefficient	p-value					
Current characteristics											
Being a business owner is the main activity	0.502 ***	0.000	0.440 ***	0.000	0.507 ***	0.000					
Woman entrant	0.123 ***	0.000			0.017 ***	0.000					
Man entrant			0.130 ***	0.000							
Age	0.017 ***	0.000	0.013 ***	0.000	0.030 ***	0.000					
Age squared	0.000 ***	0.000	0.000 **	0.007	0.000 ***	0.000					
Immigrant	-0.131 ***	0.000	-0.146 ***	0.000	-0.139 ***	0.000					
Recent immigrant	-0.116 ***	0.000	-0.097 ***	0.000	-0.049 *	0.015					
Has a spouse, spouse is not a partner	0.088 ***	0.000	0.060 ***	0.000	0.028	0.352					
Has a spouse, spouse is partner	0.066 ***	0.000	-0.019	0.413	-0.034	0.170					
Number of enterprises owned	0.134 ***	0.000	0.103 **	0.003	0.179 ***	0.000					
Enterprise owned is new											
Number of partners	0.113 ***	0.000	0.091 ***	0.000	0.030 ***	0.001					
Ex-ante labour experience											
Years of experience in same 2-digit NAICS	0.021 ***	0.000	0.028 ***	0.000	0.012 ***	0.000					
Was employed only	0.189 ***	0.000	0.210 ***	0.000	0.281 ***	0.000					
Was self-employed only	0.339 ***	0.000	0.250 ***	0.000	0.375 ***	0.000					
Was employed and self-employed	0.230 ***	0.000	0.223 ***	0.000	0.338 ***	0.000					
Has business owner experience	0.012 †	0.052	0.011	0.348	-0.021 †	0.060					
Worked with partners	0.270 ***	0.000	0.207 ***	0.000	0.121 ***	0.000					
Ex-ante family characteristics											
Family income over 5 years preceding entry	0.058 ***	0.000	0.036 **	0.003	0.043 **	0.006					
Had children under 7 years old only	-0.104 ***	0.000	-0.037	0.151	-0.044 *	0.031					
Had children aged 7 to 16 only	-0.057 **	0.005	0.038	0.148	-0.013	0.624					
Had children under 7 years old and children aged 7 to 16	-0.075 **	0.002	0.013	0.682	0.066 *	0.015					

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. It should be clear that new majority women-owned enterprises can have no women entrants: they can be owned by women who were already business owners and have men entrants. Similarly for men-owned enterprises. The number of observations for majority men-owned private enterprises is 129,270 and the adjusted r-squared is 0.224. The number of observations for majority women-owned private enterprises is 42,420 and the adjusted r-squared is 0.204. The number of observations for the equally-owned private enterprises is 57,784 and the adjusted r-squared is 0.208.

^{*} significantly different from reference category (p < 0.05)

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

Table A.4
Regression results for revenues restricting on new enterprises only, by sex of the entrants

	Dependent variable: (Ln) Revenues														
	Majorit	ises	Majority	women	omen-owned private enterprises Equally-owned private enterprises							s			
	Men		Women		Test	Men		Womer	Women		Men		Women		Test
				_	Diff=0					Diff=0		_			Diff=0
	Model 1		Model 2		(Prob>F) ¹	Model				(Prob>F)	Model 5		Model 6		(Prob>F)
	coefficient	p-value c	oefficient	p-value	value	coefficient	p-value	coefficient	p-value	value	coefficient	p-value of	coefficient	p-value	value
Current characteristics	4 4 4 7 ***		***			4 0 40 ***		4 400 ***			4 070 ***		4 074 ***		
Being a business owner is the main activity	1.147	0.000	1.099 ***	0.000	0.010	1.040	0.000	1.103	0.000	0.078	1.076	0.000	1.074	0.000	0.883
Age	0.042 ***		0.012 *	0.019	0.000	0.017 †	0.055	0.020 ***	0.000	0.700	0.029 ***	0.000	0.030 ***	0.000	0.695
Age squared	-0.001 ***	0.000	0.000 **	0.003	0.000	0.000 *	0.021	0.000 ***	0.000	0.860	0.000 ***	0.000	0.000 ***	0.000	0.879
Immigrant	-0.245 ***	0.000	-0.120 ***	0.000	0.000	-0.159 ***	0.000	-0.161 ***	0.000	0.965	-0.198 ***	0.000	-0.172 ***	0.000	0.131
Recent immigrant	-0.155 ***	0.000	-0.266 ***	0.000	0.006	-0.172 *	0.013	-0.212 ***	0.000	0.559	-0.191 ***	0.000	-0.168 ***	0.000	0.273
Has a spouse, spouse is not a partner	0.089 ***	0.000	0.023	0.619	0.157	0.166 *	0.015	-0.040 ***	0.000	0.003	0.182 ***	0.000	0.118 ***	0.001	0.148
Has a spouse, spouse is partner	0.311 ***	0.000	0.040	0.232	0.000	0.117 *	0.030	0.184 ***	0.000	0.209	0.210 ***	0.000	0.132 ***	0.000	0.002
Number of enterprises owned	-0.062 ***	0.000	0.054	0.158	0.002	-0.082	0.216	-0.152 ***	0.000	0.277	-0.205 ***	0.000	-0.190 ***	0.000	0.674
Enterprise owned is new															
Number of partners	0.008	0.208	-0.039 ***	0.000	0.000	-0.016	0.290	0.037 ***	0.000	0.000	-0.075 ***	0.000	-0.069 ***	0.000	0.468
Ex-ante labour experience															
Years of experience in same NAICS2	0.046 ***	0.000	0.034 ***	0.000	0.083	0.043 ***	0.001	0.056 ***	0.000	0.292	0.028 ***	0.000	0.041 ***	0.000	0.015
Was employed only	0.343 ***	0.000	0.595 ***	0.000	0.000	0.437 ***	0.000	0.444 ***	0.000	0.905	0.443 ***	0.000	0.481 ***	0.000	0.195
Was self-employed only	0.813 ***	0.000	0.597 ***	0.000	0.000	0.535 ***	0.000	0.857 ***	0.000	0.000	0.890 ***	0.000	0.670 ***	0.000	0.000
Was employed and self-employed	0.512 ***	0.000	0.674 ***	0.000	0.000	0.452 ***	0.000	0.621 ***	0.000	0.010	0.570 ***	0.000	0.594 ***	0.000	0.453
Has business owner experience	-0.027 ***	0.000	-0.084 ***	0.000	0.014	-0.120 **	0.002	-0.060 ***	0.000	0.112	-0.035 **	0.002	-0.049 ***	0.001	0.330
Worked with partners	0.300 ***	0.000	0.046 †	0.052	0.000	0.027	0.517	0.092 ***	0.000	0.130	0.070 ***	0.000	0.020	0.200	0.000
Ex-ante family characteristics															
Family income over 5 years preceding entry	0.141 ***	0.000	0.127 ***	0.000	0.705	0.334 ***	0.000	0.118 ***	0.000	0.000	0.142 *	0.012	0.105 ***	0.000	0.520
Had children under 7 years old only	0.000	0.990	0.108 **	0.002	0.006	0.182 *	0.012	-0.026	0.288	0.007	0.085 *	0.014	0.052 *	0.025	0.437
Had children aged 7 to 16 only	0.007	0.731	0.121 **	0.004	0.016	0.296 ***	0.000	0.059 *	0.019	0.004	0.071 †	0.099	0.081 **	0.006	0.839
Had children under 7 years old and children			-												
aged 7 to 16	0.021	0.420	0.123 **	0.007	0.054	0.185 †	0.082	0.057 †	0.054	0.245	0.045	0.312	0.086 **	0.005	0.456
not applicable															

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. It should be clear that new majority women-owned enterprises can have no women entrants: they can be owned by women who were already business owners and have men entrants. Similarly for men-owned enterprises. The number of observations for majority men-owned private enterprises (men) is 384,425 and the adjusted r-squared is 0.184. The number of observations for majority men-owned private enterprises (men) is 14,276 and the adjusted r-squared is 0.174. The number of observations for majority women-owned private enterprises (women) is 127,147 and the adjusted r-squared is 0.172. The number of observations for the equally-owned private enterprises (women) is 100,180 and the adjusted r-squared is 0.164.

^{*} significantly different from reference category (p < 0.05)

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

^{1.} The test between men and women is described in Footnote 20 in the text.

Table A.5
Regression results for number of employees restricting on new enterprises only, by sex of the entrants

	Dependent variable: (Ln) Number of employees														
	Majorit	ty men-owi	ned private	enterpr	ises	Majority	women	owned private	e enterp	rises	Equally-owned private enterprises				
	Men		Women		Test	Men		Women		Test	Men		Womer	Women	
		_			Diff=0		_			Diff=0		_			Diff=0
	Model 1		Model 2		(Prob>F) ¹	Model 3		Model 4		(Prob>F)) Model 5		Model 6		(Prob>F)
	coefficient	p-value co	efficient	p-value	value (coefficient	p-value	coefficient	p-value	value	coefficient	p-value	coefficient	p-value	value
Current characteristics															
Being a business owner is the main activity	0.516 ***	0.000	0.436 ***	0.000	0.000	0.495 ***	0.000	0.438 ***	0.000	0.152	0.569 ***	0.000	0.455 ***	0.000	0.000
Age	0.017 ***	0.000	0.021 ***	0.000	0.459	0.026 **	0.006	0.011 **	0.004	0.108	0.031 ***	0.000	0.031 ***	0.000	0.974
Age squared	0.000 ***	0.000	0.000 ***	0.000	0.286	0.000 *	0.018	0.000 *	0.041	0.130	0.000 ***	0.000	0.000 ***	0.000	0.953
Immigrant	-0.134 ***	0.000	-0.083 **	0.002	0.053	-0.157 **	0.001	-0.144 ***	0.000	0.765	-0.142 ***	0.000	-0.137 ***	0.000	0.722
Recent immigrant	-0.115 ***	0.000	-0.097 *	0.013	0.634	-0.044	0.546	-0.103 ***	0.000	0.393	-0.044 †	0.052	-0.053 *	0.019	0.655
Has a spouse, spouse is not a partner	0.092 ***	0.000	0.084 *	0.049	0.865	0.282 ***	0.000	0.054 ***	0.000	0.000	0.044	0.245	0.019	0.597	0.566
Has a spouse, spouse is partner	0.070 ***	0.000	-0.086 **	0.010	0.000	-0.030	0.603	-0.019	0.402	0.841	-0.023	0.414	-0.041	0.137	0.469
Number of enterprises owned	0.125 ***	0.000	0.166 ***	0.000	0.235	0.129 †	0.084	0.092 **	0.007	0.603	0.158 ***	0.000	0.197 ***	0.000	0.154
Enterprise owned is new															
Number of partners	0.123 ***	0.000	0.047 ***	0.000	0.000	0.038 †	0.061	0.105 ***	0.000	0.000	0.039 ***	0.000	0.024 *	0.022	0.104
Ex-ante labour experience															
Years of experience in same 2-digit NAICS	0.023 ***	0.000	0.041 ***	0.000	0.004	0.025 †	0.052	0.031 ***	0.000	0.633	0.009 *	0.029	0.024 ***	0.000	0.007
Was employed only	0.168 ***	0.000	0.264 ***	0.000	0.001	0.281 ***	0.000	0.202 ***	0.000	0.242	0.290 ***	0.000	0.265 ***	0.000	0.394
Was self-employed only	0.334 ***	0.000	0.270 ***	0.000	0.060	0.224 **	0.002	0.256 ***	0.000	0.661	0.424 ***	0.000	0.324 ***	0.000	0.001
Was employed and self-employed	0.213 ***	0.000	0.291 ***	0.000	0.023	0.286 ***	0.000	0.218 ***	0.000	0.361	0.356 ***	0.000	0.316 ***	0.000	0.201
Has business owner experience	0.014 *	0.029	-0.007	0.761	0.362	-0.053	0.114	0.020 †	0.098	0.030	-0.016	0.175	-0.027 †	0.074	0.489
Worked with partners	0.282 ***	0.000	0.150 ***	0.000	0.000	0.224 ***	0.000	0.188 ***	0.000	0.425	0.116 ***	0.000	0.120 ***	0.000	0.761
Ex-ante family characteristics															
Family income over 5 years preceding entry	0.058 ***	0.000	0.072 **	0.004	0.585	0.049	0.219	0.036 **	0.002	0.721	0.060 ***	0.000	0.025	0.222	0.031
Had children under 7 years old only	-0.119 ***	0.000	-0.067 †	0.051	0.186	0.153 †	0.068	-0.056 *	0.037	0.016	-0.127 **	0.001	-0.012	0.641	0.016
Had children aged 7 to 16 only Had children under 7 years old and children	-0.087 ***	0.000	0.044	0.308	0.007	0.063	0.532	0.037	0.168	0.805	-0.081 †	0.084	0.019	0.561	0.082
aged 7 to 16	-0.134 ***	0.000	0.062	0.160	0.000	0.158	0.280	0.003	0.938	0.292	0.032	0.538	0.081 *	0.012	0.430
•	-0.134 ***	0.000	0.062	0.160	0.000	0.158	0.280	0.003	0.938	0.292	0.032	0.538	0.081 *	0.012	

^{...} not applicable

Notes: (Ln): natural logarithm. NAICS: North American Industry Classification System. The p-values correct for heteroscedasticity and are clustered at the business and year level. All regressions include a constant, dummy variables for the industry of the business (4-digit NAICS), the business owner's year of entry and the province of residence. It should be clear that new majority women-owned enterprises can have no women entrants: they can be owned by women who were already business owners and have men entrants. Similarly for men-owned enterprises. The number of observations for majority men-owned private enterprises (men) is 113,121 and the adjusted r-squared is 0.224. The number of observations for majority women-owned private enterprises (men) is 4,706 and the adjusted r-squared is 0.230. The number of observations for the equally-owned private enterprises (momen) is 27,889 and the adjusted r-squared is 0.218. The number of observations for the equally-owned private enterprises (women) is 29,895 and the adjusted r-squared is 0.194.

^{*} significantly different from reference category (p < 0.05)

^{**} significantly different from reference category (p < 0.01)

^{***} significantly different from reference category (p < 0.001)

[†] significantly different from reference category (p < 0.10)

^{1.} The test between men and women is described in Footnote 20 in the text.

References

Adema, W., N. Ali, V. Frey, H. Kim, M. Lunati, M. Piacentini, and M. Queisser. 2014. *Enhancing Women's Economic Empowerment Through Entrepreneurship and Business Leadership in OECD Countries*. Paris: OECD (Organisation for Economic Co-operation and Development).

BDC (Business Development Bank of Canada). 2012. *BDC Index of New Entrepreneurial Activity*. Marketing and Public Affairs, Research and Economic Analysis, Business Development Bank of Canada. 18 p. Available at: http://publications.gc.ca/collections/collection_2017/bdc/CC143-15-2012-eng.pdf (accessed February 19, 2018).

Cao, S., M. Salameh, M. Seki, and P. St-Amant. 2015. *Trends in Firm Entry and New Entrepreneurship in Canada*. Staff Discussion Paper 15-11. Ottawa: Bank of Canada

Carter S., and T. Cannon. 1992. Women as Entrepreneurs: A Study of Female Business Owners, Their Motivations, Experiences and Strategies for Success. Academic Press.

Chessman, Kristin. 2008. *16 Legendary Women Entrepreneurs*. August 6, 2008. Entrepreneur.com. Available at: https://www.entrepreneur.com/article/217929 (accessed March 3, 2020).

Coleman, S. and A. Robb. 2009. "A Comparison of New Firm Financing by Gender: Evidence from the Kauffman Firm Survey Data." *Small Business Economics* 33 (4), 397–411.

Couture, L., and S. Houle. Forthcoming. *Survival and Performance of Businesses by Gender of Ownership: A Canadian cohort analysis*. Analytical Studies Branch Research Paper Series. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Downey, S., L. van derWerff, K. Thomas, and V. Plaut. 2015. "The role of diversity practices and inclusion in promoting trust and employee engagement." *Journal of Applied Social Psychology* 45 (1): 35–44.

Fairlie, R., and Robb, A. 2009. "Gender differences in business performance: evidence from the characteristics of business owners survey." *Small Business Economics* 33 (4): 375–395.

Fairlie, R. 2014. *The Kauffman Index of Entrepreneurial Activity 1996-2013.* Kansas City: the Ewing Marion Kauffman Foundation.

Ferguson, S.J. 2016. "Women and Education: Qualifications, Skills and Technology." *Women in Canada: A Gender-based Statistical Report.* Statistics Canada Catalogue no. 89-503-X. Ottawa: Statistics Canada.

Fortin, N.M., A. Bonikowska, and M. Drolet. 2019. *Earnings Inequality and the Gender Pay Gap in Canada: The Role of Women's Under-representation Among Top Earners*. Economic Insights, no. 88. Ottawa: Statistics Canada.

Frenette, M., and K. Frank. 2016. *Earnings of Postsecondary Graduates by Detailed Field of Study*. Economic Insights, no. 056. Statistics Canada Catalogue 11-626-X. Ottawa, Statistics Canada.

Gatewood, E.J., C.G. Brush, N.M. Carter, P.G. Greene and M.M. Hart. 2009. "Diana: A Symbol of Women Entrepreneurs' Hunt for Knowledge, Money, and the Rewards of Entrepreneurship." *Small Business Economics* 32 (2): 129–144.

Gottschalk, S. and M. Niefert. 2011. *Gender Differences in Business Success of German Start-up Firms*. ZEW Discussion Paper, no. 11-019, Mannheim.

Green, D., H. Liu, Y. Ostrovsky, and G. Picot. 2016. *Immigration, Business Ownership, and Employment in Canada*. Analytical Studies Branch Research Paper Series, no. 375. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Gregson, G., C. Saunders, A. Williams, and P. Josty. 2017. 2017 Global Entrepreneurship Monitor Canada National Report. Available at: http://thecis.ca/index.php/wpdm-package/gem-canada-2017-report/ (accessed March 6, 2020).

Grekou, D., J. Li, and H. Liu. 2018a. *Women-owned Enterprises in Canada, 2005 to 2013*. Economic Insights, no. 083. Statistics Canada Catalogue no. 11-626-X .Ottawa: Statistics Canada.

Grekou, D., J. Li, and H. Liu. 2018b. *The Measurement of Business Ownership by Gender in the Canadian Employer–Employee Dynamics Database*. Analytical Studies: Methods and References, no. 017. Statistics Canada Catalogue no. 11-633-X. Ottawa: Statistics Canada.

Grekou, D., and H. Liu. 2018. *The Entry and Exit of Self-employment and Business Ownership in Canada*. Analytical Studies Branch Research Paper Series, no. 407. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Hunt, V., D. Layton, and S. Prince. 2015. "Diversity Matters." McKinsey & Company. Available at: https://www.mckinsey.com/~/media/mckinsey/business%20functions/organization/our%20insights/why%20diversity%20matters.ashx (accessed March 6, 2020).

Industry Canada. 2015. *Majority Female-owned Small and Medium-sized Enterprises*. Special Edition: Key Small Business Statistics, May 2015. Ottawa: Industry Canada.

Jeon, S.-H., and Y. Ostrovsky. 2016. *Balancing Family and Work: Transition to Self-employment Among New Mothers*. Analytical Studies Branch Research Paper Series, no. 385 Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Koehn, N. 2001. "Review of Tupperware: The Promise of Plastic in 1950s America, by Alison J. Clarke." *Journal of American History* 88 (1): 273.

Kremp, E. 1995. "Nettoyage de fichiers dans le cas de données individuelles : recherche de la cohérence transversale." *Économie & prévision* 119 (3): 171–193.

Lafontaine, F., and K. Shaw. 2016. "Serial entrepreneurship: learning by doing?" *Journal of Labor Economics* 34 (2): 217–254.

Lorenzo, R., N. Voigt, M. Tsusaka, M. Krentz, and K. Abouzahr. 2018. "How Diverse Leadership Teams Boast Innovation." January 23, 2018. Boston Consulting Group. Available at: https://www.bcg.com/en-gb/publications/2018/how-diverse-leadership-teams-boost-innovation.aspx (accessed March 6, 2020).

McDowell, A. n.d. How do you test the equality of regression coefficients that are generated from two different regressions, estimated on two different samples? Stata. Available at: https://www.stata.com/support/faqs/statistics/test-equality-of-coefficients/ (accessed March 12, 2020).

OECD (Organisation for Economic Co-operation and Development). 2016. *OECD Report to G7 Leaders on Women and Entrepreneurship: A summary of recent data end policy developments in G7 countries*. Paris: OECD publishing. Available at: http://www.oecd.org/gender/OECD-Report%20-to-G7-Leaders-on-Women-and-Entrepreneurship.pdf (accessed March 3, 2020).

Orser, B., A. Riding, and K. Manley. 2006. "Women Entrepreneurs and Financial Capital." *Entrepreneurship Theory and Practice* 30 (5): 643–665.

Richards, E. 2019. Who are the Working Women in Canada's Top 1%? Analytical Studies Branch Research Paper Series, no. 414. Statistics Canada Catalogue no. 11F0019M. Ottawa: Statistics Canada.

Rosa, J., and D. Sylla. 2016. A Comparison of the Performance of Majority Female-owned and Majority Male-owned Small and Medium-sized Enterprises. Centre for Special Business Projects. Ottawa: Industry Canada.

Statistics Canada. 2020. *Table 18-10-0005-01 Consumer Price Index, annual average, not seasonally adjusted.* https://doi.org/10.25318/1810000501-eng.

Shaw, K. L., and A. Sorensen. 2017. *The productivity advantage of serial entrepreneurs*. NBER Working Paper Series, no. 23320. Cambridge, Massachusetts: National Bureau of Economic Research.

Shulamit, K., and D. Ginther. 2017. *Women and STEM.* NBER Working Paper Series, no. 23525. Cambridge, Massachusetts: National Bureau of Economic Research.

Stevenson, L. 1986. "Against all Odds: The Entrepreneurship of Women." *Journal of Small Business Management* 24 (4): 30–36.

Williams-Grunt, O. 2019. "Male-dominated firms to worse than diverse rivals, Morgan Stanley finds." August 13, 2019. Yahoo Finance UK. Available at: https://ca.finance.yahoo.com/news/gender-diversity-improves-share-price-business-morgan-stanley-hers-050000152.html (accessed March 6, 2020).