1.1. Understanding SARTRE

A. General definition

SARTRE is a database with a high degree of geographical precision encompassing retail sales estimates by region. "Region" is defined by a six-character postal code for rural areas and the FSA[1] for urban areas. From 1989 to 1998 it was a CTI code (1980) that represented the *type of retail business*; beginning with the 1999 reference year, the CTI code was replaced by the NAICS code.

B. Final output (Table 1)

Table 1
Table Format - Rural Postal Code (West Carleton Township)

Année	CTI	C.P.	Ventes ($000)	Emplacements
1997	6	K0A1A	35,69	33
1997	60	K0A1A	21,99	11
1997	601	K0A1A	15,89	6
1997	602	K0A1A	x	x
1997	603	K0A1A	x	x
1997	61	K0A1A	x	x
1997	612	K0A1A	x	x
1997	613	K0A1A	x	x
1997	62	K0A1A	x	x
1997	621	K0A1A	x	x
1997	63	K0A1A	8.15	10
1997	631	K0A1A	x	x
1997	633	K0A1A	4,24	4
1997	634	K0A1A	x	x
1997	635	K0A1A	x	x
1997	64	K0A1A	x	x
1997	641	K0A1A	x	x
1997	65	K0A1A	x	x
1997	652	K0A1A	x	x
1997	653	K0A1A	x	x
1997	658	K0A1A	x	x
1997	659	K0A1A	x	x

The SARTRE final output data consists of 5 variables: the year, the NAICS code, the FSA or postal code for rural areas, the retail sales estimate and the number of stores.

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[1] Forward Sortation Area. To obtain more information on the FSA codes, please see the "Compilation of maps of Canadian FSA" published by Canada Post.

C. Some key definitions

i. Forward Sortation Area

The *postal codes* correspond to geographical units defined by Canada Post. This is a six-character code consisting of letters and numbers divided into two groups of three characters each. The first 3 characters represent the Forward Sortation Area (FSA). This part of the postal code indicates the *greater region* where the mail has to be delivered. The second part of the postal code is a *postal code centre* (PCC). This element indicates the *street, street number* and, in certain cases, the *recipient* of the mail[2].

An FSA in metropolitan areas represents a geographical unit smaller than the census subdivision (for example: Greater Vancouver). This is the first sorting element in the postal code. The FSA code indicates an area within a province, region or territory of Canada. The first character in an FSA code indicates one of the ten provinces, one of the three territories or one of the six regions or geographical sectors in Canada. The second and third characters identify the exact neighbourhood within a municipality, town or other geographical sector where the mail will be delivered[3]. Canada Post classifies the FSA as either rural or urban. A rural FSA can be recognized by the presence of "0" in its second position. In this case we are talking about a rural post office serving certain rural areas. In the case of rural areas, the FSA is not so significant, since it can cover a large expanse. This can affect the confidentiality of the data. For this reason, when it comes to rural areas, we base our analysis on all six characters of the postal code (FSA and PCC). In 2000, there were 1300 urban FSAs in Canada.

ii. Standard Geographical Classification (SGC)

The standard geographical classification (SGC) is a classification established by Statistics Canada mainly for census purposes. Its goal was to allow for the production of integrated statistics by geographical region[4]. Understanding the SGC system is important as it plays a role in the questionnaires sent to the clients. The SGC embraces three types of geographical unit: I) province or territory; ii) census division; iii) census subdivision. These three units form a hierarchical structure; in fact, census subdivisions form census divisions, which in turn form a province or territory. Table 2[5] shows the SGC structure and the hierarchical ties between each type of region.

Table 2
SGC Structure

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[2] Canada Post, 2001, "The compilation of maps of Canadian FSA", page v.
[3] Canada Post, 2001, "The compilation of maps of Canadian FSA", page vi.
[4] Statistics Canada, 1996, "Standard Geographical Classification (SGC)", Volume 1, page 7.
[5] Source: "Standard Geographical Classification SGC", 1996, volume I, page 12.

PR	DR	SDR	
35			Ontario
35	18		Durham Regional Municipality
35	18	013	Oshawa

The Geography Division of Statistics Canada also developed a list of other geographical units that we used in the SARTRE questionnaires. An outline follows:

- *Census Metropolitan Area (CMA) and Census Agglomeration (CA)* : the basic concept behind these standard units serves to link "an agglomeration centre with adjacent urban and rural regions, the level of economic and social integration of which with the agglomeration centre is high". A CMA surrounds an agglomeration centre with at least 100,000 inhabitants, while a CA has at least 10,000 inhabitants. The census subdivision (CSD) is the basic unit of the CMA and the CA.

- *Economic Region (ER)*: this standard geographical unit was created to allow for the presentation and analysis of regional economic activities.

- *Enumeration Area (EA)*: "enumeration area corresponds to the geographical region enumerated by a census worker. The EA represents the smallest geographical area, for which census data are established. The EA serves to respond to the needs of census data gathering and establishing acknowledged geographical census areas".

- *Federal Electoral District (FED)*: according to the SGC manual, an FED represents a territory, inhabitants of which have the right to elect a member of the House of Commons.

iii. "Input" Files

- *Retail Chains and Department Stores Survey*: an annual survey that gathers data on the retail sales of companies having fewer than four stores.

- *Postal Code Conversion File (Geography Division)*: this file establishes the links among the six-character postal codes and geographical units accepted at Statistics Canada. This file serves to verify the postal codes in the source files (the GIFI file and the Survey on Chain Stores); it also serves as a verification tool while converting (compiling) postal codes to SGC units.

- *File T2*: The data is extracted using the GIFI file of the Tax Data Division. This file contains information on the companies that have fewer than 4 stores and are incorporated.

D. Reasons for using the postal code-based geographical delimitation

The FSA coding system can be a valuable tool that direct marketing and service providing companies can use to target their clientele because the precise territorial limits of each code let them pinpoint their market or sales territory. The FSA coding system allows for a delimitation of territory according to the needs of the client. For example, a company wants to attempt to serve their customers more promptly and efficiently. To achieve that, it will need to determine the best territories for its sales and service teams. Those using SARTRE will be able to create a table showing exact sales data by industry on a territory with maximum geographical precision.

Finally, one of the main reasons why we should consider the postal codes as our geographical delimitation tool is the fact that the postal code appears in the source files (both the chain store file and the tax data file), which will be discussed in more detail later. The FSA coding system gives a very good representation of communities in both urban and rural areas. In rural areas, the postal codes correspond to the annual economic and demographic profiles of the Small Area and Administrative Data Division

E. Usefulness of the SARTRE database

The main users of the SARTRE database are banks, restaurant chains, regional and industrial development groups, provincial governments, and private consulting firms. They can use the database for various purposes: carry out market and site localization researches; build economic profiles of small regions. Inquiries can be requested using FSA codes (or rural postal codes), FED, CMA or any other SGC code.

F. Strengths and weaknesses of the database

1- *Strengths:*
   o SARTRE is the only database that provides information on retail sales in Canada at a geographical level as small as the postal code.

It also provides detailed information at industry level using 5-digit NAICS codes commencing with the 1999 reference year.

- o Census of companies registered as corporations.
- o It is possible to use these data to build econometric models based on the retail sales variables. However, the strength of this database is cross-sectional rather than chronological analysis.
- o Its data follows closely the levels of data of annual and annualized monthly surveys.

2- *Weaknesses:*
- o This database cannot be used for chronological analysis. The main reason is that postal codes sometimes change from year to year; they also change often in growing communities.
- o The data published is 2 years old.
- o Many records are deleted for reasons of confidentiality (Duffett Rules).
- o It does not include non-incorporated stores, whereas the annual survey does.
- o Comparison with other sources of retail sales information (monthly and annual surveys (NAICS estimate)) at the FSA level is not possible and instead must be carried out at the provincial level.