Material and Social Deprivation Index of Canada, 2021 – Description of the variables in the correspondence table

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LIST OF ABBREVIATIONS AND ACRONYMS

CA: Census agglomeration

CMA: Census metropolitan Area

DA: Dissemination area

MIZ: Metropolitan influenced zone

PCA: Principal component analysis

SAC: Statistical Area Classification

1   INTRODUCTION

This document contains a description of the variables in the correspondence table containing the values of the Material and Social Deprivation Index.

The correspondence table helps to establish a link between the Dissemination area (DA), specific geographical territories and different index versions. It includes the national version (all of Canada), the regional version (5 major Canadian regions) and two local versions: 4 Canadian geographical zones and the 3 major Census Metropolitan Area (CMAs; Montréal, Toronto and Vancouver).

For more information about the Material and Social Deprivation Index, please refer to the methodological documents and this web page.

2   INDEX VERSIONS

The Material and Social Deprivation Index 2021 was created from 2021 Census data, for all DAs. Four index versions exist for Canada.

2.1   National version

The national version for Canada covers all ten provinces and the three territories. It is used to estimate the extent and geographical distribution of material and social inequality in all of Canada. The deprivation in all DAs is considered. This means that it is possible to compare the deprivation level of individuals living in a DA in Nova Scotia to that of residents of a DA in British Columbia. The national version is created with a principal component analysis (PCA) of which the results are grouped into quintiles (groups formed by 20% of the population) from the least deprived (quintile 1) to the most deprived (quintile 5) (see section 3). To create other groupings, use the (national) centiles of the deprivation measure in the correspondence table.

2.2   Regional version

The regional version presents the variations in deprivation within the five Canadian regions, namely the Atlantic Provinces, Québec, Ontario, the Prairies and British Columbia. The three territories are excluded from this version. The regional version is created with a separate PCA using all DAs in each of the five regions, grouped into quintiles (groups formed by 20% of the population), from the least deprived (quintile 1) to the most deprived (quintile 5) (see section 3).
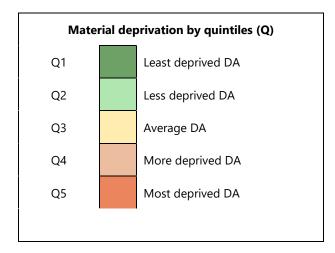
2.3   Metropolitan version

The metropolitan version compares inequalities within each of the three largest CMAs which are Montréal, Toronto and Vancouver. This version is created with a separate PCA using all DAs in each of the 3 CMAs, grouped into quintiles (groups formed by 20% of the population), from the least deprived (quintile 1) to the most deprived (quintile 5) (see section 3).

2.4   Version for geographical zones

The version for geographical zones distinguishes four large geographical entities, i.e. the three largest CMAs (Toronto, Montréal and Vancouver) together; all the other CMAs combined (between 100 000 and one million people); all the census agglomerations (CAs) combined (between 10 000 and 100 000 people) and the small towns and rural regions combined (less < 10 000 people). This version is created with a separate PCA using all DAs in each of the four zones, grouped into quintiles (groups formed by 20% of the population), from the least deprived (quintile 1) to the most deprived (quintile 5) (see section 3).
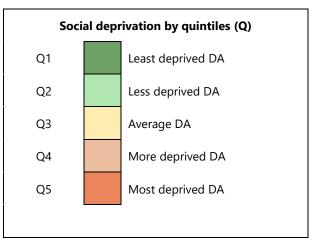
3 DIMENSIONS

Each dimension, material and social, reveals specific aspects of deprivation. Thus, it is important to study them separately before combining them.

Material deprivation by quintiles (Q)	
Q1	Least deprived DA
Q2	Less deprived DA
Q3	Average DA
Q4	More deprived DA
Q5	Most deprived DA

Social deprivation by quintiles (Q)	
Q1	Least deprived DA
Q2	Less deprived DA
Q3	Average DA
Q4	More deprived DA
Q5	Most deprived DA

The groupings below are combinations of material and social deprivation levels, referred to by some papers as the "combined index".

The material and the social dimension can be combined depending on the research objectives. However, INSPQ privileges two specific quintile groupings for the reasons described below.

The adequate grouping depends on the aspect which suits the research best:

- Deprivation profiles: difference between the two extreme quintiles (grouping 1), or
- Deprivation gradient: difference between all quintiles (grouping 2).

Grouping 1 – deprivation profiles

Matrix of material and social deprivation by quintile (Q)

Social deprivation

		Q1	Q2	Q3	Q4	Q5			
Material deprivation	Q1	C1	C1	C2	C3	C3		C1	Materially and socially privileged DA
	Q2	C1	C1	C2	C3	C3		C2	DA with average material and social deprivation
	Q3	C2	C2	C2	C3	C3		C3	Materially privileged but socially deprived DA
	Q4	C4	C4	C4	C5	C5		C4	Socially privileged but materially deprived DA
	Q5	C4	C4	C4	C5	C5		C5	Materially and socially deprived DA

Advantages of grouping 1:

- distinguishes deprivation profiles based on both the material and social dimension;
- facilitates the measure of the difference between the extreme groups (C1 and C5);
- detects inequality between extreme groups (C1 and C5) more clearly than grouping 2.

Disadvantages of grouping 1:

- creates groups of unequal size, varying between 16 and 24 % of the population.

Grouping 2 – deprivation gradient

Matrix of material and social deprivation by quintile (Q)									

Social deprivation

Material deprivation		Q1	Q2	Q3	Q4	Q5		T1	Materially and socially privileged DA
	Q1	T1	T1	T1	T2	T3		T2	DA with a tendency towards privilege
	Q2	T1	T2	T2	T3	T4		T3	DA privileged on one dimension but deprived on the other
	Q3	T1	T2	T3	T4	T5			
	Q4	T2	T3	T4	T4	T5		T4	DA with a tendency towards deprivation
	Q5	T3	T4	T5	T5	T5		T5	Materially and socially deprived DA

Advantages of grouping 2:

- creates 5 groups of equal size (true quintiles) each containing 20 % of the population;

- measures the difference between each one of the quintiles (gradient) in all population groups.

Disadvantages of grouping 2:

- detects less differences between the two extreme groups (T1 and T5) than grouping 1.

4   VARIABLE DESCRIPTION (IN ALPHABETICAL ORDER)

Variable	Description
CENTMAT	Grouping of DAs in the national version (Canada) of the deprivation index. The material percentiles range from 1 (least deprived DA) to 100 (most deprived DA). Empty cell – Data not available.
CENTSOC	Grouping of DAs in the national version (Canada) of the deprivation index. The social percentiles range from 1 (least deprived DA percentile) to 100 (most deprived DA percentile). Empty cell – Data not available.
CMA[1]	Census Metropolitan Area code 001 - St. John's 543 - Brantford 205 - Halifax 550 - Guelph 305 - Moncton 555 - London 310 - Saint John 559 - Windsor 320 - Fredericton 568 - Barrie 408 - Saguenay 580 - Greater Sudbury 421 - Québec 595 - Thunder Bay 433 - Sherbrooke 602 - Winnipeg 442 - Trois-Rivières 705 - Regina 447 - Drummondville 725 - Saskatoon 462 - Montréal 810 - Lethbridge 505 - Ottawa - Gatineau 825 - Calgary 521 - Kingston 830 - Red Deer 522 - Belleville - Quinte West 835 - Edmonton 529 - Peterborough 915 - Kelowna 532 - Oshawa 925 - Kamloops 535 - Toronto 930 - Chilliwack 537 - Hamilton 932 - Abbotsford - Mission 539 - St. Catharines - Niagara 933 - Vancouver 541 - Kitchener - Cambridge - 935 - Victoria Waterloo 938 - Nanaimo
CR	Canadian region: Atlantic Canada, Québec, Ontario, Prairies, British Columbia
DA	Dissemination area code from Statistics Canada in numerical format.
DAPOP2021	Dissemination area population. This data can be missing when the DA did not participate in the Census or show the value '0' from random rounding of the population figure.
MIZ	Statistical Area Classification (SAC) 1. Census Metropolitan Area 2. Census agglomerations (CAs) with census tracts 3. CAs with no census tract 4. Strong metropolitan influenced zone 5. Moderate metropolitan influenced zone 6. Weak metropolitan influenced zone 7. No metropolitan influenced zone 8. Territories (Yukon, the Northwest Territories and Nunavut, except CAs of Whitehorse and Yellowknife)
MUNIC	Code of the municipality to which the DA belongs.

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[1] Only the list of the most populated CMAs (> 100,000 inhabitants) is indicated in this table. To find a match for a specific geographic code, please consult the Statistics Canada web page.

PR	Province code
	10 – Newfoundland and Labrador
	11 – Prince Edward Island
	12 – Nova Scotia
	13 – New Brunswick
	24 – Québec
	35 – Ontario
	46 – Manitoba
	47 – Saskatchewan
	48 – Alberta
	59 – British Columbia
	60 – Yukon
	61 – Northwest Territories
	62 – Nunavut
QUINTMAT	Grouping of DAs in the national version (Canada) of the deprivation index. The material quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs).
	1 – DA in least deprived quintile
	2 – DA in less deprived quintile
	3 – DA in average quintile
	4 – DA in more deprived quintile
	5 – DA in most deprived quintile
	empty – Data not available
QUINTMATCMA	Grouping of DAs in the metropolitan version of the deprivation index. The material quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs).
	1 – DA in least deprived quintile
	2 – DA in less deprived quintile
	3 – DA in average quintile
	4 – DA in more deprived quintile
	5 – DA in most deprived quintile
	empty – Data not available
QUINTMATCR	Grouping of DAs in the Canadian region version of the deprivation index. The material quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs).
	1 – DA in least deprived quintile
	2 – DA in less deprived quintile
	3 – DA in average quintile
	4 – DA in more deprived quintile
	5 – DA in most deprived quintile
	empty – Data not available
QUINTMATZONE	Grouping of DAs in the zone version of the deprivation index. The material quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs).
	1 – DA in least deprived quintile
	2 – DA in less deprived quintile
	3 – DA in average quintile
	4 – DA in more deprived quintile
	5 – DA in most deprived quintile
	empty – Data not available
QUINTSOC	Grouping of DAs in the national version (Canada) of the deprivation index. The social quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs).
	1 – DA in least deprived quintile
	2 – DA in less deprived quintile
	3 – DA in average quintile
	4 – DA in more deprived quintile

	5 – DA in most deprived quintile empty – Data not available
QUINTSOCCMA	Grouping of DAs in the metropolitan version of the deprivation index. The social quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs). 1 – DA in least deprived quintile 2 – DA in less deprived quintile 3 – DA in average quintile 4 – DA in more deprived quintile 5 – DA in most deprived quintile empty – Data not available
QUINTSOCCR	Grouping of DAs in the Canadian region version of the deprivation index. The social quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs). 1 – DA in least deprived quintile 2 – DA in less deprived quintile 3 – DA in average quintile 4 – DA in more deprived quintile 5 – DA in most deprived quintile empty – Data not available
QUINTSOCZONE	Grouping of DAs in the zone version of the deprivation index. The social quintiles range from 1 (least deprived DAs) to 5 (most deprived DAs). 1 – DA in least deprived quintile 2 – DA in less deprived quintile 3 – DA in average quintile 4 – DA in more deprived quintile 5 – DA in most deprived quintile empty – Data not available
SCOREMAT	Deprivation index - Material factor score
SCORESOC	Deprivation index - Social factor score
ZONE	Geographical zone 1. Three largest CMAs (Toronto, Montréal and Vancouver) 2. All other CMAs including Québec, Trois-Rivières, Ottawa-Gatineau, Hamilton, Edmonton, Regina, etc. (> 100 000 inhabitants) 3. All census agglomerations (between 10 000 and 100 000 inhabitants) 4. Small towns and rural regions (<10 000 inhabitants)

5   COLOUR CODE FOR MAPS AND INFOGRAPHICS

	R	G	B	Couleur
	255	255	255	White (missing value[1])
	204	204	204	Gray (value 0[2])
	110	161	101	Dark green
	176	231	176	Light green
	255	236	176	Yellow
	135	174	192	Light blue
	68	126	163	Dark blue
	236	189	158	Light orange
	235	133	93	Dark orange
	162	110	166	Light purple
	122	70	130	Dark purple

[1] DA without index value (collective households, Indian reserves).

[2] Maps: no assignation could be done; wrong or missing postal code or too recent to be included in the file.