LABOUR MARKET INFORMATION IN THE GREATER TORONTO AREA: GETTING BEHIND THE NUMBERS

Prepared for the ICE Committee
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Executive Summary

The Intergovernmental Committee for Economic and Labour Force Development in Toronto (ICE Committee) commissioned this study to understand how labour market information (LMI) for the Greater Toronto Area is currently being produced, coordinated and used by the various interested audiences.

This study has relied on a review of the relevant literature, an extensive scan of LMI websites, and interviews with over 20 key informants. The report is organized as follows:

- A review of what primary data is available, specific to the GTA;
- A description of websites that serve as key access points to LMI in the GTA;
- A review of other categories of websites that provide data, information or analysis about some aspect of the labour market that is generally relevant for the Toronto labour market;
- An assessment of the LMI that is available;
- Some recommendations to improve the effectiveness of LMI geared for the GTA.

The broad assessment regarding LMI for the GTA is as follows:

Overall, the LMI is plentiful and relatively good. There are definitely shortfalls with regards to certain types of data, but the larger issue is that we hardly make full use of the data we have.

The biggest shortcoming in terms of the LMI as a whole is understanding what it means. For a job seeker, one could almost say there is too much data, and not enough explanation of the data.

For the specialized user, there is not enough data, in particular those variables that would reflect the changing nature of our labour market.

The essential finding is that there is a need for more in-depth explanation of what is happening in the labor market, both deeper analysis of the data that exists, complemented by better contextual understanding of the current labour market dynamics through engagement with employers.

The specific recommendations are:

- 1. To create an LMI Table for the GTA, bringing together the relevant stakeholders to coordinate the gathering and dissemination of local LMI, and to consider a GTA LMI strategy
- 2. To develop through such a table a coordinated research agenda, including the commissioning of data purchases and data analysis
- 3. To agree on common indicators for the local regions (Durham, Halton, Peel, Toronto and York) so that easy comparisons can be made between the labour market circumstance in each locality
- 4. To pursue more in-depth qualitative investigation of the demand-side of the labour market;
- 5. To explore options for assembling better quantitative demand-side data for the GTA.

A further finding of the report is that there is not a need for a super GTA LMI portal.

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INTRODUCTION

A labour market is a highly complex and dynamic organism, and labour market information (LMI) is a term that covers a multitude of meanings. Our labour market, whether we focus on Canada, Ontario or Toronto, is often viewed as not effectively fulfilling its function, in particular, that it falls short in linking qualified individuals to jobs commensurate with their abilities or in securing reliable workers for employers. One reason among many that are usually cited for this under-performance is the lack of appropriate labour market information.¹

In light of this perception, the Intergovernmental Committee for Economic and Labour Force Development in Toronto (ICE Committee)² commissioned this study, to understand how LMI for the GTA is currently being produced, coordinated and used by various consumers. The objectives of this study are:

- 1) To identify, as comprehensively as possible, the primary sources of local labour market information, and what LMI products relating to the Greater Toronto Area (GTA) job market are available:
- 2) To assess the ability of existing LMI products, considering all sources identified, to help
 - Job seekers connect to long-term employment opportunities or training/education for in-demand skills
 - ii. Education and training providers adapt programs to better prepare job seekers for employment opportunities; and
 - iii. Employers communicate their current and projected future labour demands;
- 3) If applicable, to propose ways in which local LMI could be expanded, made more accessible or cross-linked to bridge knowledge gaps and make existing data more useful for job seekers and employers. Within this domain, to identify possible role of governments in bridging knowledge gaps and/or improving information accessibility.

¹ The most recent reports in a long parade of studies making this point are: Don Drummond, "Wanted: Good Canadian Labour Market Information," *IRPP Insight*, 2014; Toronto Region Board of Trade and United Way Toronto, *Closing the Prosperity Gap*, 2014, pp. 28-29.

² The ICE Committee was established in 1997 by officials from the Government of Canada, the Province of Ontario, and the City of Toronto to share information and co-ordinate public sector efforts to support economic and labour force development in Toronto. Membership in ICE includes representatives from Industry Canada, Citizenship and Immigration Canada, Service Canada, the Ontario Ministry of Training, Colleges and Universities, the Ontario Ministry of Education, the Ontario Ministry of Municipal Affairs and Housing, the Toronto Employment and Social Services Division, the Social Development, Finance and Administration Division, and the Economic Development Division at the City of Toronto.

What is labour market information?

Labour market information has a broad scope. In essence, it includes any information that helps an individual understand what is happening in the labour market or make a labour market decision. The breadth encompassed by this definition is best reflected by the range of stakeholders who have need of LMI:

- Job seekers wishing to locate job openings, understand the functions of various occupations, learn about prominent local industries that are growing, and determine likely wage ranges for different job possibilities;
- Employment counsellors seeking to advise clients about the requisite expectations for various occupations, the quality of different job options and their likely career trajectories;
- Employers needing to understand local labour supply, in particular educational and skill levels, as well as salary expectations;
- Students exploring career choices and evaluating their educational options having regard to future career prospects;
- Prospective immigrants to Canada wishing to understand their likely labour market options and outcomes should they choose to emigrate;
- Education providers seeking to ensure their program offerings reflect local labour market demand, both in terms of what courses are being taught and their relevance to the workplace;
- Economic development offices wishing to promote the qualities of their local workforce to prospective investors;
- Policy analysts seeking to design employment initiatives, income support programs and employment standards that correspond to evolving labour market conditions; and
- Macro-economic policy makers making judgments about broader economic indicators and the direction of the business cycle.

It is apparent that LMI is expected to address a highly diverse set of needs. The word "information" in the term LMI covers not only raw data (that is, the actual numbers), but usually some context (how has the number has changed over time, what portion of the whole does it represent). This information is not limited to quantitative data, but also includes qualitative information from key informants regarding the dynamics of the labour market, for example, the evolving prerequisites for a job. The information can be descriptive (what are the functions of a particular occupation or industry?) as well as analytical (what do the numbers mean?). The timeframe can also vary: how has the labour market changed compares circumstances to the past, while job seekers wish to know where are the job openings today. A student making course selections wishes to know about occupations in demand in the future.

For the sake of this report, the term LMI will be used to encompass quantitative information (data), qualitative information (insights) and analysis (making sense of the quantitative and qualitative information).

Methodology

This assignment has involved the following activities:

- 1) A review of the literature relevant to this topic, namely previous studies that have assessed the nature of and need for better LMI;³
- 2) A review of websites providing LMI relevant to the Greater Toronto Area;
- 3) Interviews with over 20 key informants, who either provide LMI or make constant use of LMI in their work; this latter group included individuals involved in employment and career counselling, post-secondary education, local economic development, employer-focused organizations and policy-making.

This work has been directed by a sub-group of the ICE Committee, which has reviewed the project's workplan and provided feedback during the course of the assignment.

This report will be organized as follows:

- A. An initial review of what primary data is available that is specific to the Greater Toronto Area;
- B. A review of websites that are key access points for LMI for the Toronto GTA;
- C. A review of other LMI websites relevant to understanding the Toronto labour market;
- D. An assessment of the LMI that is available;
- E. Recommendations to improve the effectiveness of the LMI that is relevant to the Greater Toronto Area.

³ By far, the most important and thorough study in this regard is the relatively recent review of the Canadian LMI landscape, Advisory Panel on Labour Market Information, *Working Together to build a Better Labour Market Information System for Canada – Final Report*, 2009 (chaired by Don Drummond). In this report, this study will be referred to as "Advisory Panel on LMI."

A. LMI PRIMARY DATA SPECIFIC TO THE GREATER TORONTO AREA

Ultimately, LMI is dependent on data, the concrete numbers that reflect what is happening in the labour market. This section will catalogue the actual databases that provide numbers specific to the Greater Toronto Area or some part of it.

Two general comments need to be made regarding this overview.

Firstly, what is commonly defined as the Greater Toronto Area refers to five regional municipality jurisdictions: the City of Toronto, Halton Region, Peel Region, York Region and Durham Region. In most region-level data from Statistics Canada, the common reference area is the Toronto Census Metropolitan Area. A CMA refers to one or more municipalities around an urban core, with a total population of at least 100,000 residents of whom at least 50,000 live in the urban core, and where at least 50% of the employed residents of a municipality within the CMA commute to work within the urban core. Diagram 1 compares the boundaries of the GTA to that of the Toronto CMA.

Greater Toronto Area and Census Metropolitan Area Lake Simcoe Greater Toronto Area Boundary Census Metropolitan Area Boundary Brock Mono Uxbridge Durham Peel Whitby Ajax Bramptor **Toronto** Halton Lake Ontario Prepared by: Toronto Urban Planning & Development Services, Presentation Graphics 1997

Diagram 1: GTA and Toronto CMA compared

A close approximation to the Greater Toronto Area is Statistics Canada's Toronto Economic Region, which consists of the GTA minus the City of Burlington in Halton Region. However, there are a limited number of LMI tables for the Toronto Economic Region, fewer than are available for the Toronto CMA.

Otherwise, one could also rely on tables that include the geography of Census Divisions (which correspond to districts, counties and regional municipalities), whereby it would be possible to produce a figure for the Greater Toronto Area by adding up the data for each of the five Census Divisions. This is largely only an option for Census and National Household Survey data.

Secondly, labour market data is characterized by a number of important categories. The three most important are:

- Labour force data: includes the count for the number of individuals who are employed and unemployed but looking for work (these two categories make up those participating in the labour force) and those not in the labour force; this is the standard "top-level" information about the labour market;
- Industry data: is usually sorted according to the North American Industry Classification System (NAICS), which provides a framework⁴ for cataloguing industries or broad groupings of economic activity; there are 20 such large sector categories, identified by a two-digit code (for example, 23 is Construction); a finer grain of detail is described at the three-digit level, with 102 subsectors; such further delineation continues up to six-digit coding;
- Occupation data: in a similar way, jobs as occupations are usually defined by the National
 Occupational Classification (NOC), which begins with 10 broad occupational categories
 (designated by a single digit), proceeding to greater detail up to a four-digit coding, representing
 500 occupational unit groups.

The rest of this section will identify what labour market data is available for all or part of the Toronto GTA. While this is only a portion of what constitutes LMI, it is the foundation upon which analysis can be performed and the context for gaining qualitative input from key informants. This section is divided as follows:

Statistics Canada primary data

National Household Survey

Labour Force Survey

Canadian Business Patterns

Survey of Employment, Payrolls and Hours

⁴ Every classification system is a construct, that is, it proposes a way of organizing data that may not serve everyone's needs. For example, NAICS does not have a distinct category for such "industries" as tourism, the supply chain or logistics sector, or the non-profit sector. In every instance, a convention is adopted. The same applies to the discussion which follows regarding occupations.

Job Vacancy Statistics
Employment Insurance program beneficiaries

Employment and Social Development Canada – Canadian Occupational Projection System (COPS)

Statistics Canada primary data

The mother lode for most data in Canada is of course Statistics Canada, and that is particularly the case for labour market information. Through a series of surveys, Statistics Canada collects information from residents as well as from employers.

National Household Survey

<u>Background</u>. Every five years, Statistics Canada administers the national Census. Unlike a survey, a census collects information on every man, woman and child living in Canada (subject to reaching and getting a response for each person). However, the Census actually collects a relatively limited amount of information, namely in relation to gender, age, marital status, family characteristics, household and dwelling characteristics, and questions regarding language use. This is called the short-form questionnaire (in 2006, this consisted of eight questions; in 2011, it involved 10 questions).

Much of what gets reported from the Census undertaking comes from a companion survey which is administered together with the Census. Prior to 2011, this was gathered by way of a mandatory long-form questionnaire administered to one of every five Census respondents, covering an additional 53 questions. The national response rate for the mandatory long-form questionnaire was 93.5%.

For the 2011 Census, the federal government decided to institute a voluntary long-form questionnaire with 64 questions, which has been labeled the National Household Survey. Slightly less than one-third of all private dwellings in Canada were invited to complete this voluntary survey, and the response rate was 68.6%. The survey included 16 questions related to the labour market (including commuting to work and language at work), together with seven questions relating to educational attainment and school attendance.

Statistics Canada makes available a limited number of National Household Survey tables on their website, which are discussed below. These include responses for a geographic area on one variable, as well as cross-tabulated responses (that is, the data is made available by multiple variables, organized vertically and horizontally to create data cells such as on a spreadsheet).

<u>NHS responses</u>. Thus, for the Greater Toronto Area (and for Canada as a whole), the actual NHS responses are available down to the Census Tract level. That is, for any given geography, the sum of all

responses to each survey question is made available (for example, number of individuals in an age bracket, number of individuals employed in a two-digit NAICS industry). To understand the scale at which this data is available, consider that the province of Ontario has 50 Census Divisions, subdivided into 574 Census Subdivisions, consisting mainly of cities, townships, towns and Indian reserves. Census Tracts are smaller geographic areas, with a population usually between 2,500 and 8,000 residents. The Toronto CMA has 1082 census tracts. So, this data is accessible at a fine level of geographic detail.

However, the information is aggregated, which means that for residents in the labour force, the total distribution by occupation and by industry is at the highest level of reporting (one-digit NOC and two-digit NAICS). And as noted earlier, data tables under this category do not permit cross-tabulation, and so one cannot draw any conclusions about the labour market characteristics of different segments of the population in that geographic area (that is, using these tables one cannot cross-tabulate age by industry, to determine to age distribution of workers by industry).

In addition to the Statistics Canada site, this NHS profile information is accessible via several of the municipal government sites. In a number of instances, the information is organized by city ward (by way of illustration, Toronto, Peel Region, Brampton and Markham). In some cases, the information is aggregated at the city level (for example, Mississauga). In other cases, more detailed information is provided in relation to key local industries (for example, Durham Region).

<u>NHS cross-tabulations</u>. Statistics Canada does make available on-line access to a limited number of cross-tabulated tables, involving a different mix of variables and at varying levels of geographic reporting.

The NHS data tables are divided into broad categories, one of which is Education and Labour, which offers 39 data tables. Of these, five are exclusively related to education, and another three only provide data at the provincial level. Of the remaining, 20 provide data for the Toronto CMA, and another 11 hold data by Census Division (that is, at the level of Halton, Peel, Toronto, York and Durham, which when combined would give you the data for the Toronto GTA).

Among these 31 tables, there are a variety of ways in which the variables are cross-tabulated. Most of them incorporate several of the following variables, resulting in a number of permutations by variable:

- Labour force status (employed, unemployed, in the labour force)
- Sex
- Occupation
- Industry
- Education
- Age

Several of the tables highlight special topics (language at work or commuting) or special populations (immigrants and Aboriginal people). In a number of cases, the NOC and NAICS cross-tabulations are at a high level of detail—in the case of NOC, 691 variables (that is, all one-, two-, three- and four-digit codes), and in the case of NAICS, 425 variables (all two-, three- and four-digit codes).

Another broad category of cross-tabulations is Income and Housing, of which five can provide data related to employment income and are available at the Toronto CMA level, with cross-tabulations for occupation, industry and education.

Relevant to this discussion is the availability of customized cross-tabulated NHS data in the possession of the workforce planning boards. This data was purchased collectively for the boards by the Ontario Ministry of Training, Colleges and Universities, and includes 19 tables, each available at the workforce planning board area and Census Division area levels. These tables are at a high level of detail (691 NOC variables and 425 NAICS variables), and provide cross-tabulations not available on the Statistics Canada public website. This data is not publicly accessible via the websites of the workforce planning boards, but some of it gets reported through publications of the boards, as well as often being available on request where appropriate or in conjunction with a partnership.⁵

Similarly, access to certain customized Statistics Canada cross-tabulated tables is available through the Community Data Program, an initiative of the Canadian Council on Social Development, which provides access to this data for community data consortia, which are made up of municipal governments and community sector organizations. This program was created for the precise purpose of ensuring that such data was available at a geographically-local level for planning local programs and services. However, in the case of those NHS cross-tabulations related to the labour market, the tables available on the Community Data website are the same as those publicly available on the Statistics Canada website.

The cross-tabulated tables available via the Statistics Canada website do not exhaust the permutations of variables that make up the National Household Survey, but they do provide a good range of tables. Together with the tables that are in the possession of the workforce planning boards, this represents a strong foundation of data which is available at the CMA and/or Census Division level.

<u>Limitations of the National Household Survey</u>. There are two limitations related to the National Household Survey that warrant mention.

First is the issue of timeliness. The Census and the NHS are administered once every five years, so it is relatively infrequent. As well, because the data requires cleaning and tabulation, it actually takes at least two years after it has been collected before the cross-tabulated data is made public.

⁵ Those who are doing more in-depth analysis related to their local labour market should connect with their local workforce planning board to identify what data they may have that could be of use.

At first blush this would appear as quite problematic. On the other hand, the great value of the data which is collected is that it allows for fairly robust examinations of longer-term trends, for example, the growth in income inequality or the growing polarization of the labour market into high-paying and low-paying occupations. These are not developments that change from month to month or even year to year, and so having such a rich data set is useful. Because of the size of the sample, these trends can be explored at smaller geographical scales.

The second issue is the concern which has arisen regarding the voluntary nature of the NHS and the non-response rate, particularly among smaller geographic areas and among marginalized populations. This issue has raised concerns about the advisability of comparing the 2011 NHS data to early data collected via the mandatory long-form census. That is, the issue is not what questions may have been asked in the 2011 National Household Survey compared to the long-form questionnaire in the 2006 Census, but rather how representative was the sample of individuals who responded to the voluntary survey.

Labour Force Survey

The Labour Force Survey (LFS) is probably the best known source of labour market data, if only because of the monthly headlines citing the most current unemployment rate. However, the LFS collects far more information than simply how many people are unemployed month to month.

The LFS is administered to approximately 56,000 households across Canada every month, representing over 100,000 individuals. Once a household has been selected for the survey, it is included for six consecutive months, and one-sixth of the survey sample changes every month. The results of the survey are released 10 days after completion of the data collection.

The survey asks a multitude of questions, starting with demographic information (age, gender, Aboriginal status, immigration status and period of immigration, level of educational attainment), and proceeds to ask about labour force attachment (employed, unemployed, not in the labour force). There are numerous questions relating to the types of employment (occupation, industry, full-time versus part-time, permanent versus temporary, union status, employee or self-employed, and so on), about hours worked, wages, work absences, and the size of the work establishment. In the case of those who are unemployed, there are questions regarding what type of work is being sought, the duration of unemployment as well as what job search strategies are being used.

This being a survey, the strength of the results depend on the sample size. As the geographic scope of the survey gets reduced, so does the sample size. As a consequence, when Statistics Canada makes available the results of the LFS for Census Metropolitan Areas, it reduces the number of variables for which it makes the data public, because of the increasing margins of error. Thus, when it comes to LFS data for the Toronto CMA, the number of variables is limited to the following:

- Labour force characteristics (total labour force, in the labour force, not in the labour force, employed, unemployed)
- Age, gender and immigrant status
- Occupation and industry

Not all of these variables are available monthly. In order to improve the quality of the data, some of it is available on a three-month moving average basis, as well as on an annual basis. Thus, the actual tables that are available for the Toronto CMA from the Statistics Canada website are as follows:

Monthly

Labour force characteristics, monthly, seasonally adjusted and unadjusted⁶
 3-month moving average⁷

- Labour force characteristics, 3 month moving average, seasonally adjusted and unadjusted
- Labour force characteristics, 3 month moving average, seasonally unadjusted, by age and sex
- Labour force characteristics, 3 month moving average, seasonally unadjusted, by occupational categories
- Labour force characteristics, 3 month moving average, seasonally unadjusted, by industry
- Labour force characteristics, 3 month moving average, seasonally unadjusted, by immigrant status and age

Annually

- Labour force characteristics, annually, by industry
- Labour force characteristics, annually, by age and sex
- Labour force characteristics, annually, by occupational categories
- Labour force characteristics, annually, by immigrant status and age

All things considered, this is certainly very useful information, providing useful and timely insights into labour market dynamics in the Toronto CMA. However, given what actually is gathered by LFS, this list is regrettably short. The reason is that Statistics Canada is providing data tables for 35 CMAs across the country. Six of these CMAs have over one million population (the Toronto CMA has over five million), while almost half of them have population below 200,000 residents. As a result, they have small sample sizes, and the lowest common denominator rules what data is made available on this national website.

⁶ Seasonally-adjusted refers to the fact that some variation in the number of jobs is due to regular annual patterns, such as vacation periods, climate and cycles related to crops. Statistics Canada makes adjustments based on these known cycles and the resulting figures are termed seasonally adjusted. Seasonally unadjusted refers to the raw numbers. Data that represents the entire year (annual data) does not need to be seasonally adjusted.

⁷ In the case of a 3-month moving average, the entry for a given month represents the average number for that month and the previous two months. In that way, variations that are the consequence of a smaller monthly sample size are smoothed out by incorporating the data for the previous two months as well.

Fortunately, some of this local data is available on other websites. The City of Toronto purchases the LFS data set and makes it available on the webpage for the Economic Data Centre of the Economic Development and Culture Division. The data includes detailed numbers by three-digit NAICS and two-digit NOC, for the Toronto CMA. As well, there is broad labour force characteristics data not only for the Toronto CMA but for the City of Toronto as well. In addition, some of the monthly changes are reported in the City of Toronto's monthly Economic Indicators.⁸

Peel Region also makes Labour Force Survey data available for Peel, reporting the data on a quarterly basis (to provide a better sample size). The information is found in their Dashboard of Economic Indicators, among a number of statistics and other data made available on their website.

Canadian Business Patterns

Statistics Canada maintains a Business Register of all businesses engaged in the production of goods and services in Canada. This registrar reflects all active businesses that have a corporate income tax account, are an employer or have a GST/HST account.

Every six months, Statistics Canada issues a count of these businesses (either for the month of June or December), that catalogues the business by:

- Number of employees (9 possible size ranges)
- NAICS code (this information is available down to the six-digit level)

The information is available at the Census Division level (as well as down to the Census Tract level).

Statistics Canada cautions that because classification strategies and data collection methodologies change this database should not be used as a time series to track changes in the number of business establishments. Nevertheless, the database does provide a useful snapshot of the distribution of businesses by number of employees and by industry, and provides another data point to describe the labour market.

This data series is available for purchase from Statistics Canada. However, the workforce planning boards typically buy this series (at least one of either the June or December accounts, at the Census Division level and three-digit NAICS). As well, the entire Canadian Business Patterns database is available through the Community Data Program, down to the Census Subdivision level and for six-digit NAICS.

⁸ The City of Toronto will be posting on-line all the LFS data that it purchases in a large set of tables that will be available, for both monthly and annual data, going back to 2001.

Survey of Employment, Payrolls and Hours

An important companion piece to the Labour Force Survey is the Survey of Employment, Payrolls and Hours (SEPH). Unlike the LFS, which derives its information from residents, SEPH takes its information from businesses, both via administrative data (total employment and total payroll for all businesses via Revenue Canada) and from a monthly survey sample of 15,000 establishments. SEPH reports on employment, hours worked and earnings by detailed industry and establishment size categories.

Unfortunately, this data is not available for the Toronto CMA, as the data is only reported at the national, provincial and territorial levels.

Job Vacancy Statistics

Starting in January 2011, Statistics Canada began collecting data on labour demand, by producing a count of unoccupied positions and job vacancy ratios by industry. This information is gathered by way of two questions added to the SEPH survey.

Being administered via the SEPH survey, the Job Vacancy Statistics data is also only available at the national, provincial and territorial levels.

Employment Insurance program beneficiaries

A somewhat more specialized piece of LMI is the number of Employment insurance beneficiaries. This information can also indicate whether the beneficiaries have any declared earnings or not, and the data can be broken down by gender and age. The data is available at the Toronto CMA level, as well as at the Census Division level (which can be aggregated for a GTA figure).

Employment and Social Development Canada – Canadian Occupational Projection System (COPS)

Employment and Social Development Canada relies on the models of the Canadian Occupational Projection System to produce projections of future trends in the major sources of job openings (expansion demand and replacement demand) and job seekers (school leavers and new immigrants) by occupation over the coming ten years at the national level. These projections are provided for the 140 three-digit NOC occupational groups. For each of these occupational groups, a short summary is provided of recent labour market trends, and then an explanation of the factors which will likely affect the supply and demand balance for the medium term. Some comment is also offered regarding the four-digit occupations which make up the three-digit occupational group.

The COPS website also includes summary growth projections for the main industry sectors (all two-digit NAICS industries, as well as a few three-digit categories, primarily in the manufacturing sector).

In addition to the text-based analysis, the actual projected figures for the components affecting both job openings and job seekers are provided.

All these projections operate at the national level. However, the analyses and explanations can be of relevance in assessing the applicability of the projections to the Toronto GTA level. It should also be noted that the COPS projections provide a foundation for the employment prospects offered in the Ontario Jobs Future website.

While these occupational projections are not technically "primary" data, they are sufficiently robust and relied upon that they warrant being included as part of the foundational data that other websites and other users rely upon.

B. KEY ACCESS POINTS FOR LMI FOR THE GREATER TORONTO AREA

The actual raw LMI data, such as is available on the Statistics Canada website, provides the foundation for describing and analyzing the labour market and how it is changing. But few individuals seeking LMI would go directly to the data to try to draw some sense out of the numbers. Rather, they seek others to explain it, to provide the context, and to offer insights regarding the best job or career options.

There is no one way to offer LMI. Instead, different websites approach the challenge in different ways. The following descriptions highlight some key websites that serve as portals to LMI that is relevant to the GTA.

Toronto Employment & Labour Market Information (TELMI)

The Toronto Employment & Labour Market Information website is an LMI web portal designed to serve as a one-stop source for labour market information. The website has been developed by the City of Toronto, with Toronto Employment and Social Services (the social assistance program) playing the lead role, with the support of Economic Development and Culture; City Planning; and Social Development, Finance and Administration. The creation of the website was part of a series of pilot labour market initiatives funded by the Ontario Ministry of Community and Social Services.

The website is organized by way of several key headings:

Research & Data

This section provides access to data and ways to understand the data. This includes explanations of data classification systems, access to the data itself (including Toronto-specific data), links to studies and analyses relating to economic trends, labour market dynamics and government policies, and links to relevant sources (for example, various policy think tanks or media outlets).

Career & Job Seekers

This section is geared toward individuals making choices regarding their career and/or who are seeking employment. Under this heading are found links to data regarding education and labour market outcomes (including federal, provincial and City of Toronto websites), as well as links to many labour market studies, with one-sentence descriptions of their focus; a listing of sources of funding for education and training, and for various income support programs; resources for accessing jobs, including business directories, links to over 40 job boards, and current listings regarding job fairs and career events; extensive list of guides relating to job search; a catalogue of programs and services providing assistance in relation to education, training, career development and job search; and access to resources regarding a wide array of workplace legislation.

Employers' Resources

This section aims to meet the LMI needs of employers. This includes data regarding economic indicators and labour market trends; information regarding economic development initiatives and investment opportunities in the City of Toronto; and a list of resources for employers relating to recruiting, hiring, training and human resources issues, wages and industry trends.

Community Resources

This section provides links for learning about and accessing an array of other community services and programs in such fields as community information, emergency services, children's services, financial literacy, health, legal services, housing and shelter, services for specific populations, telephone and voice mail services, networking, and other government resources.

LMI Tools

This section provides links to other resources relevant to LMI, including LMI guides, links to other LMI portals and sites, and self-assessment tools focused on skills and aptitudes.

The site is a useful first stop for anyone looking for LMI: it gives a good sense of the breadth of what is involved when it comes to LMI, particularly in the context of career choices and job searching, and provides many useful links to other resources.

Working in Peel Halton

Working in Peel Halton is another web portal, aimed primarily at individuals making decisions regarding careers or looking for a job, as well as at employment and career counsellors, with a geographic focus on Peel and Halton Regions. The website is operated by the Peel Halton Workforce Development Group, a provincially-funded workforce planning board. The website is a special project funded by the Ontario Trillium Foundation.⁹

Working in Peel Halton takes a slightly different approach from that of TELMI when it comes to offering LMI to its users. For starters, the material is organized in a slightly different way. More significantly, in most instances, Working in Peel Halton provides more text explaining the topics on its own website, rather than only acting as a referral portal to other websites. On the other hand, Working in Peel Halton will sometimes have fewer resources to refer users to on a given topic, compared to TELMI.

The website is organized according to the following sections:

⁹ In the interest of self-disclosure: Tom Zizys is the author of the bi-weekly Peel Halton Insights that are posted on Working in Peel Halton.

Who's Hiring – I want to look for a job using:

This section seeks to introduce job seekers to the different ways of looking for a job, explains what is involved with each approach, and provides resources to put that strategy into practice. This includes:

Job banks: An explanation of how job bank functions, an extensive listing of job banks, and a suggestion about how job banks can provide LMI for the user.

Recruiters: Explanation of how recruiters operate and links to lists of recruiters.

Business directories: Making use of business directories to explore the hidden job market (that is, learning about how to access job openings that are not publicly posted).

Business headlines and articles: Using business news to identify employment opportunities, with links to media outlets, government announcements and local economic development newsletters.

Networking and social media: Highlights that most hiring is still word-of-mouth, and therefore connecting with people is an important way to find job openings. This section explores both networking in person and using social media (e.g. LinkedIn, Facebook, and so on.

Statistics and Economics: How statistics can point to job opportunities, and links to various labour market reports.

Employment Trends

This section provides extensive background information and analysis that offers general forecasts and reports about the local economy and trends in the labour market, information about trends relating to key local industries, links relating to occupations, including job and career opportunities and salary ranges, and resources to support self-employment options.

About Peel Halton

Basic information about the local economy, key industry sectors, resident demographics for Peel and Halton, education and training options in Peel and Halton, and access to business directories and links to services for those choosing self-employment.

Job Search Services

Extensive list of various employment services available in Peel and Halton.

Career Practitioners

Some resources for career practitioners, in particular how to use the site with one's clients, sites for understanding LMI, and links to other LMI sites and groups interested in workforce development.

News

The website provides news summaries of events that have an impact on the local labour market. Roughly 2-3 items are highlighted every weekday, noting both national level stories (for example

the closing of Target stores in Canada) to very local events (a company announcing a new location or an expansion in Peel or Halton).

Working in Peel Halton also sends out a newsletter and spreads awareness about its news items via social media, notably Twitter. In addition, every two weeks it publishes a short analysis piece on-line regarding some aspect of the labour market, which also gets distributed to its newsletter list.

Job Bank

Job Bank is the federal government's primary website for job searches and labour market information. It provides a job board as well as tools for helping job seekers find the right match for themselves, and also offers resources for employers.

Job Search

The site offers a national job board. A cursory review of five days' worth of job postings for Toronto reveals on average 240 new postings each day. The jobs are searchable by geography, by education level, by occupational categories, by job title, by job permanency, by full-time or part-time, and so on.

Explore Careers

This section provides relevant background information about occupations, such as what level of education is required, what kinds of skills are needed, what the pay scale is like, and what is the forecast for that occupation. This information is available at a localized level, so that individuals searching a particular occupation can learn if the job prospects for that occupation are limited, fair or good in their immediate region (in this case, the Toronto CMA).¹⁰

Employers

In addition to being able to post a job, employers can access labour market information, guides to programs and services for employers, and tips regarding human resources management.

¹⁰ These forecasts are developed by Employment and Skills Development Canada and the Services Canada Regional LMI Network. The data sources include the Census, the National Household Survey, the Labour Force Survey, the Canadian Occupational Projections System, and Employment Insurance administrative data. These are supplemented by labour market news, demographic trends, data from sectoral and professional organizations, key informant interviews, and other complimentary data. The employment outlooks represent a three-year forecast and are updated annually.

Job Market Trends

This section provides several resources: a listing of events and announcements relevant to the labour market in Ontario; monthly local labour market bulletins, for Ontario and its major economic regions, highlighting significant employment as well as industry trends; and twice a year, an Economic/Environmental Scan (E-Scan) that provides a general overview of the demographic, economic and labour market conditions and trends for the province of Ontario, with comments directed towards specific industries and specific economic regions. There are also periodic reports on specific population groups and their labour market prospects, such as youth or Aboriginal people. Most of the analysis appears to depend on Labour Force Survey data, supplemented by analytical studies produced by academics or researchers, as well as by local labour market news stories (for example, plant closures or expansions).

Job Bank is distinct from TELMI and Working in Peel Halton in that it is both an active job board and also provides labour market forecasts regarding a large number of occupations.

Labour Market Information – Ontario Ministry of Training, Colleges and Universities

The website for the Ontario Ministry of Training, Colleges and Universities provides a number of pathways for individuals seeking information about education, training and employment services. To help determine one's eventual goal, the site has a Career section with a number of tools for helping an individual identify his or her skills, aptitudes and interests, which can contribute to clarifying potential career options.

The Labour Market Information section provides an entry-point to a number of LMI resources:

2014 Employment Profile

This section provides access to extensive information about Ontario's 24 community colleges, including student satisfaction surveys, graduation rates, employment outcomes, and graduate and employer satisfaction surveys. With this information, an individual can assess the benefits of different programs and different colleges, exploring labour market outcomes, including over several years of graduates. (The data is limited to the outcomes of community college graduates.)

Current Trends

This section includes monthly labour market profiles for Ontario, offering a snapshot of labour market trends (these are analyses prepared by MTCU, using Labour Force Survey data). As well, readers are directed to various other resources to assist them in understanding the dynamics of

the labour market and the most recent statistics, as well as assistance with career planning and job search.

Ontario Jobs Future

Under this heading can be found information on current trends and the future outlook for some 200 occupations in Ontario, together with a description of their main functions, the necessary education or training required for that occupation and links for further information. The prospects for these occupations use the Canadian Occupational Projections System as a foundation, which are modified to provincial demographic and labour market trends.

Routes TO. Employment/Routes TO. Trades

Both of these sites were created by the Toronto Workforce Innovation Group, primarily to assist internationally educated professionals and trades people learn about prominent industry sectors in Toronto. The development of these sites was funded by Citizenship and Immigration Canada. However the content of these sites would be of relevance to Canadian-born job seekers as well.

Routes TO. Employment

This site profiles capsule descriptions of the following industries: Arts, Culture and Entertainment; Construction; Financial Services; Health Care; Information Communication & Technology; Manufacturing; Non-profit; Professional & Technical Services; Retail; Tourism and Hospitality. These descriptions include a profile of the industry and of its labour force, together with numerous key facts.

Routes TO. Trades

This site profiles 17 specific trades, describing their main functions, occupational outlook and expected education and training. The site also provides insights regarding foreign-trained tradespeople, youth in trades, and women in trades.

These two sites provide more qualitative insights regarding a number of industries and trades in Toronto.

Career Cruising

Career Cruising is a private company whose software is used by high schools across North America. Technically, one might exclude this website from this list because it is not directly accessible by the general public. However, it is a service that is available to all students from grades 6 to 12 in public or

separate schools in Ontario, as well as to their teachers and parents. It is also available through the majority of post-secondary institutions, employment services and public libraries. By way of these various access points, individuals obtain a client number and can log in and access this site.

This program is intended to be used as a career planning tool, whereby users progress through a series of modules and self-assessments to identify preferred career options. The program has extensive data on approximately 650 careers, including in-depth descriptions and videos. There are also links to the corresponding educational programs, access to wage data by occupation, and the ability to search current job postings from hundreds of job boards.

Significantly, this is probably the LMI site that young people, via their high school career studies, are first introduced to.

C. LMI WEBSITES OF RELEVANCE TO THE GREATER TORONTO AREA

The websites of the previous section were chosen because they represented useful entry-points to accessing LMI. TELMI is a helpful inventory of a wide range of LMI resources, from numerous other sites to links to specific studies and analyses. *Working in Peel Halton* offers more explanation and guidance and provides frequent updates, but its scope is primarily Peel and Halton Regions. Job Bank and the webpages of the Ontario Ministry of Training, Colleges and Universities make available considerable indepth information about specific occupations, including future prospects. The Routes TO sites present more qualitative descriptions about certain Toronto industries and skilled trades. Career Cruising is probably how high school students first learn about careers.

However, these sites are only the beginning. There are many other sources for LMI, most of which represent a more specific viewpoint, but each unique in its own way. Some of these sites offer some local perspective, others list reports that are national in scope, but whose insights provide a context for understanding local labour market dynamics. It is not possible to list all of these sites, but the following represent the major categories of such sites, in some cases with examples.

Municipal government websites

Primary data

Many municipal government websites include some information relating to local economic conditions. This may include data regarding building permit and construction activity, residential and commercial vacancy rates, as well as basic labour market information derived from the Labour Force Survey. Some municipalities report social assistance caseloads as well. These sites sometimes include data from the National Household Survey, organized by local wards. This information, together with local economic development news, is usually found under the heading of Economic Development or Planning, or in sections entitled Statistics or Data.

Municipal employer surveys/census

All establishments in the GTA are surveyed in one way or another by a municipal government. In most cases it is done at the regional municipality level, sometimes at the local municipality level, and in most cases the results are publicly available. Because an attempt is made to reach each and every business, these surveys are more in the nature of a business census.

These surveys collect information on employment and produce results that list the breakdown of employment by the size of the establishment and by industry. In some of the surveys, information is also collected regarding the type of employment: full-time or part-time, seasonal/contractual, for example. Some municipalities collect additional information (for example, Halton collects information about

export as well as research and development activities among other additional questions; Durham specifically asked about skills shortages).

The following municipalities carry out an annual survey of businesses:

- City of Toronto
- Durham Region
- Halton Region
- York Region

In Peel Region, each municipality has a slightly different approach:

- Brampton carries out its survey once every two years
- Mississauga conducts a continuous rolling survey, reaching each employer once every two years
- Caledon carried out a survey last year, but the employment information is provided in confidence and is only used for internal analytical purposes

This employer survey information collected by the municipalities is comparable to the Canadian Business Patterns data, except that it can provide more precise information regarding actual employment, including by type of employment.

Workforce planning boards

Workforce planning boards were created by the provincial government to act as intermediaries in the labour market, serving as catalysts to develop partnerships which collectively can address various local labour market challenges. As part of that role, workforce planning boards are also expected to collect, analyze and disseminate data and insights regarding local labour market conditions and issues. Each workforce planning board maintains a website where information is available regarding current and past projects, recent studies, news relevant to the local labour market, and their annual report, which typically provides an update on current labour market dynamics. Some workforce planning boards carry out surveys of employers and the results of these surveys are also often available on their websites.

There are four boards that cover the GTA: Peel Halton Workforce Development Group; Toronto Workforce Innovation Group; Workforce Planning Board of York Region and Bradford West Gwillimbury; and Durham Workforce Authority. If one were to cover the geography of the Toronto CMA, then one would also include the Simcoe Muskoka Workforce Development Board.

It is noteworthy that for the purposes of developing a specific LMI website, both the Peel Halton Workforce Development Group and the Toronto Workforce Innovation Group sought and obtained separate funding specific for this purpose, and established stand-alone websites. This points to the fact that such undertakings, to be done right, require dedicated resources. (The TELMI site developed by the City of Toronto also depended on special project funding from the Province.)

Sites for labour market studies

There are only a few bodies in Canada whose purpose is to conduct and disseminate analyses about the Canadian labour market. However, there are many other organizations whose purpose is to contribute to public policy deliberations, and at times they may issue a report that has a bearing on a labour market issue.

Statistics Canada

In addition to providing data, Statistics Canada publishes a number of analytical studies, including about the labour market. These can be located by choosing "Labour" among the *Browse by subject* section, and then choosing *Publications*.

Canadian Labour Market and Skills Researcher Network

This is a network of academic researchers interested in labour market issues. This site provides a venue for information exchange and maintains a list of publications, currently approximately 150 papers. The site claims that over 200 Canadian academics are members of the network.

Toronto Immigrant Employment Data Initiative (TIEDI)

This was a project intended to provide statistical data for organizations seeking to enhance the labour market outcomes of newcomers to Toronto. While this project has ended, its website with 26 analytical reports and 34 fact sheets is still a relevant source of analysis concerning the labour market outcomes of newcomers in Toronto.

Sector councils

Sector councils were created at the national level to focus attention on human resources and skills development issues on an industry-specific basis. Over 25 such sector councils were established, and many of them undertook and published research reports that provided indepth statistical profiles of their workforces, analyzed their current and prospective circumstances, and proposed human resources strategies to address potential challenges. These studies provide useful insights into the recent issues relating to these industries. (Due to changes in their funding regime, it is likely that in many cases this work will not be kept as current as before.)¹¹

¹¹ The Advisory Panel on LMI reviewed the work of these sector councils and noted that as of 2009, 17 councils had undertaken some type of labour market forecasting for their industry and nine had provided detailed forecasts by occupation (page 58).

Professional associations

Various occupations typically have a membership association which may collect data and information regarding that occupation. As well, certain occupations are regulated and may have a regulatory body that oversees their activities. In both instances, these organizations may have relevant LMI. For example, in the case of nursing, the professional association (Ontario Nurses Association) produces studies relating to workplace issues, while the regulatory body (the College of Nurses of Ontario) maintains detailed statistics regarding the nursing labour pool in Ontario.

Some professional associations prepare reports not only on labour market issues affecting their membership but also for the purpose of contributing to the broader policy discussion. For example, the Certified General Accountants Association of Canada¹² has issued reports in the past few years regarding youth unemployment and about labour shortages among the skilled trades.

Research bodies

There is a wide range of organizations which issue reports on matters of public interest or for the purpose of affecting public policy. Many of these organizations have issued reports in the past few years relating to the labour market. These include:

- Atkinson Foundation
- Canadian Career Development Foundation
- Canadian Centre for Policy Alternatives
- Canadian Chamber of Commerce
- Canadian Education and Research Institute for Counselling
- C.D. Howe Institute
- Centre for the Study of Living Standards
- CFRIS
- Conference Board of Canada
- Essential Skills Ontario
- Fraser Institute
- Higher Education Quality Council of Ontario

- Institute for Research on Public Policy
- Martin Prosperity Institute
- Maytree Foundation
- Metcalf Foundation
- Mowat Centre for Policy Innovation
- Ontario Chamber of Commerce
- Social Research and Demonstration Corporation
- Toronto Board of Trade
- Toronto Region Immigrant Employment Council
- Wellesley Institute
- United Way Toronto

¹² They have since merged into the Chartered Professional Accountants of Canada association.

To illustrate the point further: a recent report¹³ produced by the Toronto Region Board of Trade and the United Way Toronto included detailed occupational projections for the GTA and for its constituent municipalities (City of Toronto; Durham; York; Peel; and Halton), which were distinct from the Canadian Occupational Projection System.¹⁴

In addition, the economics departments of the major banks periodically issue reports that speak directly or indirectly to labour market considerations, as does at times the Bank of Canada.

Collectively, then, there is a significant body of labour market studies, typically looking at the Canadian and sometimes Ontario situation. A minority specifically address the regional or municipal level, but many of the observations in national or provincial studies can be extrapolated to the Greater Toronto Area context.

Job banks/job boards

One category of websites warranting a mention when it comes to LMI are job banks, those many sites which serve as job boards for employers looking for job candidates and depositories for resumes of individuals looking for work (for example, Workopolis or Monster.ca). It is often the case that for the person looking for a job, the only LMI they truly are interested in is where the job openings are, and job banks/boards serve precisely that purpose. But in addition to acting as a job matchmaker, many of these sites also offer various resources to assist users of their sites. Thus, job seekers can also find on these sites tips about job searching, discussions regarding career options, and even analyses relating to the Canadian labour market, while employers get advice on hiring or access to support and services for their recruitment needs.

There are numerous job boards, some covering only a certain geographic area, others limited to a particular industry or serving a unique community, such students at a specific university or clients of a youth employment agency. There is even a site that matches apprentices looking for placements with employers (apprenticesearch.com).

Apart from their matching function, the size of certain job boards means that their data itself can be a source of LMI: for example, Workopolis provides localized salary information about occupations based on the postings it receives. The same result can be achieved by pulling together data from many sites: the Conference Board of Canada tracks job postings on 79 job boards to produce a monthly *Help Wanted Index*, which it says closely prefigures changes in employment in the ensuing months.

¹³ Toronto Region Board of Trade and United Way Toronto, *Closing the Prosperity Gap*, 2014.

¹⁴ These projections were developed by two private firms, Millier Dickinson and Blais Inc. and Strategic Projections Inc.

The premise behind *Magnet*, a recent newcomer to the job board industry, is to generate real-time LMI, as well as apply big data analytics to improve its job matching function. *Magnet* is an initiative developed by Ryerson University and the Ontario Chamber of Commerce. Its purpose is to be a large-scale job matching platform, and to date it has enlisted in its cause 13 community colleges, eight universities, and numerous employers, local chambers of commerce, municipalities, community agencies and workforce and economic development organizations. *Magnet* boasts that it is relies on a highly sophisticated technology platform to produce sound matches between employer needs and job candidate qualifications. It also proposes to offer (for a fee) real-time descriptions of current labour market supply and demand, at a local level. Over time, it presumes that it will be able to analyze and report on those factors that help individuals get and keep a job, insights that should be of use not only to job seekers but also to employers, by clarifying for employers those qualifications that constitute a good match for a particular job.

Other sources for LMI data

There are numerous, ancillary sources for labour market information, starting with various media outlets, which not only highlight recent studies but carry out their own investigations, interviewing employers, job seekers and other stakeholders to provide a qualitative companion to the statistical data being released.

A few other sources worth highlighting:

CFIB's Help Wanted: Private sector job vacancies in Canada

The Canadian Federation of Independent Businesses surveys its members every quarter to track job vacancies (openings that have been vacant for at least four months because business owners have been unable to find suitable employees). The sample size varies (roughly 2700 to 3500 respondents), and the results appear to correlate to unemployment figures (as unemployment goes down, reported vacancies go up, and vice versa). The responses are also reported by size of firm, by industry and by province, providing further insight.

CFIB have also used this data set to illustrate local differences in vacancy rates. Using all responses going back to 2012, they have compared vacancy rates at the Census Division level (published in their Q3 2014 report).

CFIB's Business Barometer: skills shortages and hiring intentions

CFIB also produces a monthly snapshot of the mood of small business owners, tracking such indicators as levels of business optimism, intentions to spend on capital improvements, and costs constraints on business. Among these indicators are labour market factors: intentions to

add full-time staff within three months; shortages of skilled labour; shortages of un/semi-skilled labour; and changes in wage plans.

Bank of Canada Business Outlook Survey

Every quarter, the Bank of Canada's regional offices conduct interviews with the senior management of about 100 firms selected to represent the composition of Canada's gross domestic product. The purpose is to measure sentiment regarding a number of business indicators, from sales (immediate past of projected forecasts) to inflation expectations and credit conditions. The labour market indicators are hiring intentions over the next 12 months, and reported labour shortages.

CIBC – Canadian Employment Quality Index

CIBC, through its CIBC World Markets division, has for years tracked what it calls the Canadian Employment Quality Index, which profiles three indicators: the distribution of part-time versus full-time jobs; self-employment versus paid employment; and the compensation ranking of full-time paid employment (that is, the composition of full-time paid employment according to low, medium and high paying jobs). This provides a more nuanced perspective on the overall employment numbers from the Labour Force Survey.

In addition to these more traditional institutions relying on statistics and surveys, the Internet opens the door to sites where users provide the information, the so-called "wiki" sites. The following two sites are illustrations of how these resources can add a further dimension to LMI.

RateMyEmployer.ca

RateMyEmployer is a Canadian site that provides a venue for individuals to post ratings regarding their employer. The site purports to have accumulated over 40,000 entries relating to over 9,000 employers. Certainly a site such as this can suffer from "selection bias," in that it is more likely that disgruntled employees will be motivated to enter a rating. But as in the case of travel rating sites like Trip Advisor, an accumulation of similar grievances from a number of users should at least serve as a warning flag to someone who is considering a job with an employer being rated. The site is operated by a firm that also manages a number of job board sites.¹⁵

¹⁵ Information about the site gathered from the website http://www.ratemyemployer.ca/Home, accessed March 19, 2015.

Glassdoor

Glassdoor is somewhat like RateMyEmployer, except that it has an international scale and includes details such as salary ranges and benefits, also contributed by employees. For occupations for which there are many entries, the benefit of such a site is that one can actually compare the salary ranges between companies for similar jobs, always with the caveat that these are user-provided, unverified data.

D. DOES THE AVAILABLE LMI SERVE THE NEEDS OF THE VARIOUS STAKEHOLDERS IN THE GREATER TORONTO AREA?

The preceding sections catalogue a considerable array of data and analyses, available through a myriad of websites, which provide LMI relevant to the GTA. But how to assess the utility of all this LMI?

To approach this task, interviews were undertaken with a range of key informants representing a variety of interests, from researchers to employment service providers, economic development officers to LMI website developers. In addition, a review was undertaken of a number of studies examining LMI and its role in supporting good labour market outcomes. This section is a synthesis of the insights gained from these two exercises.

Is our current LMI fit for its purpose? The consensus answer would be as follows:

Overall, the LMI is plentiful and relatively good. There are definitely shortfalls with regards to certain types of data, but the larger issue is that we hardly make full use of the data we have. The biggest shortcoming in terms of the LMI as a whole is understanding what it means.

For a job seeker, one could almost say there is too much data, and not enough explanation of the data.

For the specialized user, there is not enough data, in particular those variables that would reflect the changing nature of our labour market.

The usefulness of the LMI will be reviewed under a number of dimensions.

Overall quality of the LMI

It seems at times that considerable blame gets pinned on the labour market information file. The simple fact that we seem unable to definitively answer the question of whether there is a skills shortage or not suggests we know little about what is actually happening in the labour market.

Before we investigate how this LMI could be better, it warrants mention that Canada has consistently been cited for the quality of the LMI it produces. In 1999, the Report of the Expert Panel on Skills pronounced:

Based on its research and discussions with labour market experts, we concluded that Canada's labour market monitoring systems are among the best in the world. Indeed, other countries

come to Canada regularly for advice on developing occupational classification systems, labour market statistics, and more recently, electronic placement services. 16

Ten years later, the Advisory Panel on LMI made a similar finding:

The quality of LMI in Canada was singled out in a recent OECD study as being "particularly strong" and as constituting an example of international "good practice." And Statistics Canada, which is responsible for the production of labour market data, was ranked as the world's leading statistical agency based on two surveys of statisticians carried out during the early 1990s.¹⁷

Since then, budget cutbacks, terminated surveys, and the controversy over the long-form census questionnaire may have affected that reputation somewhat. There certainly is a considerable constituency seeking to reinstate the long-form mandatory questionnaire. From *The Globe and Mail*:

A growing chorus of business groups and economists say the end of the long-form census is harming their decision-making and ability to make recommendations in areas such as where to offer services, locate stores and even determine in what professions to train students.

The Canadian Chamber of Commerce, Canadian Federation of Independent Business, Canadian Economics Association, Martin Prosperity Institute, Toronto Region Board of Trade, Restaurants Canada and the Canadian Association of Business Economics have all told The Globe and Mail they want a reinstatement of the mandatory long form.¹⁸

A number of the key informants felt that no discussion of LMI would be complete without referencing the need to reinstate the mandatory long-form questionnaire as part of the Census.

Apart from the data which is collected, there is one other piece of LMI which merits mention, namely the Canadian Occupational Projection System (COPS). For individuals considering their longer-term career choices, projections regarding future labour market demand by occupation are an important input to their decision. Predictions about the future necessarily involve some risk, and no one can anticipate disruptive change, especially the sort brought on by sudden technological breakthroughs. But key informants generally felt that COPS provided a valuable insight. The consensus was that it could be relied upon, if not always for the magnitude of the demand, at the very least for the direction of the trend (increase or decrease in demand). The drawbacks were that its current scope is national, when the need was for projections at a regional level. By and large, the view was that these projections were actually less known and less relied upon, considering their actual value.

¹⁶ Report of the Expert Panel on Skills, *Stepping Up: Skills and Opportunities in the Knowledge Economy*, Prime Minister's Advisory Council on Science and Technology, 1999, p. 41.

¹⁷ The Advisory Panel on LMI, p. 100.

¹⁸ Tavia Grant, "Scrapping of long form census causing long-term issues for business," *Globe and Mail*, February 6, 2015.

Accessibility of the LMI

LMI is required to serve many purposes, resulting in a considerable volume and variety of information and websites. As a consequence, for an individual less familiar with the field – in particular a job seeker seeking direction in the labour market – the array of LMI can be bewildering.

For starters, there is no one definitive portal for labour market information, although both TELMI and *Working in Peel Halton* both can be useful starting points. Secondly, the lack of highly specific data means the commentary has to be at a fairly general level, typically just describing the past trend ("unemployment has increased") without being able to provide any guidance about what might happen in the near future. Thirdly, some of the material consists simply of a "data dump" – providing numbers with no context or explanation regarding its meaning. Fourthly, some of the information is at such a high level of aggregation that it is of little use to an individual making a job search decision – for example, the job vacancy data, reported for the province as a whole and at a two-digit NAICS level, offers no help in understanding *where* in the province these vacancies may exist, or more specifically in what subsectors of that industry.¹⁹

Simply publicizing data does not produce insight, bringing to mind a popular adage: "Knowledge consists of knowing that a tomato is a fruit, and wisdom consists of not putting it in a fruit salad." A comparable circumstance is the daily listing of the full stock market quotes in a newspaper or on-line: few would make their investment decisions based solely on reading those numbers.

Understanding the LMI

<u>Making sense of the data</u>. The simple presence of information is not enough. The publication of data, for example, requires context, and the proliferation of information needs organizing and customizing for the individual general user (compared to the expert user of LMI).

For a certain set of users, such as those focused on macro-economic trends (such as national policy-makers), the aggregate labour market statistics detailing unemployment and participation rates are important data sets. But in the case of those counselling job seekers, there is a far greater need to unpack the data. Simply providing access to more data tables may not be the answer. To illustrate this point requires a more elaborate explanation.

¹⁹ Statistics Canada is in the process of rectifying this situation. Starting in the summer of 2015, it will be releasing the results of a revised job vacancy survey reaching up to 100,000 employers every quarter, with data on the number of job vacancies and the regions with the most labour shortages, the offered average wage per occupation with vacancies, the distribution of job vacancies by level of education and experience and the proportion of vacancies that are difficult to fill, by occupation. Bill Curry, "Ottawa seeks job market clarity," *Globe and Mail*, February 8, 2015.

Consider two examples. There is a steady drumbeat of bad news about the manufacturing sector. Few could avoid hearing about the continuing decline in employment in this sector. Yet it remains the case that certain subsectors of the manufacturing industry are maintaining their employment. Thus, between 2006 and 2011, actual jobs in manufacturing located in the GTA declined by approximately 23%, yet employment in food manufacturing more or less stayed steady (-0.3%). Digging deeper, one finds that one segment of food manufacturing, bakeries and tortilla manufacturing, actually increased their employment numbers (+1.4%).

Neither is it the case that manufacturing is somehow a declining industry. It continues to employ a large proportion of the labour force and actual output continues to increase. Primarily as a result of computerized systems and robotics, manufacturing is producing more with fewer workers. It still means that manufacturing requires labour, but often individuals with higher skills, knowledge of computer-aided design and manufacturing, teamwork, the ability to interact with customers, and adaptability to support customized and flexible manufacturing processes. These deeper truths require much more digging beyond the headline story.

In a similar vein, consider the occupation of retail salesperson. Among the detailed, four-digit NOC occupations, this is the largest single occupation, representing approximately one of every 25 employed residents in the GTA. But this category covers a multitude of different kinds of sales clerks. This variation, and an illustration of who gets which jobs, can be illustrated by way of the employment income figures for retail salespersons. Chart 1 represents the data for all retail salespersons working full-time, full-year in 2010 in Ontario, and provides the data broken down by gender and by level of educational attainment.

It is well-known that men typically get paid more than women, even in the same occupation, but the disparity among retail salespersons is even more pronounced, so much so that a female with a bachelor's degree makes less as a retail salesperson than a male with no educational certificate (in Chart 1, \$38,858 versus \$39,670).

The reason for this has to do with the wage disparity between different types of retail salespersons, based on the kinds of stores they work in, and the gender ghettoes that persist by occupation and industry. Thus, males are more likely to work as salespersons in car dealerships or electronics stores, while females are more likely to work in clothing and clothing accessories stores. The pay for sales clerks in car dealerships or electronics stores is considerably higher on average than the pay for sales clerks in clothing and clothing accessories stores.

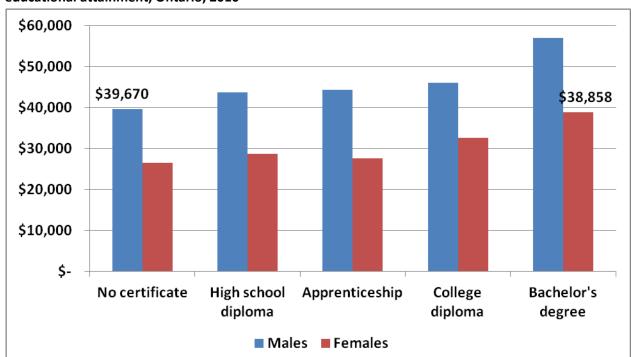


Chart 1: Employment income for retail salespersons working full-time, full-year, by gender and by educational attainment, Ontario, 2010

But all this would be difficult for an individual to learn on his or her own, or even for an employment counsellor to engage in. It requires not only knowing where to look, but knowing what to look for. It requires the time and the ability to apply spreadsheets to make comparisons, to search for patterns and trends in the numbers, and to consider different ways to cut the data to produce the telling analysis.

This is a point that has been made several times in the past and it bears repeating. From the Expert Panel on Skills:

Good data is critical to understanding developments in the labour market, but we also have to know how to interpret the information we collect. Unfortunately, the analysis and interpretation of labour market data has attracted very little attention from university researchers. As a result, this activity has yet to reach its full potential.

As important as it is to enhance our labour market monitoring systems, it is equally important to make better use of the data we collect. Labour market variables are complex, and Canada gathers a great deal of data. However, the remaining and perhaps more difficult challenge is to interpret these data and package them in ways that best support decisions and actions by individuals, educators, employers, governments and others in relation to the labour market or the economy in general.

The Panel is also concerned that among the users of labour market information are guidance and career or employment counsellors who may not have sufficient expertise in interpreting labour market data for their clients.²⁰

And from the Advisory Panel on LMI:

Despite the wealth of data available, the Panel frequently heard of the need for analysis or interpretation of these data for the information to be truly useful to the user. For unsophisticated LMI users, which are the vast majority, there is a need for information tailored to their needs. There is also value in the personal touch, which can only be provided by a person able to assist in interpreting the information found. This is the role of intermediaries – school guidance counselors, career counselors, employment counselors, immigrant settlement agencies. The Panel heard too of the need for LMI training for these intermediaries. ²¹

Several of the key informants questioned the capacity of both members of the public and most employment counsellors to either find or interpret LMI suitable to their needs. Despite the demand for better LMI, it was felt that few individuals base their career decisions on LMI. Rather, LMI can support and supplement the decision-making, give them a reason to mull over several options, and help them avoid mistakes. For that reason, the LMI has to be organized and be applicable to individual needs.²²

One illustration of this point is a recent study that focused on LMI use and unemployed adults. The study found that many of these clients significantly benefited from tailored career resource guides (which included LMI as well as self-guided reflective exercises) assigned on the basis of an employability assessment and where the client was made familiar with the package and orientated in their use of it by a career development practitioner. Participants showed improvement in their skills and knowledge related to job search and career decision-making, their personal attributes (attitudes, self-esteem, motivation), employment outcomes and employment fit.²³

<u>Digging deeper</u>, and providing a narrative. In addition to having the data explained for those less familiar and/or less adept with these numbers, there is need for a deeper analysis of the numbers, complemented by more nuanced, qualitative context at a more detailed industry and occupational level.

²⁰ Report of the Expert Panel on Skills, *Stepping Up: Skills and Opportunities in the Knowledge Economy*, Prime Minister's Advisory Council on Science and Technology, 1999, pp. 43, 44.

²¹ The Advisory Panel on LMI, p. 90.

²² It would appear that Canadians desire career advice. According to a recent survey, over half of Canadians engaged in a career have sought advice from a career or employment professional, and almost half of all of those who did not access professional services reported that, had they had to do it over, they would have accessed such services. The Counselling Foundation of Canada and the Canadian Education and Research Institute for Counselling, *National Survey: Accessing Career and Employment Counselling Services*, March 2015, p. 37.

²³ Dave Redekopp, Sareena Hopkins and Bryan Hiebert, *Assessing the Impact of Career Development Resources and Practitioner Support across the Employability Dimensions*, Canadian Career Development Foundation, 2013.

Firstly, more analysis of the data could be made available which offers greater detail: for example, what is a typical starting salary, what does the employment income distribution look like (is there a generally even distribution across a range of wage levels, or do a majority of workers earn low pay with only a smaller proportion of high earners who drive up the average income figures), what proportion of workers are employed part-time or in temporary positions.

Secondly, there is more qualitative information that could be collected about an industry or occupation that speaks to working conditions, career prospects and pathways, and the overall quality of the job. For example, how does employment as a personal support worker differ when employed by a home visiting agency, a nursing home or a hospital? What is the likelihood of career progression from an entry-level occupation to a supervisor's or mid-level manager's position in the same industry? It would be useful for someone considering a position as a light duty cleaner to know that a growing proportion of cleaners are now employed through building cleaning services, much more so than in the past, and that in many instances, the cleaners themselves are characterized as independent contractors. These are the kinds of insights which are difficult to glean from the data and instead require interviews with key informants including, for example, employers, unions, sector councils and human resource professionals.

Gaps in the data

There are, nevertheless, instances where key informants cited specific gaps in the data that is available relating to the labour market. In rough order of importance, these were:

- <u>Local labour market data</u>: A common observation for all types of labour market data was the
 desire to obtain it at a scale that is as local as possible; the National Household Survey data is
 available at a small domain, but the Labor Force Survey is limited by its sample size to larger
 population areas;
- Better understanding of the demand side of the labour market: Much of the labour market data
 either describes the attributes of employees or those looking for work, or else provide details
 about jobs currently filled; the Job Vacancy Statistics have a limited ability to describe current
 job openings, while the occupational projections are based on national calculations (as noted,
 the Job Vacancy Statistics are to be refined to get better data, including at a regional level);
- <u>Understanding demand in terms of skills</u>: The discussion regarding skill shortages has provoked the question, what precisely are employers looking for? Beyond specific occupations, what specific skills are in short supply be they technical skills, soft skills, or employability skills?
- More details regarding different forms of employment: The current categories of data collection need to provide better insights into the changing forms of employment, such as contract work, temp work, and various types of precarious employment, in addition to more information about the self-employed (are these micro-businesses, consultants working on multiple assignments or independent contractors working for one business?);

More detail regarding occupations: Several key informants noted that the four-digit NOC categories often do not provide a sufficient level of differentiation; it is bad enough that "retail salesperson" covers all manner of sales clerks, from auto dealers to clothing store sales associates – a category such as "other financial officers" includes financial planners, financial investigators and mortgage brokers.

It should be noted that this is a familiar refrain. These gaps named by the key informants for this study all made the list of LMI shortcomings cited by the Expert Panel on Skills in 1999 and by the Advisory Panel on LMI in 2009.

Perfect LMI does not mean a perfectly functioning labour market

In a data-driven age, where data-mining reveals previously hidden patterns and where those engaged in quantitative analysis claim they can forecast the direction of the stock market or match partners for successful relationships, some perspective is necessary. Good LMI will certainly help individuals make better labour market decisions, but perfect LMI will not solve all our labour market woes. The demand-side of our labour market, that is, what jobs are made available through employers, are shaped by a great many other factors, from technological change that eliminates routine-function jobs to business models that undermine the value of longer-term investments in a company's workforce. Better LMI can identify the emergence of an hourglass labour market or the deleterious effects of precarious employment, but to improve labour market outcomes will also require the right policy responses and enlightened practices on the part of all labour market players.

E. RECOMMENDATIONS

In addition to identifying and assessing current sources of labour market information, the directions for this assignment also requested recommendations:

If applicable, propose ways in which local LMI could be expanded, made more accessible or cross-linked to bridge knowledge gaps and make existing data more useful for job seekers and employers. Within this domain, identify possible role of governments in bridging knowledge gaps and/or improving information accessibility.

In approaching this task, two considerations framed the scope of the recommendations:

- 1) The mandate of the ICE Committee, the sponsor of this study, is to serve primarily as an information-sharing and coordinating body for the three orders of government in the Greater Toronto Area on matters relating to labour market and economic development. The Committee has no direct spending authority, and so recommendations that would likely have most traction and would be easiest to implement would be those that relate to coordination and finding common ground among the three levels of government;
- 2) The Ontario government has initiated its own study to develop a comprehensive Labour Market Information Strategy, one which, as was announced in the 2014 Fall Economic Statement, "will make it easier for job seekers, students and their families to make informed decisions about their education, training and careers." That study will evidently impact how LMI is provided by the Province, and will likely have some impact on what kind of LMI is made available.

As a result, the recommendations seek to be both modest as well as feasible, more process-oriented, with possible content issues a more likely matter for the provincial Labour Market Information Strategy.

RECOMMENDATION #1: CREATE A GTA LMI TABLE

It is clear from this study that LMI has many components, provided by many purveyors of LMI, being searched by many stakeholders. When it comes to LMI for the GTA, no one body has either the authority or the presence to be the lead LMI organization. There are a number of reasons why LMI in the GTA could benefit from a more coordinated approach.

For one, bringing the relevant organizations/stakeholders together around a table periodically will allow for a collective conversation to take place about LMI, something that does not happen at the Toronto Region level. At the very least, this would allow for some sharing of data, and sharing of approaches to LMI, as well as discussion about apparent gaps and how these could filled by the existing network of LMI resources.

Such a group should have representation from most of the following: federal government; provincial government; GTA municipal governments; the workforce planning boards covering this area; representatives of post-secondary institutions (preferably community colleges and universities); employers chambers/boards of trade; unions/workers action centres; representatives of local United Way and social planning councils. Within these broad headings one should also consider representation from Employment Ontario, TRIEC and from municipal social assistance employment services.

The ICE Committee is well suited to convene such a table and to facilitate its initial deliberations. As part of its first meeting, the table could focus on identifying its priorities, fine-tuning its membership, developing a workplan and determining a schedule for its activities, including the frequency of its meetings.

Such a table could consider engaging with the academic/think tank/foundation sector, to explore such issues as an LMI research agenda for the GTA. The Toronto area is unique in several ways compared to the rest of Ontario and to the rest of Canada, notably in the high proportion of knowledge sector jobs in the local economy, as well as in the high number of newcomers who settle in this region, and this area warrants special attention as far as the local labour market dynamics are concerned.

Such a table could also take the lead in exploring how to provide capacity building regarding LMI to the relevant intermediaries in the Greater Toronto Area. This could include workshops on how to access and use LMI, as well as ensuring there exists a process for alerting expert and intermediary users of LMI regarding important additions and updates to local LMI.

This table would also be the natural vehicle for considering the new provincial LMI strategy when it is announced, and for accessing the implications and opportunities relating to LMI in the GTA arising from that report.

RECOMMENDATION #2: COLLECTIVELY ACQUIRE CUSTOMIZED DATA AND ANALYSIS

A number of bodies in the GTA purchase customized data tables, in particular Statistics Canada data, for their particular geography. For example, as noted earlier, the City of Toronto purchases Labour Force Survey data, and makes some of it public, reporting figures for both the Toronto CMA as well as for the City of Toronto.

It seems there would be an opportunity for the various parties in the GTA to discuss collectively these purchases, to identify opportunities to achieve economies of scale, especially when it comes to which indicators would be reported on, and the development of the benchmark indicators at the Toronto CMA level. Several policy units doing the same number-crunching seems a waste of resources, when that duplicated work means that other data is not analyzed (in many instances, the data which is purchased

is not all analyzed nor made public, because of staff resource limitations). Having a conversation (presumably through the GTA LMI Table), could result in more data being analyzed and made public.

RECOMMENDATION #3: CONSIDER COMMON DASHBOARD INDICATORS

A further consideration would be to develop common labour market dashboard indicators which would be available on each municipality's website. This need not limit what indicators are available on such dashboard, only that a minimum set of indicators could be agreed upon, which would be expressed in the same way, to allow for easy comparisons to be made between jurisdictions. This might include three-month moving average unemployment rates from the Labour Force Survey for each regional municipality.

Some thought could be given to including some indicators beyond the usual ones of unemployment rates or employment numbers. One candidate for such a list would be an "underemployment rate" — this combines the Labour Force Survey numbers for the unemployed, those working part-time but who would rather be working full-time (that is, involuntary part-time), and those who have stopped looking for work but would rather be holding a job.²⁴ Such an indicator provides a more nuanced sense of the health of the labour market, measuring to some degree the quality of the employment.

RECOMMENDATION #4: DEVELOP SPECIFIC DEMAND-SIDE LMI GATHERING TOOLS

Another major gap in the present LMI is better information about the demand-side, in particular what skills employers seek, and more generally, their recruitment, hiring and advancement practices.

The Job Vacancy Statistics, with their upcoming improvements, will provide better local data, as well as insights about the expected level of educational attainment for a particular hiring. As well, all the municipalities conduct an employer census for their area, gathering such information about current jobs as the industry as well as the size of the establishment.

But there is more that is required, in particular what specific skills are in demand. It might be worth the effort to consider a common employer survey for the GTA, one that focused on more qualitative insights into local employers, in particular their future hiring intentions, their assessment of the importance of various types of skills, their training needs and barriers to training, and other human resources considerations. With a wide consortium supporting the survey, it may be possible to achieve considerable reach, sufficient to make up for the fact that the survey was not a randomized sample.

The idea and the approach for underemployment is taken from Angella MacEwen, who is a Senior Economist with the Canadian Labour Congress. She wrote an extended piece about underemployment on the CLC website, entitled: "Underemployment is Canada's Real Labour Market Challenge," at http://www.canadianlabour.ca/news-room/publications/underemployment-canadas-real-labour-market-challenge.

Another potential source of demand-side information is *Magnet*, the recently developed career networking and job matching platform. The Ontario government has signaled its interest in this technology by investing almost \$1.2 million in its expansion. The value of Magnet lies in the depth of information which is collected regarding jobs being posted, and its ability to relay that information in near real-time. The only limitation on this function is the proportion of employers who eventually choose to publicize their job openings on this site. The best job board is the one with the largest number of job candidates and the largest number of job postings. Were it to reach sufficient scale, Magnet could also serve the additional purpose of providing useful analytics about both the current supply and current demand sides of the labour market equation in a given geography.

RECOMMENDATION #5: DEVELOP DEEPER, QUALITATIVE DEMAND-SIDE LMI

The overall assessment of the LMI that is available is that there is likely sufficient data, especially given that the current data is hardly all used. Certainly there is further data that warrants collecting, but a more pressing challenge is making sense of the current labour market dynamic. To do so would require far more qualitative investigation and analysis. In short, there is a great need to explain the data, and the way to do so requires interviewing a large cross-section of informants, especially employers.

Employers, even in the same industry subsector, bring different practices to bear in how they carry out their functions, such as the title representing an occupation, the tasks that are assigned to a given occupation, the company's human resources approach and, indeed, their entire business model (do they sub-contract out work, hire temporary workers, or invest in training). These all have an impact on what skills are sought for a given occupation, what is the level of pay, and what career advancement opportunities are present in that particular workplace. Such insights cannot be deduced from the data, and in any case they would be washed out as each set of practices when combined results in an average figure and not an appreciation of significant variations between employers. To acquire such information requires interviews, and to get a sense of the variety of practices within an industry subsector requires a dozen or more interviews.

The most appropriate candidates to take on this task are the workforce planning boards, because that is precisely what they are mandated to do: "workforce planning boards gather intelligence about the supply of labour and the demand side of the local labour market by working with employers to identify and meet their current and emerging skills needs." Currently, they are required to produce annual reports that act as a kind of "state of the local labour market," highlighting certain data indicators. A further helpful exercise would be for them to dive much deeper into a couple of industry subsectors, combining both quantitative number-crunching as well as qualitative inquiry, to get a much fuller insight. This is the type of LMI which most appears lacking among all that is available.

²⁵ From the website for Workforce Planning Ontario http://www.workforceplanningontario.ca/, accessed March 19, 2015.

RECOMMENDATION #6: PROMOTING A SINGLE, SUPER LMI PORTAL? NO

This report has identified a number of websites that are key entry points to the range of labour market information relevant to the Greater Toronto Area, as well as many other websites that would be of use to individuals seeking LMI relating to the GTA. The natural question would be, is there value to developing one single, "super" LMI portal, the natural starting point for anyone searching for LMI in Toronto?

The likely answer is no. LMI is so varied, and those seeking LMI have such different needs, that it is unlikely that one could develop the perfect LMI portal. Currently, there are a number of useful starting points, each with their own strengths. Perhaps the best solution would be to create a common description or common roadmap of the key websites available and post it on each of these websites, so that searchers can easily orient themselves to the available options and choose the website that best meets their needs.

As well, keepers of the current LMI portals and websites should review their product with an eye to ensuring that there exists a simple guide or roadmap for their website, that throughout their site there is reliance on accessible language, and that where possible, simple explanations as well as access to more in-depth narratives are provided.