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Identifying Indigenous Business Owners and Indigenous-Owned Businesses

by Bassirou Gueye, Amélie Lafrance-Cooke and Javier Oyarzun

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Papers in this series provide background discussions of the methods used to develop data for economic, health, and social analytical studies at Statistics Canada. They are intended to provide readers with information on the statistical methods, standards and definitions used to develop databases for research purposes. All papers in this series have undergone peer and institutional review to ensure that they conform to Statistics Canada's mandate and adhere to generally accepted standards of good professional practice.

The papers can be downloaded free at www.statcan.gc.ca.

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Abstract

In recent years, Statistics Canada has made available data on business ownership by individuals in employment equity groups, namely women and persons with disabilities. However, little is known about business ownership among the other two employment equity groups, Indigenous peoples and racialized groups. This article describes the methodology used to fill the data gap on Indigenous business owners and Indigenous-owned businesses and is based on a novel linkage between the Canadian Employer–Employee Dynamics Database (2018), the Census of Population (2001, 2006, 2016) and the 2011 National Household Survey.

1 Introduction

Much progress has been made at Statistics Canada on measuring business ownership in Canada, in particular, on the characteristics of business owners. The development of the Canadian Employer–Employee Dynamics Database (CEEDD) led to new estimates of business ownership by gender (Grekou et al., 2018; Statistics Canada tables 33-10-0191-01, 33-10-0192-01) and the ability to examine business ownership across intersectional demographics, such as age and immigrant status (for example, see Grekou and Watt, 2021; Grekou and Gueye, 2021; Fung et al., 2019). More recently, the CEEDD has been used to provide a profile of business ownership among persons with disabilities (Lafrance-Cooke and Bemrose, 2022).

Nevertheless, there remain important data gaps on business ownership among certain groups, including Indigenous people and racialized groups.¹ Since the CEEDD is an administrative dataset composed largely of tax data, such demographic characteristics are not captured. Existing data sources that collect information on businesses majority-owned² by Indigenous people or racialized groups are infrequent, not available over long periods of time, or do not allow for intersectional analysis because of small sample sizes. Examples include the Survey of Financing and Growth of Small and Medium Enterprises (SFGSME) and the Canadian Survey on Business Conditions (CSBC).

Because timely and comprehensive data on business ownership among employment equity groups³ is increasingly requested by policy makers, Statistics Canada has sought to fill such data gaps through innovative initiatives, including the integration of datasets. This methodology paper discusses one such project: the linkage of the 2001 to 2016 Census of Population and other datasets containing information on Indigenous-owned businesses to the CEEDD to identify Indigenous people and Indigenous-owned businesses. These data will provide decision makers with evidence to support program development since they can be used to produce a profile of Indigenous business owners and Indigenous-owned businesses. Notably, the Canadian Council for Aboriginal Business (CCAB) pointed out the lack of data on Indigenous-owned businesses in Canada and stated that such an information gap has led to barriers in current and previous policies, programming, and other business supports (CCAB, 2020).

This paper accompanies Statistics Canada Common Output Data Repository (CODR) tables 33-10-0631-01 and 33-10-0632-01, which contain counts of majority-Indigenous-owned businesses by sex of ownership and other characteristics such as age of primary owner and province of operation. Although the CODR tables will consist of private incorporated businesses with or without employees and unincorporated businesses with at least one employee (self-employed individuals who are also employers), the work presented in this article includes unincorporated Indigenous-owned businesses without employees.

The linked dataset fills an important knowledge gap on the presence of Indigenous business owners and Indigenous-owned businesses in Canada. It can be used to provide a profile of Indigenous business owners and Indigenous-owned businesses across several dimensions, including regional and industrial representation, intersectional characteristics of business owners (e.g., age, sex, persons with disabilities) and business performance over time.

-
1. The concept of racialized population is measured with the “visible minority” variable in this release. Visible minority refers to whether a person belongs to one of the visible minority groups defined by the Employment Equity Act. The Employment Equity Act defines visible minorities as “persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour.”
 2. A business is typically defined as majority-Indigenous-owned if more than 50% of its shares belong to individuals who identify as Indigenous (First Nations, Métis, Inuk [Inuit] or multiple Indigenous identities). This definition is employed in this study.
 3. In the Employment Equity Act, the four designated groups are defined as women, Indigenous peoples, persons with disabilities and racialized groups.

The paper is structured as follows: Section 2 presents an overview of the data followed by the description of the imputation methodology in Section 3. Different definitions of an Indigenous-owned business are outlined in Section 4. The results and the conclusion are presented in sections 5 and 6, respectively.

2 Data

The core dataset used in this paper and to produce the CODR tables is the CEEDD. As described in detail in Grekou et al. (2018), the CEEDD is a set of linkable files derived from administrative data sources, including individual tax files (T1, Personal Income Tax and Benefit Return or T1 Personal Master File); individual employment remuneration files (T4, Statement of Remuneration Paid); individual business ownership files (T1 Financial Declaration [FD] for unincorporated business owners, and T2 Schedule 50 for incorporated business owners); Longitudinal Immigration Database (IMDB); T1 Family File; corporate business tax files (T2, Corporation Income Tax Return); and unincorporated business tax files (T1 Business Declaration). The unit of analysis is a business owner, whether based on T1 (unincorporated business) or T2 (incorporated business) forms.

The CEEDD contains a rich variety of demographic characteristics such as sex, age, marital status, immigrant status and disability status.⁴ However, it is limited in terms of information to identify Indigenous people.

The Census of Population long-form questionnaire collects information on Indigenous identity, which refers to whether a person reported identifying with the Indigenous peoples of Canada. This includes those who reported being First Nations (North American Indian), Métis or Inuk (Inuit); those who reported registered or treaty Indian status registered under the *Indian Act* of Canada; and those who reported membership in a First Nation or Indian band.⁵ According to the 2016 Census of Population, about 1.7 million people in Canada identified as Indigenous.

To incorporate Indigenous identity, this analysis makes use of the linkage⁶ of the census to the CEEDD. Since this variable is available on the long-form questionnaire, which is a 20% to 30% sample depending on the census year, multiple years of the census (2001 to 2016 and the 2011 National Household Survey [NHS]) are used for the linkage to increase the number of business owners who may have responded to a census. With this linkage between the CEEDD, the censuses and the NHS, it can be ascertained that whether 47.8% of business owners in 2018 we are Indigenous⁷ or not.

Further steps are taken to improve the share of business owners that can be identified as Indigenous people. The CEEDD includes the IMDB, an administrative immigration database for all immigrants since 1952 and non-permanent residents since 1980. The IMDB excludes people born in Canada, and thus, excludes Indigenous people by definition. As such, immigrants identified in the IMDB are ascertained to be non-Indigenous people. Furthermore, the CEEDD allows for the identification of employees and self-employed individuals who claimed the tax

4. Based on the Disability Tax Credit in the T1.

5. Specifically, this study makes use of the results from the Census question: “Is this person an Indigenous person, that is, First Nations (North American Indian), Métis or Inuk (Inuit)?”.

6. The CEEDD–census linkage was developed through the Social Data Linkage Environment (SDLE) at Statistics Canada, which facilitates the creation of linked administrative and survey data files for social analysis. The SDLE is a highly secure environment for record linkage activities, with different levels of access determined on a need-to-know basis. Data integration between different sources is performed using anonymized identifiers.

7. The 2016 Census and previous censuses asked respondents if they were “an Aboriginal person, that is First Nations (North American Indian), Métis or Inuk (Inuit)”. For the purposes of this article, the term “Indigenous” is used throughout.

exemption available under the *Indian Act*. The use of this information increases the share of business owners for whom an Indigenous or non-Indigenous identity can be determined to 62.0%.

Other business micro-datasets are incorporated into the CEEDD to identify businesses majority owned by Indigenous people. Statistics Canada's Intellectual Property Awareness and Use Survey (IPAU) is a business survey with a sample size of around 11,700 enterprises that collects information on intellectual property familiarity and use among Canadian enterprises, including traditionally underrepresented groups, such as women and Indigenous people. It asks respondents how many shares of the business are owned by individuals who identify as a First Nations person, Métis or Inuk (Inuit). Businesses that reported that more than 50% of their shares are owned by Indigenous people are flagged in the dataset as majority-Indigenous-owned businesses.

In addition, Indigenous Services Canada publishes the Indigenous Business Directory (IBD), an online directory intended to be used to identify Indigenous-owned businesses for those that are eligible to receive procurement.⁸ While it does not cover all Indigenous-owned businesses in Canada, it includes over 2,000 businesses, and Indigenous Services Canada conducts audits to ensure that Indigenous-owned businesses in the directory meet the eligibility criteria. The IBD contains the name and address of businesses, which were used to link to Statistics Canada's Business Register (BR). Of the 2,284⁹ records in the IBD, 99% were linked to the BR. For the purposes of this project, only high-quality matches where both the name and address matched well to the BR were kept. This represents about 1,900 businesses of which around 500 are in CEEDD. In the CEEDD–census dataset, these businesses are identified as Indigenous-owned businesses.

With the census–CEEDD linkage and the addition of the IPAU and IBD datasets, about 62.0% of business owners can be determined as either part of the Indigenous population or the non-Indigenous population. The share of business owners with a determined Indigenous identity remained at 62.0% after the addition of IPAU and IBD because around 600 businesses found in these two sources were linked to the CEEDD, which contains over three million business owners. Despite the imputation of the Indigenous identity for 38.0% of business owners using the methodology described in the next section, the approach presented in this document produces reliable aggregate results on Indigenous-owned businesses as shown in section 5.

3 Imputation methodology

In statistics, imputation is the process of replacing missing data with substituted values. Imputation has the advantage of preserving all cases by replacing missing data with an estimated value based on other available information. As shown in Table 1, around 38.0% of business owners in 2018 have no demographic information on Indigenous identity. Therefore, an imputation methodology was developed to impute this information.

8. For more information, please consult: <https://www.sac-isc.gc.ca/eng/1100100033057/1610797769658>

9. This number is based on the IBD downloaded in February 2022.

Table 1
Imputation rate for Indigenous identity, by year

	Imputation rate
	percent
2005	41.5
2006	41.2
2007	40.8
2008	40.5
2009	40.3
2010	40.0
2011	39.7
2012	39.5
2013	39.2
2014	39.0
2015	38.7
2016	38.5
2017	38.2
2018	38.0

Sources: Statistics Canada; Canadian Employer-Employee Dynamics Database; Census of Population, 2001, 2006, 2016; National Household Survey (2011).

The imputation was completed using a hot-deck method which uses information from a donor record that has passed all edits to replace missing or inconsistent values for a recipient record. To find a donor record that is similar to the recipient record, variables that are related to those requiring imputation are identified to create imputation classes. The donor pool for records in the imputation class requiring imputation originates from the set of records that has passed all edits. Hot-deck imputation can be used to impute quantitative or qualitative data, but generally uses categorical variables to create the imputation classes.

The imputation classes developed for this project were based on the age, sex, income and postal code of the individual (which is available for the entire population). Age and income groups were created to reduce the number of classes. As an example, say a given class has 150 business owners, 100 of which are linked to the census (i.e., Indigenous identity is determined) and 50 are not linked and will be imputed. Among the 100, 10 (or 10%) are Indigenous and 90 are non-Indigenous. As a result, the imputation process will impute with a probability of 10% the possibility that the 50 business owners are Indigenous. This would lead to 5 out of the 50 business owners being imputed as Indigenous while 45 would be imputed as non-Indigenous.

At Statistics Canada, the majority of imputation processes are carried out using the internally developed generalized system Banff (Statistics Canada, 2000). Banff is used at Statistics Canada for editing and imputing data. It is implemented in SAS as a procedure and offers various imputation methods. Several organizations and statistical agencies around the world make use of Banff, including, but not limited to, the US Census Bureau, the US Department of Agriculture, Italian National Institute of Statistics and Statistics Korea. Like any imputation methodology or reweighting, Banff is not perfect and its use for imputation can introduce bias in the final imputed data if the characteristics of the donor population and the recipient population used in the imputation are different. Furthermore, in some instances, imputation does not preserve the relationships between variables or can distort underlying relationships in the data.

This project used the “massimpute” function of Banff to impute all business owners missing Indigenous identity. As shown in Table 2, the share of Indigenous business owners is similar

before and after the imputation process. This can be seen as homogeneity between the donors and the recipients. A decrease of around 0.1%, on average, can be seen as a result of the imputation process. This slight discrepancy can be attributed to the frequency of Indigenous business owners in the non-imputed data being lower in imputation classes with more people.

Table 2
Proportion of Indigenous business owners before and after imputation, by year

	Before imputation	After imputation
	percent	
2005	1.8	1.9
2006	1.8	1.8
2007	1.8	1.8
2008	1.8	1.8
2009	1.9	1.8
2010	1.9	1.8
2011	1.9	1.8
2012	1.9	1.8
2013	1.9	1.8
2014	1.9	1.8
2015	1.9	1.8
2016	1.9	1.8
2017	1.9	1.8
2018	2.0	1.8

Notes: "Before imputation" refers to the sample limited to business owners found in the censuses or the National Household Survey.

Sources: Statistics Canada; Canadian Employer-Employee Dynamics Database; Census of Population, 2001, 2006, 2016; National Household Survey (2011).

4 Definitions of Indigenous-owned businesses

The majority of the data presented in the previous sections, including the imputation, are for business owners. This part of the paper discusses the methodology used to determine the Indigenous ownership of businesses based on the data on business owners. This is possible because of the ability to link owners to the businesses they own and determine their ownership share in each business using the CEEDD.

This paper considers two definitions of an Indigenous-owned business. The first, Gueye-Lafrance-Oyarzun 1 (GLO1), is based on the presence of at least one owner who identifies as an Indigenous person. The second, Gueye-Lafrance-Oyarzun 2 (GLO2), and more common definition,¹⁰ is based on majority ownership; it considers a business to be Indigenous owned if more than half of the shares are held by individuals who identify with that group and draws on the method used by Grekou et al. (2018) to measure business ownership by gender.

While GLO1 identifies the extent to which Indigenous people are involved in business ownership, GLO2 allows for comparison with other sources and is consistent with the definition of an Indigenous-owned business outlined in a report commissioned by the National Aboriginal Capital Corporations Association (NACCA) (NIEDB, 2021). The NACCA report also recognizes the

10. For example, see Global Affairs Canada https://www.international.gc.ca/trade-commerce/inclusive_trade-commerce_inclusif/Indigenous-autochtone/Indigenous_sme-pme_autochtones.aspx?lang=eng, SFGSME, CSBC.

existence of many businesses with Indigenous owners but their majority-based definition is intended to provide competitive advantages to majority-Indigenous-owned businesses. In their literature review, the NACCA found that the definition based on majority ownership is consistent with definitions of an Indigenous-owned business used elsewhere in Canada (e.g., Trade Commissioner Service, Province of Manitoba, Canadian Aboriginal and Minority Supplier Council) and abroad (e.g., Australian National University Centre for Social Research and Methods and the Hawaii's State Small Business Authority). In addition, similar results in GLO1 and GLO2 may suggest that Indigenous people tend to be sole proprietors or to partner with other Indigenous people.

A variation of the second definition is also presented in this paper Gueye-Lafrance-Oyarzun 3 (GLO3). For records with imputed Indigenous identity, their share of ownership is weighted by the probability that they belong to the group (Indigenous or non-Indigenous) to which they are imputed. The purpose of this approach is to reduce the potential bias induced by the imputation when a business is owned by two or more individuals and the Indigenous identity of at least one of them is imputed. For example, if an owner A holding 60% of the shares of a firm E is imputed to be Indigenous and the probability that A is Indigenous is 50%, then the weighted share belonging to this individual is 30%. Considering that the owner B, who holds the remaining 40%, does not identify as an Indigenous person, then, according to GLO2, firm E is majority-owned by Indigenous people.¹¹ On the other hand, based on GLO3, enterprise E would be considered as owned by non-Indigenous people. If individual A were, for example, the sole owner of enterprise E, then regardless of the definition chosen, the business would be considered as Indigenous owned. Thus, all other things being equal, the number of Indigenous-owned businesses measured using GLO1 will always be greater than that calculated using GLO2 and GLO3. This is because GLO2 and GLO3 are stricter versions of GLO1.

5 Results and validation

In this section, ownership refers to majority ownership (GLO2), unless otherwise stated. As presented in Table 3, 37,000 of the 2,537,000 private businesses (both incorporated and unincorporated) in Canada in 2018 were Indigenous owned. Over two-thirds (67.8%) of Indigenous-owned businesses did not have employees, suggesting that Indigenous people were more likely to be self-employed than employers. This was also the case for businesses owned by non-Indigenous people, since 66.6% of them had no employees. The distribution of the Indigenous-owned businesses suggests that the three Indigenous groups should not be considered as one homogenous group in terms of business ownership. First Nations people and Métis represented over 94.1% of all Indigenous-owned businesses, while Inuit owned 1.6% of them. Businesses owned by individuals with multiple Indigenous identities or jointly owned by individuals who identify with one of the three Indigenous groups, but no one group controls more than 50% of the shares, accounted for the remaining 4.3%.

The addition of the Indigenous-owned businesses identified from the alternative sources used, namely IPAU and IBD, would increase the total number of businesses by about 1,500 Indigenous-owned businesses. In fact, of the 2,100 Indigenous-owned businesses found in either IPAU or IBD, 600 were already captured in the CEEDD, with over half of them identified as Indigenous-owned by GLO1.

11. The total weighted share becomes 70%, of which 43% belong to Indigenous people and 57% to non-Indigenous people.

Table 3
Distribution of private businesses by Indigenous identity of owners and presence of employees (2018)

	Without employment	Employer businesses number	Total
Non-Indigenous	1,664,200	835,800	2,499,900
Indigenous	25,100	11,900	37,000
First Nations	12,000	5,400	17,400
Métis	11,900	5,600	17,400
Inuk (Inuit)	400	200	600
Other Indigenous ownership	900	700	1,600
Total	1,689,300	847,700	2,537,000

Notes: "Other Indigenous ownership" refers to businesses belonging to individuals with multiple Indigenous identities or jointly owned by individuals who identify with one of the three Indigenous groups but no one group controls more than 50% of the shares. Numbers may not add to total due to rounding. "Private businesses" refers to Canadian-controlled private corporations and unincorporated businesses for which gender, Indigenous identity and age of ownership, province and employment size can be defined.

Sources: Statistics Canada, Canadian Employer-Employee Dynamics Database (2020 vintage), Census of population (2001, 2006, 2016), National Household Survey (2011), IPAU, IBD.

To the best of the authors' knowledge, there are no data available on the universe of Indigenous-owned businesses in Canada that would allow for comparison of the measures obtained by GLO. This lack of data limits the ability to compare the levels estimated from the methodology presented in this paper. However, there are surveys that collect information on Indigenous-owned businesses and thus allow for an estimate of the proportion of businesses that are Indigenous owned. Both the CSBC and the SFGSME have information on Indigenous-owned businesses. The SFGSME is preferred over the CSBC for the validation and comparison of the results for two reasons. First, the reference year of the SFGSME (2017) is closer than the CSBC (2020) to the most recent year available in the CEEDD linked to the census and NHS (2018). This is because the CSBC was launched in 2020 to study the impact of the COVID-19 pandemic on businesses. The second reason the SFGSME is preferred is related to the level of information publicly available in the two alternative sources. Indigenous business ownership rates are available in the SFGSME by province, firm size and industry,¹² whereas the CSBC would only provide proportions by province.

The charts in this section reflect the landscape of Canadian private businesses with 1 to 499 employees for better comparability with the SFGSME¹³ results. The definition of an Indigenous-owned business in the SFGSME is similar to that used in GLO2. It is not surprising to see in charts 1, 2 and 3 that the GLO1 estimates are consistently higher than the others. The comparison will therefore focus on the results of GLO2 and GLO3 in relation to those of the SFGSME, since the concepts of Indigenous-owned business are similar.

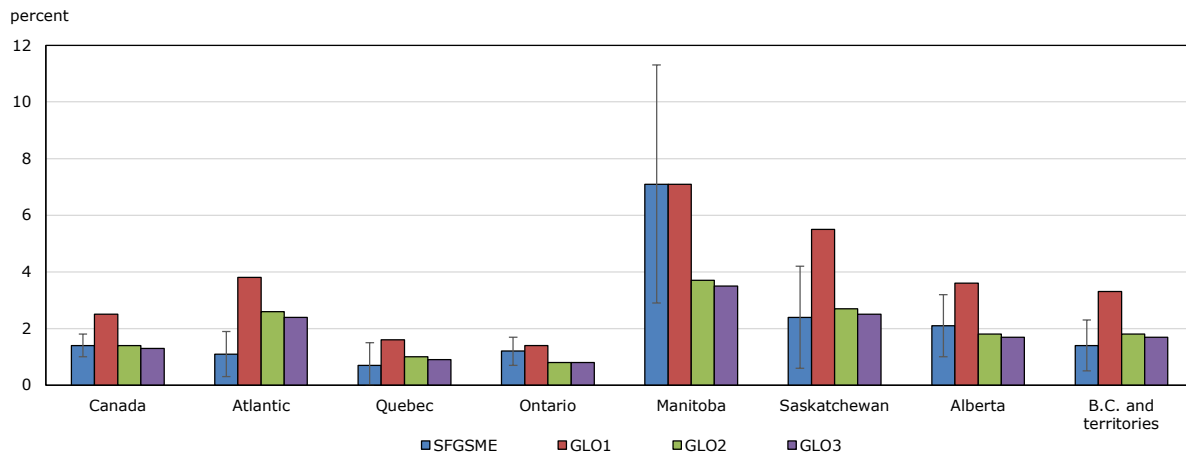
Chart 1 shows that the Indigenous ownership rates by province or region obtained from GLO2 and GLO3 are generally comparable to those from the SFGSME. With the exception of the Atlantic region¹⁴ and Manitoba, the proportions of Indigenous-owned businesses are within +/-0.4 percentage point (pp) of each other between GLO2 and GLO3, and the SFGSME. Furthermore, the results for both GLO methods are within the confidence interval of the SFGSME for all provinces and regions except the Atlantic region.

12. Industry is based on the first two digits of North American Industry Classification System.

13. The following industries are also removed because they are not in the SFGSME: utilities, finance and insurance, management of companies and enterprises, educational services, and public administration.

14. The Atlantic region includes the eastern Canadian provinces of Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick.

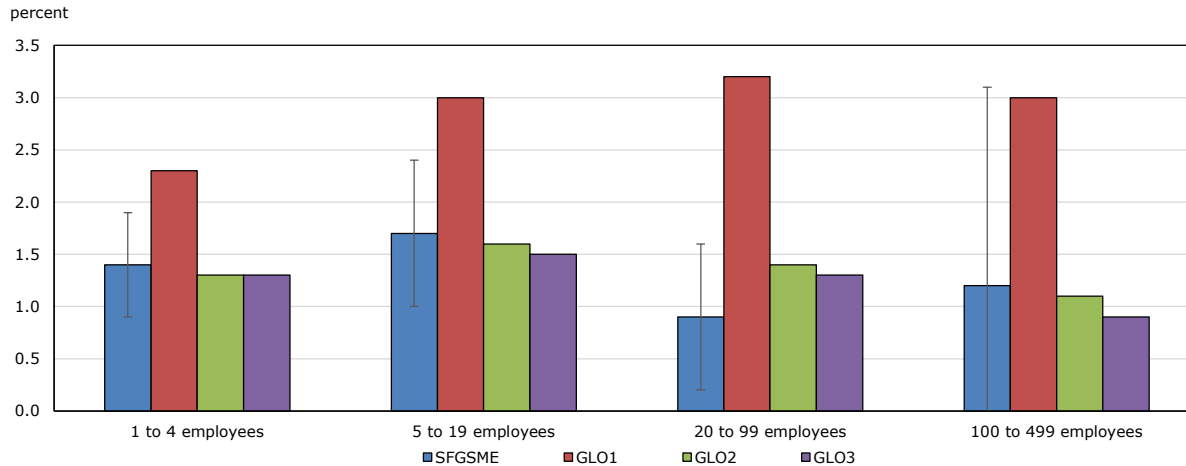
Chart 1
Share of indigenous-owned businesses by province/region, SFGSME (2017) vs GLO (2018)



Notes: SFGSME means Survey on Financing and Growth of Small and Medium Enterprises, GLO means Gueye-Lafrance-Oyarzun. The Atlantic region includes the eastern Canadian provinces of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick. The Territories are Yukon, Northwest Territories and Nunavut.
Sources: Statistics Canada, Canadian Employer-Employee Dynamics Database (2020 vintage), Census of population (2001, 2006, 2016), National Household Survey (2011), Intellectual Property Awareness and Use Survey, Indigenous Business Directory and Survey on Financing and Growth of Small and Medium Enterprises (2017).

The second validation exercise focuses on firm size measured by the number of employees and is presented in Chart 2, which shows almost similar measures of Indigenous ownership rates between GLO2 and GLO3, and the SFGSME. The difference between the estimates is +/-0.3 pp at most for three of the four firm size groups. The SFGSME estimate for the 20 to 99 employees' category is 0.5 pp and 0.4 pp lower than that of GLO2 and GLO3, respectively. However, the confidence interval of the SFGSME estimates covers all measures obtained from GLO2 and GLO3, regardless of firm size.

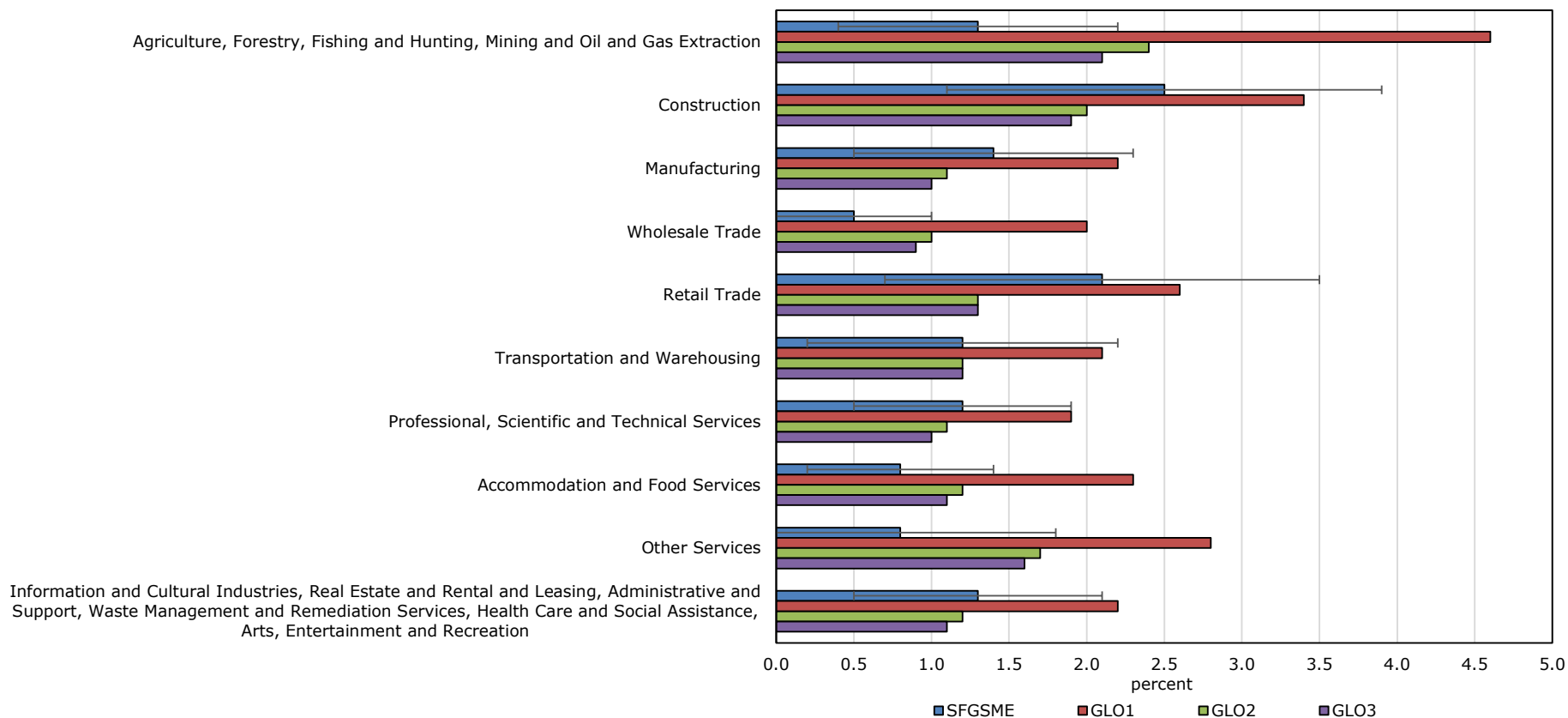
Chart 2
Share of indigenous-owned businesses by firm size, SFGSME (2017) vs GLO (2018)



Notes: SFGSME means Survey on Financing and Growth of Small and Medium Enterprises, GLO means Gueye-Lafrance-Oyarzun.
Sources: Statistics Canada, Canadian Employer-Employee Dynamics Database (2020 vintage), Census of population (2001, 2006, 2016), National Household Survey (2011), Intellectual Property Awareness and Use Survey, Indigenous Business Directory and Survey on Financing and Growth of Small and Medium Enterprises (2017).

As for the provinces and the employment size, the Indigenous business ownership rates by industry or group of industries between GLO2 and GLO3, and the SFGSME show differences smaller than +/-0.5 pp for most industries (Chart 3). However, 4 of the 10 industries presented in the SFGSME have proportions of Indigenous-owned businesses that differ from GLO2 and GLO3 by +/-0.6 pp to +/-1.1 pp. Despite the differences across the proportions, all estimates from GLO2 and GLO3 are within the SFGSME confidence interval with the exception of the group of industries that includes agriculture; forestry, fishing and hunting; mining and oil and gas in GLO2.

Chart 3
Share of indigenous-owned businesses by selected industries, SFGSME (2017) vs GLO (2018)



Notes: SFGSME means Survey on Financing and Growth of Small and Medium Enterprises, GLO means Gueye-Lafrance-Oyarzun. The industries are based on the first two digits of National Accounts Industry Classification System.

Sources: Statistics Canada, Canadian Employer-Employee Dynamics Database (2020 vintage), Census of population (2001, 2006, 2016), National Household Survey (2011), Intellectual Property Awareness and Use Survey, Indigenous Business Directory and Survey on Financing and Growth of Small and Medium Enterprises (2017).

6 Conclusion

The methodology presented in this article will make it possible to draw a picture of private businesses in Canada according to whether or not their owners reported being an Indigenous person, that is, First Nations (North American Indian), Métis or Inuk (Inuit). This will help fill the data gap on Indigenous-owned businesses and thus better inform policy making.

Such an exercise required a novel linkage between the CEEDD (version 2020), the Census of Population (2001, 2006, 2016) and the NHS (2011). While the CEEDD allows for the identification of business owners and their businesses, it does not capture Indigenous identity information of all tax filers. The addition of the census and NHS fill this gap for about half of business owners, since these surveys are intended to be a sample of the Canadian population. The immigration status indicator and the tax exemption available under the *Indian Act*, both available in the CEEDD, increase the proportion of business owners with a known Indigenous identity from 47.8% to 62.0%. For the remaining 38.0%, an imputation methodology based on age, sex, income and postal code is used to determine Indigenous identity of business owners.

To achieve the ultimate goal of producing business statistics by Indigenous identity of business owners, it is necessary to define an Indigenous-owned business. Three definitions were considered for an Indigenous-owned business. The first is to declare any business owned by at least one person who identifies as Indigenous as Indigenous owned, and this definition can be suitable for statistics on Indigenous participation in business ownership. According to the second definition, an Indigenous-owned business is one in which more than 50% of the shares are owned by Indigenous people. For comparability with other sources, the second definition will be used as the official definition in dissemination products. It is consistent with the one used by the NACCA as well as other Canadian and foreign institutions such as the Trade Commissioner Service, the Canadian Aboriginal and Minority Supplier Council, the Australian National University Centre for Social Research and Methods and the Hawaii's State Small Business Authority. The third definition is a variant of the second where the share of the owner whose Indigenous identity is imputed is weighted by the probability that they belong to the group (Indigenous or non-Indigenous) to which they are assigned. The second and third definitions produce almost identical results. Alternative sources that collect information on Indigenous-owned businesses, namely the IBD and the IPAU were also used to identify Indigenous-owned businesses in the CEEDD.

The similarity of the results obtained to those of the SFGSME makes it possible to affirm that the estimates are reliable at the aggregate level. This is evidence of the quality of the imputation but also to the method used to identify Indigenous-owned businesses from administrative data. However, it should be noted that additional efforts are needed to produce microdata on Indigenous-owned businesses. The use of CEEDD linked to the 2021 Census and alternative sources such as the CSBC and the Canadian Community Health Survey may further improve the attribution of an Indigenous identity to additional business owners and reduce the share of imputed records. Although the data from this methodology paper will contribute to the production of disaggregated statistics on Indigenous business ownership, data gaps still exist. For example, more work is needed to identify off-reserve versus on-reserve Indigenous business owners. Furthermore, little is known about business ownership among racialized groups and work is underway at Statistics Canada to improve data on this group. The possibility to include statistics on gender instead of sex could also be explored.

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