

DREE COMMUNITY DATA FILES

Canada

Department of Regional Economic
Expansion
Economic Development Analysis
Data Coordination
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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 process was to determine the communities (or "units of analysis" as they became known) for which data was to be collected. As shown in Table 1, the study eventually selected 1061 communities. Although these communities vary in size (going as low as 415 in population) every community in Canada 1000 or larger is included.

An attempt was made to assign rural areas to communities in order to aggregate the units of analysis to larger regions. The process of "fringe" (rural areas) and "node" (urban centres) designation was completed for all of Canada except the Western provinces. Although the West has 288 designated nodes it was not possible to accurately assign "fringes". The final sample of communities - including nodes and fringes - covers 89.7 per cent of the country's 1976 population (77.5 per cent of the 1976 Canadian population resides in the selected nodes).

TABLE 1

	Communities
Newfoundland	70
Prince Edward Island	12
Nova Scotia	49
New Brunswick	82
Quebec	308
Ontario	252
Manitoba	52
Saskatchewan	64
Alberta	93
British Columbia	79
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	1061

Some of the data on file is considered confidential and may only be released in aggregate form or as a scale score. The vast majority of data, however, is public information.

Data on file is coded to the DREE Community code. However, data on original files is coded by Census code, Revenue Canada locality code, DMI, SGC and/or Postal code. Linkages between each of these codes and the Community code (and thus, approximately, to one another) have been established.

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

- | | |
|--|---|
| 1. Housing | 14. Water Services |
| 2. Fire Protection | 15. Passenger Transportation |
| 3. Physicians | 16. Post Office |
| 4. Hospitals | 17. Municipal Financial Data |
| 5. Socio-Cultural Facilities | 18. Population |
| 6. Special Care Facilities | 19. Income |
| 7. Recreation Facilities | 20. Retail Sales |
| 8. Newspapers | 21. Museums |
| 9. Radio | 22. Retail & Business
Facilities
(some confidential data) |
| 10. Television | 23. Labour Force (1971 Census) |
| 11. Primary and Secondary
Education | 24. Accomodation Prices &
Availability |
| 12. Post Secondary
Education | 25. Demographic Attributes
(1971 Census) |
| 13. Sewer Services | 26. Family & Household
Characteristics
(1971 Census) |

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 but which it is not listed with the community files.

Data Coordination has received many requests from DREE analysts for community data files. To at least partially meet future community data requirements, a "Community Fact Sheet" is being developed. This is intended to present a selected set of variables in a predesigned format for communities of interest to the researcher. Data Coordination will be placing the fact sheet retrieval program on the HP 3000 to make it available to analysts in the Department. The following pages are a sample of the Fact Sheet as it presently exists.

COMMUNITY FACT SHEET - 1977

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PAGE 1

PROVINCE: NOVA SCOTIA

COMMUNITY: AMHERST T

GROWTH INDICATORS

POPULATION: 1971:	9966	1976:	10150	
GROWTH RATE 1971-76 :	.360 %	PER YEAR		
HOUSING STOCK: 1971:	2900			
DWELLINGS BUILT SINCE 1971:	64			
DEPENDENCY RATIO (1971) :	.6226	QUINTILE:	4	
IN-MIGRANT RATIO (1971) :	.1771	QUINTILE:	4	
DWELLINGS BUILT 1951-71 :	16.385 % OF TOTAL	QUINTILE:	5	
1971 MOBILE HOMES :	.517 % OF TOTAL	QUINTILE:	3	

INDICATORS OF ECONOMIC WELL-BEING

1974 INCOME PER TAXPAYER :	6554	QUINTILE:	3
1974 INCOME PER CAPITA :	3342	QUINTILE:	3
1971 PROFESSIONAL LABOUR FORCE :	15.324 % OF TOTAL	QUINTILE:	3
1971 UNIVERSITY GRADUATES:	3.250 % OF TOTAL L.F.	QUINTILE:	2
1971 PARTICIPATION RATE :	54.011	QUINTILE:	3
1971 UNEMPLOYMENT RATE :	8.578	QUINTILE:	2
1971 PRIMARY INDUSTRY LABOUR FORCE:	.909 % OF TOTAL	NATIONAL AVG:	3.260%
1971 SECONDARY INDUSTRY LAB. FORCE:	20.000 % OF TOTAL	NATIONAL AVG:	21.210%
1971 TERTIARY INDUSTRY LAB. FORCE :	66.883 % OF TOTAL	NATIONAL AVG:	61.840%

PROVINCE: NOVA SCOTIA

COMMUNITY: AMHERST T

OTHER ECONOMIC INDICATORS

1976 GUTTMAN SCALE OF RETAIL FACILITIES: 25	QUINTILE: 1
1976 GUTTMAN SCALE OF BUSINESS FACILITIES: 6	QUINTILE: 1
1971 RETAIL SALES PER CAPITA : 2111	QUINTILE: 2
1971 'LORENZ' INDEX OF INDUSTRIAL SPECIALIZATION: 11.755	QUINTILE: 5

1971 TOP 5 INDUSTRIES:

1. RETAIL TRADE	15.46 % OF LABOUR FORCE
2. FEDERAL ADMIN.	7.16 % OF LABOUR FORCE
3. WHOLESALE TRADE	6.21 % OF LABOUR FORCE
4. EDUCATION	6.21 % OF LABOUR FORCE
5. HEALTH & WELFARE	5.93 % OF LABOUR FORCE

MUNICIPAL FINANCE 1974

TAX EFFORT (TAX COLLECTED/INCOME): .0263	QUINTILE: 1
TAX RATE (TAX COLLECTED/ASSESSMENT): .0186	QUINTILE: 2
DEBT TO INCOME RATIO : .0259	QUINTILE: 3
DEBT SERVICE TO TOTAL REVENUE : .2654	QUINTILE: 1

PROVINCE: NOVA SCOTIA

COMMUNITY: AMHERST 1

INDICATORS OF SOCIAL WELL-BEING

1971 AVERAGE NUMBER OF PERSONS PER ROOM: .573	QUINTILE: 4
1971 SINGLE DETACHED DWELLINGS: 60.600% OF TOTAL	QUINTILE: 4
1971 RENTED DWELLINGS : 36.500% OF TOTAL	QUINTILE: 2
1971 DWELLINGS HEATED BY FURNACE: 86.800% OF TOTAL	QUINTILE: 2
1974 FIRE PROTECTION DEFICIENCY CLASS(BEST=1): 5	
1974 HOSPITAL BEDS PER CAPITA: .0103	NATIONAL AVG.: .0085
1974 HOSPITAL STAFF PER CAPITA: .0188	NATIONAL AVG.: .0197
1975 NUMBER OF PHYSICIANS: 21	
1975 GUTTMAN SCALE OF MEDICAL SPECIALTIES: 8	QUINTILE: 1
1975 BEDS PER CAPITA IN SPECIAL CARE INSTITUTIONS: .0040	NATIONAL AVG.: .0054
1974 GUTTMAN SCORE OF RECREATION FACILITIES: 4	QUINTILE: 3
1974 GUTTMAN SCORE OF SOCIAL FACILITIES: 6	QUINTILE: 1
1976 NEWSPAPER ISSUES PER WEEK: 7	
1976 CIRCULATION PER CAPITA : 2.1094	NATIONAL AVG.: 2.1216
1976 NUMBER OF RADIO STATIONS: 1	
1976 NUMBER OF T.V. TRANSMITTING STATIONS: 0	
1975 STUDENT/TEACHER RATIO: 20.26	QUINTILE: 2

PROVINCE: NOVA SCOTIA

COMMUNITY: ANNEST T

OTHER SOCIAL INDICATORS

1977 DATA

% OF POPULATION SERVED BY SEWAGE TREATMENT: .00 QUINTILE: 4

% OF POPULATION SERVED BY WATER TREATMENT: 100.00 QUINTILE: 1

IS THERE A WATER DISTRIBUTION SYSTEM? YES

IS THERE A SEWER SYSTEM? YES

1971 DATA (CENSUS)

FEMALE LABOUR FORCE PARTICIPATION RATE: 37.483 QUINTILE: 2

% OF L.F. WITH AT LEAST GRADE 9 EDUCATION: 68.581 QUINTILE: 2

% OF POPULATION OF FINNIC GROUP
NOT BRITISH OR FRENCH: 5.323

NATIONAL AVG.: 24.860 %
PROVINCE AVG.: 12.330 %

RATIO OF FRENCH TO ENGLISH
(LANGUAGE SPOKEN AT HOME) : .0071

NATIONAL AVG.: .415
PROVINCE AVG.: .036

IMMIGRANTS AS % OF POPULATION: 3.733

NATIONAL AVG.: 17.380 %

SECTION 2

VARIABLES

INFRASTRUCTURE DATA FILES

1. Housing

Dwellings

Rooms

Persons

Dwellings with hot and cold water

" " exclusive use of flush toilet

" - single detached

" - single attached

" - apartment

" - mobile home

" - rented

" - "old" (built before 1951)

" - total

" - heated by furnace

" - "good" heating fuel (not "other" in Census)

" - "good" cooking fuel (not "other" in Census)

" with T.V.

of cars

Rental dwellings - average rent

Owned dwellings - with no mortgage

of households

of families

Persons per room ratio

Families per household

housing completions by type of structure June 1971 (Census)
to March 1976 for centres over 10,000 (CMHC)

2. Fire Protection

Fire protection class

Fire protection deficiency points

3. Physicians

Doctors - # specialists in addiction medicine

" " administration medicine

" " allergies

" " anaesthesia

" " anatomical pathology

" " microbiology & bacteriology

Physicians

Doctors - # of Specialists in bio-chemistry
" cardiology
" cardio-vascular surgery
" cardio. & thoracic surgery
" dermatology & syphilology
" electroence phalography
" endocrinology
" forensic medicine
" gastroenterology
" general & thoracic surgery
" geriatrics
" general practitioner
" gynecology
" hematological pathology
" hematology
" immunology
" industrial medicine
" internal & cardiology
" internal medicine
" internal & T.B.
" nephrology
" neurology
" neuropathology
" neurosurgery
" neurology, psychiatry
" nuclear medicine
" obstetrics
" obstetrics & gynecology
" oncology
" ophthalmology
" ophthalmology & otolaryngology
" orthopedic surgery
" otolaryngology
" pathology & bacteriology
" pathology

Doctors - # of specialists in pediatrics
" physical med. & rehabilitation
" plastic surgery
" proctology
" psychiatry
" public health
" pulmonary disease
" diagnostic radiology
" therapeutic radiology
" respiratory diseases
" rheumatology
" medical scientist
" radiological therapy & diagnosis
" general surgery
" thoracic surgery
" tuberculosis
" urology

Guttman Scale of Health Specialists (see Section 4)

4. Hospitals - # of outpatient visits to ambulatory care
- # beds set up
- rated bed capacity
- # of outpatient visits to emergency
- full time staff
- part time staff
- patient days

5. Socio-Cultural Facilities

Museums

Exhibition halls

Art galleries

Libraries - total

" - central

" - branch

" - # of books owned

Auditoriums - total
" - cinema only
" - theatre only
" - music only
" - all uses
Theatres - total
" - drive-in
" - open air

Studios

Social meeting places

Multipurpose halls

Guttman Scale of Socio-Cultural Facilities (see Section 4)

6. Special Care Facilities (Nursing homes, etc.)

of beds available

of beds occupied

availability of special care: self-sufficient, room & board
" " " " : self-sufficient, some guidance
" " " " : self-sufficient, schooling
" " " " : supervised
" " " " : personal care
" " " " : basic nursing care
" " " " : full nursing care

7. Recreation Facilities

of basketball courts
" volleyball
" badminton
" handball
" tennis
" squash
" natural ice rinks
" artificial ice rinks
" outdoor pools
" indoor pools

- # of outdoor/indoor pools
- " tracks - grass, cinder, etc.
- " " - all weather
- " football fields
- " soccer fields
- " official baseball fields
- " non-official baseball fields
- " official softball fields
- " non-official softball fields
- " bowling lanes
- " billiard tables
- " supervised playgrounds
- " artificial ice sheets - curling
- " other ice sheets - curling
- " golf courses
- " harness racing courses
- " flat race courses
- " trap shooting ranges
- " sheet shooting ranges
- " rifle ranges
- " "members only" facilities
- " facilities open to public
- " facilities

overall availability (30 RR00i)

$$\sum_{i=1}^{30} RR00i$$

Guttman Scale of Recreation Facilities (see Section 4)

8. Newspapers

- # of bimonthly newspapers
- # weekly "
- # biweekly "
- " daily "
- " bidaily "
- total circulation

9. Radio

of AM stations
" FM stations
" FM cable stations
Highest watt AM station
" " FM station

10. Television

TV Broadcast stations
" Rebroadcast stations
" UHF stations
" Cable stations
Highest watt TV broadcast

11. Primary & Secondary Education

of English classroom
" " teachers
" " pupils
" French classrooms
" " teachers
" " pupils
English completeness
French completeness

12. Post - secondary Education

of Institutions
" Subject areas
" Programs
Level of institutions

13. Sewer Services

Number of sewage treatment plants
Population served
Average daily flow
Design flow
Level of sewage treatment

14. Water Services

Number of water treatment plants

Population served

Average daily flow

Design flow

Treatment type

15. Passenger Transportation

For each mode of passenger transport (bus, rail, air, ferry):

Quality of terminal facility (if one exists)

Distance to facility

Carriers serving community

Number of scheduled services to community

Days of the week on which services operate

Number of seats on scheduled services

Time of arrival and departure of services

Mileage from service origin to the community

16. Post Office

Yearly revenue of metered mail

17. Municipal Financial Data

Tax revenue

Tax arrears

Assessment

Debt

Debt Charges

Borrowing

Grants-in-lieu of Taxes

Unconditional Grants

Conditional Grants

Total revenues

Total Expenditures

Tax Effort

Tax Rates

Debt to Income Ratio

Unconditional Grants per capita

18. Population

1971 population for 1971 areas
1976 population for 1976 areas
1971 population for 1976 areas
percentage change in 1971 to 1976 population

19. Income

Total returns
" taxable returns
" income
" taxable income
" returns by income class

Number of returns claiming:

Employment income
Commission income
Professional income
Business income
Farming & fishing income
Family allowance
Unemployment insurance
CPP/QPP income
Other pension income
Total income from each of above sources
Total federal tax paid
Total provincial tax paid

20. Retail Sales

Total retail sales
" employee salaries
" employees
" owner proprietor
" establishments

21. Museums

of museums by type:
General museum
History museum
Natural science museum

Museums cont'd

Science and technology museum

Planetarium

Observatory

Art gallery or art museum

Archives

Historic building and/or restoration

Pioneer village

Aquarium

Botanical garden, arboretum or conservatory

Zoo or wildlife refuge

Museums complex

Square footage of museums

Number of historical societies

Distance to major museum

Guttman scale of museum type

22. Retail and Business Facilities*

Wholesale trade - durable goods

Wholesale trade - nondurable goods

Building materials and garden supplies

Department stores

Variety stores

Misc. general merchandise stores

Grocery stores

Auto and home supply stores

Gasoline service stations

Boat dealers

Recreation and utility trailer dealers

Men's and boy's clothing and furnishings

Women's ready-to-wear stores

Women's accessory and specialty stores

Children's and infants' wear stores

Family clothing stores

* Detail data by establishment is confidential.

Retail and Business Facilities cont'd
Shoe Stores
Furriers and fur shops
Miscellaneous apparel and accessories
Furniture and home furnishings stores
Household appliance stores
Radio, television, and music stores
Eating and drinking places
Drug stores and proprietary stores
Liquor stores
Used Merchandise stores
Sporting goods and bicycle shops
Book stores
Stationery stores
Banking
Credit agencies other than banks
Mail order houses
Florists
Cigar stores and stands
New dealers and newsstands
Miscellaneous retail stores
Security, commodity brokers and services
Insurance carriers
Insurance agents, brokers and service
Real estate
Hotels and other lodging places
Laundry, cleaning and garment services
Holding and other investment offices
Photographic studios, portraits
Beauty shops
Barber shops
Shoe repair and Hat cleaning shops
Funeral service and crematories
Miscellaneous personal services
Advertising
Credit reporting and collection
Mailing, reproduction, stenographic

Retail and Business Facilities cont'd

Services to buildings

News syndicates

Personnel supply services

Computer and data processing services

Miscellaneous business services

Auto repair, services and garages

Electrical repair shops

Watch, clock and jewelry repair

Reupholstery and furniture repair

Miscellaneous repair shops

Motion picture theaters

Dance halls, studios and schools

Producers, orchestras, entertainers

Jewelry stores

Hobby, toy and game shops

Camera and photographic supply stores

Gift, novelty and souvenir shops

Luggage and leather goods stores

Sewing, needlework, and piece goods

Bowling and billiard establishments

Commercial sports

Public golf courses

Total number of establishments

Total number of employees

Guttman scale of retail, wholesale, and business facilities

Guttman scale of retail and low order services

Guttman scale of high order business services

23. Labour Force (1971 Census)

Experienced Labour force for each industry division, major group and detailed industry

Experienced Labour force by sex and:

(a) by industry division

(b) by occupation group

(c) by class of worker

Labour Force (1971 Census) cont'd

Labour Force by sex and by age group

Number of unemployed

Number of persons working part-time

24. Accommodation: Prices and Availability

Single detached houses - low end of range
" " " - high end of range
" " " - medium price
" " " - availability
Condominiums - availability
" - high end of range
Housing rentals - medium rent
" " - availability
Apartment rentals - medium rent
" " - availability
" " - vacancy rate

25. Demographic Attributes (1971 Census)

Population by sex and age group
Population by sex and marital status
Population by ethnic group
Population by language spoken at home (English, French)
Population 5 and over by migration status
Population 5 and over by number of intermunicipal moves
Population 5 and over attending school full time
Population 15 " " " " " "
Population 15 and over with some post-secondary education
Population 15 and over by education level

26. Family and Household Characteristics (1971 Census)

Number of families and of non-family persons
" " persons in families
" " families owning homes
" " families having both parents at home
" " families with more than one income
" " income recipients in families

Family and Household Characteristics (1971 Census) cont'd

Total income of families

" " " non-family persons

Number of family heads with

(a) Less than grade 9 education

(b) University education

(c) Occupation in managerial category

Number of households

(a) Total

(b) With more than one family

(c) Non-family

SECTION 3

SOURCE & DESCRIPTION

SOURCE & DESCRIPTION

1. Housing Data

Most variables relating to housing were compiled from the 1971 Census E.A. Summary tape files. Enumeration Area level data was summed to produce data for communities. Caveats for this data are the same as for Enumeration Area level data generally - most important, there is the random error introduced by using, and summing, randomly rounded numbers.

In addition, communities are defined in terms of component Census geographic areas (CSD's and/or EA's); those communities which did not contain whole CSD's, but which were only partial CSD's (unincorporated places) had to be referenced by EA. EA boundaries and settlement boundaries often are not coincident.

CMHC has provided a file which contains housing completions, by housing type, for each municipality over 10,000 in population and CMA's and CA's having over 10,000 population. The data is available monthly from June 1971 to March 1976. The data is coded to 1971 Census municipality and to Infrastructure community number. It should be noted that there is a housing type of "unknown" on the CMHC file and that up to 40% of all completions can be found in this category.

2. Fire Protection Data

These variables come from the Insurance Advisory Association's ratings of municipalities. The IAA calculates "deficiency points" for each place by analyzing fire protection equipment, water systems, quality of buildings in the community, etc., etc. Poorly protected places have

high "point" scores. These scores which range from 0 to 5000, and are assigned to classes ranging from 1 to 10 (again, a class score of 10 is bad).

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 Infrastructure 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. Physicians

This data comes from Southam Business Services, (Canadian Medical Directory), via Health Info. Services of Health & Welfare Canada. It is, basically, a mailing list of physicians registered in Canada as of January 1975.

A Guttman scale of health specialties was developed using data on physicians by speciality and place of residence. The final scale orders thirty-five medical specialities and one item representing the existence of a hospital in the community. Details of this variable available upon request.

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 GP's 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% 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.

4. Hospitals Data

This data comes from the Hospitals Section of Statistics Canada and refers to the year 1973.

Caveats

1. Assignment of hospitals to communities was difficult in Metropolitan Montreal, as the Montreal CMA was divided into a number of communities. Some error might have occurred (one or two hospitals, perhaps, may have been assigned wrongly).

5. Socio-Cultural Data

This data comes to us from Health & Welfare Canada, Fitness & Amateur Sport Branch, from National Survey of Socio-Cultural Facilities (1972), via Dataline Systems Ltd.

In this survey, interviews were to be conducted in every municipality with a 1971 Census population of over 1000. However, some more populous places were missed, and less populous places included. Treatment of unincorporated places (especially those with populations over 1000) appears to be inconsistent.

A Guttman scale of socio-cultural facilities was developed using data on the presence of such facilities in each community. The ten item scale is based on data for 746 communities. Details of scale construction are available upon request.

Caveats

1. Data for communities of less than 1000 does not exist.
2. It is likely that most CMA and CA parts which have less than 1000 pop. are not covered. Certainly, those parts which are rural municipalities with no population centre are not covered. Thus the figure given for some large communities may not be exact, if this community includes some small municipalities.
3. Data should be treated with care because of definitional problems. Analyzing the data, across the country, indicates that terms like "social meeting place", "multipurpose hall", are somewhat ambiguous and even possibly interchangeable. Even more commonly well-defined terms (museums, auditoriums) may have not been defined exactly the same by all survey interviewers.

4. There has been problems with the computer tape supplied by Dataline. It contained a number of field entries which were not included on the list of valid codes found in the file documentation.
5. For the above reasons, recommended use of this data is for general indications only. It would also appear that Guttman scaling is reasonably valid.

6. Special Care Facilities

This data comes from Special Care Facilities Section, Statistics Canada. It results from the first-ever survey of such facilities conducted in 1973. Data was located by town name only.

Caveats

1. It was a first survey and, as such, certain problems are inevitable. Definition of "what is a relevant facility" is an issue, as are all definitions used to indicate type of service. However, this is not considered to be a large problem.
2. Quebec was not surveyed.

7. Sports and Recreation Facilities

The source is the same as that of Socio-Cultural Facilities except that this survey was done in 1974. An 18 item Guttman scale of recreation facilities was developed from the data. Only 752 communities actually had data and were used in developing the scale. The remainder were all too small to be covered by the survey and were assumed in the study to carry a zero score i.e., have none of the recreational facilities represented on the scale. Because some sixteen of the 752 communities for which data were available actually scored zero, it can be assumed that the break between scores 1 and 0 is not wholly based on missing data. Caveats for sports and recreation data are the same as those for socio-cultural facilities.

8. Newspaper data

Data represents newspapers published or primarily distributed in a community. All variables come from Canadian Advertising Rates and Data (Maclean - Hunter, January 1976). Bimonthly, weekly, and biweekly papers are listed in the Community Newspapers section along with circulation figures. Daily and bidaily (i.e. at least morning and evening editions) are listed in the Daily Newspapers section. The variable "circulation per community" is a summation of all newspapers published per week in a community, i.e.

Circulation of bimonthly	x .5	=	_____	
"	" weekly	x 1	=	_____
"	" biweekly	x 2	=	_____
"	" daily	x 6	=	_____
"	" bidaily	x 12	=	_____
	Total			_____

9. Radio data

Data represents stations in a community rather than towns receiving a signal. Variables on AM and FM Broadcast stations comes from List of Broadcasting Station in Canada (CRTC and Information Canada, 1975) FM Cable data comes from Cable Television Systems in Canada (CRTC and Information Canada, 1975). Because of the overlaps in Cable coverage in some urban and suburban areas there may be a slight overestimate of the number of cable FM stations in a community.

Occasionally, where the location of the radio transmitter outside a center, was close enough to be self evident that it served a particular community it was treated as being in the community. Certain other stations at the tops of mountains or in remote areas were not assigned to specific centers.

10. Television data

Sources for TV are the same as those for radio except that confirmation in some communities for number of cable stations was obtained by telephone from TV Times in Roanoke Virginia.

11. Education Data

Data was supplied by provincial Departments of Education in 9 provinces. (No data yet from Quebec). The data supplied consists of one set of information for each primary and secondary school in each province. The data is either for 1974/75 or 1975/76 academic year.

Data was geographically coded in a variety of ways.

- a) Town name was related to Census municipality (or EA) code by use of maps and the official list, and thus to community number.
 - Newfoundland, P.E.I., Manitoba, New Brunswick
- b) Postal code was on source data and thus schools were related to communities.
 - Saskatchewan, Alberta, Nova Scotia, B.C.
- c) In Ontario, a unique Census - based municipality code was used. This was related to 1971 Census coding by referencing official list, and thus to community.

Quebec Education Data

On the Infrastructure file there is a variable titled "the number of students in elementary and secondary schools". This is the number found in schools which are located in the community, and has been compiled from administrative records of Departments of Education in the provinces. We have received such data from all provinces except Quebec.

The 1971 Census contains the number of students, attending such schools full-time, who are resident in the community. This will be different from the number in schools located in a community (viz. students bussed into a town school for rural areas). A relationship between the two measures was derived using the "Infrastructure measure" as dependent variable and the "Census measure" as independent variable using the relevant data from Manitoba.

This relationship was used to estimate the "Infrastructure measure" for Quebec communities. This "estimated data is placed on the Infrastructure file until such time as the actual data from Quebec is available. Data distributed by language of instruction is only available for the provinces of New Brunswick and Ontario.

12. Post-Secondary Education

This data comes from Statistics Canada and represents the 1975-76 academic year. The variable designated as "number of subject areas" is a scale of 1 to 6 representing programs as classified into six major subject areas: Fine Arts, Engineering, Administration/Social Sciences and Services, Environmental Sciences, Health and Health Sciences, and Arts and Science.

"Programms" is a scale of 1 to 114 representing the number of courses offered within the six broad subject areas. Level of institution refers to whether it is a community college or grants degrees at the BA/BSc, M.A. or Ph.D level.

13.

&

14. Sewer and Water

In 1975 DOE, MSUA, CMHC, DREE, and H&W in conjunction with the Provinces conducted a National Inventory of Waterworks and Wastewater Systems covering about 95 per cent of all sewer and water systems in Canada. The completed questionnaires were processed by DOE.

Sewer and Water cont'd

Caveats

There are some weaknesses in this data. Persons interested in the details can obtain a copy of a note describing them from Data Coordination.

15. Passenger Transportation

Data comes from Transport Canada's CANPASS Database. This data refers to 1976 and there are separate files for summer and for winter of that year.

Transport Canada designated 701 Canadian communities as nodes for this Database. These communities correspond to DREE communities except for a few cases in which they have split one of ours in two or more parts. We have aggregated data in these cases.

There appear to be few weaknesses in the data we have decided to use, as Transport Canada basically coded air, bus, rail and ferry schedules of all carriers offering service between two or more of the designated communities. Of course, the data refers to two fixed points in time only.

16. Post Office

Metered mail data comes from the Post Office's 1975 detailed account of revenue by postal station.

17. Municipal Financial Data

MSUA (Urban Economy Directorate) in 1976 worked out a basic comparability scheme to relate municipal financial data from different provinces. DREE, using the latest municipal accounts from each province (generally 1974 or 1975) has compiled a basic set of financial indicators.

Municipal Financial Data cont'd

Caveats

1. Some provinces are missing some variables (eg: Manitoba is missing arrears).
2. Quebec data refers to the year 1973.
3. In Ontario, regional governments have necessitated some adjustments in figures.
4. Data refers to municipalities whereas some communities cover more population than in the municipality.
5. Data for Newfoundland is not on file.

18. Population 1976

Municipal population counts from the 1976 Census are available from Statistics Canada. This data was coded and entered onto a computer file. The file has a record for each municipality containing its 1971 Census municipality code, its Infrastructure community number, its name, three population figures:

1. 1971 population, 1971 boundaries
2. 1971 population, 1976 boundaries
3. 1976 population, 1976 boundaries

and a 5 year growth rate. Municipalities created between 1971 and 1976 are included, with a special (artificial) 1971 Census municipality code, and are coded to Community number if applicable.

There is also a file with one record per community number, with the same data as above (except that there is no municipality code).

19. Revenue Canada Taxation Income Statistics

A. Income by Class of Income

DREE receives a tape from RCT once a year which gives, for a complete calendar year (1975 is the latest), data on income by locality. The data includes:

1. Number of persons filing tax returns
2. Total income reported on all tax returns

Revenue Canada Taxation Income Statistics cont'd

3. Number of returns falling into certain classes of total reported income
4. Number of taxpayers
5. Total income reported on all taxable returns

The locality code used by RCT on these files corresponds roughly to the SGC (and Census) municipality code. RCT assigns a locality code to each tax return depending on the place name reported as the taxfiler's address. This can lead to variations from Census data in that a person may live outside a town (and be enumerated by Census in a rural municipality) and report his address as the town (e.g., Rural Route 1, De Winton; or P.O. Box 24, De Winton), and thus be counted in that town by RCT. A file has been created for the years 1971-1975 which contains a record for each RCT locality and has fields 1, 2, 4, 5 (as numbered above), for each year, on the record. The RCT locality code, the SGC municipality code, the 1971 Census municipality code, and the Infrastructure community number, are coded on each record. Thus reports could be produced by community (or any of the other geographical areas) of total income, average income, or growth rates of either total or average income. There are some caveats associated with this data.

1. Coverage: RCT tends to under-cover persons making low income (e.g. less than \$2000 per year), females, persons in rural areas, persons receiving other than wage or salary income.
2. Boundary overlap: as mentioned above, comparability between RCT data and Census data is affected by having taxpayers whose actual place of residence differs from their mailing address. It is also evident that many places have been coded into different municipalities by RCT and by SGC/Census. Due to the above, it is best to use "average" figures.

Revenue Canada Taxation Income Statistics cont'd

B. Income by Source of Income

Data on income by source is available for the years 1971, 1974 and 1975. This data presents a few problems additional to those listed above.

1. It is compiled from the sample and is subject to errors of estimation.
2. Locality coverage is not complete. The sampling ratio varies from about 1% in metropolitan Toronto and Montreal to about 20% in some rural areas. Data for localities having less than 100 taxfilers in the sample was not released. This presents uneven coverage, as the number of total taxfilers required to meet this criterion vary from place to place, according to the sampling ratio.

20. 1971 Census of Merchandising Retail Trade Data

Statistics Canada has recently released 1971 Census data on retail trade for all urban municipalities of over 1000 population, plus county and province totals. The data was originally available in booklet form but has been coded and keypunched by DREE.

The data is coded by 1971 Census municipality code. The variables are:

1. Total Retail Trade in dollars
2. Inventory
3. Number of working proprietors
4. Number of employees
5. Number of establishments

21. Museums

The data was derived from 1974 Statistics Canada Survey of Museums, Art Galleries, Archives, Aquariums, Zoos, Planetariums, Historical Restorations and other related institutions. Data was updated from 1976 Canadian Museum Association Directory. A Guttman eleven item scale was derived from the above data.

22. Retail Facilities

The 1975/76 Dun and Bradstreet count of establishment by standard industrial code in the source of data on retail facilities. A 20 item Guttman scale was developed with a cut-off of one or two establishments per type of service indicating existence of the service. The final statistics and description of scale items are available upon request.

In addition, a 41-item scale of retail and low order business services and a 15-item scale of high order business services were derived.

Caveats

1. Only those businesses which have a Dun and Bradstreet file are recorded.
2. No data exists for a small number of communities.
3. The SIC code is American not Canadian.
4. Because of DREE's contract with Dun and Bradstreet, data on individual business cannot be released, however, aggregates or scale scores may be made available.

23. Labour Force (1971 Census)

This variable comes from the 1971 Census. The "source" note on Housing Data is applicable here.

24. Accomodation Prices and Availability

Data is derived from Housing Canada, July 1977 published by the Department of Manpower and Immigration. It provides information on rental and purchase of accomodation for 150 selected communities across Canada. Raw data is provided by a bi-yearly survey of Branch Offices of CMHC. Availability estimates are coded 1 to 5 (nil to very good). Price ranges for housing relate to a standard 3 bedroom house having a basement, heating system, living and dining areas, kitchen, and bathroom. Condonimiums are standard 2 bedroom units. Apartments are 2 bedroom.

25. Demographic Attributes (1971 Census)

&
26. Family and Household Characteristics (1971 Census)

The above variables come from the 1971 Census. The "source" note on Housing Data is applicable here.

SECTION 4

GUTTMAN SCALES

Health Services

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

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

<u>Scale Score</u>	<u>Order of Specialities</u>
0	(No medical speciality 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 speciality was used to measure the presence of the speciality 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%

Retail, Wholesale and Business Services:

The 1975/76 Dun and Bradstreet count of establishments by standard industrial code was used to develop this variable. After some experimentation, a 20 item scale was developed with a cut-off of one or two establishments per type of service indicating existence of the service.

The table overleaf lists the retail activities in their order on the scale, with the corresponding scale score for communities having retail activities to the specified cut-off level for each activity.

<u>Item</u>	<u>S.I.C.</u>	<u>Cut-off</u>	<u>Scale Score</u>
General Merchandise and Groceries	539+541	1	1
Eating, Drinking, Hotels, Motels	58+ 70	1	2
Wholesale, Durable and Non-Durable	50+ 51	1	3
Auto Repair, New and Used Car Dealers	753+551+552	1	4
Food Stores (not grocery)	542+549	2	5
Drug Stores	591	2	6
Furniture Stores and repair	5712+764	2	7
Real Estate	65	2	8
Shoe Stores	566	2	9
Laundry Services	721	2	10
Funeral Services	726	2	11
Department Stores	531	2	12
Beauty Shops	723	2	13
Advertising	731	1	14
Bookstores	5942	2	15
Computer Services	737	1	16
Security and Commodity Brokers	62	1	17
Insurance Companies	63	1	18
Head Office Banking	60	1	19
News Syndicates	735	1	20

The following statistics were also obtained:

Number of cases	986
Total errors	771
Non-modals across	5,441
Non-modals down	3,059
Coefficient of Scalability	75%
Coefficient of Reproducibility	96%
Minimum Marginal Reproducibility	85%
Percent Improvement	11.15%

Recreation:

A 1974 survey by the Department of Health and Welfare provides the basic data for this scale. Field surveys of communities of about 1,000 or larger were used to collect raw data. After some experimentation, an 18 item scale was developed.

The table below, lists the recreational activities in their order on the scale, with the corresponding scale score for communities having recreational activities to the specified cut-off level for each activity.

<u>Item</u>	<u>Cut-off</u>	<u>Scale Score</u>
Playground	1	1
Softball	1	2
Gymnasium	1	3
Sportsfield	1	4
Baseball	2	5
Tennis Court	2	6
Bowling	2	7
Artificial Ice Rink	2	8
Golf Course	2	9
Indoor Swimming Pool	2	10
Curling Rink	2	11
Shooting Range	2	12
Outdoor Ice Rink	2	13
Cinder Track	2	14
Equestrian Facilities	2	15
Handball/Squash Courts	2	16
Lawn Bowling	2	17
Golf-Par 3, Executive	2	18

Only 752 communities actually had data and were used in developing the scale. The remainder were all too small to be covered by the survey and were assumed in the study to carry a zero score, i.e. have none of the recreational facilities represented on the scale. Because some 16 of the 752 communities for which data were available actually scored zero, it should not be assumed that the break between scores 1 and 0 is wholly based on missing data. The following statistics were obtained:

Number of Cases	752
Total errors	540
Non-modals across	3,120
Non-modals down	1,648
Coefficient of Scalability	67%
Coefficient of Reproducibility	96%
Minimum Marginal Reproducibility	88%
Percent Improvement	8.19%

Socio-Cultural Facilities:

A 1973 survey done by the Department of Health and Welfare, in conjunction with the Ministry of State, provided the basic data. Field surveys were conducted in communities of about 1,000 or larger population. A 10 item scale was developed using data for 746 communities.

The table below lists the socio-cultural facilities in their order on the scale, with the corresponding Scale Score for communities having facilities to the specified cut-off level:

<u>Item</u>	<u>Cut-off</u>	<u>Scale Score</u>
Multipurpose Auditorium	1	1
Libraries	1	2
Auditorium Arena	1	3
Studios	1	4
Museums	1	5
Theatres	1	6
Art Galleries	1	7
Exhibition Halls	1	8
Auditorium with Theatre	1	9
Auditorium with Music	1	10

As with recreational activities, the remaining communities were given zero scores. Also, nine of the 747 communities scored zeros. The following statistics were obtained:

Number of Cases	746
Total errors	506
Non-modals across	2,254
Non-modals down	1,578
Coefficient of Scalability	68%
Coefficient of Reproducibility	93%
Minimum Marginal Reproducibility	79%
Percent Improvement	14.37%

Museumology scale

A 1974 survey by Statistics Canada on Cultural Institutions supplied the basic data. This file was updated to 1976 using the Canadian Museum Association Directory. The table below lists the socio-cultural and museum facilities in their order on the scale with the corresponding Scale Score for communities having facilities at the specified cut-off level:

<u>Item</u>	<u>Cut-off</u>	<u>Scale Score</u>
Multipurpose hall	1	1
Library	1	2
Auditorium	1	3
Community History (community historical museum and/or historic house)	1	4
Art (Art museum and/or art center)	1	5
Living Science (botanical gardens and/or natural parks and/or planetaria and/or zoos)	1	6
Science and Technology	1	7
Historic Fort	1	8
Human History	1	9
Maritime and/or Natural History	1	10
Religious museum	1	11

The following statistics were also obtained:

Number of cases	92 791
Total errors	277
Non-modals across	2165
Non-modals down	1081
Coefficient of Scalability	74%
Coefficient of Reproducibility	97%
Minimum Marginal Reproducibility	88%
Percent Improvement	9.24%

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 Bu- siness 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	Vareity Store	533	1	120
5	Other Food	542-549	2	97
6	Drug	591	2	38
7	Men's & boys wear	561	2	23
8	Womens	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	Reupholsters	764	2	9
27	Furrier	568	1	6
28	Childrens 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

SECTION 5

ADDITIONAL DATA

Additional Data

DREE also maintains a number of files, although not presently in community format, that may be of interest to those engaged in community studies. For some of these files it is also possible (but not as yet done) to construct community data, particularly for those which are SGC coded.

Census of Manufacturing

We have received a computer file containing the 1975 Census of Manufacturing mailing list of establishments. This has about 32,000 establishments records on it, and gives, for each establishment:

- SGC Code
- SIC Code (4 digit)
- Employment size range
- Name of firm
- Mailing address of firm

Any other establishment data is confidential.

Labour Unions

The Department of Labour has supplied machine readable data on labour unions for each of the years 1971 through to 1974. For each union and each union local the data includes:

1. Affiliation, name and type of union.
2. Industry
3. Number of member by sex
4. Location in terms of Canada Manpower Center area and Census Metropolitan Areas (if applicable).

Canada Manpower Centres

DREE has obtained data on computer tape from Canada Manpower on their Atlantic CMC areas for 1974. The data includes:

1. Labour force by class of worker.
2. Number of employing firms by CMC area and by municipality
3. Number of employees (actual, maximum, minimum) and product, for each firm.

Passenger Transportation

DREE has acquired a number of computerized files from the Transportation Statistics Section of Statistics Canada. These files contain a great deal of information on all companies operating in certain transportation sectors. The sectors are:

1. Motor Carrier Freight
2. Inter-Urban Bus
3. Urban Transit

These files contain detailed financial and operating data for each company. Unfortunately, the only geographic coding on these files is "province". Conversion of this data to communities would require much clerical work.

In addition two other transportation files are available. Each of these is coded by SGC municipality code. One file contains data on shipping movements; viz:

1. type of ship
2. tonnage
3. commodity code of cargo
4. origin/destination
5. handling port

The other file is a sample of freight waybills. For each shipment, the following data is available:

1. Origin/destination (SGC coded)
2. Quantity
3. Commodity
4. Revenue

Historical Census Data

The Ministry of State for Urban Affairs (MSUA) compiled a data set from the Census of 1911 through the Census of 1971. Data was provided for Census Divisions, or aggregations of Census Divisions which remained geographically similar over the 60 year period. The need to aggregate Census Divisions to

Historical Census Data cont'd

achieve this geographical integrity reduced the number of units to 164 (in 1971).

The variables include many of the main Census demographic, family and economic ones. A full list of variables is available on request.

WAGE DATA

Labour Canada has provided us with data collected by their annual wage and salary survey which covers the last normal pay period prior to October 1st. The survey takes place in approximately 90 census-defined municipalities and CMA's and covers establishments having 20 or more employees.

For the years, 1973, 1975 1976 these variables are available:

- community code
- part number i.e. which section of the questionnaire
- occupation code
- pay period i.e. hourly or weekly
- average rate of pay
- number of employees.

Further information and data concerning this survey can be obtained from the Labour Canada publications "Wage Rates, Salaries and Hours of Labour".

Wage Data

Appendix A: Selection of Communities to be Studied.*

Nfld.

1. Corner Brook
2. St. John's

P.E.I.

1. Charlottetown

N.S.

1. Amherst
2. Halifax-Dartmouth
3. New Glasgow
4. Sydney-Sydney Mines
5. Truro
6. Yarmouth

N.B.

1. Bathurst
2. Campbellton-Dalhousie
3. Edmunston
4. Fredericton
5. Moncton
6. Saint John

Que.

1. Alma
2. Baie Comeau
3. Chicoutimi-Jonquiere
4. Drummondville
5. Grandby
6. Hull
7. Joliette
8. Montreal
9. Quebec City
10. Rimouski
11. Rouyn-Noranda
12. Sept-Iles
13. Shawinigan-Grandmere
14. Sherbrooke
15. Sorel
16. St. Hyacinthe
17. St. Jean
18. St. Jerome
19. Thetford Mines
20. Trois Rivières
21. Valleyfield
22. Victoriaville
23. Magog

Ont.

1. Barrie
2. Belleville
3. Brampton
4. Brantford
5. Brockville
6. Cambridge
7. Chatham
8. Cornwall
9. Guelph
10. Hamilton
11. Kingston
12. Kitchener-Waterloo
13. London
14. Midland
15. Niagara Falls
16. North Bay
17. Orillia
18. Oshawa
19. Ottawa
20. Owen Sound
21. Pembroke
22. Peterborough
23. Port Hope
24. Sarnia
25. Sault St. Marie
26. Stratford
27. Sudbury
28. St. Catharines
29. St. Thomas
30. Thunder Bay
31. Timmins
32. Toronto
33. Welland
34. Windsor
35. Woodstock
36. Elliot Lake

Man.

1. Brandon
2. Winnipeg

Sask.

1. Moose Jaw
2. Prince Albert
3. Regina
4. Saskatoon

Alta.

- | | | |
|-----------------|-------------|---------------|
| 1. Calgary | 2. Edmonton | 3. Lethbridge |
| 4. Medicine Hat | 5. Red Deer | |

B.C.

- | | | |
|--------------|-----------------|------------------|
| 1. Kamloops | 2. Port Alberni | 3. Prince George |
| 4. Vancouver | 5. Victoria | |

* census-defined

Wage Data

Appendix B: Selected Occupations *

1. Accounting Clerk, senior, female
2. Accounting Clerk, senior, male
3. Clerk, general office, senior, female
4. Clerk, general office, senior, male
5. Draughtsman, intermediate, male
6. Draughtsman, senior, male
7. Machine Operator (BB&C), junior, female
8. Manager, administration, male
9. Order Clerk, male
10. Secretary, senior, female
11. Stenographer, junior, female
12. Stenographer, senior, female
13. Stock Records Clerk, male
14. Telephone Operator, female
15. Typist, junior, female
16. Carpenter, maintenance, male
17. Electrical Repairman, male
18. Maintenance Machinist, male
19. Millwright, male
20. Welder, maintenance, male
21. Charwoman, female
22. Industrial Truck Operator, male
23. Janitor, male
24. Shipping Clerk, male
25. Stationary Engineer, 3rd class
26. Stationary Engineer, 4th class
27. Truck Driver, light, heavy, male
28. Labourer, non-production, male

* based on the Canadian Classification and Dictionary of Occupations.

