



Investigating literacy, education, and language levels in Hamilton

Prepared for
Adult Basic Education Association

In

September 2024

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Introduction

Overview

This report has been prepared by Research Associates from the McMaster Research Shop at the request of the Adult Basic Education Association of Hamilton (ABEA). The [Adult Basic Education Association of Hamilton](#) (ABEA) is an adult learning network that supports adults in lifelong learning. For instance, they “help people, programs and businesses” map educational pathways and support the development of adult upgrading programs. In a recent Literacy Community Planning meeting, Literacy and Basic Skills program managers indicated a need for up-to-date information on Hamilton’s literacy, language and education levels. Much existing information is national and dated. As such, they partnered with the McMaster Research Shop to answer the following questions:

Research Questions:

1. What are the current levels of literacy rates, educational attainment and language levels in Hamilton?
2. How do these variables (Hamilton literacy rates, educational attainment and language levels) relate to people’s income source (e.g., unemployed, underemployed, or receiving social assistance)?

This report summarizes the results of our investigation, highlighting both what’s known and what’s *not* known about local literacy rates and how this intersects with other socio-economic variables.

Context

According to Statistics Canada (2011), almost 1 in 2 Canadians have reading and writing skills below a grade 12 level. Though this information is dated, Canada recently acquired a “C” grade on literacy skills by the Conference Board of Canada (2023), trailing behind the performance of international peer countries, such as Sweden and Australia.

In the context of community planning, literacy and basics skills programs may play an important role in enhancing the public's literacy skills. However, to effectively evaluate the impact of these services, it is useful to have established benchmarks for literacy and basic skill levels within a community as a way to track improvements. This is what we set out to do for the city of Hamilton, Ontario.

What is Literacy?

The Adult Basic Education Association references both the “Skills for Success” (Canada, 2024) and the Ontario Adult Literacy Curriculum Framework (OALCF) when defining and measuring literacy competencies (Government of Ontario, n.d.).

The Ontario Skills for Success initiatives were intended to support the design and delivery of Literacy and Basic Skills (LBS) training in alignment with the Ontario Adult Literacy Curriculum Framework. The Skills for Success include competencies important for building foundational knowledge and social interactions. They include adaptability, collaboration, communication, creativity and innovation, digital literacy, numeracy, problem solving, reading and writing. The OALCF builds on these broad competency areas, by outlining tasks in competency areas, to show how literacy learning transfers to goal-related activities (Government of Ontario, n.d.).

Methods

The research team conducted an online scan to better understand adult literacy rates, educational attainment, and language levels in Hamilton. We examined both academic and grey literature from various databases, including Web of Science, JSTOR, PubMed, Google Scholar, and SIREN. We also reviewed federal and provincial grey literature available online (e.g., census data, reports, policies) and considered materials provided by the community partner.

We prioritized sources based on timeliness (published or data collected within the last 10 years), relevance (how well the data or analysis captured the information on variables of interest), and locality (if the data was Hamilton-specific or whether it could be extrapolated to Hamilton). Our exploratory scan identified both primary data sources, such as open-source datasets (e.g., census and survey data), and secondary sources, including published literature examining primary indicators (literacy rates, educational attainment, and language level), and their relationship to the secondary variable (income source).

In total, we reviewed 9 primary data sources and included 4 in the final analysis. We also reviewed 8 secondary sources and included 3 in the final analysis. We excluded sources that were outdated, not specific to Hamilton, or irrelevant to our focus.

The primary datasets we consulted include:

1. [Open Hamilton Data: Hamilton Language Levels](#), 2023, Municipal Level
2. [Statistics Canada: Educational Attainment](#), 2019-2023, National Level
3. [Open Hamilton Data: Hamilton Educational Attainment](#), 2023, Municipal Level
4. [Statistics Canada: Income Source x Language Levels](#), 2023, Provincial Level

Findings

Hamilton Literacy Rates, Education Levels, and Language Levels

Literacy Rates

Our research found no recent or specific data on adult literacy rates in Hamilton. All available information from primary and secondary sources was outdated and did not provide a current picture of literacy rates among Hamilton's adult population. This suggests that local data collection efforts may not have focused on literacy in recent years. This gap may be due to limited municipal resources and funding for research and/or the prioritization of other educational metrics, such as educational attainment. It is also possible that this data is being collected (e.g., by the school board) but it is not publicly available.

Education Levels

Overall, 10.4% of the population has not completed any formal education, while 24.7% have attained only a high school diploma. A substantial portion, 26.2%, hold a college diploma, and 31% have achieved a bachelor's degree or higher.

The distribution of educational attainment highlights notable trends and disparities across different wards (City of Hamilton, 2023b). Notably, Wards 3 (18.9%), 4 (17%), 5 (14.1%), and 2 (13.4%) exhibit the highest percentages of residents without a high school diploma. Conversely, Wards 12 (3.6%), 15 (4.6%), and 13 (5.7) report the lowest percentages of individuals without high school education, while having the highest percentages of residents with a bachelor's degree or higher (Ward 12: 48.2%; Ward 15: 41.2%; Ward 13: 40.8%), possibly suggesting a more educated demographic in these areas. Ward 1 reported the highest percentage (50.9%) of those with a bachelor's degree or higher, also suggesting a highly educated demographic.

Language Levels

In Hamilton, language levels reveal a clear predominance of English (City of Hamilton, 2023e). A significant 92.3% of residents report knowing English, while only 0.1% know French, and 5.8% know both English and French. A small fraction, 1.8%, know neither language. Regarding mother tongue, 71.3% of residents speak English as their first language, and just 1.1% speak French. Non-official languages are the first language for 24% of the population. When it comes to the most frequently spoken language, 83.3% use English, 0.4% speak French, and 12.5% communicate in non-official languages. Wards 2 (3.3%) and 5 (3.1%) are home to the highest percentage of Hamiltonians that do not speak either official language.

Information about language proficiency, either written or oral, for the City of Hamilton was unavailable.

Relationship between variables of interest and income source

We found no research or data that directly associates Hamilton literacy rates, educational levels, or language levels to income source at the population level. However, we were able to look at patterns between income levels and reliance on social assistance and educational attainment *between Wards*. Wards 3 and 4, which report higher percentages of social assistance beneficiaries and lower average incomes, have higher rates of residents without a high school diploma (City of Hamilton 2023d; City of Hamilton 2023f). In contrast, more affluent wards like Ward 12, with the one of the highest average income and lowest reliance on social assistance, show the highest educational attainment levels (City of Hamilton 2023d; City of Hamilton 2023f).

2021 census data also provided insights into a potential relationship between Hamilton residents' linguistic profiles and their income levels, categorized into four groups: English-only speakers, French-only speakers, bilingual (English and French) speakers, and those who spoke neither. The data showed that bilingual individuals earned an average total income of \$64,800, the highest among all language groups measured and 12% more than the average income of all census participants. In contrast, those speaking neither language had an average total income of \$24,680, the lowest among all language groups measured and 57% less than the average income of all census participants. Individuals that spoke only English and individuals that spoke only French had an average total income of \$57,750 and \$40,400, respectively.

Discussion

Gaps in Existing Research

Our primary finding from this research is that most of the information we were seeking *does not* exist for Hamilton. For one, there is a lack of current and specific data on literacy rates among Hamiltonians, which limits our ability to accurately assess literacy levels and their relationship to secondary factors including income. Although information on educational and language levels among Hamiltonians was available, there was no research or data linking these variables to income source. Language level data was further limited to known languages and languages spoken at home (e.g., respondents to the 2021 answered Y/N to knowing English), not the level of language proficiency, which is needed to understand the full picture of language levels (and its implications) in the city.

Other Possible Determinants of Geographic Differences in Education and Language Levels

Our observation of variations in educational and language levels across Hamilton's wards may be attributed to factors other than income source including the built environment, immigration, and other socioeconomic factors. These are merely

observations and not meant to draw firm conclusions about the nature of the demographics in these areas.

Wards 2, 3, 4 and 5 – wards with the lowest educational attainment – happen to be situated in Hamilton’s urban core (City of Hamilton, 2024). These regions also tend to have more industrial/commercial areas and are more densely populated. These industrial areas might attract a workforce with lower educational requirements due to the proximity of industry jobs. They are also areas where housing costs are likely lower due to a comparative lack of green spaces, high levels of air pollution, and other disadvantages. Conversely, Ward 1, an urban ward that is home to McMaster University and McMaster Children’s Hospital, may attract a more educated populace due to the educational requirements of local employers (City of Hamilton, 2024). Rural and semi-urban wards like Wards 12, 13, and 15, which report lower percentages of residents without a high school diploma, may offer more affluent, residential environments that are exclusive to those with higher educational achievement (and thus likely higher paying jobs).

Likewise, urban wards also have higher percentage of immigrants, particularly recent immigrants. New immigrants may face language barriers, financial constraints, and other challenges that limit their ability to pursue or complete formal education. In contrast, wards with lower percentages of recent immigrants, such as more educated Wards 12 (0.6%), 13 (0.9%), and 15 (0.5%), may have more established populations with greater access to education (City of Hamilton, 2023a).

The higher percentage of residents in Wards 2 and 5 who do not speak either official language (3.3% and 3.1%, respectively) can be linked to the relatively high percentage of recent immigrants in these areas. Ward 2, with 7.6% recent immigrants, and Ward 5, with 4.5%, both exceed the city's average of 3.6% recent immigrants (City of Hamilton, 2023a). The influx of newcomers who may not yet be proficient in English or French likely contributes to the greater prevalence of non-official language speakers in these wards.

Opportunities for Further Research

Our research has identified several key areas where further investigation could significantly enhance our understanding of literacy, education, and language levels in Hamilton and their relationship to income sources:

1. **Comprehensive Literacy and Language Proficiency Assessment:** Our scan overwhelmingly highlights the need for a city-wide study to assess current adult literacy rates and language proficiency levels in Hamilton. Ideally, this research should use standardized tools aligned with the Skills for Success and OALCF frameworks to measure literacy. Including a longitudinal component would allow for tracking changes over time, providing valuable insights into the effectiveness of interventions and broader socioeconomic trends. Benchmarking Hamilton's performance against similar-sized cities would offer a comparative analysis,

placing the city's literacy landscape in a broader context. While a comprehensive city-wide assessment would be ideal, we recognize that this may be beyond the current capabilities of ABEA and its network. However, even smaller-scale assessments focused on specific demographics or areas could provide valuable data to guide literacy initiatives.

2. Relationship Between Socioeconomic Factors and Variables of Interest:

Although we identified some interesting patterns between income levels/sources, educational attainment, and language profiles, this provides only a partial picture. Further research is needed to directly examine correlations between income sources (employment, social assistance, etc.) and the dependent variables of interest (literacy, education, and language levels). Special attention should be paid to recent immigrants as a population of interest, given their unique challenges and potential needs. Recognizing that rigorous local surveying and analysis may be beyond ABEA's current reach, we suggest reviewing available published research on these associations at different levels of analysis (assuming they're available), such as national or within other municipalities/jurisdictions. Findings from these broader contexts could then be used to infer potential patterns in Hamilton and prioritize support for particular populations. Incorporating a qualitative component would be invaluable in understanding personal experiences and perceptions related to literacy, education, and language barriers, adding depth and nuance to the quantitative data.

3. Targeted Ward-Level Analysis: Conduct further research in specific wards (e.g., Wards 2, 3, 4, and 5) that have shown lower educational attainment and higher percentages of non-official language speakers. This research should identify unique challenges and opportunities within these wards; examine the interplay between factors such as industrial proximity, housing costs, immigration patterns, and educational outcomes; and result in ward-specific strategies for improving literacy, education, and language proficiency.

Conclusion

This research project set out to examine the current levels of literacy rates, educational attainment, and language levels in Hamilton, as well as their relationship to income sources. Our findings reveal significant gaps in available data, particularly regarding current literacy rates and direct correlations between our variables of interest and income sources.

Key findings include:

- A lack of recent, Hamilton-specific data on adult literacy rates
- Variations in educational attainment across Hamilton's wards, with some urban core areas showing lower levels of educational achievement

- A predominance of English speakers in Hamilton, with small but significant populations speaking neither official language, particularly in certain wards.

While we could not establish direct relationships between literacy, education, and language levels with income sources due to data limitations, our ward-level analysis suggests potential connections between these factors. Wards with lower educational attainment tend to have higher percentages of social assistance recipients and lower average incomes.

The gaps in existing research highlight the need for more comprehensive, Hamilton-specific studies on literacy and its related factors. Overall, this report underscores the importance of up-to-date, localized data for informed decision-making in adult education and literacy programming. By addressing the identified research gaps, Hamilton can better tailor its educational initiatives to meet the diverse needs of its population, ultimately working towards improved literacy, educational attainment, and language proficiency across all communities.

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