The Canadian Index of Multiple Deprivation: User Guide

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Correction notice

The population counts have been revised with the appropriate version. The appropriate version of population data was used to calculate the 2016 and 2021 CIMD indices and the CIMD scores and quintiles are correct. The adjustment to the files does not affect the "fitness for use".

Acknowledgements

This project has benefited from the input and comments of many participants.

In particular, the Canadian Centre for Justice Statistics (CCJS) at Statistics Canada gratefully acknowledges the contributions of Dr. Flora Matheson, Dr. Jim Dunn of St. Michael's Hospital, and their team. Together, they developed the 2006 Canadian Marginalization Index, which was the inspiration for the Canadian Index of Multiple Deprivation (CIMD). Dr. Matheson and her team were consulted about the inception of the CIMD and continuously provided valuable feedback and support throughout its development.

Additionally, CCJS also acknowledges the contributions of several divisions at Statistics Canada, including the Social Statistics Methods Division, the International Cooperation and Methodology Innovation Centre, the Dissemination Division, the Standards Division, the Social and Aboriginal Statistics Division, and the Census Operations Division.

The Canadian Index of Multiple Deprivation: User Guide

Background of the Canadian Index of Multiple Deprivation

By their very nature, measures of deprivation and marginalization can be difficult to analyze through traditional administrative data sources simply because certain populations of interest may not be well-represented. The use of area-based, geographically derived indexes, however, have a long history and are increasingly used in social population research (e.g., health, education and justice). One of the benefits of these indexes is that they can provide information for even the most marginalized populations.

One such index, developed by the research team, led by Dr. Flora Matheson at St. Michael's Hospital, is the 2006 Canadian Marginalization Index (CAN-Marg) (Matheson et al. 2012b). Having used the 2006 CAN-Marg to inform research concerning issues of overrepresentation in the justice system, the Canadian Centre for Justice Statistics (CCJS) at Statistics Canada worked in collaboration with Dr. Matheson and her team to develop a revised index using the most recent microdata from the 2016 Census of Population.

As part of the 2016 index, it was decided to develop both national and provincial/regional indexes. As a result of the change in scope to include these sub-national indexes, the methodology employed in the process varied from that used for the 2006 CAN-Marg. Given the nature and extent of the changes relative to the 2006 CAN-Marg, the 2016 index was renamed the "Canadian Index of Multiple Deprivation" (CIMD). In addition, the four associated dimensions of deprivation were also revised and re-named to ensure a better reflection of the data included within each dimension. The new dimensions of deprivation included in the CIMD are: residential instability, economic dependency, ethno-cultural composition and situational vulnerability.

It should be noted that the CAN-Marg and the CIMD share a similar foundation, and they should be viewed as complementary data sources. While the CAN-Marg is longitudinal in nature, using the same census variables across iterations of the index to allow for comparisons across time, the CIMD accounts for the evolving nature of the variables associated with marginalization and provides users with a dynamic cross-sectional view of deprivation.

The information in this user guide outlines uses for the index as well as a brief description of the methodology behind the development of all included indexes. This user guide also provides instructions on how to use the index, considerations when using the CIMD data, as well as instructions for citing the index.

Uses for the index

The CIMD allows for an understanding of inequalities through various measures of social well-being, including health, education and justice. While it is a geographically-based index of deprivation and marginalization, it can also be used as a proxy for an individual.[1] When coupled with a research file, the CIMD can be used for comparisons by geographical location or by selected sub-groups (e.g., males versus females, offenders versus non-offenders, etc.). As a result, the CIMD has the potential to be widely used by researchers on a variety of topics related to socio-economic research. Other uses for the index include:

1. **Policy planning and evaluation.** The CIMD serves as an area-based measure of socio-economic conditions and, as such, it can help to better understand social inequalities by region, especially outside major urban centres for which data may not be as readily available. For example, if the objective is to better understand neighbourhoods requiring a need for more affordable housing, the CIMD could help identify neighbourhoods in need of additional resources.

2. **Research and analysis.** The CIMD can be used as a proxy for individual-level information, meaning that information is available for various populations of interest. As a result, the CIMD could be used to analyze various issues, such as the socio-economic inequalities between offenders who have one contact with the criminal justice system versus those who have repeated contact.

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1. This area-based index has the potential for ecological fallacy since not everyone who lives in a DA identified as a being deprived is necessarily deprived. That said, where no comprehensive individual information is readily available, the index can provide coverage for the population and can add contextual information for analysis.

3. **Resource allocation.** As a geographical measure of health and social well-being, the CIMD can be used to identify marginalized communities and allow for better allocation of resources. For instance, in light of the recent opioid crisis in many areas of Canada, the CIMD could be used to better understand characteristics of areas in which overdoses appear to be highest, and therefore assist in the planning and allocating of resources that are required and help reduce the number of instances.

Methodology

To create the CIMD, microdata from the 2016 Census of Population were used to derive indicators at the dissemination area (DA)-level. A DA is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks[2] where populations generally range from 400 to 700 persons. DAs cover all the territory of Canada, and are the smallest standard geographic area for which all census data are disseminated. Using data from the provinces, the index provides information for 54,775 DAs. For more information on the Census of Population, see Statistics Canada 2016.

Creating the four dimensions of deprivation

Factor analysis, which summarizes data so that relationships and patterns can be easily interpreted and understood, was used for the CIMD. This statistical technique reduces a large number of variables into a few numbers of factors by grouping variables into distinct themes. It allows researchers to investigate concepts that are not easily measured by collapsing a large number of variables into a few interpretable factors. In factor analysis, each factor captures a certain amount of overall variation in the observed variables. The factors that explain the least amount of variance are typically discarded.[3]

For the purpose of the CIMD, thirty-seven variables were chosen for the preliminary model. These variables were selected because of their known association with deprivation and marginalization, as established by the CAN-Marg and through consultations with subject matter experts. Some variables were conceptually similar to others, so a preliminary factor analysis was conducted to identify variables that were found to be related to multiple themes. These variables were subsequently removed, resulting in 24 initial input variables (Appendix A). The next step was to remove variables that were not significantly correlated with any factors. This resulted in 17 variables contributing to the four dimensions of deprivation for the national index (Figure 1).

A separate factor analysis was conducted for the national index and each of the provincial/regional indexes. The following section provides specifics for each index.

Dimensions and corresponding indicators

As previously mentioned, the four dimensions of deprivation included in the CIMD are: residential instability, economic dependency, ethno-cultural composition and situational vulnerability. Each dimension, as described below, encapsulates a comprehensive range of concepts, providing the user with multi-faceted data to examine different aspects of deprivation.

The first dimension of deprivation, **residential instability,** speaks to the tendency of neighbourhood inhabitants to fluctuate over time, taking into consideration both housing and familial characteristics. For example, the indicators in this dimension at the national-level measure concepts such as the proportion of the population who have moved in the past five years, the proportion of persons living alone, and the proportion of occupied units that are rented rather than owned.

Economic dependency, the second dimension of deprivation in the CIMD, relates to reliance on the workforce, or a dependence on sources of income other than employment income. For example, the indicators included in this dimension, at the national-level, measure concepts such as the proportion of the population aged 65 and older, the dependency ratio (the population aged 0-14 and population aged 65 and older divided by the population aged 15-64), and the proportion of the population not participating in the labour force.
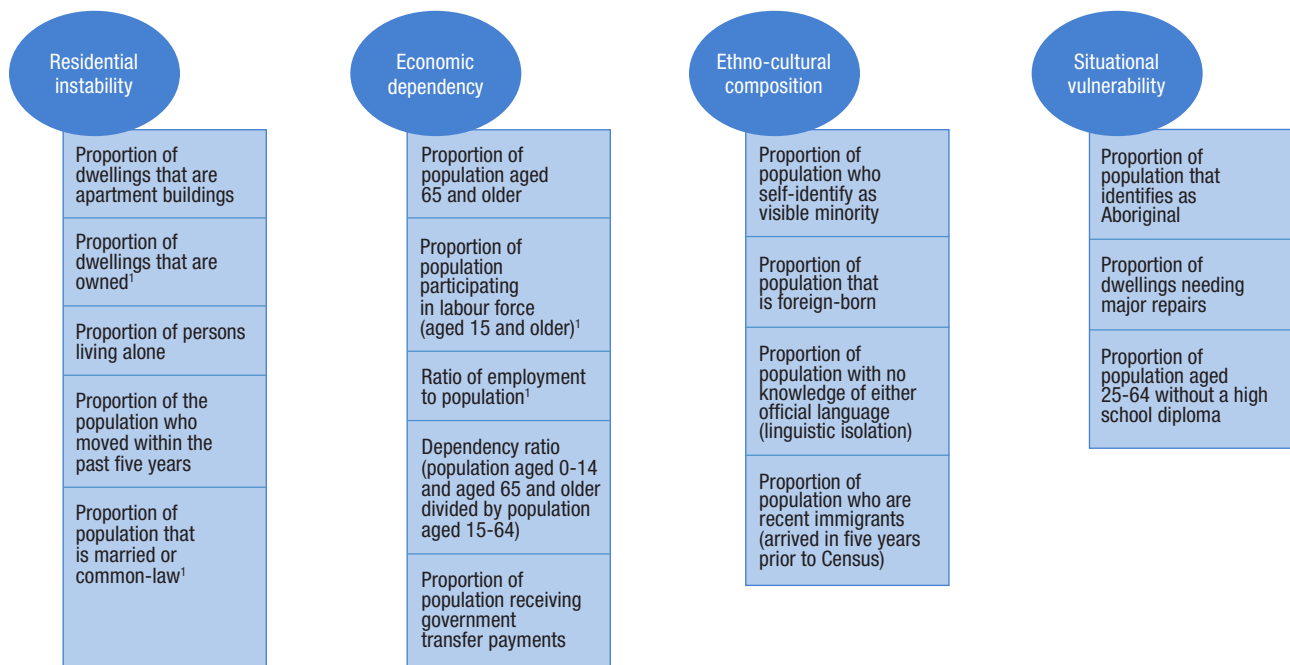
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2. A dissemination block is an area bounded on all sides by roads and/or boundaries of standard geographic areas. Dissemination blocks cover all of Canada.
3. For more in-depth information on factor analysis, refer to (Kim and Mueller 1978a), (Kim and Mueller 1978b) and (O'Rourke and Hatcher 2014).

The third dimension of deprivation is **ethno-cultural composition**. This dimension refers to the community make-up of immigrant populations, and at the national-level, for example, takes into consideration factors such as the proportion of population who are recent immigrants, the proportion of the population who self-identified as visible minority,[4] the proportion of the population born outside of Canada, and the proportion of the population with no knowledge of either official language (linguistic isolation).

Situational vulnerability is the fourth dimension represented in the CIMD, speaks to variations in socio-demographic conditions in the areas of housing and education, while taking into account other demographic characteristics. For example, the indicators in this dimension at the national-level measure concepts such as the proportion of the population aged 25 to 64 without a high-school diploma, the proportion of the population identifying as Aboriginal, and the proportion of dwellings needing major repairs.

Figure 1
The four dimensions of multiple deprivation and their corresponding indicators, Canada, 2016

Residential instability	Economic dependency	Ethno-cultural composition	Situational vulnerability
Proportion of dwellings that are apartment buildings	Proportion of population aged 65 and older	Proportion of population who self-identify as visible minority	Proportion of population that identifies as Aboriginal
Proportion of dwellings that are owned[1]	Proportion of population participating in labour force (aged 15 and older)[1]	Proportion of population that is foreign-born	Proportion of dwellings needing major repairs
Proportion of persons living alone	Ratio of employment to population[1]	Proportion of population with no knowledge of either official language (linguistic isolation)	Proportion of population aged 25-64 without a high school diploma
Proportion of the population who moved within the past five years	Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)	Proportion of population who are recent immigrants (arrived in five years prior to Census)	
Proportion of population that is married or common-law[1]	Proportion of population receiving government transfer payments		

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of population that is married or common-law becomes proportion of population that is single, divorced, separated or widowed.
Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage. Excludes the territories.

Provincial and regional indexes

In addition to the national index, three provincial and two regional indexes were developed. The provincial indexes include: Quebec, Ontario and British Columbia. Given confidentiality and data quality considerations, data for the Atlantic provinces, and the Prairie provinces were grouped to create indexes at the regional-level. Specifically, the CIMD is available for the Atlantic region (Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick), and the Prairie region (Manitoba, Saskatchewan and Alberta). The Territories (Yukon, Northwest Territories and Nunavut) were excluded from the analysis, as the factors which were found to be relevant in the provinces were not found to be applicable in the territorial context.

4. As per the standard Statistics Canada definition, the *Employment Equity Act* defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour."

In order to create the provincial and regional indexes, the 24 initial input variables that were associated with the four dimensions of deprivation at the national-level were used as the starting point. From there, the same process of factor analysis that was used for the national index was performed using the corresponding microdata for each of the three provinces and two regions.

Provincial and regional indexes were created as a result of different indicator variables loading within the four dimensions of deprivation for each province and region. For example, the variable related to single parent families is an indicator of deprivation within the dimension of situational vulnerability for British Columbia, but not at the national-level. These individual indexes, therefore, better illustrate differences of deprivation—as well as inequalities in various measures of socio-economic characteristics—within the different provinces and regions.

When to use the national or provincial and regional indexes

It is important to note that provincial and regional indexes should not be direct comparisons, as the variables included within each of the four dimensions varies depending by index. For comparability across provinces and regions, the national-level CIMD should be used.

Defining the area of study can help determine which index to use–the national index or a specific provincial or regional index. For example, to compare areas of deprivation between provinces or regions, or between Canada and a selected province or region, then the national index should be used, since the variables included in each dimension of deprivation are constant for all areas. Although DAs and provincial/regional scores appear in both the national index as well as the respective provincial and regional index, factor scores, quintile values and indicator variables will differ depending on the index.

The provincial and regional indexes should be used when users are interested in comparing levels of deprivation for DAs **within** a certain province or region, as they provide a finer level of granularity. For instance, to compare residential instabilities within major cities in a specific province, then the index for that specific province should be used. For information specific to a province included in a regional index, the province variable within the CIMD file can be used to isolate the requisite DAs for the selected province.

The figures that follow illustrate the variables that loaded into the four dimensions of deprivation for each of the provincial and regional indexes.

The Canadian Index of Multiple Deprivation: Atlantic region

In the Atlantic region, which includes Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick, 17 of the 24 input variables were found to be associated with the four dimensions of deprivation (Figure 2). In total, data are available for 4,377 DAs in the Atlantic region.

Figure 2
The four dimensions of multiple deprivation and their corresponding indicators, Atlantic region, 2016

Residential instability	Economic dependency	Ethno-cultural composition	Situational vulnerability
Proportion of persons living alone	Proportion of population aged 65 and older	Proportion of population who are recent immigrants (arrived in five years prior to Census)	Proportion of population that identifies as Aboriginal
Proportion of dwellings that are owned[1]	Proportion of population participating in labour force (aged 15 and older)[1]	Proportion of population with no knowledge of either official language (linguistic isolation)	Proportion of dwellings needing major repairs
Proportion of dwellings that are apartment buildings	Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)	Proportion of population that is foreign-born	Proportion of population aged 25-64 without a high school diploma
Proportion of population that is married or common-law[1]	Ratio of employment to population[1]	Proportion of population who self-identify as visible minority	
Proportion of the population who moved within the past five years	Proportion of population receiving government transfer payments		

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of population that is married or common-law becomes proportion of population that is single, divorced, separated or widowed.
Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage. The Atlantic region includes the provinces of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick.

The Canadian Index of Multiple Deprivation: Quebec

In Quebec, 18 of the 24 input variables were found to be associated with the four dimensions of deprivation (Figure 3). Data are available for 13,410 DAs in Quebec.

Figure 3
The four dimensions of multiple deprivation and their corresponding indicators, Quebec, 2016

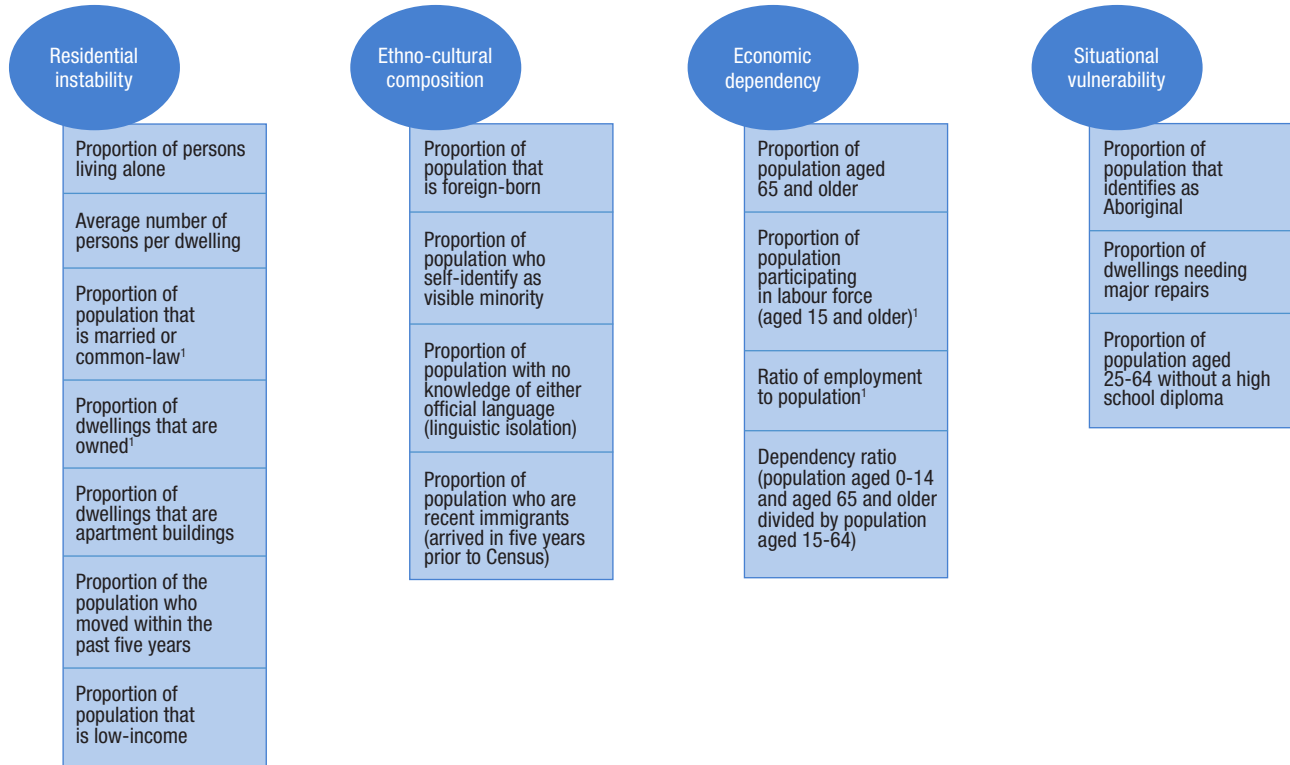| Residential instability	Ethno-cultural composition	Economic dependency	Situational vulnerability
Proportion of persons living alone	Proportion of population that is foreign-born	Proportion of population aged 65 and older	Proportion of population that identifies as Aboriginal
Average number of persons per dwelling	Proportion of population who self-identify as visible minority	Proportion of population participating in labour force (aged 15 and older)[1]	Proportion of dwellings needing major repairs
Proportion of population that is married or common-law[1]	Proportion of population with no knowledge of either official language (linguistic isolation)	Ratio of employment to population[1]	Proportion of population aged 25-64 without a high school diploma
Proportion of dwellings that are owned[1]	Proportion of population who are recent immigrants (arrived in five years prior to Census)	Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)	
Proportion of dwellings that are apartment buildings			
Proportion of the population who moved within the past five years			
Proportion of population that is low-income			

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of population that is married or common-law becomes proportion of population that is single, divorced, separated or widowed.
Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage.

The Canadian Index of Multiple Deprivation: Ontario

In Ontario, 17 of the 24 input variables were found to be associated with the four dimensions of deprivation (Figure 4). Data are available for 19,893 DAs in Ontario.

Figure 4
The four dimensions of multiple deprivation and their corresponding indicators, Ontario, 2016

Residential instability
- Proportion of dwellings that are apartment buildings
- Proportion of dwellings that are owned[1]
- Proportion of persons living alone
- Proportion of the population who moved within the past five years
- Proportion of population that is married or common-law[1]

Economic dependency
- Proportion of population aged 65 and older
- Proportion of population participating in labour force (aged 15 and older)[1]
- Ratio of employment to population[1]
- Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)
- Proportion of population receiving government transfer payments

Ethno-cultural composition
- Proportion of population that is foreign-born
- Proportion of population who self-identify as visible minority
- Proportion of population with no knowledge of either official language (linguistic isolation)
- Proportion of population who are recent immigrants (arrived in five years prior to Census)

Situational vulnerability
- Proportion of population that identifies as Aboriginal
- Proportion of population aged 25-64 without a high school diploma
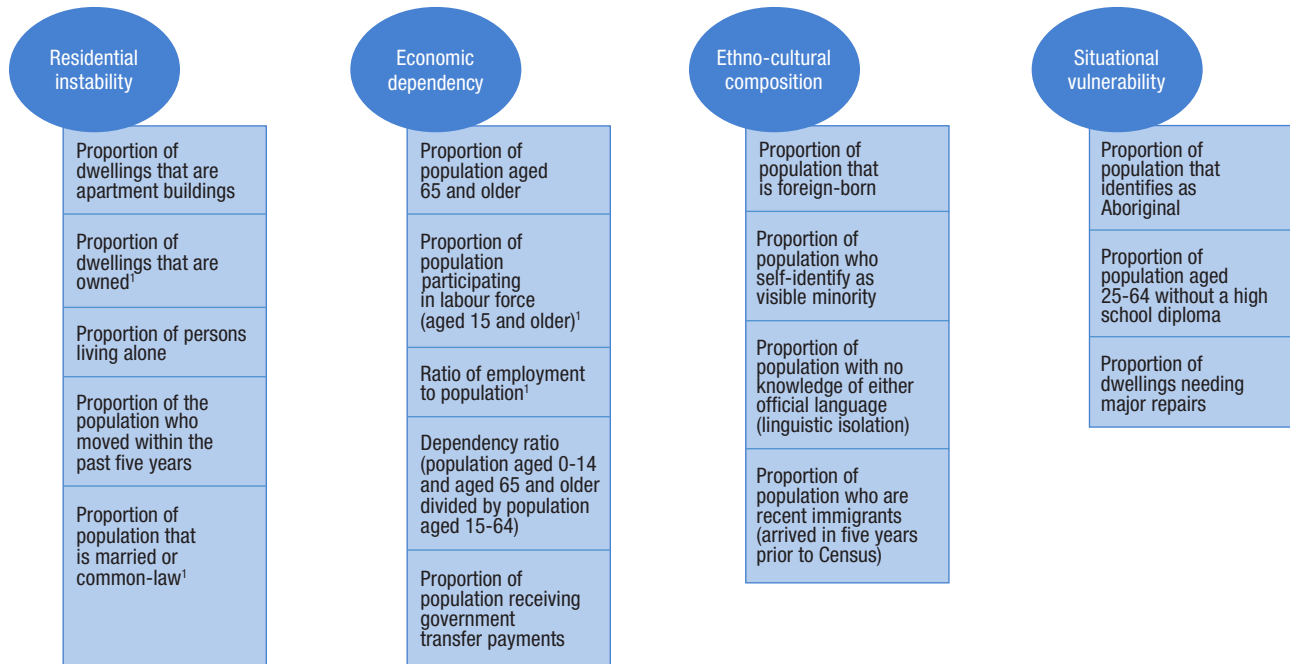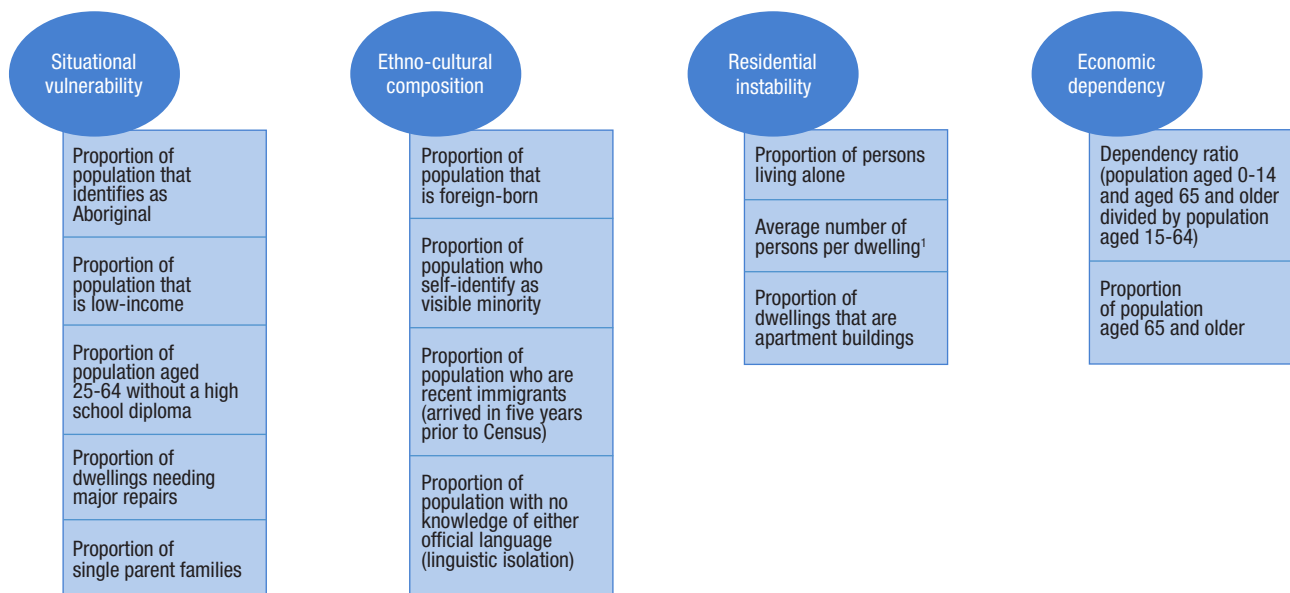- Proportion of dwellings needing major repairs

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of population that is married or common-law becomes proportion of population that is single, divorced, separated or widowed.

Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage.

The Canadian Index of Multiple Deprivation: Prairie region

In the Prairie region, which includes Manitoba, Saskatchewan and Alberta, 14 of the 24 input variables were found to be associated with the four dimensions of deprivation (Figure 5). In total, data are available for 9,891 DAs in the Prairie region.

Figure 5
The four dimensions of multiple deprivation and their corresponding indicators, Prairie region, 2016

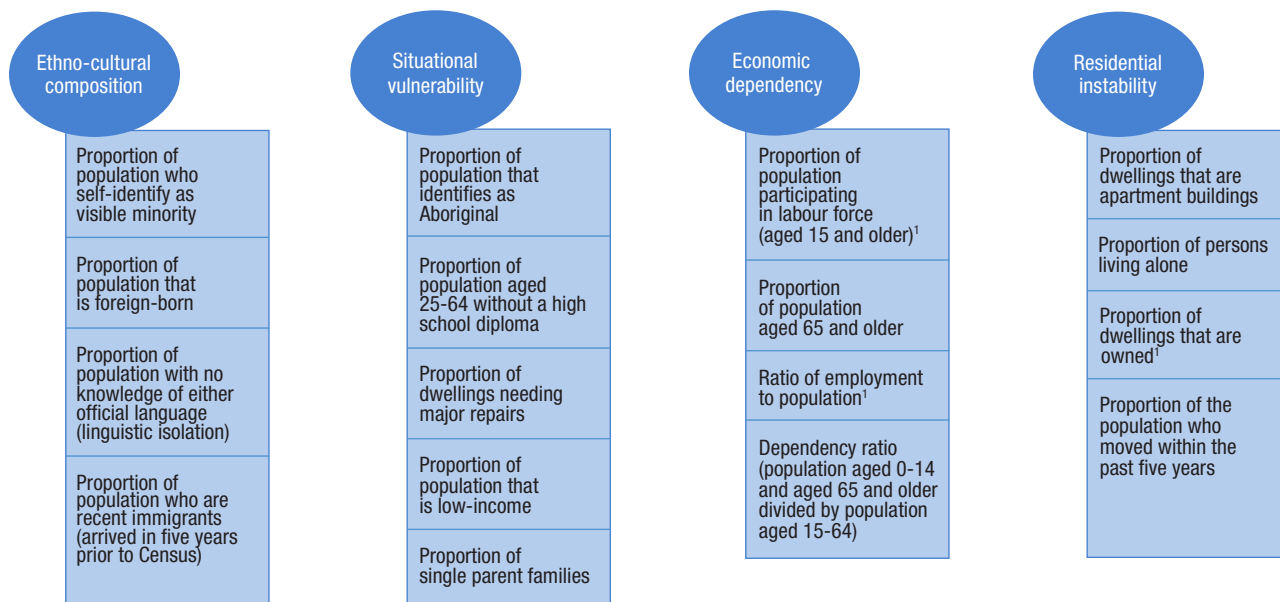| Situational vulnerability	Ethno-cultural composition	Residential instability	Economic dependency
Proportion of population that identifies as Aboriginal	Proportion of population that is foreign-born	Proportion of persons living alone	Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)
Proportion of population that is low-income	Proportion of population who self-identify as visible minority	Average number of persons per dwelling[1]	Proportion of population aged 65 and older
Proportion of population aged 25-64 without a high school diploma	Proportion of population who are recent immigrants (arrived in five years prior to Census)	Proportion of dwellings that are apartment buildings	
Proportion of dwellings needing major repairs	Proportion of population with no knowledge of either official language (linguistic isolation)		
Proportion of single parent families			

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of persons living alone becomes proportion of persons who do not live alone.
Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage. The Prairie region includes the provinces of Manitoba, Saskatchewan and Alberta.

The Canadian Index of Multiple Deprivation: British Columbia

In British Columbia, 17 of the 24 input variables were found to be associated with the four dimensions of deprivation (Figure 6). Data are available for 7,204 DAs in British Columbia.

Figure 6
The four dimensions of multiple deprivation and their corresponding indicators, British Columbia, 2016

Ethno-cultural composition	Situational vulnerability	Economic dependency	Residential instability
Proportion of population who self-identify as visible minority	Proportion of population that identifies as Aboriginal	Proportion of population participating in labour force (aged 15 and older)[1]	Proportion of dwellings that are apartment buildings
Proportion of population that is foreign-born	Proportion of population aged 25-64 without a high school diploma	Proportion of population aged 65 and older	Proportion of persons living alone
Proportion of population with no knowledge of either official language (linguistic isolation)	Proportion of dwellings needing major repairs	Ratio of employment to population[1]	Proportion of dwellings that are owned[1]
Proportion of population who are recent immigrants (arrived in five years prior to Census)	Proportion of population that is low-income	Dependency ratio (population aged 0-14 and aged 65 and older divided by population aged 15-64)	Proportion of the population who moved within the past five years
	Proportion of single parent families		

1. This indicator was reverse-coded, meaning it was coded opposite of the measure. For example, proportion of dwellings that are owned becomes proportion of dwellings that are not owned.
Note: The dimensions are ordered such that the dimension on the left explains the highest percentage of the variance of the data and the dimension on the right explains the lowest percentage.

Analytical guidelines

For each dimension, the CIMD is provided in two forms: factor scores[5] and quintiles.

Factor scores were constructed from the factor analysis process. Lower scores for each dimension correspond to areas that are the least marginalized, while higher scores for each dimension relate to areas that are the most marginalized.

For ease of use, the CIMD also provides users with **quintile** rankings. Within each dimension, the factor scores were ordered from smallest to largest and then divided into five equally sized groups, or quintiles, and categorized from 1 through 5. A value of 1 corresponds to DAs that were the least deprived for that dimension, and a value of 5 corresponds to DAs that were the most deprived. Note that depending on a DA's characteristics, it could be the most deprived for one dimension and the least deprived for another.

Creating a composite dimension of deprivation

Depending on the research question and the geographical area of interest, it may be possible to create a composite dimension, or summary score, of deprivation using the quintile scales provided in the CIMD. In order to create a composite index, correlations between individual dimensions and the outcome would first need to be compared to determine if the associations are in the equivalent direction. If all of the dimensions are moving in the same direction, then a composite score of deprivation may be generated by summing the quintile scores across each of the dimensions, and dividing by 4. This will produce a summary score from 1 to 5, with 1 representing the least deprived and 5 representing the most deprived.

5. See section "Methodology" for additional information.

Using the index as an individual-level proxy

While the original intent of the CIMD was to act as a geographical indicator, the index can also be used as a proxy for individual-level (i.e., person-level) information.[6] For example, CCJS originally created a 2006 version of the CIMD specific to Saskatchewan in order to better understand factors that contribute to initial, as well as repeated contact, with the criminal justice system. This analysis looked at the various dimensions of deprivation (e.g., residential instability) and compared them across sub-groups of offenders, highlighting differences of deprivation among one-time offenders, repeat offenders and chronic offenders (Boyce et al. 2018). In order to achieve this, postal codes of individuals within the cohort of interest were mapped to corresponding DAs.

It should be noted that if the CIMD data will be merged with another data file where DA information is not available, clean postal code information is required. The recommended tool is the Postal Code Conversion File (PCCF)[7] which links six character postal codes to standard geographic areas such as DAs (Statistics Canada 2017). By linking postal codes to DAs, the conversion file facilitates the extraction of subsequent aggregation of data for selected DAs. As such, when postal code information is available, it is possible to link special extracts of data to various sources. For more information on the Postal Code Conversion File (PCCF), see Statistics Canada 2017.

Data considerations

Global non-response rate

For reasons of data quality, DAs with a global non-response rate equal to or greater than 50% were excluded from the factor analysis (Statistics Canada 2016).

Dissemination area suppression

All provincial DAs from the 2016 Census of Population were used in the creation of the indexes. However, for reasons of confidentiality, factor scores and quintiles were suppressed for 519 DAs with populations of less than 40 (Statistics Canada 2016). Stated otherwise, while CIMD data are available for nearly all of the provincial DAs, there is a small subset for which data are not available.

Cross-sectional data

The CIMD is based on 2016 Census of Population microdata and, as such, should not be compared with the 2006 or 2011 CAN-Marg for trend analysis. As mentioned, the CIMD is a cross-sectional index which allows users to observe the levels of deprivation and marginalization at one point in time while the CAN-Marg is longitudinal in nature, allowing for comparisons across time.

Grouping Atlantic and Prairie regions

As indicated earlier, it was necessary to group certain provinces into the Atlantic and Prairie regions for data quality reasons. As such, a unique index is not available for these provinces. However, as discussed, it is possible to use data from a specific province by separating specific provincial DAs within those regions.[8]

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6. Where no comprehensive individual information is readily available, the index can provide coverage for the population and can add contextual information for analysis.
7. Postal code is an official mark of Canada Post Corporation. The Postal Code Conversion File (PCCF) is a digital file which provides a link between the Canada Post Corporation six character postal code and Statistics Canada's standard geographic areas for which census data and other statistics are produced. Through the link between postal codes and standard geographic areas, the PCCF permits the integration of data from various sources.
8. See section on "When to use the national or provincial/regional indexes" for additional information.

Instructions for citing the data

In referencing the Index, please use the following citation:

Statistics Canada. 2019. "The Canadian Index of Multiple Deprivation". Statistics Canada Catalogue no. 45-20-0001.

For additional information on the foundations of the original Canadian Marginalization Index, the seminal work of Matheson et al. can also be referenced:

Matheson, F. I., et al. 2012. "Development of the Canadian Marginalization Index: a new tool for the study of inequality." Canadian Journal of Public Health, S12-S16.

Matheson, F. I., et al. 2011. Ontario Marginalization Index (ON-Marg): User Guide, St. Michael's Hospital.

Appendix A

Table A1
Variables from the 2016 Census of Population that were selected for inclusion in the indexes

Variable description	Factor analysis status
Proportion of persons living alone	Included
Average number of persons per dwelling	Included
Proportion of dwellings that are apartment buildings	Included
Proportion of population that is married or common-law	Included
Proportion of dwellings that are owned	Included
Proportion of population who moved within the past five years	Included
Proportion of population aged 25-64 without high school diploma	Included
Proportion of single parent families	Included
Proportion of population receiving government transfer payments	Included
Proportion of population that is low-income	Included
Proportion of dwellings needing major repairs	Included
Proportion of population aged 65 and older	Included
Dependency ratio (population aged 0-14 and population aged 65 and older divided by population aged 15-64)	Included
Proportion of population participating in the labour force (aged 15 and older)	Included
Proportion of population who are recent immigrants (arrived in five years prior to Census)	Included
Proportion of population who self-identify as visible minority	Included
Proportion of population that identifies as Aboriginal	Included
Proportion of population that is foreign-born	Included
Proportion of population with no knowledge of either official language (linguistic isolation)	Included
Proportion of population aged 15-24 not attending school	Included
Proportion of population that is self-employed	Included
Proportion of population that is female	Included
Ratio of employment to population	Included
Proportion of children younger than age 6	Included
Proportion of population that are youth (aged 5-15)	Removed
Proportion of population that is unemployed (aged 15 and older)	Removed
Residential mobility (different house as 1 year ago)	Removed
Average household income	Removed
Average dollar value of dwelling	Removed
Proportion of occupied units that are rentals	Removed
2016 population count	Removed
Average number of persons per room	Removed
Average income of individuals	Removed
Median income of individuals	Removed
Proportion of persons separated, divorced or widowed	Removed
Proportion of persons per square kilometer	Removed

Table A1
Variables from the 2016 Census of Population that were selected for inclusion in the indexes

Variable description	Factor analysis status
Proportion of population with no religious affiliation	Not available[1]
Proportion of owner households spending 30% or more of household income on major payments	Not available[1]
Proportion of tenant household spending 30% or more of household income on rent	Not available[1]
Proportion of population at least 15 years old and doing unpaid housework	Not available[1]
Proportion of population at least 15 years old looking after children without pay	Not available[1]
Proportion of population at least 15 years old and providing unpaid care or assistance to seniors	Not available[1]
Unemployment rate in private households with children younger than age 6	Not available[1]

1. The 2006 Census of Population variables used to derive this variable were not available for the 2016 Census of Population.

References

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