

DREE COMMUNITY DATA:
VOLUME I - MASTER FILES

Department of Regional Economic
Expansion
Economic Development Analysis
Data Coordination
September 1978

D. Rothwell,
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PREFACE

The DREE Community Data Files are probably the most extensive single source of machine-readable community data within the Canadian government. The data base and retrieval system was designed to assist researchers in measuring or gauging the impact of national policies and programs at the community level. The user should bear in mind that the data, although collected as closely as possible at source, have not been verified by DREE. The system has proved to be very useful for macro-level research but extreme caution should be exercised if the user wishes to employ the data to produce truly accurate individual community profiles. DREE does not guarantee the accuracy of any of the data.

Since DREE is not a service bureau, like Statistics Canada, it is not obligated to release any of the enclosed data files. In general, however, Data Coordination's release policy is as follows:

1. Complete and free access to all DREE offices, with turn around time depending upon project priorities.
2. Other federal government departments may receive hard copy data via written request. (A limited number of FACT SHEET requests may be obtained without written permission.) Cost of data processing is journal vouch-ered to the receiving department.
3. Provincial government requests must go through DREE provincial offices.
4. Outside agencies or private firms must receive DREE provincial offices or other government department sponsor-ship to obtain data.
5. Machine readable files are not generally available out-side of DREE.

DREE's previous publication on this subject (February 1978) dealt with both the Master File and the FACT SHEET. Since

that time, however, both the Master File and FACT SHEET have undergone major restructuring. This has been due mainly to the receipt of 1976 Census data and the addition of 72 new communities. Restructuring has also allowed for the streamlining of some files and the removal of some variables which were never used.

While the Master File is now completed and available, the FACT SHEET is still under development. When completed the FACT SHEET will allow for interactive retrieval of an integrated system of community, county (with time series variables), and company data. The parameters of this system will be described in "DREE Community Data: Volume 2 - FACT SHEET" to be issued in the near future.

SECTION 1
INTRODUCTION

INTRODUCTION

In performing community research DREE often finds it necessary to have data which is not included in the Census. In 1975-76, a Task Force was formed to compile a community infrastructure data base. Part of the process was to determine the communities (or "units of analysis" as they became known) for which data was to be collected. The study eventually selected 1 061 communities. With the release of 1976 Census data, however, the community data file has been restructured and 72 new communities added (see Table 1).

A community is defined as a continuous built-up urban area which is geographically and economically separate from other urban centres. Normally a community will have either a rural hinterland or a specialized resource base.

Specifically, Data Coordination analysts selected as communities (or as parts of communities) all urban municipalities (cities, towns, villages, boroughs) of 1 000 population or more in the 1976 Census. In some cases, contiguous urban municipalities were combined into a single community. These cases involved Statistics Canada's Census Metropolitan Areas (CMA) and Census Agglomerations (CA) and other combinations decided upon by analysts. With a few exceptions, each CMA became one community.

In addition, some unincorporated urban clusters and places of under 1 000 population were selected as communities in areas lacking a larger urban centre.

The data base contains a file which lists the components of each community. Each component's name and 1976 Census geographic code are listed.

A DREE Community number is assigned to each unit of analysis in order to uniquely identify each community for which data is on file. The number contains 5 digits, which are used as follows:

- First digit: province code, ranging from east to west (Newfoundland '0', B.C. '9')
- Digits 2 to 4: assigned to communities within a province from largest population size to smallest. In Ontario, for example, Toronto is 001, Hamilton, 002, etc. In the Yukon, the sequence is 801... In the N.W.T., the sequence is 901... (since the first digit for these is '9' which is shared by B.C.)
- Last digit: indicates the community type
- 0 - Census Metropolitan Area
 - 1 - Census Agglomeration or other agglomerations
 - 2 - single incorporated centre
 - 3 - single unincorporated centre

The name of the city, town, village, or unincorporated place which is placed on the file is usually the largest (or only) single municipality or place in the community, e.g. Ottawa includes Vanier, Rockcliffe, Nepean, etc.

Included on the file is the two-digit Standard Geographic Classification (1976 version) county/census division code assigned to the division in which the community is located. In the few cases where a community is in more than one division, the division in which the majority of the community's population is located is chosen.

TABLE 1
NUMBER OF COMMUNITIES

| | <u>Communities</u> | <u>% of population included</u> |
|----------------------|--------------------|---------------------------------|
| Newfoundland | 95 | 74 |
| Prince Edward Island | 15 | 45 |
| Nova Scotia | 53 | 68 |
| New Brunswick | 74 | 66 |
| Quebec | 288 | 85 |
| Ontario | 247 | 87 |
| Manitoba | 59 | 75 |
| Saskatchewan | 74 | 57 |
| Alberta | 103 | 77 |
| British Columbia* | <u>125</u> | <u>84</u> |
| Canada | 1 133 | 82 |

* Includes Yukon and North West Territories

The following is a list of the major data subject areas on file:

1. 1976 Census of Population and Housing
2. Fire Protection
3. Health Services
4. Cultural and Recreation Facilities
5. Communications
6. Education Facilities
7. Sewer & Water Facilities
8. Transportation
9. Income
10. Retail and Service Facilities
11. Climate
12. Single Industry, Single Sector, Single Company
13. Other

Because the data file is continually growing and changing, users are advised to enquire about any changes or additions. Many of the variables listed on the following pages originally came from much larger data files. It is, therefore, possible that DREE possesses additional data on separate tapes which are not listed with the community files.

SECTION 2

VARIABLES

VARIABLE LIST

1. 1976 Census of Population and Housing

Population - 1971 and 1976

1976 Population by age groups and sex

- age 0-14
- age 15-24
- age 25-34
- age 35-54
- age 55-64
- age 65 and over

1976 Population by mother tongue

- English
- French
- Native
- Other

1976 Population 15 and over by school attendance

- full-time
- not full-time

1976 Population 15 and over by level of schooling

- less than grade 9
- grade 11 to 13
- some university
- university degree

1976 Population 5 and over by place of residence in 1971

- outside Canada
- a different province
- a different municipality, same province
- a different dwelling, same municipality
- same dwelling

1976 Population 15 and over by labour force activity, age group and sex

- Labour force activity
- employed

- unemployed
- not in labour force

Age group

- 15 and over
- 15 to 24
- 25 to 54
- 55 to 64
- 65 and over

1976 Families - total

1976 Families with only one parent at home

1976 Number of children in families

1976 Dwellings by tenure

- owned
- rented

1976 Dwellings by type

- single detached
- attached
- apartments
- movable dwellings

1976 Husbands in families by labour force activity

- employed
- unemployed
- not in labour force

1976 Lone parents in single-parent families by labour force activity

- employed
- unemployed
- not in labour force

2. Fire Protection

Fire protection class

" " deficiency points

3. Health Services

Number of physicians
" " general practitioners
Guttman scale of physicians
Number of specialists
Hospital beds
" staff
" patient days
" outpatient visits
" operating costs

4. Cultural and Recreation Facilities

Number of museums
" libraries
" library books
" auditoriums/theatres
" tennis courts
" ice rinks
" swimming pools
" ball fields
" bowling lanes
" curling ice sheets
" supervised playgrounds
" golf courses

5. Communications

Daily newspapers
Issues per week
Circulation of newspapers
Number of AM radio stations
Number of FM radio stations
Highest wattage in T.V. stations
Number of cable T.V. stations

6. Education Facilities

Number of teachers - English, French
" pupils - English, French
" grades covered, English, French
Level of post-secondary facilities

7. Sewer & Water Facilities

Existence of sewer system
Number of sewage treatment plants
Population served by sewers
Design daily flow - sewage treatment
Average daily flow - sewage treatment
Population served - sewage treatment
Level of sewage treatment
Existence of water distribution network
Number of water treatment plants
Population served by water treatment
Average daily flow - water treatment
Design daily flow - water treatment

8. Transportation

Passenger transport facilities by mode (air, bus, rail)
- distance to nearest facility
- quality of nearest facility
- number of carriers servicing facility
- number of daily service arrivals
- seat miles

9. Income

Total income - all returns
Number of all returns
Total income - taxable returns
All returns by income class
- under \$4 000

- \$ 4 000 - \$ 8 000

- \$ 8 000 - \$12 000

- \$12 000 - \$20 000

- over \$20 000

Income distribution indicator

Income from unemployment insurance benefits

" " pensions

" " transfer payments

" " farming or fishing

" " employment

" " other sources

10. Retail and Service Facilities

Value of retail sales

Number of retail establishments

" banking companies

" bank branches

Guttman scale of retail and low order services

Guttman scale of high order business services

11. Climate

Number of days with precipitation

" " " " bright sunshine

Yearly rainfall

" snowfall

Mean monthly maximum temperature

" " minimum "

Length of frost-free period

12. Single Industry, Single Sector, Single Company

Single industry community

Single company "

Single sector "

Main activity

SIC code

13. Other

Number of law firms

" Chambers of Commerce

" exhibitions or fairs

Volume of metered mail revenue

Electoral District

Canada Manpower Centre

SECTION 3
SOURCE & DESCRIPTION

1. 1976 Census of Population and Housing

Population

The 1971 Census population represents 1976 community boundaries. It is therefore possible to have exact geographic comparisons between the two Census years.

Population by age group and sex

Data was obtained from a 1976 Census enumeration area level computer file. The 12 fields represent six major age categories for each sex; for example, the first field contains the number of males under 15 in the community.

Population by mother tongue

This data also comes from a 1976 Census enumeration area level computer file. Data is given for each enumeration area (e.g. the number of persons claiming English as their mother tongue in the enumeration area). A table indicating which enumeration areas are in each community is used to form community level aggregate figures. The mother tongue of a person was defined as the language "first learned and still understood". Data on the community file includes totals for the two major linguistic groups, for the category "native Indian", and for a summary of all others.

Full-time school

From a 1976 Census file, this field is defined as the number of people aged 15 or more who are in full-time attendance at an educational institution. The following field, "not attending or part-time", includes all people aged 15 or more who are not in full-time attendance.

Population aged 15 or more by level of schooling

Data is from a 1976 Census enumeration area file.

aggregated as follows:

- a) Less than grade 9 - a count of persons aged 15 or more who have not completed at least grade 9.
- b) Grade 11 to 13 - a count of persons aged 15 or more who have completed at least grade 11 and no more than grade 13.
- c) Some university - a count of persons aged 15 or more who have completed some university, but have not obtained a degree.
- d) University degree - a count of persons who have obtained at least one university degree.

Population aged 5 or more by mobility status

Data is from a 1976 Census enumeration area file.

- a) Migrants outside Canada - a count of persons in the community (in 1976) aged 5 or more who were residing outside Canada in 1971.
- b) Migrants outside province - a count of persons in the community (in 1976) aged 5 or more who were residing in another province in 1971.
- c) Migrants same province - a count of persons in the community in 1976 aged 5 or more who were in another municipality in the same province in 1971.
- d) Non-migrants same municipality - a count of persons in the community in 1976 aged 5 or more who were in the same municipality in 1971 but in a different dwelling.
- e) Non-migrants same house - a count of persons who were living in the same dwelling in 1971.

Population aged 15 or more by labour force activity, age group and sex

Data is from a 1976 Census enumeration area file. The fields on the file include all possible cross-tabulations of the following:

a) Labour force activity

- (i) employed - in the week prior to the Census
- (ii) unemployed - in the week prior to the Census
- (iii) not in the labour force - in the week prior to the Census

These definitions are similar to those used by the monthly Labour Force Survey.

- b) Age groups - 15 and over, 15 to 24 inclusive, 25 to 54 inclusive, 55 to 64 inclusive, and 65 or more.
- c) Sex - male, female.

Data on families from the 1976 Census

A family is defined by the Census as a unit consisting of either a married couple (with or without children) or a lone adult with at least one child.

- a) Total families - a count of all such units
- b) Lone parent families - a count of all units with a lone parent.
- c) Children in families - a count of all children in families.

Characteristics of dwellings as measured by the 1976 Census

A dwelling is a unit with its own entrance, accessible without passing through another dwelling. Each dwelling is occupied by one household. Data comes from a 1976 Census file.

- a) Total dwellings - count
- b) Owned dwellings - count of dwellings owned by the household occupying the unit. Rented dwellings constitute the remainder of all units.
- c) Dwelling structural types - single-detached, attached, apartment, movable. These are as defined on the 1976 Census questionnaire. Reference to the dwelling illustrations on the questionnaire may be necessary to understand exact distinctions.

Husbands in 1976 Census families (as defined earlier) by labour force activity (employed, unemployed, or not in labour force)

The definitions coincide with those in the monthly labour force survey. The total number of families for whom this data is presented includes only those in which both parents are at home.

Non-family persons

A count of all persons who are not members of 1976 Census families.

All of the above 1976 Census fields come from Enumeration Area level computer tape files. As all communities on the community file have been defined in terms of their component enumeration area, all records on the file should have non-missing data in all of these fields. Any zero values found herein are zeros rather than blanks.

2. Fire Protection

A private organization, the Insurance Advisory Association, rates the fire protection capability of municipalities. Such things as the physical condition of buildings and the capability of fire-fighting equipment are among those factors taken into account. For areas of protection deficiency, points are assigned up to a total of 5 000. Thus the fewer the number of points the better is the protection. Point totals are also ranged into classes from 1 to 10, in intervals of 500. For example, a point rating of 450 receives a class score of 1; a rating of 4 900 receives a class score of 10. The data mainly refers to 1976 (although the ratings for some centres are based on earlier data). A score of 0 or blank indicates data are not available.

Caveats

1. Ratings are done on an ongoing basis, so the reference time for one community's rating can be different from that for another place. This time ranges from 1960 to 1977 with the majority of places being rated in the last three years.
2. One must accept IAA's judgement. The process by which a rating is generated is probably impenetrable.
3. Not all communities are covered.
4. Not all parts of some of our CMA or CA communities are covered. This was adjusted by taking a weighted average (weight being population of the CMA part in question) of all the municipality ratings in a CMA or CA.

3. Health Services

Physicians

Data on physicians comes from a mailing list file maintained by Southam Business Services and used by Health & Welfare Canada. There is data for some doctors who are not in current practice, but these are not included in the total found on the community file. The data refers to January 1976.

- a) Number of physicians - number of general practitioners and certified specialists who are classed as "active" (in private practice, in hospitals, etc).
- b) Number of GPs - number of general practitioners.
- c) Guttman Scale - a score indicating the level of medical specialist service available to the community. Generally, the higher the score, the more sophisticated and numerous are the specialties available. An explanation of Guttman scaling is available in Section 4.

- d) Number of specialties - the number of different specialties covered in the community.

Field values of 0 or blank indicate no doctors resident in the community.

Caveats

1. Only those physicians listed as general practitioners or certified specialists were selected. This omits interns and some hospital residents (those who are not certified specialists).
2. Only the indicated "first specialty" for specialists was used. There are possibilities of "second specialty", and of "prime interest" (for GPs only); neither of these was used.
3. Only those who called themselves "active" were selected. This excluded "military" doctors.
4. Physicians were located in terms of our community codes, by using two fields.
 - a) Postal code
 - b) City code: a code unique to this file.Occasionally these two were in conflict; sometimes one or both were absent. If both were absent, we ignored the physician. Conflicts were resolved by inspection and thereafter by "best guesses". The conflicts account for perhaps 2 per cent of the file.
5. Postal code (and city code) boundaries are not always coincident with community boundaries. For most communities, however, there is very little overlap.

Hospitals

Data was obtained from the Hospitals Statistics section of Statistics Canada. A record is kept of every

provincially chartered hospital. Data refers to the year 1975.

- a) Beds - number available for use; average for the year.
- b) Staff - number of full-time staff, plus one-third of the number of part-time staff; average for the year
- c) Out-patient visits - number of out-patients visiting emergency care in the year (all hospitals in the community).
- d) Operating costs - total for all hospitals in the community.

Blank or 0 values indicate zero scores, rather than missing data.

4. Cultural and Recreation Facilities

Museums

Source of data is a survey of socio-cultural facilities taken by Health & Welfare Canada in 1972, with additional information from Museums Canada and from the Canada Almanac.

Libraries and Library books

Data comes from the survey of socio-cultural facilities taken in 1972, with additional information from the Canada Almanac.

Auditoriums/theatres

Data comes from the 1972 survey of socio-cultural facilities. The definition includes indoor or outdoor facilities for staging plays, movies, musical performances, etc.

Data variables pertaining to museums, libraries, auditoriums and recreation facilities were recorded by 1971 Census municipality codes. As such, it was not possible to provide data for some of DREE communities, whose boundaries had

changed significantly since 1971. Therefore, a large number of community records will have blank or zero values for these variables. For those communities having such values for all variables, the data can be assumed to be missing. If a record has a non-zero value in at least one of the fields, then zeros or blanks in any of the others indicate zero (no facility).

Recreation

This data comes from a survey of sports and recreation facilities undertaken by Health & Welfare Canada in 1974.

- a) Tennis courts - number of enclosed (indoor or outdoor) courts maintained by some authority or organization.
- b) Ice rinks - number of facilities having artificial ice rinks.
- c) Pools - number of indoor and/or outdoor swimming pools operated by some authority or organization (public or private).
- d) Ball fields - number of "official" baseball or softball fields. These are basically those diamonds with a backstop.
- e) Bowling lanes - total number of lanes in all bowling facilities in the community.
- f) Curling sheets - total number of artificial ice sheets in curling facilities in the community.
- g) Supervised playgrounds - number of playgrounds regularly supervised by some authority or organization.
- h) Golf course - number of private or public golf courses (par 3 or regulation).

5. Communications

Newspapers

This data comes from a publication "Canadian Advertising-

Rates and Data" published in 1978. This publication lists among other things all newspapers in which advertising space is available. These include dailies, weeklies, other community newspapers, foreign language publications, etc. Community totals refer to papers published in (or exclusively for) the community.

- a) English papers: number of dailies - number of papers publishing in English at least 5 times per week.
- b) English papers: number of issues per week - counts all issues of papers in a week in the community. Papers publishing twice a day contribute 12 to the total, those publishing once a day contribute 6, weeklies contribute 1, etc.
- c) English papers: circulation + verified circulation totals for all daily or weekly papers publishing in the community added together. Figures for dailies are added directly to figures for weeklies - no weights are given to dailies.
- d) French papers - the three fields here are similar in calculation to those for English papers. Note that any bilingual papers are included fully in both English and French totals.
- e) Other papers - these include papers published in languages other than English or French. The fields are similar to those for English and French. The field "number of languages" is a count of the number of languages (not English or French) used in at least one paper published in the community. Note also that the "total issues" field is per month, rather than per week, as many foreign-language papers publish only once or twice a month.

Radio stations

This data also comes from "Canadian Advertising - Rates and Data". Community totals refer to stations having

their studios in the community, rather than in the number of stations a receiver in the community may pick up.

- a) AM and FM stations - the count of the number of stations transmitting under each mode.
- b) Wattage - the wattage output of the station with the highest output.

Similar data is present for English stations and for French stations. Bilingual stations are counted fully into each language.

TV stations

This data comes from various sources including "Canadian Advertising - Rates and Data", the CRTC, and the TV Guide Company.

- a) TV broadcast - count of TV stations with studios in the community, i.e. where there is some local input into programming. This excludes community cable TV stations which are included in another field.
- b) TV rebroadcast - count of TV rebroadcast stations.
- c) Wattage - the wattage output of the broadcast station with the highest output.
- d) Number of cable stations - the total number of different channels available via community cable companies.

Note that bilingual stations are counted in both English and French totals.

6. Education Facilities

Primary and Secondary

This data was supplied by provincial Departments of Education via the Education Statistics section of Statistics Canada. There is a record for each public elementary,

junior secondary and secondary school, on a computer file. This data was originally coded by a school code and a school board code, thus the linkage to the community level was time-consuming and not exact. The data refers to the 1977-78 year. Data was not made available for Quebec. Each school had a language code, indicating whether instruction was in English, in French, or whether the school was classed as "bilingual". If "bilingual", no exact method was available to decide how many students and teachers were working in English and how many in French. Thus a separate set of fields was included to store data from "bilingual" schools.

- a) Number of teachers - the "full-time equivalent" figure was used to arrive at the total number of teachers working in schools in the community, in the school year in question. This adds part-time teachers.
- b) Number of pupils - total number attending schools in the community.
- c) Grades covered - this field has the following values:
 - 0 - no schools
 - 1 - at least grade 1, and less than grade 6
 - 2 - at least grade 6, and less than grade 9
 - 3 - at least grade 9, and less than complete high school
 - 4 - complete coverage (i.e. grade 1 to high school completion). Note that high school completion grades differ from province to province.
 - 5 - only high school (this is often true for bilingual schools)

Note that these fields are similarly defined for each language group.

Post-secondary institutions

This field comes from Statistics Canada referring to 1976-77. The level is blank if no post-secondary institution exists in the community. If institution(s) exist, the level shows what type(s) are available.

The codes are:

blank or zero - no facility

1 - a facility which is a community college

2 - a degree-granting institution

Only the highest relevant code is assigned.

6. Sewer and Water Facilities

This data was collected by Environment Canada in 1976 via a questionnaire survey of incorporated municipalities across Canada. Officers of each local authority were asked to provide information about municipal water distribution and treatment facilities, and waste water collection and treatment facilities. The data was given to DREE on a file with records for each municipality and for each treatment facility, all of which had a Standard Geographic Classification (SGC) code applied. Thus, via a table relating SGC-coded municipalities to communities, community-level aggregations could be made. Users should be cautious of this data, because errors were found and some may still exist on the file. In addition, many fields (especially those on design and average flows) have a significant volume of missing data. For information on specific communities, the researcher is encouraged to check with EC.

- a) Sewer system - coded '0' or '1' depending on whether or not a municipal sewage collection system exists. A blank on this field would mean that the municipality

had either not been surveyed or had not responded - thus the data is missing. For such records, all other fields in this section should be blank.

- b) Number of treatment plants - the number of sewage treatment plants found in the municipality. Note that a facility in one municipality may also serve other municipalities, thus a given community may show zero treatment plants and also show a non-zero value for "population served by "treatment plants".
- c) Population served by sewers - the total population in the community served by municipal sewage collection systems.
- d) Design flow - the number of cubic feet per day of raw sewage that the total treatment facilities in the community were designed to handle.
- e) Average flow - the number of cubic feet per day of raw sewage measured flowing through treatment facilities, in the average day.
- f) Population served by sewage treatment - total population in the community whose sewage is collected and passed to a sewage treatment facility, whether or not that facility is in the community in question.
- g) Level of sewage treatment - primary treatment (only) is indicated by '1', secondary treatment by '2', tertiary treatment by '3'.
- h) Water distribution - coded '1' or '0' indicating whether a community is served or not served respectively by a municipality water distribution network. Succeeding fields pertaining to water treatment are defined similarly to those pertaining to sewage treatment. The field "sufficient water" is coded '0' (no) or '1' (yes) depending on the evaluation of the municipality as to whether or not the

available water supply is sufficient to meet all current needs.

A general note on the Environment Canada data is that not all communities will have data. For those that do (in at least some fields)

- i) if a treatment facility exists, the population served, design flow, average flow, and level of treatment fields should have values in them. Blanks or zeros indicate missing values. If a facility does not exist, these fields are all zero.
- ii) in other fields (existence of system, number of plants, population served by sewers), values of zero or blank mean zero.

8. Transportation

Transport Canada supplied DREE with files containing information on passenger transport facilities serving about 700 communities. The definition of community employed by Transport follows closely upon that used by DREE in an earlier, 1971 Census-based community file. Thus the current community file has transport data for those communities whose boundaries vary little from the 1971 version. About 600 communities are still covered. The data refers to the summer of 1976. Modes for which data are recorded are rail, bus and air transport.

- a) Distance to facility - a file of inter-community linkages enabled DREE, for each of the 600 communities covered, to determine the distance from the community to the facility of the mode in question. For example, if a community has a railway station, the "distance" to rail facility is roughly the radius of the community. If it does not have an airport, the "distance" to air facility is the distance to the nearest community with an airport.

- b) Quality of facility - this is a rating of the best railway, airport or bus station in a community, depending on size, passenger throughput, amenities and services offered, etc. The ratings went from 1 for the most fully serviced to 9 for the smallest and least serviced.
- c) Number of carriers - the number of separate carrying companies servicing the community in a typical week.
- d) Number of arrivals by day - represents the number of scheduled services stopping in the community on each day of the week. These fields have 21 characters: the first three characters count Sunday arrivals, the second three Monday arrivals, etc.
- e) Seat miles - this is a summary of the seat miles available on all scheduled services stopping in the community on a given weekday. For a particular service, seat miles equals the product of the number of seats times the mileage travelled by the service.

Note that in all transport variables, the data pertain to the facility to which the community is linked - which may not necessarily be in the community. Thus one must consider the "distance to facility" field in evaluating the adequacy of service to a given community.

9. Income

This data comes on computer file from Revenue Canada Taxation. The data refers to the 1976 tax year. Information found on tax returns submitted by individuals is aggregated to the "locality" level and each locality is given a code which can be related to community. It should be noted, however, that returns are coded based on a person's mailing address, with the result that many

taxfilers living in rural areas are coded to the nearest urban centre. Thus aggregate data may overstate the case for some communities; however, averages or distributions should be reliable. Income data is divided into two parts: that based on all returns and that based on a sample and estimated for all returns.

a) All returns data

- i) Total income, all returns - given in thousands of dollars. Includes all returns, whether tax was paid or not.
- ii) Number of all returns - all individual returns submitted to the Revenue Canada in 1976.
- iii) Total income, taxable returns - given in thousands of dollars. Includes only returns on which tax was payable.
- iv) Number of taxable returns - submitted in 1976
- v) Returns by class - number of returns submitted (taxable or non-taxable) with total reported income falling within the indicated income range (under \$4 000, \$4-8 000, \$8-12 000, \$12-20 000, \$20 000 or more).
- vi) Distribution indicator - this value is calculated for each community by calculating the mean income over all returns and the standard deviation, then calculating the mean deviation (which is the distribution indicator). This value falls between zero and one, with a high value indicating that income is rather unevenly distributed throughout the community.

b) Data estimated from a sample of returns

- i) all sources - total income shown on all returns.

- ii) income (total) from each indicated source - the totals indicate the total income reported in a community from the given sources. "UIC" is unemployment insurance benefits; "transfers" include UIC, family allowance and pensions, and "other sources" are all those not mentioned in other fields.

Further explanations of these statistics are found in the Revenue Canada publication, "Taxation Statistics".

10. Retail and Service Facilities

Retail Sales

This data comes from Statistics Canada's 1971 Census of Merchandising (no Census was done in 1976). All retailers were enumerated and data was presented for urban municipalities. A number of communities on file will not have any data in these fields, thus a value of zero or blank is to be interpreted as missing data.

- a) Retail sales - total, in thousands of dollars, of all retail sales in the community in 1970.
- b) Retail population - the population of that portion of the community which was enumerated by the Census of Merchandising.
- c) Retail establishments - count of enumerated retail establishments.

Banks

This data comes from a Bank Directory (1977 version) published by a private company, and from a publication of Caisse Populaire. For each community, it was determined how many different banking companies (e.g. Caisse Populaire, Bank of Montreal) were in operation, and how many branches

were open.

Guttman scales on retail and low order services as well as high order business services is described in Section 4.

11. Climate

This data is from Transport Canada and Environment Canada publications. The data refers to averages, over long periods of time, of climatological phenomena. Data includes:

- a) Number of days in a year when measurable precipitation occurs - average.
- b) Yearly rainfall and snowfall - rainfall in millimetres and snowfall in centimetres - average.
- c) Mean maximum - this is the mean maximum of the hottest month for the community - average Celsius degrees.
- d) Mean minimum - of the coldest month for the community, on the average, in Celsius degrees.
- e) Average length of the frost-free period in days.
- f) Average number of days with bright sunshine in a year.
This variable is missing for many communities.

Data is not available for all communities. Values of zero or blank indicate missing data.

12. Single Industry, Single Company, Single Sector

Single industry community

If so designated (code 1), a community has been identified as such in an analytical process undertaken by Data Coordination. This process identified a community if over 30 per cent of its labour force was engaged in one

"3-digit" Standard Industrial Classification (SIC) coded industry. In some cases, this criteria was slightly modified owing to other elements in a community's industrial structure.

Single company community

A similar methodology was followed except that one single company had to employ 25 per cent or more of community labour force.

Single sector community

This is similar to the above except that the industrial categories were wider. Here all industries in a given "sector" were merged. For example, the "forestry" sector included the primary forestry industry (logging, etc.), the manufacturing major groups "wood products", and "paper and allied products". A complete list of these sectors follows.

Main economic activity

If a community was identified as a single-sector community, a code indicating the main activity was given in this field. These activity codes are provided below:

- 01 - Agriculture and processing
- 02 - Fishery and processing
- 03 - Forestry and processing
- 04 - Mining, smelting and primary metal manufacturing
- 05 - Clothing, textiles, leather, rubber manufacturing
- 06 - "Heavy" industries (manufacturing)
- 07 - Chemicals or electrical products
- 08 - Tourism, recreation, accommodations
- 09 - Construction
- 10 - Transportation
- 11 - Defense services
- 12 - Other federal administrations
- 13 - Utilities
- 14 - Education services
- 15 - Health services
- 20 - Research
- 21 - Agricultural Service Centre

SIC code

This is the 3-digit Standard Industrial Classification code of the main industry in the community. This was assigned (with a few exceptions) to communities identified as "single-sector". Since no code in the SIC system is available for "Agricultural Service Centres", these were coded as 650. Agricultural Service Centres are those where less than 5 per cent of the labour force are employed in production activities other than agriculture.

12. Other

Almanac

A variety of data is found in the Canadian Corpus Almanac (1978 edition), which can be related to communities. The following are placed on the community file

- a) Chambers of Commerce - number
- b) Exhibitions, agricultural fairs - number
- c) Post office - zero indicates no post office, '1' and '2' indicate levels of service ('2' being higher service level).
- d) Law firms - number

Metered Mail

This data comes from the Post Office. Data is given in printout form for each postal station or post office. Data was related to community by the name of the station. The data used was the dollar value of metered mail sales - used mainly by business.

Electoral District (ED)

There are two fields on file. The first (ED-OLD) refers to the federal electoral district (in coded form)

in which the community was located, in terms of the boundaries in effect via the 1966 representation order. These are the boundaries upon which the 1974 election were contested, and the boundaries relevant to the ED codes found on 1976 Census enumeration area level files, and in most 1976 Census publications. The second code (ED-NEW) refers to the district in which the community is located, in terms of the boundaries in effect via the 1976 representation order. These are in fact the boundaries upon which the next election will be contested. In major cities with more than one constituency, only one ED code was given in each field.

Canada Manpower Centre (CMC)

This field presents the code for the Canada Manpower Centre area in which the community is found. In major cities with more than one CMC area, only one CMC code is given.

SECTION 4
GUTTMAN SCALES

Health Services

A Guttman scale of health specialties was developed using data on physicians by specialty and place of residence obtained from a directory maintained by the Canadian Medical Association. The final scale orders 35 medical specialties and one item representing the existence of a hospital in the community.

The table below lists the specialties in their order on the scale, with the corresponding scale score for communities having specialties to this level:

| <u>Scale Score</u> | <u>Order of Specialties</u> |
|--------------------|--------------------------------------|
| 0 | (No medical specialty listed) |
| 1 | General practitioner |
| 2 | Hospital |
| 3 | General surgery |
| 4 | Diagnostic radiology |
| 5 | Internal medicine |
| 6 | Psychiatry |
| 7 | Obstetrics and Gynaecology |
| 8 | Ophthalmology |
| 9 | Pediatrics |
| 10 | Pathology |
| 11 | Otolaryngology |
| 12 | Orthopaedics |
| 13 | Urology |
| 14 | Dermatology |
| 15 | Plastic surgery |
| 16 | Physical medicine and rehabilitation |
| 17 | Bacteriology and microbiology |
| 18 | Neurology |
| 19 | Anatomical pathology |
| 20 | Respiratory diseases |
| 21 | Haematology |
| 22 | Gastro-enterology |
| 23 | Thoracic surgery |
| 24 | Biochemistry |
| 25 | Tuberculosis |
| 26 | Endocrinology |
| 27 | Nephrology |

| <u>Scale Score</u> | <u>Order of Specialities</u> |
|--------------------|------------------------------|
| 28 | Nuclear medicine |
| 29 | Allergy |
| 30 | Haematological pathology |
| 31 | Rheumatology |
| 32 | Immunology |
| 33 | Pulmonary diseases |
| 34 | Electro-encephalogram |
| 35 | Cardio-vascular surgery |
| 36 | Neuropathology |

A cut-off of one specialty was used to measure the presence of the specialty in the community. The following statistics were obtained:

| | |
|----------------------------------|-------|
| Total errors | 397 |
| Non-modals across | 3 097 |
| Non-modals down | 2 535 |
| Coefficient of Scalability | 84% |
| Coefficient of Reproducibility | 99% |
| Minimum Marginal Reproducibility | 93% |
| Percent Improvement | 5.6% |

High Order Business Services

The April 1977 Dun and Bradstreet count of establishments by standard industrial code was used to develop a 15-item scale of high order business services. The following is a list of items and relevant statistics:

Scale Score of Canadian Communities

| <u>Scale Score</u> | <u>Description</u> | <u>SIC Number</u> | <u>Threshold Size</u> | <u>No. of Communities</u> |
|--------------------|---------------------------------|-------------------|-----------------------|---------------------------|
| 15 | New Syndicate | 735 | 1 | 10 |
| 14 | Personnel Supply Services | 736 | 2 | 6 |
| 13 | Credit Reporting and Collection | 732 | 2 | 4 |
| 12 | Head Office Banking | 60 | 1 | 11 |

High Order Business Services cont'd

| <u>Scale Score</u> | <u>Description</u> | <u>SIC Number</u> | <u>Threshold Size</u> | <u>No. of Communities</u> |
|--------------------|---|-------------------|-----------------------|---------------------------|
| 11 | Security and Com- modity Brokers | 62 | 1 | 13 |
| 10 | Computer and Data Processing | 737 | 1 | 8 |
| 9 | Insurance Carriers | 63 | 1 | 8 |
| 8 | Advertising | 731 | 1 | 17 |
| 7 | Mailing, Repro- duction, Steno- graphic | 733 | 1 | 27 |
| 6 | Credit Agency | 61 | 1 | 33 |
| 5 | Services to Buildings | 734 | 1 | 55 |
| 4 | Miscellaneous Business Services | 739 | 1 | 71 |
| 3 | Insurance Agents | 64 | 1 | 62 |
| 2 | Holding and Other Investment Offices | 67 | 1 | 125 |
| 1 | Real Estate Agents and Managers | 65 | 1 | 101 |
| Total | | | | 551 |

Retail and Low Order Services:

The April 1977 Dun and Bradstreet count of establishments by standard industrial code was used to develop a 41-item scale of retail and low order services. The following is a list of items and relevant statistics:

SCALE SCORE OF CANADIAN COMMUNITIES

| <u>Scale Score</u> | <u>Description</u> | <u>SIC Number</u> | <u>Threshold Size</u> | <u>No. of Communities</u> |
|--------------------|----------------------|-------------------|-----------------------|---------------------------|
| 1 | Grocery | 541 | 1 | 24 |
| 2 | Eat & Drink | 58 | 1 | 42 |
| 3 | General Merchandise | 539 | 1 | 289 |
| 4 | Variety Store | 533 | 1 | 120 |
| 5 | Other Food | 542-549 | 2 | 97 |
| 6 | Drug | 591 | 2 | 38 |
| 7 | Men's and boy's wear | 561 | 2 | 23 |
| 8 | Women's | 562 | 2 | 17 |
| 9 | Furniture | 5712 | 2 | 21 |
| 10 | Radio & T.V. | 573 | 2 | 23 |
| 11 | Jewelry | 5944 | 2 | 25 |
| 12 | Sports | 5941 | 2 | 9 |

Retail and Low Order Services cont'd:

| <u>Scale Score</u> | <u>Description</u> | <u>SIC Number</u> | <u>Threshold Size</u> | <u>No. of Communities</u> |
|--------------------|--------------------|-------------------|-----------------------|---------------------------|
| 13 | Shoe | 566 | 2 | 20 |
| 14 | Laundry | 721 | 2 | 30 |
| 15 | Sewing | 5949 | 2 | 17 |
| 16 | Family Clothing | 565 | 2 | 15 |
| 17 | Appliances | 572 | 2 | 10 |
| 18 | Hardware | 5251 | 2 | 9 |
| 19 | Florist | 5992 | 2 | 11 |
| 20 | Miscellaneous | | | |
| | retail | 5999 | 2 | 17 |
| 21 | Gift | 5947 | 2 | 7 |
| 22 | Funeral | 726 | 2 | 11 |
| 23 | Miscellaneous | | | |
| | apparel | 569 | 1 | 6 |
| 24 | Photographer | 722 | 2 | 9 |
| 25 | Used Merchandise | 593 | 2 | 6 |
| 26 | Reupholstery | 764 | 2 | 9 |
| 27 | Furrier | 568 | 1 | 6 |
| 28 | Children's wear | 564 | 2 | 4 |
| 29 | Department Store | 531 | 2 | 5 |
| 30 | Beauty Shop | 723 | 2 | 5 |
| 31 | Cigar Store | 5973 | 2 | 4 |
| 32 | Stationery | 5943 | 2 | 6 |
| 33 | Women's Access. | 563 | 2 | 8 |
| 34 | Book | 5942 | 2 | 6 |
| 35 | Hobby & Toy | 5945 | 2 | 5 |
| 36 | Camera | 5946 | 2 | 9 |
| 37 | Shoe Repair | 725 | 2 | 4 |
| 38 | Luggage | 5948 | 1 | 12 |
| 39 | Mail Order Houses | 5961 | 2 | 10 |
| 40 | News Dealers | 5944 | 2 | 6 |
| 41 | Liquor (non-gov't) | 592 | 2 | 4 |
| | | | | |
| | | | Total | 999 |

