FILE SPD81B70

ZONED / NON - CONDENSEE

TABLE OF CONTENTS

INTRODUCTION

DOCUMENTATION FOR CENSUS DATA ON MAGNETIC TAPE

This documentation is divided into two parts.

Part 1 is available for any tape file produced from the census micro-data base using the STATPAK retrieval system.

Part 2 is available only with census User Summary Tape files and special requests on tape produced by the Customer Services Section.

Part 1

Introduction

In the following documentation each tabulation is referred to as a data matrix. Each characteristic or variable such as age, sex, etc., is referred to as a dimension or subscript. Each dimension is associated with multiple entries; for example, the dimension sex could be associated with entries male, female, total.

Part 1 consists of four sections

Section 1 shows:

- that each data matrix has a title associated with a matrix name. The latter is a mnemonic code up to eight characters long. The documentation usually refers to a tabulation by its mnemonic code;
- the total number of data cells in a matrix;
- the largest absolute value of any cell in the matrix which may be used for data validation and programming purposes.

Please Note:

The cells contain either integer or decimal digits with decimal point which is implied.

If overflows are encountered, the overflow messages appear in the first section and when the program interrupts, the other sections may be either partially or not at all printed.

Section 2 shows:

- the general file information enabling computer usage of the file.

Where necessary a matrix may be written out on more than one logical record. In that case, the dimension(s) (variable(s)) on which the matrix is split is (are) identified as well as the order in which the matrix is actually written out on magnetic tape.

Section 3 contains:

- a PL/1 declaration statement - this statement should be of special interest to users who wish to understand how a multi-dimension matrix (e.g., age by sex by marital status is a three dimensional matrix) is laid out as a linear sequential record on magnetic tape.

  Each logical record starts with a 52-character geographic identification (see Section B). In the case of a matrix that is split and thus written over multiple records on tape, it is followed by sub-matrix identification(s), matrix name and matrix size. Then come the entries for each dimension (subscript) of the matrix.

Section 4 contains:

- a detailed record layout of the file;

- the identification part which is the same as on the PL/1 declaration statement (see Section 3);

- the content of each cell or field associated with the matrix name to which it belongs, the format, the first and last positions of each field in the record, the number of bytes (1 byte = 8 bits = 1 or 2 digits or 1 character depending on the format), the precision or number of digits stored and the scale where applicable, which gives the number of decimal places. (Note: The decimal point is implied - not written on tape.)

Part 2

Section A contains:

- the table titles;

- the legends (entries or class intervals associated with each variable, e.g., sex (3): male, female, total).

Note: This section is available only with the census User Summary Tape documentation.

Section B contains:

- the file sequence and the complete definitions of the geographic area codes which exist on the file.

Section C contains:

- the geographic organization of the User Summary Tape files and microfiche for each series produced for the 1981 Census.

Section D contains:

- a brief description of the statistical and confidentiality methodology used during the process of retrieval of data from the census micro-data base;

- a list of reference manuals which provide more detailed information on some of the topics briefly described in this documentation.

For further information, please contact:

CANSIM DIVISION
Statistics Canada
Ottawa, K1A 0Z8
Tel.: (613) 995-0097
995-7406

Special Note: Positive or negative sign

If the character mode is packed, the last four (4) bits of the last byte of a data cell contain the sign.

If the character mode is numeric (external), the complete first byte of a data cell contains the sign.

Section E contains:

- information on any peculiarities related to geography or variables that are essential to the interpretation of data.

TABLE SPD81B71

Interpretation of the codes of the dimensions on which the matrices are split into 351 records.

DIMENSION 1 positions 53 to 55

FILE CODE	STUB
001	All ages
002	15 - 19
003	20 - 24
004	25 - 29
005	30 - 34
006	35 - 44
007	45 - 54
008	55 - 64
009	65 and over

DIMENSION 2 positions 56 to 58

FILE CODE	STUB
001	Population 15 years and over
002	Less than grade 9
003	Grades 9 - 10
004	Grades 11 - 13
005	Secondary school certificate
006	Trades certificate or diploma
007	Without certificate or diploma
008	With certificate or diploma
009	Other non university studies only
010	Without certificate or diploma
011	With certificate or diploma
012	With degree
013	University

DIMENSION 3 positions 59 to 61

FILE CODE	STUB
001	Total
002	Male
003	Female

SECTION 1

FIGURES INFORMATION

File Name: SPD81B70

Largest Absolute Value: 18,593,200

SECTION 2

GENERAL FILE INFORMATION

FORMAT: ZONED

The Data Control Block is:

The Record Format	=	FB
Logical Record Length	=	151
Geographical Identification	=	52
Dimension Length (3 Positions per Dimension)	=	9
Data Cells Length	=	90
The Blocksize	=	11929

Number of Cells for Each Record	=	10
Total Number of Records Written Out	=	93366

```
*************************************************************
*       S U M M A R Y   F I L E   C R E A T E D             *
*     P L I   R E C O R D   D E S C R I P T I O N           *
*************************************************************

DCL 1 SPD81B70                                                ,
    5 R                                  CHAR( 1)             ,
    5 P                                  CHAR( 1)             ,
    5 CD                                 CHAR( 2)             ,
    5 FILL1                              CHAR(57)             ,
    5 SPD81B71   ( 10)                   PICTURE 'S( 8)9V(0)9' ;
```

DEFINITION FOR ENTRIES IN SUBSCRIPT# 1

ENTRY#	DESCRIPTION
1	POPULATION 15 YEARS AND OVER
2	NON-MOVERS
3	FROM OUTSIDE CANADA
4	MOVERS
5	FROM DIFFERENT CENSUS DIVISION
6	NON-MIGRANTS
7	MIGRANTS
8	WITHIN SAME CENSUS DIVISION
9	TO DIFFERENT CENSUS DIVISION
10	NET INTERNAL MIGRATION 1976-1981

****
* SUMMARY FILE CREATED *
GEOGRAPHICAL IDENTIFICATION
****

FIELD#	START POS#	END POS#	LENGTH	MNEMO	DESCRIPTION
1	1	1	1	R	REGION
2	1	2	2	RP	REGION/PROVINCE
3	1	4	4	RCD	REGION/PROVINCE/CD
4	2	2	1	P	PROVINCE
5	3	4	2	CD	CENSUS DIVISION

****
* SUMMARY FILE CREATED *
* TABLE(S) DESCRIPTION *
****

TABLE TITLE: SPD81B71 - POPULATION 15 YEARS AND OVER BY AGE GROUPS(9A) HIGHEST LEVEL OF SCHOOLING(13) AND SEX(3) SHOWING MOBILITY STATUS(10A) (INCLUDES IN- OUT- AND NET INTERNAL MIGRATION) FOR CENSUS DIVISIONS - 1981

TABLE NAME	FORMAT	#INTEGERS	#DECIMALS	SIGN	BYTES/CELL
SPD81B71	NUMERIC	8	0	WHOLE BYTE ON LEFT	9

FIELD#	START POS#	END POS#	DESCRIPTION
6	62	70	POPULATION 15 YEARS AND OVER
7	71	79	NON-MOVERS
8	80	88	FROM OUTSIDE CANADA
9	89	97	MOVERS
10	98	106	FROM DIFFERENT CENSUS DIVISION
11	107	115	NON-MIGRANTS
12	116	124	MIGRANTS
13	125	133	WITHIN SAME CENSUS DIVISION
14	134	142	TO DIFFERENT CENSUS DIVISION
15	143	151	NET INTERNAL MIGRATION 1976-1981

SECTION A

FILE CONTENT

File SPD81B70

Table Title

SPD81B71 Population 15 years and over by age groups (9a), highest level of schooling (13) and sex (3), showing mobility status (10a) (includes in-, out- and net internal migration), for census divisions, 1981

Legends

AGE GROUPS (9A)

1. Total
2. 15-19 years
3. 20-24 years
4. 25-29 years
5. 30-34 years
6. 35-44 years
7. 45-54 years
8. 55-64 years
9. 65 years and over

HIGHEST LEVEL OF SCHOOLING (13)

1. Total
2. Less than Grade 9 (1)
3. Grades 9-10
4. Grades 11-13
5. Secondary school certificate
6. Trades certificate or diploma
7. Other non-university education only (2)
8. Without certificate or diploma
9. With certificate or diploma
10. University
11. Without certificate, diploma or degree
12. With certificate or diploma (3)
13. With degree

---

(1) Includes "No schooling or kindergarten only".

(2) Refers to courses completed at post-secondary non-university institutions which normally require a secondary school graduation certificate or equivalent for entrance, as well as to other courses in related or like institutions (such as private trade schools or adult vocational centres) which may not require secondary school graduation for entrance.

(3) Includes trades certificate, non-university certificate and university certificate or diploma below bachelor level.

MOBILITY STATUS (10A)

1. Population 15 years and over
2. Non-movers
3. Movers
4. Non-migrants
5. Migrants
6. Within same census division
7. From different census division
8. From outside Canada
9. To different census division (1)
10. Net internal migration, 1976-1981 (2)

---

(1) When interpreting this column, consider the geography (Census Division) as 1976 place of residence. In all other cases, the geography refers to 1981 place of residence.

(2) (From different census division) - (To different census division) = (Net internal migration, 1976-1981).

SEX (3)

1. Total
2. Male
3. Female

SECTION B

FILE SEQUENCE AND GEOGRAPHIC DEFINITIONS

1) Sequence of 1981 Census User Summary Tape Files - Census Divisions (Special Series)

Census division files are sorted in the following ascending numeric sequence:

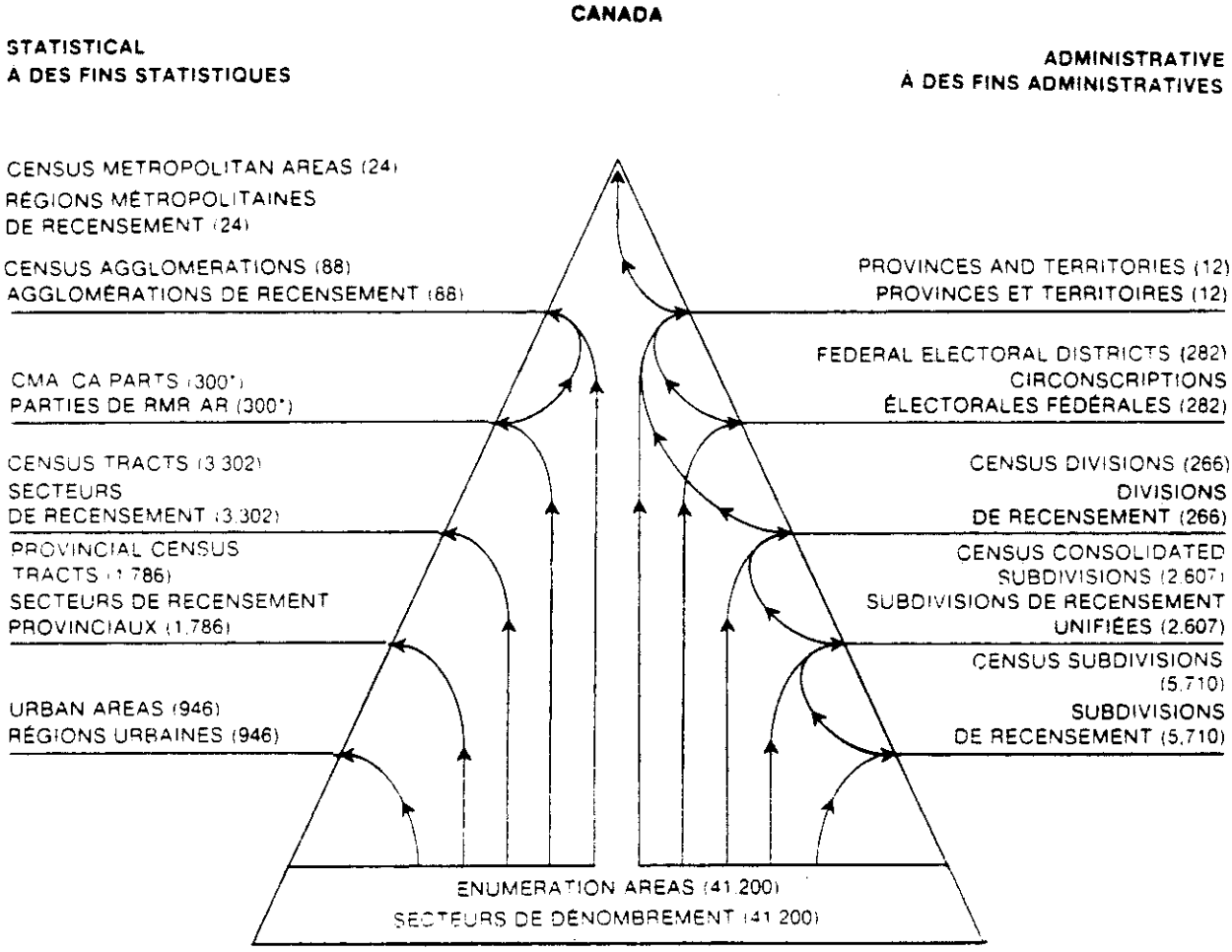
Keys	Position in record	Description
Major	51-52	Record type
Intermediate 1	1-2	Region and province code
Minor	3-4	Census division code

Record type	Description	Number of records	Geographic codes on each record	
			Position	Content
16	Census division (CD) records in ascending numeric sequence within province	266	1-2	Region and province code
			3-4	CD code
			5-17	Zeroes
			18-49	Census division name
			50	Indian Reserve - High imputation area indicator
			51-52	Record type

Note: There are 266 records on the census division summary tape files covering all of Canada.

Figure 1.

The 1981 Census Geographic Hierarchy
Ordre hiérarchique des unités géographiques du recensement de 1981



The numbers in brackets represent the number of each type of area

Les chiffres entre parentheses correspondent au nombre d'unites dans chaque categorie

* Approximate number

* Chiffres approximatifs

2) Geographic Definitions

Standard Geographical Classification (SGC)

The Standard Geographical Classification provides systematic identification for three types of geographic areas. These are:

(1) provinces and territories;

(2) census divisions (counties, regional municipalities, and regional districts, for example); and

(3) census subdivisions (usually municipalities).

The three area systems are hierarchically related. Census subdivisions (CSDs) aggregate to census divisions (CDs), which in turn aggregate to a province or a territory (PR). This relationship is reflected in the seven-digit SGC code:

PR CD CSD

XX XX XXX (X denotes one digit)

Census Subdivision

Census Division

Province or Territory

Remarks: For the 1981 Census, the Standard Geographical Classification is the sole official geographical classification system for dissemination purposes.

Due to a Statistics Canada policy of standardizing geographical codes wherever possible, census codes are no longer available. To uniquely identify any geostatistical area in Canada, it is necessary to employ the Standard Geographical Classification codes. For example, in 1976, a 4-digit census code uniquely identified census subdivisions within provinces. In 1981, it is necessary to use a 2-digit census division code plus a 3-digit census subdivision code to uniquely identify those census subdivisions.

Field: 1

Position: 1-2

Region and Province Code

This field presents the major political division of Canada. There are ten provinces and two territories coded as below. The first digit represents the geographic region of Canada to which the province belongs. Code notation is the Standard Geographical Classification (SGC) code and is assigned geographically from east to west. In census tabulations, provincial tables include the Yukon and Northwest Territories.

Code Assignment

Region	Province	Code
Canada	Total	00
Atlantic	Nfld.	10
	P.E.I.	11
	N.S.	12
	N.B.	13
Quebec	Que.	24
Ontario	Ont.	35
Prairies	Man.	46
	Sask.	47
	Alta.	48
British Columbia	B.C.	59
Territories	Yukon	60
	N.W.T.	61

Field: 2

Position: 3-4

Census Division (CD)

This field presents census divisions, the general term applying to counties, regional districts, regional municipalities and five other types of geographic areas made up of groups of census subdivisions. In Newfoundland, Manitoba, Saskatchewan and Alberta, the term describes areas that have been created by Statistics Canada in cooperation with the provinces as an equivalent for counties.

Remarks: In the 1981 Census there are five census divisions in the Northwest Territories; this increase of one census division for the Northwest Territories results from the creation of the Central Arctic Region that, in 1976, was a part of the Fort Smith Region.

Major redelineation of census divisions occurred in Manitoba in 1976 and 1961 and in British Columbia in 1971.

The creation of Regional Municipalities in Ontario between 1969 and 1975 required the redefinition of some census divisions in Ontario.

See list of census division names and codes on the following pages.

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
NEWFOUNDLAND		
10	01	DIVISION NO. 1
10	02	DIVISION NO. 2
10	03	DIVISION NO. 3
10	04	DIVISION NO. 4
10	05	DIVISION NO. 5
10	06	DIVISION NO. 6
10	07	DIVISION NO. 7
10	08	DIVISION NO. 8
10	09	DIVISION NO. 9
10	10	DIVISION NO. 10
PRINCE EDWARD ISLAND		
11	01	KINGS COUNTY
11	02	QUEENS COUNTY
11	03	PRINCE COUNTY
NOVA SCOTIA		
12	01	SHELBURNE COUNTY
12	02	YARMOUTH COUNTY
12	03	DIGBY COUNTY
12	04	QUEENS COUNTY
12	05	ANNAPOLIS COUNTY
12	06	LUNENBURG COUNTY
12	07	KINGS COUNTY
12	08	HANTS COUNTY
12	09	HALIFAX COUNTY
12	10	COLCHESTER COUNTY
12	11	CUMBERLAND COUNTY
12	12	PICTOU COUNTY
12	13	GUYSBOROUGH COUNTY
12	14	ANTIGONISH COUNTY
12	15	INVERNESS COUNTY
12	16	RICHMOND COUNTY
12	17	CAPE BRETON COUNTY
12	18	VICTORIA COUNTY

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
NEW BRUNSWICK		
13	01	SAINT JOHN COUNTY
13	02	CHARLOTTE COUNTY
13	03	SUNBURY COUNTY
13	04	QUEENS COUNTY
13	05	KINGS COUNTY
13	06	ALBERT COUNTY
13	07	WESTMORLAND COUNTY
13	08	KENT COUNTY
13	09	NORTHUMBERLAND COUNTY
13	10	YORK COUNTY
13	11	CARLETON COUNTY
13	12	VICTORIA COUNTY
13	13	MADAWASKA COUNTY
13	14	RESTIGOUCHE COUNTY
13	15	GLOUCESTER COUNTY
QUEBEC		
24	01	ILES-DE-LA-MADELEINE
24	02	GASPE-EST
24	03	GASPE-OUEST
24	04	BONAVENTURE
24	05	MATAPEDIA
24	06	MATANE
24	07	RIMOUSKI
24	08	RIVIERE-DU-LOUP
24	09	TEMISCOUATA
24	10	KAMOURASKA
24	11	CHARLEVOIX-EST
24	12	CHARLEVOIX-OUEST
24	13	L'ISLET
24	14	MONTMAGNY
24	15	BELLECHASSE
24	16	MONTMORENCY NO. 2
24	17	MONTMORENCY NO. 1
24	20	QUEBEC
24	21	LEVIS
24	22	DORCHESTER
24	23	BEAUCE
24	24	FRONTENAC
24	25	COMPTON
24	26	WOLFE

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
QUEBEC (Continued)		
24	27	MEGANTIC
24	28	LOTBINIERE
24	29	PORTNEUF
24	32	CHAMPLAIN
24	33	NICOLET
24	34	ARTHABASKA
24	35	RICHMOND
24	36	SHERBROOKE
24	37	STANSTEAD
24	38	BROME
24	39	SHEFFORD
24	40	BAGOT
24	41	DRUMMOND
24	42	YAMASKA
24	43	SAINT-MAURICE
24	47	MASKINONGE
24	49	BERTHIER
24	50	RICHELIEU
24	51	SAINT-HYACINTHE
24	52	ROUVILLE
24	53	IBERVILLE
24	54	MISSISQUOI
24	55	SAINT-JEAN
24	56	CHAMBLY
24	57	VERCHERES
24	58	JOLIETTE
24	61	MONTCALM
24	62	L'ASSOMPTION
24	63	TERREBONNE
24	64	ILE-JESUS
24	65	ILE-DE-MONTREAL
24	66	LAPRAIRIE
24	67	NAPIERVILLE
24	68	HUNTINGDON
24	69	CHATEAUGUAY
24	70	BEAUHARNOIS
24	71	SOULANGES
24	72	VAUDREUIL
24	73	DEUX-MONTAGNES
24	74	ARGENTEUIL
24	75	PAPINEAU
24	76	LABELLE
24	78	GATINEAU

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
QUEBEC (Concluded)		
24	79	HULL
24	80	PONTIAC
24	83	TEMISCAMINGUE
24	84	ABITIBI
24	90	LAC-SAINT-JEAN-OUEST
24	93	LAC-SAINT-JEAN-EST
24	94	CHICOUTIMI
24	97	SAGUENAY
24	98	TERRITOIRE-DU-NOUVEAU-QUEBEC
ONTARIO		
35	01	GLENGARRY COUNTY
35	02	PRESCOTT COUNTY
35	03	RUSSELL COUNTY
35	04	STORMONT COUNTY
35	05	DUNDAS COUNTY
35	06	OTTAWA-CARLETON REGIONAL MUNICIPALITY
35	07	GRENVILLE COUNTY
35	08	LEEDS COUNTY
35	09	LANARK COUNTY
35	10	FRONTENAC COUNTY
35	11	LENNOX AND ADDINGTON COUNTY
35	12	HASTINGS COUNTY
35	13	PRINCE EDWARD COUNTY
35	14	NORTHUMBERLAND COUNTY
35	15	PETERBOROUGH COUNTY
35	16	VICTORIA COUNTY
35	18	DURHAM REGIONAL MUNICIPALITY
35	19	YORK REGIONAL MUNICIPALITY
35	20	TORONTO METROPOLITAN MUNICIPALITY
35	21	PEEL REGIONAL MUNICIPALITY
35	22	DUFFERIN COUNTY
35	23	WELLINGTON COUNTY
35	24	HALTON REGIONAL MUNICIPALITY
35	25	HAMILTON-WENTWORTH REGIONAL MUNICIPALITY
35	26	NIAGARA REGIONAL MUNICIPALITY
35	28	HALDIMAND-NORFOLK REGIONAL MUNICIPALITY
35	29	BRANT COUNTY
35	30	WATERLOO REGIONAL MUNICIPALITY
35	31	PERTH COUNTY
35	32	OXFORD COUNTY

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
ONTARIO (Concluded)		
35	34	ELGIN COUNTY
35	36	KENT COUNTY
35	37	ESSEX COUNTY
35	38	LAMBTON COUNTY
35	39	MIDDLESEX COUNTY
35	40	HURON COUNTY
35	41	BRUCE COUNTY
35	42	GREY COUNTY
35	43	SIMCOE COUNTY
35	44	MUSKOKA DISTRICT MUNICIPALITY
35	46	HALIBURTON COUNTY
35	47	RENFREW COUNTY
35	48	NIPISSING DISTRICT
35	49	PARRY SOUND DISTRICT
35	51	MANITOULIN DISTRICT
35	52	SUDBURY DISTRICT
35	53	SUDBURY REGIONAL MUNICIPALITY
35	54	TIMISKAMING DISTRICT
35	56	COCHRANE DISTRICT
35	57	ALGOMA DISTRICT
35	58	THUNDER BAY DISTRICT
35	59	RAINY RIVER DISTRICT
35	60	KENORA DISTRICT
MANITOBA		
46	01	DIVISION NO. 1
46	02	DIVISION NO. 2
46	03	DIVISION NO. 3
46	04	DIVISION NO. 4
46	05	DIVISION NO. 5
46	06	DIVISION NO. 6
46	07	DIVISION NO. 7
46	08	DIVISION NO. 8
46	09	DIVISION NO. 9
46	10	DIVISION NO. 10
46	11	DIVISION NO. 11
46	12	DIVISION NO. 12
46	13	DIVISION NO. 13
46	14	DIVISION NO. 14
46	15	DIVISION NO. 15
46	16	DIVISION NO. 16

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
MANITOBA (Concluded)		
46	17	DIVISION NO. 17
46	18	DIVISION NO. 18
46	19	DIVISION NO. 19
46	20	DIVISION NO. 20
46	21	DIVISION NO. 21
46	22	DIVISION NO. 22
46	23	DIVISION NO. 23
SASKATCHEWAN		
47	01	DIVISION NO. 1
47	02	DIVISION NO. 2
47	03	DIVISION NO. 3
47	04	DIVISION NO. 4
47	05	DIVISION NO. 5
47	06	DIVISION NO. 6
47	07	DIVISION NO. 7
47	08	DIVISION NO. 8
47	09	DIVISION NO. 9
47	10	DIVISION NO. 10
47	11	DIVISION NO. 11
47	12	DIVISION NO. 12
47	13	DIVISION NO. 13
47	14	DIVISION NO. 14
47	15	DIVISION NO. 15
47	16	DIVISION NO. 16
47	17	DIVISION NO. 17
47	18	DIVISION NO. 18
ALBERTA		
48	01	DIVISION NO. 1
48	02	DIVISION NO. 2
48	03	DIVISION NO. 3
48	04	DIVISION NO. 4
48	05	DIVISION NO. 5
48	06	DIVISION NO. 6
48	07	DIVISION NO. 7
48	08	DIVISION NO. 8
48	09	DIVISION NO. 9
48	10	DIVISION NO. 10

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
ALBERTA (Concluded)		
48	11	DIVISION NO. 11
48	12	DIVISION NO. 12
48	13	DIVISION NO. 13
48	14	DIVISION NO. 14
48	15	DIVISION NO. 15
BRITISH COLUMBIA		
59	01	EAST KOOTENAY REGIONAL DISTRICT
59	03	CENTRAL KOOTENAY REGIONAL DISTRICT
59	05	KOOTENAY BOUNDARY REGIONAL DISTRICT
59	07	OKANAGAN-SIMILKAMEEN REGIONAL DISTRICT
59	09	FRASER-CHEAM REGIONAL DISTRICT
59	11	CENTRAL FRASER VALLEY REGIONAL DISTRICT
59	13	DEWDNEY-ALOUETTE REGIONAL DISTRICT
59	15	GREATER VANCOUVER REGIONAL DISTRICT
59	17	CAPITAL REGIONAL DISTRICT
59	19	COWICHAN VALLEY REGIONAL DISTRICT
59	21	NANAIMO REGIONAL DISTRICT
59	23	ALBERNI-CLAYOQUOT REGIONAL DISTRICT
59	25	COMOX-STRATHCONA REGIONAL DISTRICT
59	27	POWELL RIVER REGIONAL DISTRICT
59	29	SUNSHINE COAST REGIONAL DISTRICT
59	31	SQUAMISH-LILLOOET REGIONAL DISTRICT
59	33	THOMPSON-NICOLA REGIONAL DISTRICT
59	35	CENTRAL OKANAGAN REGIONAL DISTRICT
59	37	NORTH OKANAGAN REGIONAL DISTRICT
59	39	COLUMBIA-SHUSWAP REGIONAL DISTRICT
59	41	CARIBOO REGIONAL DISTRICT
59	43	MOUNT WADDINGTON REGIONAL DISTRICT
59	45	CENTRAL COAST REGIONAL DISTRICT
59	47	SKEENA-QUEEN CHARLOTTE REGIONAL DISTRICT
59	49	KITIMAT-STIKINE REGIONAL DISTRICT
59	51	BULKLEY-NECHAKO REGIONAL DISTRICT
59	53	FRASER-FORT GEORGE REGIONAL DISTRICT
59	55	PEACE RIVER-LIARD REGIONAL DISTRICT
59	57	STIKINE REGION

CENSUS DIVISIONS (CD)

SGC PR	SGC CD	CENSUS DIVISION
YUKON		
60	01	YUKON
NORTHWEST TERRITORIES		
61	04	BAFFIN REGION
61	05	KEEWATIN REGION
61	06	FORT SMITH REGION
61	07	INUVIK REGION
61	08	CENTRAL ARCTIC REGION

Field: 3

Position: 5-17

Zeroes

Field: 4

Position: 18-49

This field contains the name of the geographic area.

Field: 5

Position: 50

Indian Reserve - High Imputation Area Indicator

Indian Reserves KAHNAWAKE 14, WEBIQUI, WUNNUMIN 2, KINGFISHER 1, PEIGAN 147, COWICHAN 1, THEIK 2, COWICHAN 9

For the geographic areas above, a significant portion of the data has been imputed. Consequently, these areas have been suppressed. However, the data have been included in all higher geographic subtotals and totals. For an assessment of the impact on data quality for these areas, the user is advised to refer to Data Quality - Total Population (Catalogue No. 99-904) and Data Quality - Sample Population (Catalogue No. 99-905).

In this field:

1= Includes Indian Reserve(s) or part(s) of Indian Reserve(s) identified as high imputation area(s).

Blank = Does not include Indian Reserves or parts of Indian Reserves identified as high imputation areas.

The table on the following page indicates all the geographic areas in question.

1981 Census - Indian Reserves - High Imputation Areas

Recensement de 1981 - Réserves indiennes - Régions à fort taux d'imputation

Census subdivision(s) (CSD) Subdivision(s) de recensement (SDR)	Census division(s) (CD) Division(s) de recensement (DR)	Census division(s) (CD) code Code de division(s) de recensement (DR)	Census subdivision(s) (CSD) code Code de subdivision(s) de recensement (SDR)	Enumeration area(s) (EA) Secteur(s) de dénombrement (SD)	Federal electoral district (FED) Circonscription électorale fédérale (CÉF)	Region, province and federal electoral district (FED) code Code de région, province et circonscription électorale fédérale (CÉF)	Census tract(s) (CT)/provincial census tract(s) (PCT) name Nom de secteur(s) de recensement(SR)/ secteur(s) de recensement provincial (SRP)	Census metropolitan area(s) (CMA)/ census agglomeration(s) (CA) Région(s) métropolitaine(s) de recensement (RMR)/ agglomération(s) de recensement(AR)
Kahnawake 14*	Laprairie	2466	2466820*	110-120*	Châteauguay	24013	CT 832*	Montréal
Wabigo 4*	Kenora District	3560	3560079*	411*	Kenora-Rainy River	35034	PCT 4429*	...
Wauzhusk 2*	Kenora District	3560	3560072*	412*	Kenora-Rainy River	35034	PCT 4429*	...
Kingfisher 1*	Kenora District	3560	3560098*	420*	Kenora-Rainy River	35034	PCT 4429*	...
Peigan 147*	Division No. 5	4803	4803801*	363,364*	Lethbridge-Foothills	48014	PCT 7011*	...
Cowichan 1*	Cowichan Valley Regional District	5919	5919807*	219,223,224,226*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...
Halk 2*	Cowichan Valley Regional District	5919	5919818*	221*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...
Cowichan 9*	Cowichan Valley Regional District	5919	5919806*	222*	Cowichan-Malahat-The Islands (Les Îles)	59005	PCT 8249*	...

... Not applicable. - N'ayant pas lieu de figurer.

* Indicates area suppression due to high non-response. - Indique les régions supprimées en raison du taux élevé de non-réponse.

Field: 6

Position: 51-52

Record Type

Record type		Code
Canada		01
Provinces		02
Remainder-	Residual total by province for census subdivisions of less than 5,000 population	03
Remainder-	Non-census metropolitan areas (residual total by province of census subdivisions outside census metropolitan areas)	03
Remainder-	Non-census metropolitan areas (residual total by province of census tracts and provincial census tracts outside census metropolitan areas)	03
Census metropolitan areas and census agglomerations		10
Provincial census tract subtotals		12
Census tracts (census metropolitan areas and census agglomerations)		13
Provincial census tracts		15
Census divisions		16
Census subdivisions		17
Federal electoral districts		18
Enumeration areas		19

SECTION C

GEOGRAPHIC ORGANIZATION

The organization of the User Summary Tape files and microfiche for the 1981 Census is as follows:

Census Divisions (Special Series)

Information will be in the following order:

Geography	User Summary Tapes
Census divisions	Numeric sequence within province

Geography	Microfiche
Census divisions	Alphabetic sequence within province

Each CD level tape record will contain the following geographic identification:

Region and province code

Census division (CD) - Standard Geographical Classification (SGC)

CD name

Indian Reserve - High imputation area

Record type

SECTION D

SUPPLEMENTARY INFORMATION

CONFIDENTIALITY AND RANDOM ROUNDING

The Statistics Act states that no employee of Statistics Canada "... shall disclose or knowingly cause to be disclosed, by any means, any information obtained under this Act in such a manner that it is possible from any such disclosure to relate the particulars obtained from any individual return to any identifiable individual person, business or organization." (section 16 (1) (b), Statistics Act, 1970-71). The continuing development of new data storage systems and of flexible, generalized retrieval software, and the size of the 1981 Census tabulation and publication program make it difficult to use manual methods to ensure compliance with the Statistics Act. Thus, a technique known as "random rounding" is applied at the final stage of tabulations for all 1981 Census tabulations (including User Summary Tapes/Fiche). Under this method, all figures including totals are randomly rounded (either up or down) to a multiple of "5".

Although the tables subjected to random rounding appear similar to tables whose entries have been conventionally rounded, the process is different. In random rounding, the decision as to whether the last digit in a number will be rounded up or down (to a 0 or a 5) is determined by chance rather than by rules based on the value of the number. This aspect of the process generally introduces sufficient uncertainty into the last digit of the number to provide strong protection against direct, residual or negative disclosures without adding significant error to the census data. However, since totals are independently rounded they do not necessarily equal the sum of individual rounded figures in distributions. Minor differences can be expected for corresponding totals and cell values in various reports. Also, percentages, which are calculated on rounded figures, do not necessarily add to the total. Similarly, any total or cell value of a table which is an aggregation of other tables may differ from the sum of the corresponding rounded values contained in the component tables as these are all rounded independently.

Of concern to some users is that small cell counts may suffer a significant distortion as a result of random rounding and that this will be magnified when these same data cells are aggregated. This distortion is the protection against disclosure and individual data cells containing these small numbers may lose their precision as a result. Since the rounding is of a random nature, however, when data cells are re-aggregated by the user the rounding errors tend to cancel out. Thus aggregations can be used with confidence.

In addition to random rounding, for certain very small areas, to avoid publishing meaningless and potentially misleading data, and to absolutely avoid disclosure, a procedure referred to as "area suppression" has been adopted. Basically, the geographic area itself, as well as all data, is dropped completely from the tabulation in cases where there are fewer than 50 persons for self-enumeration areas and fewer than 25 persons for canvasser areas.

For place of work flow data tables, there is no geographic suppression unless cross-classified with industry or occupation. In the latter case, in addition to the 25/50 rule of suppression based on place of residence, all geographic areas have been suppressed where the total place of work count of the population 15 years and over who worked since January 1, 1980 is less than 25 (2B non-inmate population). Suppressed data are, however, included in the appropriate higher aggregate subtotals and totals. "Area suppression" is applied only to the sample data file, affecting the Profile Series B of bulletins and all of the User Summary Tape/Fiche program. In the case of income distributions, data are deleted if the total non-inmate population concerned is less than 250. This applies only to the User Summary Tape/Fiche program, at the census tract and census subdivision levels, and within the Profile Series B.

The actual census tract (CT) or census subdivision (CSD) suppressed due to the rule described is indicated in the appendix to each Series B bulletin affected. Basic population counts, land area (and other data collected on a 100% basis) for these "missing" or suppressed entities can be obtained from the corresponding Profile Series A of bulletins, or tape and fiche program. (See Products and Services of the 1981 Census of Canada.)

Further, for certain subject-matter areas in the National and Provincial Series bulletin - income and industry/occupation - users will note the suppression of distributions where less than 250 persons or units are involved. In this case, the total area concerned is not suppressed, and as in "area suppression", such suppressed information is included in higher aggregates.

Further slight variations may exist in certain other circumstances, and more complete details on suppression will be contained in the Summary Guide -Sample Population (Catalogue No. 99-903).

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables - 100% data (no suppression)	Number of geographic records - 2B variables - 20% sample data (excluding income)** (suppression based on less than 25/50 persons)	Number of geographic records - 2B variables - 20% sample data - Income distributions (suppression based on less than 250 persons)
ENUMERATION AREAS (EAs)			
Canada	1	1	...
Provinces	12	12	...
Federal Electoral Districts (1976 representation)	282	282	...
Enumeration Areas	41,197	38,233	...
Total	41,492	38,528	...
CENSUS SUBDIVISIONS (CSDs)			
Canada	1	1	1
Provinces	12	12	12
Census Divisions	266	266	266
Census Subdivisions	5,710	5,372	4,563
Total	5,989	5,651	4,842

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in income tables with no distributions.

*** For Cornwall, Hawkesbury and Ottawa-Hull, the data is shown separately for the Ontario part and the Quebec part; similarly data is shown separately for Flin Flon, Manitoba part and Saskatchewan part.

... Not applicable.

Note: For geographic record counts involving place of work, see Section B (1) Sequence of 1981 Census User Summary Tape Files.

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census - Continued

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables - 100% data (no suppression)	Number of geographic records - 2B variables - 20% sample data (excluding income)** (suppression based on less than 25/50 persons)	Number of geographic records - 2B variables - 20% sample data - Income distributions (suppression based on less than 250 persons)
CENSUS TRACTS (CTs)/ PROVINCIAL CENSUS TRACTS (PCTs)			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas/ Census Agglomerations	37	37	37
Provincial/Census Tract Subtotals	12	12	12
Census Tracts	3,302	3,277	3,247
Provincial Census Tracts	1,786	1,782	1,782
Total	5,150	5,121	5,091
CENSUS SUBDIVISIONS (COMPONENTS) FOR CMAs			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas	25	25	25
Census Subdivisions	365	351	337
Residual by Province	12	12	12
Total	415	401	387

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in income tables with no distributions.

*** For Cornwall, Hawkesbury and Ottawa-Hull, the data is shown separately for the Ontario part and the Quebec part; similarly data is shown separately for Flin Flon, Manitoba part and Saskatchewan part.

. . . Not applicable.

Note: For geographic record counts involving place of work, see Section B (1) Sequence of 1981 Census User Summary Tape Files.

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census - Continued

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables - 100% data (no suppression)	Number of geographic records - 2B variables - 20% sample data (excluding income)** (suppression based on less than 25/50 persons)	Number of geographic records - 2B variables - 20% sample data - Income distributions (suppression based on less than 250 persons)
CENSUS TRACTS FOR CMAs			
Canada	1	1	1
Provinces	12	12	12
* Census Metropolitan Areas	25	25	25
Census Tracts	3,032	3,008	2,983
Residual by Province	12	12	12
Total	3,082	3,058	3,033
CENSUS SUBDVISIONS (CSDs) 5000+			
Canada	1	1	1
Provinces	12	12	12
Residual Total by Province for Census Subidivisions of less than 5,000 Population	12	12	12
Census Subdivisions 5,000+	653	652	652
Total	678	677	677
CANADA AND PROVINCES			
Canada	1	1	1
Provinces	12	12	12
Total	13	13	13

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in income tables with no distributions.

*** For Cornwall, Hawkesbury and Ottawa-Hull, the data is shown separately for the Ontario part and the Quebec part; similarly data is shown separately for Flin Flon, Manitoba part and Saskatchewan part.

... Not applicable.

Note: For geographic record counts involving place of work, see Section 8 (1) Sequence of 1981 Census User Summary Tape Files.

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census - Continued

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables - 100% data (no suppression)	Number of geographic records - 2B variables - 20% sample data (excluding income)** (suppression based on less than 25/50 persons)	Number of geographic records - 2B variables - 20% sample data - Income distributions (suppression based on less than 250 persons)
CANADA, PROVINCES AND CENSUS DIVISIONS			
Canada	1	1	1
Provinces	12	12	12
Census divisions	266	266	266
Total	279	279	279
CENSUS METROPOLITAN AREAS, URBANIZED CORE AND FRINGE			
Canada	1	1	...
Provinces	12	12	...
* Census Metropolitan Areas	25	25	...
Fringe - Total, Urbanized Core, Urban Fringe and Rural fringe	86	86	...
Total	124	124	...

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in income tables with no distributions.

*** For Cornwall, Hawkesbury and Ottawa-Hull, the data is shown separately for the Ontario part and the Quebec part; similarly data is shown separately for Flin Flon, Manitoba part and Saskatchewan part.

... Not applicable.

Note: For geographic record counts involving place of work, see Section B (1) Sequence of 1981 Census User Summary Tape Files.

Counts of the Number of Geographic Records - 2A Tables (no suppression) versus 2B Tables (with suppression) for the User Summary Tape/Microfiche Series, 1981 Census - Concluded

User Summary Tape/ Microfiche Series	Number of geographic records - 2A variables - 100% data (no suppression)	Number of geographic records - 2B variables - 20% sample data (excluding income)** (suppression based on less than 25/50 persons)	Number of geographic records - 2B variables - 20% sample data - Income distributions (suppression based on less than 250 persons)
CENSUS METROPOLITAN AREAS AND CENSUS AGGLOMERATIONS, URBANIZED CORE AND FRINGE WITH COMPONENTS			
Canada	1	1	...
Provinces	12	12	...
Residual Total by Province of Census Subdivisions Outside Census Metropolitan/ Agglomeration Areas	12	12	...
*** Census Metropolitan/ Agglomeration Areas	116	116	...
Fringe-Total, Urbanized Core, Urban Fringe and Rural Fringe	374	370	...
Components	1019	971	...
Total	1534	1,482	...

* Data shown separately for Ottawa-Hull, Ontario part and Quebec part.

** In the Enumeration Areas Series (EA), the 25/50 rule supersedes the 250 rule for suppression in income tables with no distributions.

*** For Cornwall, Hawkesbury and Ottawa-Hull, the data is shown separately for the Ontario part and the Quebec part; similarly data is shown separately for Flin Flon, Manitoba part and Saskatchewan part.

... Not applicable.

Note: For geographic record counts involving place of work, see Section B (1) Sequence of 1981 Census User Summary Tape Files.

SAMPLING AND WEIGHTING

The 1981 Census data were collected either on a 100% basis (i.e. from all households), or on a sample basis (i.e. from only a random sample of households) with data weighted to provide estimates of the entire population. The information contained in this User Summary Tape/Fiche package was collected on a 20% sample basis and then weighted up to compensate for sampling.

The weighting system used in the 1981 Census (as in the 1971 and 1976 Censuses) is the raking ratio estimation procedure. This is an iterative procedure designed to ensure that sample estimates for certain basic subgroups of the population agree with the corresponding population totals. This is intended to not only improve the consistency between 100% and sample data tabulations but to improve the reliability of estimates from the sample.

This procedure will ensure consistency between sample estimates and population values for the chosen subgroups and for combinations of these subgroups. However, although the procedure will tend to improve consistency for smaller subgroups it will not ensure consistency for these smaller groups, nor for groups with characteristics not used as controls. For any given geographic area, the weighted population total or subtotal may differ from that shown in reports containing data collected on a 100% basis.

With some minor exceptions, the population or universe (persons, households, dwellings or families) totals for Canada, the provinces and territories and census divisions, for sample and 100% data will coincide since such counts were used as controls in the weighting procedure.

DATA QUALITY

Introduction

Any census data will be subject to error. Some of the errors will tend to cancel out over a large number of cases (i.e. for larger cells) as errors will be made in both directions (i.e. random errors). In general the proportion or rate of net (i.e. uncancelled) random error increases as the population or cell size decreases. Thus, small data values should be used with some caution.

Other of the errors will tend not to cancel out as they will have a tendency to occur in one direction more than another (systematic errors, for example, question wording which invites errors in one direction more than in the other) and will result in a bias.

The data contained in this file are subject to coverage errors, response errors, processing errors and to sampling errors, in addition to any errors introduced by random rounding.

Coverage Error

A coverage error occurs in the census whenever a person or a household is missed completely or counted more than once. Since overcoverage is expected to be fairly rare in relation to undercoverage, the net effect of such errors is to introduce a downward bias in census figures, so that the published census estimates tend to underestimate the actual population.

A special study was undertaken in relation to the 1981 Census to measure the extent of the bias due to undercoverage. This study estimated the overall undercoverage rate to be of the order of 2% of the total population. It also indicated that undercoverage is higher in certain segments of the population, e.g., young male adults and recent immigrants. Similar trends were obtained in connection with the 1976 Census.

Response Error

A response error occurs when the response recorded is incorrect. Such errors may occur due to the respondent misinterpreting the question, inadvertently checking the wrong box, or even consciously checking the wrong box. Contributing to this error may be the questionnaire wording or organization, or the training and attitude of enumerators.

One indicator of the quality of the data is the "response rate". A response rate in this case is defined as the number of times the value for the characteristic was obtained from the respondent divided by the number of times it should have been obtained. This measure gives an indication of response quality, and in turn, of the extent of imputation required for non-response.

Table 1 on the following page presents the response rates obtained in the 1981 Census for the stated characteristics.

Table 1: Response Rates for Selected Characteristics in the 1981 Census

Characteristic	Response rate (%)
Age	98.9
Age at first marriage	91.9
Bathrooms	99.0
Children ever born	95.8
Class of worker	95.4
Condition of dwelling	98.3
Full-time/part-time weeks worked	92.4
Highest degree, certificate or diploma	98.1
Highest grade of elementary or secondary	92.9
Hours worked in reference week	97.5
Household maintainer	98.5
Incorporation status	91.2
Industry	96.6
Labour force activity	94.1
Length of occupancy	99.3
Main type of heating equipment	97.3
Marital status	98.7
Mobility status	96.2
Mother tongue	98.9
Number of rooms	98.9
Occupation	95.8
Period of construction	97.6
Place of work (census subdivision level)	95.7
Place of work (census tract level)	91.3
Principal heating fuel	97.0
Principal water heating fuel	97.1
Province, CD, CSD of residence in 1976	95.2
Relationship to Person 1	99.2
School attendance	98.2
Sex	99.2
Structural type	99.6
Tenure	99.1
Tenure - Condominium	96.2
Total income	94.1
Weeks worked	94.7
When last worked	96.5
Years of other non-university education	95.9
Years of university	97.0

Processing Error

Processing errors can occur when write-in answers are coded, when responses on the questionnaire are transcribed to be read by the computer, and when imputations are done either for non-response or for edit rejects.

Sampling Error

Data based upon responses collected on a sample basis and then weighted are subject to error due to the fact that the distribution of characteristics within the sample will not usually be identical to the distribution of characteristics within the population from which the sample has been selected.

The potential error that sampling has introduced will vary according to the relative scarcity of the characteristics in the population. For large cell values the potential error due to sampling, as a proportion of the cell value, will be relatively small. For small cell values this potential error, as a proportion of the cell value, will be relatively large.

Table 2 provides approximate measures of the error due to sampling. These measures are intended as a general guide only.

Table 2. Approximate Standard Error Due to Sampling for 1981 Census Sample Data

Cell value	Total number of persons, households, dwellings or families in geographic area									
	500	1,000	5,000	10,000	20,000	50,000	100,000	250,000	1,000,000	5,000,000 or over
50	15	15	15	15	15	15	15	15	15	15
100	20	20	20	20	20	20	20	20	20	20
200	25	25	30	30	30	30	30	30	30	30
500	-	30	40	45	45	45	45	45	45	45
1,000	-	-	60	60	60	65	65	65	65	65
2,000	-	-	70	80	85	90	90	90	90	90
5,000	-	-	-	100	120	135	140	140	140	140
10,000	-	-	-	-	140	180	190	195	200	200
20,000	-	-	-	-	-	220	255	270	280	280
50,000	-	-	-	-	-	-	315	400	435	445
100,000	-	-	-	-	-	-	-	490	600	625
500,000 or over	-	-	-	-	-	-	-	-	1,000	1,340

Users wishing to determine the approximate error due to sampling for any given cell of data based upon the 20% sample should follow the following procedures:

(a) A tabulation within this file will typically apply to a universe of persons, households, dwellings or families. It is first necessary to establish the total count for the particular geographic level - census tract, census subdivision, census division, province, etc. -to which the cell under consideration applies.

(b) Choose the column in Table 2 whose heading is closest in value to the universe total count for the geographic area.

(c) Choose the row within the column in Table 2 whose heading is closest to the value of the given cell in the census tabulation. The value within the column in this row will be the approximate standard error due to sampling for the cell under consideration.

The effect of the particular sample design and weighting procedure used in the 1981 Census will vary, however, from one characteristic to another. The standard error values in the above table may, therefore, understate or overstate the error due to sampling. The sample selected in the census is one of households rather than one of persons. In assessing the potential error due to sampling, for characteristics of persons, it is necessary to consider whether or not the response of all persons within the household will be similar. If they are not (uncorrelated), then the sampling error will tend to be lower. If they are (correlated) - e.g. migration - then the sampling error will tend to be higher.

For households, families, dwellings and uncorrelated person characteristics, when using these standard error values, the user can be reasonably certain that, for the enumerated population, the true value (discounting all forms of error other than sampling) lies within plus or minus twice the standard error (e.g., for a cell value of 1,000 for a geographic area with a population of 50,000 the range would be 1,000 + or- 2X65 or 1,000 + or-130). For correlated person characteristics, the user can be reasonably certain that, similarly, the true value lies within plus or minus three times the standard error (e.g., for a cell value of 5,000 for a geographic area with a population of 100,000 the range would be 5,000 + or - 3X140 or 5,000 + or-420).

Factors which can be applied as an adjustment to these standard error values for each individual variable may be obtained by contacting the nearest Statistics Canada reference centre.

These adjustment factors, additional information on the census methodology -in particular on sampling and weighting - and a more comprehensive assessment of the quality of the census data collected on a sample basis will be included in Data Quality -Sample Population (Catalogue No. 99-905).

GEOGRAPHIC REFERENCE PRODUCTS

1981 Census of Canada: Enumeration Area Reference Lists

99-909 Census Divisions and Subdivisions, Urban and Rural - Atlantic Provinces

99-910 Census Divisions and Subdivisions, Urban and Rural - Quebec

99-911 Census Divisions and Subdivisions, Urban and Rural - Ontario

99-912 Census Divisions and Subdivisions, Urban and Rural - Western Provinces and the Territories

99-913 Census Tracts

99-914 Provincial Census Tracts - Atlantic Provinces

99-915 Provincial Census Tracts - Quebec

99-916 Provincial Census Tracts - Ontario

99-917 Provincial Census Tracts - Western Provinces and the Territories

99-918 Census Metropolitan Areas and Census Agglomerations, Components

Changes to Municipal Boundaries, Status and Names (Catalogue No. 12-201, Annual)

Standard Geographical Classification, 1981, Vol. I (Catalogue No. 12-567, Occasional)

Standard Geographical Classification, 1981, Vol. II (Catalogue No. 12-568, Occasional)

REFERENCE PRODUCTS

The 1981 Census Dictionary (Catalogue No. 99-901) contains the complete range of definitions for all variables and terms used in the 1981 Census data products. Of general interest would be information contained in Summary Guide -Total Population (Catalogue No. 99-902) and Summary Guide - Sample Population (Catalogue No. 99-903) which include lists and indexes of tables appearing in the data publications, as well as reproductions of the census questionnaire forms and basic indicators of data quality. Further details on the data quality may be obtained from Data Quality - Total Population (Catalogue No. 99-904) and Data Quality - Sample Population (Catalogue No. 99-905).

A wide range of other analytical and reference products are available and described, along with information on data products and available services, in Products and Services of the 1981 Census of Canada.

SECTION E

SPECIAL NOTES

Census Family Type Data

In previous censuses, the primary family was defined as the family of the head of the household. In 1981, the criterion for determining family type was changed. A new question was added to the census questionnaire to determine a person responsible for paying the rent, or mortgage, or taxes, or electricity, and is used to identify primary and secondary families.

Due to improvements in the method of determining Census Family Type implemented for the 1981 Census, caution should be used in comparing the distribution of primary and secondary families with data from previous censuses. For example, census families in private households where the person responsible for household payments is residing elsewhere are automatically classified as secondary families in 1981. In previous censuses, first, the identification of these cases was not possible and second, some of these families were classified as primary families.

Further explanation of these changes is included in the Summary Guide - Total Population (Catalogue No. 99-902).

Census Metropolitan Areas and Census Agglomerations Crossing Provincial Boundaries

Due to the method of production used for User Summary Tapes and microfiche, it was not feasible to produce a census metropolitan area or a census agglomeration total for areas crossing provincial boundaries. Consequently, for the census metropolitan area of Ottawa-Hull it is necessary to add together data for Ottawa-Hull from both the Ontario and Quebec parts in order to obtain a total. Additions are also required in order to obtain the totals for the census agglomerations of Cornwall and Hawkesbury (Ontario and Quebec parts) and Flin Flon (Manitoba and Saskatchewan parts). Totals are shown for census metropolitan areas and census agglomerations crossing provincial boundaries in the Profile Series as a different method of production was used.

Class of Worker - Not applicable - Table SDE81841

The category "Class of Worker - Not applicable" includes persons who did not work in 1980 or 1981. Most of those persons would have received no employment income in 1980. However, some persons may have been paid in 1980 for work performed in 1979.

Ethnic Origin

The 1981 ethnic origin question attempts to trace the "roots" of the population of Canada. The data derived from this question reflect respondents' perception of their ethnic background, and the cultural group with which they most closely identify.

The following factors should be noted in the analysis of the ethnic origin data.

(1) Previous censuses usually traced ethnic origin through the paternal ancestry. (1) The 1981 Census is the first that does not restrict the tracing of ethnic origin to one side of the family.

(2) The 1981 Census is the first to allow more than one ethnic origin response per individual (e.g., a response of French and German is valid and is retained for tabulation purposes). Previous censuses reduced all multiple ethnic origin responses down to a single response. For the 1971 Census, if more than one origin was indicated on the questionnaire, one was arbitrarily selected.

(3) The multiple responses should ideally be used in conjunction with the single responses to give a complete picture on what answers were provided to the ethnic origin question. In addition, since the question is not specifically on race but acknowledges racial characteristics, the use of the ethnic origin responses to derive racial groupings may not be totally adequate. Forthcoming technical papers will address both these issues.

(4) As 1971 Census processing reduced all multiple responses to a single response, it is not possible to compare 1971 data to 1981 for single responses. This comparison could underestimate the real change.

Similarly, a comparison of 1971 data to single plus multiple responses in 1981 could overestimate the real change.

(5) In 1971, everyone who indicated their religion as Jewish was assigned a Jewish ethnic origin regardless of the origin reported. In 1981, although there was no such assignment, 94% of the non-inmate population with a single Jewish ethnic origin response also reported their religion as Jewish.

(6) It should also be noted that there are some apparent anomalies in 1981 data based on a misinterpretation of the ethnic origin question. This is evident when the ethnic origin variable is cross-classified with Place of Birth, Mother Tongue or Religion: by Place of Birth, some tables may include some Native Peoples born in India, Pakistan, Guyana, etc.; by Mother Tongue, some tables may include Native Peoples with Asian Indian mother tongue; and by religion some tables may include some Native Peoples with Eastern Non-christian religions, notably Hindu, Islam and Sikh. These anomalies affect less than 1% of the data.

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(1) In censuses from 1911 to 1931, the line of descent of people with Native or mixed Native/Non-native ancestry was traced through the mother's side.

Geography Correction Notices

A1 Problem: Incorrect enumeration area allocation

(a) Alexander, LGD, Man. (SGC 4601071)

- 1981 total population reads	2,793
should read	1,908

(b) Division No. 1, Unorganized, UNO, Man. (SGC 4601094)

- 1981 total population reads	675
should read	1,560

A2 Problem: Incorrect census subdivision limits

(a) Meductic, VL, N.B. (SGC 1310013)

- 1981 total population reads	234
should read	197

(b) Canterbury, PAR, N.B. (SGC 1310011)

- 1981 total population reads	649
should read	686

A3 Problem: Incorrect census subdivision limits

(a) Hillsborough Park, VL, P.E.I. (SGC 1102017)

- 1981 total population reads	1,227
should read	1,036

(b) East Royalty, VL, P.E.I. (SGC 1102020)

- 1981 total population reads	1,696
should read	1,863

(c) Sherwood, VL, P.E.I. (SGC 1102019)

- 1981 total population reads	5,681
should read	5,705

A4 Problem: Incorrect enumeration area allocation

(a) Chicken 224, R, Sask. (SGC 4718828)

- 1976 total population reads	-A
should read	528

(b) Chicken 225, R, Sask. (SGC 4718823)

- 1976 total population reads	528
should read	-
- 1981 total population reads	236
should read	26

(c) Division No. 18, Unorganized, UNO, Sask. (SGC 4718090)

- 1981 total population reads	11,991
should read	12,201

A5 Problem: Incorrect census subdivision formation

(a) Fond du Lac 229, R, Sask. (SGC 4718824)
should be deleted

(b) Fond du Lac 227, R, Sask. (SGC code not yet assigned) -
should be created

- 1976 total population should read	452
- 1981 total population should read	494

A6 Problem: Incorrect census consolidated subdivision codes

(a) Alert Bay 1, R, B.C. (SGC 5943801)

- CCS code reads	5943029
should read	5943035

(b) Alert Bay 1A, R, B.C. (SGC 5943802)

- CCS code reads	5943029
should read	5943035

A7 Problem: Incorrect census subdivision limits

(a) Jacquet River, VL, N.B. (SGC 1314002)

- 1981 total population reads	778
should read	887

(b) Durham, PAR, N.B. (SGC 1314001)

- 1981 total population reads	2,656
should read	2,547

A8 Problem: Incorrect census subdivision limits

(a) Norway House 17, R, Man. (SGC 4622058)

- 1981 total population reads	1,812
should read	1,976

(b) Division No. 22, Unorganized, UNO, Man.
(SGC 4622046)

- 1981 total population reads	2,703
should read	2,539

A9 Problem: Incorrect census subdivision limits

(a) Regina, C, Sask. (SGC 4706027)

- 1981 total population reads	162,613
should read	162,984

(b) Sherwood No. 159, RM, Sask.
(SGC 4706026)

- 1981 total population reads	1,700
should read	1,329

A10 Problem: Incorrect census subdivision formation

(a) Kitimat 1, R, B.C. (SGC 5949803)
should be deleted

A11 Problem: Incorrect enumeration area allocation

Montréal, CMA

(a) CT 382.01 (code 3122)	
- 1981 total population reads	3,513
should read	3,848
(b) CT 382.02 (code 3123)	
- 1981 total population reads	5,212
should read	4,877

Home Language

Edit and imputation specifications for Mother Tongue and Home Language reduce multiple responses to a single response. In 1981, multiple resolution involved a series of choices based on the frequency of languages reported within the family, whereas the 1971 resolution of multiples was essentially a more arbitrary and deterministic procedure.

When compared to Mother Tongue data, the Home Language data may provide an indication of the extent to which persons still use or no longer use the language they reported as Mother Tongue.

However, depending upon the action of the editing process, cases of identically reported multiple mother tongues and home languages, may result in a certain proportion where Mother Tongue differs from Home Language.

For example, if a respondent indicated a Mother Tongue of English or French, the edited Mother Tongue would be either response, but not both. Similarly, depending on the edit result, the respondent's Home Language may be designated as English or French.

In 1981, the edit and imputation procedure has indicated that there were some 22% of respondents identified with English Mother Tongue and French Home Language who reported an English and French Home Language. Similarly, 11% of the respondents shown with French Mother Tongue and English Home Language reported also a French Home Language. Similar occurrences characterized 1971, but exact proportions are not known.

Users should refer to the 1981 Census Dictionary for a basic description of the differences between 1971 and 1981.

Income

Users are advised to consult the 1981 Census Dictionary, Catalogue No. 99-901, for a broad definition and derivation of total, average and median incomes, standard error of average income, major source of income and incidence of low income (income status). It should be noted that in the case of total income, employment income and wages and salaries, for the population (individuals 15 years and over), averages, medians and standard errors are calculated for individuals with income only. For all other universes, these statistics refer to all units, whether or not they reported any income. Aggregate income is the product of rounded count and unrounded average. The product is then rounded to the nearest thousand. However, the percentage distributions of aggregate income have been calculated prior to the rounding to thousands.

For the purposes of low income statistics, economic families and unattached individuals resident in the Yukon and Northwest Territories and on Indian Reserves are excluded from the estimates.

For a more comprehensive definition of (a) the components of total income and exclusions from the income concept, (b) the calculation of average income and median income and the interpretation of the standard error of average income, (c) the major source of income for the various universes, and (d) concept, coverage and derivation of low income statistics, see the relevant text in the following publications:

Catalogue No. 92-928 -	Population, Total Income
Catalogue No. 92-934 -	Private Households, Income
Catalogue No. 92-936 -	Census Families in Private Households, Income
Catalogue No. 92-937 -	Economic Families in Private Households, Income and Selected Characteristics

For information on the sources of income and their historical comparability, see Catalogue No. 99-903, Summary Guide - Sample Population.

For information on the quality aspects of income data, the user is referred to Catalogue No. 99-905, Data Quality - Sample Population.

Census income statistics are subject to sampling variability. Although such sampling variability may be quite small for large population groups, its effects cannot be ignored in the case of very small subgroups of population in an area or in a particular category. This is because, all other things being equal, the larger the sample size, the smaller is the error. For this reason income data on areas, other than enumeration areas, where the population was below 250, have been suppressed. The suppression criterion for enumeration areas is reduced to 25 or 50 persons. Where statistics are not suppressed but are still based on relatively small totals, the users are strongly advised to exercise caution in the use and interpretation of these statistics.

Inmates

Users should note that while some of the foregoing definitions of variables for which data were collected on a sample basis may specifically indicate the exclusion of "inmates", in actual fact, due to processing requirements, this is true of all population based tables in this report, even those involving cross-classification with data collected on a 100% basis (such as mother tongue). Moreover, the total population base for sample data, which can be referred to as the non-inmate population, will not exactly agree with the corresponding 100% figure, again due to a special processing requirement which lowered the final sample count by some 5,700 persons. Further details on this and any other processing changes affecting data comparability should be contained in Summary Guide -Sample Population (Catalogue No. 99-903) and Data Quality - Sample Population (Catalogue No. 99-905).

Labour Force Activity

In tables which apply to only a small proportion of the population or where extensive cross-classifications are present, the cell counts for some geographic areas are quite small. In these instances participation rates and unemployment rates may be unreliable. Users are strongly advised to exercise caution in the use and interpretation of these statistics.

Mobility Status

The geographic areas reflect boundaries as of January 1, 1981, the geographic reference date for the 1981 Census of Canada. Even when the geography refers to a 1976 place of residence (as in the case for out-migrants), it reflects the current (1981) boundary.

Not all migrants completed the question on their place of residence five years ago. In previous censuses, there were two levels of non-response: (i) those who failed to report any information (non-response); and (ii) those who gave enough information to establish their province of residence five years ago but not a location at the subprovincial level (partial response). In 1981, because of better geographic controls during processing, complete responses were imputed for these persons eliminating the need for a "not stated" category at the provincial and subprovincial area for place of residence five years ago.

The counts for total "Migrants" (a migrant is anyone who 5 years earlier did not have his/her usual place of residence within the CSD where he/she was enumerated) are additive across any geographic level - e.g., the migrant count at the Canada level is the sum of the migrants at the provincial level, etc. Additivity however does not hold across geographic levels in the case of in-migration or out-migration counts. For example, in-migrants at the census subdivision level include all migrants "from same province" and "from different province" whereas in-migrants at the provincial level would exclude those who come "from same province". Consequently, at the provincial level the subgroup "from same province" for in-migrants is not applicable as indicated in the table.

Mother Tongue

Comparability of the 1981 and 1976 Census mother tongue data is affected by a number of factors:

(a) There has been a decrease in the non-response rate from 1.9% in 1976 to 1.1% in 1981. As a result, an unknown portion of the change in any given mother tongue is due to a better enumeration of the population.

(b) In the 1976 Census the 1.9% of the population who did not respond to the mother tongue question had their language coded as Not Stated. In the 1981 Census the 1.1% of the population who did not respond to the question were assigned a specific language (see table below).

(c) Procedures for the removal of multiple responses, provided by 2.4% of the 1981 population, have changed for the 1981 Census. In 1976, an arbitrary and deterministic processing edit blanked the multiple responses, leaving only one valid response for each individual. In the 1981 Census, multiple languages were assigned a single response using probabilistic computer algorithms (see table below for the redistribution of combinations of English, French and Other).

(d) The category "Indian, n.o.s." includes persons who are of aboriginal ancestry and those of Asian Indian ancestry. In 1976, these persons were all coded to "Native Indian" as mother tongue.

Mother Tongue Information as Reported by Assigned Mother Tongue, Canada, 1981

Mother tongue as reported in 1981	1981 mother tongue assigned as		
	English	French	Other
English only	14,518,400	...	...
French only	...	6,077,695	...
Other only(1)(2)	...	2,495	2,897,730
English and French(3)	103,595	104,650	...
English and other(2)(4)	122,655	235	202,640
French and other(5)	...	9,305	12,945
English, French and other(3)	7,845	7,375	14,250
Non-response	165,970	47,340	48,060
Total	14,918,460	6,249,095	3,175,625

Totals may not equal the sum of components due to rounding.
(1) "Other" includes all non-official languages.
(2) A number of write-in languages were potentially changed to French by computer edit (e.g., "Belgian" could be either "French" or "Flemish").
(3) In 1976, a random choice was made between "English and French".
(4) In 1976, all records with "English and other" were assigned to "English".
(5) In 1976, all records with "French and other" were assigned to "French".

Users of these data should be aware that there is some impact on the comparability of the 1981 with 1976 Census data due to changes in processing procedures. However, problem-free information was provided by 96.5% of the population. Furthermore, for 98.0% of the population, the same data would have been published for 1981, whether the 1976 or the 1981 processing methodology had been used. For a more detailed explanation, users are referred to Data Quality -Total Population (Catalogue No. 99-904).

Number of Weeks Worked

The data on the number of weeks worked for the categories 40 to 48 weeks and 49 to 52 weeks should be used with caution. It appears that some respondents had a tendency to not include their weeks of paid leave for vacation or for other reasons in their total number of weeks worked, although instructed to do so. The 49 to 52 weeks category may therefore be underestimated.

Occupation

The data on Unit Groups 2791 ("Community College and Vocational School Teachers") and 2793 ("Post-secondary School Teachers, n.e.c.") for Quebec must be combined to permit comparisons with the corresponding groups for other provinces or with 1971 data because the Standard Occupational Classification misclassifies CEGEP professors in Unit Group 2793 when they should be included in 2791.

Official Language

The comparability of 1981 Census Official Language data with those from the 1971 Census is affected by the fact that different processing procedures were applied.

Users should be aware that in 1971, persons who declared an official language as either their home language or their mother tongue were also considered as being able to speak that language, and the response to official language was made to agree. In 1981, this editing convention was maintained only for those who reported an official language as home language.

A major impact of the 1981 processing change, compared to 1971, would appear to be fewer "bilingual" persons and higher numbers of people reporting "neither English nor French".

For example, in Manitoba and Saskatchewan, when 1981 data are compared to 1971 data, figures show a decline in the number of "bilingual" persons. However, when simulations of 1971 processing are applied to 1981 data, both provinces show an increase in the number of persons able to speak both English and French.

Users should refer to the 1981 Census Dictionary for a basic description of the differences between 1971 and 1981.

Place of Work

Although the census agglomerations of Moncton, North Bay, Kelowna, Kamloops and Prince George are census tracted, they were not street indexed as of April 1982. For this reason, place of work data for individual census tracts do not exist for these areas. Consequently, these five CAs have not been included in the UST/fiche program for place of work data at the CT level.

For the remaining C(M)As, certain portions are not covered by a street index; consequently, place of work data could not be coded to the census tract level for these areas. Those respondents who work within these portions are assigned a value of not codable. Therefore, it is not possible to provide data for the categories "Resident CT (including at home)" and "At home" for these CTs.

Census tracts do not necessarily respect census subdivision (CSD) boundaries. On the data base, any record has only one CT and one CSD of work code. Accordingly, for records with place of work coded to one of those CTs crossing CSD boundaries, a single CSD has been assigned based on the list below. This list is made available here for the user who wishes to roll up the data on these tapes for the component CTs of CSDs.

Note: For the CT of work values, see Enumeration Area Reference List, Catalogue No. 99-913. The values used are the 5-digit census tract numbers with no decimal place.

C(M)A OF WORK	CT OF WORK	LOCATED IN CSDs	ASSIGNED TO CSD OF WORK
ST. JOHN'S:			
001	00100	1001515/1001519	1001519
	00400	1001515/1001519	1001519
	01501	1001515/1001519	1001519
	01502	1001515/1001519/1001526	1001519
	01503	1001515/1001519	1001519
	01600	1001515/1001519	1001519
	10001	1001515/1001519	1001519
	17000	1001515/1001519	1001519
SAINT JOHN:			
310	02800	1301006/1305010	1301006
CHICOUTIMI-JONQUIÈRE:			
408	11100	2494400/2494420/2494440	2494420
QUÉBEC:			
421	02800	2420110/2420230	2420230
	16002	2420200/2420230/2420830	2420200
	16003	2420200/2420230	2420200
	27302	2420110/2420140	2420140
	30000	2420110/2420230	2420110
MONTRÉAL:			
462	37000	2465380/2465440	2465380
OTTAWA-HULL:			
505	51102	2478140/2479300	2479300
TORONTO:			
535	52800	3521005/3521010	3521005
	53102	3521005/3521010	3521005
	53202	3521005/3521010	3521005
	58600	3521010/3521024	3521010
	80500	3518001/3518005	3518001
	80600	3518001/3518005	3518001

Concluded

C(M)A OF WORK	CT OF WORK	LOCATED IN CSDs	ASSIGNED TO CSD OF WORK
GUELPH:			
550	00400	3523006/3523008	3523008
	00901	3523006/3523008	3523008
	00902	3523006/3523008	3523008
	01302	3523006/3523008	3523008
	01400	3523006/3523008	3523008
LONDON:			
555	00103	3539022/3539036	3539036
SARNIA:			
562	00100	3538025/3538029	3538029
	00400	3538028/3538029	3538029
SAULT STE. MARIE:			
590	00100	3557061/3557075	3557061
	10000	3557074/3557075	3557075
REGINA:			
705	00201	4706026/4706027	4706027
	02700	4706026/4706027	4706027
	10000	4706026/4706027	4706027
VANCOUVER:			
933	00800	5915022/5915803	5915022
	10200	5915051/5915807	5915051
	11101	5915046/5915806	5915046
	13002	5915055/5915808	5915055
	16004	5915011/5915802	5915011
	16101	5915011/5915802	5915011
	18101	5915004/5915801	5915004
	25000	5915036/5915063/5915065	5915063
	28000	5915034/5915805	5915034
	29001	5915039/5915804	5915039
	29002	5915039/5915804	5915039
	41000	5913018/5915063/5915809	5915063
VICTORIA:			
935	15000	5917045/5917811/5917812	5917045
	15500	5917045/5917809/5917810	5917045
	16002	5917015/5917803/5917804	5917015

Population Born Outside Canada and Immigrant Population

All persons born outside Canada are not necessarily immigrants to Canada. Individuals who have reported their place of birth outside Canada, but who are Canadian citizens by birth, are not considered immigrants to Canada. Consequently, they do not have a period of immigration or an age at immigration when they take up permanent residence in Canada. For the 1981 Census product, these persons were categorized as non-immigrants; they did not have to be granted landed immigrant status before taking up permanent residence in Canada. By contrast, in the 1971 Census, all persons born outside Canada were categorized as immigrants and were required to respond to the question on period of immigration.

The refinement introduced in 1981, to incorporate citizenship at birth and to distinguish between Canadians by birth who had a place of birth outside Canada and persons who immigrate to Canada, thus affects the comparability of data from the two censuses. Footnotes to all tables providing statistics on the population born outside Canada indicate how the non-immigrant group has been treated.

While the regular census outputs only provide data on the immigrant population who had a place of birth outside Canada, the 1981 Census also recognizes that some persons born inside Canada may be classified as immigrants because they reported a year of immigration.

Residual Totals

In the Special Series, where remainder or residual totals are shown, the total may be equal to the province or territory total. The problem arises in Prince Edward Island, the Yukon and Northwest Territories where there are no census metropolitan areas. Consequently, some repetition of data is unavoidable. A similar situation exists for census tracts in the Basic Series, where the provincial census tract subtotal is equal to the province or territory total for the above-mentioned areas.

Rural Farm Population

It is quite probable that the counts for "rural farm population" are below the 1976 counterparts due to the more exclusive nature of the 1981 definition. For the 1981 Census "Rural Farm Population" refers to all persons living in rural areas who are members of the households of farm operators living on their farms for any length of time during the 12-month period prior to the census. Prior to the 1981 Census, rural farm population was defined as all persons living in rural areas in dwellings situated on census farms.

Schooling Data

Comparisons of the 1981 Census schooling data with past censuses or with other sources should generally be restricted to uniform characteristics, and to similar temporal and population components. (1) General comparisons that are made should take note of the fact that the 1981 schooling data, in contrast to that for previous census years, exclude inmates of institutions, and are reported only for the population 15 years and over, in contrast with 1971 and earlier censuses which reported schooling figures for the population 5 years and over. More specifically, there is one main aspect of the 1981 schooling data which distinguish it from other sources.

The main aspect of the 1981 Census schooling data where comparability is affected is in the "other non-university education" category. The other non-university education concept differs from previous censuses and from other measures of the so-called post-secondary non-university concept in two respects. First, in contrast to the 1976 Census, this question now relates to all university transfer courses of community colleges, and the CEGEP general of Quebec; therefore, a shift in the data from university to non-university can be expected and does indeed occur between 1976 and 1981 (especially for the CEGEP population). Second, the 1981 question has been broadly conceptualized to encompass all non-university schooling beyond elementary or secondary, regardless of secondary school graduation. The 1981 other non-university education concept covers a broad spectrum of schooling that includes the conventional post-secondary areas as well as other training in the trades and vocational areas.

Standard Geographical Classification Codes

Due to a Statistics Canada policy of standardizing geographical codes wherever possible, census codes are no longer available. To uniquely identify any geostatistical area in Canada, it is necessary to employ the Standard Geographical Classification codes. For example, in 1976, a 4-digit census code uniquely identified census subdivisions within provinces. In 1981, it is necessary to use a 2-digit census division code plus a 3-digit census subdivision code to uniquely identify those census subdivisions.

Structural Type Data

The reporting of Structural Type of dwelling in any census or survey can be expected to be subject to potentially significant response error. This is perhaps due in part to the variety of sometimes complex structures, regional differences in terminology, and local real estate advertising. The level and nature of this error have been shown to vary according to the methodology used to collect the data. For the 1976 Census, the Structural Type was determined by the Census Representative. For the 1981 Census the Structural Type was determined by the respondent.

(1) Users interested in historically comparable census education data for years 1971, 1976 and 1981 are referred to Special Bulletin, Catalogue No. 13-579: Historical Tables for Census Education Data: 1971, 1976 and 1981, to be released at a later date.

Analysis has shown that the 1976 data contained substantially fewer errors than the 1981 data for this variable. Comparisons between 1976 and 1981 Census data for Structural Type will therefore reveal certain inconsistencies. (Note: The count of dwellings is not in question, only how the total number of dwellings is broken down into Structural Type.) These inconsistencies will vary in degree from one geographic area to another and from one Structural Type to another.

Geographically the degree of error in dwelling classification is highest in the core areas of larger cities; those areas with older and converted or complex structures for which proper classification by respondents would be more difficult. The degree of error de-creases as one moves outward from the core areas. Indeed there do not appear to be data quality problems in this regard for rural areas.

From the structural perspective the counts for Apartments in buildings with five or more storeys are believed to be relatively accurate. Counts for other types of dwellings in multiple unit structures (e.g., Apartments in buildings of less than five storeys and Row Houses), on the other hand, may contain varying degrees of error. For these dwellings there have been two types of misclassification. First, there are misclassifications among various types of the multiple unit structures. For example, Apartments in buildings of less than five storeys have frequently been classified as Row Houses, Semi-detached, etc. Second, there are some misclassifications between multiple and single structures. For example, a Duplex may have been misclassified as a Single Detached.

A substantial amount of the Structural Type error is misclassification among multiple unit structures. For this reason the user is advised to use the 1981 Census Structural Type data, whenever possible, by collapsing into four categories: Single Detached, Apartment in a building with five or more storeys, Movable (i.e. Mobile and Other Movable), and All Other. The error in the aggregated data will be reduced but it will not be eliminated. The misclassification of dwellings in multiple unit structures can be expected, where it occurs, to result in an underreporting for the "All Other" category and a compensating overreporting for Single Detached. The significance of this error (as a percentage) in the count of Single Detached can be expected to decrease as the proportion of true Single Detached in the geographic area increases.

The question is: "How can one determine the level of error in any given tabulation of Structural Type and is it possible to compensate or adjust for this error?". The answer will depend upon the tabulation and the specific use of the data.

For Enumeration Area level tabulations, for example, only the above general statements can be applied to the data. If the Enumeration Area is in a rural area, the data can be used with the same confidence as other data, with comparable cell sizes, for the Enume-ration Area. On the other hand, if the Enumeration Area is in an urban core area with 50% of the reported dwellings in multiple unit structures, then the data on Structural Type would not be usable for any but the most general purposes, particularly for the full range of Structural Types.

For Census Tract, Census Subdivision, Census Division, Census Metropolitan Area, Province level tabulations, as examples, it is possible (with some cross-reference to other 1981 Census information and to 1976 Structural Type data) to determine whether for the particular tabulation there is a data quality problem for Structural Type, the degree of this problem, and most probably how the data have been misclassified.

The procedure is based upon Period of Construction data. These data, which were collected on a sample basis in the 1981 Census, permit the identification of new construction - i.e. of occupied dwellings constructed in the period 1976-1980 plus those constructed in the first five months of 1981. To the extent that dwelling stock is stable (ideally no conver-sions and no demolitions) over a five-year period, then adding the new construction -obtained from the 1981 Census data - to the 1976 Census Structural Type counts should yield values close to those for the 1981 Census. The degree to which these adjusted counts do not agree with 1981 counts by Structural Type should give a clear indication of the quality of the data - both 1981 and 1976.

Three basic steps are involved in making this assessment of the quality of the data:

(1) Ascertain the 1976 Census geographic area corresponding to the 1981 Census geographic area for which Structural Type data are being tabulated.

For many tabulations the 1976 and 1981 Censuses will correspond exactly in geography. To assist in this determination the user may refer to a variety of bulletins.

(i) **Census Divisions and Census Subdivisions**

1976: 92-802 to 92-805; 92-911 (Reference Maps)

1981: 93-901 to 93-912, Table 4; 99-907 (Reference Maps - CDs/CSDs)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps or by consulting the SGC manual Volume 1 (Appendix 2) Catalogue No. 12-567.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(ii) **Census Metropolitan Areas**

1976: 92-809; 92-811 (Reference Maps)

1981: 95-903; 99-906 (Reference Maps - CMAs/CAs)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(iii) **Census Agglomerations**

1976: 92-809; 92-811 (Reference Maps)

1981: 95-903; 99-906 (Reference Maps - CMAs/CAs)

Same as (ii) above except users should note that CAs experienced a change of definitional criteria between 1976 and 1981 that can greatly affect the CAs. These changes are over and above any changes to the boundaries of component CSDs.

(iv) **Census Tracts**

1976: 95-800 to 95-831 (Maps included)

1981: 95-905 to 95-940 (Maps included)

The magnitude of the area affected by a boundary change can be determined by comparing the 1976 and 1981 Reference Maps.

The magnitude of the population affected by a boundary change can be determined by comparing the adjusted 1976 population figure (i.e. based on 1981 area) reported in the 1981 bulletin with the final 1976 population figure reported in the 1976 bulletin.

(v) **Federal Electoral Districts**

The Federal Electoral District level data cannot easily be assessed for the reason that 1976 data follow the 1966 Representation Order, and 1981 data are according to the 1976 Representation Order, <u>except</u> for 1976 bulletin 92-808, which does present basic structural type information according to the 1976 Representation Order. The corresponding bulletin in 1981 is Catalogue No. 95-901.

Minor differences in geographic boundaries which cannot be isolated should not invalidate the assessment. Substantial differences, however, would preclude proper assessment. (e.g., the Enumeration Area level data cannot be assessed for the reason that Enumeration Area boundaries differ greatly between 1976 and 1981.)

(2) Bring together, for the given geographic area (or areas), the 1976 and 1981 Structural Type data with the 1981 data cross-tabulated by Period of Construction (sample data) and produce "adjusted" 1981 counts.

For all Structural Types the newer construction (that with Period of Construction 1976-1981 or 1976-1980 plus 1981) reported in the 1981 Census must be added to the total for each Structural Type (or for some collapsed version) reported in 1976 to produce "adjusted" 1981 counts. Period of Construction data cross-tabulated with Structural Type are being specially prepared for use in carrying out this procedure. These tabulations will be available in March of 1983. Users of tape/fiche data should note that cross-tabulations of Period of Construction by Structural Type are planned at the Census Tract level (CTW81B22) and Census Subdivisions of 5,000 population and over (SPW81B13).

It should be noted that if there is no significant amount of new construction for the geographic area of interest (in which case the counts of total occupied private dwellings in 1981 and 1976 should be approximately equal) then Period of Construction data are not needed and this part of the procedure need not be applied.

(3) Compare the 1981 Census counts by Structural Type with the adjusted 1981 Census counts by Structural Type and assess differences.

If the geographic areas being compared are identical, then the 1981 counts and the adjusted 1981 counts should be similar. (For this comparison the two 1981 Apartment categories must be added to be comparable to the 1976 count of Apartments.) There will be many cases for which there will be differences - some small and some large. What must be done is to make some judgement of the possible reasons for a discrepancy.

Possible Reasons for Differences

(a) Dwellings constructed in the period January - May 1976 cannot be isolated in the 1981 data. Since occupied dwellings constructed in that period are included in the 1976 Census counts the adjusted 1981 counts will be higher than the published 1981 estimates.

If, in proportional terms, for any Structural Type there is a significant number of dwellings with Period of Construction of 1976-1981, then it may be necessary to readjust the counts to "correct" for the January - May 1976 construction. Without additional information, 5/60th of the 1976-1980 count or 5/65th of the 1976-1981 count should be subtracted from the earlier adjusted 1981 count. It should be remembered, however, that for small geographic areas such an adjustment may tend to be unreliable.

(b) It must be remembered that the Period of Construction data are based upon a sample and as such are subject to sampling error. A discussion of the impact of sampling error will be given with any 1981 Census Bulletins which include tabulations of sample data (e.g. Period of Construction) and in the publication Data Quality - Sample Population (Catalogue No. 99-905). The sampling error for most tabulations should not be sufficient to invalidate the assessment procedure but will explain some amount of any differences.

(c) The Period of Construction data are also subject to response error. The significance of such error for any given tabulations will depend upon the proportion of reported newer construction.

(d) Since tabulations being checked will be for occupied dwellings, differing vacancy rates for the 1976 and 1981 Censuses would result in a corresponding difference in occupied dwelling stock counts.

(e) Demolitions between the two censuses will cause the adjusted 1981 Census counts to be higher than the corresponding 1981 Census counts.

(f) Conversions (e.g., converting a Single Detached to Apartments) may legitimately result in a decrease in the count for one dwelling type and an increase in the count for another. Generally such conversions should not have been reported among the new construction.

All of items (a) to (f), with the possible exception of sampling errors, should individually manifest themselves by way of a difference in the estimated total occupied dwelling stock for the area (comparing the 1981 total with the adjusted 1981 total). Collectively there may be a cancelling effect (e.g., demolitions and conversions). These will also cause changes in the counts for particular Structural Types.

As a possible source of differences, response error will manifest itself not by a difference in estimated total occupied dwelling stock but by a shift in the count of dwellings between two or more Structural Types. If there is a major response error the shift will be obvious. The following hypothetical example will serve as an illustration.

Comparison of 1981 and Adjusted 1981 on Occupied Dwellings by Structural Type

Area	Apartments (000's)		Other Multiple (000's)		Single Detached (000's)	
	1981	Adj. 1981	1981	Adj. 1981	1981	Adj. 1981
A	260	361	130	30	20	19
B	385	400	53	40	10	8
C	150	155	36	35	40	41
D	78	78	24	24	56	56

For area A there is a significant response error which has manifested itself by a shift from Apartment (in 1976) to other types of dwellings in multiple unit structures, and, to a lesser degree, to Single Detached. It is reasonable to conclude that, for this area, the 1981 classification by Structural Type contains, as a minimum, the degree of error implied by the differences in the counts and that the adjusted 1981 counts more accurately reflect the Structural Type distribution for the area. At the same time it is also reasonable to conclude that classification problems were present in the 1976 Census as well. While the 1976 counts - based upon evaluation of 1976 and 1981 data -can be expected to be very much more accurate than the 1981 counts, in this case they may still contain non-negligible error. The largest proportion of such error will be among the multiple unit structures (Apartments plus Other Multiple in this example).

For area B there is likely also a response error with the same direction of misclassification as for area A. The adjusted 1981 counts can be expected to contain some amount of error, but because the data are much less inconsistent (than those for area A) the data can be used with much greater confidence.

For area C there are discrepancies, but these may be caused by a combination of problems. For this area the 1981 count of total occupied dwelling stock is 226. The adjusted 1981 count of total occupied dwelling stock is 231. Thus the majority of the apparent differences must be due to reasons other than response error. The most plausible source of the differences will be the Period of Construction data (see (a), (b) and (c) under Possible Reasons for Differences), although the conformity of the 1976 and 1981 geography should be verified.

For area D there are no differences and the data can be used with confidence.

It should be noted that collapsing of Structural Types, as in the illustration, should be done whenever possible as it is easier to assess the cause of differences for large cells. It should also be noted that shifts in the counts for Movable dwellings are very difficult to assess. These dwellings may have a higher than average demolition rate, they can be moved out of or into an area, and they can be converted perhaps more readily than other types of dwellings.

As part of the investigations which have resulted in this cautionary note, the above procedure was carried out for a sample of geographic areas. The results for a sample of Census Metropolitan Areas, as an example, showed that significant response error was isolated to specific municipalities, that for the majority of municipalities there was no identifiable data quality problem, and that where response errors apparently did occur, the shifts by Structural Type were immediately evident.

Further information on the quality of the Structural Type data will be included in Data Quality -Total Population (Catalogue No. 99-904).

Type of Household Data

Due to a change in the method of determining family type, implemented for the 1981 Census, caution should be used in comparing the distribution of primary and secondary families with data from previous censuses. Since the delineation of type of household is dependent upon family type, the same caution should be exercised in comparing the 1981 data for secondary family households with the corresponding figures in previous censuses.

An explanation of these changes, and if applicable, the impact of such changes on the data for household type in general, will be included in the Summary Guide - Total Population (Catalogue No. 99-902).

Zero Cells

In User Summary Tapes and microfiche, a cell containing a "zero" value may represent any one of the following:

(1) nil or zero.
(2) figures not appropriate or not applicable.
(3) median could not be calculated as it occurred in one of the open-ended classes in the distribution.

Due to the method of production it was not possible to use the standard symbols normally used in publications.