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TORONTO

TORONTO REGION BOARD OF TRADE

# ASSESSMENT GUIDE

Guide to the data used for COVID-19 economic impact assessment and recovery tracking

April 2021

# Ready for Reopening and Recovery

To develop a path forward for our economy and the businesses that power it, the Toronto Region Board of Trade (TRBOT) launched its Reimagining Recovery Framework in May 2020. The Framework outlined six specialized recovery work tracks, informed in consultation with 25 stakeholder tables comprised of more than 350 individuals, 300 businesses and all three levels of government, as well as 29 recovery events with over 7,100 virtual attendees. Two of these work tracks addressed the pandemic's impact on our physical workplaces. Two others focused on the pandemic's impact to sectors and our economic zone, the Innovation Corridor.[1]

Building on the work and success of this Framework, TRBOT, with support from the Government of Canada through the Federal Economic Development Agency for Southern Ontario, embarked on a journey to solve for the safe reopening, continued operation, and recovery of business districts.

The outputs include five business district reports which examine similarities and differences in mitigation needs and how best to support their recovery. The districts chosen mirror the types of business districts in other parts of Ontario and Canada. These are:

- **Metropolitan Centre**: The dominant urban centre of a region, defined by its density and variety of services – such as finance and professional services, tourism, and retail.
- **Goods, Production and Distribution:** Areas defined by the production and movement of goods — such as manufacturing, warehousing, and logistics.
- **Services and Mixed Use:** Less-dense areas with a mix of activities including professional services, light industrial, and retail.
- **Regional Centres:** Hubs that are home to civic and government institutions, as well as professional and retail services that attract local workers and nearby residents.
- **Knowledge Creation:** Engines of the innovation ecosystem, including post-secondary schools and teaching hospitals.

Additionally, pilot zones were selected in three districts across the Toronto Region. Key organizations were engaged to explore their needs and concerns around continuing to operate safely through the COVID-19 pandemic. For each zone, actionable guides have been created to enable the right conditions to support workplaces in minimizing COVID-19 transmission risk and ensure consistent, clear communications between employers and their workers.

- **Financial District Pilot Zone:** Located in the Metropolitan Centre, the FDPZ is the heart of downtown Toronto. Dominated by financial and business services, this zone employed approximately 118,000 people, 21% of the Metropolitan Centre's 550,000 pre-pandemic workers.
- **Pearson Employment Area Pilot Zone:** In a Goods Production and Distribution District, this zone includes many businesses that have remained open with mitigations in place. Prior to the pandemic, the Pearson Employment Pilot Zone employed more than 200,000 people, 63% of the more than 300,000 workers in and around the Toronto Pearson Airport Employment Zone.
- **Scarborough Centre Pilot Zone:** A Regional Centre, this zone includes many types of workplaces and public-facing spaces—including a mall, a civic centre, library, small businesses, big box stores, and office towers—and employed more than 17,500 workers pre-pandemic.

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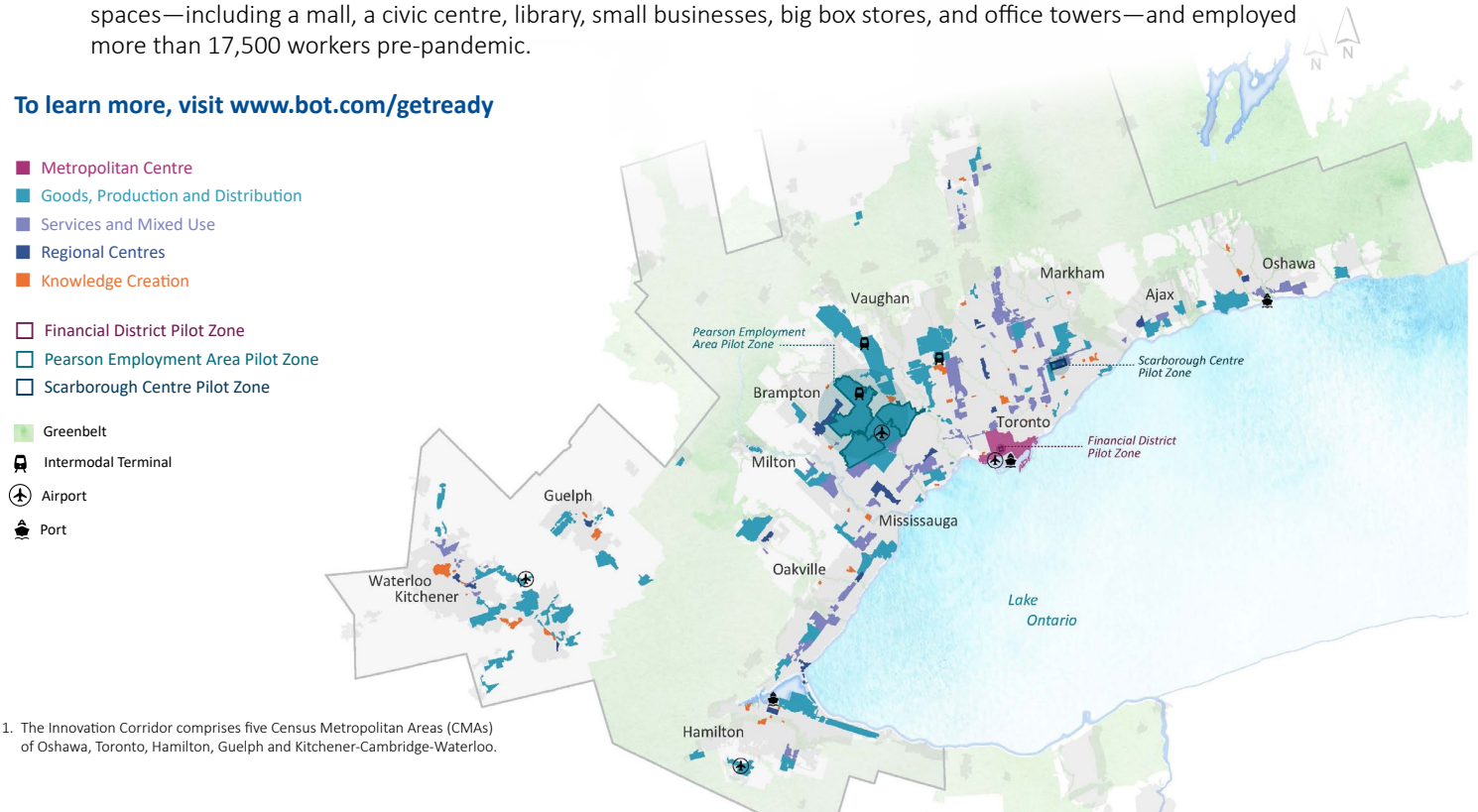


1. The Innovation Corridor comprises five Census Metropolitan Areas (CMAs) of Oshawa, Toronto, Hamilton, Guelph and Kitchener-Cambridge-Waterloo.

# TABLE OF CONTENTS

# Introduction

This assessment guide provides an overview of the data used to develop the Business District Reports to support recovery planning in the Toronto region.

It will help readers understand how the business districts were developed, and the various data sources and types of insights that can be gained from them.

## About the Economic Blueprint Institute

The Economic Blueprint Institute (EBI) is an initiative of the Toronto Region Board of Trade, mandated with developing a data-drive analysis of the regional economy.

## Our Approach to a Regional Economy

EBI established a Business Districts framework to measure and track the regional economic recovery of Canada's largest metropolitan area.

The framework was launched in *Shaping our future [pdf]* report (2020) and further elucidated in the Business District reports (2021).

EBI define five types of Business District based upon common characteristics, including economic activity, workforce profiles, and infrastructure needs.

The Business District framework can be applied to other metropolitan regions in Canada. And this assessment guide aims to provide others with an overview of the data used to:

- define the districts, and
- provide indicators to assess the economic impact of the pandemic and track recovery from it.

The guide will help readers understand the sources of data to develop a similar framework to support their own recovery planning.

## Establishing a Business Districts Framework

We are looking at our regional economy and defining it by five district types – based on their physical, economic, and workforce characteristics – to get a clearer picture of the economic impact of the pandemic and what needs to be considered as part of recovery planning.

Mapping business districts allows us to understand where areas with similar economic activities are located and, in some cases, where they concentrate and why.

This provides our region with a means to integrate economic planning and infrastructure investments around the needs of Business Districts and the economic activities within them.

The five districts are:

- Metropolitan Centre: the region's dominant urban centre, characterized by a high density of knowledge-based jobs. The area also includes many universities, teaching hospitals, and government institutions.

- Goods Production and Distribution: where things are made and moved — these districts are focussed on manufacturing, warehousing, and logistics. Work here has been essential during the pandemic, keeping our economy and supply chains moving.

- Regional Centres: these are well-connected hubs, home to civic and government institutions, as well as professional and retail services that attract local workers and nearby residents.

- Services and Mixed Activities: district characterized by a mix of activities that include professional services, light industrial, and retail. The built environment in this district is relatively well spaced out (less dense) compared to regional centres or the metropolitan centre.

- Knowledge Creation: a district that houses many of the drivers of innovation in a region: colleges, universities, hospitals and other research and development institutions.

# Establishing an Economic Baseline

To understand the economic impacts of COVID-19 on different business districts, we built a profile of the districts before the pandemic.

The following data sets help us to establish the type and scale of economy activity in an area; the types of occupations, skills and people being employed within them, and the types of buildings and built environment in which these industries are placed.

All of which enables us to create a profile of a business district; a profile on which to assess the economic impacts of COVID-19 against, as well as consider the skills and infrastructure requirements that can support recovery.

## Businesses and Jobs by Industry or Sector

The following datasets were used to establish the sectors, industries and scale of economic activity in a business district.

### How many jobs are there and in what industries and sectors?

Dataset: Statistics Canada, 2016 Census – North American Industrial Classification (NAICS), Census Geography

Purpose: To understand the number of jobs within a given NAICS industry at various levels of specificity from two-digits to four. The highest two-digit level, for example, includes Manufacturing (31-33) while the lowest four-digit level includes Motor Vehicle Parts Manufacturing (3363).

Application: The data allows for a count of jobs, the linking of those jobs to other NAICS based datasets to geographical areas to establish a baseline. In our case, the number of jobs in a particular industry or sector in a particular place.

### How many businesses are there by workforce size and industry?

Dataset: Statistics Canada, Business Registry

Purpose: Number and size of businesses from two- to four-digit NAICS.

Application: Allows for mapping the number of businesses of a given workforce size. For example, can be used to map and understand the number of small, medium and large businesses within a sector or Business District.

## Workforce Information: Occupations, Demographics and Skills

The following data sets allow us to profile the occupations in a business district, understanding what occupations are present in which sectors and specific industries, what skills and knowledge they use as well as demographic information, such as education level achieved, immigration status and age. Together this enables analysis of the challenges and opportunities facing a district, industry or occupation.

### How many jobs in particular occupations?

Dataset: Statistics Canada, 2016 Census – North American Occupation Codes (NOC), Census Geography

Purpose: Used to understand the number of people working in a particular occupation from two- to four-digit NOC codes. The broader two-digit level includes Assemblers in Manufacturing (95) for example, while the narrower four-digit level, Aircraft assemblers and aircraft assembly inspectors (9521).

Application: Allows for a baseline count of occupations and the linking of other NOC based datasets to geographical areas to assess impact, given the number of workers in a particular field.

### How many jobs in particular occupations in an industry?

**Dataset: Statistics Canada, 2016 Census – NAICS by NOC conversion, Census Metropolitan Area**

**Purpose:** Understand the number and type of occupations in a given sector or industry, or the number and type of industries employing a particular type of occupation.

**Application:** Use this data for the ability to understand the occupational composition of a given industry or sector, and to understand the absolute number of occupations in an industry. For example, the number of cashiers (NOC) employed in grocery stores (NAICS).

## What skills and knowledge are used and in what setting?

Dataset: O*NET Occupational skills

Purpose: Understand occupations in terms of the skills and knowledge required, how the work is performed, and typical work settings (database of occupational requirements and worker attributes).

Application: Allows for the linking of skills or types of tasks associated with a given occupation to NOC and used in conjunction with Census NOC data to map jobs based on skills or skills families. A skills-based assessment is instrumental in grouping occupation types into similar functions, such as roles that work with the public or those that allow for remote work.

## What is the demographic profile of the workforce?

Dataset: Statistics Canada, 2016 Census – Age/Immigration, Education/Income Crosswalk, Census Geography

Purpose: Understand demographic characteristics of different occupations with age, immigration, education and income metrics linked to their respective NOCs.

Application: The data links key demographic indicators to NOCs codes, which allows for the overlaying of multiple intersecting data points. We have used it to assess the demographic profile of particular workers in a given area or in a particular field. For example, identifying which professions are at risk of an ageing workforce, reliant on new immigrants, or a certain type of education.

## Built Environment and Infrastructure Profile

The following datasets contribute towards a profile of the infrastructure needs and built environment of the business districts. This provides insights into both managing the pandemic (the presence of elevators, stairs and HVAC systems within buildings) and enabling recovery (transit capacity requirements for reopening with physical distancing in place).

Dataset: Transportation Tomorrow Survey — Voluntary Household Travel Survey (2016), Greater Golden Horseshoe

Purpose: The number, type, and purpose of trips made between and within a given geographic area, such as a municipality or its smallest scale (Traffic Zones).

Application: Allows for an analysis of baseline trips and commuting patterns in the pre-pandemic period to compare against more recent changes to mobility (correlated to COVID lockdown). For example, the number of commuters by mode of transport into the Financial District.

Dataset: Ontario Municipal Property Assessment Corporation (MPAC) — Property Evaluation Data

Purpose: Typically used to evaluate structures and land for tax purposes, MPAC data can provide valuable insights about metrics including the height, number and type of buildings in a given area and the features of those buildings such as elevators, HVAC systems and stairs.

Application: Allows for an assessment of a given business district's land use and building / built environment profile and the relevant attributes to questions of reopening and recovery, such as number of workers per square foot.

# Datasets for both Baseline and Recovery Tracking

The following sets provide data that is useful in establishing the baseline state (before the COVID-19 pandemic) as well as indicators that help track recovery.

## Built Environment and Infrastructure

Contributing towards our assessment of the infrastructure needs of a business district, this mobility data gives more frequent reporting of mobility patterns than other sources, therefore enabling us to assess short-term changes in transportation.

**Dataset: Streetlight — Mobility Data**

**Purpose:** Anonymized location records from smart phones and navigation devices in cars and trucks. Understand travel patterns between origins and destinations for vehicles, trucks, bikes, or pedestrians, and identify the most prevalent trip routes. Includes other variables such as demographics, trip speed, duration and length.

**Application:** Allows of an analysis of mobility patterns based on a number of different parameters, including commuting. Provides analysis that is more current than other transportation surveys and can be used to track changes in mobility over time (as compared to a static mobility survey).

## Consumer Spending

Consumer spending provides insights into how discretionary spending patterns are changing and to identify key trends. For example, to assess the extent to which the redistribution of office workers to remote working has shifted their spending from an office district to e-commerce and local main streets.

Dataset: Moneris — Consumer Spending

Purpose: Consumer spend (volume) year-over-year, indexed to a pre-pandemic date, and average transaction size. In some cases, can also be linked to merchant class category, depending on the level of aggregation.

Application: Allows for an examination of changes in consumer spending in a given business district and/or aggregative corridor level to infer impacts to local businesses and understand how pandemic measures of changed consumer habits.

## Establishing COVID-19 Impacts and Tracking Recovery

Several additional data sources provide the ability to assess changes over the short to medium term. Many of them provide live or quarterly reporting, rather than leaving long time gaps between samplings.

These extra data source include insights into impacts on jobs, office space leasing, the proportion of the workforce that is able to work remotely and the potential impact on municipal tax revenues.

### Impact on Jobs

Understand employment change by sector or occupations with more frequent sampling than census data.

Dataset: Statistics Canada, Labour Force Survey — NAICS and NOCS, three-month rolling averages, Census Metropolitan Area

Purpose: The amount of job losses or gains by either NAICS sector (two digit) or NOCS (two and three digit).

Application: Can be used to assess impact of job losses in a certain sector or occupation.

### Impact on Office Space

Understand changes in the office market that could be linked to remote working or business seeking to save costs.

Dataset: CBRE — Lease and Sub-Leasing, CBRE sub-market

Purpose: Changes in amount and availability of leasable (or sub-leasable) office space.

Application: Allows for an assessment of changes to the overall occupancy rate or other key changes in the commercial lease market. For example, the occupancy rate of the Financial District is 92 per cent.

### Scope for Remote Working

Understand the extent to which workers may be able to work remotely and identify potential impacts on associated transit, retail and hospitality within a district.
Dataset: Economic Blueprint Institute, Toronto Region Board of Trade — Remote Work Potential

**Purpose:** Number of workers that have some capacity to work remotely (or not) based on a given NOCs category, or aggregation of NOC categories in a given geographic area.

**Application:** Taken from the methodology developed by Dingle and Neiman at the University of Chicago to link skills (O*NET) with NOC. This allows for the segregation of the labour force based on their overall capacity to perform their job tasks remotely. For example, the proportion of workers in each Business District that have some capacity for remote work (given the NOC census profile of that area).

## Impact on Municipal Tax Revenues

Understand if municipal revenues maybe at risk because of changes to a district economy.

**Dataset:** Financial Information Return, Ministry of Municipal Affairs — Municipal Tax Data

**Purpose:** Tax revenues for a given municipality by industry category.

**Application:** Allows for inferred impact on municipal tax revenues, given proportion of a municipal income from a certain tax class and the impacts of COVID on that particular part of the economy.

## Other Geospatial Data

Postal code data is used as the main geographical reference by several organizations, while census geographies (for example, Census Metropolitan Area, Census Tract, Census Dissemination Area) are used as reference for most official data from Statistics Canada.

Access to this data enabled us to link data of differing geographies in to one spatial database. These included:

Dataset: Canada Post — Postal Code$^{OM}$ Conversion File (PCCF)

Purpose: 6-digit Postal code point data with corresponding Census Geographic Boundaries for GIS Analysis.

Application: Allows for the linking of data sources organized by postal code to a respective Business District or other area as required.

Dataset: DMTI Spatial — Local Delivery Unit Modelled Dataset

Purpose: 6-digit Local Delivery Unit (LDU) postal code boundary modelled data for GIS Analysis.

Application: Allows for the linking of data sources organized by local delivery units (LDU) to a particular geographic aggregation.