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Abstract

This paper provides a first set of characteristics about home-based child care throughout Canada. It uses a novel dataset to identify self-employed child care businesses that are almost entirely run by their owners. For these businesses, characteristics of the owners, their families and the changes in their total family income surrounding the opening and closing of the child care business are examined. The results show that immigrants constitute an important portion of the operators of small home child cares and that they have different characteristics compared with non-immigrant owners. Specifically, immigrants tend to be older and be more likely to operate a child care in a low-income household. The results also show that couple-led households and households without children younger than 13 years of age make up three-quarters and one-half of all child cares, respectively. Families with children younger than 4 years old represent just one in five child care operators in the dataset. Moreover, for couple-led families, the operation of a small home child care is consistent with a situation where the child care is used as a temporary source of household income. This differs from immigrant families and low-income families where the home child care appears to facilitate increases in total family income when they open followed by further increases total family income when they close. This is consistent with a situation where the home child care acts as a stepping stone to future opportunities. Finally, there is some evidence that the introduction of full-day junior kindergarten or kindergarten programs is associated with fewer small home child care operations.

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Introduction

This paper examines the characteristics and evolution of the population of small home child cares that are ubiquitous throughout Canada and their operators.[1] It fills an information gap in the current understanding of the child care market in Canada by providing information about the entrepreneurs that run home child cares, their families and their incomes.

Research shows that child care in Canada is essential for supporting paid employment for parents, particularly for women who do the majority of child care work (Smith 2022, Power 2020, Wallace and Goodyear-Grant 2020, Penn 2012). The majority of studies examining child care providers have, to date, focused on larger child care centres or licensed child care providers (Cleveland et al. 2008, Macdonald 2018, Friendly and Macdonald 2021). These studies have reported on costs, quality and availability of licensed child care spaces. The research focuses on the larger centres or licensed providers because, until recently, these were the only providers that could be readily identified and studied. Little is known about the population of unlicensed home child care providers.

Collaborations between Employment and Social Development Canada and Statistics Canada now permit the identification of small home child cares, many of which are likely run by unlicensed providers. In publishing the results from the collaboration, Archer et al. (2021) report that there are around 100,000 of these small businesses in Canada each year. Despite the large number of small child care operations, they appear to provide fewer spaces than the larger licensed centres. The thousands of small child care operators account for an average of 32.1% of the child care revenue reported by businesses. This suggests that the large population of small home child care businesses constitutes an important part of the child care market, but that greater understanding of the role of small home child care operations in the economy is needed.

Information on small child care businesses indicates that they provide fewer spaces than the larger centres, but that they are more widely dispersed (geographically). Many appear to offer greater flexibility, including part-time child care, or to fill niche parts of the market. Archer et al. illustrate that the small businesses in the child care industry in Canada have a high degree of turnover, with entry rates ranging from 20% to 30% per year and exit rates ranging from 16% to 20% per year. A typical small child care business tends to be active for less than three years. Consequently, they may represent a portion of the market that is very resilient to economic shocks. Because of the high turnover, closing one or several child care businesses does not overly impact the total market as they are rapidly replaced. Archer et al. note that the majority of the businesses have no employees and are run by the (mostly female) owner–entrepreneur that started the business. However, it is unclear how a richer set of characteristics for the entrepreneurs, their families and their family income relates to business activity and the role of small home child care businesses in the economy.

These topics are taken up in the remainder of this paper, which is structured as follows: Section 2 describes the methodology used to understand the characteristics and the evolution of the small child care business population, Section 3 describes the data employed, and Section 4 provides the results. Section 5 concludes the paper with a discussion of the results.

1. There is no comprehensive list of child care providers in Canada. The market has two types of child care providers: regulated and unregulated (often termed licensed and unlicensed). Work with Statistics Canada's Business Register found that most of the roughly 100,000 child care providers tend to be unincorporated, small and have no employees, and many were not on the regulated providers list available for each province and territory.

Methodology

There are three parts to the methodology of this paper. First, there is a discussion on how to identify small child care businesses. Second, the list of child care characteristics under examination is discussed. This list includes the age or province of operation; characteristics of the owners, such as their gender; and characteristics of the family where the business is located, such as the number of young children in the home. Third, a statistical model used to examine the longevity of small child care businesses is described.

Identifying small child care businesses

To identify small child care businesses, this paper begins with the methodology from Archer et al. (2021) but subsets the data to focus only on small home child care businesses. As with Archer et al., the starting point is the Business Register (BR) at Statistics Canada, which contains information on all active businesses. In the BR, businesses are assigned to an industry based on their main activity. Child care businesses are identified as businesses whose industry designation in the North American Industry Classification System (NAICS) falls into the child day-care services industry (NAICS 624410).[2] These businesses are primarily engaged in providing child care services and there is no differentiation between types of child care businesses, such as daycares (including home-based child care), nurseries and pre-schools. However, services provided through the formal school system and by babysitters or nannies are excluded.

To examine the small home child care businesses, only those that report their activity through a T1 personal income tax business declaration are retained. This omits larger centres that file T2 tax returns. The businesses that are retained may be licensed or unlicensed, as information on licensed status is not available in the BR. However, when comparisons with publicly available lists of licensed child care providers are made, many of the small child care providers examined here are not found and thus are assumed to be unlicensed. This assumption has appeared reasonable to date, but many provinces and territories do not publish the names or location of licensed home-based child care, limiting the ability to link datasets to fully disentangle the licensing status of home child care businesses.

The methodology for identifying and selecting small home child care businesses produces a dataset of businesses referred to here as “self-employed child care service providers” (SECCSP) for the years 2008 to 2016. This is done to differentiate them from larger child care centres and to emphasize that virtually all of these child care providers are self-employed.

Characteristics of small child care businesses and their owners

The information on small child care businesses reported in this study fall under one of four themes (Table 1): geography, business characteristics, entrepreneurs’ personal characteristics and entrepreneurs’ family characteristics. These characteristics are used to provide a statistical portrait of the entrepreneurs, their living situation and the evolution of the population of SECCSPs.

2. The term “business” refers to the enterprise level statistical unit in the BR.
The definition for NAICS 624410, child day-care services, is: “This industry comprises establishments primarily engaged in providing day-care services for infants or children. These establishments may care for older children when they are not in school and may also offer pre-kindergarten educational programs.” Available at: https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=1181553&CVD=1182006&CPV=62441&CST=01012017&CLV=3&MLV=5

Table 1
Characteristics by theme

Theme	Variables
Geography	· Provinces and territories
Self-employed child care service provider business characteristics	· Years active
	· Entry, exit or continuing business status
	· Number of employees or self-employment status
Entrepreneur's personal characteristics	· Age
	· Gender
	· Immigrant status
Entrepreneur's family characteristics	· Family size
	· Family status
	· Number of children
	· Presence of children within certain age ranges
	· Family income changes at the time of starting or closing a home child care business

Source: Statistics Canada.

Tabulations are reported in two ways. First, data are pooled across the years 2008 to 2016 to produce averages over the period to illustrate the main characteristics for the population of SECCSPs. Second, a set of tables that report on the same characteristics for those entering (entrants) and those exiting (exits) the industry are presented. This second set of results illustrates how the population of SECCSPs and their entrepreneurs' characteristics are evolving over time.

Hazard model

To help understand which characteristics are associated with child care providers remaining in the market, a statistical technique referred to as "hazard analysis" is used. The goal of hazard analysis[3] is to understand if a certain variable raises or lowers the probability of an event occurring (here, continuing business activity for another year) for a population of interest, conditional on time.

Here, a Cox regression model (John Fox, 2008) is used to estimate changes to the baseline hazard from the characteristics described above. The model is specified as:

$$H(t) = f_0(t)exp(BX'),$$

Where $H(t)$ is the likelihood a business continues to operate, $f_0(t)$ is the baseline probability that a business continues to operate and X is the set of covariates that potentially increases or decreases the probability of a business remaining active. The covariates correspond to the characteristics used for the comparison described above with one exception: the introduction of an indicator variable to capture the effect of the introduction of full-day junior or senior kindergarten programs in Ontario and British

3. The examination of the time until an event occurs broadly falls under the umbrella of survival analysis (sometimes referred to as "duration analysis" in the field of economics). Within survival analysis, one can examine a survival function that describes the longevity of a given population in relation to a certain event. In economics, this usually relates to business survival where exit is the event of interest (for an example see: Macdonald 2012, ISED 2017). By adjusting the focus of survival analysis, it is possible to look at the probability that a business exits or remains active given that it has survived a given number of periods. This is referred to as "the hazard function," and analysis using a hazard function lends itself to the inclusion of multiple explanatory factors that raise or lower the likelihood of a business exiting the market.

Columbia. It is intended to provide an initial indication for whether the introduction of these programs affected the probability that small home child care operations remained active.

Because many of the variables are categorical, it is necessary to establish a reference case when estimating the model against which hazard ratios (changes in the probability of remaining in business given a change in a categorical variable) can be compared. In this case, the reference business is located in Ontario and owned by a non-immigrant woman who is 20 to 39 years, lives in a one-parent household in a medium-sized family with at least one child younger than 4 years and is not in low income.

With this specification, the Cox model can be used to abstract away from looking at time when comparing across characteristics. For example, if there are two businesses with characteristics X_1 and X_2, then the hazard ratio for these two businesses is:

$$HR = f_0(t)exp(B X_1') / f_0(t)exp(B X_2') = exp(B X_1' - B X_2'),$$

Where $exp(B X_1' - B X_2')$ does not depend on time. Since many of the variables are categorical, the hazard ratios for changing these variables can be interpreted as the increase or decrease in the probability of a business continuing to operate relative to the base case if a particular category changes (e.g., changing from being a non-immigrant-owned business to an immigrant-owned business). Since the categorical characteristics can be "switched on" independently, the Cox specification allows for the individual analysis of the large number of possible covariates outlined above.

Data

This project uses the same input datasets as Archer et al. (2021) for constructing its dataset on SECCSPs. It begins with information from the Canadian Employer–Employee Dynamics Database (CEEDD) maintained by the Analytical Studies and Modelling Branch (Statistics Canada 2020) that has been combined with the BR (Statistics Canada 2022). Based on these files, the child care NAICS and the form of tax filing for an enterprise (i.e., T1 versus T2), the SECCSPs can be identified.

Indicators for when SECCSPs enter or exit the child care market are derived from the CEEDD. The CEEDD is also the source of business owner characteristics. Based on information on business owners from the CEEDD, SECCSP owners are linked with the T1 Family File (T1FF) to obtain family characteristics.

Data on immigrant status are extracted from the Integrated Permanent and Non-permanent Resident File of the Longitudinal Immigration Database (IMDB). The IMDB integrates administrative immigration records and annual tax files and contains information on immigrant status from 1980 onwards. This information is collected when individuals become permanent residents. The file includes records of permanent residents who have filed taxes for at least one year since 1980. The data are linked with the CEEDD to provide an indication of immigrant status for SECCSP owners.

Results

Pooled self-employed child care service provider characteristics

Business counts

Business counts provide information about the location of SECCSP, the age and gender of the owners and how long the businesses have been active. The tabulations include overall totals and values by immigrant status. The results show important differences between immigrant- and non-immigrant-owned businesses.

In Canada, 267,903 SECCSPs were active between 2008 and 2016. The distribution of these businesses across the provinces and territories broadly aligns with the population distribution of individuals (Table 2). Ontario (43.5%) accounted for the largest portion of SECCSPs, followed by Quebec (24.3%) and British Columbia (12.1%). The territories only accounted for 0.14% of all SECCSPs.

Of the 267,903 active SECCSPs, 106,417 (39.7%) were owned by immigrants, and their distribution across the country is importantly different from the distribution of non-immigrant-owned SECCSPs. While immigrant-owned SECCSP are present in all provinces and territories, they are overwhelmingly concentrated in Ontario, Quebec and British Columbia, the provinces with the highest share of immigrants within their populations and where immigrant-owned SECCSPs make up the largest proportion of SECCSPs. This is particularly the case for Ontario, where immigrants own over half of all SECCSPs.

Table 2
Distribution of self-employed child care service providers, by province and territory and immigrant status, and the share of self-employed child care service providers owned by immigrants, by province and territory

	Distribution of SECCSPs	Distribution of SECCSPs owned by immigrants	Distribution of SECCSPs owned by non-immigrants	Share of SECCSPs owned by immigrants
		percent		
N.L.	0.7	0.0	1.1	2.0
P.E.I.	0.3	0.0	0.4	3.1
N.S.	1.5	0.2	2.3	4.7
N.B.	1.4	0.1	2.3	2.8
Que.	24.3	15.0	30.3	24.6
Ont.	43.5	60.9	32.0	55.6
Man.	2.2	0.9	3.1	16.4
Sask.	2.8	0.6	4.2	9.1
Alta.	11.2	9.0	12.6	32.1
B.C.	12.1	13.0	11.5	42.8
Y.T.	0.0	0.0	0.1	24.6
N.W.T.	0.1	0.0	0.1	22.0
Nvt.	0.0	0.0	0.0	28.1
Canada	100.0	100.0	100.0	39.7

Note: SECCSP = self-employed child care service provider.
Source: Statistics Canada.

Whether immigrant-owned or not, SECCSPs are overwhelmingly small businesses. Typically, the only person working at the business is the owner or entrepreneur, and the main capital is space within a private residence. For the SECCSPs examined here, 98.3% have no employees. Of the remaining 1.7% of SECCSPs, 0.9% have one employee and less than 0.5% have two employees or more.

The child care industry as a whole is dominated by women, and this is reflected in the ownership shares of SECCSPs (Table 3). Overall, 88.5% of SECCSPs are majority-owned by women. However, there is a difference between immigrant- and non-immigrant-owned businesses. The share of SECCSPs majority-owned by women is 11 percentage points lower (and the share of SECCSPs majority-owned by men is 10 percentage points higher) for immigrant-owned SECCSPs compared with non-immigrant-owned SECCSPs.

While there are records indicating a wide range of ages for SECCSP owners, the distribution by age shows that SECCSP owners tend to be middle-aged (Table 3). Of the SECCSPs that were active between 2008 and 2016, more than 62.4% of businesses were owned by individuals who were 30 to 59 years, 20.1% were owned by 20- to 29-year-olds and 13.1% were owned by seniors (aged 60 and older).

Table 3
Distribution of self-employed child care service providers, by business and owner characteristics and immigrant status

Characteristic	Distribution of SECCSPs by category	Distribution of SECCSPs owned by immigrants by category	Distribution of SECCSPs owned by non-immigrants by category
		percent	
Gender of the owner			
Equal ownership	1.50	2.00	1.00
Majority men	10.00	16.00	6.00
Majority women	88.50	82.00	93.00
Total	100.00	100.00	100.00
Age of the owner			
Younger than 20	4.40	3.00	5.30
20 to 29	20.10	37.50 ‡	58.40 ‡
30 to 39	30.00	37.50 ‡	58.40 ‡
40 to 59	32.40	37.50	29.00
60 and older	13.10	21.90	7.30
Total	100.00	100.00	100.00
Duration of business activity (years)			
0	35.70	41.70	31.80
1	17.20	18.30	16.40
2	11.20	11.50	11.00
3	8.20	8.10	8.30
4 or more	27.70	20.40	32.50
Total	100.00	100.00	100.00

‡ pooled value for ages 20 to 29 and 30 to 39
Note: SECCSP = self-employed child care service provider.
Source: Statistics Canada.

As with other characteristics, there is a noticeable difference between the age distribution of immigrant and non-immigrant SECCSP owners. Immigrant SECCSP owners tended to be older than non-immigrant owners. This is particularly noticeable for entrepreneurs aged 60 and older. One in five immigrant SECCSP owners is 60 or older compared with only 7.3% of non-immigrant owners.

With respect to the duration of business activity, most of the SECCSPs are short-lived, and immigrant-owned businesses tended to be shorter-lived than non-immigrant-owned businesses. Overall, 35.7% of SECCSP exit in the same calendar year they open (duration = 0), followed by 17.2% who exit in the

calendar year after their entrance into the market. This means that 52.9% of SECCSPs were active for less than two years. For immigrant-owned SECCSPs, 41.7% were active in a single year, while 60.0% were active for less than two years. This is higher than non-immigrant-owned SECCSPs where 31.8% were active in a single year and 48.2% were active for less than two years.

Family structure

Family structure attributes (number of household members, one-parent or couple families and the presence of children) are hypothesized to play an important role in decisions about whether or not entrepreneurs start, continue operating or close a child care business. Of particular note is the notion that families with young children can face child care costs that lead these families to operate a child care until children are able to go to school rather than rejoining the workforce.

Across family sizes, the largest share of SECCSPs (27.3%) are within a four-person family (Table 4). It is important to note that "family size" includes all household members and does not necessarily indicate the number of adults or children. Nevertheless, the large share of four-person households suggests a family structure with parents and children, and this may align with the notion of a parent remaining at home because of costs[4]. The second-highest share (23.5%) is for two-person families. These could represent a situation where a parent and a child are present, but it may also be a case where there are no children.

Table 4
Self-employed child care service provider family structure and characteristics

Family structure attribute/ category	Percentage of SECCSP businesses
Family size (number of people in the household)	
1	12.2
2	23.5
3	20.0
4	27.3
5	12.3
6 or more	4.7
Total	100.0
Number of children younger than 4 years	
0	74.5
1	20.2
2 or more	5.3
Total	100.0
Single versus couple families by characteristics	
Single person without children	28.0
Couple without children	72.0
Total	100.0
One-parent family with children	23.0
Couple family with children	77.0
Total	100.0
One-parent family with children younger than 4 years	10.0
Couple family with children younger than 4 years	90.0
Total	100.0

Note: SECCSP = self-employed child care service providers.
Source: Statistics Canada.

4. The same can hold for three-person households with one child, although this appears less frequently in the data, and it is not possible to distinguish between three-person households where a lone parent has two children and two parents have a lone child.

When SECCSPs are examined with respect to the age of the children in the families, more than half (51.0%) of SECCSPs are in households with no children younger than 13 years (Table 5). This stands in contrast to the idea that home child care businesses are largely associated with families with children. Moreover, the proportion of SECCSPs in households with infants or very young children is quite low. This suggests that business models where a parent (almost always a mother) opens an SECCSP while also caring for their own child would be applicable to less than half of SECCSPs. In fact, almost three-quarters of SECCSPs are in households without children younger than 4 years.

Table 5
Presence of children younger than or equal to a given age

Children present	Percentage of SECCSP businesses
No children younger than 13 years	51.0
Children younger than 13 years	49.0
Children < 6	33.0
Children < 4	26.0
Children < 2	10.0
Children < 1	4.0

Note: SECCSP = self-employed child care service providers.
Source: Statistics Canada.

When SECCSPs are disaggregated into couple families or one-parent families, the overwhelming majority of SECCSPs are in couple families, regardless of whether there are children in the household. For families without children, 72% of SECCSPs are in couple families. The number rises to 77% when SECCSPs are in couple families with children and increases to 90% when SECCSPs are located in couple families with children who are younger than 4 years.

Archer et al. (2021) report that the child care industry in Canada is mainly comprised of small, unincorporated businesses with relatively low revenue (the model varies between $1,000 and $34,000 per year). These income levels would not be enough to support three- or four-person families, and this suggests that SECCSPs are predominantly viewed as a secondary source of income for couple families. If SECCSPs are used as a secondary source of income by the households where they operate, then the income replacement is not large. These businesses may therefore provide an additional benefit for these families, such as flexibility or ease of entry into the child care market, making them attractive as a short-term method for supporting family incomes. This supports the notion that cost-constrained families with children operate in a portion of the market and helps explain why a disproportionate share of SECCSPs are owned by immigrants who can face labour market challenges.

Family incomes

As a starting point for examining family incomes and SECCSPs, family income is split between low-income and not-low-income families[5]. Between 2008 and 2016, 81,422 SECCSPs (30.4%), were owned by low-income families while the majority of SECCSPs were run by entrepreneurs whose family is not low income (Table 6). Income status does not greatly affect the longevity of the business, but there is a noteworthy difference between the proportions of SECCSPs in low-income, immigrant households compared with low-income, non-immigrant households. For immigrant-owned SECCSPs, 53.5% are in low-income households, while 15.3% of SECCSPs are in non-immigrant, low-income households. Although this aligns with the notion that SECCSPs are used as a secondary source of income for some

5. The definition of low income comes from the T1FF, which is also the source of family income information for this study. The T1FF uses a low-income measure that is one-half of the adjusted median family income. Here, the term “adjusted” indicates that family size has been considered. Statistics Canada’s definition of total income after tax excluding capital gains or losses is used to establish the low income measure threshold. Further work could look at a finer disaggregation of incomes based on quintiles or deciles to further determine the role family incomes play in SECCSP entrepreneurship.

households, it highlights potentially important differences in their use by immigrant and non-immigrant households.

Table 6
Self-employed child care service provider income status

	Percentage of SECCSPs		
Attributes / category	**Family is not in low income**	**Family is in low income**	**Total population**
Income status	69.6	30.4	100.0
Immigrant status			
Immigrant	46.5	53.5	100.0
Non-immigrant	84.7	15.3	100.0
Duration of business activity (years)			
0	32.6	42.8	35.7
1	16.6	18.5	17.2
2	10.9	11.8	11.2
3	8.2	8.1	8.2
More than 3	31.7	18.8	27.7
Total	100.0	100.0	100.0

Note: SECCSP = self-employed child care service providers.
Source: Statistics Canada.

It is well documented that immigrants to Canada can face difficulties finding well-paying jobs, particularly in fields where foreign credentials need to be recognized in Canada (e.g., Li [2001], Morissette and Sultan [2013], Brosseau [2020]). Consequently, the income from an SECCSP may not be large enough to move immigrant households out of poverty if the primary income earner also faces challenges integrating into the job market. SECCSPs may also be a method for immigrant families to earn some income while searching for higher-paying jobs. This needs to be more fully explored. It is unclear from our results whether living in a low-income household acts as an incentive for immigrants to open an SECCSP or if the causality may run the opposite direction. In this case, difficulties in finding work could lead an immigrant family to open an SECCSP, and the low income from the business contributes to the household being low income. This would help explain the short duration of activity, and could have important implications for policies around child care. There could be unintended consequences for immigrant families when child care policies focus on expanding licenced child care which often occurs in larger child care centers.

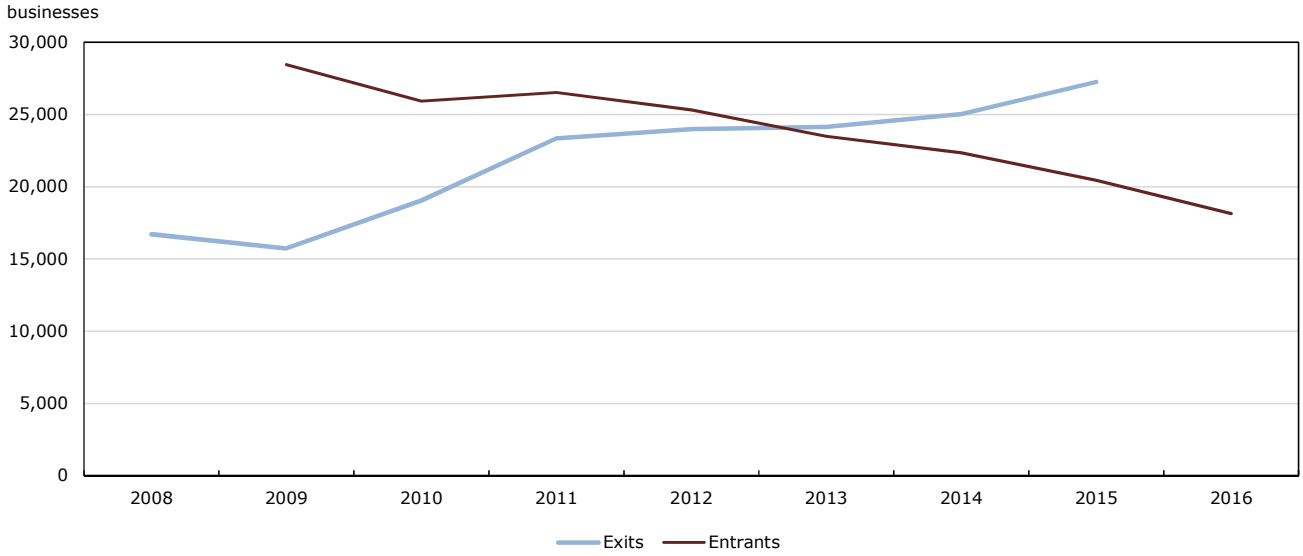
Evolution of self-employed child care service providers

The previous section pooled all SECCSPs between 2008 and 2016 to produce a statistical overview of the main characteristics of SECCSPs and the entrepreneurs who run them. This section looks at changes in the population of SECCSPs over time. It also looks at aggregate trends then compares the characteristics of entrants and exits to illustrate the evolution taking place in home-based child care businesses.

Self-employed child care service provider entry and exit over time

At an aggregate level, the number of SECCSPs in Canada rises from 2008 to 2013 and declines until 2016. This occurs because the number of entrants into the child care market is declining over time while the number of exits is rising (Chart 1). In 2013, the number of exits becomes larger than the number of entrants, and the overall population begins to decline.

Chart 1
Entry and exit of self-employed child care service provider businesses in Canada



Source: Statistics Canada.

The number of entrants drops from 28,459 in 2009 (the first year entrants can be calculated) to 18,150 in 2016, representing a 36.2% decline. Despite a slight increase in 2011, the trend for entry is negative over the sample period. Negative trends in entry are present across provinces and territories indicating that the declines in the number of entrants are widespread and are therefore likely the result of fundamental factors (e.g., changes in population and market structures) rather than policies enacted by a single province.

The number of exits increases from 16,703 SECCSPs in 2008 to 27,254 in 2015 (the last year for which exits can be calculated). This represents an increase of 63.1%. Despite a decline in 2010, the overall trend for exits is positive over the sample period. Unlike entrants, exits were concentrated in four provinces: Ontario (47.0%), Quebec (19.5%), British Columbia (13.4%) and Alberta (11.1%). The concentration of 91.5% of exits within these provinces suggests that structural changes within them, for example the addition of full-day kindergarten or junior kindergarten, may be important for understanding the trajectory of overall exits. Some evidence for this is presented in the hazard analysis, but a more fulsome investigation is warranted.

Entrepreneur and family characteristics of self-employed child care service provider entrants and exits

Differences in entry and exit by characteristic are presented below to illustrate the changes taking place in the population of SECCSPs. Characteristics of entrepreneurs are presented first, followed by family characteristics and family income changes.

Among entrepreneur characteristics, immigrant status continues to stand out as a particularly important characteristic for examining SECCSPs. Over the 2008 to 2016 period, immigrants make up a larger percentage of entrants than exits (Table 7). The implication is that immigrant-owned SECCSPs become more prevalent over time. Moreover, non-immigrant-owned SECCSPs constitute more than 50% of exits. Together, this indicates that immigrant-owned SECCSPs are, on average, replacing non-immigrant-owned SECCSPs in the business population over this period.

In terms of employment, results show that the majority of entrants (98.3%) and the majority of exits (98.7%) have no employees. These results continue to illustrate that the overwhelming majority of SECCSPs are micro-businesses that do not grow in size over time. This is reflected in the roughly equal share of entrants and exits with no employees. In an industry where businesses start with no employees but scale up by hiring additional staff, one could expect that exits would, on average, be larger than entrants. However this is not the case for the vast majority of SECCSPs.

Table 7
Self-employed child care service provider business owner characteristics for entrants and exiting businesses

Category	Entrants	Exits
	percent	
Immigrant status		
Immigrant	45.2	42.4
Non-immigrant	54.8	57.6
Total	100.0	100.0
Number of employees		
No employees	98.3	98.7
At least 1 employee	1.7	1.3
Total	100.0	100.0
Gender of ownership (total)		
Equal ownership	1.5	2.0
Majority men	10.0	12.0
Majority women	88.5	86.0
Total	100.0	100.0
Age of the owner		
Younger than 20 years old	4.4	4.3
20 to 39 years old	50.1	47.1
40 to 59 years old	32.4	31.4
60 years and older	13.1	17.3
Total	100.0	100.0

Source: Statistics Canada.

The population of SECCSP owners is also becoming more concentrated among women over the 2008 to 2016 period. The share of women-owned SECCSPs among entrants is 1.5 percentage points higher than the share of women-owned SECCSPs among exits. The opposite is true for men-owned SECCSPs, where the share of exits is larger than the share of entrants.

Additionally, the share of entrants in younger age groups is larger than the share of exits in younger age groups. The share of exits also becomes increasingly larger as age groups rise. This implies that over the 2008 to 2016 period, the age structure of SECCSP owners is getting younger. This is consistent with a situation where entrepreneurs enter at a younger age and then exit when they are older. Given the short duration of activity for most of these businesses, this effect is likely muted among the SECCSPs, but is reflected in the data nonetheless.

With respect to family structure, family status and low-income status stand out because of the large differences for these two categories (Table 8). For family status, approximately three-quarters of turnover occurs in couple families, while for income status, approximately two-thirds of turnover occurs in not-low-income households. Couple families account for 77.0% of entrants and 74.0% of exits. As a result, there are proportionally more entrants than exits, and couple families are becoming more prevalent in the population of SECCSPs. Not-low-income families accounted for 69.9% percent of entrants and 66.4% of exits so the proportion of SECCSPs that are in not-low-income families rises over the 2008 to 2016 period.

Table 8
Self-employed child care service provider family structure characteristics for entrants and exiting businesses

Attribute	Entrants	Exits
	percent	
Family status		
Single, with or without children	23.0	26.0
Couple, with or without children	77.0	74.0
Total	100.0	100.0
Low-income status		
Not in low income	69.6	66.4
In low income	30.4	33.6
Total	100.0	100.0
Family size (number of people)		
1	12.2	14.1
2	23.5	25.7
3	20.0	18.4
4	27.3	25.1
5	12.3	11.9
6 or more	4.7	4.7
Total	100.0	100.0
Age of children		
No children younger than 13 years	51.0	56.0
Children younger than 13 years	49.0	44.0
Children < 4	26.0	19.0
Children < 13	23.0	25.0
Total	100.0	100.0
Number of children younger than 4 years		
No children or no children younger than 4 years	74.4	81.0
One child younger than 4 years	20.2	15.3
Two or more children younger than 4 years	5.3	3.7
Total	100.0	100.0

Source: Statistics Canada.

Entry and exit rates by family size indicate that a shift occurred towards larger families. This is consistent with the increasing importance of couple-family households as the location for SECCSPs. For single-person households, the share of exits (14.1%) is larger than the share of entrants (12.2%). The same is true for two-person households. Once family size reaches three-person households, the share of entrants (20.0%) rises above the share of exits (18.4%) and this remains the case for four-person families. The difference, however, is lessened for five-person families and disappears for families with six or more people. The implication is that a rising proportion of SECCSPs are in three- and four-person families. This is consistent with the notion that SECCSPs are used as a secondary source of income between income earners.

Of the 175,271 SECCSPs that exited the market between 2008 and 2016, 56% had no children younger than 13 years. This proportion is higher than the share of entrants (51%) with no children younger than 13 years. The implication is that although families with no children younger than 13 make up an important share the turnover of SECCSPs, they are declining as a share of all active SECCSPs. Similarly, the entry rates (49.0%) for families with children younger than 13 are higher than the exit rates (44.0%) for families with children younger than 13. This indicates that the relative proportion of SECCSP owners with children younger than 13 rose over the 2008 to 2016 period. This pattern is consistent with child care businesses opening in families with care-aged children and then closing once the children reach an age when child care or before and after school care is no longer necessary.

Children younger than 4 years typically need full-day child care if their parent(s) are working full time. Families with children younger than 4 years account for one-quarter of all SECCSP entrants but only 19.0% of exits. This shows that the share of these businesses is rising over time, supporting the notion that in some cases a caregiver operates a child care until such time as a young child reaches an age when other care options become possible. When the numbers are further broken down, the presence of a single child younger than 4 seems to signal that a child care will open. Importantly, this still means that three-quarters of SECCSPs open in families without a child younger than 4. So, although the situation where a caregiver takes in children while remaining at home with their own child is reflected in the data, it is not the majority of cases.

Change in household income around entry and exit

Previous sections have looked at the evolution of the population of SECCSPs. This section provides basic information on the total family income of households that enter or exit the child care market. SECCSPs represent small businesses, many of which earn limited incomes (Archer et al. 2021). Moreover, the notion that SECCSPs provide income support for families with young children or immigrant households emerges from examining the characteristics of SECCSP owners and their families. Consequently, one could expect that changes in income around the entry or exit of SECCSPs will stabilize or temporarily support family incomes.

Total family income is examined in the results below [6] and represents income from all sources, including wages and salaries paid to households, investment income and self-employed income. The latter is the income classification related to running a home child care business. Total family income also includes income received by families from government transfers, such as employment insurance payments, and from private transfers, such as child support.

Table 9
Changes in total family income around entry and exit

Attribute / category	% change from the year before entry to the year after entry	% change from the year before exit to the year after exit
Family with or without young children		
No children	5.5	6.9
At least one child younger than 4 years	5.7	10.2
Low-income status	0.0	0.0
Not in low income	0.8	6.1
In low income	39.0	8.6
Immigrant status	0.0	0.0
Immigrant	16.0	9.5
Non-immigrant	10.2	6.1

Source: Statistics Canada.

To illustrate the effect of SECCSPs on total family incomes, the percentage change in income by category is calculated from the year before entry to the year after entry and from the year before exit to the year after exit. This is done to avoid using the entry and exit years themselves, as they often represent only partial years of operation and this would bias the income they represent downward. Nevertheless, there

6. Total family income includes income from all sources, including paid employment, self-employment and benefits payments such as employment insurance. The results in Table 7 compare changes in total family income between the year before entry and the year after entry or the year before exit with the year after exit. The results do not adjust for inflation or account for any changes in family incomes not from the child care business. As a result, they should be interpreted as being reflective of the income adjustments occurring around entry or exit but not as a measure of the effect from child care business activity in isolation.

are still cases where SECCSPs are only active for part of a full year because of high turnover rates. This is lessened by using the years before and after they are active.

When it comes to income changes around SECCSP entry, the largest effect is for low-income families, where opening an SECCSP raises average household incomes by 39.0% (Table 9). For not-low-income families, the change in income is, on average, positive but relatively small (0.8%). There is little difference in the changes to family incomes depending on whether there are young children in the house. For immigrant households, however, there is a 6 percentage point difference compared with non-immigrant households. This likely reflects the relatively larger number of immigrant households with SECCSPs that are also in low income.

For all categories, there is an increase in family income following the closing of SECCSPs, and the effects are more similar than those for entry.

These patterns continue to suggest at least two types of models for the role SECCSPs play in the households that run them. One is a short-run form of income replacement, particularly for not-low-income families. The maintenance of household income for these families around the opening of an SECCSP, followed by increased household income once the SECCSP is closed, suggests that the women in these families operate the child care as a substitute for paid employment or other forms of self-employment.

The second is the use of an SECCSP as a springboard to further household income growth. This type of model is mostly reflected in the total incomes of low-income and immigrant families. Given the short life span of SECCSPs, the increase in household income when SECCSPs are opened, and the further increase in household income when SECCSPs are closed, suggest that the businesses appear to be supporting household incomes through some form of transition.

In both cases, the results are preliminary, and a more fulsome investigation is needed to test these hypotheses. Nevertheless, SECCSPs appear to be playing an important short-term role in supporting household incomes, and this role appears to be particularly important for maintaining incomes in couple families and for supporting transitions in low-income and immigrant households.

Factors that correlate with self-employed child care service provider longevity and exit decisions

The analysis of SECCSPs demonstrates that they tend to be short-lived, that family characteristics and immigrant status affect metrics and that they appear to affect incomes of many households either as a transitionary measure or as a source of replacement income. This raises questions about which features are the most important for understanding changes in the SECCSP population.

To examine the statistical importance of difference characteristics, a hazard function is estimated. It provides parameter estimates and hazard ratios. The former have their statistical significance reported while the latter provide an indication of the degree to which a characteristic raises or lowers the probability that an SECCSP remains in business for an additional year. The results below present statistical inference about the features of SECCSPs that are associated with them remaining in business for an additional year.

The hazard function model estimates a baseline probability; the hazard ratios then illustrate how much a given characteristic raises or lowers the probability of continuing relative to the baseline. Here, many of the variables are categorical. As a result, the baseline represents a set of characteristics against which changes in characteristics can be compared. The baseline in the model is chosen to represent an SECCSP that is located in Ontario and is owned by a non-immigrant woman who is 20 to 39 years, lives

in one-parent household in a medium-sized family with at least one child younger than 4 years and is not in low income.

Table 10
Hazard function estimates for remaining in business one additional year

Variable	Estimate	Standard error	Pr > ChiSq	Hazard ratio
Number of children younger than 4 years	0.00	0.01	0.83	1.00
Has reported self-employment income (individual)	1.12	0.02	0.00	3.06
Has reported self-employment income (spouse)	0.02	0.01	0.01	1.02
Total family income	0.00	0.00	0.00	1.00
Employment income (individual)	0.00	0.00	0.00	1.00
Employment income (spouse)	0.00	0.00	0.00	1.00
Self-employment income (individual)	0.00	0.00	0.54	1.00
Self-employment income (parents)	0.00	0.00	0.55	1.00
Self-employment income (spouse)	0.00	0.00	0.56	1.00
Employment insurance income	0.00	0.00	0.00	1.00
Couple family	1.34	0.50	0.01	3.84
Majority ownership—men	-0.43	0.01	0.00	0.65
Equal ownership	-0.12	0.02	0.00	0.89
At least one child 5 to 13 years	0.31	0.01	0.00	1.36
No child younger than 13 years	0.44	0.02	0.00	1.55
Owner is younger than 20 years	-0.85	0.04	0.00	0.43
Owner is 40 to 59 years	0.47	0.01	0.00	1.60
Owner is 60 years and older	0.34	0.01	0.00	1.41
Immigrant	-0.33	0.01	0.00	0.72
In low income	-0.33	0.01	0.00	0.72
Small family	-0.40	0.01	0.00	0.67
Large family	0.06	0.01	0.00	1.06
Introduction of full-day kindergarten	-0.23	0.01	0.00	0.79
Alberta	-0.13	0.01	0.00	0.88
British Columbia	-0.21	0.01	0.00	0.81
Manitoba	0.01	0.02	0.58	1.01
New Brunswick	0.18	0.03	0.00	1.19
Newfoundland and Labrador	0.17	0.04	0.00	1.18
Nova Scotia	0.04	0.03	0.12	1.04
Northwest Territories	-0.06	0.10	0.52	0.94
Nunavut	-0.16	0.27	0.56	0.86
Prince Edward Island	0.23	0.06	0.00	1.26
Quebec	0.61	0.01	0.00	1.84
Saskatchewan	0.05	0.02	0.01	1.05
Yukon	-0.15	0.14	0.28	0.86

Notes: Pr = probability of; ChiSq = Chi-square.
Source: Statistics Canada.

Relative to the baseline, being in a couple family, a family with at least one child aged 5 to 13 years or no child younger than 13 years, a large-sized family and having individual self-employment income increases the probability that an SECCSP remains active for an additional year (Table 10). With respect to the owner's age, an SECCSP owned by a 40- to 59-year-old individual or by an individual who is 60 years and older is more likely to stay active relative to an SECCSP owned by someone aged 20 to 39 years. Despite income variables having a statistically significant positive effect, total family income and individual employment income have an overall impact that is very small in magnitude. In fact, none of the income variables have a hazard ratio that differs from 1 in any practical sense except for self-employment income. An entrepreneur with self-employment income has a threefold higher probability of remaining in business for an additional year. Finally, in comparison with Ontario, an SECCSP located in Prince Edward Island, New Brunswick and Quebec is more likely to remain active.

SECCSPs that are majority-owned (or have equal ownership) by young, immigrant men in a small-sized family who are in low income all have parameter estimates that are statistically significant and hazard ratios indicating a lower probability of continuing activity. Geographically, SECCSPs in Alberta, British Columbia, Yukon, Northwest Territories and Nunavut have a lower probability of remaining active. The results for the territories are not all statistically significant, but this may be because of their smaller sample sizes. Finally, the introduction of full-day junior kindergarten or kindergarten in Ontario and British Columbia has a statistically significant negative parameter and a hazard ratio well below 1 suggesting that the introduction of full-day junior kindergarten or kindergarten is associated with a lower likelihood of continued SECCSP activity.

Conclusion

Research on child care has shown it is essential for supporting paid employment for parents, particularly women who do the majority of child care work (Smith 2022, Power 2020, Wallace and Goodyear-Grant 2020, Penn 2012). However, studies examining child care providers have, to date, focused on larger child care centres or licensed child care providers (Cleveland et al. 2008, Macdonald 2018, Friendly and Macdonald 2021) because, until recently, these were the only providers that could be readily identified and studied.

This paper examines the small home-based child cares identified by Archer et al. (2001) that are ubiquitous throughout Canada. It presents a first set of results for understanding the characteristics and the evolution of the population of small home-based child cares between 2008 and 2016. The results show that an important share of home child cares are run by immigrants, in particular women entrepreneurs, and that there are differences in how home child cares support the incomes in low-income and not-low-income families. An initial test for the effect of full-day kindergarten or junior kindergarten supports the notion that the introduction of these programs in British Columbia and Ontario reduced the likelihood that home child cares continued operation.

Moreover, the results suggest that the presence of children in a household is not the overwhelming reason why home child cares are operated, as less than 50% of businesses are in households with a child younger than 13, and 20% of child cares are in households with a child younger than 4 years. On the contrary, the results suggest that home child cares function as a short-term way to support family incomes, particularly for couple families. It is possible that home child cares may be used by immigrant and low-income households as a way to raise family incomes during transitions. These ideas are hinted at in the results, but a more complete examination is needed to examine these topics more fully.

Finally, there are important differences in market structures that arise from more centralized systems (such as those represented by large centres) and more decentralized systems (such as those represented by small home child cares). These differences include efficiency, cost of regulation, ease of access and resiliency. Future work to further investigate these features of the child care market or to further examine business models for home child cares would provide a deeper understanding of how the child care market operates and how it interacts with other aspects of Canadian life.

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