

**62M0004XCB**

**User Guide**

**Public-use Microdata File**

**Survey of Household Spending, 2002**

**Income Statistics Division  
Statistics Canada**

*Ce document est disponible en français*

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# 1. Introduction

## 1.1 General information

### 1.1.1 Background

This public-use microdata file presents data from the 2002 Survey of Household Spending (SHS) conducted in January through March 2003. Information about the spending habits, dwelling characteristics and household equipment of Canadian households during 2002 was obtained by asking people in the ten provinces to recall their expenditures for the previous calendar year (spending habits) or as of December 31 (dwelling characteristics and household equipment).

Conducted since 1997, the Survey of Household Spending integrates most of the content found in the Family Expenditure Survey and the Household Facilities and Equipment Survey. Many data from these two surveys are comparable to the Survey of Household Spending data. However, some differences related to methodology, to data quality and to definitions must be considered before comparing these data. See Section 1.1.4 "For further information".

### 1.1.2 New for 2002

The detailed age of the reference person and spouse have been discontinued on the public-use file. Age groups, however, continue to be part of the file. The tenure of the previous dwelling of the spouse is no longer asked as part of the survey.

The following nineteen new variables were added at the request of Canada Mortgage and Housing Corporation (CMHC):

CONDODEV = Dwelling is part of a condominium development  
OPFARM = Operated a farm  
APTDWG = Apartment in the dwelling  
NUMFLR = Number of floors in the dwelling  
RPPRDWTY = Type of dwelling previously occupied by reference person  
RPPREFLR = Number of floors in dwelling previously occupied by reference person  
RENTOINC = Rent calculated on the basis of income  
LARGEDWG = Moved to larger dwelling  
SMALLDWG = Moved to smaller dwelling  
CHEAPDWG = Moved to cheaper dwelling  
BETTRDWG = Moved to better dwelling  
CLOSEFAC = Moved closer to facilities  
ESTHHLD = Moved to establish own household  
CHNGTEN = Moved – tenure change  
CHNGJOB = Moved – job change  
CLOSWORK = Moved closer to work  
FAMREA = Moved for family reasons  
HEALTHR = Moved for health reasons  
OTHERR = Moved for other reasons

See the Data Dictionary for more information.

### 1.1.3 Layout of the document

This document is laid out in the following manner:

- Data Dictionary (variable specifications, code sets and other information).
- Technical Information (survey methodology, data quality, and guidelines for tabulation, analysis, and dissemination).
- Record Layout is available in Excel format. See file SHS2002EDM-PUMDF-RecordLayout\_Cliché d'entregistrements.

Appendices are available in Excel format. See file SHS2001EDM-Appendices\_Annexes.

- Appendix A presents the frequency counts for non-dollar variables in the public-use microdata file. They are included to help you verify your tabulations.
- Appendix B presents expenditure data tabulated using the public-use microdata file and also using the internal survey database. They are included to help you verify your tabulations.
- Appendix C contains a table indicating the spending variables included in previous public-use microdata files of the Survey of Household Spending and the Family Expenditure Survey.
- Appendix D shows any changes in variables from the previous year.
- Appendix E presents the coefficients of variation for published data from the 2002 SHS.

### 1.1.4 For further information

Additional information about the SHS can now be obtained free on the Statistics Canada web site ([www.statcan.ca](http://www.statcan.ca)). See especially:

- Note to former users of data from the Family Expenditure Survey (62F0026MIE2000002)
- Note to former users of data from the Household Facilities and Equipment Survey (62F0026MIE2000003)
- User Guide for the Survey of Household Spending, 2002 (62F0026MIE2003002)
- Methodology for the Survey of Household Spending (62F0026MIE2001003)
- 2001 Survey of Household Spending Data Quality Indicators (62F0026MIE2003001)

For more information about the current survey results and related products and services, or to enquire about the concepts, methods or data quality of the Survey of Household Spending, contact Client Services (613-951-7355; 1-888-297-7355; fax 613-951-3012; [income@statcan.ca](mailto:income@statcan.ca)), Income Statistics Division.

## 1.2 Technical characteristics of the file

**Content:** Household spending, dwelling characteristics, and household equipment, 2002

**Source:** Survey of Household Spending, 2002  
Income Statistics Division  
Statistics Canada

### Data set definition:

**Data set name** ..... SHS2002.TXT

**Number of records** ..... 14,704

### Format

Record length ..... 2,085

**Record layout** ..... Supplied

*See Excel file*

### Variables are grouped under the following headings:

- Location
- Dwelling
- Characteristics of reference person
- Characteristics of spouse of reference person
- Household description
- Household equipment (at December 31)
- Expenditure items
  - Food
  - Shelter
  - Household operation
  - Household furnishings and equipment
  - Clothing
  - Transportation
  - Health care
  - Personal care
  - Recreation
  - Reading materials and other printed matter
  - Education
  - Tobacco products and alcoholic beverages
  - Other expenses

## 2. Data dictionary

### 2.1 Location

Variable Name: **CASEID**  
Unit Type: Code  
Description: Identification number

---

Variable Name: **WEIGHT**  
Unit Type: Count  
Description: Weight at household level

---

Variable Name: **FYPYFLAG**  
Unit Type: Code  
Description: Full-year/part-year household indicator

Code	Description
1	Full-year household
2	Part-year household

**Note:** To create statistics for average annual expenditures, users should use data for full-year households. To tabulate dwelling characteristics, household equipment or create other types of expenditure statistics such as aggregates or market share, users should use data for full-year and part-year households.

---

Variable Name: **PROVINCP**  
Unit Type: Code  
Description: Province

Code	Description
00	Masked records
10	Newfoundland and Labrador
11	Prince Edward Island
12	Nova Scotia
13	New Brunswick
24	Quebec
35	Ontario
46	Manitoba
47	Saskatchewan
48	Alberta
59	British Columbia

---

Variable Name: **URBRUR**  
Unit Type: Code  
Description: Urban/rural region code

Code	Description
0	Masked records
1	Urban
2	Rural

---

Variable Name: **URBSIZEP**  
Unit Type: Code  
Description: Size of area of residence code

Code	Description
0	Masked records
1	100,000 and over
2	Under 100,000
3	Rural

---

## 2.2 Dwelling

Variable Name: **TYPDWELP**  
Unit Type: Code  
Description: Type of dwelling occupied at December 31

1 (If SHS\_B:001 =01)  
2 (If SHS\_B:001 =02)  
3 (If SHS\_B:001 =03)  
4 (If SHS\_B:001 =04)  
5 (If SHS\_B:001 = (05 or 06))  
6 (If SHS\_B:001 between 07 and 09)

Code	Description
1	Single detached
2	Double
3	Row or terrace
4	Duplex
5	Apartment
6	Hotel, rooming or lodging house, mobile home, or other

**Note:** This variable describes the type of dwelling in which the household resided on December 31. A dwelling is a structurally separate set of living premises with a private entrance from outside the building or from a common hall or stairway.

Single detached: A structure with one dwelling only, separated by open space from all other structures.

Double or semi-detached: A dwelling joined to only one other dwelling, separated from it by a wall extending from ground to roof.

Row or terrace: A dwelling unit in a row of three or more dwellings, sharing common walls extending from ground to roof and in which there are no other dwellings either above or below.

Duplex: Two dwellings, situated one above the other, not attached to any other structure and surrounded on all sides by open space.

Apartment: Dwellings in triplexes, quadruplexes or apartment separated from other dwellings by horizontal and vertical divisions.

Hotel, rooming or lodging house, mobile home, or other:

Includes:

- motels, hotels, tourist homes, halfway houses, school residences, YM/YMCAs;
- all rooming and lodging houses or individual rooms within such structures;
- bunk houses in lumber, mining, construction and military camps, and Hutterite colonies;
- mobile homes - movable dwellings designed and constructed to be transported by road) on their own chassis to a site, and placed on a temporary foundation such as block posts or a prepared pad;
- others - dwellings (other than mobile homes) used as permanent residences and capable of being moved on short notice, e.g., motor homes, tents, railroad cars, houseboats (including float-houses and live-aboard boats).

Additional clarification: Although we exclude identified collectives at the time of survey, it is possible that on December 31 the household lived in a collective and that is why this option is included in Type of Dwelling.

---

Variable Name: **YEARBUIP**

Unit Type: Code

Description: Period of construction of dwelling

- 1 (If SHS\_B:005 =10)
- 2 (If SHS\_B:005 =11)
- 3 (If SHS\_B:005 =12)
- 4 (If SHS\_B:005 =13)
- 5 (If SHS\_B:005 =14)
- 6 (If SHS\_B:005 =15)
- 7 (If SHS\_B:005 = (16 or 17))

Code	Description
1	1945 or before
2	1946 - 1960
3	1961 - 1970
4	1971 - 1980
5	1981 - 1990
6	1991 to reference year

**Note:** This variable gives the year or period in which the original building was constructed.

---

Variable Name: **NUMRMP**

Unit Type: Count

Description: Number of rooms

01-10 (If SHS\_B:007 between 1 and 10)  
11 (If SHS\_B:007 >10)

Code	Description
01-10	Actual numbers
11	11 or more rooms

**Note:** This variable includes the kitchen, bedrooms, and finished rooms in the attic or basement. It excludes bathrooms, halls, vestibules and rooms used solely for business purposes.

---

Variable Name: **NUMBEDRP**  
Unit Type: Count  
Description: Number of bedrooms

0-4 (If SHS\_B:008 between 0 and 4)  
5 (If SHS\_B:008 >4)

Code	Description
0-4	Actual numbers
5	5 or more bedrooms

**Note:** This variable includes all rooms designated as bedrooms even though the use may be occasional, as in the case of "spare" bedrooms. Bedrooms that were built in the basement of a dwelling are also included.

Exclude rooms designated as dining rooms, living rooms, etc. which may be used as bedrooms at night

---

Variable Name: **NUMBTHRP**  
Unit Type: Count  
Description: Number of bathrooms

0-2 (If SHS\_B:009 between 0 and 2)  
3 (If SHS\_B:009 >2)

Code	Description
0-2	Actual numbers
3	3 or more bathrooms

**Note:** This variable indicates the number of rooms in the dwelling with an installed bathtub and/or shower.

---

Variable Name: **TENURYRP**  
Unit Type: Code  
Description: Dwelling tenure during reference year

Dwelling tenure = Code 1 (Owned without mortgage)  
when SHS\_E:002 between 1 and 11 + SHS\_D:001 =1 + SHS\_I:001 =0;  
or when SHS\_E:002 =12 + SHS\_D:001 =1

Dwelling tenure = Code 2 (Owned with mortgage)  
when SHS\_E:002 between 1 and 11 + SHS\_D:001 =2 + SHS\_I:001 =0;  
or when SHS\_E:002 =12 + SHS\_D:001 =2

Dwelling tenure = Code 3 (Rented or occupied rent free)  
when SHS\_E:002 =0 + SHS\_D:001 =3 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 =0 + SHS\_D:001 =3 + SHS\_I:001 =12;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 =3 + SHS\_I:001 =12;  
or when SHS\_E:002 =12 + SHS\_D:001 =3 + SHS\_I:001 =12;  
or when SHS\_E:002 =0 + SHS\_D:001 =4 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 =0 + SHS\_D:001 =4 + SHS\_I:001 =12;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 =4 + SHS\_I:001 =12;  
or when SHS\_E:002 =12 + SHS\_D:001 =4 + SHS\_I:001 =12

Dwelling tenure = Code 4 (Mixed tenure)  
when SHS\_E:002 between 1 and 11 + SHS\_D:001 = 1 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 = 2 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 = 1 + SHS\_I:001 =12;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 =2 + SHS\_I:001 =12;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 =3 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 between 1 and 11 + SHS\_D:001 =4 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 =12 + SHS\_D:001 =3 + SHS\_I:001 between 1 and 11;  
or when SHS\_E:002 =12 + SHS\_D:001 =4 + SHS\_I:001 between 1 and 11

Code	Description
1	Owned without mortgage during the reference year
2	Owned with mortgage during the reference year
3	Rented or occupied rent free during the reference year
4	Mixed tenure during the reference year

**Note:** Owned with mortgage indicates that the dwelling was owned by a household member for the entire reference year and that there is a mortgage as of December 31.

Owned without mortgage indicates that the dwelling was owned by a household member for the entire reference year and that there was no mortgage as of December 31.

Rented or occupied rent-free indicates that the dwelling was rented or occupied rent-free by a household member for the entire reference year.

Mixed tenure includes those households that both owned and rented during the reference year.

---

Variable Name: **TENDC31P**

Unit Type: Code

Description: Dwelling tenure at December 31

1 (If SHS\_D:001 =1)

2 (If SHS\_D:001 =2)

3 (If SHS\_D:001 = (3 or 4))

Code	Description
1	Owned without mortgage on December 31
2	Owned with mortgage on December 31
3	Rented or occupied rent-free on December 31

**Note:** Owned with mortgage indicates that, on December 31, the dwelling was owned by a household member by a household member and there was a mortgage.

Owned without mortgage indicates that, on December 31, the dwelling was owned by a household member and there was no mortgage.

Rented or occupied rent-free indicates that, on December 31, the dwelling was rented or occupied rent-free by a household member.

Variable Name: **PURPRICE**

Unit Type: Dollar (\$)

Description: Purchase price of home bought in reference year

SHS\_F:003

Variable Name: **SELPRICE**

Unit Type: Dollar (\$)

Description: Selling price of home sold in reference year

SHS\_F:006

Variable Name: **REPAIRS**

Unit Type: Code

Description: Dwelling repairs needed

1 (If SHS\_B:006 =19)

2 (If SHS\_B:006 =20)

3 (If SHS\_B:006 =21)

Code	Description
1	Yes, major repairs were needed
2	Yes, minor repairs were needed
3	No, only regular maintenance was needed

**Note:** This variable indicates the respondent's perception of the repairs the dwelling needed on December 31 to restore it to its original condition. Remodelling, additions, conversions, or energy improvements which would upgrade the dwelling over and above its original condition are excluded.

Variable Name: **ADRENALT**

Unit Type: Dollar (\$)

Description: Additions, renovations and alterations

SHS\_H:002 + SHS\_H:004 + SHS\_H:006

Variable Name: **NEWINST**  
Unit Type: Dollar (\$)  
Description: New installations of equipment and fixtures

SHS\_H:009 + SHS\_H:012 + SHS\_H:015

---

Variable Name: **YRMOVEDP**  
Unit Type: Code  
Description: Year household moved to the dwelling occupied at December 31

SHS\_D:004

Code Description

1	Before 1970
2	1970 - 1979
3	1980 - 1989
4	1990 - 2001
5	2002

**Note:** This item refers to the year the household moved into the dwelling. If the dwelling was occupied by previous generations, the first year that the household member who occupied the dwelling the longest is recorded.

---

Variable Name: **BUYHMFLG**  
Unit Type: Code  
Description: Household purchased home in reference year

SHS\_F:001

Code Description

0	No
1	Yes

---

Variable Name: **HEATMAIP**  
Unit Type: Code  
Description: Principal heating equipment

1 (If SHS\_B:011 = 01)  
2 (If SHS\_B:011 = (02 or 03))  
3 (If SHS\_B:011 = (04, 06 or 07))  
4 (If SHS\_B:011 = 05)

Code Description

1	Steam or hot water furnace
2	Forced hot air and other hot air furnace
3	Heating stoves (including wood stove), cookstove, or other
4	Electric heating

**Note:** This variable indicates the type of heating equipment which is chiefly used to heat the dwelling in winter.

---

Steam or hot water furnaces distribute central heating through radiators located throughout the house and connected by pressure pipes.

Forced hot air furnaces distribute central heating by a motor-driven fan through vents located throughout the dwelling. (This is the most common central heating system.) Furnaces with a pump are included in this category. Other hot air furnaces distribute central heating by convection (natural) flow of hot air through vents located throughout the house. Gravity furnaces are included in this category.

Heating stoves are localised heating units with no central distribution system to other parts of the house (e.g., oil space heater, gas space heater, wood stoves). Also includes cookstoves and any other type of heating equipment not listed above.

Electric heating includes electric furnaces and permanently installed baseboard electric heating and other types such as floor or ceiling heating wires in all or most rooms.

---

Variable Name: **HEATAGE**

Unit Type: Code

Description: Age of principal heating equipment

1 (If SHS\_B:013 = 08)

2 (If SHS\_B:013 = 09)

3 (If SHS\_B:013 = 10)

4 (If SHS\_B:013 = 11)

5 (If SHS\_B:013 = 12)

Code	Description
1	5 years or less
2	6 to 10 years
3	11 to 15 years
4	16 to 20 years
5	Over 20 years

**Note:** This variable indicates how long ago the principal heating equipment was installed.

---

Variable Name: **HEATFUEP**

Unit Type: Code

Description: Principal heating fuel

1 (If SHS\_B:014 = 13)

2 (If SHS\_B:014 = 14)

3 (If SHS\_B:014 = 16)

4 (If SHS\_B:014 = (15, 17 or 18))

Code	Description
1	Oil or other liquid fuel
2	Piped gas (natural gas)
3	Electricity

4 Bottled gas, wood, or other

**Note:** The principal winter fuel used in the principal heating equipment is given here (e.g., oil or other liquid fuel, piped or bottled gas, electricity, wood or other fuels).

---

Variable Name: **HOTWATEP**

Unit Type: Code

Description: Principal heating fuel for hot water

1 (If SHS\_B:016 = 19)

2 (If SHS\_B:016 = 20)

3 (If SHS\_B:016 = (21, 23, 24 or 25))

4 (If SHS\_B:016 = 22)

Code Description

1 Oil or other liquid fuel

2 Piped gas (natural gas)

3 Bottled gas (propane), wood, other, or no running hot water

4 Electricity

**Note:** This variable indicates the type of fuel used for the running hot water supply (e.g., oil or other liquid fuel, piped gas, electricity or other fuels such as bottled gas or wood).

---

Variable Name: **COOKINGP**

Unit Type: Code

Description: Principal cooking fuel

1 (If SHS\_B:018 = 27)

2 (If SHS\_B:018 = 29)

3 (If SHS\_B:018 = (26, 28, 30 or 31))

Code Description

1 Piped gas (natural gas)

2 Electricity

3 Oil or other liquid fuel, bottled gas (propane), wood, or other

**Note:** This variable indicates the main fuel for the range or stove on which the household does most of the cooking (e.g., piped gas, electricity, oil or other liquid fuel, bottled gas, and wood).

---

Variable Name: **REDURENT**

Unit Type: Code

Description: Reduced rent reason

SHS\_I:006

Code Description

0 Dwelling not rented

1 Government subsidized housing

2 Other reason (e.g. services to landlord)

3 No reduced rent

---

## 2.3 Characteristics of reference person

Variable Name: **RPINCTOT**

Unit Type: Dollar (\$)

Description: Income of reference person before taxes

Sum(SHS\_U:004 for Reference Person: If (SHS\_A:014 between 1 or 2) and reference year - SHS\_A:003 > 15))

Sum(SHS\_U:005 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:006 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:007 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:008 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:009 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:010 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:011 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:012 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:013 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:014 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:015 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:016 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:018 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for reference person from earnings, investment, government transfer payments and other sources.

---

Variable Name: **RPINCEAR**

Unit Type: Dollar (\$)

Description: Income of reference person from earnings

Sum(SHS\_U:004 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:005 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:006 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:007 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for reference person from wages and salaries, net income from self-employment, and gross income from roomers and boarders.

---

Variable Name: **RPINCINV**

Unit Type: Dollar (\$)

Description: Income of reference person from investment

Sum(SHS\_U:008 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for reference person from dividends, interest, and other investment income such as net rental income or interest received from loans or mortgages.

---

Variable Name: **RPINCTRA**

Unit Type: Dollar (\$)

Description: Income of reference person from government transfer payments

Sum(SHS\_U:009 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:010 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:011 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:012 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:013 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:014 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:015 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for reference person from Child Tax Benefits, Old Age Security Pension, Guaranteed Income Supplement, Spouse's Allowance, Canada Pension Plan Benefits or Quebec Pension Plan Benefits, Employment Insurance Benefits, Goods and Services Tax Credit, Provincial Tax Credits, Social Assistance, Provincial Income Supplements, Workers' Compensation Benefits, Veterans' Pensions, Civilian War Pensions and Allowances, and Other Income from Government Sources.

---

Variable Name: **RPINCOTH**

Unit Type: Dollar (\$)

Description: Income of reference person from other sources

Sum(SHS\_U:016 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:018 for Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income of reference person from retirement pensions, superannuation, annuities, RRIF withdrawals, and other income such as alimony, separation allowance, child support, retirement allowance, severance pay, income maintenance plan payments, scholarships, bursaries and income from outside Canada.

---

Variable Name: **RPMARP**  
Unit Type: Code  
Description: Marital status of reference person

SHS\_A:005

Code	Description
1	Married or common law
2	Never married (single)
3	Other (separated, divorced, or widowed)

---

Variable Name: **RPAGEGRP**  
Unit Type: Code  
Description: Age group of reference person

SHS\_A:003

Code	Description
01	Less than 25 years
02	25-29 years
03	30-34 "
04	35-39 "
05	40-44 "
06	45-49 "
07	50-54 "
08	55-59 "
09	60-64 "
10	65-69 "
11	70-74 "
12	75-79 "
13	80-84 "
14	85 years and over

---

Variable Name: **RPSEX**  
Unit Type: Code  
Description: Sex of reference person

Sex (SHS\_A:004) of person having relationship (SHS\_A:002) = 1

Code	Description
1	Male
2	Female

---

Variable Name: **RPWEEKFT**  
Unit Type: Count  
Description: Number of weeks worked full-time by reference person

SHS\_U:002

Code	Description
00 to 52	Actual numbers

---

Variable Name: **RPWEEKPT**  
Unit Type: Count  
Description: Number of weeks worked part-time by reference person

SHS\_U:003

Code	Description
00 to 52	Actual numbers

---

Variable Name: **RPPREDWP**  
Unit Type: Code  
Description: Tenure of previous dwelling of reference person

SHS\_D:006

Code	Description
1	Before 1997
2	Owned
3	Rented
4	Did not maintain own dwelling

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

## 2.4 Characteristics of spouse of reference person

Variable Name: **SPINCTOT**  
Unit Type: Dollar (\$)  
Description: Income of spouse before taxes

Sum(SHS\_U:004 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:005 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:006 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:007 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:008 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:009 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:010 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:011 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:012 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:013 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:014 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:015 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:016 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:018 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

---

Variable Name: **SPINCEAR**

Unit Type: Dollar (\$)

Description: Income of spouse from earnings

Sum(SHS\_U:004 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:005 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:006 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:007 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for spouse of reference person from wages and salaries, net income from self-employment, and gross income from roomers and boarders.

---

Variable Name: **SPINCINV**

Unit Type: Dollar (\$)

Description: Income of spouse from investment

Sum(SHS\_U:008 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for spouse of reference person from dividends, interest, and other investment income such as net rental income or interest received from loans or mortgages.

---

Variable Name: **SPINCTRA**

Unit Type: Dollar (\$)

Description: Income of spouse from government transfer payments

Sum(SHS\_U:009 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:010 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:011 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:012 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:013 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))  
Sum(SHS\_U:014 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:015 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for spouse of reference person from Child Tax Benefits, Old Age Security Pension, Guaranteed Income Supplement, Spouse's Allowance, Canada Pension Plan Benefits or Quebec Pension Plan Benefits, Employment Insurance Benefits, Goods and Services Tax Credit, Provincial Tax Credits, Social Assistance, Provincial Income Supplements, Workers' Compensation Benefits, Veterans' Pensions, Civilian War Pensions and Allowances, and Other Income from Government Sources.

---

Variable Name: **SPINCOTH**

Unit Type: Dollar (\$)

Description: Income of spouse from other sources

Sum(SHS\_U:016 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

Sum(SHS\_U:018 for Spouse of Reference Person: If (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15))

**Note:** Includes income for spouse of reference person from retirement pensions, superannuation, annuities, RRIF withdrawals, and other income such as alimony, separation allowance, child support, retirement allowance, severance pay, income maintenance plan payments, scholarships, bursaries and income from outside Canada.

---

Variable Name: **SPAGEGRP**

Unit Type: Code

Description: Age group of spouse

SHS\_A:003

Code	Description
01	Less than 25 years
02	25-29 years
03	30-34 "
04	35-39 "
05	40-44 "
06	45-49 "
07	50-54 "
08	55-59 "
09	60-64 "
10	65-69 "
11	70-74 "
12	75-79 "
13	80-84 "
14	85 years and over
99	No spouse

---

Variable Name: **SPSEXP**

Unit Type: Code

Description: Sex of spouse

Sex (SHS\_A:004) of person having relationship (SHS\_A:002) = 2

Code	Description
1	Male
2	Female
9	No spouse

---

Variable Name: **SPWEEKFT**

Unit Type: Count

Description: Number of weeks worked full-time by spouse

SHS\_U:002

Code	Description
00 to 52	Actual numbers
99	No spouse

---

Variable Name: **SPWEEKPT**

Unit Type: Count

Description: Number of weeks worked part-time by spouse

SHS\_U:003

Code	Description
00 to 52	Actual numbers
99	No spouse

---

## 2.5 Household description

Variable Name: **ECFAM**

Unit Type: Code

Description: Number of economic families in household

SHS\_A:006

Code	Description
1	1
2	2 or more

**Note:** In the Survey of Household Spending, one-person households are included in code 1. However, the Census definition of an economic family is "a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law or adoption".

---

Variable Name: **HHTYPEP**

Unit Type: Code

Description: Household type

1. One-person household  
Size of household = 1
2. Couple household only  
Husband-wife household with no children and no additional persons  
Size of household = 2 and marital status (SHS\_A:005) = 1 or 2 and member of household December 31 (SHS\_A:007) = 1 and person data collection code (SHS\_A:014) = 1 or 2 for both reference person and spouse
3. Couple household with single children only  
Couple household with single children and no additional persons  
Marital status (SHS\_A:005) = 1 or 2 and member of household December 31 (SHS\_A:007) = 1 and person data collection code (SHS\_A:014) = 1 or 2 for both reference person and spouse and primary children > 0 and secondary persons = 0
4. Couple household with other relative(s)  
Couple household with additional related persons  
(these households may or may not have children)  
Marital status (SHS\_A:005) = 1 or 2 and member of household December 31 (SHS\_A:007) = 1 and person data collection code (SHS\_A:014) = 1 or 2 for both reference person and spouse and related secondary persons > 0 and unrelated secondary persons = 0  
  
Couple household with unrelated person(s)  
Couple household with additional persons, at least one person unrelated  
(these households may or may not have children)  
Marital status (SHS\_A:005) = 1 or 2 and member of household December 31 (SHS\_A:007) = 1 and person data collection code (SHS\_A:014) = 1 or 2 for both reference person and spouse and unrelated secondary persons > 0
5. Lone-parent household with no additional persons  
No person with relationship (SHS\_A:002) = 02 and primary children > 0 and secondary persons = 0
6. Other household, all persons related  
Any other household where related secondary persons > 0 and unrelated secondary persons = 0 or household with spouse not married or not present December 31 (any person with relationship (SHS\_A:002) = 02 and marital status (SHS\_A:005) not 1 or 2 or member of household December 31 (SHS\_A:007) not 1) and person data collection code (SHS\_A:014) = 1 or 2 and unrelated secondary persons = 0
7. Other household, at least one person unrelated  
Any other household with at least one person with person data collection code (A:014) = 1 to 3

Code	Description
1	One person
2	Couple only
3	Couple with single children only
4	Couple with other relatives or unrelated persons
5	Lone parent with no additional persons
6	Other household with relative(s)
7	Other household with unrelated person(s)

**Note:** Children can be any age as long as they are single (never-married). Foster children are included.

Relatives may include:

- sons, daughters and foster children (of the reference person) whose marital status is other than single (never-married),
- relatives (of the reference person) by birth or marriage (not spouse, son, daughter, or foster child),
- spouse (of the reference person) who was not present in the household on December 31.

---

Variable Name: **HHSZD31P**

Unit Type: Count

Description: Household size at December 31

SHS\_A:007

Code Description

01-05 Actual numbers

06 6 or more

**Note:** Count of persons member of household on December 31. Top-coded at 6 in the public-use file.

---

Variable Name: **CH04D31**

Unit Type: Count

Description: Number of children aged 0 to 4 years in the household at December 31

Count of persons having age (reference year - year of birth (SHS\_A:003)) < 5 and person data collection code (SHS\_A:014) = 1 or 2 and member on December 31 (SHS\_A:007) = 1

**Note:** Top-coded at 2 in the public-use file

---

Variable Name: **CH517D31**

Unit Type: Count

Description: Number of children aged 5 to 17 years in the household at December 31

Count of persons having age (reference year - year of birth (SHS\_A:003)) >4 and <18 and person data collection code (SHS\_A:014) = 1 or 2 and member on December 31 (SHS\_A:007) = 1

**Note:** Top-coded at 3 in the public-use file.

---

Variable Name: **Y1824D31**

Unit Type: Count

Description: Number of youths aged 18 to 24 years in the household at December 31

Count of persons having age (reference year - year of birth (SHS\_A:003)) >17 and <25 and person data collection code (SHS\_A:014) = 1 or 2 and member on December 31 (SHS\_A:007) = 1

**Note:** Top-coded at 2 in the public-use file.

Variable Name: **2564D31P**

Unit Type: Count

Description: Number of adults aged 25 to 64 years at December 31

Code	Description
0-1	Actual numbers
2	2 or more

Count of persons having age (reference year - year of birth (SHS\_A:003)) > 24 and < 65 and person data collection code (SHS\_A:014) = 1 or 2 and member on December 31 (SHS\_A:007) = 1

**Note:** Top-coded at 2 in the public-use file.

---

Variable Name: **SE65D31P**

Unit Type: Count

Description: Number of seniors aged 65 or more at December 31

Code	Description
0-1	Actual numbers
2	2 or more

Count of person having age ((reference year – year of birth (SHS\_A:003)) > 64 and person data collection code (SHS\_A:014) = 1 or 2 and member on December 31 (SHS\_A:007) = 1

**Note:** Top-coded at 2 in the public-use file.

---

Variable Name: **HHSZT0TP**

Unit Type: Count

Description: Household size (number of persons a member sometime in reference year)

Code	Description
01-05	Actual numbers
06	or more

Count of persons in the household with person data collection code (SHS\_A:014) = 1 or 2

**Note:** Top-coded at 6 in the public-use file.

---

Variable Name: **AGEYOUNP**

Unit Type: Count

Description: Age of youngest child (member sometime in reference year)

This is the lowest age (reference year - year of birth (SHS\_A:003)) of any person in the household with relationship (SHS\_A:002) = 3 and marital status (SHS\_A:005) = 3 and person data collection code (SHS\_A:014) = 1 or 2 if present, otherwise set to 99

Code	Description
00 to 24	Actual numbers in years
25	25 years and over
99	Without children

---

Variable Name: **NUMWKSP**

Unit Type: Count

Description: Total number of weeks a member of household (sum for all household members)

SHS\_A:009

Code	Description
001-311	Actual numbers
312	312 or more

**Note:** Divide by 52 to obtain year equivalent household size. Top-coded at 312 in the public-use file

---

Variable Name: **NUMFTP**

Unit Type: Code

Description: Number of full-time earners

Count of persons having employment status = 1 and person data collection code (SHS\_A:014) = 1 or 2

Weeks worked (full-time weeks (SHS\_U:002) + part-time weeks (SHS\_U:003))  $\geq$  49 and full-time weeks (SHS\_U:002)  $\geq$  25

Maximum value of weeks worked is limited to 52.

Code	Description
0	None
1	1
2	2 or more

---

Variable Name: **NUMPTP**

Unit Type: Code

Description: Number of part-time earners

Count of persons having employment status = 2 and person data collection code (SHS\_A:014) = 1 or 2

Weeks worked (full-time weeks (SHS\_U:002) + part-time weeks (SHS\_U:003)) = 1 to 48 or weeks worked (full-time weeks (SHS\_U:002) + part-time weeks (SHS\_U:003))  $\geq$  49 and full-time weeks (SHS\_U:002)  $<$  25

Maximum value of weeks worked is limited to 52.

Code	Description
0	None
1	1

2 2  
3 3 or more

---

Variable Name: **MAINCSCP**

Unit Type: Code

Description: Household major source of income

0. All sources = 0

Total wages and salaries (U:004) = 0 and total self-employment income (U:005 + U:006 + U:007) = 0 and total investment income (U:008) = 0 and total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015) = 0 and other income (U:016 + U:018) = 0

1. Major source is wages and salaries

Total wages and salaries (U:004) not = 0 and  $\geq$  total self-employment income (U:005 + U:006 + U:007) and total investment income (U:008) and total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015) and other income (U:016 + U:018)

OR Major source is self-employment income

Total self-employment income (U:005 + U:006 + U:007) not = 0 and  $\geq$  total wages and salaries (U:004) and total investment income (U:008) and total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015) and other income (U:016 + U:018)

2. Major source is investment income

Total investment income (U:008) not = 0 and  $\geq$  total wages and salaries (U:004) and total self-employment income (U:005 + U:006 + U:007) and total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015) and other income (U:016 + U:018)

3. Major source is government transfer payments

Total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015) not = 0 and  $\geq$  total wages and salaries (U:004) and total self-employment income (U:005 + U:006 + U:007) and total investment income (U:008) and other income (U:016 + U:018)

4. Major source is other income

Other income (U:016+U:018) not = 0 and  $\geq$  total wages and salaries (U:004) and total self-employment income (U:005 + U:006 + U:007) and total investment income (U:008) and total government transfer payments (U:009 + U:010 + U:011 + U:012 + U:013 + U:014 + U:015)

Code Description

0 All sources = 0

1 Major source is wages and salaries or self-employment income

2 Major source is investment income

3 Major source is government transfer payments

4 Major source is other sources

---

Variable Name: **HHINCTOT**

Unit Type: Dollar (\$)

Description: Household income before taxes

SHS\_U:004 to SHS\_U:018 EXCLUDING personal income tax refunds (SHS\_U:017)

Sum(SHS\_U:004 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:005 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:006 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:007 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:008 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:009 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:010 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:011 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:012 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:013 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:014 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:015 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:016 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Includes income for household from earnings, investment, government transfer payments and other sources.

---

Variable Name: **HHINCEAR**

Unit Type: Dollar (\$)

Description: Household income from earnings

Sum(SHS\_U:004 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:005 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:006 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:007 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Includes income for household from wages and salaries, net income from self-employment, and gross income from roomers and boarders.

---

Variable Name: **HHINCINV**

Unit Type: Dollar (\$)

Description: Household income from investment

Sum(SHS\_U:008 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Includes income for household from dividends, interest, and other investment income such as net rental income or interest received from loans or mortgages.

---

Variable Name: **HHINCTRA**

Unit Type: Dollar (\$)

Description: Household income from government transfer payments

Sum(SHS\_U:009 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:010 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:011 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:012 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:013 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:014 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:015 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Includes income for household from Child Tax Benefits, Old Age Security Pension, Guaranteed Income Supplement, Spouse's Allowance, Canada Pension Plan Benefits or Quebec Pension Plan Benefits, Employment Insurance Benefits, Goods and Services Tax Credit, Provincial Tax Credits, Social Assistance, Provincial Income Supplements, Workers' Compensation Benefits, Veterans' Pensions, Civilian War Pensions and Allowances, and Other Income from Government Sources.

---

Variable Name: **HHINCOTH**

Unit Type: Dollar (\$)

Description: Household income from other sources

Sum(SHS\_U:016 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_U:018 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Includes household income from retirement pensions, superannuation, annuities, RRIF withdrawals, and other income such as alimony, child support, retirement allowance, scholarships, and income from outside Canada.

---

Variable Name: **TOTHMONR**

Unit Type: Dollar (\$)

Description: Total other money receipts (includes net winnings from games of chance)

Sum(SHS\_U:019 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15)) (SHS\_T:008 + SHS\_T:010 + SHS\_T:012 + SHS\_T:014) -

$((SHS\_T:007 + SHS\_T:009 + SHS\_T:011 + SHS\_T:013) - 1)$ ; If  $(SHS\_T:008 + SHS\_T:010 + SHS\_T:012 + SHS\_T:014) \geq (SHS\_T:007 + SHS\_T:009 + SHS\_T:011 + SHS\_T:013)$ , otherwise set to 0

**Note:** Includes other money received by households such as gifts received from persons outside household, cash inheritances, life insurance settlements, or net winnings from games of chance if greater than losses.

---

Variable Name: **MONFLOWS**

Unit Type: Dollar (\$)

Description: Money flows (assets, loans and other debts)

SHS\_W:001 - SHS\_W:002

SHS\_W:003 - SHS\_W:004

SHS\_W:005 - SHS\_W:006

SHS\_W:007 - SHS\_W:008

SHS\_W:009 - SHS\_W:010

SHS\_W:011 - SHS\_W:012

$(SHS\_W:013 + SHS\_L:018 + SHS\_L:052) * (-1)$

$(SHS\_G:008 * SHS\_G:009) + (SHS\_G:010 * SHS\_G:011) + (SHS\_G:012 * SHS\_G:013)$

$(SHS\_G:018 + SHS\_G:019 + SHS\_G:020 + SHS\_G:021) * (-1)$

SHS\_F:003

$SHS\_F:006 * (-1)$

SHS\_H:002 + SHS\_H:004 + SHS\_H:006

SHS\_H:009 + SHS\_H:012 + SHS\_H:015

SHS\_K:005

SHS\_K:003

$SHS\_K:004 * (-1)$

$SHS\_K:008 * (-1)$

SHS\_K:009

SHS\_K:019

SHS\_K:017

$SHS\_K:018 * (-1)$

$SHS\_K:024 * (-1)$

SHS\_K:020

SHS\_X:002

SHS\_X:003

$SHS\_X:005 * (-1)$

$SHS\_X:006 * (-1)$

$SHS\_X:004 * (-1)$

SHS\_X:007 - SHS\_X:008

SHS\_X:010 - SHS\_X:009

Sum(SHS\_Y:015 for each loan)

$(\text{Sum}(SHS\_Y:014 + SHS\_Y:017 \text{ for each loan})) * (-1)$

SHS\_Y:114 - SHS\_Y:115

SHS\_Y:117 - SHS\_Y:118

SHS\_Y:111 - SHS\_Y:112

SHS\_Y:120 - SHS\_Y:121

SHS\_Y:116

SHS\_Y:119

SHS\_Y:113

SHS\_Y:122

**Note:** Money flows are net changes during the survey year in bank balances; money on hand; money owed to the household; money owed by the household; purchase

and sale of stocks and bonds, personal property, and real estate; expenditures on home additions, renovations and new installations; and contributions to and withdrawals from registered retirement savings plans.

"Net change in assets and liabilities" was the term used in 1996 and earlier Family Expenditure Surveys.

See note under G001.

---

Variable Name: **RRSPCHNG**

Unit Type: Dollar (\$)

Description: Registered Retirement Savings Plan (RRSP) change

SHS\_W:007 – SHS\_W:008

**Note:** Contributions to RRSP minus withdrawals from RRSP at the household level.

---

Variable Name: **EIFLAG**

Unit Type: Code

Description: Employment insurance benefit (EI) indicator

SHS\_U:012

Code	Description
0	Employment insurance benefit = 0
1	Employment insurance benefit > 0

---

## 2.6 Household equipment (at December 31)

Variable Name: **WASHER**

Unit Type: Code

Description: Washing machine

0 (If SHS\_C:011 = No)  
1 (If SHS\_C:011 = Yes)

Code	Description
0	No
1	Yes

**Note:** Washing machines located outside the dwelling and shared with other households are excluded.

---

Variable Name: **DRYERP**

Unit Type: Code

Description: Clothes dryer

0 (If SHS\_C:012 = 3)  
1 (If SHS\_C:012 = 1)

2 (If SHS\_C:012 = 2)

Code	Description
0	None
1	Electric
2	Gas

**Note:** Dryers may be electric or gas.

Clothes dryers located outside the dwelling and shared with other households are excluded.

---

Variable Name: **DSHWASH**

Unit Type: Code  
Description: Dishwasher

0 (If SHS\_C:010 =No)  
1 (If SHS\_C:010 =Yes)

Code	Description
0	No
1	Yes

**Note:** Dishwashers may be built-in or portable.

---

Variable Name: **NMFRIDGP**

Unit Type: Count  
Description: Number of refrigerators

0 (If SHS\_C:001 =0)  
1 (If SHS\_C:001 =1)  
2 (If SHS\_C:001 =2)  
3 (If SHS\_C:001 =3 OR >3)

Code	Description
0	None
1	1
2	2
3	3 or more

---

Variable Name: **FREEZER**

Unit Type: Code  
Description: Freezer

0 (If SHS\_C:009 = No)  
1 (If SHS\_C:009 = Yes)

Code	Description
0	No
1	Yes

**Note:** A freezer is an individual piece of equipment and not part of a refrigeration unit such as the freezer in a refrigerator.

---

Variable Name: **MICROWV**

Unit Type: Code

Description: Microwave oven

0 (If SHS\_C:008 = No)

1 (If SHS\_C:008 = Yes)

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

---

Variable Name: **AIRCONP**

Unit Type: Code

Description: Air conditioner

0 (If SHS\_C:013 =3)

1 (If SHS\_C:013 =1)

2 (If SHS\_C:013 =2)

Code	Description
------	-------------

0	None
---	------

1	Window type
---	-------------

2	Central
---	---------

---

**Note:** A central air conditioner is designed to cool the air in the entire building and may be located either inside or outside this dwelling unit, e.g., in the basement of an apartment block. A window-type air conditioner is installed in a window or through a wall to cool the air in a room.

---

Variable Name: **NMPHONP**

Unit Type: Count

Description: Number of telephones

0 (If SHS\_C004 =0)

1 (If SHS\_C004 =1)

2 (If SHS\_C004 =2)

3 (If SHS\_C004 =3)

4 (If SHS\_C004 =4)

5 (If SHS\_C004 =5)

6 (If SHS\_C004 =6 OR >6)

Code	Description
------	-------------

0	None
---	------

1	1
---	---

2	2
---	---

3	3
---	---

4	4
---	---

5	5
---	---

6	6 or more
---	-----------

---

**Note:** Telephones used for business are included if the business is conducted in the dwelling. Cordless phones are included. Cellular telephones are excluded.

---

Variable Name: **NMPHNUMP**

Unit Type: Count

Description: Number of telephone numbers

0 (If SHS\_C006 =0)

1 (If SHS\_C006 =1)

2 (If SHS\_C006 =2)

3 (If SHS\_C006 =3 OR >3)

Code	Description
------	-------------

0	None
---	------

1	1
---	---

2	2
---	---

3	3 or more
---	-----------

---

Variable Name: **CELLPHON**

Unit Type: Code

Description: Cellular telephone

0 (If SHS\_C:007 = No)

1 (If SHS\_C:007 = Yes)

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

---

**Note:** Cordless phones are excluded.

---

Variable Name: **CDPLYER**

Unit Type: Code

Description: Compact disc player

0 (If SHS\_C:016 = No)

1 (If SHS\_C:016 = Yes)

Code	Description
------	-------------

0	No
---	----

---

**Note:** A compact disc player may be a separate unit, part of a component or built in (as in a receiver/cassette recorder/compact disc combination unit).

---

Variable Name: **CABLETV**

Unit Type: Code

Description: Cablevision

0 (If SHS\_C:014 = No)

1 (If SHS\_C:014 = Yes)

---

Code	Description
0	No
1	Yes

---

Variable Name: **SATELLIT**  
Unit Type: Code  
Description: Satellite dish

0 (If SHS\_C:015 = No)  
1 (If SHS\_C:015 = Yes)

Code	Description
0	No
1	Yes

---

Variable Name: **DVD**  
Unit Type: Code  
Description: DVD player

0 (If SHS\_C:017 = No)  
1 (If SHS\_C:017 = Yes)

Code	Description
0	No
1	Yes

---

Variable Name: **CDWRITER**  
Unit Type: Code  
Description: CD writer

0 (If SHS\_C:018 = No)  
1 (If SHS\_C:018 = Yes)

Code	Description
0	No
1	Yes

---

Variable Name: **NMVCRP**  
Unit Type: Count  
Description: Number of video cassette recorders

0 (If SHS\_C003 =0)  
1 (If SHS\_C003 =1)  
2 (If SHS\_C003 =2)  
3 (If SHS\_C003 =3 OR >3)

Code	Description
0	None
1	1

---

**Note:** Video cassette recorder (VCR) is a unit which plays videocassettes when attached to a television or monitor

---

Variable Name: **COMPUTER**

Unit Type: Code

Description: Home computer

0 (If SHS\_C:019 = No)

1 (If SHS\_C:019 = Yes)

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Computers used exclusively for business purposes are excluded.

---

Variable Name: **INTERNET**

Unit Type: Code

Description: Internet use from home

0 (If SHS\_C:020 = No)

1 (If SHS\_C:020 = Yes)

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

9	No computer
---	-------------

**Note:** This variable indicates whether or not the household accesses the Internet via a computer in the home. It includes cases where a home computer is used to link to a business located outside the dwelling for access to the Internet.

Excluded are cases where the Internet is accessed directly through a computer located outside the dwelling (e.g., work).

---

Variable Name: **NETCONEC**

Unit Type: Code

Description: Internet connection

1 (If SHS\_C:021 = 1)

2 (If SHS\_C:021 = 2)

3 (If SHS\_C:021 = 3)

4 (If SHS\_C:021 = 4, 5 or 6)

Code	Description
------	-------------

0	No Internet connection
---	------------------------

1	Regular telephone connection to a computer
---	--------------------------------------------

2	High-speed telephone connection to a computer
---	-----------------------------------------------

3	Cable connection to a computer
---	--------------------------------

4	Other type of connection
---	--------------------------

---

Variable Name: **NMCOLTVP**

Unit Type: Count

Description: Number of colour televisions

- 0 (If SHS\_C002 =0)
- 1 (If SHS\_C002 =1)
- 2 (If SHS\_C002 =2)
- 3 (If SHS\_C002 =3)
- 4 (If SHS\_C002 =4)
- 5 (If SHS\_C002 =5 OR >5)

Code	Description
0	None
1	1
2	2
3	3
4	4
5	5 or more

---

Variable Name: **NMVEHONP**

Unit Type: Count

Description: Number of vehicles owned at December 31

- 0 (If Count (vehicles where SHS\_Q:023 = 1) = 0)
- 1 (If Count (vehicles where SHS\_Q:023 = 1) = 1)
- 2 (If Count (vehicles where SHS\_Q:023 = 1) = 2)
- 3 (If Count (vehicles where SHS\_Q:023 = 1) = 3)
- 4 (If Count (vehicles where SHS\_Q:023 = 1) = 4 OR >4)

Code	Description
0	None
1	1
2	2
3	3
4	4 or more

**Note:** This variable gives the number of vehicles (car, van/mini-van, truck/sport utility vehicle) owned by members of the household on December 31 completely or partially for private use, excluding those leased.

---

Variable Name: **VEHLEASP**

Unit Type: Code

Description: Vehicles leased at December 31

- 0 (If Count (vehicles where SHS\_Q:023 = 2) = 0)
- 1 (If Count (vehicles where SHS\_Q:023 = 2) = 1 or more)

Code	Description
0	No
1	Yes

---

## 2.7 Expenditure - food

Variable Name: **F001**

Unit Type: Dollar (\$)

Description: Total food

SHS\_N:001 - SHS\_N:002 + SHS\_N:003 + SHS\_N:004

SHS\_N:005

SHS\_N:014

SHS\_N:015

---

Variable Name: **F002**

Unit Type: Dollar (\$)

Description: Food purchased from stores

SHS\_N:001 - SHS\_N:002 + SHS\_N:003 + SHS\_N:004

SHS\_N:005

**Note:** Stores include frozen food provisioners, outdoor farmers' markets and stands, and all other non-service establishments. ("Food prepared at home" was the term used in the 1978 and earlier family expenditure surveys.)

---

Variable Name: **F008**

Unit Type: Dollar (\$)

Description: Food purchased from restaurants

SHS\_N:008

**Note:** Restaurants include refreshment stands, snack bars, vending machines, mobile canteens, caterers, and coffee wagons. ("Food in eating places" was the term used in the 1978 and earlier Family Expenditure Surveys.)

---

## 2.8 Expenditure - shelter

Variable Name: **G001**

Unit Type: Dollar (\$)

Description: Total shelter

$((SHS\_I:002 + SHS\_I:003) * (100 - PctRentAgainstBusiness\_I:011)/100) - (SHS\_I:004 * (100 - PctRentAgainstBusiness\_I:011)/100)$

$SHS\_I:007 * (100 - PctRentAgainstBusiness\_I:011)/100$

$SHS\_I:008 * (100 - PctRentAgainstBusiness\_I:011)/100$

$(SHS\_G:002 * SHS\_G:003) + (SHS\_G:004 * SHS\_G:005) + (SHS\_G:006 * SHS\_G:007) - (SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009 / 100 \text{ if } SHS\_G:014 = '1') - (SHS\_G:016 \text{ if } SHS\_G:015 = '1'))$

$SHS\_H:008 + SHS\_H:011 + SHS\_H:014 + SHS\_H:017 + SHS\_H:019 + SHS\_H:021$

$SHS\_E:006 * (100 - PctExpAgainstBusiness\_E:009)/100$

$SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009)/100$

$SHS\_E:005 * (100 - PctExpAgainstBusiness\_E:009)/100$

SHS\_F:007

SHS\_F:008  
 SHS\_G:018  
 SHS\_F:009  
 SHS\_F:004  
 SHS\_J:001  
 SHS\_J:003  
 SHS\_J:002  
 SHS\_K:010  
 SHS\_K:011  
 SHS\_K:012  
 SHS\_K:013  
 SHS\_K:014  
 SHS\_J:005  
 SHS\_J:006

**Note:** Shelter includes expenditures on principal accommodation (either owned or rented) and on other accommodation such as vacation homes or accommodation while travelling.

Prior to 1997 in the Family Expenditure Survey, mortgage interest payments were reported in the "Shelter" category under both "Owned living quarters" and "Owned vacation homes". (Mortgage principal payments were reported under "Net change in assets and liabilities" since they were considered to pertain to a change in the value of household assets.)

For the Survey of Household Spending (starting with the 1997 reference year), interest payments are not available separately from principal. "Regular mortgage payments" on "Owned living quarters" (including both principal and interest) are included under "Shelter". However, the entire mortgage payments for owned vacation homes is included under "Money flows--assets, loans and other debts". Caution should therefore be used when comparing these data to data from previous years. Categories affected include: Total expenditure, Total current consumption, Principal accommodation, Owned living quarters, Regular mortgage payments, Other accommodation, Owned vacation home, and Money flows (assets, loans, and other debts).

Variable Name: **G002**

Unit Type: Dollar (\$)

Description: Principal accommodation

$((SHS\_I:002 + SHS\_I:003) * (100 - PctRentAgainstBusiness\_I:011)/100) - (SHS\_I:004 * (100 - PctRentAgainstBusiness\_I:011)/100)$   
 $SHS\_I:007 * (100 - PctRentAgainstBusiness\_I:011)/100$   
 $SHS\_I:008 * (100 - PctRentAgainstBusiness\_I:011)/100$   
 $(SHS\_G:002 * SHS\_G:003) + (SHS\_G:004 * SHS\_G:005) + (SHS\_G:006 * SHS\_G:007) -$   
 $(SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009 / 100 \text{ if } SHS\_G:014 = '1') -$   
 $(SHS\_G:016 \text{ if } SHS\_G:015 = '1'))$   
 $SHS\_H:008 + SHS\_H:011 + SHS\_H:014 + SHS\_H:017 + SHS\_H:019 + SHS\_H:021$   
 $SHS\_E:006 * (100 - PctExpAgainstBusiness\_E:009)/100$   
 $SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009)/100$   
 $SHS\_E:005 * (100 - PctExpAgainstBusiness\_E:009)/100$   
 SHS\_F:007  
 SHS\_F:008  
 SHS\_G:018  
 SHS\_F:009

SHS\_F:004  
SHS\_J:001  
SHS\_J:003  
SHS\_J:002

**Note:** See note under G001.

---

Variable Name: **G003**  
Unit Type: Dollar (\$)  
Description: Rented living quarters

$$((SHS\_I:002 + SHS\_I:003) * (100 - PctRentAgainstBusiness\_I:011)/100) - (SHS\_I:004 * (100 - PctRentAgainstBusiness\_I:011)/100)$$
$$SHS\_I:007 * (100 - PctRentAgainstBusiness\_I:011)/100$$
$$SHS\_I:008 * (100 - PctRentAgainstBusiness\_I:011)/100$$

---

Variable Name: **G004**  
Unit Type: Dollar (\$)  
Description: Rent

$$((SHS\_I:002 + SHS\_I:003) * (100 - PctRentAgainstBusiness\_I:011)/100) - (SHS\_I:004 * (100 - PctRentAgainstBusiness\_I:011)/100)$$

**Note:** The net household expense for rent after adjusting for rebates and for any use of the dwelling for business. No adjustment for partial subletting to non-household members is made. Receipts from this activity are considered part of household income.

---

Variable Name: **G007**  
Unit Type: Dollar (\$)  
Description: Owned living quarters

$$(SHS\_G:002 * SHS\_G:003) + (SHS\_G:004 * SHS\_G:005) + (SHS\_G:006 * SHS\_G:007) - (SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009 / 100 \text{ if } SHS\_G:014 = '1') - (SHS\_G:016 \text{ if } SHS\_G:015 = '1'))$$
$$SHS\_H:008 + SHS\_H:011 + SHS\_H:014 + SHS\_H:017 + SHS\_H:019 + SHS\_H:021$$
$$SHS\_E:006 * (100 - PctExpAgainstBusiness\_E:009)/100$$
$$SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009)/100$$
$$SHS\_E:005 * (100 - PctExpAgainstBusiness\_E:009)/100$$

SHS\_F:007  
SHS\_F:008  
SHS\_G:016  
SHS\_F:009  
SHS\_F:004

**Note:** See note under G001.

---

Variable Name: **G040**  
Unit Type: Dollar (\$)  
Description: Regular mortgage payments for owned living quarters

$(SHS\_G:002 * SHS\_G:003) + (SHS\_G:004 * SHS\_G:005) + (SHS\_G:006 * SHS\_G:007) - (SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009 / 100 \text{ if } SHS\_G:014 = '1') - (SHS\_G:016 \text{ if } SHS\_G:015 = '1'))$

**Note:** See note under G001.

---

Variable Name: **G008**

Unit Type: Dollar (\$)

Description: Maintenance, repairs and replacements for owned living quarters

$SHS\_H:008 + SHS\_H:011 + SHS\_H:014 + SHS\_H:017 + SHS\_H:019 + SHS\_H:021$

**Note:** Expenditures on the total of contracts, labour, and materials for all types of maintenance, repairs and replacements. Includes all expenditures on the dwelling such as those for built-in appliances and other equipment and fixtures. Prior to the 1996 Family Expenditure Survey, expenditures "on contract and labour cost" and "materials purchased separately" were available separately. Costs of additions, renovations, and new installations are considered increases in assets and are included in "Money flows—assets, loans and other debts".

An annual data series showing household expenditures on repairs and renovations is available from Homeowner Repair and renovation Survey. See "Homeowner Repair and Renovation Expenditures in Canada", Catalogue no. 62-201.

---

Variable Name: **G009**

Unit Type: Dollar (\$)

Description: Condominium charges for owned living quarters

$SHS\_E:006 * (100 - PctExpAgainstBusiness\_E:009) / 100$

---

Variable Name: **G010**

Unit Type: Dollar (\$)

Description: Property taxes for owned living quarters

$SHS\_E:003 * (100 - PctExpAgainstBusiness\_E:009) / 100$

**Note:** This is the amount billed, excluding any rebates. Special service charges (e.g., garbage, sewage, etc.), local improvements, and water charges are included if these are part of the property tax bill.

Property taxes that are included in condominium charges are excluded.

---

Variable Name: **G011**

Unit Type: Dollar (\$)

Description: Homeowners' insurance premiums for owned living quarters

$SHS\_E:005 * (100 - PctExpAgainstBusiness\_E:009) / 100$

**Note:** Premiums paid in the reference year for fire and comprehensive policies. Premiums covering more than the survey year were not prorated.

---

Variable Name: **G019**  
Unit Type: Dollar (\$)  
Description: Water, fuel and electricity for principal accommodation

SHS\_J:001  
SHS\_J:003  
SHS\_J:002

---

Variable Name: **G020**  
Unit Type: Dollar (\$)  
Description: Water and sewage for principal accommodation

SHS\_J:001

---

Variable Name: **G022**  
Unit Type: Dollar (\$)  
Description: Fuel for principal accommodation (for example, oil, gas, propane, wood)

SHS\_J:003

---

Variable Name: **G024**  
Unit Type: Dollar (\$)  
Description: Electricity for principal accommodation

SHS\_J:002

---

Variable Name: **G025**  
Unit Type: Dollar (\$)  
Description: Other accommodation

SHS\_K:010  
SHS\_K:011  
SHS\_K:012  
SHS\_K:013  
SHS\_K:014  
SHS\_J:005  
SHS\_J:006

---

Variable Name: **G026**  
Unit Type: Dollar (\$)  
Description: Owned vacation home

SHS\_K:010  
SHS\_K:011  
SHS\_K:012  
SHS\_K:013  
SHS\_K:014

---

Variable Name: **G032**  
Unit Type: Dollar (\$)  
Description: Traveller accommodation

SHS\_J:005  
SHS\_J:006

**Note:** Travellers' accommodation excludes accommodation that was part of a travel tour (which are included in "Package travel tours").

---

## 2.9 Expenditure - household operation

Variable Name: **H001**  
Unit Type: Dollar (\$)  
Description: Total household operation

SHS\_M:003  
SHS\_M:001  
SHS\_M:005  
SHS\_M:002  
SHS\_M:004  
SHS\_M:006  
SHS\_M:007  
SHS\_M:008  
SHS\_M:009  
SHS\_M:010  
SHS\_M:015  
SHS\_M:016  
SHS\_M:017  
SHS\_M:018  
SHS\_M:021  
SHS\_M:022  
SHS\_M:023  
SHS\_M:012  
SHS\_M:013  
SHS\_M:014  
SHS\_M:011  
SHS\_M:024  
SHS\_M:025

---

Variable Name: **H002**  
Unit Type: Dollar (\$)  
Description: Communications

SHS\_M:003  
SHS\_M:001  
SHS\_M:005  
SHS\_M:002  
SHS\_M:004  
SHS\_M:006

---

Variable Name: **H003**  
Unit Type: Dollar (\$)  
Description: Telephone

SHS\_M:003  
SHS\_M:001

---

Variable Name: **H004**  
Unit Type: Dollar (\$)  
Description: Purchase of telephones and equipment

SHS\_M:003

---

Variable Name: **H005**  
Unit Type: Dollar (\$)  
Description: Telephone services

SHS\_M:001  
SHS\_M:005

---

Variable Name: **H008**  
Unit Type: Dollar (\$)  
Description: Cellular services

SHS\_M:002

---

Variable Name: **H009**  
Unit Type: Dollar (\$)  
Description: Internet services

SHS\_M:004

---

Variable Name: **H010**  
Unit Type: Dollar (\$)  
Description: Postal and other communication services (e.g., fax services, parcel delivery)

SHS\_M:006

---

Variable Name: **H011**  
Unit Type: Dollar (\$)  
Description: Child care expenses

SHS\_M:007  
SHS\_M:008  
SHS\_M:009

---

Variable Name: **H016**  
Unit Type: Dollar (\$)  
Description: Domestic and other custodial services (excluding child care)

SHS\_M:010

---

Variable Name: **H017**  
Unit Type: Dollar (\$)  
Description: Pet expenses

SHS\_M:015  
SHS\_M:016  
SHS\_M:017  
SHS\_M:018

---

Variable Name: **H022**  
Unit Type: Dollar (\$)  
Description: Household cleaning supplies

SHS\_M:021

---

Variable Name: **H023**  
Unit Type: Dollar (\$)  
Description: Paper, plastic and foil household supplies (e.g., stationery supplies, paper towels, foil and plastic wraps)

SHS\_M:022  
SHS\_M:023

---

Variable Name: **H026**  
Unit Type: Dollar (\$)  
Description: Garden supplies and services

SHS\_M:012  
SHS\_M:013  
SHS\_M:014  
SHS\_M:011

---

## **2.10 Expenditure - household furnishings and equipment**

Variable Name: **I001**  
Unit Type: Dollar (\$)  
Description: Total, household furnishings and equipment

SHS\_L:001  
SHS\_L:004  
SHS\_L:005  
SHS\_L:006  
SHS\_L:007

SHS\_L:002  
SHS\_L:049  
SHS\_L:041  
SHS\_L:042  
SHS\_L:043  
SHS\_L:048  
SHS\_L:061  
SHS\_L:044  
SHS\_L:045  
SHS\_L:047  
SHS\_L:046  
SHS\_L:063  
SHS\_L:050  
SHS\_L:084  
SHS\_L:085  
SHS\_L:081  
SHS\_L:082  
SHS\_L:083  
SHS\_L:003  
SHS\_L:072  
SHS\_L:071  
SHS\_L:086  
SHS\_L:087  
SHS\_L:088  
SHS\_L:089  
SHS\_L:008  
SHS\_L:051  
SHS\_L:090  
SHS\_J:004  
SHS\_L:091

---

Variable Name: **I002**  
Unit Type: Dollar (\$)  
Description: Household furnishings

SHS\_L:001  
SHS\_L:004  
SHS\_L:005  
SHS\_L:006  
SHS\_L:007  
SHS\_L:002

---

Variable Name: **I003**  
Unit Type: Dollar (\$)  
Description: Furniture for indoor or outdoor use

SHS\_L:001

---

Variable Name: **I004**  
Unit Type: Dollar (\$)  
Description: Rugs, mats and underpadding

SHS\_L:004

---

Variable Name: **I005**

Unit Type: Dollar (\$)

Description: Window coverings and household textiles

SHS\_L:005

---

Variable Name: **I006**

Unit Type: Dollar (\$)

Description: Art, antiques and decorative ware

SHS\_L:006

SHS\_L:007

SHS\_L:002

---

Variable Name: **I010**

Unit Type: Dollar (\$)

Description: Household equipment

SHS\_L:049

SHS\_L:041

SHS\_L:042

SHS\_L:043

SHS\_L:048

SHS\_L:061

SHS\_L:044

SHS\_L:045

SHS\_L:047

SHS\_L:046

SHS\_L:063

SHS\_L:050

SHS\_L:084

SHS\_L:085

SHS\_L:081

SHS\_L:082

SHS\_L:083

SHS\_L:003

SHS\_L:072

SHS\_L:071

SHS\_L:086

SHS\_L:087

SHS\_L:088

SHS\_L:089

---

Variable Name: **I011**

Unit Type: Dollar (\$)

Description: Household appliances

SHS\_L:049

SHS\_L:041

SHS\_L:042  
SHS\_L:043  
SHS\_L:048  
SHS\_L:061  
SHS\_L:044  
SHS\_L:045  
SHS\_L:047  
SHS\_L:046  
SHS\_L:063  
SHS\_L:050

**Note:** Net purchase price after deducting trade-in allowance and any discount.

Excludes appliances included in the purchase of a home and built-in appliances. Expenditures on household fixtures (e.g., built-in appliances and wall-to-wall carpeting) can be reported under the appropriate expenditure item or, if they were part of a larger job, under "Additions, renovations etc. to a home", or "Maintenance, repairs and replacements".

---

Variable Name: **I027TOT**

Unit Type: Dollar (\$)

Description: Other household tools, equipment and accessories

SHS\_L:084  
SHS\_L:085  
SHS\_L:081  
SHS\_L:082  
SHS\_L:083  
SHS\_L:003  
SHS\_L:072  
SHS\_L:071  
SHS\_L:086  
SHS\_L:087  
SHS\_L:088  
SHS\_L:089

---

Variable Name: **I042**

Unit Type: Dollar (\$)

Description: Maintenance and repairs of furniture and equipment

SHS\_L:008  
SHS\_L:051  
SHS\_L:090

---

Variable Name: **I046**

Unit Type: Dollar (\$)

Description: Services related to furnishings and equipment

SHS\_J:004  
SHS\_L:091

---

## 2.11 Expenditure - clothing

Variable Name: **J001**

Unit Type: Dollar (\$)

Description: Total clothing

Sum(SHS\_O:002 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:003 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:005 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:006 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:141

Sum(SHS\_O:052 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:053 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:055 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:056 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:142

Sum(SHS\_O:102 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:104 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:143 + (SHS\_O:102: If PersonNo = 00) + (SHS\_O:104: If PersonNo = 00)

SHS\_O:144

SHS\_O:145

SHS\_O:146

SHS\_M:019

SHS\_M:020

---

Variable Name: **J002**

Unit Type: Dollar (\$)

Description: Women's and girls' wear (4 years and over)

Sum(SHS\_O:002 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:003 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:005 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:006 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:141

---

Variable Name: **J007**

Unit Type: Dollar (\$)

Description: Clothing gifts to non-household members, women and girls aged 4 years and over

SHS\_O:141

---

Variable Name: **J008**

Unit Type: Dollar (\$)

Description: Men's and boys' wear (4 years and over)

Sum(SHS\_O:052 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:053 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:055 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:056 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:142

---

Variable Name: **J013**

Unit Type: Dollar (\$)

Description: Clothing gifts to non-household members, men and boys aged 4 years and over

SHS\_O:142

---

Variable Name: **J014**

Unit Type: Dollar (\$)

Description: Children's wear (under 4 years)

Sum(SHS\_O:102 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

Sum(SHS\_O:104 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2))

SHS\_O:143 + (SHS\_O:102: If PersonNo = 00) + (SHS\_O:104: If PersonNo = 00)

**Note:** Expenditures made to purchase clothing for infants expected or born to a household member after December 31 were recorded using person number 00.

---

Variable Name: **J017**

Unit Type: Dollar (\$)

Description: Clothing gifts to non-household members, children under 4 years

SHS\_O:143 + (SHS\_O:102: If PersonNo = 00) + (SHS\_O:104: If PersonNo = 00)

**Note:** Expenditures made to purchase clothing for infants expected or born to a household member after December 31 were recorded using person number 00.

---

Variable Name: **J019TOT**

Unit Type: Dollar (\$)

Description: Clothing material and notions

SHS\_O:144  
SHS\_O:145

---

Variable Name: **J021**  
Unit Type: Dollar (\$)  
Description: Clothing services

SHS\_O:147  
SHS\_M:019  
SHS\_M:020  
SHS\_O:148

---

Variable Name: **J023TOT**  
Unit Type: Dollar (\$)  
Description: Laundry and dry-cleaning service, laundromats and self-service dry-cleaning

SHS\_M:019  
SHS\_M:020

---

## 2.12 Expenditure - transportation

Variable Name: **K001**  
Unit Type: Dollar (\$)  
Description: Total transportation

Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 1)  
Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 2 or 3)  
Sum(SHS\_Q:025 \* (-1) for each vehicle)  
Sum(SHS\_Q:031 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each Vehicle)  
SHS\_Q:201  
SHS\_Q:202  
SHS\_Q:203  
SHS\_Q:204  
SHS\_Q:205  
SHS\_Q:206  
Sum(SHS\_Q:017 for each vehicle)  
Sum(SHS\_Q:018 for each vehicle)  
Sum(SHS\_Q:030 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:032 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:033 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_I:008 \* (100 - PctRentAgainstBusiness\_I:011)/100  
Sum(SHS\_Q:036 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_Q:302  
SHS\_Q:301  
Sum(SHS\_Q:035 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:034 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:037 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_R:092  
SHS\_R:093

SHS\_R:094  
SHS\_R:095  
SHS\_R:096  
SHS\_R:097  
SHS\_R:098

---

Variable Name: **K002**

Unit Type: Dollar (\$)  
Description: Private transportation

Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 1)  
Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 2 or 3)  
Sum(SHS\_Q:025 \* (-1) for each vehicle)  
Sum(SHS\_Q:031 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_Q:201  
SHS\_Q:202  
SHS\_Q:203  
SHS\_Q:204  
SHS\_Q:205  
SHS\_Q:206  
Sum(SHS\_Q:017 for each Vehicle)  
Sum(SHS\_Q:018 for each Vehicle)  
Sum(SHS\_Q:030 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:032 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:033 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_I:008 \* (100 - PctRentAgainstBusiness\_I:011)/100  
Sum(SHS\_Q:036 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
SHS\_Q:302  
SHS\_Q:301  
Sum(SHS\_Q:035 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:034 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)  
Sum(SHS\_Q:037 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

---

Variable Name: **K003**

Unit Type: Dollar (\$)  
Description: Purchase of automobiles and trucks/vans

Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 1)  
Sum (SHS\_Q:015 for each vehicle: If SHS\_Q:012 = 2 or 3)  
Sum(SHS\_Q:025 \* (-1) for each vehicle)

**Note:** Net purchase price, including extra equipment, accessories, and warranties bought when the vehicle was purchased, after deducting any trade-in allowance or separate sales. (Separate sales occur when a vehicle is sold independently by the owner, e.g., not traded-in when purchasing or leasing another vehicle.)

---

Variable Name: **K007**

Unit Type: Dollar (\$)  
Description: Purchase of automotive accessories

Sum(SHS\_Q:031\* (100 - PctVehExpAgainstBus\_Q:039)/ 100 for each Vehicle)

---

Variable Name: **K008**

Unit Type: Dollar (\$)

Description: Rented and leased automobiles and trucks/vans

SHS\_Q:201

SHS\_Q:202

SHS\_Q:203

SHS\_Q:204

SHS\_Q:205

SHS\_Q:206

Sum(SHS\_Q:017 for each vehicle)

Sum(SHS\_Q:018 for each vehicle)

---

Variable Name: **K019**

Unit Type: Dollar (\$)

Description: Operation of owned and leased automobiles and trucks/vans

Sum(SHS\_Q:030 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

Sum(SHS\_Q:032 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

Sum(SHS\_Q:033 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

SHS\_I:008 \* (100 - PctRentAgainstBusiness\_I:011)/100

Sum(SHS\_Q:036 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

SHS\_Q:302

SHS\_Q:301

Sum(SHS\_Q:035 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

Sum(SHS\_Q:034 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

Sum(SHS\_Q:037 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

---

Variable Name: **K020**

Unit Type: Dollar (\$)

Description: Gasoline and other fuels for owned and leased automobiles and trucks/vans

Sum(SHS\_Q:030 \* (100 - PctVehExpAgainstBus\_Q:039)/ 100 for each Vehicle)

---

Variable Name: **K022**

Unit Type: Dollar (\$)

Description: Maintenance and repair for owned and leased automobiles and trucks/vans

Sum(SHS\_Q:033 \* (100 - PctVehExpAgainstBus\_Q:039)/ 100 for each Vehicle)

---

Variable Name: **K023**

Unit Type: Dollar (\$)

Description: Garage rent and parking

SHS\_I:008 \* (100 - PctRentAgainstBusiness\_I:011)/100

Sum(SHS\_Q:036 \* (100 - PctVehExpAgainstBus\_Q:039)/100 for each vehicle)

---

Variable Name: **K028**  
Unit Type: Dollar (\$)  
Description: Private and public vehicle insurance premiums

Sum(SHS\_Q:035 \* (100 - PctVehExpAgainstBus\_Q:039)/ 100 for each Vehicle)

---

Variable Name: **K031**  
Unit Type: Dollar (\$)  
Description: Public transportation

SHS\_R:092  
SHS\_R:093  
SHS\_R:094  
SHS\_R:095  
SHS\_R:096  
SHS\_R:097  
SHS\_R:098

---

Variable Name: **K032TOT**  
Unit Type: Dollar (\$)  
Description: Local and commuter transportation

SHS\_R:092  
SHS\_R:093

**Note:** Includes city or commuter bus, subway, street car, commuter train, and taxi.

---

Variable Name: **K034TOT**  
Unit Type: Dollar (\$)  
Description: Inter-city transportation

SHS\_R:094  
SHS\_R:095  
SHS\_R:096

**Note:** Includes airplane, train and highway bus.

---

Variable Name: **K037**  
Unit Type: Dollar (\$)  
Description: Other passenger transportation (e.g., carpooling, airport, bus or limousine service, ferry service, sightseeing tours and travel insurance)

SHS\_R:097

---

Variable Name: **K038**  
Unit Type: Dollar (\$)  
Description: Household moving, storage and delivery services

SHS\_R:098

---

## 2.13 Expenditure - health care

Variable Name: **L101**

Unit Type: Dollar (\$)

Description: Total health care

SHS\_P:032  
SHS\_P:030  
SHS\_P:031  
SHS\_P:026  
SHS\_P:021  
SHS\_P:023  
SHS\_P:024  
SHS\_P:025  
SHS\_P:028  
SHS\_P:027  
SHS\_P:029  
SHS\_P:010  
SHS\_P:011  
SHS\_P:012

---

Variable Name: **L102**

Unit Type: Dollar (\$)

Description: Direct health care costs to household

SHS\_P:032  
SHS\_P:030  
SHS\_P:031  
SHS\_P:026  
SHS\_P:021  
SHS\_P:023  
SHS\_P:024  
SHS\_P:025  
SHS\_P:028  
SHS\_P:027  
SHS\_P:029

---

Variable Name: **L103**

Unit Type: Dollar (\$)

Description: Health care supplies (e.g., first aid kits, wheelchairs)

SHS\_P:032

---

Variable Name: **L104**

Unit Type: Dollar (\$)

Description: Medicinal and pharmaceutical products

SHS\_P:030  
SHS\_P:031

---

Variable Name: **L105**  
Unit Type: Dollar (\$)  
Description: Prescription medicines

SHS\_P:030

---

Variable Name: **L106**  
Unit Type: Dollar (\$)  
Description: Other non-prescription medicines and pharmaceutical products

SHS\_P:031

---

Variable Name: **L107**  
Unit Type: Dollar (\$)  
Description: Physicians' care

SHS\_P:026

---

Variable Name: **L108**  
Unit Type: Dollar (\$)  
Description: Eye-care goods and services

SHS\_P:021  
SHS\_P:023  
SHS\_P:024

---

Variable Name: **L112**  
Unit Type: Dollar (\$)  
Description: Dental services

SHS\_P:025

---

Variable Name: **L114**  
Unit Type: Dollar (\$)  
Description: Hospital care

SHS\_P:028

---

Variable Name: **L116**  
Unit Type: Dollar (\$)  
Description: Health care practitioners other than physicians

SHS\_P:027

---

Variable Name: **L117**  
Unit Type: Dollar (\$)  
Description: Other medical services (e.g., ambulances, nursing homes)

SHS\_P:029

---

Variable Name: **L118**  
Unit Type: Dollar (\$)  
Description: Health insurance premiums

SHS\_P:010  
SHS\_P:011  
SHS\_P:012  
SHS\_P:013

---

Variable Name: **L119**  
Unit Type: Dollar (\$)  
Description: Public hospital, medical and drug plans

SHS\_P:010

---

Variable Name: **L120**  
Unit Type: Dollar (\$)  
Description: Private health insurance plans

SHS\_P:011  
SHS\_P:012  
SHS\_P:013

---

## 2.14 Expenditure - personal care

Variable Name: **L201**  
Unit Type: Dollar (\$)  
Description: Total personal care

SHS\_P:003  
Sum(SHS\_O:103 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15)) + (SHS\_O:103: If PersonNo = 00)  
SHS\_L:062  
SHS\_P:008  
SHS\_P:001  
SHS\_P:002

**Note:** Expenditures made to purchase clothing for infants expected or born to a household member after December 31 were recorded using person number 00.

---

Variable Name: **L202**  
Unit Type: Dollar (\$)  
Description: Personal care supplies and equipment

SHS\_P:003  
Sum(SHS\_O:103 for each Person: If (PersonNo between 01 and 15) and (SHS\_A:014 = 1 or 2) and (reference year - SHS\_A:003 > 15)) + (SHS\_O:103: If PersonNo = 00)  
SHS\_L:062  
SHS\_P:008

**Note:** Expenditures made to purchase clothing for infants expected or born to a household member after December 31 were recorded using person number 00.

---

Variable Name: **L207**

Unit Type: Dollar (\$)

Description: Personal care services

SHS\_P:001

SHS\_P:002

---

## 2.15 Expenditure - recreation

Variable Name: **M101**

Unit Type: Dollar (\$)

Description: Total recreation

SHS\_S:001

SHS\_S:011

SHS\_S:009

SHS\_S:008

SHS\_S:007

SHS\_L:019

SHS\_L:020

SHS\_L:022

SHS\_L:023

SHS\_S:003

SHS\_S:004

SHS\_S:005

SHS\_S:006

SHS\_S:012

SHS\_S:002

SHS\_S:013

SHS\_S:015

SHS\_S:014

SHS\_R:001

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 4)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 3)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 1)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 2)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 8)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 5)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 6)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 7)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 9)

SHS\_R:002

SHS\_R:091

Sum(SHS\_R:016 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)

Sum(SHS\_R:015 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)

Sum(SHS\_R:017 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
 Sum(SHS\_R:018 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
 Sum(SHS\_R:019 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
 Sum(SHS\_R:020 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
 SHS\_L:011  
 SHS\_L:012  
 SHS\_L:014  
 SHS\_L:016  
 SHS\_L:015  
 SHS\_L:017  
 SHS\_L:013  
 SHS\_L:018  
 SHS\_L:031  
 SHS\_L:032  
 SHS\_L:036  
 SHS\_L:033  
 SHS\_S:016  
 SHS\_S:019  
 SHS\_S:017  
 SHS\_S:018  
 SHS\_L:034  
 SHS\_L:035  
 SHS\_S:021  
 SHS\_S:022  
 SHS\_S:023  
 SHS\_S:024  
 SHS\_S:025  
 SHS\_S:020  
 SHS\_S:026  
 SHS\_R:100  
 SHS\_S:027

Variable Name: **M102**

Unit Type: Dollar (\$)

Description: Recreation equipment and associated services

SHS\_S:001  
 SHS\_S:011  
 SHS\_S:009  
 SHS\_S:008  
 SHS\_S:007  
 SHS\_L:019  
 SHS\_L:020  
 SHS\_L:022  
 SHS\_L:023  
 SHS\_S:003  
 SHS\_S:004  
 SHS\_S:005  
 SHS\_S:006  
 SHS\_S:012  
 SHS\_S:002

SHS\_S:013  
SHS\_S:015  
SHS\_S:014

---

Variable Name: **M103**  
Unit Type: Dollar (\$)  
Description: Sports and athletic equipment

SHS\_S:001

---

Variable Name: **M106TOT**  
Unit Type: Dollar (\$)  
Description: Toys, electronic games and art/hobby materials

SHS\_S:007, S:008, S:009

**Note:** In 1997 this variable included spending on computer equipment and supplies.

---

Variable Name: **M110**  
Unit Type: Dollar (\$)  
Description: Computer equipment and supplies

SHS\_L:019  
SHS\_L:020  
SHS\_L:022  
SHS\_L:023

---

Variable Name: **M116**  
Unit Type: Dollar (\$)  
Description: Photographic goods and services

SHS\_S:003  
SHS\_S:004  
SHS\_S:005

---

Variable Name: **M126**  
Unit Type: Dollar (\$)  
Description: Recreational vehicles and associated services

SHS\_R:001  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 4)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 3)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 1)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 2)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 8)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 5)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 6)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 7)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 9)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 10)

SHS\_R:002  
SHS\_R:091  
Sum(SHS\_R:016 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:015 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:017 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:018 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:019 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:020 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)

---

Variable Name: **M127**

Unit Type: Dollar (\$)

Description: Purchase of recreational vehicles

SHS\_R:001  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 4)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 3)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 1)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 2)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 8)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 5)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 6)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 7)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 9)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 10)

---

Variable Name: **M128**

Unit Type: Dollar (\$)

Description: Purchase of bicycles, parts and accessories

SHS\_R:001

---

Variable Name: **M129**

Unit Type: Dollar (\$)

Description: Recreational vehicles and outboard motors (excluding bicycles)

Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 4)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 3)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 1)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 2)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 8)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 5)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 6)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 7)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 9)  
Sum(SHS\_R:014 - SHS\_R:023 for each recreation vehicle: If SHS\_R:012 = 10)

---

Variable Name: **M139**  
Unit Type: Dollar (\$)  
Description: Operation of recreational vehicles

SHS\_R:002  
SHS\_R:091  
Sum(SHS\_R:016 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:015 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:017 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:018 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:019 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:020 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)

---

Variable Name: **M140**  
Unit Type: Dollar (\$)  
Description: Bicycle maintenance and repairs

SHS\_R:002

Variable Name: **M142TOT**  
Unit Type: Dollar (\$)  
Description: Other recreation vehicle operation

Sum(SHS\_R:016 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:015 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:017 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:018 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:019 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)  
Sum(SHS\_R:020 \* (100 - PctOtherVehExpAgainstBus\_R:022)/100 for each recreation vehicle)

---

Variable Name: **M180**  
Unit Type: Dollar (\$)  
Description: Expenses for rented and leased recreational vehicles

SHS\_R:091

---

Variable Name: **M148**  
Unit Type: Dollar (\$)  
Description: Home entertainment equipment and services

SHS\_L:011  
SHS\_L:014  
SHS\_L:015  
SHS\_L:013  
SHS\_L:018  
SHS\_L:031  
SHS\_L:034

---

Variable Name: **M150**  
Unit Type: Dollar (\$)  
Description: Audio equipment (for example, radios, CD players, speakers)

SHS\_L:011

---

Variable Name: **M151**  
Unit Type: Dollar (\$)  
Description: Pre-recorded audio and video cassette tapes, compact discs and DVDs

SHS\_L:014  
SHS\_L:015

---

Variable Name: **M152**  
Unit Type: Dollar (\$)  
Description: Blank audio and video tapes

SHS\_L:015

---

Variable Name: **M153**  
Unit Type: Dollar (\$)  
Description: Televisions, video cassette recorders (VCRs), camcorders and other television/video

SHS\_L:013

---

Variable Name: **M156**  
Unit Type: Dollar (\$)  
Description: Rental of videotapes, DVDs and videodiscs

SHS\_L:031

---

Variable Name: **M157**  
Unit Type: Dollar (\$)  
Description: Rental of home entertainment equipment and other services

SHS\_L:036

---

Variable Name: **M159**  
Unit Type: Dollar (\$)  
Description: Recreation services

SHS\_S:016  
SHS\_S:019  
SHS\_S:017  
SHS\_S:018  
SHS\_L:034  
SHS\_L:035  
SHS\_S:021  
SHS\_S:022  
SHS\_S:020  
SHS\_S:026  
SHS\_R:100  
SHS\_S:027

---

Variable Name: **M160**  
Unit Type: Dollar (\$)  
Description: Entertainment

SHS\_S:016  
SHS\_S:019  
SHS\_S:017  
SHS\_S:018  
SHS\_L:034  
SHS\_L:035

---

Variable Name: **M161**  
Unit Type: Dollar (\$)  
Description: Movie theatres

SHS\_S:016

---

Variable Name: **M162**  
Unit Type: Dollar (\$)  
Description: Live sports events

SHS\_S:019

---

Variable Name: **M163**  
Unit Type: Dollar (\$)  
Description: Live performing arts

SHS\_S:017

---

Variable Name: **M165**  
Unit Type: Dollar (\$)  
Description: Rental of cablevision and satellite services

SHS\_L:034  
SHS\_L:035

---

Variable Name: **M408**  
Unit Type: Dollar (\$)  
Description: Rental of cablevision services

SHS\_L:034

---

Variable Name: **M409**  
Unit Type: Dollar (\$)  
Description: Rental of satellite services

SHS\_L:035

---

Variable Name: **M166**  
Unit Type: Dollar (\$)  
Description: Use of recreation facilities

SHS\_S:021  
SHS\_S:022  
SHS\_S:020  
SHS\_S:026

---

Variable Name: **M182**  
Unit Type: Dollar (\$)  
Description: Membership and single usage fees for sports and recreation facilities

SHS\_S:021  
SHS\_S:022

---

Variable Name: **M171**  
Unit Type: Dollar (\$)  
Description: Children's camps

SHS\_S:026

---

Variable Name: **M164**  
Unit Type: Dollar (\$)  
Description: Admission to museums and other activities

SHS\_S:018

---

Variable Name: **M172**  
Unit Type: Dollar (\$)  
Description: Package travel tours

SHS\_R:100

**Note:** Package trips that included at least two components of a travel tour such as transportation and accommodation, or accommodation with food and beverages.

---

Variable Name: **M173**

Unit Type: Dollar (\$)

Description: Other recreational services (e.g., fishing and hunting licenses, party planning)

---

SHS\_S:027

---

## 2.16 Expenditure - reading materials and other printed matter

Variable Name: **M201**

Unit Type: Dollar (\$)

Description: Total reading materials and other printed matter

SHS\_S:030

SHS\_S:031

SHS\_S:032

SHS\_S:033

SHS\_S:034

---

Variable Name: **M202**

Unit Type: Dollar (\$)

Description: Newspapers

SHS\_S:030

---

Variable Name: **M203**

Unit Type: Dollar (\$)

Description: Magazines and periodicals

SHS\_S:031

---

Variable Name: **M204**

Unit Type: Dollar (\$)

Description: Books and pamphlets (excluding school books)

SHS\_S:032

---

## 2.17 Expenditure - education

Variable Name: **M301**  
Unit Type: Dollar (\$)  
Description: Total education

SHS\_S:042  
SHS\_S:045  
SHS\_S:041  
SHS\_S:044  
SHS\_S:040  
SHS\_S:043  
SHS\_S:046  
SHS\_S:047

---

Variable Name: **M302TOT**  
Unit Type: Dollar (\$)  
Description: Education supplies and textbooks

SHS\_S:041  
SHS\_S:042  
SHS\_S:044  
SHS\_S:045

---

Variable Name: **M308**  
Unit Type: Dollar (\$)  
Description: Tuition fees

SHS\_S:040  
SHS\_S:043

---

## 2.18 Expenditure - tobacco products and alcoholic beverages

Variable Name: **N101**  
Unit Type: Dollar (\$)  
Description: Total tobacco products and alcoholic beverages

SHS\_T:001  
SHS\_T:002  
SHS\_N:011  
SHS\_N:006  
SHS\_N:007

---

Variable Name: **N102**  
Unit Type: Dollar (\$)  
Description: Tobacco products and smokers' supplies

SHS\_T:001

SHS\_T:002

---

Variable Name: **N103**  
Unit Type: Dollar (\$)  
Description: Cigarettes, cigars and tobacco

SHS\_T:001

---

Variable Name: **N105**  
Unit Type: Dollar (\$)  
Description: Alcoholic beverages

SHS\_N:011  
SHS\_N:006  
SHS\_N:007

---

Variable Name: **N106**  
Unit Type: Dollar (\$)  
Description: Alcoholic beverages served on licensed premises

SHS\_N:011

---

Variable Name: **N107**  
Unit Type: Dollar (\$)  
Description: Alcoholic beverages purchased from stores

SHS\_N:006

---

Variable Name: **N108**  
Unit Type: Dollar (\$)  
Description: Self-made alcoholic beverages

SHS\_N:007

---

## 2.19 Expenditure - other

Variable Name: **O101**  
Unit Type: Dollar (\$)  
Description: Total miscellaneous expenditures

SHS\_K:021  
SHS\_T:018  
SHS\_T:003  
SHS\_T:004  
SHS\_T:005  
SHS\_T:006

Sum(SHS\_V:011 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))  
SHS\_T:016  
SHS\_T:015  
SHS\_T:017  
SHS\_T:019  
SHS\_T:021

**Note:** Includes expenses on other property (not principal accommodation or vacation home), legal services, financial services, dues to unions and professional associations, contributions and dues for social clubs, forfeits of deposits, fines, money lost, and purchase of tools and equipment for work.

Prior to 1997, in the Family Expenditure Survey, interest on personal loans and interest paid on mortgages and loans for other property were reported under "Miscellaneous". (Principal payments for mortgages and loans were reported under "Money flows--assets, loans and other debts" since they were considered to pertain to a change in the value of household assets or debts.)

For the Survey of Household Spending (starting with the 1997 reference year), interest payments are not available separately from principal. Payments for personal loans and mortgages and loans pertaining to other property (including both principal and interest) are reported under "Money flows—assets, loans and other debts".

Also starting in 1997, expenditures for "Games of chance", formerly included under "Miscellaneous" became a separate sub-category. Caution should therefore be used when comparing these data to data from previous years. The categories "Total current consumption" and "Total expenditure" are also affected since "Miscellaneous" is a component of these categories.

---

Variable Name: **O104**  
Unit Type: Dollar (\$)  
Description: Financial services

SHS\_T:003  
SHS\_T:004  
SHS\_T:005  
SHS\_T:006

---

Variable Name: **O109**  
Unit Type: Dollar (\$)  
Description: Dues to unions and professional associations

Sum(SHS\_V:011 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **N201**  
Unit Type: Dollar (\$)  
Description: Games of chance (net of winnings)

SHS\_T:007

SHS\_T:013  
 SHS\_T:009  
 SHS\_T:011  
 (SHS\_T:008 + SHS\_T:010 + SHS\_T:012 + SHS\_T:014) \* -1; if (SHS\_T:008 + SHS\_T:010 + SHS\_T:012 + SHS\_T:014) < (SHS\_T:007 + SHS\_T:009 + SHS\_T:011 + SHS\_T:013), otherwise ((SHS\_T:007 + SHS\_T:009 + SHS\_T:011 + SHS\_T:013) - 1) \* -1.

**Note:** "Games of chance (net)" equals the sum of expenditures on all types of games of chance minus the sum of winnings from all types of games of chance. However, if total winnings are greater than total expenditures, the amount to be subtracted from expenditures is set to \$1 less than the expenditures and the value of the remaining winnings is moved to the variable "Other money receipts".

Variable Name: **O201**

Unit Type: Dollar (\$)

Description: Personal taxes (net of refunds)

Sum(SHS\_V:002 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:003 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:004 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum((SHS\_U:017 \* (-1)) for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Personal taxes are income taxes paid in the reference year for that year and on income from previous years if applicable. Also included are other personal taxes (gift taxes, Newfoundland and Labrador school tax, etc.) minus income tax refunds received in the reference year, except for federal Child Tax Benefits, Goods and Services Tax credits and provincial tax credits. These tax credits are included in "average household income before taxes."

Variable Name: **O301**

Unit Type: Dollar (\$)

Description: Total personal insurance payments and pension contributions

Sum(SHS\_V:005 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:006 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:007 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:009 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:008 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:010 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** Payments for life insurance, annuities, employment insurance, public and private pension plans, and similar items. For certain uses of the data, some of these items might be regarded as savings, although the relationship between the expenditure and any increase in savings may not be easily determined. This category of expenditure was called "Security" prior to the 1996 survey. (Registered Retirement Savings Plan contributions are included in "Money flows - assets, loans and other debts".)

---

Variable Name: **O302TOT**

Unit Type: Dollar (\$)

Description: Life insurance premiums, annuity contracts and transfers to RRIFs

Sum(SHS\_V:005 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:006 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O304**

Unit Type: Dollar (\$)

Description: Employment insurance premiums

Sum(SHS\_V:007 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O305**

Unit Type: Dollar (\$)

Description: Retirement and pension fund payments

Sum(SHS\_V:009 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:008 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:010 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O306**

Unit Type: Dollar (\$)

Description: Canada and Quebec Pension Plan

Sum(SHS\_V:009 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O307**

Unit Type: Dollar (\$)

Description: Other government pension funds

Sum(SHS\_V:008 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O308**

Unit Type: Dollar (\$)

Description: Other retirement or pension funds (excluding Registered Retirement Savings Plans (RRSPs))

Sum(SHS\_V:010 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O401**

Unit Type: Dollar (\$)

Description: Total gifts of money and contributions

Sum(SHS\_V:012 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:013 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:014 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:015 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

Sum(SHS\_V:016 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

**Note:** This includes money and support payments given to persons outside the household or to charity. Prior to 1997, money spent on gifts of goods and services to persons outside the household were reported separately. Starting in 1997, these expenditures are included in each category. The following new categories were added under Clothing: clothing gifts to non-household members for women's and girls' wear, men's and boys' wear, and children's wear.

---

Variable Name: **O403**

Unit Type: Dollar (\$)

Description: Gifts of money and support payments (excluding alimony and child support) to persons living inside Canada

Sum(SHS\_V:013 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O404**

Unit Type: Dollar (\$)

Description: Gifts of money and support payments (excluding alimony and child support) to persons living outside Canada

Sum(SHS\_V:014 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O406**

Unit Type: Dollar (\$)

Description: Contributions to religious organizations

Sum(SHS\_V:015 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **O407**

Unit Type: Dollar (\$)

Description: Contributions to non-religious charitable organizations

Sum(SHS\_V:016 for each Person: If (SHS\_A:014 = 1 or 2) and (reference year – SHS\_A:003 > 15))

---

Variable Name: **TOTCUCON**

Unit Type: Dollar (\$)

Description: Total current consumption

Total expenses excluding personal taxes, personal insurance payments, and gifts and contributions.

**Note:** Expenses incurred during the survey year for food, shelter, household operations, household furnishings and equipment, clothing, transportation, health care, personal care, recreation, reading materials, education, tobacco products and alcoholic beverages, games of chance, and a miscellaneous group of items.

Caution should be used when comparing total current consumption for the Survey of Household Spending (1997 on) to total current consumption from previous years (Family Expenditure Survey). See “Shelter” and “Miscellaneous” for more information. Prior to 1997, expenditures for gifts were not included in total current consumption. Starting in 1997, these expenditures are reported in the appropriate category and, therefore, contribute to total current consumption.

---

Variable Name: **TOTEXPEN**

Unit Type: Dollar (\$)

Description: Total expenditure

**Note:** The expenditures included in "Total current consumption" plus personal taxes, personal insurance payments and pension contributions, and gifts of money and contributions to persons outside the household.

Caution should be used when comparing total expenditure for the Survey of Household Spending (1997 on) to total expenditure from previous years (Family Expenditure Survey). See “Shelter” and “Miscellaneous” for more information.

---

## 2.20 Additional variables

Variable Name: **ADEQUACY**

Unit Type: Code

Description: Housing adequacy indicator

This variable was developed by Statistics Canada for Canada Mortgage and Housing Corporation (CMHC) to identify "any household living in a unit in need of major repairs, and/or lacking hot/cold running water, inside toilet, or a bath/shower".

This variable classifies households according to whether their dwelling has at least one bathroom and is in reasonable repair.

Adequate: SHS\_B:004 (need for repairs) = 19 (minor) or 20 (none) AND SHS\_B:007 (no. of bathrooms) = 1 or more

Code	Description
0	Adequate
1	Inadequate

---

Variable Name: **AFFORDAB**

Unit Type: Code

Description: Housing affordability indicator

This variable was developed by Statistics Canada for Canada Mortgage and Housing Corporation (CMHC).

This variable uses a shelter cost-to-income ratio (STIR) to see if households spend more than an accepted amount on shelter: expenditures of 30 per cent or more are considered above the norm.

Rent = SHS\_I:002

Regular mortgage = (SHS\_G:002 \* SHS\_G:003) + (SHS\_G:004 \* SHS\_G:005) + (SHS\_G:006 \* SHS\_G:007) - (SHS\_E:003 \* (100 - PctExpAgainstBusiness\_E:009 / 100 if SHS\_G:014 = '1') - (SHS\_G:016 if SHS\_G:015 = '1'))

Condo charges = SHS\_E:006

Property taxes = SHS\_E:003

Water, fuel and electricity = SHS\_J:001 + SHS\_J:002 + SHS\_J:003

Household income before taxes = SHS\_U:004 to SHS\_U:018 excluding personal income tax refunds

SHS\_U:017

On this file, the housing affordability indicator is calculated as follows:

Affordable: Rent + Regular mortgage payments + Condominium charges + Property taxes + Water, fuel and electricity / Household income before taxes = less than 30%

Not affordable: Rent + Regular mortgage payments + Condominium charges + Property taxes + Water, fuel and electricity / Household income before taxes = 30% or more

Not applicable: Households where household income before taxes = 0 or less, and households with shelter cost-to-income ratio (STIR) = 1 or more-

Code	Description
0	Affordable
1	Not affordable
9	Not applicable

Variable Name: **SUITABLE**

Unit Type: Code

Description: Housing suitability indicator (formerly Crowded Dwelling Indicator)

This variable was developed by Statistics Canada for Canada Mortgage and Housing Corporation (CMHC) according to the following specifications:

The National Occupancy Standard (NOS), used to measure housing suitability, determines the number of bedrooms a household should have for households of different size and composition. According to the National Occupancy Standard there must be one bedroom for each:

- cohabiting adult couple;
- unattached household member 18 years of age and over;
- same-sex pair of children under age 18;
- additional boy and/or girl in the family, unless there are two opposite sex siblings under 5 years of age, in which case they are expected to share a bedroom.

A household of one individual can occupy a bachelor unit (i.e., no bedroom).

For example, a household composed of a couple and two children (boy aged 4, and girl aged 2) is expected to require 2 bedrooms. When the boy turns 5 years old, the requirement would increase to 3 bedrooms.

Code	Description
0	Not Crowded
1	Crowded

**Note:** The National Occupancy Standard was developed by CMHC through a formal Federal/Provincial/Territorial consultation process to encompass the commonalities of all the provincial/territorial occupancy standards and to serve as Canada's official housing suitability measure or indicator. See also CMHC Socio-Economic Research Highlights, Issue 55-1, Special Studies on 1996 Census Data: Canadian Housing Conditions, page 1 and footnote 3. ([www.cmhc-schl.gc.ca/publications/en/rh--pr/index.html](http://www.cmhc-schl.gc.ca/publications/en/rh--pr/index.html)).

---

Variable Name: **RQNMEDP**

Unit Type: Count

Description: Required number of bedrooms

This variable was developed by Statistics Canada for Canada Mortgage and Housing Corporation (CMHC).

This variable represents the number of bedrooms required by the household under the National Occupancy Standard. The calculation of the required number of bedrooms is the first step in the calculation of the variable **SUITABLE** (formerly **CROWDED**). According to the National Occupancy Standard there must be one bedroom for each:

- cohabiting adult couple;
- unattached household member 18 years of age and over;
- same-sex pair of children under age 18;
- additional boy and/or girl in the family, unless there are two opposite sex siblings under 5 years of age, in which case they are expected to share a bedroom.

A household of one individual can occupy a bachelor unit (i.e. no bedroom).

For example, a household composed of a couple and two children (boy aged 4, and girl aged 2) is expected to require 2 bedrooms. When the boy turns 5 years old, the requirement would increase to 3 bedrooms.

Code	Description
0	Bachelor
1	1 bedroom
2	2 bedrooms
3	3 bedrooms
4	4 bedrooms
5	5 or more bedrooms

**Note:** The National Occupancy Standard was developed by CMHC through a formal Federal/Provincial/Territorial consultation process to encompass the commonalities of all the provincial/territorial occupancy standards and to serve as Canada's official housing suitability measure or indicator. See also CMHC Socio-Economic Research Highlights, Issue 55-1, Special Studies on 1996 Census Data: Canadian Housing Conditions, page 1 and footnote 3. ([www.cmhc-schl.gc.ca/publications/en/rh--pr/index.html](http://www.cmhc-schl.gc.ca/publications/en/rh--pr/index.html)).

Variable Name: **MONRENT**

Unit Type: Code

Description: Monthly serviced rental payments

$(SHS\_I:002 + SHS\_J:001 + SHS\_J:002 + SHS\_J:003) / 12$

(Rent + Water + Electricity + Fuel) divided by 12

Calculated for households where:

1. Dwelling tenure during reference year (TENURYRP) = 3 (rented) and
2. Months household occupied a rented dwelling (I:001) = 12 and
3. Reduced rent reason = 3 (no reduced rent) and
4. Dwelling repairs needed = 2 or 3 (minor or no repairs needed)

Households not meeting above criteria have this field set to 000000000.00.

**Note:** Criteria 1 and 2 do not always yield the same records because of the presence of part-year members who may have had a different housing tenure than the reference person. So using the 2 together allows us to eliminate or reduce the number of records with complicated tenure histories. A complicated tenure history is usually due to the presence of a part-year member with a different previous tenure from the reference year,

Variable Name: **CONDODEV**

Unit Type: Code

Description: Part of a condominium development

0 (If SHS\_B:003 = No)

1 (If SHS\_B:003 = Yes)

Code	Description
0	No
1	Yes

Variable Name: **OPFARM**  
Unit Type: Code  
Description: Operated a farm

0 (If SHS\_B:004 = No)  
1 (If SHS\_B:004 = Yes)

Code	Description
0	No
1	Yes

---

Variable Name: **APTDWG**  
Unit Type: Code  
Description: Apartment in this dwelling

0 (If SHS\_D:003 = No)  
1 (If SHS\_D:003 = Yes)

Code	Description
0	No
1	Yes

**Note:** Only asked of households where SHS\_D:001 = 1 or 2 and SHS\_B:001 = 1, 2, 3 or 4.

---

Variable Name: **NUMFLR**  
Unit Type: Code  
Description: Number of floors

1 (If SHS\_B:010 = 22)  
2 (If SHS\_B:010 = 23)  
3 (If SHS\_B:010 = 24)

Code	Description
1	Lived in basement unit
2	One floor
3	More than one floor

---

Variable Name: **RPPRDWTY**  
Unit Type: Code  
Description: Type of dwelling previously occupied by reference person

1 (If SHSD:007 =01)  
2 (If SHS\_D:007 =02)  
3 (If SHS\_D:007 =03)  
4 (If SHS\_D:007 =04)  
5 (If SHS\_D:007 = (05 or 06))  
6 (If SHS\_D:007 between 07 and 09)

Code	Description
0	Before 1997
1	Single detached
2	Double
3	Row or terrace
4	Duplex
5	Apartment
6	Hotel, rooming or lodging house, mobile home, or other

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

Variable Name: **RPPREFLR**

Unit Type: Code

Description: Number of floors in dwelling previously occupied by reference person

1 (If SHS\_D:009 = 1)

2 (If SHS\_D:009 = 2)

3 (If SHS\_D:009 = 3)

Code	Description
0	Before 1997
1	Lived in basement unit
2	One floor
3	More than one floor

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

Variable Name: **LARGEDWG**

Unit Type: Code

Description: Moved to larger dwelling

SHS\_D:010 = 10

Code	Description
0	No
1	Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

Variable Name: **SMALLDWG**

Unit Type: Code

Description: Moved to smaller dwelling

SHS\_D:010 = 11

Code	Description
0	No
1	Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **CHEAPDWG**

Unit Type: Code

Description: Moved to cheaper dwelling

SHS\_D:010 = 12

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **BETTRDWG**

Unit Type: Code

Description: Moved to better dwelling

SHS\_D:010 = 13

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **CLOSEFAC**

Unit Type: Code

Description: Moved closer to facilities

SHS\_D:010 = 14

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **ESTHLD**

Unit Type: Code

Description: Moved to establish own household

SHS\_D:010 = 15

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **CHNGTEN**

Unit Type: Code

Description: Moved - tenure change

SHS\_D:010 = 16

Code	Description
0	No
1	Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **CHNGJOB**

Unit Type: Code

Description: Moved - job change

SHS\_D:010 = 17

Code	Description
0	No
1	Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **CLOSWORK**

Unit Type: Code

Description: Moved closer to work

SHS\_D:010 = 18

Code	Description
0	No
1	Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **FAMREA**

Unit Type: Code

Description: Moved for family reasons

SHS\_D:010 = 19

Code	Description
0	No

1 Yes

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **HEALTHR**

Unit Type: Code

Description: Moved for health reasons

SHS\_D:010 = 20

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **OTHERR**

Unit Type: Code

Description: Moved for other reasons

SHS\_D:010 = 21

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

**Note:** Households that moved to their dwelling before 1997 were not asked this question.

---

Variable Name: **RENTOINC**

Unit Type: Code

Description: Rent calculated on the basis of income

0 (If SHS\_I:005 = No)

1 (If SHS\_I:005 = Yes)

Code	Description
------	-------------

0	No
---	----

1	Yes
---	-----

---

## **3. Technical information**

### **3.1 Survey methodology**

(For more detailed information, see the *Methodology of the Survey of Household Spending* available free on the Statistics Canada web site at [www.statcan.ca](http://www.statcan.ca)).

#### **3.1.1 The survey universe**

The 2002 Survey of Household Spending was carried out in private households in Canada's 10 provinces.<sup>1</sup>

The following groups were excluded from the survey:

- those living on Indian reserves and crown lands;
- official representatives of foreign countries living in Canada and their families;
- members of religious and other communal colonies;
- members of the Canadian Armed Forces living in Military Camps;
- people living in residences for senior citizens; and
- people living full time in institutions: for example, inmates of penal institutions and chronic care patients living in hospitals and nursing homes.

The survey covers about 98% of the population in the 10 provinces.

Information was not gathered from persons temporarily living away from their families (for example, students at university), because it would be gathered from their families if selected. In this way, double counting of such individuals was avoided.

Data from part-year households should be excluded from estimates of average household spending. However, these data must be included in the estimates for dwelling characteristics and household equipment and in the calculation of the Survey of Household Spending response rate. Part-year households are composed entirely of persons who were members of other households for part of the reference year. There were 475 part-year households in the sample in 2002.

#### **3.1.2 Survey content and reference period**

Detailed information was collected about expenditures for consumer goods and services, changes in assets, mortgages and other loans, and annual income. This information was collected for the calendar year 2002 (the survey reference year). Information was also collected about dwelling characteristics (e.g., type and age of heating equipment) and household equipment (e.g., appliances, communications equipment, and vehicles). This type of information was collected as of December 31<sup>st</sup> of the reference year.

Because the Survey of Household Spending is designed principally to provide detailed information on non-food expenditures, only an overall estimate of food expenditure is recorded. Detailed information on food expenditure is provided by the Food Expenditure Survey, which is conducted every four to six years. It was last conducted in 2001. In

---

<sup>1</sup> In order to reduce response burden for northern households, the SHS is conducted in the north only every second year, starting in 2001.

February 2003, the results were published in *Food Expenditure in Canada, 2001*, Catalogue no. 62-554-XIE.

### **3.1.3 The sample**

The sample size for the 2002 Survey of Household Spending was 20,861 eligible households.

This sample was a stratified, multi-stage sample selected from the Labour Force Survey (LFS) sampling frame. Sample selection comprised two main steps: the selection of clusters (small geographic areas) from the LFS frame and the selection of dwellings within these selected clusters. The LFS sampling frame mainly uses 1991 Census geography and 1991 population counts.<sup>2</sup>

### **3.1.4 Data collection**

The 2002 Survey of Household Spending was conducted from January to March 2003. Data were collected during a personal interview using a paper questionnaire. A copy of this questionnaire is available on request.

### **3.1.5 Data processing and quality control**

Data entry and automated editing for the 2002 Survey of Household Spending took place in the Statistics Canada regional offices. This allowed respondents to be contacted in the event that more information was required to resolve an inconsistency on their questionnaires.

After data entry, an automated physical edit system checked for data entry errors. Data had to pass a two-tier edit system consisting of "must-pass" edits that checked questionnaires for logic and consistency, and "warnings" that indicated that a particular situation was unusual and could require correction. Either type of edit resulted in the intervention of a member of one of the specially trained edit resolution teams. Further editing of the data took place in head office where invalid responses were corrected.

Missing responses were imputed using the nearest neighbour method. Statistics Canada's Canadian Census Edit and Imputation System (CANCEIS) was used to insert values from donor records having similar characteristics, chosen specifically to fit the variable. For example, total household income was used for most variables; dwelling type, household size and province were also frequently used.

Tabulation for the 2002 Survey of Household Spending was accomplished using a PC/client server-based system. This system provides tools (database querying, searching, and viewing capabilities) for spotting systematic errors.

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<sup>2</sup> A detailed description of the Labour Force Survey sampling frame can be found in *Methodology of the Canadian Labour Force Survey*, Statistics Canada, Catalogue no. 71-526-XPB.

### 3.1.6 Weighting

The estimation of population characteristics from a sample survey is based on the premise that each sampled unit represents a certain number of units in the population. A basic survey weight was attached to each record in the sample to reflect this representation. These basic weights were adjusted for non-response for selected metropolitan areas, additional geographical areas and for high-income strata. The additional geographical areas comprise the remaining metropolitan areas and urban and rural areas based on census definitions but do not necessarily correspond exactly. For definitions of these terms, refer to the *1996 Census Dictionary*, Catalogue no. 92-351-XPE.

To increase the reliability of the estimates, weights were adjusted to ensure that estimates based on relevant characteristics of the population would respect population totals from sources other than the survey. For the 10 provinces, there are two sets of totals.

The first set of totals, for age/sex groups, household size and household type at the province level, is based on projections at mid-January 2003 using the 1996 Census of Population (adjusted for net undercoverage). Controls for 18 age/sex groups are used. These are combined with totals for one-person households, two-person households and more than two-person households. There are also totals for the number of single-parent families and couples with never-married children. Finally, for the 14 selected metropolitan areas, only two age groups were used: number of persons under 18, and number of persons 18 and over.

The second set of totals is derived from T4 information from Canada Customs and Revenue Agency (CCRA, formerly Revenue Canada) and is intended to ensure that the weighted distribution of income (based on wages and salaries) in the data set matches that of the Canadian population.

The switch from 1991 to 1996 Census-based population totals and the use of T4 information from CCRA were introduced starting with the 1999 SHS. Revised SHS estimates for earlier survey years are available and should be used for year-over-year comparisons.

## 3.2 Data quality

(For more detailed information, see the *Survey of Household Spending Data Quality Indicators*, soon to be available free on the Statistics Canada web site at [www.statcan.ca](http://www.statcan.ca).)

### 3.2.1 Sampling error

Sampling errors occur because inferences about the entire population are based on information obtained from only a sample of the population. The sample design, the variability of the data, and the sample size determine the size of the sampling error. In addition, for a given sample design, different methods of estimation will result in different sampling errors.

The design for the 2002 Survey of Household Spending was a stratified multi-stage sampling scheme. The sampling errors for multi-stage sampling are usually higher than

for a simple random sample of the same size. However, the operational advantages outweigh this disadvantage, and the fact that the sample is also stratified improves the precision of estimates.

Data variability is the difference between members of the population with respect to spending on a specific item or the presence of a specific dwelling characteristic or piece of household equipment. In general, the greater these differences are, the larger the sampling error will be. In addition, the larger the sample size, the smaller the sampling error.

### **3.2.1.1 Standard error and coefficient of variation**

A common measure of sampling error is the standard error (SE). Standard error is the degree of variation in the estimates as a result of selecting one particular sample rather than another of the same size and design. It has been shown that the “true” value of the characteristic of interest lies within a range of +/- 1 standard error of the estimate for 68% of all samples, and +/- 2 standard errors for 95% of all samples.

The coefficient of variation (CV) is the standard error expressed as a percentage of the estimate. It is used to indicate the degree of uncertainty associated with an estimate. For example, if the estimate of the number of households having a given dwelling characteristic is 10,000 households, and the corresponding CV is 5%, then the “true” value is between 9,500 and 10,500 households, 68% of the time and between 9,000 and 11,000 households, 95% of the time.

Standard errors for the 2002 Survey of Household Spending were estimated using the jackknife technique, which leads to a slight over-estimation and is, thus, conservative. For more information, refer to the Statistics Canada publication, *Methodology of the Canadian Labour Force Survey*, Catalogue no. 71-526XPB.

Coefficients of variation are presented in technical tables 1 and 2 in Appendix E.

### **3.2.1.2 Data suppression**

For reliability reasons, estimates with CVs greater than 33% should be suppressed. Since CVs are not calculated for all estimates, data suppression for the Survey of Household Spending has been based on a relationship between the CV and the number of households reporting expenditure on an item. Analysis of past survey results indicates that CVs usually reach this level when the number of households reporting an item drops to about 30. Therefore, data have been suppressed for spending on items reported by fewer than 30 households.

However, data for suppressed items do contribute to summary level variables. For example, the expenditure for a particular category of clothing might be suppressed but this amount forms part of the total expenditure estimate for clothing.

## **3.2.2 Non-sampling error**

Non-sampling errors occur because certain factors make it difficult to obtain accurate responses or responses that retain their accuracy throughout processing. Unlike sampling error, non-sampling error is not readily quantified. Four sources of non-sampling error can be identified: coverage error, response error, non-response error, and

processing error.

### **3.2.2.1 Coverage error**

Coverage error results from inadequate representation of the intended population. This error may occur during sample design or selection, or during data collection and processing.

### **3.2.2.2 Response error**

Response error may be due to many factors, including faulty design of the questionnaire, interviewers' or respondents' misinterpretation of questions, or respondents' faulty reporting. In the Survey of Household Spending, the difference between receipts and disbursements is calculated as a check on respondents' recall. This important quality control tool involves the balancing of receipts (income and other money received by the household) and disbursements (total expenditure plus the variable *Money flows—assets, loans, and other debts*) for each questionnaire. If the difference is greater than 10% of the larger of receipts or disbursements, respondents are contacted again for additional information. This ensures that expenditures, at least at the aggregate level, match household income and other sources of funds.

Several features of the survey help respondents recall their expenditures as accurately as possible. First, the survey period is the calendar year because it is probably more clearly defined in people's minds than any other period of similar length. Second, expenditure on food (about 11% of the average budget in 2002) can be estimated as either weekly or monthly expenses depending on the respondent's purchasing habits. Third, expenses on smaller items purchased at regular intervals are usually estimated on the basis of amount and frequency of purchase. Purchases of large items (automobiles, for example) are recalled fairly easily, as are expenditures on rent, property taxes, and monthly payments on mortgages. However, even with these items, the accuracy of data depends on the respondent's ability to remember and willingness to consult records.

### **3.2.2.3 Non-response error**

Non-response error occurs in sample surveys because not all potential respondents cooperate fully. The extent of non-response varies from partial non-response to total non-response.

Total non-response occurs when the interviewer is unable to contact the respondent, no member of the household is able to provide information, or the respondent refuses to participate in the survey. Total non-response is handled by adjusting the basic survey weight for responding households to compensate for non-responding households. For the 2002 Survey of Household Spending, the overall response rate was 70.5%. See Figure 1 for provincial response rates.

In most cases, partial non-response occurs when the respondent does not understand or misinterprets a question, refuses to answer a question, or is unable to recall the requested information. Imputing missing values compensates for this partial non-response.

The importance of the non-response error is unknown but in general this error is significant when a group of people with particular characteristics in common refuse to cooperate and where those characteristics are important determinants of survey results.

**Figure 1**  
**Response rates, Canada and provinces, 2002**

	Eligible households <sup>1</sup>	Non-contacts	Refusals	Un-usables <sup>2</sup>	Usables	Response rate <sup>3</sup>
Newfoundland and Labrador	1,681	130	224	70	1,257	74.8%
Prince Edward Island	799	36	115	11	637	79.7%
Nova Scotia	2,063	148	429	119	1,367	66.3%
New Brunswick	1,766	115	349	63	1,239	70.2%
Quebec	2,760	193	571	7	1,989	72.1%
Ontario	3,159	307	738	128	1,986	62.9%
Manitoba	1,858	95	296	24	1,443	77.7%
Saskatchewan	1,963	105	338	19	1,501	76.5%
Alberta	2,105	144	417	52	1,492	70.9%
British Columbia	2,707	219	514	181	1,793	66.2%
<b>Canada</b>	<b>20,861</b>	<b>1,492</b>	<b>3,991</b>	<b>674</b>	<b>14,704</b>	<b>70.5%</b>

<sup>1</sup> Part-year households are included in the calculation of response rates. There were 475 part-year households in 2002.

<sup>2</sup> Rejected at the editing stage.

<sup>3</sup> Usable/eligible\*100

### 3.2.2.4 Processing error

Processing errors may occur in any of the data processing stages, for example, during data entry, editing, weighting, and tabulation. See Data Processing and Quality Control (above) for a description of the steps taken to reduce processing error.

### 3.2.3 The effect of large values

For any sample, estimates can be affected by the presence or absence of extreme values from the population. These extreme values are most likely to arise from positively skewed populations. The nature of the subject matter of the SHS lends itself to such extreme values. Estimates of totals, averages and standard errors may be greatly influenced by the presence or absence of these extremes.

### 3.2.4 Comparability over time

Conducted since 1997, the Survey of Household Spending integrates most of the content found in the Family Expenditure Survey and the Household Facilities and Equipment Survey. Many variables from these two surveys are comparable to those in the Survey of Household Spending. However, some differences related to the methodology, to data quality and to definitions must be considered before making comparisons.

For more information, refer to *Note to Former Users of Data from the Family Expenditure Survey*, Catalogue no. 62F0026MIE2000002 and *Note to Former Users of Data from the Household Facilities and Equipment Survey*, Catalogue no. 62F0026MIE2000003. Both documents are available free of charge on the Statistics Canada web site ([www.statcan.ca](http://www.statcan.ca)).

Historical data from the 1997 and 1998 surveys of household spending, the 1996 Family Expenditure Survey and the 1996 Household Facilities and Equipment Survey have been re-weighted using the weighting methodology described in the section "Weighting". Historical comparisons between data from those surveys and data from recent years of the Survey of Household Spending should generally be made with re-weighted data, although the differences between survey estimates from the old and new methodologies appear to be minimal at a summary level. Certain populations or variables, however, may be more strongly affected.

### 3.3 Guidelines for tabulation, analysis and dissemination

This section describes the guidelines that users should follow when totalling, analysing, publishing or releasing data taken from the public-use microdata file.

#### 3.3.1 Important note to users about full and part-year households

In 1997, the Survey of Family Expenditure (FAMEX) and the Household Facilities and Equipment Survey (HFE) were replaced by the Survey of Household Spending (SHS). FAMEX microdata files included full-year households<sup>3</sup> only, as only such households could give a clear picture of income and expenditures over an entire year. HFE microdata, on the other hand, included all households, since data were collected as of December 31. To meet user needs, all households are listed on the SHS file, along with a variable indicating each household's status (full-year, part-year).

**To create statistics for average annual expenditures, users should use records for full-year households. To tabulate dwelling characteristics, household equipment or create other types of expenditure statistics such as totals (aggregates) or market share, users should use records for full-year and part-year households.**

#### 3.3.2 Guidelines for rounding

To ensure that estimates from this microdata file intended for publication or any other type of release correspond to estimates that would be obtained by Statistics Canada, we strongly recommend that users comply with the following guidelines for rounding estimates.

- a) Estimates in the body of a statistical table must be rounded to the nearest hundredth using the traditional rounding technique, i.e., if the first or only number to be eliminated is between 0 and 4, the preceding number does not change. If the first or only number to be eliminated is between 5 and 9, the value of the last number to be

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<sup>3</sup> A *full-year household* has at least one member present throughout the year. A *part-year household* consists entirely of members present only part of the year. A member present for part of the year is a member of a household who has been present less than 52 weeks. Income and expenditure data for members present just part of the year are collected for only that part of the year they were included in the household.

retained increases by 1. For example, when using the traditional technique of rounding to the nearest hundredth, if the last two numbers are between 00 and 49, they are replaced by 00 and the preceding number (denoting hundredths) stays as is. If the last two numbers are between 50 and 99, they are replaced with 00 and the preceding number increased by 1.

- b) Total partial sub-totals and total sub-totals in statistical tables must be calculated using their unrounded corresponding components, then rounded in turn to the closest hundredth using the traditional rounding technique.
- c) Means, ratios, rates and percentages must be calculated using unrounded components (i.e., numerators and/or denominators), and then rounded to a decimal using the traditional rounding technique.
- d) Totals and differences in aggregates (or ratios) must be calculated using their corresponding unrounded components, then rounded to the nearest hundredth (or decimal place) using the traditional rounding technique.
- e) If, due to technical or other limitations, a technique other than traditional rounding is used, with the result that the estimates to be published or released differ in any form from the corresponding estimates that would be obtained by Statistics Canada using this microdata file, we strongly advise users to indicate the reasons for the differences in the documents to be published or released.
- f) Unrounded estimates cannot under any circumstances be published or released in any way whatsoever by users. Unrounded estimates give the impression that they are much more precise than they actually are.

### **3.3.3 Guidelines for the weighting of the sample for totalling purposes**

The sample design used for the SHS is not self-weighted, meaning that the households in the sample do not all have the same sampling weight. To produce simple estimates, including standard statistical tables, users must use the appropriate sampling weight. Otherwise, the estimates calculated using the microdata files cannot be considered as representative of the observed population and will not correspond to those that would be obtained by Statistics Canada using this microdata file. See Section 3.1.6, "Weighting."

Users should also note that depending on the method they use to process the weight field, some software packages may not produce estimates that correspond exactly to those of Statistics Canada using this microdata file.

### **3.3.4 Types of estimates: categorical versus quantitative**

Before discussing how SHS data can be totalled and analysed, it is useful to describe the two main types of estimations that may be produced from the microdata file for the Survey of Household Spending.

### 3.3.4.1 Categorical estimates

Categorical estimates are estimates of the number or percentage of households in the survey's target population that have certain characteristics or belong to a defined category. The number of households reporting a particular expenditure is an example of this type of estimate. The expression 'aggregate estimate' can also be used to refer to an estimate of the number of individuals with a given characteristic.

Examples of categorical questions:

Did you have a cellular phone for personal use? \_yes \_no

When was this dwelling originally built?

- \_ 1920 or earlier
- \_ 1921-1945
- \_ 1946-1960
- \_ 1961-1970
- \_ 1971-1980
- \_ 1981-1990
- \_ 1991-2000
- \_ 2001
- \_ 2002

On December 31, 2002, was your dwelling:

- \_ Owned without a mortgage by your household?
- \_ Owned with (a) mortgage(s) by your household?
- \_ Rented by your household?
- \_ Occupied rent-free by your household?

### Totalling of categorical estimates

Estimates of the number of persons with a given characteristic can be obtained from the microdata file by adding the final weights of all records containing the desired characteristic or characteristics. Percentages and ratios in the X/Y form are obtained as follows:

- a) by adding the final weights of records containing the desired characteristic for the numerator X;
- b) by adding the final weights of records containing the desired characteristic for the denominator Y;
- c) by dividing the estimate for the numerator by the estimate for the denominator.

### 3.3.4.2 Quantitative estimates

Quantitative estimates are estimates of totals or means, medians or other central tendency measurements of quantities based on all members of the observed population or based on some of them. They also explicitly include estimates in the form X/Y where X is an estimate of the total quantity for the observed population and Y is an estimate of the number of individuals in the observed population who contribute to that total quantity.

An example of a quantitative estimate is mean annual expenditure for personal and health care per household in the target population. The numerator corresponds to an estimate of total annual expenditure for personal and health care, and the denominator corresponds to an estimate of the number of households in the population.

Example of quantitative question:

In 2002, how much did your household spend for telephone service? \_\_\_\_\_

### **Totalling of quantitative estimates**

Quantitative estimates can be obtained from the microdata file by multiplying the value of the desired variable by the final weight of each record, and then adding this quantity for all records of interest. For example, to obtain an estimate of total expenditure by households that were owners on December 31 for electricity, the value reported for the question “In 2002, how much did your household spend on electricity?” is multiplied by the final weight of the record, and then that result is summed over all records with a positive response to the question “On December 31, 2002, was your house: ‘Owned mortgage-free by your household’ or ‘Owned with one or more mortgages by your household’.”

To obtain a weighted mean expressed by the formula  $X/Y$ , the numerator  $X$  is calculated as a quantitative estimate and the denominator  $Y$  as a categorical estimate. For example, to estimate mean household expenditures for electricity by owners, you must:

- a) estimate the total expenditure for electricity for households where the residence is owned, using the method described above;
- b) estimate the number of owned households by adding the final weights for all records with a positive response to the question “As at December 31, 2002, was your house: ‘Owned mortgage-free by your household’ or ‘Owned with one or more mortgages by your household’”; and then,
- c) divide the estimate obtained in a) by the one calculated in b).

**Note:** Because average expenditures are being estimated, “part-year” households must first be excluded from calculations (for further details, see Section 3.3.1, *Important note to users about full and part-year households*).

### **3.3.5 Guidelines for statistical analysis**

The Survey of Household Spending is based on a complex survey design that includes stratification and multiple stages of selection, as well as uneven respondent selection probabilities. The use of data from such complex surveys poses problems for analysts, because the survey design and the selection probabilities influence the estimation and variance calculation methods to be used.

Although numerous analytical methods in statistical software packages allow for the use of weights, the meaning or definition of weights differs from that suitable for a sample survey. As a result, although the estimates done using those packages are in many cases accurate, **the variances calculated have almost no significance.**

For numerous analytical techniques (for example, linear regression, logistic regression, variance analysis), there is a way to make the application of standard packages more significant. If the weights of the records contained in the file are converted so that the mean weight is (1), the results produced by standard packages will be more reasonable and will take into account uneven selection probabilities, although they still cannot take into account the stratification and the cluster distribution of the sample. The conversion can be done using in the analysis a weight equal to the original weight divided by the mean of original weights for sampling units (households) that contribute to the estimator

in question. However, because this method still does not take into account sample design stratification and clusters, the estimates of the variance calculated in this way will very likely be underestimates of true values.

### 3.3.6 Guidelines for release

Before releasing and/or publishing estimates taken from the microdata file, users must first determine the level of reliability of the estimates. The quality of the data is affected by the sampling error and the non-sampling error as described above. However, the level of reliability of estimates is determined solely on the basis of sampling error, as evaluated using the coefficient of variation (CV) as shown in the table below. In addition to calculating CVs, users should also read the section of this document regarding the characteristics of data quality.

Whatever CV is obtained for an estimate from this microdata file, users should determine the number of sampled respondents who contribute to the calculation of the estimate. If this number is less than 30, the weighted estimate should not be released regardless of the value of the CV for this estimate. For weighted estimates based on sample sizes of 30 or more, users should determine the CV of the rounded estimate following the guidelines below.

**Figure 2**  
**Sampling variability guidelines**

Type of Estimate	CV (in %)	Guidelines
1. Acceptable	0.0 – 16.5	Estimates can be considered for general unrestricted release. Requires no special notation.
2. Marginal	16.6 – 33.3	Estimates can be considered for general unrestricted release but should be accompanied by a warning cautioning subsequent users of the high sampling variability associated with the estimates. Such estimates should be identified by the letter M (or in some other similar fashion).
3. Unacceptable	Greater than 33.3	Statistics Canada does not recommend the release of estimates of unacceptable quality. However, if the user chooses to do so then estimates should be flagged with the letter U (or in some other similar fashion) and the following warning should accompany the estimates:  “The user is advised that . . . (specify the data) . . . do not meet Statistics Canada’s quality standards for this statistical program. Conclusions based on these data will be unreliable and most likely invalid.”

#### 3.3.6.1 Computation of approximate CVs

In order to provide a way of assessing the quality of estimates, Statistics Canada has produced a coefficient of variation table (CV table) which is applicable to estimates of

averages, ratios and totals obtained from this public use microdata file for the major variables of the SHS by province and at the Canada level (see Appendix E). The CV of an estimate is defined to be the square root of the variance of the estimate divided by the estimate itself and expressed as a percentage. The numerator of the CV is a measure of the sampling error of the estimate, called the standard error, and is calculated at Statistics Canada with the Jackknife method. This method requires, among other things, information about the strata and the clusters, which can't be given on the public use microdata file for reasons of confidentiality. So that users may estimate CVs for variables not included in the CV tables, Statistics Canada has produced a set of rules to obtain approximate CVs for a wide variety of estimates. It should be noted that these rules provide approximate and, therefore, unofficial CVs. The quality of the approximation, however, is quite satisfactory, especially for the most reliable estimates. Note that accuracy of this approximation is reduced when the domains become smaller. Therefore, the CV approximation method must be used prudently when the domains are small. The document on data quality for the 1997 SHS contains the results of the evaluation of the performance of the CV approximation method.

### How to obtain approximate CVs

The following rules should enable the user to determine the approximate coefficients of variation for estimates of totals, means or proportions, ratios and differences between such estimates for sub-populations (domains) for which the Jackknife CV is not provided in the CV tables.

**Important:** If the number of observations on which an estimate is based is less than 30, the weighted estimate should not be released regardless of the value of the CV for this estimate.

#### Rule 1: Approximating CVs for estimates of totals (aggregates)

All the steps below must be followed to obtain an approximate CV (ACV) for an estimate of a total (either a number of households possessing a certain characteristic (categorical estimate) or a total of some expense for all households (quantitative estimate)) for a sub-population (domain) of interest:

- 1) Create a binary variable for each household, say  $I$ , equalling 1 if the household is part of the domain of interest, i.e. possesses the desired characteristic and 0 otherwise;
- 2) To estimate a quantitative variable, create a variable  $Y$  representing the product of the binary variable  $I$  and the variable of interest. To estimate a categorical variable, create a variable  $Z$  equal to 1 if the categorical variable is equal to the value of interest, and equal to 0 otherwise. Define variable  $Y$  as the product of  $I$  and  $Z$ ;
- 3) Do step (4) to step (9) for each province separately;
- 4) Calculate the sum over all the households of the product of the final weight (section Weighting), and  $Y$  (this sum represents the estimate of the total for the domain of interest in the province under consideration);
- 5) Calculate the sum over all the households of the product of the final weight and the household size;
- 6) Divide the result obtained in step (4) by the result obtained in step (5);
- 7) For each household, multiply the result obtained in step (6) by the household size;
- 8) For each household, define a variable, say  $E$ , by the subtraction of the result obtained in step (7) from  $Y$ ;
- 9) Calculate the sum over all the households of the product of the final weight minus 1, the final weight and  $E$  squared; (this sum represents the estimated variance of

- the total estimated at step 4);
- 10) Add up the result obtained in step (9) for each province;
  - 11) The ACV is defined to be 100 times the square root of the result obtained in step (10), divided by the estimate. The estimate is the sum over all the provinces of the result obtained in step (4).

More formally, steps 1 to 10 above can be obtained with the following formula:

$$\sum_{p=1}^{11} \sum_{k \in S_p} (w_k - 1) w_k \left( Y_k - m_k \frac{\sum_{k \in S_p} w_k Y_k}{\sum_{k \in S_p} w_k m_k} \right)^2$$

where the index  $p$  corresponds to provinces,  $S_p$  is the sample of respondents for the province  $p$ , the index  $k$  corresponds to households,  $w_k$  is the final weight for the  $k^{\text{th}}$  household,  $m_k$  is the household size for the  $k^{\text{th}}$  household and  $Y_k$  is the value of the variable  $Y$ , defined in step (2) above, for the  $k^{\text{th}}$  household. As you can see, index  $p$ , the province indicator, takes values ranging from 1 to 11. Eleven distinct province codes appear on the microdata file: one for each of the ten provinces and a "00" province code assigned to a set of records for reasons of confidentiality. (See *Confidentiality of the public-use microdata*, Section 3.4.)

**Note:** Two household size variables appear in the microdata file. To calculate approximate CVs, the variable used to define household size is "Household size at December 31," rather than "Household size (number of persons a member sometime in reference year)."

**Important:** When estimating variance for a given domain, do not limit yourself to units belonging to the domain. The entire sample should always be used to estimate variance. Units that do not belong to the domain of interest are not considered when computing the point estimate of the total, but do contribute when estimating the variance.

## Rule 2: Approximating CV for estimates of averages or proportions

An estimated mean or proportion is obtained by the ratio of two estimated totals. For a proportion, the numerator is an estimate that is a sub-set of the denominator, for example the proportion of expenditures for households in Manitoba compared to all Canadian households. The CV of an estimated mean or proportion tends generally to be slightly lower than the corresponding CV of the numerator. The CV of an estimated mean or proportion can thus be approximated with the CV of the numerator and the technique described in rule (1) can be used.

## Rule 3: Approximating CV for estimates of ratios

Ratio refers to the relationship between any two estimates of totals for which rule (2) does not apply. Approximate CVs for any other types of ratio, may be calculated using the following formula:

$$ACV_R = \sqrt{ACV_N^2 + ACV_D^2}$$

where  $ACV_R$  is the approximate CV of the ratio,  $ACV_N$  is the approximate CV of the numerator of the ratio and  $ACV_D$  is the approximate CV of the denominator of the ratio. The formula will tend to overestimate the CV if the two estimates forming the ratio are

positively correlated and underestimate the CV if these two estimates are negatively correlated.

**Rule 4: Approximating CVs for estimates of differences**

The approximate CV of a difference between any two estimates ( $EST_{DIFF} = EST_1 - EST_2$ ) is given by:

$$ACV_{DIFF} = \frac{\sqrt{(EST_1 ACV_1)^2 + (EST_2 ACV_2)^2}}{|EST_{DIFF}|}$$

where  $ACV_1$  is the approximate CV associated with  $EST_1$  and  $ACV_2$  is the approximate CV associated with  $EST_2$ . The formula will tend to overestimate the CV if the two estimates forming the difference are positively correlated and underestimate the CV if these two estimates are negatively correlated.

**Examples**

Detailed calculations of approximate CVs used for estimating totals are initially presented using fictional cases. Then actual cases of estimating totals, averages (or proportions) ratios and differences, based on microdata file data, will be presented so users can check results and ensure that the method used was valid.

**Part 1: Fictional case: details of calculating an approximated CV for estimating a total**

**A) Quantitative variable**

Let us assume we wanted to estimate the total for a (quantitative) expenditure variable X, for households containing at least one person less than 18 years of age. To illustrate this procedure, we will use a fictional sample (see Figure 3) on which we will present calculation details (see Figure 4) for each of the eleven steps described above. As this procedure is applied independently within each province, we shall merely describe calculations for one province.

Let us use the following sample for Ontario:

**Figure 3  
Fictional example**

Initial Data						
Identifier	Province	Entire year	Weight	Household size	Number of children aged 0-17	Variable of Interest X
00001	Ontario	Yes	5	3	2	30
00002	Ontario	Yes	20	5	3	0
00003	Ontario	Yes	25	2	1	20
00004	Ontario	No	5	4	2	50
00005	Ontario	Yes	15	3	0	20
00006	Ontario	Yes	10	1	0	10
00007	Ontario	Yes	15	4	0	15

In step 1, we define the domain of interest by creating a binary variable equal to 1 for all units belonging to the domain. In the present case, these are households with at least one child between the ages of 0 and 17 years. We then proceed to steps 2 through 9 to

estimate variance, which will lead to calculation of the CV. We thus obtain the following results:

**Figure 4**  
**Calculation details for approximating the CV of a total (steps 1 to 9)**

	Step 1	Step 2	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9
Ident.	Binary variable I	Quantitative variable Y	Weighted Y	Variable K		Step 6 * size	(Y - step 7)	(Weight -1) * Weight * (Step 8) <sup>2</sup>
		(X * I)	(Weight * Y)	(Weight * size)				
00001	1	30 * 1 = 30	5 * 30 = 150	5 * 3 = 15		3 * 3 = 9	30 - 9 = 21	(4 * 5 * 21 * 21) = 8,820
00002	1	0 * 1 = 0	20 * 0 = 0	20 * 5 = 100		3 * 5 = 15	0 - 15 = -15	(19 * 20 * (-15) * (-15)) = 85,500
00003	1	20 * 1 = 20	25 * 20 = 500	25 * 2 = 50		3 * 2 = 6	20 - 6 = 14	(24 * 25 * 14 * 14) = 117,600
00004	1	50 * 1 = 50	5 * 50 = 250	5 * 4 = 20		3 * 4 = 12	50 - 12 = 38	(4 * 5 * 38 * 38) = 28,880
00005	0	20 * 0 = 0	15 * 0 = 0	15 * 3 = 45		3 * 3 = 9	0 - 9 = -9	(14 * 15 * (-9) * (-9)) = 17,010
00006	0	10 * 0 = 0	10 * 0 = 0	10 * 1 = 10		3 * 1 = 3	0 - 3 = -3	(9 * 10 * (-3) * (-3)) = 810
00007	0	15 * 0 = 0	15 * 0 = 0	15 * 4 = 60		3 * 4 = 12	0 - 12 = -12	(14 * 15 * (-12) * (-12)) = 30,240
			<b>Total: 900</b>	<b>Total: 300</b>	900 / 300 = 3			<b>Total = 288,860</b>

If we wanted to know the CV for Ontario, we would perform the following calculation:

$$CV_{ONT} = 100 * \frac{\sqrt{Variance_{ONT}}}{Estimation_{ONT}} = 100 * \frac{\sqrt{Step\ 9_{ONT}}}{Step\ 4_{ONT}} = 100 * \frac{\sqrt{288860}}{900} = 59.7$$

If we wanted to know the CV for Canada, we would proceed in similar manner, by totalling the results for each province. In other words,

$$CV_{CAN} = 100 * \frac{\sqrt{Variance_{CAN}}}{Estimation_{CAN}}$$

$$= 100 * \frac{\sqrt{Variance_{NF} + \dots + Variance_{BC} + Variance_{PROV\ 00}}}{Estimation_{NF} + \dots + Estimation_{BC} + Estimation_{PROV\ 00}}$$

**Comment:** In this example, we wanted to estimate the total for expenditure variable X. If, for example, we had wanted to use this total to calculate average expenditure X per household, the approach would have been slightly different. As unit 00004 was a “part-year” household, it would not have been considered part of the domain of interest. Binary variable I would thus have taken the value of 0 and the final result would have been different. (For further details, see Section 3.3.1., Important note to users about full and part-year households.)

**B) Qualitative variable (categorical)**

In the event a categorical variable is estimated, the steps in calculating the approximate CV will be the same as in the quantitative variable example presented. Instead of a quantitative value for variable of interest X, we would create a dichotomous variable that

would be equal to 1 if the household has the features we want to estimate. If not, it would be equal to 0.

To estimate categorical variables, various approaches may be used for defining the domain and the variable of interest, both of which will produce the same results.

Let us assume we want to estimate the number of households consisting of more than one person living in a single-family dwelling. We could proceed in different ways:

- 1) Binary variable I is equal to 1 for all households and variable X is equal to 1 for households consisting of more than one person living in a single-family dwelling.
- 2) Binary variable I is equal to 1 for all households consisting of at least one person and variable X is equal to 1 for all households the members of which live in a single-family dwelling.
- 3) Binary variable I is equal to 1 for all households the members of which live in a single-family dwelling and variable X is equal to 1 for all households made up of more than one person.
- 4) Binary variable I is equal to 1 for all households made up of more than one person living in a single-family dwelling and X is equal to 1 for all households.

Whatever approach is used, the resulting Y variable (step 2) will be equal to 1 if the household possesses all the necessary features (more than one person and living in a single-family dwelling). If not, it will be equal to 0. Results in terms of point estimates and estimates of variance (CV) will thus be the same.

## **Part 2: Actual cases based on the microdata file**

### **Example 1a: Approximation of CV for estimates of totals (quantitative variable)**

Let us assume that we have estimated that household furnishings and equipment expenditures for one-person households in Manitoba total \$86,135,775. We have to estimate the approximate CV for this estimate. Users must therefore follow steps (1) to (11) of rule 1.

- 1) Create a binary variable I whose value is 1 if the household is a one-person household and resides in Manitoba, otherwise I equals 0.
- 2) Y is defined for each household as the product of the binary variable I and the 'total household furnishing and equipment expenditures' variable.

Note that the estimate of spending on household furnishings and equipment is obtained by adding the product of variable Y defined in 2) and the final weight of the household.

Figure 5 shows the results of some of the steps in the approximate CV calculation.

**Figure 5**  
**Calculation of ACV**

Step	Total spending on household furnishings and equipment for one-person households in Manitoba
4	86,135,775
5	1,050,913
6	81.96
9	$8.8511 \times 10^{13}$
10	$8.8511 \times 10^{13}$
11	10.92

**Example 1b: Approximation of CV for estimates of totals (qualitative variable)**

Let us assume we now want to estimate the total number of Canadian one-person households, as well as the total number of Canadian households made up of one person living in different types of accommodations.

In this case, variable I is defined as having the value 1 if the household is one-person. If not, it is 0. We must create five Z variables: Z1 with a value of 1 if the type of residence occupied is a “single-family dwelling,” and 0 if not; Z2 equals 1 if the type of residence is semi-detached, and 0 if it is not. Z3 equals 1 if the type of residence is a townhouse, and 0 if it is not. Z4 equals 1 if the type of residence is a row house, and 0 if it is not. Finally, Z5 equals 1 if the type of house is “other,” and 0 if it is not. Y1 is defined as the product of I and Z1, Y2 as the product of I and Z2, etc.

The estimates obtained are 3,112,728 for the set of one-person households, 1,070,758 for single-family dwellings,<sup>4</sup> 76,872 for semi-detached houses,<sup>5</sup> 147,213 for town houses<sup>6</sup> and 1,817,885 for “other.”<sup>7</sup> We want to calculate the approximate CVs for these estimates.

Figure 6 shows the results for some steps in the calculation of the approximate CV. The results presented for steps 4 to 9 are the results for Manitoba (presented as an example, for a province, they will be used for comparison in the next example), while those presented for steps 10 and 11 are Canada-wide.

<sup>4</sup> Single family = single detached

<sup>5</sup> Semi-detached = double

<sup>6</sup> Town houses = row or terrace

<sup>7</sup> Other = duplex, apartment, hotel, mobile home, other

**Figure 6**  
**Calculation of ACV**

Step	Number of one-person households	Number of one-person households living in a single-family dwelling	Number of one-person households living in a semi-detached dwelling	Number of one-person households living in a townhouse	Number of one-person households living in other housing
4	116,525	50,722	1,040	5,852	58,911
5	1,050,913	1,050,913	1,050,913	1,050,913	1,050,913
6	0.11	0.05	0.00	0.01	0.06
9	45,887,058	18,744,352	403,782	1,974,787	20,639,902
10	6,500,470,469	1,898,968,087	139,499,657	286,583,648	3,797,585,782
11	2.59	4.07	15.36	11.50	3.39

**Example 1c: Approximation of CV for estimates of totals used in the calculation of average expenditure**

Let us assume we want to estimate average expenditure on furnishings and household equipment for one-person households in Manitoba. To do so, we would have to estimate the number of one-person households in Manitoba, as well as the total of their expenditure on furnishings and household equipment.

Because we are interested here in calculating average expenditures, “part-year” households are outside the domain of interest. (For further details, see Section 3.3.1, *Important note to users about full and part-year households*.) This is why estimates of totals are slightly different than those obtained in the prior two examples.

**Figure 7**  
**Calculation of ACV**

Step	Number of one-person households in Manitoba	Total expenditure on furnishings and household equipment for households consisting of one person in Manitoba
4	110,576	79,067,139
5	1,050,913	1,050,913
6	0.11	75.24
9	43,049,249	$8.0361 \times 10^{13}$
10	43,049,249	$8.0361 \times 10^{13}$
11	5.93	11.34

**Example 2: Approximation of CV for estimating ratios**

Let us assume we want to estimate the ratio between the average expenditures on furnishings and household equipment for one-person households in urban Manitoba and rural Manitoba.

**Figure 8**  
**Calculation of ACV**

Step	Total expenditure on furnishings and household equipment for households consisting of one person in Manitoba (urban)	Total expenditure on furnishings and household equipment for households consisting of one person in Manitoba (rural)
4	60,361,323	25,774,452
5	1,050,913	1,050,913
6	57.44	24.63
9	$5.8621 \times 10^{13}$	$2.8161 \times 10^{13}$
10	$5.8621 \times 10^{13}$	$2.8161 \times 10^{13}$
11	12.68	20.59

The estimate of the ratio would be equal to  $\$60,361,323/\$25,774,452 = 3.59$  (one-person households in urban Manitoba spend 2 times more on furnishing than those in rural Manitoba). How does the user determine the CV of this estimate?

We have already calculated CVs for each of the two estimates involved in estimating the ratio. We would thus apply rule (3) to obtain the desired CV:

$$CVA_R = \sqrt{CVA_N^2 + CVA_D^2} = \sqrt{12.68^2 + 20.59^2} = 24.18$$

This CV should be identified as “Marginal” (see Section 3.3.6 *Guidelines for release*) as it is quite high, being between 16.6% and 33.3%.

**Example 3: Approximation of CV for estimating differences**

Let us assume we wanted to estimate the difference between total expenditures on furnishings and household equipment in Alberta and in Manitoba, as well as the CV for this difference.

We would estimate total expenditures on furnishings and household equipment, along with their respective CVs for Manitoba (total = 637,706,905; CV = 3.80) and for Alberta (total = 2,136,069,202; CV = 3.98).

Estimation of the difference would thus be  $2,136,069,202 - 637,706,905 = 1,498,362,297$ . Rule (4) can be applied to obtain the desired CV.

$$CVA_{DIFF} = \frac{\sqrt{(EST_1 CVA_1)^2 + (EST_2 CVA_2)^2}}{|EST_{DIFF}|}$$

$$= \frac{\sqrt{(2,136,069,202 * 3.98)^2 + (637,706,905 * 3.80)^2}}{|1,498,362,297|} = 5.90$$

### 3.3.6.2 How to obtain confidence limits

Although coefficients of variation are widely used, a more intuitively meaningful measure of sampling error is the confidence interval of an estimate. A confidence interval constitutes a statement on the level of confidence that the true value for the population lies within a specified range of values. For example a 95% confidence interval can be described as follows.

If sampling of a population is repeated many times, each sample leading to a new confidence interval for an estimate, then in 95% of the samples the interval will cover the true population value.

Using the CV of an estimate, its confidence intervals may be obtained assuming that, under repeated sampling of the population, the various estimates obtained for a characteristic are normally distributed around the true population value. Using this assumption, the chances are about 68 out of 100 that the difference between a sample estimate and the true population value would be less than one standard error, about 95 out of 100 that the difference would be less than two standard errors, and about 99 out of 100 that the differences would be less than three standard errors. These different degrees of confidence are referred to as the confidence levels.

Confidence intervals for an estimate, EST, are generally expressed as two numbers, one below the estimate and one above the estimate, as (EST - k, EST + k) where k is determined depending on the level of confidence desired and the sampling error of the estimate.

Confidence intervals for an estimate can be calculated by first determining the ACV of the estimate and then using the following formula to convert to a confidence interval CI:

$$(EST - z \times EST \times ACV / 100, EST + z \times EST \times ACV / 100)$$

where

- z = 1 if a 68% confidence interval is desired,
- z = 1.6 if a 90% confidence interval is desired,
- z = 2 if a 95% confidence interval is desired,
- z = 3 if a 99% confidence interval is desired.

**Note:** Release guidelines, which apply to the estimate, also apply to the confidence interval. For example, if the estimate is not releasable, then the confidence interval is not releasable either.

#### Example 4

A 95% confidence interval for the estimated mean of spending on household furnishings and equipment for one-person households in Manitoba would be calculated as follows:

EST = 715.05

z = 2

ACV = 12.80

CI = (715.05 - 2 x 715.05 x 12.80/100 ; 715.05 + 2 x 715.05 x 12.80/100) = (532.00; 898.10)

### 3.3.6.3 How to do a Z-test

Coefficients of variation may also be used to perform hypothesis testing, a procedure for distinguishing between population parameters using sample estimates. The sample estimates can be totals, averages, ratios, etc. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

Let  $EST_1$  and  $EST_2$  be sample estimates for 2 characteristics of interest. Let the approximate CV of the difference  $EST_1 - EST_2$  be  $ACV_{DIFF}$ .

If  $z = 1 / ACV_{DIFF}$  is less than 2, then no conclusion about the difference between the characteristics is justified at the 5% level of significance. If however, this ratio is larger than 2, the observed difference is significant at the 5% level.

#### Example 5

Let us suppose we wish to test, at the 5% level of significance, the hypothesis that there is no difference between the total of spending on furnishings and equipment in Alberta and the same total in Manitoba. From example 3, the approximate CV of the difference between these two estimates was found to be 5.90 and  $z = 16.9$ . Since this value is greater than 2, it must be concluded that there is significant difference between the two estimates at the 0.05 level of significance.

## 3.4 Confidentiality of the public-use microdata

Microdata files for public use differ in many ways from the master file of the survey held by Statistics Canada. These variations are due to measures taken to preserve the anonymity of respondents to the survey.

The confidentiality of this file is ensured mainly by reducing information, i.e., deleting variables or suppressing or collapsing some of their detail.

#### To protect confidentiality

- All explicitly identifying information, such as identification numbers, was removed from the file. (Names and addresses are not data captured).
- 170 records had their *province codes set to 0* due to special characteristics (e.g., exceedingly high or low expenditure values). These records were reweighted.
- There was *top-coding and collapsing* of code sets for non-spending variables.
- Income values at the household, reference person and spouse of reference person levels were *rounded* in the following manner:

For income values between \$1 and \$9,999: round to the nearest \$100

For income values between \$10,000 and \$99,999: round to the nearest \$1,000

For income values between \$100,000 and \$999,999: round to the nearest \$10,000

For income values between \$1,000,000 and \$9,999,999: round to the nearest \$100,000

For income values between \$10,000,000 and \$99,999,999: round to the nearest \$1,000,000 (there are no such values on the 2002 file).

The variables "Purchase price of dwelling" and "Selling price of dwelling" were also rounded.

## **4. APPENDICES – See Excel file**

### APPENDIX A

Frequency counts – Public-use microdata file – SHS 2002

### APPENDIX B

Part 1 of 3

Averages, aggregates, minimum and maximum values

Public-use microdata file – SHS 2002

(Full-year and part-year households)

Part 2 of 3

Averages, aggregates, minimum and maximum values

Public-use microdata file – SHS 2002

(Full-year households)

Part 3 of 3

Averages and aggregates

Unsuppressed survey file □ SHS 2002

(Full-year and part-year households)

### APPENDIX C

Inclusion of spending variables in past microdata files

### APPENDIX D

Comparison of variables from the 2001 and the 2002 SHS

### APPENDIX E

Technical Table 1

Coefficients of variation for average household expenditures,  
2002

Technical Table 2

Coefficients of variation for dwelling characteristics and  
household equipment, 2002