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Census Metropolitan Area and
Census Agglomeration Influenced Zones (MIZ)
with Census Data

by

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ABSTRACT

With this working paper, Statistics Canada is releasing 1991 Census data tabulated by a new geographic classification called "census **m**etropolitan area and census agglomeration **i**nfluenced **z**ones", or **MIZ**. This classification applies to census subdivisions (municipalities) that lie outside census metropolitan areas and census agglomerations. This part of Canada covers 96% of the country's total land mass and contains 22% of its population, yet up to now we have been limited in our means of differentiating this vast area. The MIZ classification shows the influence of census metropolitan areas (CMA) and census agglomerations (CA) on surrounding census subdivisions as measured by commuting flows based on 1991 Census place of work data. This version of the MIZ classification also incorporates a preliminary version of a north concept that flags census subdivisions according to their location in the north or south of Canada.

The series of tables presented here show detailed demographic, social and economic characteristics for Canada as a whole, for the six major regions of Canada, and for individual provinces and territories. Within each table, the data are subdivided into five categories: census metropolitan area or census agglomeration, strong MIZ, moderate MIZ, weak MIZ and no MIZ. Within each of these categories, the data are further subdivided into north and south.

Readers are invited to review and use the data tables to assess whether this combined MIZ and north/south classification of non-CMA/CA areas provides sufficient detail to support data analysis and research. The intent of this MIZ classification is to reveal previously hidden data detail and thereby help users address issues related to this vast geographic area.

This is the first of three related Geography Working Papers (Catalogue no. 92F0138MIE). The second working paper (No. 2000-2) provides background information about the methodology used to delineate the MIZ classification. The third working paper (No. 2000-3) describes the methodology used to define a continuous line across Canada that separates the north from the south to further differentiate the MIZ classification.

1. INTRODUCTION

Statistics Canada's user communities have indicated that existing classifications for the area that lies outside census metropolitan areas and census agglomerations are no longer adequate to support their analytical needs. Geography Division has responded to these demands with research into methods of enhancing the portrayal of this vast area of Canada that covers 96% of the country's total land mass and contains 22% of its population. The research has led to a new geographic classification of census subdivisions called "census **m**etropolitan area and census agglomeration **i**nfluenced **z**ones", or **MIZ**.

This working paper briefly describes the MIZ categories and makes available 32 tables of 1991 Census data tabulated by these categories. The MIZ categories measure the influence of census metropolitan areas and census agglomerations on surrounding census subdivisions, based on commuting flows calculated from 1991 Census place of work data. The MIZ classification used to produce the tables also incorporates a preliminary version of the North concept that flags census subdivisions according to their location in the north or south of Canada.

The series of tables that accompany this working paper show detailed demographic, social and economic characteristics for Canada as a whole, for the six major regions of Canada, and for individual provinces and territories. This paper includes a brief description of the tables and a guide to reading them.

The intent of the MIZ classification is to reveal previously hidden data detail and thereby help users address issues related to the non-census metropolitan area/census agglomeration (non-CMA/CA) areas of Canada. Readers are invited to review and use the data tables, which are based on this combined MIZ and north/south classification, and to provide feedback to the Geography Division concerning the utility of this classification to support their analysis and research of non-CMA/CA areas.

2. BACKGROUND

Research by Geography Division into methods of enhancing the portrayal of non-CMA/CA areas was prompted by related work on rural classifications that began almost a decade ago. In 1990, the Organization for Economic Co-operation and Development (OECD) established a rural development program. One aspect of this program was a rural indicators project, designed to improve the understanding of rural conditions by collecting internationally comparable data (OECD, 1994). As part of Canada's contribution to this initiative, the Research Sub-committee of the Interdepartmental Committee on Rural and Remote Canada (on which Statistics Canada has representation) produced a further breakdown to the rural definition at the census division or "county" level for Canada (ICRRC, 1995). Statistics Canada and the Geography Division recognised the benefit of differentiating non-CMA/CA Canada at the census subdivision or "municipal" level and developed the metropolitan influence zone (MIZ) concept using a methodology similar to that used to delineate CMAs and CAs. The first studies done using these metropolitan influence zones showed their potential to demonstrate the diversity of non-CMA/CA Canada (Howatson-Leo and Earl, 1995). Based on feedback received on that early work, more research was done to refine the MIZ classification and to provide users with data profiles from the 1991 Census by this classification. Since retrieval of these data profiles, the classification has been modified further, especially regarding the north concept (see section 6 of this working paper).

3. DEFINITIONS

It is important to understand Statistics Canada's use of the terms, urban, rural, census metropolitan area (CMA), census agglomeration (CA) and non-CMA/CA. Urban areas have specific criteria to define their limits. Rural areas are merely the residual of urban areas—that which is not urban is, by default, rural. Urban areas and CMA/CA are not synonymous and neither are rural areas and non-CMA/CA areas. Rural areas exist both inside and outside of CMAs and CAs. Within CMAs and CAs, the rural portion is labelled "rural fringe". Likewise, urban

areas exist in non-CMA/CA areas. Table 1 illustrates that urban and rural areas exist in both CMA/CA and non-CMA/CA areas.[1]

Table 1. Urban and Rural Areas in Canada

		CANADA	
		Urban	**Rural**
CANADA	**Census metropolitan area (CMA)**	Urban core, urban fringe	Rural fringe
	Census agglomeration (CA)	Urban core, urban fringe	Rural fringe
	Non-CMA/CA areas	Urban area	Rural area

The basic building blocks for these geographic areas are **enumeration areas** (for urban area) and **census subdivisions** (for CMA/CA). A brief explanation of all of these terms is provided here. For a detailed definition for each of these concepts, consult the *1996 Census Dictionary* (Statistics Canada, 1997).

3.1   Enumeration Area

Enumeration areas (EA) are the geographic areas used to collect census data. All the territory of Canada is covered by EAs. Their boundaries respect all other standard geographic areas in the geography hierarchy. They range in physical size from very small units such as the land occupied by a large apartment building to very large tracts of unoccupied land in the northern parts of provinces and territories.

3.2   Census Subdivision

Census subdivision (CSD) is the general term applying to municipalities (as determined by provincial legislation) or their equivalent (for example, Indian reserves, Indian settlements and unorganised territories). In Newfoundland, Nova Scotia and British Columbia, the term also describes geographic areas that have been created by Statistics Canada in co-operation with the provinces, as equivalents to municipalities for the dissemination of statistical data.

3.3   Urban Area and Rural Area

Statistics Canada uses census data to identify areas with an 'urban character'. To be identified as **urban**, an area must have a population concentration of at least 1,000 persons and a population density of 400 persons per square kilometre (based on the previous census population count). All territory outside urban areas (UA) is considered **rural**. Rural areas (RA) include small towns, villages and other populated places with less than 1,000 population and less than 400 persons per square kilometre. Rural areas also include agricultural lands and remote and wilderness areas. Taken together, urban and rural areas cover all of Canada.

Census subdivisions (municipalities) are evaluated to see if they meet the population concentration and population density criteria to be considered an urban area. If urban municipalities are adjacent, they are grouped to form a single urban area. Likewise, enumeration areas that are adjacent to an urban municipality are included in the urban area if they meet the population density criteria described above. The resulting urban area may cross municipal and even provincial boundaries. Some municipalities are part urban area and part rural area.

Individual enumeration areas that meet the population density criterion may be grouped with adjacent enumeration areas that also meet the density criterion so that together they meet the minimum population threshold of 1,000 and thus form an urban area.

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[1] See also Chart 1 (p. 5) in Statistics Canada's 1991 Census publication *Profile of Urban and Rural Areas – Part B* (Catalogue No. 93-340). Non-CMA/CA areas are essentially small towns and rural Canada.

3.4   Census Metropolitan Area/Census Agglomeration and Non-CMA/CA

Large urban municipalities exert a social and economic influence beyond their city limits. Statistics Canada established the concepts of census agglomeration and census metropolitan area to delimit the extent of the influence of large towns and cities on their surrounding municipalities. A **census agglomeration** (CA) is built around a central urban area with a minimum population of 10,000 at the previous census. Once the population of the central urban area reaches 100,000, the census agglomeration becomes a **census metropolitan area** (CMA). Each CA or CMA is composed of one or more adjacent census subdivisions (CSDs) that qualify to be included based on certain criteria, principally labour force commuting flows. The criteria are described in detail in the *1996 Census Dictionary*.

Commuting flows are calculated using place of work data from the previous census. In general, a CSD qualifies to be included in the CA or CMA if 50% or more of the employed labour force living in the CSD work in the central urban area (in-flow or forward commuting). Similarly, a CSD qualifies to be included in the CA or CMA if at least 25% of the employed labour force that works in that CSD lives in the central urban area (out-flow or reverse commuting).

The **non-CMA/CA** areas cover all areas outside both census metropolitan areas and census agglomerations and include small urban areas and rural areas.

3.5   Urban Core, Urban Fringe and Rural Fringe

Within CMAs and CAs, central and peripheral urban areas are identified. The central urban area is the large urban area or **urban core** around which a CMA or CA is delineated. The **urban fringe** includes those peripheral urban areas within a CMA or CA that are not contiguous with the urban core. The **rural fringe** is all the territory within the CMA or CA that is not classified as urban core or urban fringe. Rural fringes may contain estate lots, agricultural, undeveloped and non-developable lands.

4.   MIZ CATEGORIES

All census subdivisions (CSDs) in Canada can be classified into either CMA/CA (i.e., they are part of a census metropolitan area or census agglomeration) or one of four MIZ categories. The MIZ categories are (1) Strong MIZ, (2) Moderate MIZ, (3) Weak MIZ, and (4) No MIZ.

The strong, moderate and weak MIZ categories were determined using commuting flows of the employed labour force derived from 1991 Census place of work data. The calculation of the commuting flows for strong, moderate and weak MIZ differs somewhat from the calculation used for CSD inclusion in CMA/CAs. The percentages of the employed labour force living in a particular CSD in the non-CMA/CA area and working in the urban core of **any** CMA/CA are **combined** to determine the degree of influence that one or more CMA/CAs have on that CSD. This approach recognises the possibility of multiple centres of attraction.

The **strong MIZ** category includes CSDs with a commuting flow of 30% or more (at least 30% of the total employed labour force living in the CSD work in *any* CMA/CA urban core). The **moderate MIZ** category includes CSDs with a commuting flow percentage between 5% and 30% (at least 5% but less than 30% of the total employed labour force living in the municipality work in *any* CMA/CA urban core). The **weak MIZ** category includes CSDs with a commuting flow percentage more than 0% but less than 5% (more than 0% but less than 5% of the total employed labour force living in the municipality work in *any* CMA/CA urban core). The **No MIZ** category includes those CSDs with either fewer than 40 people in the resident labour force (where data suppression rules apply to protect respondents' confidentiality) or no people commuting to work in CMA/CA urban cores.

4.1   Identification of CSDs in the North and South

As a further refinement, the CMA/CAs and the CSDs in each of the four MIZ categories are classified according to whether they belong to either the North or the South. For Tables 1 through 34 (see list in Appendix 1), the north/south separation of CSDs is based on four indicators. These include (1) a climatic factor (the 6,000

heating degree-day[2] line), (2) an environmental factor (the southern limit of the boreal forest), (3) the political boundary between the provinces and the territories, and (4) a population accessibility measure.

The CSDs in the **south** include:

 (a) those CSDs in the ten provinces for which the total population within a radius of 75 kilometres from the CSD's population weighted representative point was equal to 100,000 or more (accessibility measure); or

 (b) those CSDs in the ten provinces in which 50% or more of their land area falls *south* of either the southern limit of the boreal forest or the normal annual 6,000 heating degree-day line (where normal = the average for 30 years).

The CSDs in the **north** include:

 (a) all CSDs in the territories,
 (b) those CSDs in the ten provinces for which the total population within a radius of 75 kilometres from the CSD's population weighted representative point was less than 100,000, and
 (c) each CSD in the ten provinces in which 50% or more of its land area falls *north* of both the southern limit of the boreal forest and the normal annual 6,000 heating degree-day line (where normal = the average for 30 years).

Table 2 shows the distribution of the 6,006 CSDs defined for the 1991 Census when the MIZ categories and the north/south designation are applied.

Table 2. Number of CSDs by CMA/CA, MIZ Categories and North/South Location, Canada, 1991 Census

MIZ Category	Census Subdivisions			Definition
	Total	**North**	**South**	
CMA/CA	1,051	20	1,031	CSDs belong to a CMA or CA and have a very strong attraction to the CMA/CA (50% or more of the total employed labour force living in the CSD work in the urban core of a **single** CMA/CA).
Strong MIZ	674	4	670	CSDs with a commuting flow of 30% or more (at least 30% of the total employed labour force living in the CSD work in **any** CMA/CA urban core).
Moderate MIZ	1,631	65	1,566	CSDs with a commuting flow between 5% and 30% (at least 5% but less than 30% of the total employed labour force living in the municipality work in **any** CMA/CA urban core).
Weak MIZ	1,097	189	908	CSDs with a commuting flow more than 0% and less than 5% (more than 0% but less than 5% of the total employed labour force living in the municipality work in **any** CMA/CA urban core).
No MIZ*	1,553	352	1,201	All CSDs that have a small employed labour force (less than 40), as well as any CSD that has no commuters (0% of the total employed labour force living in the municipality work in **any** CMA/CA urban core).
Canada	**6,006**	**630**	**5,376**	**Total number of CSDs in 1991.**

*Under the No MIZ category the 1,553 CSDs can be broken down as follows:

    1,130 CSDs with a labour force less than 40 and no commuters.
      210 CSDs with a labour force less than 40, with commuters.
      213 CSDs with a labour force greater than or equal to 40, with no commuters.

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[2] Heating degree-days measures the annual heating energy consumption required in order to maintain an optimum inside temperature of 21ºC. This is calculated by adding the temperature difference between daily mean temperature and 18ºC for those days in a given year when the mean temperature is below 18ºC. The measurement is also based on a 30 year average in order to minimise annual fluctuations.

There are 3,000 heating degree-days for the warmest regions of Canada (the extreme south of Ontario and British Columbia). The line of 6,000 degree-days was chosen as the climatic indicator of the North/South division because areas north of the 6,000 degree-days line would require at least twice as much energy consumption to maintain the optimum inside temperature compared to the warmest regions of Canada.

For more detailed explanations of the methodology used to define the MIZ categories, see McNiven, Puderer and Janes (2000). Since the development of the data tables, further refinements to the North concept have been made and are described by McNiven and Puderer (2000). Refer also to section 6 in this working paper.

5. MIZ DATA TABLES

The MIZ data tables are intended to demonstrate the type of information that could be produced for future census dissemination products or custom requests to provide data for non-CMA/CA Canada.

The main data sources used to create the MIZ categories and the resulting MIZ data tables were: 1991 CSDs (6,006 CSDs), preliminary 1996 CMAs and CAs (see Statistics Canada, 1993, 1994, 1995), 1991 place of work data, and 1991 Census Profile Data (100% and 20% sample data).

The 1991 place of work data used to classify the 1991 CSDs by MIZ category were originally extracted to update the CMAs and CAs for the 1996 Census. The CSDs flagged as CMA or CA components reflect the preliminary 1996 Census CMAs and CAs. **Therefore, CMA/CA data in these tables are not in every case comparable to either 1991 or 1996 Census data by CMA or CA.**

The 1991 Census Profile Data are divided into two parts. Part A, referred to as **100% data**, provides basic demographic, mother tongue, dwelling, household and family data collected from **all** households, that is, on a 100% basis. Part B, referred to as **20% sample data**, provides data collected from a 20% sample of households (but weighted to 100%) on characteristics such as home language, ethnic origin, place of birth, schooling, religion, labour force activity, housing costs and income.

Tables produced from the Part A Profile (100% data) show population counts by age and sex, by marital status, and by mother tongue. They also show dwelling counts by type and tenure, households by size, and families by size, structure and the presence of never-married sons and daughters. Tables produced from the Part B Profile (20% sample data) show population counts for characteristics such as home language, knowledge of languages, religion, ethnic origin, place of birth, period of immigration, mobility status, fertility, highest level of schooling, labour force activity, occupation, and industry. They also show dwelling counts by need for repair, period of construction, as well as average housing costs for households, and income distribution for individuals, households and families.

The data for each geographic area are displayed in the table columns. The data variables are identified down the sides of the table (the "stub"). The data have been grouped in the stub into blocks by universe (i.e., population, dwellings, households and families). For each universe, data are shown in relation to a number of different characteristics. For example, in the 100% data tables, population is first shown by age and sex, then by marital status and finally by mother tongue. In the 20% sample data tables, population is shown first by home language, then by knowledge of official languages, next by knowledge of non-official languages, by religion, by ethnic origin, and so on. The CMA/CA, MIZ categories and North/South designation run across the top of the page.

The figures in all tables have been subjected to a confidentiality procedure known as "random rounding" to prevent the possibility of associating statistical data with any identifiable individual. Under this method, all figures that are greater than 10 are randomly rounded either up or down to a multiple of "5" and figures that are 10 or less are randomly rounded to "0" or "10". All totals are calculated from full figures and rounded independently; consequently, totals may not equal the sum of their components. Production of these tables required special processing. As such, the data may not be directly comparable to standard published census data.

Appendix 1 lists the 35 file names and titles of the tables accompanying this working paper. There are two index tables that show the MIZ category and north/south location of each 1991 CSD (Tables 1 and 2). Tables 3 through 34 show selected characteristics from the 1991 Census tabulated by the MIZ categories and north/south location. Table 35 is a third index table showing MIZ and north/south location applied to 1996 CSDs.

Appendix 2 explains how to read the data tables from the 1991 Census Profile Data according to each MIZ category.

6. RECENT DEVELOPMENTS AND FUTURE PLANS

This working paper has described the concepts of MIZ and North as they relate to the 1991 Census data tables included with this paper. However, while this paper and 1991 Census database extractions were being prepared, feedback from the user community continued and led to the development of further refinements to the North concept. Given the lead-time required to produce the data profiles, it was not possible to regenerate the data tables to reflect these refinements. However, it was possible to tabulate the distribution of CSDs to illustrate and explain the revisions. These are briefly presented below.

6.1 Revised Definition of the North Concept

Table 3 shows the distribution of CSDs from the 1991 Census by CMA/CA, MIZ category and north/south location for each province and territory. It was observed that census subdivision shape and size significantly affected the definition of the north based on the four criteria used to include or exclude CSDs in the north or south. Thus, a revised approach that defines a **line** to separate north and south independent of existing statistical units has replaced the CSD polygon-based approach. The line is derived from the average of 16 factors (including social, biotic, economic and climatic indicators) instead of the four factors used previously. As well, north and south transition lines have been added that are based on one standard deviation from the mean north–south line. As a result, any geographic unit can be assigned to one of four zones—north, north transition, south transition, and south—based on the location of its population-weighted representative point[3] relative to the mean and north and south transition lines. Table 4 shows the revised distribution of CSDs from the 1991 Census by CMA/CA and MIZ category and their location in the north, north transition zone, south transition zone, or south.

Table 3. Number of CSDs by CMA/CA, MIZ Categories and Preliminary North/South Location, 1991 Census

| Province/Territory | CSDs (1991) | Number of Census Subdivisions by CMA/CA, MIZ Category and Preliminary North/South Location | | | | | | | | | | | | | | |
| | | CMA/CA | | | Strong MIZ | | | Moderate MIZ | | | Weak MIZ | | | No MIZ | | |
		Total	North	South	Total	North	South	Total	North	South	Total	North	South	Total	North	South
Newfoundland	404	38	2	36	22	0	22	151	1	150	83	9	74	110	14	96
Prince Edward Island	126	39	0	39	27	0	27	44	0	44	12	0	12	4	0	4
Nova Scotia	118	35	0	35	5	0	5	18	0	18	44	0	44	16	0	16
New Brunswick	287	65	0	65	34	0	34	91	0	91	69	0	69	28	0	28
Quebec	1,637	323	4	319	281	1	280	617	10	607	186	25	161	230	58	172
Ontario	951	222	0	222	201	0	201	295	12	283	102	24	78	131	47	84
Manitoba	293	18	1	17	13	0	13	70	7	63	109	30	79	83	37	46
Saskatchewan	953	61	0	61	36	0	36	207	13	194	234	35	199	415	64	351
Alberta	438	63	8	55	39	1	38	69	6	63	132	32	100	135	51	84
British Columbia	691	184	2	182	16	2	14	56	3	53	97	5	92	338	18	320
Yukon Territory	36	2	2	0	0	0	0	13	13	0	0	0	0	21	21	0
Northwest Territories	72	1	1	0	0	0	0	0	0	0	29	29	0	42	42	0
Canada	**6,006**	**1,051**	**20**	**1,031**	**674**	**4**	**670**	**1,631**	**65**	**1,566**	**1,097**	**189**	**908**	**1,553**	**352**	**1,201**

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[3] Where a geographic unit has zero population, the geographic centroid is used.

Table 4. **Number of CSDs by CMA/CA, MIZ Categories and Location in North, North Transition, South Transition, or South, 1991 Census**

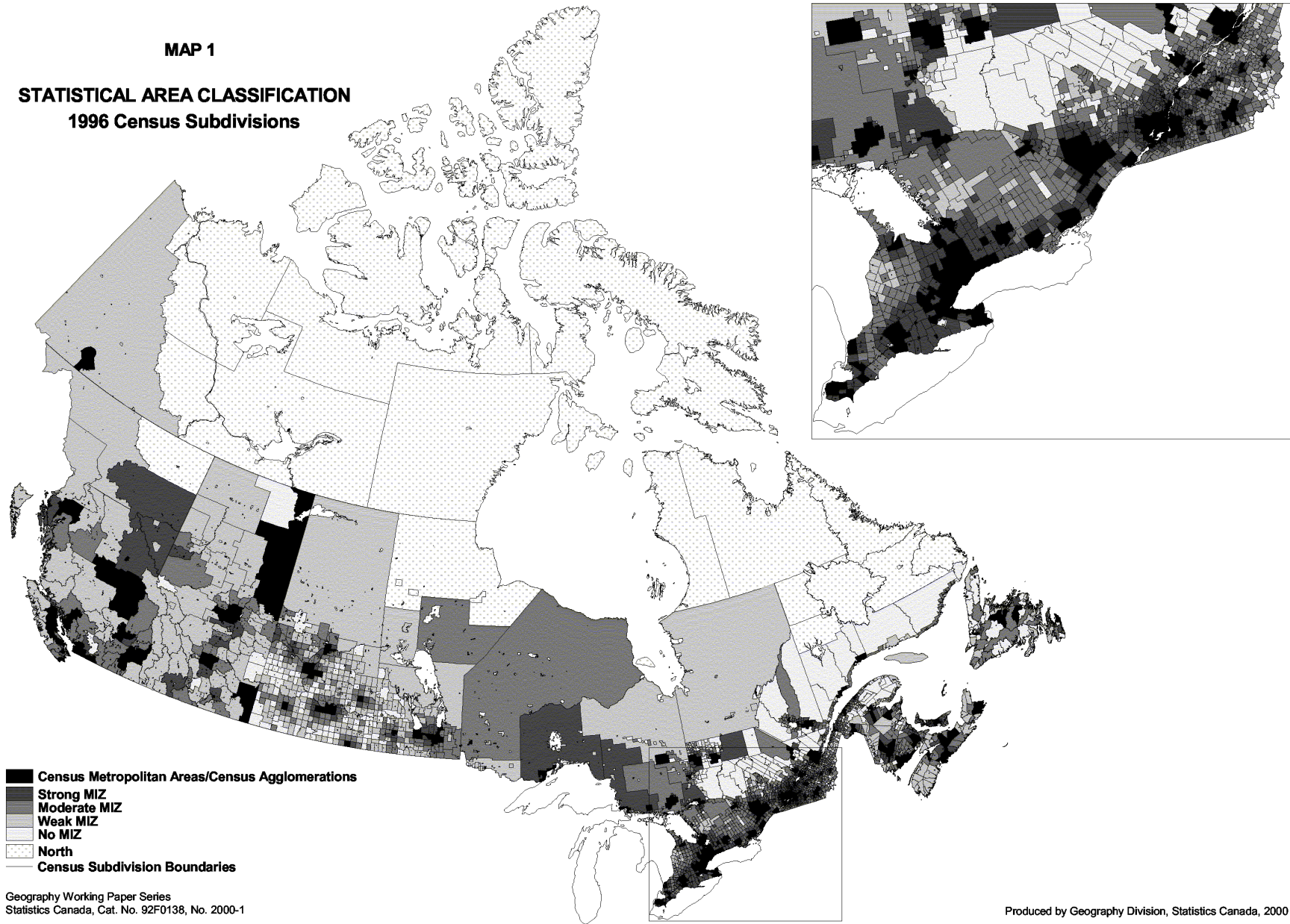| Prov./ Terr.	CSDs (1991)	CMA/CA					Strong MIZ					Moderate MIZ					Weak MIZ					No MIZ				
		T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S
Nfld.	404	38	2	0	0	36	22	0	0	0	22	151	0	1	11	139	83	8	6	16	53	110	7	14	21	68
P.E.I.	126	39	0	0	0	39	27	0	0	0	27	44	0	0	0	44	12	0	0	0	12	4	0	0	0	4
N.S.	118	35	0	0	0	35	5	0	0	0	5	18	0	0	0	18	44	0	0	0	44	16	0	0	0	16
N.B.	287	65	0	0	0	65	34	0	0	0	34	91	0	0	0	91	69	0	0	0	69	28	0	0	0	28
Que.	1,637	323	0	0	38	285	281	0	0	27	254	617	0	5	56	556	186	14	9	35	128	230	24	14	42	150
Ont.	951	222	0	0	4	218	201	0	0	0	201	295	1	0	15	279	102	4	8	18	72	131	22	11	23	75
Man.	293	18	1	0	1	16	13	0	0	2	11	70	0	0	16	54	109	11	12	37	49	83	22	10	18	33
Sask.	953	61	0	0	5	56	36	0	0	4	32	207	0	0	44	163	234	4	14	62	154	415	7	35	78	295
Alta.	438	63	0	1	44	18	39	0	0	12	27	69	0	2	24	43	132	2	25	28	77	135	1	25	49	60
B.C.	691	184	0	2	26	156	16	0	3	3	10	56	0	5	10	41	97	3	12	19	63	338	7	26	62	243
Y.T.	36	2	0	2	0	0	0	0	0	0	0	13	7	6	0	0	0	0	0	0	0	21	11	10	0	0
N.W.T.	72	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	29	29	0	0	0	42	42	0	0	0
Canada	**6,006**	**1,051**	4	4	118	924	674	0	3	48	623	**1,631**	8	19	176	**1,428**	**1,097**	75	86	215	721	**1,553**	143	145	293	972

This north–south classification has now been applied to 1996 census subdivisions and Table 5 shows a summary of the results. For a complete list of 1996 CSDs flagged to show their classification by CMA/CA or MIZ category and their location in the north, north transition, south transition or south, see Table 35 in the accompanying data tables. This information is also displayed in Map 1. Further details about the derivation of this revised north–south classification are available (McNiven and Puderer, 2000).

Table 5. **Number of CSDs by CMA/CA, MIZ Categories and Location in North, North Transition, South Transition, or South, 1996 Census**

Prov./ Terr.	CSDs (1996)	CMA/CA					Strong MIZ					Moderate MIZ					Weak MIZ					No MIZ				
		T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S	T	N	NT	ST	S
Nfld.	381	32	2	0	17	13	19	0	0	9	10	153	2	3	57	91	73	5	8	22	38	104	5	17	37	45
P.E.I.	113	24	0	0	0	24	29	0	0	0	29	44	0	0	0	44	12	0	0	0	12	4	0	0	0	4
N.S.	110	28	0	0	0	28	3	0	0	0	3	20	0	0	0	20	42	0	0	0	42	17	0	0	0	17
N.B.	283	66	0	0	0	66	31	0	0	0	31	93	0	0	0	93	66	0	0	0	66	27	0	0	0	27
Que.	1,599	312	0	0	50	262	272	0	0	36	236	588	0	6	83	499	190	14	10	44	122	237	31	17	68	121
Ont.	947	219	0	0	10	209	196	0	0	4	192	270	1	1	14	254	119	3	7	29	80	143	21	14	44	64
Man.	298	19	1	0	5	13	17	0	0	9	8	69	0	2	24	43	105	8	12	45	40	88	18	16	29	25
Sask.	970	61	0	0	28	33	54	0	0	24	30	198	1	1	86	110	226	3	14	97	112	431	7	41	131	252
Alta.	467	94	13	12	54	15	34	0	0	20	14	79	0	6	28	45	128		24	44	60	132		28	66	38
B.C.	713	188	0	2	36	150	14	0	4	3	7	58	0	3	10	45	96	3	12	25	56	357	3	31	72	251
Y.T.	35	5	0	5	0	0	0	0	0	0	0	1	0	1	0	0	12	5	7	0	0	17	6	11	0	0
N.W.T.	68	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	27	27	0	0	0	38	38	0	0	0
Canada	**5,984**	**1,049**	17	19	200	813	671	2	4	105	560	**1,573**	4	23	302	**1,244**	**1,096**	68	94	306	628	**1,595**	129	175	447	844

MAP 1

STATISTICAL AREA CLASSIFICATION
1996 Census Subdivisions

Census Metropolitan Areas/Census Agglomerations
Strong MIZ
Moderate MIZ
Weak MIZ
No MIZ
North
Census Subdivision Boundaries

Geography Working Paper Series
Statistics Canada, Cat. No. 92F0138, No. 2000-1

Produced by Geography Division, Statistics Canada, 2000

6.2 Statistical Area Classification for 2001 Census

It is Statistics Canada's intention to disseminate 2001 Census data using a statistical area classification (SAC) that is a blend of CMA/CA, MIZ categories and North/South. Tables 6 and 7 use 1996 Census data to show the type of standard output tables that are planned for 2001. The sums of the data represented by the light grey columns in Table 5 correspond to the CMA/CA and MIZ categories shown in the light grey columns in Table 6. Similarly, the sum of all the North columns shaded dark grey in Table 5 equals the North category shown in the dark grey column in Table 6. Nevertheless, users can obtain data on a custom request basis by the more detailed statistical area classification shown in Table 5.[4] Table 7 shows the 1996 Census population counts by province and territory for the SAC categories.

Table 6. Number of CSDs, Showing the Statistical Area Classification, for Canada, Provinces and Territories, 1996 Census

Province/Territory	Total CSDs	Number of CSDs by the Statistical Area Classification, 1996 Census					
		CMA/CA	Strong MIZ	Moderate MIZ	Weak MIZ	No MIZ	North
Newfoundland	381	32	19	151	68	99	12
Prince Edward Island	113	24	29	44	12	4	0
Nova Scotia	110	28	3	20	42	17	0
New Brunswick	283	66	31	93	66	27	0
Quebec	1,599	312	272	588	176	206	45
Ontario	947	219	196	269	116	122	25
Manitoba	298	19	17	69	97	70	26
Saskatchewan	970	61	54	197	223	424	11
Alberta	467	94	34	79	128	132	0
British Columbia	713	188	14	58	93	354	6
Yukon Territory	35	5	0	1	7	11	11
Northwest Territories	68	1	0	0	0	0	67
Canada	**5,984**	**1,049**	**669**	**1,569**	**1,028**	**1,466**	**203**

Table 7. Population Counts, Showing the Statistical Area Classification, for Canada, Provinces and Territories, 1996 Census

Province/Territory	Total Population	Population by the Statistical Area Classification, 1996 Census					
		CMA/CA	Strong MIZ	Moderate MIZ	Weak MIZ	No MIZ	North
Newfoundland	**551,792**	244,868	19,947	139,919	107,160	24,936	14,962
Prince Edward Island	**134,557**	73,225	18,966	29,713	11,925	728	0
Nova Scotia	**909,282**	557,614	29,777	102,422	214,691	4,778	0
New Brunswick	**738,133**	380,149	51,353	150,380	140,113	16,138	0
Quebec	**7,138,795**	5,543,060	422,875	802,485	300,757	49,492	20,126
Ontario	**10,753,573**	9,157,435	756,992	538,656	265,690	23,980	10,820
Manitoba	**1,113,898**	742,560	45,593	115,127	161,524	33,119	15,975
Saskatchewan	**990,237**	561,672	26,013	102,072	200,497	96,316	3,667
Alberta	**2,696,826**	2,002,352	115,974	169,300	377,669	31,531	0
British Columbia	**3,724,500**	3,147,837	77,210	212,996	250,753	29,742	5,962
Yukon Territory	**30,766**	21,808	0	196	4,802	402	3,558
Northwest Territories	**64,402**	17,275	0	0	0	0	47,127
Canada	**28,846,761**	**22,407,600**	**1,564,700**	**2,361,144**	**2,024,564**	**302,285**	**186,468**

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[4] A variable approach for handling geographic entities is also being researched and results will be published in a future Geography Working Paper. When preparing a database query, the variable approach would enable users to create more specific cross-tabulations that could, for example, combine a CSD type and a specific MIZ category with income and education criteria. It would also make it simpler to obtain data sub-divided between urban and rural in both CMA/CA and non-CMA/CA areas (as demonstrated in Table 1) or to extract MIZ categories for the north if desired.

7. USER FEEDBACK

Geography Division would appreciate receiving feedback from users with comments and suggestions on the utility of this approach, the accompanying tables, the concepts and/or the statistical area classification in general. For example:

- Does this approach meet your needs?
- Would this differentiation strategy be appropriate for your organisation, given that one of the objectives is to create greater consistency in definition and application?
- Would you use this classification?
- How would it benefit you?
- What changes or clarifications would you like?
- What data content would you like?

Our intent is to provide a new approach that would assist a large number of users in gaining a better understanding of the non-CMA/CA population of Canada.

Please send your comments to:

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Statistics Canada
Jean Talon Building, 3rd floor
Ottawa, Ontario K1A 0T6

E-mail: geohelp@statcan.ca

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FILENAMES AND TABLE TITLES

Note: This appendix lists the filenames and table titles. The files are available from the Statistics Canada website at www.statcan.ca under Products and Services, Downloadable research papers, Geography working paper series.

Filename	Table Title
T01CSD91.xls	Table 1. Census Subdivisions, showing Population, MIZ Category and North/South Location, 1991 Census (CSDs sorted by Province/Territory and Standard Geographical Classification Code)
T02CSD91.xls	Table 2. Census Subdivisions, showing Population, MIZ Category and North/South Location, 1991 Census (CSDs sorted by Province/Territory, North/South Location, MIZ Category and SGC Code)
T03CASUM.xls	Table 3. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Canada Summary
T04CASUM.xls	Table 4. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Canada Summary
T05ATSUM.xls	Table 5. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Atlantic Provinces Summary
T06ATSUM.xls	Table 6. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Atlantic Provinces Summary
T07NFLD.xls	Table 7. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Newfoundland
T08NFLD.xls	Table 8. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Newfoundland
T09PEI.xls	Table 9. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Prince Edward Island
T10PEI.xls	Table 10. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Prince Edward Island
T11NS.xls	Table 11. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Nova Scotia
T12NS.xls	Table 12. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Nova Scotia
T13NB.xls	Table 13. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. New Brunswick
T14NB.xls	Table 14. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. New Brunswick
T15QUE.xls	Table 15. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Quebec
T16QUE.xls	Table 16. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Quebec
T17ONT.xls	Table 17. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Ontario
T18ONT.xls	Table 18. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Ontario
T19PRSUM.xls	Table 19. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Prairie Provinces Summary
T20PRSUM.xls	Table 20. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Prairie Provinces Summary
T21MAN.xls	Table 21. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Manitoba
T22MAN.xls	Table 22. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Manitoba
T23SASK.xls	Table 23. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Saskatchewan
T24SASK.xls	Table 24. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Saskatchewan

Filename	Table Title
T25ALTA.xls	Table 25. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Alberta
T26ALTA.xls	Table 26. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Alberta
T27BC.xls	Table 27. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. British Columbia
T28BC.xls	Table 28. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. British Columbia
T29TRSUM.xls	Table 29. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Territories Summary
T30TRSUM.xls	Table 30. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Territories Summary
T31YUK.xls	Table 31. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Yukon Territory
T32YUK.xls	Table 32. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Yukon Territory
T33NWT.xls	Table 33. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 100% Data. Northwest Territories
T34NWT.xls	Table 34. Selected Characteristics for MIZ Categories and North/South Location, 1991 Census - 20% Sample Data. Northwest Territories
T35CSD96.xls	Table 35. Census Subdivisions, showing Population, MIZ Category and North/North Transition/South Transition/South Location, 1996 Census (CSDs sorted by Province/Territory and Standard Geographical Classification Code)

READING THE MIZ TABLES

This appendix gives selected examples from the CSD index tables (Tables 1 and 2 – 1991 Census and Table 35 – 1996 Census) and the 1991 Census Profile Data tables (Tables 3 – 34) presented by MIZ categories. For the profile data tables, it is important to remember that for each data variable, the data value for each MIZ category is the sum of data for all the CSDs meeting the specified criteria for that MIZ group (see section 4).

Tables 1 and 2 list the 6,006 census subdivisions from the 1991 Census. For each census subdivision, the tables show the SGC code, CSD name, total 1991 population and the CSD's classification by MIZ category and location in the North or South (based on four factors). In Table 1, the 6,006 CSDs are sorted by SGC code (a 7-digit code that uniquely identifies each census subdivision). In Table 2, the 6,006 CSDs are sorted by province and territory, location (North/South) and MIZ category.

The following selection of data from Table 2 shows some of the municipalities found in each MIZ category for the province of Newfoundland. In Newfoundland, there are actually 22 municipalities (CSDs) that fall into the Strong MIZ category and they are all located in the south part of the province. Only 4 of those 22 Strong MIZ municipalities are shown in this example.

Example of Data from Table 2

N/S Location	MIZ Category	SGC Code	Census Subdivision Name	1991 CSDPOP
NEWFOUNDLAND				
North	CMA/CA	1010032	Labrador City	9,061
		1010034	Wabush	2,331
	Moderate MIZ	1010002	L'Anse au Loup	630
	Weak MIZ	1010008	Division No. 10, Subd. B	636
		1010009	Port Hope Simpson	614
		.	.	.
	No MIZ	1010001	Division No. 10, Subd. A	101
		1010003	Red Bay	288
South	CMA/CA	1001485	Conception Bay South	17,590
		1001502	Portugal Cove	2,726
		1001505	Pouch Cove	1,976
		.	.	.
	Strong MIZ	1001124	Division No. 1, Subd. U	1,651
		1001126	Cape Broyle	693
		1001131	Renews-Cappahayden	551
		1001136	Fermeuse	505
		.	.	.
	Moderate MIZ	1001105	Portugal Cove South	341
		1001113	Trepassey	1,198
		1001155	Division No. 1, Subd. W	536
		.	.	.
	Weak MIZ	1001203	Division No. 1, Subd. X	545
		1001207	Colinet	232
		1001321	Division No. 1, Subd. F	753
		1001332	Winterton	667
		.	.	.
	No MIZ	1001101	Division No. 1, Subd. V	180
		1001109	Biscay Bay	97
		1001120	St. Shott's	232
		.	.	.

Tables 3 through 34 contain 1991 Census Profile Data, showing data characteristics from either the 100% data or the 20% sample data, according to each MIZ category and preliminary 1996 Census CMAs and CAs. To assist in reading Tables 3 through 34, the following examples show selected rows and columns from some 100% data and 20% sample data tables together with a brief narrative explaining how to interpret highlighted data.

The highlighted number from Table 3 shows that there are 16,145 husband-wife families living in No MIZ CSDs. These are CSDs that have a commuting flow percentage of 0% or fewer than 40 persons in the employed labour force and are located in the North part of the country.

Example of Selected Characteristics from Table 3 – Canada, 1991 Census (100% Data)

Canada Summary

No.	Characteristics	Moderate MIZ			Weak MIZ			No MIZ		
		North	South	Total	North	South	Total	North	South	Total
	FAMILY CHARACTERISTICS									
100	Total husband-wife families (5)	21,785	564,210	585,995	67,890	406,655	474,550	16,145	57,100	73,245
101	Total families of now-married couples	18,400	504,120	522,515	56,800	365,005	421,805	13,020	51,200	64,220
102	Total without sons and daughters at home	6,310	201,605	207,915	16,660	142,365	159,020	2,910	20,605	23,515

The highlighted number from Table 5 shows that there are 430,250 occupied private dwellings in CSDs that are in CMAs and CAs located in the South part of the Atlantic Provinces.

Example of Selected Characteristics from Table 5 – Atlantic Provinces Summary, 1991 Census (100% Data)

Atlantic Provinces Summary

No.	Characteristics	CMA/CA			Strong MIZ			Moderate MIZ		
		North	South	Total	North	South	Total	North	South	Total
	DWELLING CHARACTERISTICS									
72	**Total number of occupied private dwellings**	3,375	430,250	433,630	...	44,030	44,030	175	134,890	135,070
73	Owned	2,630	284,645	287,275	...	38,090	38,085	175	112,715	112,890
74	Rented	750	144,950	145,700	...	5,760	5,760	0	22,030	22,035

The highlighted number from Table 6 shows that the total population (non-institutional) of all CSDs located within CMAs or CAs is 1,214,630 in the Atlantic Provinces. It also shows that there are 405,625 people living in Moderate MIZ CSDs (CSDs that have a commuting flow percentage of at least 5% but less than 30%) located in the South part of the Atlantic Provinces, who speak one home language.

Example of Selected Characteristics from Table 6 – Atlantic Provinces Summary, 1991 Census (20% Sample Data)

		Atlantic Provinces Summary								
No.	**Characteristics**	**CMA/CA**			**Strong MIZ**			**Moderate MIZ**		
		North	**South**	**Total**	**North**	**South**	**Total**	**North**	**South**	**Total**
	POPULATION CHARACTERISTICS									
1	**Total population (non-institutional) (1) ....**	11,390	1,203,240	1,214,630	...	132,130	132,130	630	407,305	407,940
	by home language									
2	Single responses	11,370	1,197,005	1,208,370	...	131,520	131,520	630	405,625	406,250
3	English	10,885	1,106,740	1,117,620	...	99,010	99,015	630	346,760	347,390

The highlighted number from Table 18 shows that there are 7,922,920 people who are 15 years of age and older in Ontario. It also shows that there are 1,875 people living in No MIZ CSDs (CSDs with commuting flow percentages of 0% or fewer than 40 persons in the employed labour force) located in the South part of Ontario, that are 15 years and over and have less than a grade 9 education.

Example of Selected Characteristics from Table 18 – Ontario, 1991 Census (20% Sample Data)

		Ontario								
No.	**Characteristics**	**Weak MIZ**			**No MIZ**			**Ontario**		
		North	**South**	**Total**	**North**	**South**	**Total**	**North**	**South**	**Total**
187	**Total population 15 years and over ....**	39,680	134,855	174,535	10,815	8,930	19,745	69,945	7,852,980	7,922,920
	by highest level of schooling									
188	Less than grade 9 (18)	7,400	19,045	26,450	4,295	1,875	6,170	14,970	896,995	911,965

Geography Working Paper Series

<u>Number</u>

1993-1   ***A Comparison of Census Geographic Areas of Canada and the United States***, Carolyn Weiss, Michael Ratcliffe and Nancy Torrieri (November 1993)

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