Edmonton Business Census

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Using data to support Edmonton's Local Economy

Summary of findings from the 2023 Pilot Project
October 16, 2023

Land Acknowledgement

The lands on which Edmonton sits and the North Saskatchewan River that runs through it have been the sites of natural abundance, ceremony and culture, travel and rest, relationship building, making and trading for Indigenous peoples since time immemorial. Edmonton is located within Treaty 6 Territory and within the Métis homelands and Métis Nation of Alberta Region 4.

We acknowledge this land as the traditional territories of many First Nations such as the Nehiyaw (Cree), Dene, Nakota Sioux (Stoney), Anishinaabe (Saulteaux) and Niitsitapi (Blackfoot).

Edmonton owes its strength and vibrancy to these lands and the diverse Indigenous peoples whose ancestors' footsteps have marked this territory as well as settlers from around the world who continue to be welcomed here and call Edmonton home.

Introduction

Edmonton's first-ever Business Census, launched in 2023, aimed to fill in existing gaps in our business and employer data with more timely, relevant and accurate information. The pilot involved multiple data collection methods, including in-person field counts and interviews, an online questionnaire and telephone interviews.

The Business Census defined a business as any entity that operated from a commercial location in Edmonton. This may include for profit, not for profit, non-governmental agencies, government and government agencies. Home-based businesses were not in scope.

Besides providing a detailed profile of Edmonton business establishments in the pilot area, the data collected through the project has far-reaching implications, especially regarding how we track growth and changes in businesses in key areas identified in the City Plan (including the Downtown, Business Improvement Areas and nodes and corridors).

The pilot project, borne out of the need for high-quality data, exceeded expectations. It demonstrated the potential to transform how we address gaps in the data that is needed to inform how we support businesses and measure economic growth. With the success of the pilot as our foundation, we will use the lessons

learned from the pilot to scale the project and expand to other areas of the city.

We extend our gratitude to our economic development partners, stakeholders and especially the business community for participating in the census.

Our Partners:

Intended Impact

- **The Program -** The Business Census provides a **true count** of business establishments and employers. The program is unique as it is based on a physical count and encompasses the entire population in the pilot area (as opposed to a sample). This provides the City, its economic development partners and the business community the most accurate, timely and relevant data for decision making.
  - **The Report -** Offers interested parties a **concise overview of data observations** at a high level and provides insight into how we collected and analyzed the data. Readers are encouraged to interact with the dashboard at the end of this report.
  - **The Data -** Enabling Edmontonians, our partners and any interested party to conduct their own in-depth exploration is a priority for this program. Datasets derived from this program can be accessed directly from the City's Open Data portal. (https://data.edmonton.ca).

Summary of Findings
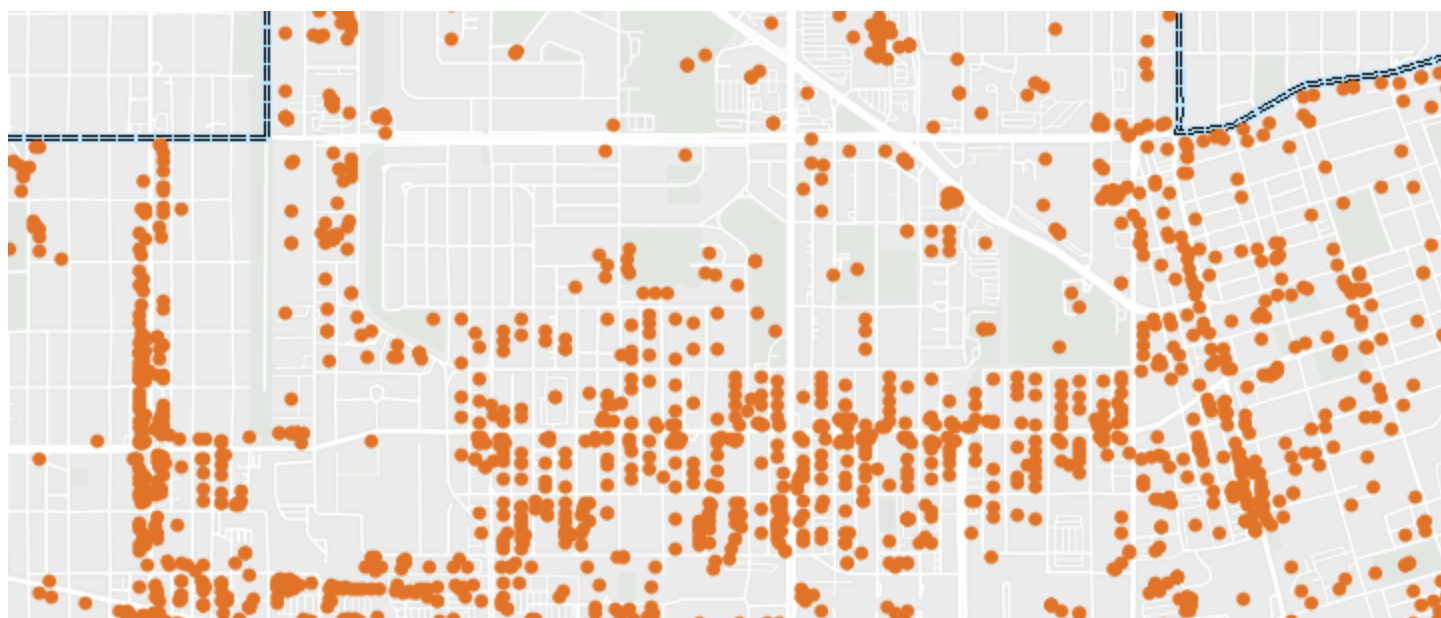
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Survey Area

The pilot project took place within Ward O'day-min, with the results representative of business activity in the area highlighted by the map on the right. Using Ward O-day'min as a pilot area had several advantages, as it:

- is strategically aligned to the City Plan, the Downtown Vibrancy Strategy and Chinatown Strategy;
- contains a high concentration of businesses with a mix of retail, commercial and industrial and
- includes a number of Business Improvement Areas (124 Street, Alberta Ave, Chinatown, Downtown, Kingsway and North Edge).

The map on the right shows commercial locations through a series of dots. Each dot represents one or more businesses sharing the same street address. The distribution of these dots offers a visual representation of the concentration and dispersion of commercial activities across the ward.

Highlights

- The business landscape in Ward O'day-min comprised of 4,478 business establishments supporting 105,391 jobs (with 79% in full-time and 21% in part-time roles).
  - The average number of jobs per establishment is 23.
  - The program counted 213 large establishments (with 100 or more employees). Despite representing 5% of all establishments, large businesses accounted for 60,060 jobs (57%) in the ward.
  - The program established a baseline that can show year over year trends and changes in the business landscape.
  - At 61%, in-person survey methods accounted for the majority of completed surveys in the pilot area.
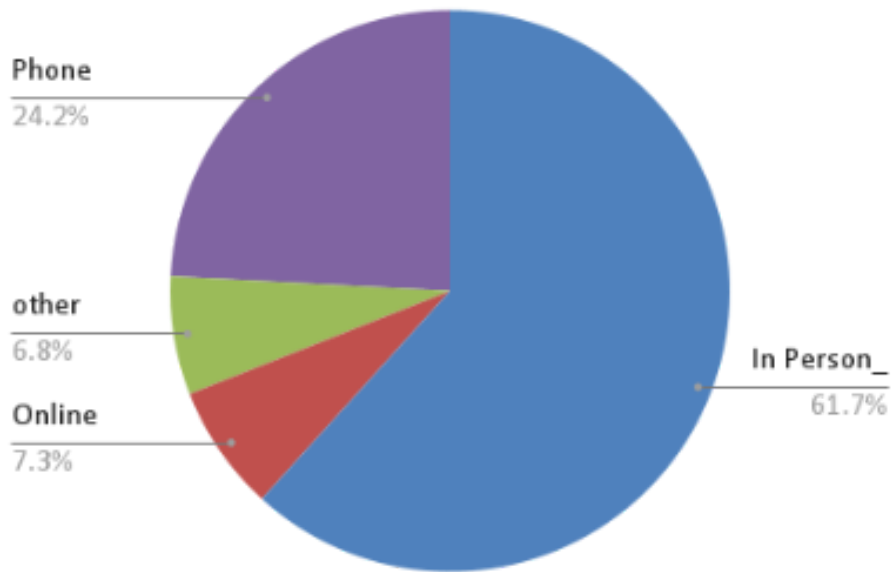

Figure1: Survey Methods

- The use of diverse survey methods helped enhance participation, accessibility and inclusivity in the data collection process.

Business Categories

The survey incorporated the 2022 North American Industry Classification System (NAICS) into its data coding. The chart below

provides a sector breakdown of the businesses in the pilot area, offering a clear overview of the nature of local economic activities. Each sector is represented by a distinct bar, with the height of the bars corresponding to the number of businesses within that specific category.
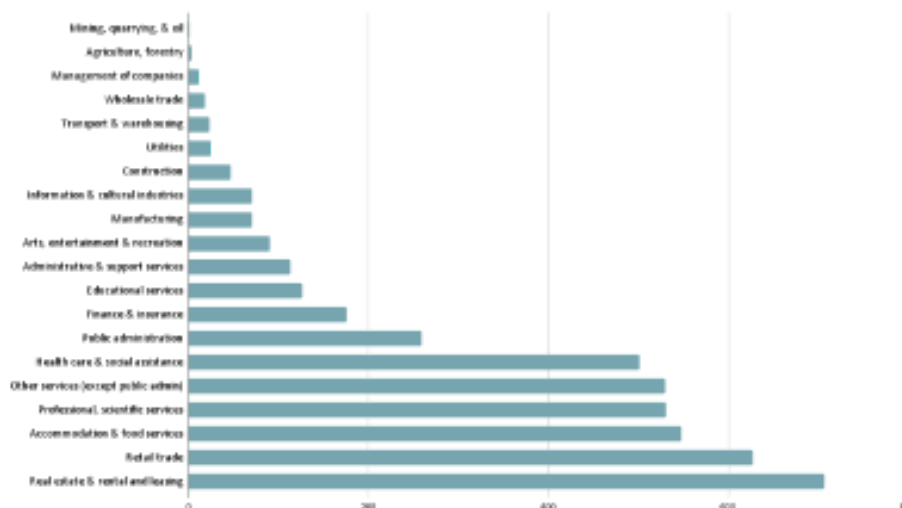

Figure 2: Business Establishments by NAICS Sector.

The chart shows the relative sizes of different sectors within the pilot area's business landscape. These sectors - accommodation and food services (12%), retail trade (14%), real estate and rental and leasing (16%) - made up 42% of the business establishments in the pilot area. This sectoral breakdown can serve as a foundation for understanding potential focus areas for strategic development (e.g. emerging clusters) and resource allocation.

Overall, the pilot area's economic landscape is diverse, as evidenced by the wide-ranging distribution of businesses across various sectors, from industries like mining, quarrying, and oil and gas extraction; agriculture, forestry, fishing and hunting; to more service-oriented domains such as public administration and professional, scientific and technical services.

These findings will serve as a baseline to monitor gains and losses in each sector over time. Readers can use the dashboard at the

end of this report to see the spatial distribution of businesses by sector.

Employment by Sector

The pilot project counted 105,391 jobs provided by business establishments within Ward O'day-min. Respondents reported approximately 79% of jobs as full-time positions and 21% as part-time. The following chart illustrates the distribution of employment across various sectors in the ward.

This tells us Ward O'day-min contains approximately 1/6th of Edmonton's total employed labour force (when compared to Statistics Canada's Labour Force Survey from the same time period).
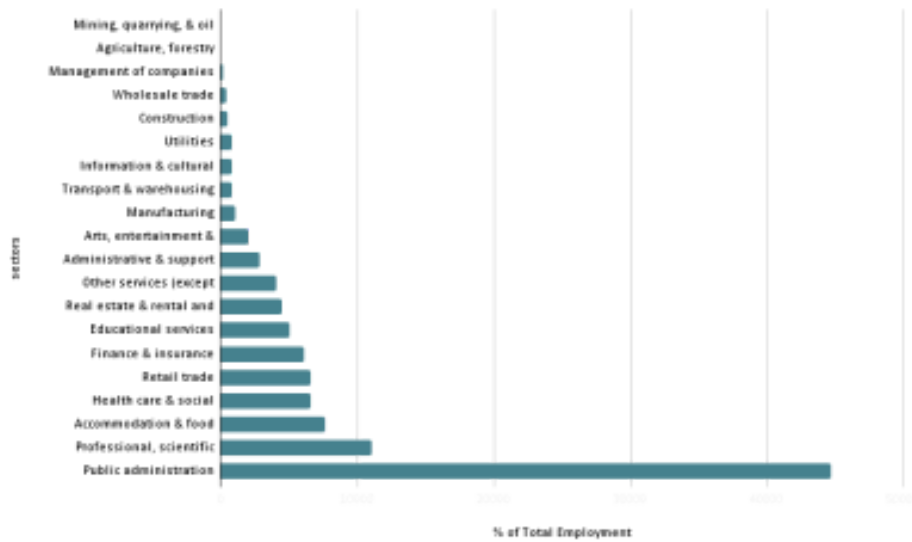

Figure 3: Employment by Sector

- These sectors made up the majority (about 60%) of Ward O'day-min job share: accommodation & food services (7%), professional, scientific and technical services (10%) and public administration (42%).
  - Though Real estate and rental and leasing has the most number of establishments, it accounted for only 4% of total jobs in the area. Similarly, Retail Trade has the second most

number of establishments and only accounted for 6% of jobs in the area.

- Employment in the ward is clustered in the Downtown core, 124 Street and Kingsway Mall.

Heatmap of Total Employment

The following chart visually represents the distribution of businesses across various sectors and corresponding employment figures within each sector.
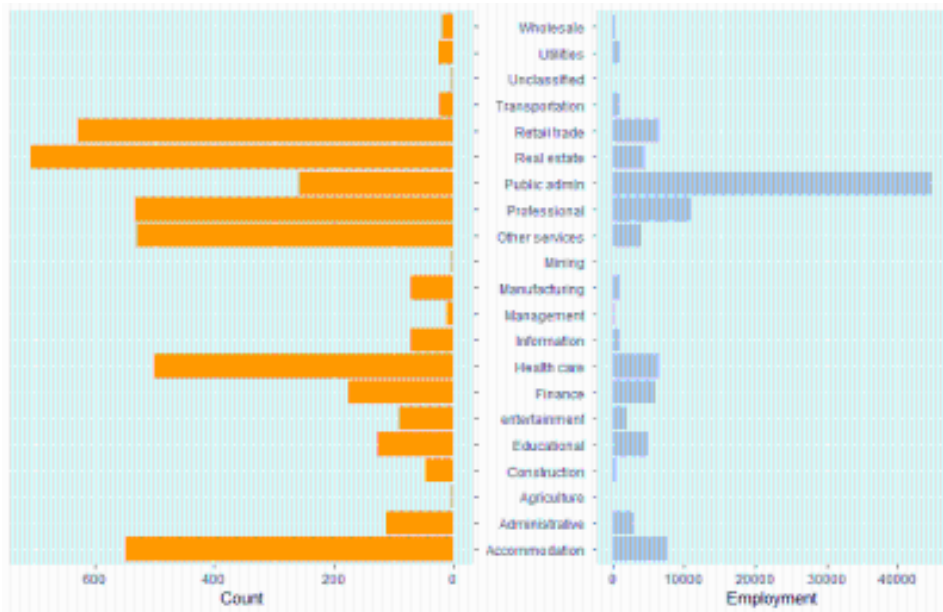

Figure 4: Count of Businesses & Employment by Sector

This displays the concentration of businesses and workforce distribution within each sector while also offering insights into the local economic landscape, including the diversity of industries.

Goods and services producing industries

This breakdown of businesses is a variant of the North American Industry Classification System (NAICS) that divides the economy into only two industry groupings: the goods-producing industries and the services-producing industries.
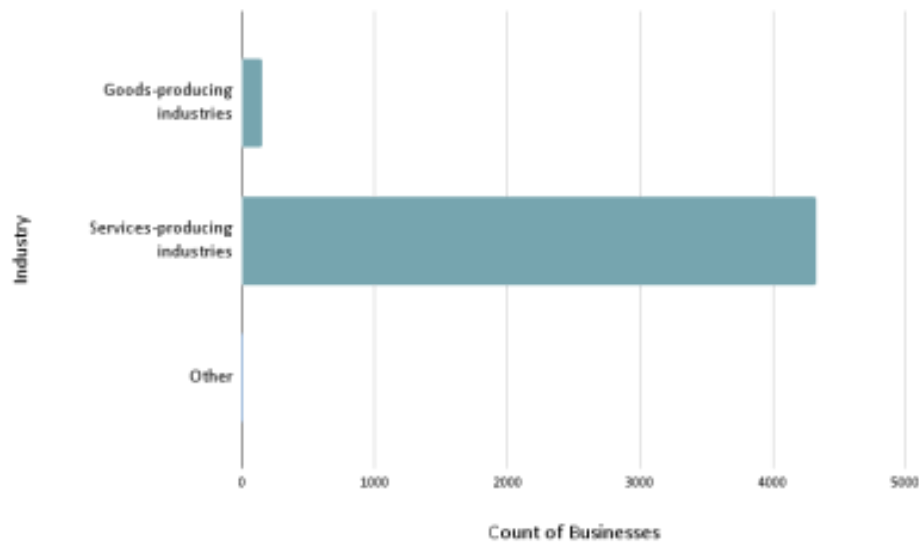
Figure 5: Distribution of Good and Service Producing Industries

The majority, representing 97% of businesses, fell within the service industry category, highlighting its dominant presence in Ward O'day-min. Conversely, the goods-producing industry accounted for a modest 3%. The data also serves as a valuable reference for strategic decisions and resource allocations for sustained economic development.

Exporters

Out of 2,500 responses to this question, 255, or 10%, indicated they export of goods or services outside Canada.

Click here to see exporters

It is important to acknowledge that only some businesses (about 56% of the business establishments in the pilot area) randomly participated in answering this question. However, given the response rate, we can interpret the ratio of exporting and non-exporting businesses as a relevant characteristic of the local economic landscape.
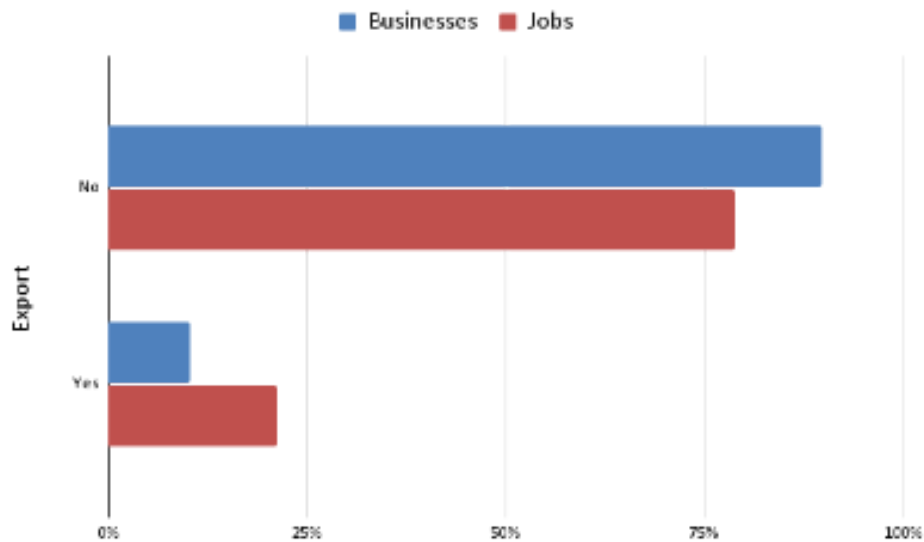
Figure 6: Export Status and Employment Rate

- The data indicates a potential positive correlation between export activities and higher employment rates.
  - Establishments that indicate they export goods or services reported an average of 48 jobs per establishment versus an average of 20 jobs per establishment for non-exporters.

Other Insights

Year of Business Establishment

This time series chart provides a historical overview of business establishments in Ward O'day-min from the 1800s to the present.
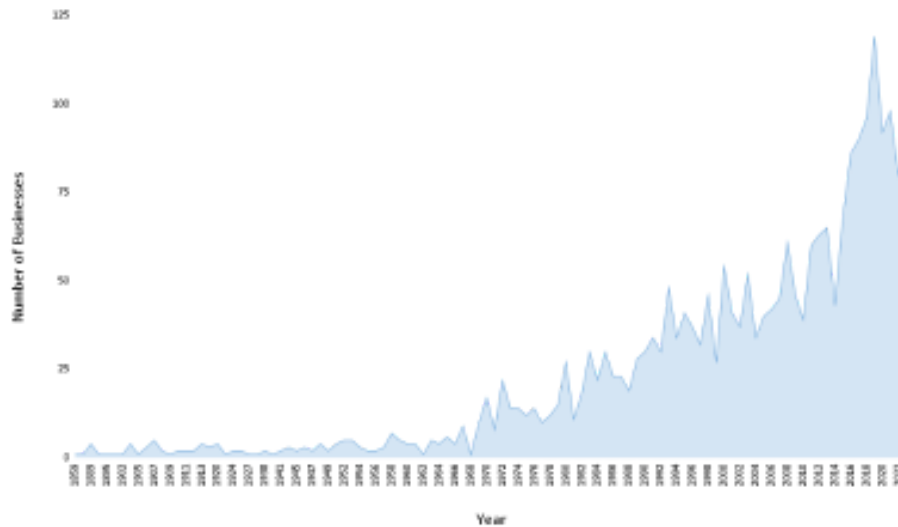
Figure 7: Year of Establishment

- The chart is based on the 1,377 responses to the question "What year did your business start operating in Edmonton?".
  - Some businesses demonstrated resilience, tracing their origins to the 19th century.
  - More than 40 establishments in Ward O'day-min are 100+ years old.
  - The chart peaked in 2019, marking a significant moment before COVID-19. This peak could serve as a reference point for understanding future trends, and the factors driving the local economic establishment and sustainability.

The Diversity in Local Business Ownership

This section presents the survey findings with a particular focus on the diverse backgrounds of business owners. The objective was to understand the demographic landscape of business ownership within the Ward and explore the extent of diversity among entrepreneurs.

The findings highlight the rich diversity of local business ownership, emphasizing the need for City's ongoing efforts to support and celebrate entrepreneurs from various backgrounds. This information will provide a new source of data to inform how the City supports inclusive economic development.

Key Findings

- **Racial Diversity:** There is considerable racial diversity among business owners. Ward O'day-min is home to entrepreneurs from various racial backgrounds, reflecting an inclusive and vibrant entrepreneurial ecosystem. A summary of the response of 996 businesses to this optional question about the racial background of the business owners is as follows: Japanese - 0.6%, Filipino - 1.1%, Korean - 1.1%, Latin American - 1.1%, Indigenous - 1.9%, Arab - 2.2%, West Asian origins - 2.4%, Southeast Asian - 5.5%, Black - 6.3%, Chinese - 6.7%, Other - 8.1%, South Asian - 12.0%, White - 50.8%.

  - **Identity Inclusivity:** This identity breakdown of business owners indicated a diverse representation, challenging traditional gender and identity norms within the business landscape. The summary of the response of 1,191 businesses to the question about the identity/identities of the business owners is as follows: Persons with disabilities - 0.5%, Other - 0.7%, LGBTQ2S+ - 1.3%, Woman - 34.4%, Man - 63.1%.

  - **Intersectionality:** The survey also revealed that a business may have one, or multiple owners, all of whom may identify with multiple demographic categories. This intersectionality adds a layer of complexity to the understanding of diversity and highlights the uniqueness of each entrepreneur's narrative.

Dashboard

This dashboard is a user-friendly tool that facilitates a comprehensive view of key business metrics. This dashboard enables users to visualize business locations, sector-specific counts, and employment statistics. Readers can use the selector tool (top right corner) to delve into sector-specific data to explore

counts and employment figures, enabling users to identify trends and potential areas for development.

Additionally, data sets related to the Business Census can be accessed on the City's Open Data Portal. Simply navigate to https://data.edmonton.ca and search for "Business Census".
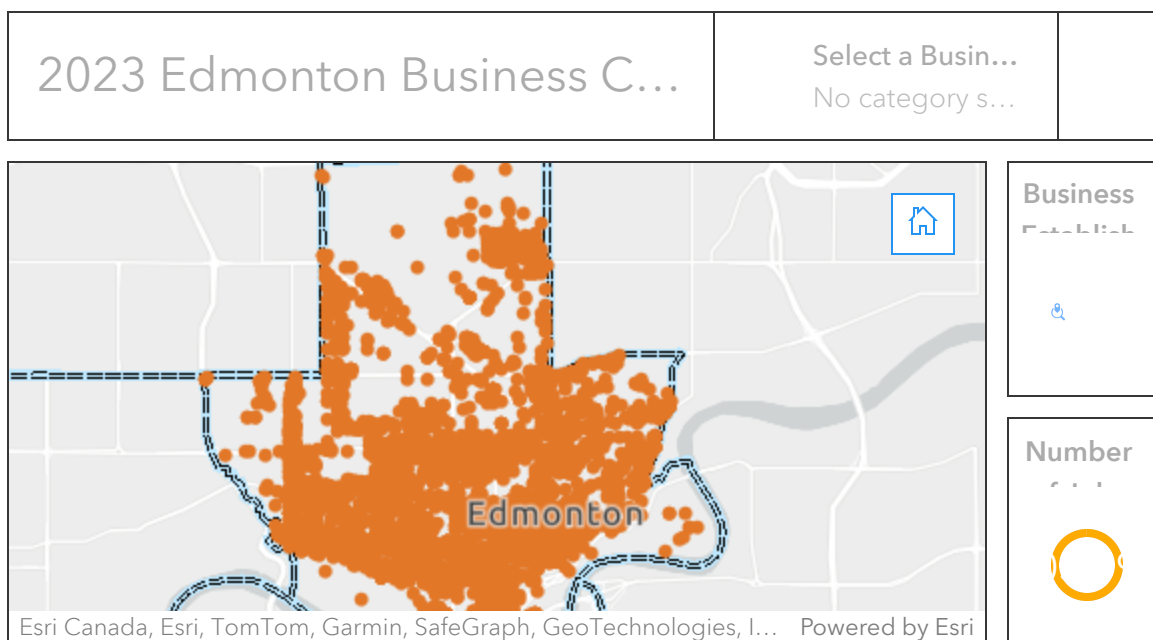
Business Insight Dashboard

Methodology

Who do we collect data from? The Business Census defines a business as any entity that operates from a commercial location in Edmonton. This may include for profit, not for profit, non-governmental agencies, government and government agencies. Home-based businesses are outside the scope of the survey.

Privacy and Confidentiality: Adherence to corporate Freedom of Information and Protection of Privacy (FOIP) policies was paramount throughout the project. The following measures were implemented to safeguard privacy and confidentiality:

- **Informed Consent:** Before participating in any survey, businesses were provided with a FOIP statement about the purpose of the survey and the use of their response. Informed consent was obtained to ensure voluntary and knowledgeable participation.
  - **Anonymity:** Responses were anonymized during data collection and analysis to protect personal identifying information.
  - **Data Storage:** All data was collected and stored electronically in secure folders in compliance with corporate data security standards. Access to the data was restricted to authorized personnel only.
  - **Reporting Aggregation:** Results were aggregated at a level that preserved the anonymity of individual respondents. This approach was applied in the reporting phase to present insights without compromising confidentiality.

How is data collected? Students currently enrolled in one of Edmonton's post-secondary institutions were hired and trained to collect the data.

- **In-Person Surveys:** In-person surveys were conducted to ensure direct and personal interaction with businesses and to confirm physical address and location, resulting in a true count of business establishments. Enumerators used geospatial information systems and structured questionnaires to maintain consistency across responses and ensure no commercial place was missed within the pilot area.
  - **Online Forms:** To facilitate broader participation and reach geographically, particularly to businesses outside the pilot area, an online survey was designed and published on the City's website. The survey link was distributed through various communication channels, including postcards, QR codes, and social media. The online survey enabled the City to measure the effectiveness between data collection methods. Information gathered from outside the ward will be

used to inform the expansion of the business census in the years to come.

- **Phone Surveys:** Phone surveys were used to follow up with businesses that could not participate in the in-person survey. Training and a standardized script were followed to ensure consistency. Businesses were also given the option to reschedule callbacks to ensure greater participation.
- **Other Methods:** Additional methods (including emails, phone calls, and desk research) were tailored to large employers operating at multiple locations.

Data Imputation Process.

- Missing values relating to publicly available information about a business (such as the services a business provides, company history, contact information, etc.) were completed through online research.
- Missing values relating to total employment were addressed using the Multiple Imputation by Chained Equations (MICE) method. This statistical technique was chosen for its ability to impute missing values while considering the relationships between variables. The imputation process was repeated five times. Each iteration created a different set of imputed values to account for the uncertainty. These were then further analyzed to select the most conservative estimates. Random Forest (rf), a machine learning algorithm for making predictions, was chosen to leverage the industry similarities in the data.

Limitations

- Only businesses observed by enumerators were recorded in the study. It is possible some locations were missed due to factors such as a lack of access or signage.
  - Survey responses are voluntary and were not always provided by senior managers or business owners. This makes it difficult to verify responses that are not based on publicly available information.

- The non-response rate is not uniform across all the sectors with some sectors having a higher non-response rate than others. This may limit the generalization of some trends observed in the data to all sectors.
- Due to non-response from some businesses, it is possible that some trends may not have been fully captured.

Future plans 2024~2026. The Business Census is scheduled for a relaunch in May 2024, with an expanded scope that will include more areas of the city, in line with our commitment to broaden the survey's coverage to the entire City over time. We will also be revisiting the areas already covered in 2023 to provide timely, relevant data and comparisons.