

**1997 Survey of Household Spending  
Users' Guide  
(Version 2)  
June 1999**

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## ***Summary of Changes between the 1996 Family Expenditure Survey and the 1997 Survey of Household Spending***

Until 1996, the Family Expenditure (FAMEX) Survey was held on a periodic basis, generally every four years. Beginning with the 1997 reference year, a new annual survey, the Survey of Household Spending (SHS), was conducted. This survey which includes much of the content of the Family Expenditure Survey also integrates content from the Household Facilities and Equipment (HFE) Survey.

### **Sample Size**

The 1997 Survey of Household Spending has a sample size that is approximately 50% larger than that of the FAMEX Survey. In 1997, the number of eligible households sampled was 23,842 compared to only 14,765 for the 1996 FAMEX Survey.

### **Number of Questions**

The number of questions about household spending in the new survey is considerably lower than in previous FAMEX surveys, with the result that, for some expenditure categories, less detailed information can be presented. Since the level of detail collected by the former FAMEX survey is not required on an annual basis, content was reduced to lower costs and make the survey easier and less time-consuming for the respondent.

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1996 Section Name	Number of Questions		Net Change
	1996 FAMEX	1997 SHS	
A01, A02 - Household Composition	20	12	-8
B01 - Dwelling Occupied	8	28	+20
B02 - Dwelling Previously Occupied	13	10	-3
C01 - Owned Living Quarters	10	10	0
C02 - Purchase/Sale of a Home	13	9	-4
C03, C04 - Mortgage	34	10	-24
C05, C06 - Renovations and Repairs	25	3	-22
C07 - Rented Accommodation	13	13	0
C08 - Water, Fuel, Electricity	13	7	-6
C09 - Other Secondary Living Quarters	26	24	-2
D01-D05 - Household Furnishings & Equipment	71	43	-28
E01 - Communications, etc.	24	18	-6
E02 - Cleaning Services, etc.	19	6	-13
F01 - Food	21	13	-8
G01 - Clothing for Women	28	4	-24
G02 - Clothing for Men	21	4	-17
G03 - Clothing for Children	27	10	-17
H01 - Personal Care	9	4	-5
I01 - Medical and Health Care	19	15	-4
J01 - Automobiles and Trucks	12	10	-2
J02 - Automobile and Truck Operation	19	12	-7
J03 - Miscellaneous Vehicle Expenses	19	17	-2
J04 - Transportation Services	11	9	-2
K01 - Recreation Equipment	26	14	-12
K02 - Recreation Services	36	22	-14
L01 - Tobacco and Miscellaneous	14	29	+15
M01 - Personal Income	26	18	-8
N01 - Personal Taxes/Security/Gifts	15	14	-1
O01 - Change in Assets	19	18	-1
O02 - Loans and Other Debts	30	19	-11
<b>TOTAL</b>	<b>641</b>	<b>425</b>	<b>-216</b>

## Implications of Survey Changes

The new Survey of Household Spending provides provincial estimates of approximately equal quality. Sample sizes for most provinces were increased – especially in the smaller provinces.

The SHS is providing more coverage in the North - it now covers the Yukon and the Northwest Territories (not just Whitehorse and Yellowknife). For 1997, Yukon estimates were designed to represent approximately 77% of the households in the territory, and NWT estimates

approximately 74%. Coverage increased for the 1998 reference year and the new territory of Nunavut will be added.

Due to the integration of the two surveys (HFE and FAMEX), it will be possible to cross-classify spending data with data for dwelling characteristics and household equipment.

## **Interest and Principal no longer Tabulated Separately**

It is no longer possible to divide mortgage and loan payments into principal and interest. Respondents are still asked about payments on loans and mortgages (for principal dwellings, cottages, and other properties) but are not asked the extra questions that allowed the calculation of the principal/interest split. This affects the following categories:

- “shelter” (including “principal accommodation” and “owned living quarters”);
- “miscellaneous” expenditures;
- “money flows – assets, loans and other debts” (formerly net change in assets and liabilities).

Since “shelter” and “miscellaneous” are components of “total current consumption” and “total expenditure”, they are also affected.

*Shelter* Prior to 1997, interest payments for mortgages and loans on owned living quarters and owned vacation homes were included in shelter expenses. For 1997, “regular mortgage payments” for owned living quarters, including both principal and interest, are included under shelter. Previously, mortgage principal was not included as a shelter expenditure but was part of “net changes in assets and debts”. To summarize, for 1997, the category “shelter”:

- includes “regular mortgage payments” on “owned living quarters” (both principal and interest);
- excludes the interest portion of irregular and/or lump sum payments and money borrowed on owned living quarters in 1997. This would have been part of mortgage interest on owned living quarters in 1996 and earlier;
- excludes mortgage interest for owned vacation homes.

### *Miscellaneous expenditures*

- excludes interest payments on personal loans and mortgage interest for “other properties” (e.g., building lots)
- (Note that, in 1997, “miscellaneous” also excludes “games of chance expenses” which has become a separate category.)

*Money flows – assets, loans, and other debts* (formerly “net change in assets and liabilities”) This category appears as “average money flows” under household characteristics at the top of each table and as “selected items in money flows” at the end of detailed tables.

- includes interest and principal for payments on mortgages for vacation homes or other property (formerly only principal was included)
- includes interest and principal for loan payments (formerly only principal was included)
- excludes “regular mortgage payments” (principal and interest) on “owned living quarters” (formerly principal was included, while the interest went to Shelter)
- includes “irregular and/or lump sum payments” and “money borrowed on owned living quarters in 1997” (formerly the principal from these payments was included, while the interest went to Shelter)

## Other Conceptual Changes

*Clothing* This category has significantly fewer questions for 1997. However, the following new categories have been added:

- Clothing gifts to non-household members: women’s and girl’s (4 and over);
- Clothing gifts to non-household members: men’s and boy’s (4 and over);
- Clothing gifts to non-household members: children’s wear (under 4).

*Financial services* (under Miscellaneous expenditures) This category has been expanded from “financial services: bank, tax advice, etc.” to:

- Service charges for banks;
- Stock and bond commissions;
- Administration fees;
- Other.

*Gifts to non-household members* Prior to 1997, gifts to non-household members were collected separately and included in “gifts, money and contributions to persons outside the household”, but as of 1997 they are included in the appropriate spending category. Gifts of clothing to individuals outside the household are included in the total expenditure on clothing but are also available separately.

### Minor changes

- “Rental of heating equipment” has moved from “water, fuel and electricity” (under “shelter”) back to “household furnishings and equipment”
- “Complete re-roofing” has been removed from “shelter” and is now included in “money flows” (investments in the home - new installations)

**Average Household Expenditures/Dépenses moyennes des ménages – Canada (10 provinces)**  
**(Comparable figures for 1996 and 1997/Figures comparatives pour 1996 et 1997)**

	1996	1997
	Average Expenditure Per Household <sup>1</sup>	Average Expenditure Per Household <sup>1</sup>
	Dépense Moyenne par Ménage <sup>1</sup>	Dépense moyenne par Ménage <sup>1</sup>
Expenditure Detail/Dépenses détaillées		
Food/Alimentation	5,960	5,703
Shelter/Logement	9,813	9,869
Household operation/Entretien ménager	2,266	2,284
Household furnishings and equipment/Ameublement et équipement Ménagers	1,294	1,335
Clothing/Habillement	2,115	1,919
Gifts of clothing/Cadeaux vestimentaires	N/A	263
Transportation/Transport	6,044	6,204
Health care/Soins de santé	1,006	1,153
Personal care/Soins personnels	835	664
Recreation/Loisirs	2,638	2,780
Reading materials and other printed matter/Matériels de lecture et autres imprimés	252	275
Education/Éducation	555	659
Tobacco products and alcoholic beverages/Produits de tabac et Boissons alcoolisées	1,146	1,139
Games of chance (net)/Jeux de hasard (net)	264	247
Miscellaneous/Divers	695	795
Non-money gifts/Dons non-monétaire	509	N/A
<b>Total current consumption/Consommation courante totale</b>	<b>35,394</b>	<b>35,289</b>
Personal income taxes/Impôts sur le revenu des particuliers	10,746	10,634
Personal insurance payments and pension contributions/Paiements d'assurances individuelle et cotisations de retraite	2,598	2,783
Gifts of money and contributions to persons outside household/ Dons en argent et contributions à des personnes n'appartenant pas au ménage	1,191	1,240
<b>Total expenditure/Dépenses totales</b>	<b>49,929</b>	<b>49,946</b>

<sup>1</sup> 1996 data have been adjusted so that category definitions match the 1997 Survey of Household Spending.

<sup>1</sup> Les données de 1996 ont été rajustées de façon à correspondre aux définitions des catégories de l'Enquête sur les dépenses des ménages de 1997.

## ***How to use the statistical tables***

This section explains the calculations used most frequently to manipulate data from the Survey of Household Spending. Users are strongly advised to refer to this section before doing their own data analysis.

Expenditure data given in the following tables are estimates based on the total sample, that is, on households that reported buying an item **and** those that did not. Data on percentage reporting are provided in the tables so that users can derive estimates of both the number of households reporting a purchase and the average expenditure of households that reported buying an item.

**Please refer to sample table at the end of this section.**

### **1. How to Calculate the Number of Households Reporting a Purchase**

To estimate the number of households reporting a purchase, multiply the estimated number of households at the top of the column by the percentage of households reporting and then divide by 100. For example, to find the number of households in the lowest income group that had pet expenditures:

$$\frac{\text{\# of households}^* \times \text{Percentage reporting for pet expenditures}}{100}$$

$$= \frac{463,590 \times 29.4}{100} = 136,295$$

\* estimated number



## 2. How to Calculate the Average Expenditure per Household Reporting a Purchase

To calculate the average expenditure per household reporting the purchase of an item, divide the average household expenditure on that item by the corresponding percentage reporting and then multiply by 100. For example, to find the average expenditure on pets by households that actually had pet expenses:

$$\frac{\text{Average household expenditure on pet expense}}{\text{Percentage reporting}} \times 100$$

$$= \frac{\$239 \times 100}{47.6} = \$502$$

## 3. How to Calculate Average Expenditure per Person

To calculate the average expenditure per person on an item, divide the average expenditure per household for that item by the household size found near the top of the column. For example, to find the average expenditure per person for food by those households in the lowest income group:

$$\frac{\text{Average expenditure per household for food}}{\text{Household size}}$$

$$= \frac{\$2,474}{1.29}$$

$$= \$1,918$$

When comparing estimates of per person expenditure, note that family composition (number of children and adults) is also a factor in many expenditure patterns.

## 4. How to Calculate Percentage of Total Average Expenditure per Household (Budget Share)

To calculate the percentage of total average household expenditure represented by an item (budget share), divide the average expenditure per household for an item by total expenditure for all items and multiply by 100. For example, to find the percentage of total expenditures represented by food purchases for households in the lowest income group:

Average expenditure per household for food x 100  
Total average expenditure per household

$$= \frac{\$2,474 \times 100}{\$12,311}$$

$$= 20.1\%$$

## 5. How to Combine Expenditure Items into your own Groupings

The average expenditure per household for different items in a column can be added together to make new subtotals. (But do not add the "percentage reporting" values for different items.) For example, to find the average expenditure per household in the lowest income group on food, shelter and clothing:

Average expenditure on food + clothing + shelter (lowest income group)

$$= \$2,474 + \$427 + \$4,426 = \$7,327$$

## 6. How to Combine Columns of Data

Columns are combined by using the estimated number of households at the top of each column to calculate the weighted average of the values in the columns. To calculate the average expenditure across several columns, multiply the estimated number of households by the average expenditure for an item for each of the columns being combined. Sum the results. Then divide this total by the sum of the estimated number of households. For example, to find the average expenditure on food for households in the lowest three income groups:

(# of households\* in lowest income group x average expenditure on food) + (# of households\* in next income group x average expenditure on food) + (# of households\* in next income group x average expenditure on food)

# of households\* in lowest income group + # of households\* in next income group + # of households\* in next income group

$$= \frac{(463,590 \times \$2,474) + (882,370 \times \$2,881) + (797,740 \times \$3,518)}{463,590 + 882,370 + 797,740}$$

$$= \$3,030$$

\* Estimated number

## **7. How to Calculate Total Expenditure on an Item for All Households or a Sub-group of Households**

To calculate how much was spent on average on an item for all households or households in a particular sub-group (e.g., households in the lowest income group), multiply average expenditure per household for an item by the estimated number of households at the top of the column. For example, to find how much was spent on food by all households in the lowest income group:

$$\begin{aligned} & \text{Average expenditure per lowest income household for food} \times \text{estimated number of households} \\ = & \$2,474 \times 463,590 \\ = & \$1,146,921,660 \end{aligned}$$

Note that this aggregate is based on a sample that excludes part-year households and other people ineligible for the survey.

## **8. How to Calculate Percentage of Total Expenditure for All Households (Market Share)**

Expenditure share, or market share, is the percentage of the total expenditure for an item that can be attributed to a particular sub-group of households, e.g., the percentage of all clothing expenditures made by households in the lowest income group.

It is calculated by dividing the total expenditure on an item for a given sub-group of households (to calculate, see above) by the total expenditure on the item for all households and then multiplying by 100. For example, to find the percentage of all expenditures on food made by households in the lowest income group:

$$\begin{aligned} & \frac{\text{Average expenditure per lowest income households on food} \times \text{\# of households* in lowest income group}}{\text{Average expenditure for all households on food} \times \text{\# of households* for all classes}} \times 100 \\ = & \frac{\$2,474 \times 463,590}{\$5,960 \times 10,900,500} \times 100 \\ = & 1.77\% \end{aligned}$$

\* Estimated number

## Sample Data - Summary Average Household Expenditure by Household Income Group

	All Classes		Under \$10,000		\$10,000 - \$14,999		\$15,000 - \$19,999	
<b>Estimated number of huseholds</b>	10,900,500		463,590		882,370		797,740	
<b>Average husehold size</b>	2.61		1.29		1.52		1.94	
	Average household expenditure	Percentage reporting	Average household expenditure	Percentage reporting	Average household expenditure	Percentage Reporting	Average household expenditure	Percentage reporting
Food	5,960	100.0	2,474	100.0	2,881	100.0	3,518	100.0
Shelter	8,477	99.9	4,426	99.3	5,051	99.5	5,833	99.9
Pet Expenses	239	47.6	67	29.4	70	27.2	122	38.2
Clothing	2,115	99.0	427	92.0	615	96.1	840	98.2
<b>Total Expenditure</b>	<b>49,068</b>	<b>100.0</b>	<b>12,311</b>	<b>100.0</b>	<b>15,036</b>	<b>100.0</b>	<b>20,143</b>	<b>100.0</b>

## ***Notes and Definitions***

This section contains definitions of terms and concepts. They are grouped under the following headings: *General Concepts*, *Selected Expenditure Terms*, *Selected Household Characteristics*, and *Classification Categories*. *Classification Categories* includes terms relating to: *Income*, *Household Characteristics*, and *Geography*.

### **General Concepts**

1. The reference year for the survey is calendar year 1997.
2. Reimbursed expenditures are excluded from the tabulations (e.g., work-related expenses or expenditures covered by insurance).
3. Expenses attributable to a business are excluded from the tabulations.
4. With some minor exceptions, the survey includes spending on all goods and services received in 1997 whether paid for before or after 1997 (such as on an instalment plan).
5. All expenditures include the Goods and Services Tax, provincial retail sales taxes, tips, customs duties and any other additional charges or taxes.
6. All expenditures include gifts given to persons outside the household. Gifts of clothing are, however, reported separately under clothing. See "*Gifts of money and contributions*" below.
7. Where an insurance settlement was used to repair or replace property, the survey includes only the deductible amount paid for an item.
8. Where a trade-in is used to lower the price of an item, most commonly a vehicle, the expenditure amount is the total cost after the trade-in. Real estate transactions are excepted.

## Selected Expenditure Terms

**Average household expenditure (Av. exp. per hhld):** The average household expenditure is equal to the estimated total expenditures of all households divided by the estimated number of households. The average is based on all households in a column, including households that reported a zero value. To calculate the **average expenditure per household reporting a purchase**, see *How to use the Statistical Tables*.

**Food purchased from stores:** 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 publications.)

**Food purchased from restaurants:** 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 publications.)

**Gifts of money and contributions:** 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 girl's wear, men's and boy's wear, and children's wear.

**Household appliances:** 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".

**Item numbers:** The statistical tables to which this guide refers include three and four-digit codes for each category of expenditure or characteristic as shown. Where two or more basic classes have been aggregated (as in the summary tables and in various levels of subtotals in the detailed table), the content of these aggregates is defined by the code range shown. Note that these numbers are not necessarily the same from year to year.

**Maintenance, repairs and replacements (owned living quarters):** 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 survey, expenditures on contracts and labour 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 the Homeowner Repair and Renovation Survey. See Homeowner Repair and Renovation Expenditures in Canada, Catalogue No. 62-201.

**Miscellaneous:** 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, 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"<sup>1</sup> since they are considered to pertain to a change in the value of household assets or debts.)

As of the 1997 reference year, interest payments are not available separately from principal. For 1997, 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 for 1997, expenditures for "games of chance", formerly included under "miscellaneous" are now a separate sub-category.

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<sup>1</sup> Formerly "Net change in assets and liabilities".

Caution should therefore be used when comparing 1997 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.

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

**Personal insurance payments and pension contributions:** 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".)

**Percentage reporting (% rptg):** The percentage of households that reported purchasing an item. These percentages cannot be added together to form sub-totals.

**Percentage of total expenditure (% of total exp.):** The percentage of total expenditure spent on an item.

**Personal taxes:** Personal taxes are income taxes paid in 1997 on 1997 and previous years' incomes plus other personal taxes (gift taxes, Newfoundland school tax, etc.) minus income tax refunds received in 1997, 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".

**Property taxes:** This is the amount billed, excluding any rebates. Special service charges (i.e., 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.

**Purchase of automobiles and trucks:** 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.)



**Rent:** 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.

**Selected money flows:** See "*Money flows-assets, loans and other debts*" under "*Selected Household Characteristics*".

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

Prior to 1997, mortgage interest payments were reported in the Shelter category under both "owned living quarters" and "owned vacation homes". (Mortgage principal payments were reported under "money flows – assets, loans and other debts"<sup>2</sup> since they are considered to pertain to a change in the value of household assets.)

As of the 1997 reference year, interest payments are not available separately from principal. For 1997, "regular mortgage payments" on "owned living quarters" (including both principal and interest) are included under "shelter". However, all mortgage payments for owned vacation homes are included under "money flows – assets, loans and other debts". Caution should therefore be used when comparing 1997 data to data from previous years. The categories "total current consumption" and "total expenditure" are also affected since shelter is a component of these categories.

**Tenants' and homeowners' insurance:** Premiums paid in 1997 for fire and comprehensive policies. Premiums covering more than the survey year were not prorated.

**Total current consumption:** 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 1997 to total current consumption from previous years. 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.

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<sup>2</sup>

Formerly "Net change in assets and liabilities".

**Total expenditure:** 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 1997 to total expenditure from previous years. See "Shelter" and "Miscellaneous" for more information.

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

## Selected Household Characteristics

Selected household characteristics help to describe the expenditure data. Other characteristics are collected and tabulated and are available as a custom request. Contact the Dissemination Unit at 1-888-297-7355 or 613-951-7355 for more information or contact your closest regional office<sup>3</sup>.

**Average age of reference person:** This variable acts as a general age indicator for the household and uses the reference person's age in years as of December 31st. Prior to 1996, the age of the husband was used for married-couple households and the age of the reference person for all other households.

**Average difference between receipts and disbursements:** The average difference between reported household receipts and disbursements. A negative value indicates that average disbursements were greater than average receipts. Receipts include total income and other money receipts. Disbursements include total expenditure plus average money flows - assets, loans and other debts.

**Average household income before tax:** This variable includes total household income received in calendar year 1997, including gross income from wages and salaries, net income from self-employment, receipts from military pay and allowances, gross receipts from roomers and boarders not related to the reference person, net rentals, interest and dividends, all pensions, workers' compensation and employment insurance benefits, social assistance and income supplements, child tax benefits, Goods and Services Tax credits,

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<sup>3</sup>

Halifax (902) 426-5331, Montreal (514) 283-5725, Ottawa (613) 951-8116, Toronto (416) 973-6586, Winnipeg (204) 983-4020, Regina (306) 780-5405, Edmonton (403) 495-3027, Calgary (403) 292-6717, Vancouver (604) 666-3691.

provincial tax credits, and miscellaneous regular income receipts.

**Average household size:** The average number of people in a household. In this context, household size is defined as the number of year-equivalent persons. The number of year-equivalent persons is calculated by dividing the number of weeks that members were part of the household by fifty-two. In this way, part-year members are counted as fractions of a year-equivalent person.

**Average net change in assets and liabilities:** See "Money flows - assets, loans and other debts" under "Selected Expenditure Terms".

**Money flows - assets, loans and other debts:** net changes during the survey year (calendar year 1997) 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. Starting in 1997, principal payments on mortgages on owned homes are excluded and interest payments on mortgages for vacation homes and other property and on personal loans are included. See the expenditure terms in "Shelter" and "Miscellaneous" above.

**Dwelling:** The survey covers only private dwellings. The definition of a dwelling is as defined for the 1996 Census: "a separate set of living quarters with a private entrance either from outside or from a common hall, lobby, vestibule or stairway inside the building. The entrance to the dwelling must be one that can be used without passing through the living quarters of someone else."

**Estimated number of households:** The estimated number of private households on December 31, of the reference year.

**Household:** A person or group of persons occupying one dwelling unit is defined as a "household". The number of households, therefore, equals the number of occupied dwellings. A full-year household has at least one full-year member; a part-year household is composed entirely of part-year members.

**Household member:** A full-year member was a member of the household for the entire year. A part-year member was a member of the household for less than fifty-two weeks. Expenditure and income information for part-year members is collected for the portion of the year during which they were members of the household.

**Number of households in sample:** This refers to the number of households used for data estimation, which includes the number of households sampled, minus vacant dwellings, ineligible households, households that were unable to be contacted, households that refused to be interviewed, and households whose questionnaires did not pass editing procedures.

**Other money receipts:** Other receipts not included in income such as cash gifts or inheritances and life insurance settlements.

**Percentage homeowners (December 31, 1997):** Percentage of households living in a dwelling owned (with or without a mortgage) by a member of the household at December 31st of the reference year.

**Reference person:** The household member being interviewed chooses which household member should be listed as the reference person after hearing the following definition. "The household reference person is the member of the household mainly responsible for its financial maintenance (i.e., pays the rent, mortgage, property taxes, electricity, etc.). This person can be either male or female. When all members of the household share equally, any member may be shown as the reference person." This person must have been a member of the household on December 31 of the reference year.

## Classification Categories

The following classification categories are found as column headings for the data tables. Included here are definitions for categories under the following headings: Income, Household Characteristics and Geography.

### *Income*

Income quintiles are used as classifiers in the data tables. In addition, "average household income before tax" is a descriptive household characteristic found at the beginning of each table (see definition above). Household income is also an important component in the "Average difference between receipts and disbursements". Readers requiring official income statistics are directed to the publication, *Income Distributions by Size in Canada*, catalogue number 13-207.<sup>4</sup>

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Traditionally, the Survey of Consumer Finances (SCF) has been the source of Statistics Canada's annual income estimates. In the near future, the Survey of Labour and Income Dynamics (SLID) will produce the annual cross-sectional income estimates, in addition to producing longitudinal income data.

**Household income quintiles:** Income groupings obtained by ranking households in ascending order of total household income and partitioning the households into five groups such that the estimated number of households in each group is the same. Custom tabulations of other income percentiles and various income groups are available subject to data quality restrictions. Contact the Dissemination Unit at 1-888-297-7355.

### ***Household Characteristics***

**Housing tenure:** Refers to whether a household member owned or rented the dwelling in which the household lived.

**Owners:** Homeowners are people who lived for the full survey year in a dwelling owned (with or without mortgage) by a household member. See also "Percentage Homeowners (December 31st)" in Selected Household Characteristics.

**Owned with mortgage:** Owned dwelling for the full survey year and with a mortgage on December 31, 1997.

**Renters (full year):** Renters are those who rented a dwelling for the full survey year (as a regular tenant, rent free, or with reduced rent).

**Mixed tenure:** Includes those households that both owned and rented during the reference year (calendar year 1997).

**Household Type:** Households are divided into the following types:

**Husband-wife households:** Households where the married or common-law spouse of the reference person was a member of the household on December 31, 1997. This household type may be further broken down into husband-wife households without children (without additional persons), with children (without additional persons), and with additional persons. "Children" are never-married sons, daughters, or foster children of the reference person and may be any age. "Additional persons" include sons, daughters and foster children whose marital status is other than "single, never married", other relatives by birth or marriage, and unrelated persons.

**Lone-parent households:** Households where no spouse of the reference person is present and there is at least one child (never-married son, daughter, or foster

child of the reference person). The lone-parent households for which data are presented in this publication do not include any additional persons.

**Other households:** May be broken down into households composed of relatives only and households having at least one unrelated person. 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, 1997.

Other households having at least one unrelated person have at least one household member who is unrelated to the reference person (e.g., lodger, roommate, employee).

## ***Geography***

**Metropolitan Areas:** The overall concept for delineating metropolitan areas is one of a large urban area together with adjacent urban and rural areas that have a high degree of social and economic integration with this urban area. (See the 1996 Census Dictionary, p. 181, Catalogue no. 92-351-XPE.)

For the Survey of Household Spending, data are tabulated based on the 1996 census metropolitan area (CMA) boundaries. In the Survey of Household Spending, only data for the Ottawa, Ontario part of the Ottawa-Hull CMA, are tabulated for the metropolitan area. The data for Hull, Quebec part, are included in the data tabulated for the province of Quebec and Canada (10 provinces). Also, the municipality of Selkirk is included in the Survey of Household Spending metropolitan area of Winnipeg, whereas it is not included in the CMA of Winnipeg.

The metropolitan areas for which the data are tabulated are: St. John's, Charlottetown - Summerside, Halifax, Saint John, Québec, Montréal, Ottawa, Toronto, Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Vancouver, Victoria, Whitehorse, and Yellowknife.

**Province:** Refers to the major political divisions of Canada. The Survey of Household Spending also covers selected portions of the Yukon and Northwest Territories.

**Rural area:** All territory outside urban areas is considered rural. Taken together, urban and rural areas cover all of Canada (10 Provinces).

**Size of area of residence:** Sampled dwellings are assigned to the following groups depending on the 1996 population size (according to the 1996 census boundaries) of the metropolitan area, municipality, or urban area in which they are located.

Households are assigned as follows:

Urban areas:

1,000,000 and over  
500,000 - 999,999  
250,000 - 499,999  
100,000 - 249,999  
30,000 - 99,999  
under 30,000

Rural area

**Urban area:** For the Survey of Household Spending (based on the LFS sampling frame), urban areas include:

- all larger metropolitan areas (even though they do contain some rural areas);
- most smaller metropolitan areas (also called census agglomerations). In some cases, where a census agglomeration contains a large rural population, only the urban portion is considered urban.
- urban areas based on the census definition: Urban areas have minimum population concentrations of 1,000 and a population density of at least 400 per square kilometre, based on the previous census population counts.

# ***Survey Methodology***

## **The Survey Universe**

The 1997 Survey of Household Spending was carried out across Canada in the 10 provinces and two territories. Those living on Indian reserves and crown lands and official representatives of foreign countries living in Canada and their families were excluded from the survey. Members of religious and other communal colonies, members of the Canadian Armed Forces living in Military Camps and people living in residences for senior citizens, were excluded, as were 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. In Yukon, the coverage was restricted to 77% of the population since people living in very small communities or in unorganized areas were also excluded. The coverage in North West Territories corresponds to 74% including mainly people living in Yellowknife and the larger communities<sup>5</sup>.

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 were excluded from the estimates in this publication, although they are required in the calculation of weights for the Consumer Price Index and as input into Statistics Canada's System of National Accounts. They are also included in the calculation of the Survey of Household Spending response rate. Part-year households are comprised entirely of persons who were members of other households for part of the survey year. They also include immigrant households that arrived during the survey year and Canadian households that returned from living abroad during the survey year. There were 586 part-year households in the sample in 1997.

## **Data Collection**

The 1997 Survey of Household Spending was an interviewer assisted survey where interviews are conducted in person. A copy of the questionnaire is available on request. Questionnaires were data captured at Statistics Canada's regional offices and the data edited before being sent to head office for further processing and tabulation.

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<sup>5</sup> The coverage of North West Territories will be increased to 91% for the 1998 Survey of Household Spending.



## Survey Content

Detailed information was collected about expenditures for consumer goods and services, types of cars and other vehicles owned by households, changes in assets, mortgages and other loans, and annual income. Information was also collected about dwelling characteristics (e.g., type and age of heating equipment) and household equipment (e.g., appliances and communications equipment).

Because the Survey of Household Spending is designed principally to provide detailed information on non-food expenditures, only an aggregate estimate of food expenditures is recorded. Detailed information on food expenditures is provided by the Food Expenditure Survey, which was conducted monthly throughout 1996. The results of the food survey are published in *Family Food Expenditure in Canada, 1996*, catalogue number 62-554-XPB.

## The Sample

The sample size for the 1997 Survey of Household Spending was 23,842 households.

The sample for the 1997 Survey of Household Spending 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 Labour Force Survey frame and the selection of dwellings within these selected clusters. The LFS sampling frame currently uses 1996 Census geography (some preliminary boundaries were used so there may be slight variations from final 1996 geographic boundaries) and 1991 population counts.<sup>6</sup>

## 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 each of 19 selected metropolitan areas and for each of 41 additional geographical areas. These additional areas comprise remaining metropolitan areas, and urban and rural areas based on census definitions (see the 1996 Census Dictionary, catalogue number 92-351-XPE) but do not necessarily correspond exactly.

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<sup>6</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.

To increase the reliability of the estimates, weights were adjusted to ensure that estimates on relevant characteristics for the population would respect population totals from sources other than the survey. The first set of totals, for one-person households and multi-person households, was based on projections of number of households using the 1991 Census of Population (adjusted for net undercoverage) and the Labour Force Survey estimates, calculated at the provincial level. The second set of totals, based on population projections for December, 1997 from Statistics Canada's Demography Division, were the number of persons under 15, the number of persons between 15 and 64, and the number of persons over 64 at the provincial level as well as for the selected metropolitan areas. For the two territories, Yukon and Northwest Territories, and their respective metropolitan areas, Whitehorse and Yellowknife, only two age groups were used, number of persons under 15, and number of persons 15 and over.

## ***Data Quality***

### **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 1997 Survey of Household Spending was a stratified multi-stage sampling scheme. The sampling errors for multi-stage sampling are usually higher than those 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. In general, the greater these differences are, the larger the sampling error will be and the larger the sample size, the smaller the sampling error.

#### *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  $\pm 1$  standard error of the estimate for 68% of all samples, and  $\pm 2$  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 an average expenditure for a given category is \$75, and the corresponding CV is 5%, then the "true" value is between \$71.25 and \$78.75, 68% of the time and between \$67.50 and \$82.50, 95% of the time.

Standard errors for the 1997 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 (Catalogue 71-526XPB), *Methodology of the Canadian Labour Force Survey*.

Coefficients of variation for summary and selected expenditure estimates by province/territory are presented in Technical Table 1.

### *Approximation of CVs*

It is possible to approximate the CV of expenditure estimates not represented in technical table 1 using a relationship between the CV and the number of households that reported spending on the item. Previous studies have shown that the CV of the estimate of an item tends to decrease in proportion to the square root of the number of households reporting expenditures on the item.

As an example, according to Technical Table 1, the estimated CV for the average household expenditure on rented living quarters for all households is 1.90%. To estimate the CV for the average household expenditure on rented living quarters for one person households from the table presenting data by household type, use the following equation. Note that this method provides only an approximation of the CV.

CV for expenditures on rented living quarters by one person households

$$= \text{CV (all households)} \times \text{square root} \left( \frac{\text{number of households reporting}}{\text{number of one-person households reporting}} \right)$$

$$\begin{aligned} &= 1.90\% \times \text{SQRT}(6119 / 2211) \\ &= 1.90\% \times 1.66 \\ &= 3.16\% \end{aligned}$$

where *# of hhlds reporting*

$$\begin{aligned} &= \frac{\text{\# of hhlds} \times \text{percentage reporting}}{100} \\ &= \frac{16,583 \times 36.9}{100} \\ &= 6119 \end{aligned}$$

and where *# of one person hhlds reporting*

$$\begin{aligned} &= \frac{\text{\# of one person hhlds reporting} \times \text{percentage of one person hhlds reporting}}{100} \\ &= \frac{37169 \times 59.5}{100} \\ &= 2211 \end{aligned}$$

### *Data suppression*

For reliability reasons, estimates with CVs greater than 33% have to 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. Study done on previous surveys<sup>7</sup> indicates that CVs reach this level when the number of households reporting an item drops to about 30. Therefore, average household expenditure and percentage reporting have been suppressed for items reported by fewer than 30 households.

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

### **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.

*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. There is no evidence of significant coverage error in the 1997 Survey of Household Spending.

*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 (see the section on notes and definitions) 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 (expenditure plus the net change in assets and liabilities) for each questionnaire. If the difference was greater than 10% of the larger of receipts or disbursements, respondents were contacted again for additional information. This ensures that expenditures, at least at the aggregate level, are commensurate with household income and other sources of funds.

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<sup>7</sup> Some results of this relationship for the 1992 survey were published in *Family Expenditure in Canada, 1992*, page 185.

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. Secondly, expenditure on food (about 11% of the average budget in 1997) can be estimated as either weekly or monthly expenses depending on the respondent's habits. Thirdly, 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 readily, 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.

*Non-response error* Non-response error occurs in sample surveys because not all potential respondents cooperate fully. The overall response rate for the 1997 Survey was 77.5%. In Technical Table 2, the sample response is summarized by province. 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.

*Processing errors* may also occur during the processing of the data, for example, during coding, data entry, editing, weighting, and tabulation. In this survey, procedures for quality control were used during the processing of data to keep such errors to a minimum.

Only a few questions required coding and this was done by the interviewer, was checked by the senior interviewer, and, in many cases, was checked for consistency with the rest of the information on the questionnaire by the automated batch edit system.

Data entry and automated editing for the 1997 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. Then 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. The invocation of 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 set took place in head office where invalid responses were corrected.

Missing responses were imputed. Statistics Canada's Generalized Edit and Imputation System (GEIS) 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.

In order to compensate for households that did not provide any information, basic survey weights were adjusted for non-response. See the section on Survey Methodology.

Tabulation for the 1997 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.