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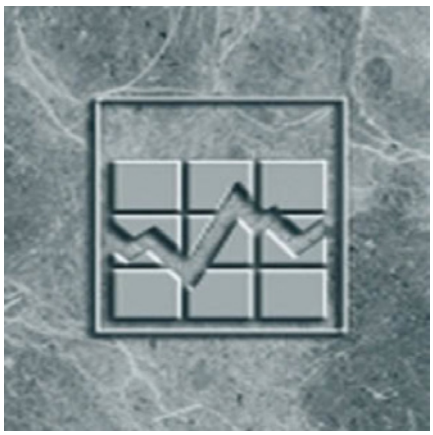
User Guide for the Survey of Household Spending, 2021



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User Guide for the Survey of Household Spending, 2021

1. Introduction

This guide is a source of information for users of data from the 2021 Survey of Household Spending (SHS). It includes survey term and variable definitions as well as details on the survey methodology and data quality. The guide also has a section that includes various examples of estimates that can be drawn from the survey data.

The SHS is carried out in the 10 provinces and the 3 territorial capitals. It is conducted every 2 years starting with the 2017 reference year. Prior to 2017, it was done annually in the provinces, and every 2 years since 2015 in the territorial capitals.

In line with the health and safety measures due to the COVID-19 pandemic, SHS 2021 collected household spending information mainly using a self-completed electronic questionnaire, also called computer-assisted web interview (CAWI), instead of a questionnaire administered through a personal interview. Similar to previous SHS cycles a daily expenditure diary was also used to collect household spending information. The questionnaire is used to collect information on larger or less frequent expenditures using varying recall periods based on the type of expenditure (last month, last 3 months, last 12 months or last payment), while the diary is used to collect information on more detailed or frequent expenditures. After completing the questionnaire, all households are asked to complete a diary in which they record their household's expenditures over a 1-week period in the provinces or over a 2-week period in the territorial capitals.

The COVID-19 pandemic had an impact on data collection operations for the SHS 2021. As expected, the impossibility of conducting face-to-face interviews resulted in a significant drop in response rates compared with those obtained historically.

As with previous SHS cycles, survey weights have been adjusted to minimize any potential bias that may result from survey non-response; non-response adjustments and calibration using available auxiliary information have been applied and are reflected in the survey weights used to produce the estimates. In-depth validations of the survey estimates were also carried out and examined from the point of view of bias analysis. Despite these rigorous adjustments and validations, the high rate of non-response increases the risk of residual bias and the extent to which such bias could impact on the estimates produced using the survey data. It is therefore advisable to use SHS 2021 data with caution, particularly when creating estimates for small sub-populations or making comparisons with other SHS cycles.

Data collection is continuous throughout the year to account for seasonal variations in spending. The 2021 SHS, which was conducted from January 2021 to December 2021, used a sample of 39,038 households in the 10 provinces and 1,695 households in the three territorial capitals. The sample size has been increased compared to previous reference years, as described in section 3.3. The data collected include detailed household expenditures, as well as information on dwelling characteristics, household demographics and household equipment.

Since 2015, the SHS's coverage in the North has been limited to the 3 territorial capitals (Whitehorse, Yellowknife and Iqaluit). Also, the new design of the SHS, which was implemented for the provinces starting in 2010, has been used for the territorial capitals starting with 2015. The differences in sampling and estimation methodology between the territories and provinces require that the estimates for Whitehorse, Yellowknife and Iqaluit be interpreted with caution and not be directly compared to the provincial estimates. These differences are noted throughout this guide whenever applicable.

It is important to note that data at the national level include the 10 provinces only.

Household expenditure estimates for the 10 provinces are available at the national and provincial level, as well as by household tenure, age of reference person, size of area of residence, type of household, and household income quintile. Detailed estimates of food expenditures are also produced at the national and provincial level.

For SHS 2021, household expenditure estimates will be available for the two territorial capitals (Whitehorse and Yellowknife). These estimates are not produced by household tenure, age of the reference person, size of area of residence, household type and by household income quintile due to the small sample sizes in the territorial capitals.

For Iqaluit, no estimates will be available with SHS 2021 data as the response rate was too low to allow for estimates of minimum quality to be released. As such, the user will find no descriptive statistics related to Iqaluit included herein, nor in other available products.

For custom tabulations or more information on the Survey of Household Spending, please contact us (toll-free 1-800-263-1136 or infostats@statcan.gc.ca).

2. Definitions

2.1 General concepts

Expenditures: The net cost of all goods and services received for private use within a given period (e.g., 1, 3 or 12 months), whether or not the goods or services were paid for during that period, and regardless of whether these expenditures were incurred in Canada or abroad. Business expenditures are excluded.

Gifts: Expenditures may include gifts given to persons outside the household.

Household: A person or group of persons occupying one dwelling unit. The number of households, therefore, equals the number of occupied dwellings.

Household member: A person usually residing in the dwelling unit at the time the questionnaire was completed.

Insurance settlements: Where an insurance settlement was used to repair or replace property, the survey includes only the deductible amount.

Principal residence: The main living quarters of the household at the time the questionnaire was completed.

Reference person: The household member responding to the questionnaire chooses which household member should be listed as the reference person based on the following definition: “The household reference person is the member of the household mainly responsible for its financial maintenance (e.g., pays the rent, mortgage, property taxes, and electricity). When members of the household share the responsibility equally, choose one of these members to be shown as the reference person.” This person must be a member of the household at the time the questionnaire was completed.

Reference year of the survey: Corresponds to the data collection year, from January 1 to December 31.

Secondary residence: Any dwelling used by the household as secondary living quarters (e.g., cottages, hobby farms and summer residences). Includes time-shares and properties outside Canada. Does not include moveable vacation homes (e.g., trailers and motor homes).

Taxes included: All expenditures include, where applicable: the Harmonized Sales Tax, the Goods and Services Tax, provincial retail sales taxes, tips, customs duties and any other additional charges or taxes.

Trade-ins: 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 an exception.

2.2 Household characteristics

Age of reference person: Corresponds to the age of the reference person at the time the questionnaire was completed.

Estimated number of households: The estimated number of households in the survey’s target population during the reference year.

Homeowner: Household living in a dwelling owned (with or without a mortgage) by a member of the household at the time the questionnaire was completed.

Household income before tax: Corresponds to the total income before tax received by the household (members aged 16 or over) the year prior to the reference year of the survey. It comprises income from all sources, including government transfers: wages and salaries before deductions, farm self-employment net income, non-farm self-employment net income, Old Age Security (OAS) pension, Canada Pension Plan and Quebec Pension Plan (CPP and QPP) benefits, federal child benefits, provincial or territorial child tax credits or benefits, employment

insurance (EI) benefits, social assistance, workers' compensation benefits, federal goods and services/harmonized sales tax (GST/HST) credit, provincial tax credits, other government transfers, private retirement pensions, support payments received, scholarships, bursaries, and fellowships, as well as other taxable income including income from a Registered Disability Savings Plan (RDSP) and investment income. For SHS 2021, government (federal, provincial and territorial) payments linked to the COVID pandemic were also included.

Household size: The number of persons in the household at the time the questionnaire was completed.

Questionnaire respondents: Households within the selected sample who responded to the survey, excluding those households that were unable to be contacted, households that refused to participate and households whose questionnaire was rejected due to a lack of sufficient information.

2.3 Selected household expenditures

Accommodation away from home: Includes all expenses for accommodation while travelling. It also includes accommodation expenses for household members while temporarily away at school or working away from home. Excludes expenditures for accommodation that were part of a package trip.

Alcoholic beverages: Includes alcoholic beverages purchased from stores and restaurants. Expenditures for supplies and fees for self-made beer, wine or liquor are also included.

Cannabis: "Cannabis for medical use" refers to cannabis products prescribed by a doctor. "Cannabis for non-medical use" refers to cannabis products not prescribed by a doctor.

Discounts and refunds: Presented in the data tables as "negative expenditures" since they represent a flow of money into the household instead of out of it.

Food purchased from restaurants: "Restaurants" includes full-service restaurants, fast-food outlets and cafeterias, as well as refreshments stands, snack bars, vending machines, mobile canteens, caterers and chip wagons. These expenditures include tips and do not include expenditures for alcoholic beverages.

Food purchased from stores: "Stores" include all establishments where food can be bought, such as grocery stores, specialty food stores, department stores, warehouse-type stores and convenience stores, as well as frozen food suppliers, outdoor farmers' markets and stands and all other non-service establishments. The expenditures are net of cash premium vouchers or rebates at the cash register and include deposits paid for at the time of purchase. Reimbursements on deposits are excluded from total expenditures and are shown as negative expenditures (flow of money in) in the "Miscellaneous expenditures" category (outside of the "Food purchased from stores" category).

Games of chance: Expenditures for all types of games of chance. The expenditures are not net of the winnings from these games.

Health care: Includes direct (out-of-pocket) costs paid for by the household net of the expenditures reimbursed, as well as private health insurance premiums. Since 2019, this includes out-of-pocket spending on cannabis for medical use.

Household appliances: The net purchase price after deducting the trade-in allowance and any other discount. Excludes appliances included in the purchase of a home.

Income taxes: The sum of federal and provincial income taxes payable for the taxation year prior to the reference year of the survey. Taxes on income, capital gains and RRSP withdrawals are included, after exemptions, deductions, non-refundable tax credits and the refundable Quebec abatement are taken into account. Provincial health insurance premiums are also included.

Package trips: A package trip always includes at least two components. One of them is always transportation. The other(s) could be one or more of accommodation, meals, sightseeing, etc.

Property and school taxes, water and sewage charges for owned vacation homes and other secondary residences: The amount billed, excluding any rebates. Special service charges (e.g., garbage collection and sewers), local improvements, school taxes, and water charges are included if these are part of the property tax bill.

Purchase of automobiles, vans and trucks: The net purchase price, including extra equipment, accessories, and warranties bought when the vehicle was purchased, after deducting any trade-in allowance or the value of a separate sale. A separate sale occurs when a vehicle is sold independently by the owner (i.e., not traded in when purchasing or leasing another vehicle).

Rent: Net rent, excluding rent charged against business income or rooms rented out. Includes additional amounts paid to the landlord (e.g. security deposits).

Repairs and maintenance (owned living quarters): Covers expenditures for labour and materials for all types of repairs and maintenance, including expenditures to repair and maintain built-in equipment, appliances and fixtures. Expenditures related to alterations and improvements are excluded as they are considered an increase in assets (investment) rather than an expense.

Shelter: Principal accommodation (either owned or rented) and all other accommodation (such as vacation homes or accommodation while travelling).

Tenants'/Homeowners' insurance premiums: Premiums paid for fire and comprehensive policies.

Tobacco products and smokers' supplies: Includes cigarettes, tobacco, cigars, electronic cigarettes, matches, pipes, lighters, ashtrays, cigarette papers and tubes, and other smokers' supplies.

Total current consumption: The sum of current expenditures for food, shelter, household operations, household furnishings and equipment, clothing and accessories, transportation, health care, personal care, recreation, education, reading materials and other printed matter, tobacco products, alcoholic beverages and cannabis for non-medical use, games of chance, and miscellaneous expenditures.

Total expenditures: The sum of total current consumption, income taxes, personal insurance payments, pension contributions, gifts of money, alimony and contributions to charity.

Water, fuel and electricity (for principal accommodation): Expenditures for services related to water and sewers, electricity, and natural gas and other fuel for the principal accommodation, whether rented or owned by a member of the household.

2.4 Dwelling characteristics

Repairs needed: Indicates the respondent's perception of the repairs the dwelling needed at the time the questionnaire was completed to restore it to its original condition. Renovations, additions, conversions or energy-saving improvements that would upgrade the dwelling over and above its original condition are not included.

- **Regular maintenance** includes dwellings where only regular maintenance such as painting, or furnace cleaning is required.
- **Major repairs** include serious deficiencies in the structural condition of the dwelling, as well as the plumbing and electrical and heating systems. Examples of such deficiencies include corroded pipes, damaged electrical wiring, sagging floors, bulging walls, damp ceilings and crumbling foundations.
- **Minor repairs** include deficiencies in the surface or covering materials of the dwelling and less serious deficiencies in the plumbing and electrical and heating systems. Examples of such deficiencies include small cracks in interior walls and ceilings, broken light fixtures and switches, cracked or broken window panes, leaking sinks, missing shingles or siding, and peeling paint.

Tenure: The housing status of the household at the time the questionnaire was completed.

- **Owned with mortgage** indicates that the dwelling was owned by a household member and that there was a mortgage at the time the questionnaire was completed.
- **Owned without mortgage** indicates that the dwelling was owned by a household member and that there was no mortgage at the time the questionnaire was completed.
- **Rented** indicates that the dwelling was rented by the household or occupied rent-free at the time the questionnaire was completed.

Type of dwelling: Type of dwelling in which the household resided at the time the questionnaire was completed. 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.

- **A single detached dwelling** contains only one dwelling unit and is completely separated by open space on all sides from any other structure, with the exception of its own garage or shed.
- **A single attached dwelling** is a double or semi-detached house or a row house.
- **An apartment** includes duplexes (two dwellings, situated one above the other), triplexes, quadruplexes and apartment buildings.
- **Other dwellings** include mobile homes, motor homes, tents, railroad cars or boats (including floating homes and houseboats) that are used as permanent residences and are capable of being moved on short notice.

2.5 Household equipment

Cellular telephone: Includes cellular telephones and handheld text messaging devices with cell phone capability.

Computer: Excludes computers used exclusively for business purposes.

Internet use from home: Indicates whether the household has access to the Internet at home.

Landline telephone service: Includes landline telephone services used for business if the business is conducted in the dwelling.

Owned vehicles: Number of vehicles (automobiles, trucks and vans) owned by members of the household at the end of the month prior to the time the questionnaire was completed.

2.6 Classification categories

Age of reference person: Households are grouped according to the age of the reference person as follows:

- Less than 30 years
- 30 to 39 years
- 40 to 54 years
- 55 to 64 years
- 65 years and over

Before-tax household income quintile (national): Income groupings are obtained by ranking the households who responded to the questionnaire in ascending order by total household income before tax, then partitioning the households into five groups of similar size. The estimated number of households in each group should be the same in principle, but differences may occur due to the weight of the household at the boundary of two quintiles, since this household must lie in either one or the other of these quintiles. Moreover, the specific methodology of the survey (with a set of weights for the questionnaire and another for the diary) implies that the estimated number of households will be the same for the questionnaire as for the diary only if the quintiles are defined at the provincial level. For the national quintiles, the estimated number of households may differ depending on whether the estimate uses questionnaire weights or diary weights (see Section 5).

Canada: Canada-level data include the 10 provinces only.

Household type: Households are divided into the following types:

- **One-person households** are the households where the dwelling is occupied by only one person at the time the questionnaire was completed.
- **Couple households** are households where the married or common-law spouse of the reference person is a member of the household at the time the questionnaire was completed. This household type may be further broken down into couple 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” are 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** are households where the reference person has no spouse at the time the questionnaire was completed and there is at least one never-married child (son, daughter or foster child of the reference person). The lone-parent households for which data are presented do not include any additional persons.
- **Other households** are households composed of relatives only or households with at least one household member who is unrelated to the reference person (e.g., lodger, roommate, employee). Relatives are the
    - son, daughter, or foster child of the reference person whose marital status is other than "single, never-married"
    - relatives of the reference person by birth or marriage (not the spouse, son, daughter or foster child).

Housing tenure: Indicates whether a household member owned or rented the dwelling in which the household lived at the time the questionnaire was completed.

- **Owners** refers to all households living in a dwelling owned (with or without a mortgage) by a household member at the time the questionnaire was completed:
    - owners with a mortgage owned the dwelling with a mortgage at the time the questionnaire was completed.
    - owners without a mortgage owned the dwelling without a mortgage at the time the questionnaire was completed.
- Renters rented a dwelling at the time the questionnaire was completed (as a tenant paying rent or rent free)

Population centre: Area with a population of 1,000 or more and a density of 400 or more people per square kilometre. Population centres are classified as defined below:

- Small population centre: 1,000 to 29,999
- Medium population centre: 30,000 to 99,999
- Large urban population centre: 100,000 and over

Rural area: All areas outside population centres are considered rural areas. Together, population centres and rural areas cover all of Canada.

Size of area of residence: Sampled dwellings are assigned to the following groups depending on the area in which they are located according to the 2016 Census boundaries and population size.

- Population centres:
    - 1,000,000 and over
    - 500,000 to 999,999
    - 250,000 to 499,999
    - 100,000 to 249,999
    - 30,000 to 99,999
    - 1,000 to 29,999
- Rural area

Territorial Capitals: These are the capitals of the northern territories from which a sample was selected and for which estimates will be released: for SHS 2021, this includes Whitehorse and Yellowknife (based on the 2016 Census subdivision concept).

3. Survey methodology

3.1 Target population

The target population of the 2021 SHS is the population of Canada's 10 provinces plus the 3 territorial capitals (Whitehorse, Yellowknife and Iqaluit). Residents of institutions and members of the Canadian Forces living in military camps are excluded as well as people living on Indian reserves. These exclusions account for about 2% of the population.

For operational reasons, people living in areas where the rate of vacant dwellings is very high and where the collection costs would be exorbitant are excluded from collection. Also excluded are people living in other types of collective dwellings such as:

- people living in residences for dependent seniors
- people living permanently in school residences and work camps
- members of religious and other communal colonies.

Collection exclusions represent less than 0.5% of the target population. However, these people are included in the population estimates to which the SHS estimates are adjusted (see section 3.6).

3.2 Survey content and reference periods

The SHS primarily collects detailed information on household expenditures. It also collects information on household demographic characteristics and certain dwelling characteristics (e.g., type, age and tenure), as well as certain information on household equipment (e.g., electronics and communications equipment). In addition, income information from personal income tax data is combined with the survey data.

For expenditure information collected through the questionnaire, the length of the reference period varies depending on the recall period specified in the question (e.g., the past month, the past 3 months or the past 12 months).

The reference period also varies in relation to the collection month. (For example, for households in the January 2021 sample, "the past 12 months" corresponds to the period from January 2020 to December 2020, while for households in the December 2021 sample, it corresponds to the months from December 2020 to November 2021). Expenditures collected in the expenditure diary are reported for a period of one week in the provinces and two weeks in the territorial capitals.

In general, longer reference periods are used to collect expenditures for goods and services that are more expensive or purchased infrequently or irregularly. In contrast, shorter reference periods are used for goods and services that are of lesser value or that are purchased frequently or at regular intervals.

For demographic characteristics, dwelling characteristics and household equipment, the reference period is the date the questionnaire was completed. The reference period for income is the calendar year preceding the survey year (i.e., 2020 for the 2021 SHS).

3.3 Sample design

The 2021 SHS sample consists of 39,038 households throughout the 10 provinces and 1,695 households in the two territorial capitals (Whitehorse and Yellowknife). SHS 2021 was collected in Iqaluit. Because of the low response rate, no estimates with enough quality were possible to be produced. In this document, only information on Whitehorse and Yellowknife will be provided.

3.3.1 Sample design in the provinces

Due to the anticipated decline in response rates, and to maintain the quality of estimates in terms of sampling variability, the final sample size for the SHS 2021 was increased and the sample was obtained from two separate sampling designs. A stratified multi-stage sampling design was used to select the first sample in the 10 provinces. It is essentially a two-stage design, of which the first stage is a sample of geographic areas (referred to as

clusters). Next, a list of all the dwellings in the selected clusters is prepared and a sample of dwellings is selected within each cluster. The selected dwellings that are inhabited by members of the target population constitute the survey's sample of households. The SHS uses a number of components of the Labour Force Survey's (LFS) sample design to minimize operating costs, although the dwellings selected for the SHS are different than those selected for the LFS.

A second sample was selected according to a stratified one-stage sampling design and then combined with the first sample for collection. The dwellings selected for the second sample, which are inhabited by individuals from the target population, constitute the survey household sample. The stratification used for this sample is the same as for the first sample.

The national sample is first divided among the provinces, taking the variability of total household expenditures and, to a lesser extent, the number of households in each province, into account. The goal is to obtain estimates of similar quality across all provinces. Provincial sample sizes are shown in Table 4a (Section 4.3.3). The sample is then divided into strata defined by grouping clusters with similar characteristics based on various sociodemographic variables. Some strata were defined to target specific subpopulations such as high-income households. To improve the quality of the estimates, the high-income household strata are allocated a larger share of the sample than the allocation proportional to stratum size that is used in other strata.

Since data are collected monthly, the sample is divided into 12 similar-sized subsamples. The geographic concepts used for the 2021 SHS sample are those of the 2016 Census.

3.3.2 Sample design in the territorial capitals

A one-stage sampling design was used to select the sample in the territorial capitals. The first step of the sample allocation was to determine the number of dwellings to be sampled in each city. As with the sample of the 10 provinces, the sample size for the territories had been increased to account for the anticipated decline in response rates. The overall sample was allocated to each city by taking into account the size of the city and the quality of the estimates obtained from previous cycles of the SHS in the North. The sample sizes for the territorial capitals are shown in Table 4b (Section 4.3.3).

The sample is divided into 12 monthly subsamples of similar sizes, and the geographic concepts used for the 2021 SHS samples in the territorial capitals are those of the 2016 Census.

3.4 Data collection

The SHS is a voluntary cross-sectional survey that combines a questionnaire and an expenditure diary. Collection is carried out on a continuous monthly basis from January to December of the survey year. The sample of households is distributed over 12 monthly samples. Each household is part of one of the monthly samples and is asked to complete a single questionnaire.

For the majority of households in the SHS 2021 sample, an initial contact attempt was made through an introductory package mailed directly to the dwelling. This package included an introduction letter, a brochure with information on the importance of the survey as well as the physical diary with a pre-paid return envelope. If a mailing address was not available and depending on additional contact information available for each dwelling, a household could have been initially contacted by an interviewer via telephone, or the introductory package could have been delivered by an interviewer in person. A series of reminders via mail, email and/or SMS text message were used to encourage response.

In the introduction letter, households were invited to complete an online electronic questionnaire collecting data on regular expenditures (such as rent and electricity) and less frequent expenditures (such as furniture and dwelling repairs). Generally, the recall periods associated with a given expenditure category are longer for items that are purchased less frequently and shorter for more regular expenses. For example, for regular expenditures such as rent, the amount of the last payment and the period it covers are typically collected. For other types of expenditures collected in the questionnaire, recall periods of 1 month, 3 months or 12 months are used. The recall periods are defined in terms of months preceding the month of the questionnaire was completed. That is, for a household in the June 2021 sample, a reference period of the last 3 months corresponds to the period from March 1 to May 31, 2021. Demographic characteristics, dwelling characteristics and household equipment information refer to the household's situation at the time the questionnaire was completed.

Since 2013, respondents are informed that the survey data will be combined with tax data to obtain selected variables related to personal income for household members aged 16 and over on December 31 of the calendar year preceding the survey year. The reference period for personal income tax data is the calendar year prior to the survey year.

If the electronic questionnaire was not completed at some point in the collection cycle, a non-response follow-up via computer-assisted telephone interviewing (CATI) was carried out to reiterate the importance of the survey and encourage the respondent to complete the questionnaire. During this telephone follow-up the interviewer would encourage an eligible respondent to complete the interview over the phone. Additionally, any household selected in the 2021 SHS was welcome to call Statistics Canada and complete the survey by telephone. As a result, a subset of the respondents completed the questionnaire with the help of an interviewer. Further information on the proportion of respondents by collection mode can be found in section 3.4.1.

Following the questionnaire, all respondents were invited to complete a diary in which they record the expenditures of all household members for a specified reporting period starting the day after the completion of the questionnaire. The reporting period for the diary is one week for households in the provinces and two weeks for households in the territorial capitals. Households were requested to include spending on all items except for certain types of expenditures such as rent, utilities payments, and real estate and vehicle purchases. Households had the option of providing receipts for purchases made during their diary reporting period to reduce the amount of information manually recorded in the diary. However, they were asked to add information on the receipt if the description of the item appearing on it is incomplete.

A telephone follow-up was carried out a few days after the questionnaire to address any questions the respondent may have had and to reiterate how important it was to complete the diary. In 2021, the respondents were also instructed to mail back the completed diary using the pre-paid return envelope included in the introductory package they received.

The diaries and all receipts supplied by respondents were scanned and captured at Statistics Canada's head office. An expenditure classification code was assigned to each item from a list of nearly 650 different codes.

3.4.1 Proportion of respondents by collection mode

During processing of the data, it was observed that respondents who completed the questionnaire via a computer-assisted web interview (CAWI respondents) had higher partial non-response compared to the respondents who completed the questionnaire with the help of an interviewer during a telephone follow-up (CATI respondents). As described in section 3.5, a robust imputation method (nearest neighbour method) is used for this survey to solve partial non-response. While the residual bias remaining after the imputation of partial non-responses is difficult to measure, understanding the factors influencing item non-responses is important from a user perspective.

The proportion of respondents by collection mode presented in the tables below could thus help better understand the potential impact of the collection mode on data quality measures, such as the imputation rates presented in Section 4.

At the national level (10 provinces only), the proportion of respondents who completed the electronic questionnaire without the help of an interviewer is 65.9%. The provincial proportions of respondents who completed the questionnaire by themselves and the proportions of respondents who completed the questionnaire during the telephone follow-up are provided in Table 1a, while the proportions in the territorial capitals are provided in Table 1b. In general, the smallest proportions of CAWI respondents are in the Atlantic provinces while the largest are in the Prairie provinces and in British Columbia.

Table 1a
Proportion of questionnaire respondents by collection mode, Canada,[1] 2021

	CATI respondents	CAWI respondents
	percentage	
Canada	34.1	65.9
Atlantic provinces	40.9	59.1
Newfoundland and Labrador	43.5	56.5
Prince Edward Island	41.0	59.0
Nova Scotia	39.0	61.0
New Brunswick	40.3	59.7
Quebec	37.3	62.7
Ontario	33.0	67.0
Prairie provinces	29.5	70.5
Manitoba	33.1	66.9
Saskatchewan	26.9	73.1
Alberta	28.1	71.9
British Columbia	25.0	75.0

1. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 1b
Proportion of questionnaire respondents by collection mode, territorial capitals,[1] 2021

	CATI respondents	CAWI respondents
	percentage	
Territorial capitals	39.8	60.2
Whitehorse	39.3	60.7
Yellowknife	40.6	59.4

1. The Iqaluit households are excluded.
Source: Statistics Canada, Survey of Household Spending, 2021.

The proportions of respondents by collection mode differ not only from one province to the other but also for households with different sociodemographic characteristics, such as the household type and the household income. The proportions of respondents by collection mode and income quintile are provided in Tables 2a and 2b, respectively for the provinces and the territorial capitals, while the proportions by household type are provided in Tables 3a and 3b.

Table 2a
Proportion of questionnaire respondents by collection mode and before-tax income quintile,[1] Canada,[2] 2021

	CATI respondents	CAWI respondents
	percentage	
Total of all income quintiles	34.1	65.9
Lowest quintile	54.9	45.1
Second quintile	42.2	57.8
Third quintile	31.8	68.2
Fourth quintile	25.7	74.3
Highest quintile	21.5	78.5

1. The income quintiles are the national quintiles calculated based on the respondent households of the 10 provinces.
2. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 2b
Proportion of questionnaire respondents by collection mode and before-tax income quintile,[1] territorial capitals,[2] 2021

	CATI respondents	CAWI respondents
	percentage	
Total of all income quintiles	39.8	60.2
Lowest quintile	51.2	48.8
Second quintile	38.8	61.2
Third quintile	40.5	59.5
Fourth quintile	35.3	64.7
Highest quintile	34.7	65.3

1. The income quintiles are calculated based on the respondent households at the territorial capital level.
2. The Iqaluit households are excluded.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 3a
Proportion of questionnaire respondents by collection mode and household type, Canada,[1] 2021

	CATI respondents	CAWI respondents
	percentage	
All household types	34.1	65.9
One person household	46.3	53.7
Couple without children	32.4	67.6
Couple with children	23.3	76.7
Couple with other related or unrelated persons	27.3	72.7
Lone-parent household with no additional persons	34.4	65.6
Other household with related or unrelated persons	37.5	62.5

1. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 3b
Proportion of questionnaire respondents by collection mode and household type, territorial capitals,[1] 2021

	CATI respondents	CAWI respondents
	percentage	
All household types	39.8	60.2
One person household	45.7	54.3
Couple without children	32.4	67.6
Couple with children	38.6	61.4
Couple with other related or unrelated persons	34.5	65.5
Lone-parent household with no additional persons	44.8	55.2
Other household with related or unrelated persons	52.6	47.4

1. The Iqaluit households are excluded.
Source: Statistics Canada, Survey of Household Spending, 2021.

3.5 Data processing and quality control

The electronic questionnaire contains many features designed to maximize the quality of the collected data. Many controls are built into the questionnaire to identify unusual values and detect logical inconsistencies. When a response is rejected by the control, the respondent is prompted to verify or correct the information that was provided. Once the data is transmitted to the head office, a detailed verification of each questionnaire is undertaken through a comprehensive series of processing steps. Invalid responses are corrected or flagged for imputation.

The diaries are also subject to a number of verifications when they are received at head office, as well as during data capture and coding steps. For example, checks are carried out to ensure that the start and end dates of the reference period of the diary are indicated, that the reported expenditures were incurred during the specified reference period, and that no items appear in both the data written in the diary and on the receipts provided by the respondent. After validation, capture and coding, a set of quality control procedures are applied to the diary data. In addition, a sample of diaries is selected for a comprehensive reverification to ensure that the diaries were captured and coded as specified in the procedures.

Next, a series of detailed verifications is performed on all diaries, and invalid responses are corrected or flagged for imputation. The final step is to assess whether the information reported in the diaries is of sufficient quality

using parameters that are based on household characteristics. The reported expenditures and number of items are compared with minimum thresholds estimated by geographic area (Atlantic provinces, Quebec, Ontario, Prairie provinces, British Columbia, and the territorial capitals combined), household income class and household size. Diaries that satisfy the conditions are deemed usable. The remaining diaries are examined, and deemed usable if they include notes providing justification for their low expenditures or their small number of reported items (e.g., a person living alone who had few expenses to report while on a business trip during the diary reporting period). Diaries that do not meet the usability criteria are treated as non-response diaries and are excluded from the estimates. It should be noted that some of the usable diaries are incomplete and may have non-responded days.

To solve problems of missing or invalid information in the questionnaire questions, donor imputation using the nearest neighbour method is generally applied. Using this approach, data from a respondent with similar characteristics (the donor) is used to impute missing or invalid data for another respondent. Imputation is done on one group of variables at a time. These groups are formed taking into account relationships that exist among the variables to be imputed. The characteristics used to identify donors are selected such that they are correlated with the variables to be imputed. Household income, dwelling type, and the number of adults and children are commonly used characteristics.

Donor imputation is also used when information is missing from the expenditure diary. For instance, a respondent may have reported a particular expenditure item without its cost or given the total amount spent (e.g., on groceries) without listing the individual items. Imputation is also used to enhance the level of detail in the coding of the items reported. For example, the information provided by the respondent may simply indicate that a bakery product was purchased, but a more detailed code is required to meet the survey's needs. In this case, donor imputation is used to impute the type of bakery product (e.g., bread, crackers, cookies, cakes and other pastries). Diary imputation is carried out at the reported item level, and the characteristics frequently used to identify a donor are cost, available partial item code, household income and household size. Imputation is done by province and by survey year quarter to control for provincial differences and the seasonality of expenditures.

Starting in 2012, the imputation method was refined to use supplementary information on the type of store where the purchases were made in order to produce detailed expenditures when a respondent has only provided a total amount in their diary. This method takes into account the increasing amount of grocery products sold in large chain stores that do not specialize in groceries.

For income tax data, donor imputation is also used for missing or invalid data. Income and expenditure imputation is performed primarily with Statistics Canada's Canadian Census Edit and Imputation System (CANCEIS).

After imputation, taxes are added to the diary items that are reported with taxes excluded. To reduce the burden on respondents, instructions are provided to respondents indicating when to include or exclude taxes from reported expenses in the diary. The goods and services tax (GST), provincial sales tax (PST), and harmonized sales tax (HST) are added to the diary items according to the appropriate federal and provincial taxation rates.

3.6 Weighting and estimation

Estimation of population characteristics from a sample survey is based on the premise that each sampled household represents a certain number of other households in the target population in addition to itself. This number is referred to as the survey weight.

Two different sets of survey weights are necessary for the SHS: one set for the questionnaire and another set for the diary. Although all households in the SHS 2021 sample were selected to complete the diary, it is possible that they only completed the questionnaire. Therefore, only a portion of the respondents to the questionnaire also completed the diary.

3.6.1 Initial weights and non-response adjustments

There are a number of steps involved in the process of computing the weight assigned to each household. First, each household in the sample is given an initial weight equal to the inverse of its probability of being selected from the target population. A few adjustments are later applied to the questionnaire weights and the diary weights.

The questionnaire weights are first adjusted to take into account the selection of dwellings from two separate survey frames, from which the first and second samples were selected (see Section 3.3 on the Sample Design).

This was followed by an adjustment for households that did not respond to the questionnaire. The weights are also adjusted so that selected survey estimates are coherent with aggregates or estimates from auxiliary sources. This process is called weight calibration. The three data sources used for weight calibration are described in the next section.

The diary weights are also adjusted to take into account households that did not complete the diary. One factor adjusts for non-response to the questionnaire, while another factor adjusts for non-response to the diary among questionnaire respondents. The diary weights then go through the calibration process, as explained in the next section.

3.6.2 Weight calibration

3.6.2.1 Weight calibration in the provinces

First the questionnaire weights in the provinces are adjusted according to the number of persons by age group and the number of households by household size from population estimates produced by Statistics Canada's Demography Division. These estimates are derived from 2016 Census data as well as administrative data. Annual estimates of the number of persons in nine age groups (0 to 6, 7 to 17, 18 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64, 65 to 74, and 75 and over) are used at the provincial level and estimates for two age groups (0 to 17 years and 18 years and over) are used at the census metropolitan area level. For the number of households, the weights are adjusted to total the annual provincial estimates for three household size categories (1, 2, and 3 or more persons). An adjustment is also made to ensure that each quarter is adequately represented in terms of the total number of households.

The second source used for questionnaire weight calibration is the Statement of Remuneration Paid (T4) from the Canada Revenue Agency (CRA). The T4 data are used to ensure that the survey's weighted distribution of income (based on wages and salaries) is consistent with the income distribution of the Canadian population. Questionnaire weights are calibrated so that they sum up to the total the T4 counts of the number of persons per province by six categories of wages and salaries based. These categories are defined based on provincial percentiles (0 to 25th, 25th to 50th, 50th to 65th, 65th to 75th, 75th to 95th, and 95th to 100th).

Starting with the 2012 SHS, a third source used to adjust the questionnaire weights is the personal income tax data (T1) from the CRA. The questionnaire weights are adjusted to reflect the number of persons in each of the three highest personal income classes (based on the 95.5th, 97th and 98.5th percentiles) for each province except Prince Edward Island. In the latter case, only one income class is used. This adjustment compensates for the underrepresentation of the higher income groups among survey respondents.

The diary weights are adjusted so that they sum up to total demographic estimates in a manner similar to that used for the questionnaire weights. The demographic estimates of the number of persons at the provincial level are the same for the diary as for the questionnaire, with the exception of Prince Edward Island. In the latter case, only six age groups (0 to 17, 18 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older) are used due to the smaller sample size for this province. For weight calibration at the census metropolitan area level, the two age groups of 0 to 17 years and 18 years and over are only used for Montréal, Toronto and Vancouver. For the remaining metropolitan areas, only the total number of persons is considered. Like the questionnaire weights, the diary weights are adjusted to sum up to the annual provincial estimates for the three household size categories (1, 2, and 3 or more persons). For the diary, no adjustments are made to match the estimates by survey year quarter.

The diary weights are also adjusted according to income. Instead of adjusting on wages and salaries (T4), the weights are adjusted to sum up to the estimated number of households by provincial income quintile (0 to 20th, 20th to 40th, 40th to 60th, 60th to 80th, and 80th to 100th percentile) calculated using the questionnaire data. This adjustment using the questionnaire estimates ensures that the weighted income distribution of diary-respondent households is consistent with the weighted income distribution of questionnaire-respondent households. The diary weights are also adjusted for the number of high-income individuals according to personal income tax data, using a single income class based on the 95.5th percentile. This last adjustment is not applied to Prince Edward Island.

3.6.2.2 Weight calibration in the territorial capitals

In the territorial capitals, only 5 control totals are used in the questionnaire weight calibration process due to the small sample size in these cities. These weights are adjusted to control for only two age groups (the number of persons under 18 years of age and the number of persons aged 18 years and older) and to control for the number of households consisting of one, two, and three or more persons.

In the territorial capitals, the same demographic control totals used to calibrate the questionnaire weights are used for the diary weights.

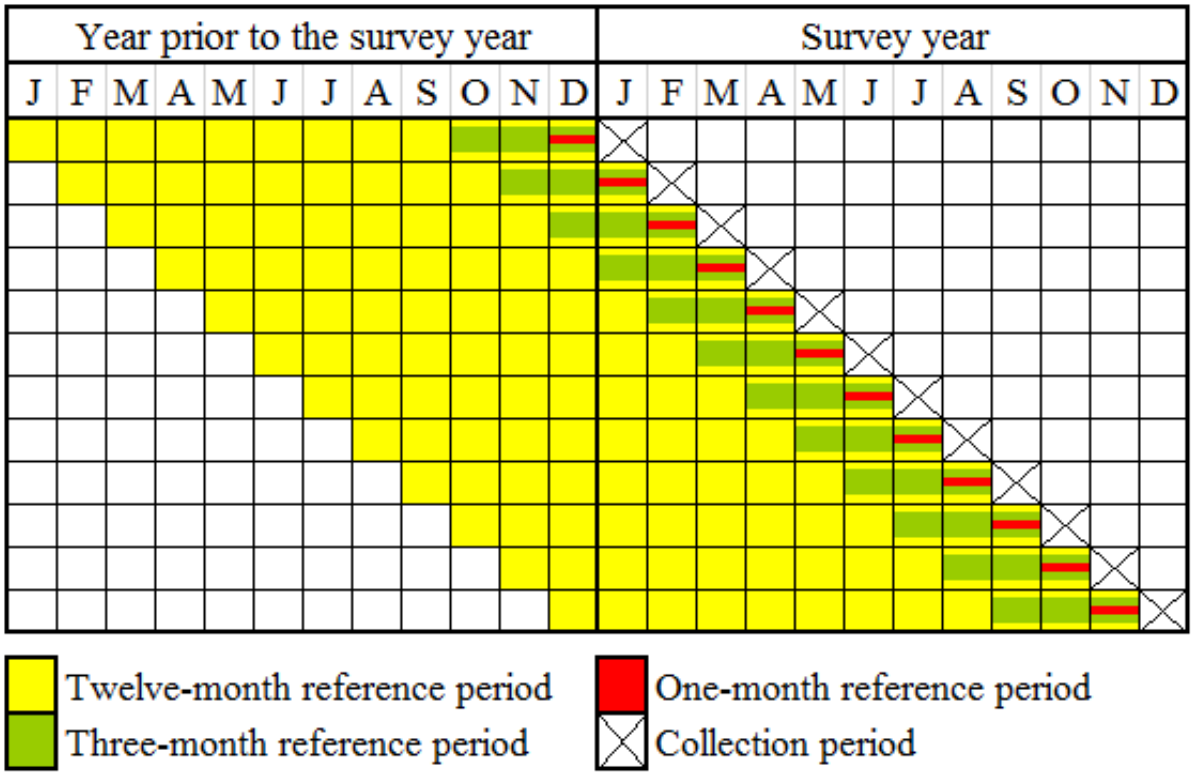
3.6.3 Annualization and other adjustments

All expenditure amounts collected with the questionnaire using a recall period of less than 12 months, as well as those collected with the diary, are converted to annual amounts (annualized). For this purpose, the reported expenditures are multiplied by a factor based on the recall period. For example, amounts collected with a 3-month recall period are multiplied by 4 to annualize them. Some expenditure data are also corrected by an adjustment factor if they have been identified as influential or extreme values. For the diary, another adjustment factor is also applied to compensate for non-responded days. All official SHS expenditure estimates are based on the annualized and adjusted amounts.

3.7 Reference period of the estimates

With continuous monthly collection, the reference period of the collected data differs from one month to the next, as illustrated in Figure 1. For example, for an expenditure item with a three-month recall period, the data from the July sample include expenditures incurred between April 1 and June 30, whereas the data from the December sample include expenditures incurred between September 1 and November 30.

Figure 1
Monthly sample reference periods of three different lengths



Source: Survey of Household Spending.

Collected expenditures with a reference period of less than 12 months are annualized so that all expenditure amounts cover a period of 12 months. SHS annual estimates are produced by combining the data from the 12 monthly samples for expenditures with a recall period of 3 months or less, most of the expenditures were incurred during the survey reference year. This is also true for all expenditure data collected with the diary. For expenditure items with a 12-month recall period, the collected expenses occurred between January of the year before the survey year and November of the survey year, depending on the collection month. For example, expenses collected in January cover the period from January to December of the year before the survey year, while expenses collected in December occurred between December of the year before the survey year and November of the survey year. For the estimates produced to represent a single 12-month period when the data from 12 monthly samples are combined, it must be assumed that expenditures incurred during the survey year are similar to those incurred during the previous year. This must also be considered when making comparisons between estimates based on a 12-month recall period and those based on shorter periods.

The limits of the collection model that produces the expenditure estimates which cover the same period (or the same year) are known, since a majority of countries use this methodology. Despite these limitations, continuous collection with reference periods adapted to the respondent's ability to provide information is considered preferable to obtain data that reflect households' true expenditures.

3.8 Historical revisions

The 2021 SHS estimates were computed with weights calibrated to 2021 demographic population estimates. These population estimates are based on 2016 Census data, as well as more recent information from administrative sources such as birth, death and migration registers. This calibration of SHS 2021 weights ensures data comparability with SHS 2017 and 2019 that have also had their survey weights calibrated using population projections based on the 2016 Census.

The SHS 2010 to 2016 estimates are still based on weights calibrated to 2011 Census population projections. As geographic concepts may have changed between the 2011 and 2016 Censuses, users should be careful when comparing estimates from the SHS 2010 to SHS 2016 series with those from the SHS 2017 to SHS 2021.

SHS estimates for years prior to 2010 (2001 to 2009) are based on weights adjusted to population projections from the 2001 Census. No revision (based on more recent Census data) is planned for these estimates due to the break in the data series starting with SHS 2010 (see Section 3.9).

3.9 Comparability over time

As described in the Introduction, SHS was conducted annually since 1997 and then was changed to a biennial program starting in 2017. This survey includes most of the content of its predecessors conducted before 1997 (the periodic Family Expenditure Survey and the Household Facilities and Equipment Survey). Prior to 2010, the SHS was primarily based on an interview during the first quarter of the year in which households reported expenditures incurred in the preceding calendar year, although some changes to the methodology and definitions were made between 1997 and 2009.

A new methodology, which combines a questionnaire and a diary to collect household expenditures, was introduced in the 10 provinces starting with the 2010 SHS. The recall periods were shortened for several expenditure items and collection became continuous throughout the year. Although the expenditure categories in the redesigned SHS are similar to those of previous years, the changes to data collection, processing and estimation methods have created a break in the data series. As a result, users are advised not to compare SHS data from 2010 onward with data prior to 2010, unless indicated otherwise.

The redesigned SHS incorporates a significant amount of content that was previously collected through the Food Expenditure Survey (FES), last conducted in 2001. Although there are some differences between the SHS and FES methodologies, food expenditure data in both surveys have been collected using an expenditure diary that households are asked to fill in for a period of two weeks. The content of the SHS diary is slightly less detailed than that of the FES diary (e.g., the weight and quantity of food items are not collected) in order to limit the SHS respondent's burden.

The content of the SHS was also reviewed in 2010 to reduce the time required for the interview. A number of components regarding household equipment and dwelling characteristics as well as most of the questions regarding changes in household assets and liabilities have been dropped. Some definitions have also changed. As well, starting with the 2010 survey, the data related to household income and income tax come mainly from personal income tax data.

The new SHS design (applied in the 10 provinces since 2010) was introduced in the territories for the first time in the 2015 reference year. In prior years, coverage in the territories was near-complete and only remote communities were excluded. Starting in 2015, coverage in the three territories is limited to the capital cities due to operational and budget constraints as a result of adopting the new SHS design. As such, users are advised not to compare data for the territories from 2015 and later with those from previous years, unless otherwise noted.

Over time, it has been observed that a growing number of households report grocery totals in the diary instead of detailed expenses for individual grocery items. Having first been used in the 2019 SHS, a method for distributing total expenditures for household groceries reported in the diary was also used in the 2021 SHS. This method was implemented with the aim of improving the process of distributing these grocery totals among grocery items. The previous method used the list of daily grocery expenses made by a donor household to redistribute another household's grocery total. Analysis of the results from this method showed that an insufficient number of food items were imputed when the total to be redistributed was lower. The current method uses the detailed grocery stores receipts (with at least one food item) obtained from other respondents to distribute grocery totals reported by certain households. Totals associated to convenience stores were imputed with detailed receipts from these types of stores.

The 2021 SHS continued to use the method of influential value detection first deployed in 2019 called conditional bias. This recently adopted method was introduced to identify influential values in the expenditure data. These influential values are weighted expenditure amounts for a given household and a given item that are much larger or smaller than the weighted amounts of other households for that same item in a given geographic area. Adjustments are made to the most extreme influential expenditure estimates. While adjustments were made in previous years, this new method has two advantages in that it reduces mean squared error (combination of bias and variance) and removes some of the subjectivity in identifying and adjusting these extreme values. The conditional bias method corrects a larger number of influential values but applies smaller adjustments than the previous method. For this reason, microdata users may observe a greater number of higher values, especially for asymmetric distributions. In order to ensure comparability between the 2019 SHS estimates with those of the 2017 SHS, the 2017 SHS data have been revised using this new method. This was done within the historical revision framework.

For health reasons, and to follow Health Canada's recommendations in terms of reducing the spread of COVID-19, data collection for the 2021 SHS was mainly carried out using a self-administered electronic questionnaire rather than a face-to-face interview. In addition, the expenditure diary was mailed to respondent households instead of being hand-delivered by the interviewer. Although measures have been taken to ensure adequate data quality, changes in the collection strategy may have an impact on the comparability of data between the 2021 SHS and previous cycles of the survey.

4. Data quality

The SHS is subject to error, despite all the precautions taken in each step of the survey process to prevent them or reduce their impact. There are two types of errors: sampling and non-sampling.

4.1 Sampling errors

Sampling errors occur because inferences about the entire population are based on information obtained from only a sample of the population. The sample design, estimation method, sample size and data variability determine the size of the sampling error. The data variability for an expenditure item refers to the differences between members of the population in spending on that item. In general, the greater the differences between households, the larger the sampling error will be.

A common measure of sampling error is the standard error (SE). The SE is the degree of variation in the estimates that results from selecting one particular sample over another. The SE expressed as a percentage of the estimate is called the coefficient of variation (CV). The CV is used to indicate the degree of uncertainty associated with an estimate. For example, if the estimated number of households with a given dwelling characteristic is 10,000 with a CV of 5%, then the actual number is between 9,500 and 10,500 households 68% of the time, and between 9,000 and 11,000 households 95% of the time.

The standard errors for the SHS are estimated using the bootstrap method (see reference [1] in Section 7). CVs are available for the national and provincial estimates as well as for the estimates by household type, age of reference person, household income quintile, household tenure and size of area of residence. For the northern territories, CVs are available for the estimates for the capitals.

4.2 Data suppression

To ensure accuracy, estimates with a CV greater than or equal to 35% have been suppressed from published tables. Suppressed estimates still contribute to summary-level estimates. For example, if the expenditure estimate for a particular item of clothing were suppressed, this amount would still be included in the total estimate for clothing expenditure.

4.3 Non-sampling errors

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

4.3.1 Coverage errors

Coverage errors arise when sampling frame units do not adequately represent the target population. Such errors may occur during sample design or selection, or during data collection or processing.

4.3.2 Response errors

Response errors occur when respondents provide inaccurate information. Such errors may be due to many factors, including flawed design of the questionnaire, misinterpretation of questions by respondents, or faulty reporting by respondents.

Response errors are the most difficult aspect of data quality to measure. In general, the accuracy of SHS data depends largely on the respondent's ability to remember (recall) household expenditures and their willingness to consult records.

4.3.3 Non-response errors

Errors due to non-response occur when potential respondents do not provide the required information or when the information, they provide is unusable. The main impact of non-response on data quality is that it can cause a bias in the estimates if the characteristics of non-respondents differ from those of respondents in a way that impacts the expenditures studied. While response rates can be calculated, they provide only an indication of data quality, since they do not measure the degree of bias present in the estimates. The magnitude of non-response can be considered a simple indicator of the risks of bias in the estimates.

At the national level (10 provinces only), the response rate for the 2021 SHS questionnaire is 32.2%. The provincial response rates are shown in Table 4a. In cycles prior to 2021 this table also showed the number of non-responding households grouped according to reason for non-response. Reasons included the inability to contact the household, the household's refusal to participate in the survey and the inability to conduct an interview because of special circumstances (e.g., the respondent speaks neither official language nor has a physical condition that precludes an interview). Respondents in the latter category were referred to as "residual non-respondents". Considering the use of a self-completed electronic questionnaire for the 2021 SHS instead of a questionnaire administered through a personal interview, the reason for non-response is unknown. All eligible sampled households who did not respond to the questionnaire are considered simply as non-respondents.

Table 4a
Questionnaire response rates, Canada,[1] 2021

	Eligible sampled households	Non-respondents[2]	Respondents	Response rate[3]
	number			percentage
Canada	39,038	26,463	12,575	32.2
Atlantic provinces	12,462	8,525	3,937	31.6
Newfoundland and Labrador	4,012	2,953	1,059	26.4
Prince Edward Island	1,693	1,154	539	31.8
Nova Scotia	3,516	2,373	1,143	32.5
New Brunswick	3,241	2,045	1,196	36.9
Quebec	4,953	3,204	1,749	35.3
Ontario	5,404	3,635	1,769	32.7
Prairie provinces	11,639	7,948	3,691	31.7
Manitoba	3,837	2,518	1,319	34.4
Saskatchewan	3,919	2,698	1,221	31.2
Alberta	3,883	2,732	1,151	29.6
British Columbia	4,580	3,151	1,429	31.2

1. Only the 10 provinces are included.
2. This number includes all non-respondents to the questionnaire. In cycles prior to 2021, the tables showed the number of non-responding households grouped according to reason for non-response. For more information, refer to Section 4.3.3 about Non-response errors.
3. (Respondent households/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Some households do not complete the diary or provide a diary that is considered unusable under the criteria outlined in section 3.5. For the 2021 SHS, the diary response rate among the households who responded to the questionnaire is 50.3% (at the national level, which includes the provinces only). Provincial rates are provided in Table A1 of Appendix A. The final diary response rate (defined as the percentage of usable diaries relative to the number of households in the sample) is 16.2% at the national level, and provincial rates are shown in Table 5a.

Table 5a
Diary response rates, Canada,[1] 2021

	Eligible sampled households[2]	Questionnaire non-respondents	Diaries[3]			Response rate[5]
			Refusals[4]	Unusable	Usable	
	number					percentage
Canada	39,038	26,463	5,951	299	6,325	16.2
Atlantic provinces	12,462	8,525	1,901	88	1,948	15.6
Newfoundland and Labrador	4,012	2,953	544	24	491	12.2
Prince Edward Island	1,693	1,154	279	11	249	14.7
Nova Scotia	3,516	2,373	526	29	588	16.7
New Brunswick	3,241	2,045	552	24	620	19.1
Quebec	4,953	3,204	826	47	876	17.7
Ontario	5,404	3,635	847	46	876	16.2
Prairie provinces	11,639	7,948	1,720	93	1,878	16.1
Manitoba	3,837	2,518	600	44	675	17.6
Saskatchewan	3,919	2,698	554	26	641	16.4
Alberta	3,883	2,732	566	23	562	14.5
British Columbia	4,580	3,151	657	25	747	16.3

1. Only the 10 provinces are included.
2. The eligible sampled households are the same for the questionnaire and the diary.
3. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
4. Includes the respondents to the questionnaire who did not complete the diary.
5. (Usable diaries/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

The response rates vary from month to month. For the 10 provinces, monthly response rates for the questionnaire and diary can be found in tables B1 and B2 of Appendix B. Questionnaire and diary response rates by size of area of residence are shown in tables C1 and C2.

The diary response rates of questionnaire respondents can be found in tables D1, D2, D3 and D4 of Appendix D, disaggregated by various household characteristics, including household type, household tenure, age of the reference person and before-tax income quintile for the 10 provinces.

The questionnaire response rates in the territorial capitals are given in Table 4b below. Altogether, the territorial capitals have an questionnaire response rate equal to 28.8% for SHS 2021.

Table 4b
Questionnaire response rates, territorial capitals,[1] 2021

	Eligible sampled households	Non-respondents[2]	Respondents	Response rate [3]
	number			percentage
Territorial capitals	1,695	1,207	488	28.8
Whitehorse	1,027	714	313	30.5
Yellowknife	668	493	175	26.2

1. The Iqaluit households are excluded.
2. This number includes all non-respondents to the questionnaire. In cycles prior to 2021, the tables showed the number of non-responding households grouped according to reason for non-response. For more information, refer to Section 4.3.3 about Non-response errors.
3. (Respondent households/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

In the territorial capitals, like in the provinces, some households do not complete or provide a diary that is considered unusable under the criteria outlined in Section 3.5. For the 2021 SHS, 42.6% of the households who responded to the questionnaire in the territorial capitals also completed the diary. The final diary response rate in the northern capitals is 12.3%, as shown in table 5b.

Table 5b
Diary response rates, territorial capitals,[1] 2021

	Eligible sampled households[2]	Questionnaire non-respondents	Diaries[3]			Response rate[5]
			Refusals[4]	Unusable	Usable	
	number					percentage
Territorial capitals	1,695	1,207	278	2	208	12.3
Whitehorse	1,027	714	178	1	134	13.0
Yellowknife	668	493	100	1	74	11.1

1. The Iqaluit households are excluded.
2. The eligible sampled households are the same for the questionnaire and the diary.
3. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
4. Includes the respondents to the questionnaire who did not complete the diary.
5. (Usable diaries/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

For the territorial capitals, the diary response rates among questionnaire respondents are given in Table H1 of Appendix H. The questionnaire and diary response rates by quarter are provided in Tables H2 and H3 of Appendix H.

For all selected households (provinces and territorial capitals), cases for which the respondent fails to answer some of the questions are referred to as partial non-response. Imputing missing values compensates for this partial non-response. Various imputation rates are shown in section 4.3.5. There are also cases in which a household fails to enter data in the diary for each day in their diary reporting period as required. Adjustment factors are thus calculated to take these non-responded days into consideration and are applied to estimates derived from the diary data.

4.3.4 Processing errors

Processing errors may occur in any of the data processing stages, including data entry, coding, editing, imputation of partial non-response, weighting and tabulation. Steps taken to reduce processing errors are described in section 3.5.

4.3.5 Imputation of partial non-responses

The residual bias remaining after the imputation of partial non-responses is difficult to measure. Its magnitude depends on the imputation method's ability to produce unbiased estimates. The imputation rates provide an indication of the magnitude of partial non-response.

Partial questionnaire non-response may result from a lack of information or from an invalid response to a question. The national and provincial percentages of households for which certain expenditure categories required imputation due to partial questionnaire non-response are shown in Table 6a. These percentages are shown for the territorial capitals in Table 6b. Percentages are presented by number of imputed expenditure variables per household out of all consumer expenditure data collected in the questionnaire. Each of these tables contains

two series of results: one series includes expenditures for communication services (telephone, cell phone, and Internet), television services (via cable, a satellite dish, or a phone line), satellite radio services, and home security services; the other series excludes these expenses. This distinction has been made because these services are increasingly being billed for as bundled services, making it difficult or impossible for respondents to provide separate expenditure amounts for each service. Therefore, the total amount paid for the package is allocated to individual services through imputation, which significantly increases the number of households for which expenditures must be imputed.

The change in the collection strategy for SHS 2021, detailed in Section 3.4, had an impact on various aspects of the survey, including imputation. To an extent, the higher percentages of households for which certain expenditure categories required imputation for SHS 2021 can be associated with the new collection modes used. For example, it was observed that the respondents who completed the self-administered electronic questionnaire and did not benefit from the guidance of an interviewer, had higher partial non-response compared to the respondents who completed the questionnaire with the help of an interviewer during a telephone follow-up. In addition, changes observed in the reporting of expenditures due to the new collection modes have led to the modification of some processing and imputation strategies. Therefore, the change in the collection strategy has an impact on the comparability of the SHS 2021 imputation rates and the rates obtained in prior cycles of the survey.

Table 6a
Percentage of households requiring imputation for consumer expenses collected in the questionnaire, Canada,[1] 2021

	Number of variables imputed[2] (out of 160)				Number of variables imputed[3] (out of 165)			
	1	2 to 9	10 or more	Total	1	2 to 9	10 or more	Total
	percentage							
Canada	12.1	14.8	32.9	59.8	6.7	40.5	34.0	81.2
Newfoundland and Labrador	11.6	15.6	34.6	61.8	2.5	51.3	36.2	89.9
Prince Edward Island	12.8	13.4	36.4	62.5	6.5	39.7	37.8	84.0
Nova Scotia	12.0	15.2	34.2	61.4	4.9	45.8	35.1	85.8
New Brunswick	12.9	14.7	32.6	60.2	4.6	49.2	33.5	87.4
Quebec	12.9	13.2	28.4	54.5	7.1	42.4	29.6	79.0
Ontario	11.5	14.6	32.3	58.3	8.7	32.7	33.4	74.7
Manitoba	11.5	16.8	30.9	59.3	8.1	35.9	31.9	75.9
Saskatchewan	12.5	14.7	33.4	60.6	6.6	40.7	34.8	82.1
Alberta	11.9	16.2	34.1	62.2	7.6	35.4	35.3	78.4
British Columbia	12.0	14.3	35.8	62.1	8.5	36.7	36.6	81.7

1. Only the 10 provinces are included.
2. Excluding expenditures related to communication, television, satellite radio and home security services.
3. Including expenditures related to communication, television, satellite radio and home security services.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 6b
Percentage of households requiring imputation for consumer expenses collected in the questionnaire, territorial capitals,[1] 2021

	Number of variables imputed[2] (out of 160)				Number of variables imputed[3] (out of 165)			
	1	2 to 9	10 or more	Total	1	2 to 9	10 or more	Total
	percentage							
Territorial capitals	15.4	18.0	35.9	69.3	10.2	33.0	36.1	79.3
Whitehorse	14.4	17.3	36.7	68.4	8.9	31.6	36.7	77.3
Yellowknife	17.1	19.4	34.3	70.9	12.6	35.4	34.9	82.9

1. The Iqaluit households are excluded.
2. Excluding expenditures related to communication, television, satellite radio and home security services.
3. Including expenditures related to communication, television, satellite radio and home security services.
Source: Statistics Canada, Survey of Household Spending, 2021.

Users of expenditure estimates related to communication, television, satellite radio or home security services should therefore take the high level of imputation for the expenditure data into account when examining these individual services. A measure of the impact of imputation on each individual service has been produced in Table E1 of Appendix E for the provinces and in Table H4 of Appendix H for the territorial capitals. This measure represents the proportion of the total value of the estimate obtained from imputed data.

For expenditure data from the diaries, imputation is used in three ways. It is used to assign a value when the amount of a reported expenditure is missing. It is also used to assign a list of expenditure items (with individual costs) when only the total cost for a bundle of items has been provided. For example, imputation can assign grocery items and their individual costs in a case where the respondent has provided only the total amount of their grocery bill. Finally, imputation is used to assign an expenditure code that is more detailed than the one that could be assigned using the information provided by a respondent (e.g., the type of bakery product). The imputation rates for each of these three types of imputation are shown in Table F1 of Appendix F for Canada and in Table H5 of Appendix H for the territorial capitals. Each rate represents the proportion of imputed items relative to all expenditure items from the diaries.

The risks of bias associated with the imputed data depend largely on the level of detail at which the SHS data are used. For example, food expenditure data in the SHS are produced at a high level of detail to meet the needs of Food Expenditure Survey (last conducted in 2001) users. Food expenditures are categorized using a hierarchical system of more than 200 expenditure codes. For some reported expenditure items, the food product may have been known (e.g., dairy products or even milk), but the level of detail required (e.g., skim milk, 1% milk or 2% milk) had to be imputed. This type of imputation creates a risk of bias only in expenditure estimates at a very detailed level. In other cases, however, almost no information on the type of expenditure was available before imputation (e.g., it was known only that the expenditure was for a good). When so little information is available, the risks of bias in the estimates of the expenditure categories are more significant.

Restaurant expenditures are reported using a slightly different format in the second section of the diary. Imputation is used primarily to assign a value when the total amount of the restaurant expenditure or the cost of alcoholic beverages is missing, or when the type of meal (breakfast, lunch, dinner or snack and beverage) has not been specified. The imputation rate for each of these three types of imputation is shown in Table F2 of Appendix F for Canada and in Tables H6 of Appendix H for the territorial capitals.

Lastly, households have the option of either providing receipts or recording their expenditure information in the diary. Tables 7a and 7b show the percentage of expenditures reported using each method for food expenditures, restaurant expenditures, and expenditures for other goods and services for Canada and the territorial capitals respectively.

Table 7a
Methods for recording expenses in the diary, Canada,[1] 2021

	Transcriptions	Receipts
Expenditure category	percentage	
Food	22.9	77.1
Restaurant	83.5	16.5
Other goods and services	50.6	49.4

1. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 7b
Methods for recording expenses in the diary, territorial capitals,[1] 2021

	Transcriptions	Receipts
Expenditure category	percentage	
Food	16.8	83.2
Restaurant	80.5	19.5
Other goods and services	47.6	52.4

1. The Iqaluit households are excluded.
Source: Statistics Canada, Survey of Household Spending, 2021.

4.4 The effect of large values

For any sample, estimates of totals, averages and standard errors can be affected by the presence or absence of large values in the sample. Large values are more likely to arise from positively skewed populations. Such values are found in the SHS and are taken into account when the final estimates are generated. Section 3.9 provides a description of the method applied in order to adjust for these influential values.

5. Derivation of data tables

This section shows how the SHS data tables, previously known as “CANSIM tables” (see Section 6), have been derived. It then explains the calculations used most frequently to manipulate the data. Users are advised to refer to this section before undertaking data analysis.

As mentioned in section 3.6, two different sets of weights are necessary for the SHS: one set for the questionnaire and another set for the diary. These two weights are used to derive different estimates using the survey data.

5.1 Estimates of number of households

Adjustments made during weighting ensure that the estimated number of households at the provincial level is the same for both sets of weights (questionnaire and diary) for the following domains:

- Household sizes of one, two, and three or more persons.
- Household income groups defined according to provincial quintiles.

By default, the estimate of the number of households for any aggregation of these domains is the same for both sets of weights.

For any other domain, an estimate of the number of households may differ to a certain extent between the two sets of weights, since the calibration strategy used to adjust weights differs between the questionnaire and the diary outside of the domains listed above. The estimated number of households in the SHS tables has been produced using questionnaire weights, as opposed to diary weights. The average household size is also estimated using the questionnaire weights.

The estimated number of households and the average household size of the various domains for which expenditure estimates are published online are available in tables G1 and G2 of Appendix G for Canada and the provinces and in Table H7 of Appendix H for the territorial capitals.

5.2 Estimates of average expenditures per household

Estimates of average expenditures per household based on both questionnaire and diary expenditure data are produced in two steps. Estimates are produced separately for the questionnaire data and the diary data and are then added together in a second step.

For estimates of average expenditures per household, the questionnaire average expenditures per household are first calculated using the weighted sum of expenditure data obtained from the questionnaire divided by the sum of the questionnaire weights. Similarly, the diary average expenditures per household are estimated using the weighted sum of expenditure data obtained from the diary divided by the sum of the diary weights. The two components are then added together to obtain the average expenditures per household. For domains in which the estimated number of households differs between the two sets of weights, average expenditures per household derived using this method will not exactly match the combined questionnaire and diary weighted sum of expenditures divided by the estimated number of households produced using the questionnaire weights. Nevertheless, the approach ensures that the sum of the average expenditures per household for all categories equals the average total expenditure per household.

5.3 Examples of expenditure estimates

This section includes examples of expenditure estimates produced using a combination of questionnaire and diary data. It also shows examples of the estimated number of households produced from the questionnaire weights. These examples are provided to show how different expenditure estimates (presented in section 5.4) can be calculated using published SHS data.

The data tables available online include estimates of average expenditures per household. The estimated number of households and the average household size are also available at the national, regional and provincial levels. The estimated number of households and the average household size for other domains are not included in these

tables but are provided in tables G1 and G2 of Appendix G for Canada and the provinces and in Tables H7 of Appendix H for the territorial capitals.

Table 8 shows the estimated number of households and average household size by household tenure as provided in the tables of Appendix G (not available in the data tables online), while Table 9 shows examples of average household expenditure estimates available to users through the SHS data tables.

Table 8
Estimated number of households and average household size based on questionnaire weights, by household tenure

	All households	Owners with mortgage	Owners without mortgage	Renters
	numbers			
Estimated number of households	15,122,544	5,623,576	4,856,152	4,642,815
Average household size	2.46	3.08	2.19	2.00

Note: Estimates in these tables are from the 2021 SHS and were calculated using weights based on population projections from the 2016 Census.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table 9
Average household expenditures obtained from questionnaire and diary data, by household tenure

	All households	Owners with mortgage	Owners without mortgage	Renters
	dollars			
Total expenditures[1]	47,383	67,002	37,478	33,988
Food expenditures	10,305	12,487	9,951	8,036
Food purchased from stores	8,065	9,647	8,036	6,163
Food purchased from restaurants	2,189	2,764	1,869	1,844
Shelter	21,106	33,118	12,787	15,256
Household furnishings and equipment	3,570	5,130	3,304	1,964
Clothing and accessories	2,303	2,973	1,835	1,980
Transportation	10,099	13,294	9,601	6,752

1. Total of expenditure for the categories used in this example.
Note: Estimates in these tables are from the 2021 SHS and were calculated using weights based on the population projections from the 2016 Census.
Source: Statistics Canada, Survey of Household Spending, 2021.

The following section provides examples demonstrating how to produce other estimates using tables such as Table 8 and Table 9 above.

5.4 Calculating various estimates

The following section explains some of the calculation methods most commonly used to manipulate SHS expenditure estimates.

5.4.1 Average expenditures per person

To calculate the average expenditures per person for a given category, divide the average expenditures per household for that category (Table 9) by the average household size (found on the second line of Table). For example, the average food expenditures per person for renter households are calculated as follows:

$$\textit{Average food expenditures per person for renter households} = \frac{\textit{Average food expenditures per renter household}}{\textit{Average size of renter household}}$$

Example:

$$\frac{\$8{,}036}{2.00} = \$4{,}018$$

When analyzing estimates of average expenditures per person, note that household composition (number of children and adults) is a significant factor in many expenditure patterns. As such, the method above provides only an approximation of the average per person. The SHS is not specifically designed to produce estimates of spending at the person level.

5.4.2 Percentage of average total household expenditures (budget share)

To calculate the budget share of an individual expenditure category as a percentage of average total household expenditures, divide the average expenditures per household for that category by the average total expenditures per household, and then multiply by 100. For example, using Table 9, the percentage of average total expenditures per household represented by the average expenditures on food per household, for renter households, is calculated by the following ratio:

$$\begin{gathered} Average\ expenditures\ on\ food \\ as\ a\ percentage\ of\ average\ total\ expenditures\ for\ renter\ households \\ = \\ \frac{Average\ expenditures\ on\ food\ per\ renter\ household}{Average\ total\ expenditures\ per\ renter\ household} \times 100 \end{gathered}$$

Example:

$$\frac{\$8{,}036}{\$33{,}988} \times 100 = 23.64\%$$

5.4.3 Combining expenditure categories

The average expenditures per household for different expenditure categories can be added together in one column to create new subtotals. For example, the average expenditures on shelter and transportation combined per renter household are calculated as follows:

$$\begin{gathered} Average\ expenditures\ on\ shelter\ per\ renter\ household\ + \\ Average\ expenditures\ on\ transportation\ per\ renter\ household \end{gathered}$$

Example:

$$\$15{,}256 + \$6{,}752 = \$22{,}008$$

5.4.4 Aggregate expenditures

To calculate aggregate expenditures, multiply the average expenditures per household from one column for an expenditure category (Table 9) by the estimated number of households from the same column in Table 8. For example, the aggregate expenditures on food for renter households are calculated as follows:

$$Average\ expenditures\ on\ food\ per\ renter\ household\ \times Estimated\ number\ of\ renter\ households$$

Example:

$$\$8{,}036\ \times 4{,}642{,}815 = \$37{,}309{,}661{,}340$$

Note: Since the average food expenditure comes from diary data alone, and the estimated number of households in the domain used differs slightly depending on whether it is calculated using the questionnaire weights or the diary weights, this estimate of aggregate expenditures only approximates the value that would have been obtained using the weighted sum of expenditures. Indeed, if the estimated number of households used in the calculation were based on the diary weights (not available online), the estimate of aggregate food expenditures for renter households would be slightly different at $36,356,679,561.

The estimates of aggregate expenditures are exact for all domains for which the sum of the questionnaire weights and the sum of the diary weights are the same (see section 5.1), as well as for all variables derived only from the questionnaire.

5.4.5 Aggregate expenditures by combining data columns

To calculate aggregate expenditures for a given expenditure category for multiple columns, calculate the aggregate expenditures for this category for each column and then add them together.

For example, the aggregate expenditures on food by owner households (with or without a mortgage) are calculated as follows:

$$\begin{aligned} &Aggregate\ expenditures\ on\ food\ for\ owner\ households\ with\ or\ without\ a\ mortgage \\ &= \\ &(Average\ expenditures\ on\ food\ per\ owner\ household\ with\ a\ mortgage \\ &\quad \times Estimated\ number\ of\ owner\ households\ with\ a\ mortgage) \\ &+ \\ &(Average\ expenditures\ on\ food\ per\ owner\ household\ without\ a\ mortgage \\ &\quad \times Estimated\ number\ of\ owner\ households\ without\ a\ mortgage) \end{aligned}$$

Example:

$$(\$12{,}487 \times 5{,}623{,}576) + (\$9{,}951 \times 4{,}856{,}152) = \$118{,}545{,}162{,}064$$

5.4.6 Average expenditures per household by combining data columns

To calculate the average expenditures for a given expenditure category for multiple columns, calculate the aggregate expenditures for this category for each column, add them together, and then divide the total by the sum of the estimated number of households in those columns (Table 8). For example, the average expenditures on food per owner household (with or without a mortgage) are calculated as follows:

$$\frac{\begin{array}{c}(Average\ expenditures\ on\ food\ per\ owner\ household\ with\ a\ mortgage \\ \times\ Estimated\ number\ of\ owner\ households\ with\ a\ mortgage) \\ + \\ (Average\ expenditures\ on\ food\ per\ owner\ household\ without\ a\ mortgage\ \times \\ Estimated\ number\ of\ owner\ households\ without\ mortgage)\end{array}}{Estimated\ number\ of\ households\ (with\ \ and\ without\ a\ mortgage)}$$

Example:

$$\frac{(\$12{,}487 \times 5{,}623{,}576) + (\$9{,}951 \times 4{,}856{,}152)}{5{,}623{,}576 + 4{,}856{,}152} = \$11{,}312$$

5.4.7 Expenditure share of a subgroup among all households

Here the expenditure share is the percentage of the aggregate expenditures for a given expenditure category that belongs to a particular subgroup of households (e.g., the percentage of all food expenditures made by renter households). It is calculated by deriving the household subgroup's aggregate expenditures for the expenditure category and dividing it by the aggregate expenditure for that expenditure category for all households. The result is then multiplied by 100. For example, the percentage of food expenditures made by renter households is calculated as follows:

$$\begin{array}{c}Percentage\ of\ food\ expenditures\ made\ by\ renter\ households \\ = \\ \frac{Average\ expenditures\ on\ food\ per\ renter\ household \times Estimated\ number\ of\ renter\ households}{Average\ expenditures\ on\ food\ per\ household\ for\ all\ households\ \times Estimated\ total\ number\ of\ households} \times 100\end{array}$$

Example:

$$\frac{\$8{,}036 \times 4{,}642{,}815}{\$10{,}305 \times 15{,}122{,}544} \times 100 = 23.94\%$$

6. Related products and services

6.1 Data tables (formerly CANSIM)

Previously, Statistics Canada data was available via CANSIM (the Canadian Socioeconomic Information Management System), a database consisting of multidimensional cross-sectional tables. CANSIM tables were replaced by data tables with the same or similar content. All of the content previously available has been integrated into the new data tables.

Eight tables presenting annual information from the Survey of Household Spending are available for Canada and the provinces. Table 11-10-0222-01 presents detailed household expenditure estimates, while tables 11-10-0223-01 to 11-10-0227-01 present data according to household income quintile, household type, household tenure, size of area of residence and age of the reference person, respectively. Table 11-10-0228-01 presents information on dwelling characteristics and household equipment. Finally, Table 11-10-0125-01 provides detailed food expenditure estimates.

Two tables are available with SHS estimates for the territorial capitals. Table 11-10-0233-01 presents household expenditure estimates, while Table 11-10-0234-01 presents information on dwelling characteristics and household equipment.

6.2 Microdata products

SHS microdata are also accessible through Statistics Canada's Research Data Centre (RDC) and Real-Time Remote Access (RTRA) programs. Microdata products based on SHS 2021 will be made available in 2023-2024.

6.3 Custom tabulations

For clients with more specialized data needs, custom tabulations can be produced to their specifications on a cost- recovery basis under the terms of a contract (subject to confidentiality restrictions). Detailed aggregate data on household expenditures are also available on a custom basis.

7. References

[1] Charlebois, J. and G. Dubreuil. 2011. *Variance Estimation for the Redesigned Survey of Household Spending*. Proceedings of the Survey Methods Section, Statistical Society of Canada Annual Meeting, June 2011.

Appendix A Diary response rates among questionnaire respondents, Canada[1]

Table A1
Diary response rates among the respondents to the questionnaire, Canada,[1] 2021

	Questionnaire respondents	Diaries[2]			Response rate[4]
		Refusals[3]	Unusable	Usable	
	number				percentage
Canada	12,575	5,951	299	6,325	50.3
Atlantic provinces	3,937	1,901	88	1,948	49.5
Newfoundland and Labrador	1,059	544	24	491	46.4
Prince Edward Island	539	279	11	249	46.2
Nova Scotia	1,143	526	29	588	51.4
New Brunswick	1,196	552	24	620	51.8
Quebec	1,749	826	47	876	50.1
Ontario	1,769	847	46	876	49.5
Prairie provinces	3,691	1,720	93	1,878	50.9
Manitoba	1,319	600	44	675	51.2
Saskatchewan	1,221	554	26	641	52.5
Alberta	1,151	566	23	562	48.8
British Columbia	1,429	657	25	747	52.3

1. Only the 10 provinces are included.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Appendix B Response rates by collection month, Canada[1]

Table B1
Questionnaire response rates by collection month, Canada,[1] 2021

	Eligible sampled households	Non-respondents[2]	Respondents	Response rate[3]
	number			percentage
All months	39,038	26,463	12,575	32.2
January	3,346	2,228	1,118	33.4
February	3,235	2,286	949	29.3
March	3,250	2,183	1,067	32.8
April	3,214	2,240	974	30.3
May	3,288	2,007	1,281	39.0
June	3,248	2,204	1,044	32.1
July	3,244	2,310	934	28.8
August	3,286	2,183	1,103	33.6
September	3,216	2,196	1,020	31.7
October	3,228	2,211	1,017	31.5
November	3,262	2,258	1,004	30.8
December	3,221	2,157	1,064	33.0

1. Only the 10 provinces are included.
2. This number includes all non-respondents to the questionnaire. In cycles prior to 2021, the table showed the number of non-responding households grouped according to reason for non-response. For more information, refer to Section 4.3.3 about Non-response errors.
3. (Respondent households/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

1. Only the 10 provinces are included.

Table B2
Diary response rates by collection month, Canada,[1] 2021

	Eligible sampled households[2]	Questionnaire non-respondents	Diaries[3]			Response rate[5]
			Refusals[4]	Unusable	Usable	
	number					percentage
All months	39,038	26,463	5,951	299	6,325	16.2
January	3,346	2,228	617	24	477	14.3
February	3,235	2,286	548	22	379	11.7
March	3,250	2,183	499	35	533	16.4
April	3,214	2,240	404	25	545	17.0
May	3,288	2,007	549	26	706	21.5
June	3,248	2,204	473	24	547	16.8
July	3,244	2,310	392	21	521	16.1
August	3,286	2,183	515	26	562	17.1
September	3,216	2,196	431	28	561	17.4
October	3,228	2,211	466	26	525	16.3
November	3,262	2,258	470	17	517	15.8
December	3,221	2,157	587	25	452	14.0

1. Only the 10 provinces are included.
2. The eligible sampled households are the same for the questionnaire and the diary.
3. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
4. Includes the respondents to the questionnaire who did not complete the diary.
5. (Usable diaries/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Appendix C Response rates by size of area of residence and by dwelling type, Canada[2]

Table C1
Questionnaire response rates by size of area of residence, Canada,[1] 2021

	Eligible sampled households	Non-respondents[2]	Respondents	Response rate[3]
	number			percentage
All population centres and rural areas	39,038	26,463	12,575	32.2
Population centre 1,000,000 and over	11,367	7,541	3,826	33.7
Population centre 500,000 to 999,999	4,028	2,625	1,403	34.8
Population centre 250,000 to 499,999	4,422	2,960	1,462	33.1
Population centre 100,000 to 249,999	7,116	4,752	2,364	33.2
Population centre 30,000 to 99,999	4,069	2,773	1,296	31.9
Population centre 1,000 to 29,999	3,870	2,764	1,106	28.6
Rural area	4,166	3,048	1,118	26.8

1. Only the 10 provinces are included.
2. This number includes all non-respondents to the questionnaire. In cycles prior to 2021, the tables showed the number of non-responding households grouped according to reason for non-response. For more information, refer to Section 4.3.3 about Non-response errors.
3. (Respondent households/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

2. Only the 10 provinces are included.

Table C2
Diary response rates by size of area of residence, Canada,[1] 2021

	Eligible sampled households[2]	Questionnaire non-respondents	Diaries[3]			Response rate[5]
			Refusals[4]	Unusable	Usable	
	number					percentage
All population centres and rural areas	39,038	26,463	5,951	299	6,325	16.2
Population centre 1,000,000 and over	11,367	7,541	1,811	96	1,919	16.9
Population centre 500,000 to 999,999	4,028	2,625	634	45	724	18.0
Population centre 250,000 to 499,999	4,422	2,960	657	36	769	17.4
Population centre 100,000 to 249,999	7,116	4,752	1,133	43	1,188	16.7
Population centre 30,000 to 99,999	4,069	2,773	660	26	610	15.0
Population centre 1,000 to 29,999	3,870	2,764	523	25	558	14.4
Rural area	4,166	3,048	533	28	557	13.4

1. Only the 10 provinces are included.
2. The eligible sampled households are the same for the questionnaire and the diary.
3. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
4. Includes the respondents to the questionnaire who did not complete the diary.
5. (Usable diaries/Eligible sampled households) x 100.

Source: Statistics Canada, Survey of Household Spending, 2021.

Appendix D Diary response rates among questionnaire respondents, by various household characteristics, Canada[3]

Table D1
Diary response rates among the respondents to the questionnaire, by household type, Canada,[1] 2021

	Questionnaire respondents	Diaries[2]			Response rate[4]
		Refusals[3]	Unusable	Usable	
	number				percentage
All household types	12,575	5,951	299	6,325	50.3
One person household	3,507	1,592	137	1,778	50.7
Couple without children	3,947	1,568	77	2,302	58.3
Couple with children	3,237	1,690	52	1,495	46.2
Couple with other related or unrelated persons	491	283	7	201	40.9
Lone-parent household with no additional persons	678	391	15	272	40.1
Other household with related or unrelated persons	715	427	11	277	38.7

1. Only the 10 provinces are included.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.

Source: Statistics Canada, Survey of Household Spending, 2021.

Table D2
Diary response rates among the respondents to the questionnaire, by household tenure, Canada,[1] 2021

	Questionnaire respondents	Diaries[2]			Response rate[4]
		Refusals[3]	Unusable	Usable	
	number				percentage
All household tenures	12,575	5,951	299	6,325	50.3
Owner without mortgage	4,697	1,816	136	2,745	58.4
Owner with mortgage	4,820	2,497	83	2,240	46.5
Renter (with or without rent paid)	3,058	1,638	80	1,340	43.8

1. Only the 10 provinces are included.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.

Source: Statistics Canada, Survey of Household Spending, 2021.

3. Only the 10 provinces are included.

Table D3
Diary response rates among the respondents to the questionnaire, by age of the reference person, Canada,[1] 2021

	Questionnaire respondents	Diaries[2]			
		Refusals[3]	Unusable	Usable	Response rate[4]
	number				percentage
Reference person of all ages	12,575	5,951	299	6,325	50.3
Less than 30 years	662	406	11	245	37.0
30 to 39 years	1,806	1,006	31	769	42.6
40 to 54 years	3,127	1,680	58	1,389	44.4
55 to 64 years	2,749	1,252	71	1,426	51.9
65 years and over	4,231	1,607	128	2,496	59.0

1. Only the 10 provinces are included.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table D4
Diary response rates among the respondents to the questionnaire, by before-tax income quintile, Canada,[1] 2021

	Questionnaire respondents	Diaries[2]			
		Refusals[3]	Unusable	Usable	Response rate[4]
	number				percentage
Total of all income quintiles	12,575	5,951	299	6,325	50.3
Lowest quintile	2,032	979	80	973	47.9
Second quintile	2,422	1,146	55	1,221	50.4
Third quintile	2,865	1,289	75	1,501	52.4
Fourth quintile	2,685	1,267	55	1,363	50.8
Highest quintile	2,571	1,270	34	1,267	49.3

1. Only the 10 provinces are included.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Appendix E Impact of expenditure imputation on communication, television, satellite radio and home security services, Canada[4]

Table E1
Impact of expenditure imputation on communication, television, satellite radio and home security services, Canada,[1] 2021

	Impact of imputation[2]
	percentage
Landline telephone services	53.6
Cell phone and pager services	24.9
Television and satellite radio services	53.3
Internet access services	41.5
Home security services	16.2

1. Only the 10 provinces are included.
2. The impact of imputation is the proportion of the total value of the estimate that is obtained from imputed data.
Source: Statistics Canada, Survey of Household Spending, 2021.

4. Only the 10 provinces are included.

Appendix F Imputation rates by type of imputation and recording method for diary expenses, Canada[5]

Table F1
Imputation rates for goods and services including food from stores, by type of imputation and recording method, Canada,[1] 2021

Type of imputation	Transcribed items	Items from a receipt	All items
	percentage		
Imputation of a missing cost for a reported expense			
Food from stores	2.7	0.1	1.4
Other goods and services	4.7	0.1	2.7
All expenditures	3.3	0.1	1.8
Imputation of expenditure items (and their individual cost) from a total expense			
Food from stores	78.0	2.0	39.9
Other goods and services	26.0	2.0	15.6
All expenditures	61.5	2.0	32.9
Imputation of detailed expenditure code			
Food from stores	2.9	2.9	2.9
Other goods and services	3.9	3.1	3.5
All expenditures	3.2	2.9	3.1

1. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table F2
Imputation rates for snacks, beverages and meals purchased from restaurants or fast-food outlets, by type of imputation and recording method, Canada,[1] 2021

Type of imputation	Transcribed items	Items from a receipt	All items
	percentage		
Imputation of total cost	0.20	0.25	0.20
Imputation of costs for alcoholic beverages	12.20	10.42	11.91
Imputation of meal type (breakfast, lunch, dinner or snack and beverages)	17.47	4.66	15.35

1. Only the 10 provinces are included.
Source: Statistics Canada, Survey of Household Spending, 2021.

5. Only the 10 provinces are included.

Appendix G Estimated number of households and average household size by domain, Canada[6]

Table G1
Estimated number of households and average household size by domain defined at the national level, Canada,[1] 2021

Domain	Estimated number of households	Average household size
Canada		
All classes	15,122,544	2.46
Region		
Atlantic Region	1,047,265	2.28
Quebec	3,708,809	2.28
Ontario	5,717,489	2.55
Prairie Region	2,556,656	2.64
British Columbia	2,092,325	2.42
Province		
Newfoundland and Labrador	224,060	2.29
Prince Edward Island	67,874	2.34
Nova Scotia	418,453	2.29
New Brunswick	336,878	2.26
Quebec	3,708,809	2.28
Ontario	5,717,489	2.55
Manitoba	510,072	2.54
Saskatchewan	445,262	2.47
Alberta	1,601,322	2.72
British Columbia	2,092,325	2.42
Before-tax household income quintile (national)		
Lowest quintile	3,022,584	1.34
Second quintile	3,025,179	1.85
Third quintile	3,024,800	2.45
Fourth quintile	3,023,096	2.99
Highest quintile	3,026,885	3.67
Household type		
One person households	4,543,902	1.00
Couples without children	3,972,969	2.00
Couples with children	4,003,941	3.98
Couples with other related or unrelated persons	705,433	5.10
Lone-parent households with no additional persons	851,804	2.53
Other households with related or unrelated persons	1,044,495	2.91
Household tenure		
Owner	10,479,729	2.67
Owner with mortgage	5,623,576	3.08
Owner without mortgage	4,856,152	2.19
Renter	4,642,815	2.00
Size of area of residence		
Population centre 1,000,000 and over	7,025,080	2.59
Population centre 500,000 to 999,999	1,239,055	2.51
Population centre 250,000 to 499,999	1,242,334	2.43
Population centre 100,000 to 249,999	1,670,421	2.31
Population centre 30,000 to 99,999	1,240,259	2.20
Population centre 1,000 to 29,999	1,292,164	2.23
Rural	1,413,232	2.46
Age of reference person		
Less than 30 years	1,260,682	2.09
30 to 39 years	2,779,610	2.70
40 to 54 years	3,811,877	3.29
55 to 64 years	3,043,227	2.41
65 years and over	4,227,148	1.71

1. Only the 10 provinces are included.
Note: Subtotals may not add up to the total due to rounding.
Source: Statistics Canada, Survey of Household Spending, 2021.

6. Only the 10 provinces are included.

Table G2
Estimated number of households and average household size by domain, provincial level, 2021

Domain	Estimated number of households	Average household size
Newfoundland and Labrador		
All classes	224,060	2.29
Lowest quintile	44,301	1.37
Second quintile	45,232	1.74
Third quintile	44,870	2.38
Fourth quintile	44,772	2.66
Highest quintile	44,885	3.28
Prince Edward Island		
All classes	67,874	2.34
Lowest quintile	13,515	1.60
Second quintile	13,541	1.64
Third quintile	13,369	2.38
Fourth quintile	13,708	2.78
Highest quintile	13,742	3.28
Nova Scotia		
All classes	418,453	2.29
Lowest quintile	83,656	1.25
Second quintile	83,650	1.83
Third quintile	83,643	2.26
Fourth quintile	83,807	2.75
Highest quintile	83,696	3.34
New Brunswick		
All classes	336,878	2.26
Lowest quintile	66,391	1.38
Second quintile	68,197	1.75
Third quintile	67,178	2.25
Fourth quintile	67,578	2.60
Highest quintile	67,534	3.31
Quebec		
All classes	3,708,809	2.28
Lowest quintile	740,343	1.22
Second quintile	741,422	1.67
Third quintile	743,257	2.04
Fourth quintile	740,639	2.93
Highest quintile	743,149	3.51
Ontario		
All classes	5,717,489	2.55
Lowest quintile	1,142,458	1.38
Second quintile	1,140,037	2.02
Third quintile	1,147,723	2.58
Fourth quintile	1,143,130	3.04
Highest quintile	1,144,141	3.74
Manitoba		
All classes	510,072	2.54
Lowest quintile	101,255	1.49
Second quintile	102,660	1.82
Third quintile	101,722	2.54
Fourth quintile	102,411	3.09
Highest quintile	102,023	3.73
Saskatchewan		
All classes	445,262	2.47
Lowest quintile	87,311	1.36
Second quintile	89,030	1.96
Third quintile	90,674	2.56
Fourth quintile	89,088	3.02
Highest quintile	89,160	3.46
Alberta		
All classes	1,601,322	2.72
Lowest quintile	319,453	1.40
Second quintile	320,944	2.20
Third quintile	317,299	2.65
Fourth quintile	322,450	3.62
Highest quintile	321,176	3.70

Table G2
Estimated number of households and average household size by domain, provincial level, 2021

Domain	Estimated number of households	Average household size
British Columbia		
All classes	2,092,325	2.42
Lowest quintile	418,110	1.48
Second quintile	418,812	1.76
Third quintile	417,547	2.27
Fourth quintile	418,745	2.94
Highest quintile	419,110	3.64

Note: Subtotals may not add up to the total due to rounding.
Source: Statistics Canada, Survey of Household Spending, 2021.

Appendix H Response rates, imputation rates, estimated number of households and average household size by domain, territorial capitals[7]

Table H1
Diary response rates among the respondents to the questionnaire, territorial capitals,[1] 2021

	Questionnaire respondents	Diaries[2]			
		Refusal[3]	Unusable	Usable	Response rate[4]
	number				percentage
Territorial capitals	488	278	2	208	42.6
Whitehorse	313	178	1	134	42.8
Yellowknife	175	100	1	74	42.3

1. The Iqaluit households are excluded.
2. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
3. Includes the respondents to the questionnaire who did not complete the diary.
4. (Usable diaries/Questionnaire respondents) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table H2
Questionnaire response rates by quarter, territorial capitals,[1] 2021

	Eligible sampled households	Non-respondents[2]	Respondents	Response rate[3]
		number		percentage
Territorial capitals				
All quarters	1,695	1,207	488	28.8
Quarter 1	432	302	130	30.1
Quarter 2	421	301	120	28.5
Quarter 3	417	302	115	27.6
Quarter 4	425	302	123	28.9
Whitehorse				
All quarters	1,027	714	313	30.5
Quarter 1	265	180	85	32.1
Quarter 2	255	182	73	28.6
Quarter 3	250	176	74	29.6
Quarter 4	257	176	81	31.5
Yellowknife				
All quarters	668	493	175	26.2
Quarter 1	167	122	45	26.9
Quarter 2	166	119	47	28.3
Quarter 3	167	126	41	24.6
Quarter 4	168	126	42	25.0

1. The Iqaluit households are excluded.
2. This number includes all non-respondents to the questionnaire. In cycles prior to 2021, the tables showed the number of non-responding households grouped according to reason for non-response. For more information, refer to Section 4.3.3 about Non-response errors.
3. (Respondent households/Eligible sampled households) x 100.
Source: Statistics Canada, Survey of Household Spending, 2021.

7. The Iqaluit households are excluded.

Table H3
Diary response rates by quarter, territorial capitals,[1] 2021

	Eligible sampled households[2]	Questionnaire non-respondents	Diaries[3]			Response rate[5]
			Refusals[4]	Unusable	Usable	
	number					percentage
Territorial capitals						
All quarters	1,695	1,207	278	2	208	12.3
Quarter 1	432	302	82	2	46	10.6
Quarter 2	421	301	62	0	58	13.8
Quarter 3	417	302	66	0	49	11.8
Quarter 4	425	302	68	0	55	12.9
Whitehorse						
All quarters	1,027	714	178	1	134	13.0
Quarter 1	265	180	55	1	29	10.9
Quarter 2	255	182	40	0	33	12.9
Quarter 3	250	176	40	0	34	13.6
Quarter 4	257	176	43	0	38	14.8
Yellowknife						
All quarters	668	493	100	1	74	11.1
Quarter 1	167	122	27	1	17	10.2
Quarter 2	166	119	22	0	25	15.1
Quarter 3	167	126	26	0	15	9.0
Quarter 4	168	126	25	0	17	10.1

1. The Iqaluit households are excluded.
2. The eligible sampled households are the same for the questionnaire and the diary.
3. The definition of usable and unusable diaries is given in the "Data processing and quality control" section.
4. Includes the respondents to the questionnaire who did not complete the diary.
5. (Usable diaries/Eligible sampled households) x 100.

Source: Statistics Canada, Survey of Household Spending, 2021.

Table H4
Impact of expenditure imputation on communication, television, satellite radio and home security services, territorial capitals,[1] 2021

	Impact of imputation[2]
	percentage
Landline telephone services	43.6
Cell phone and pager	17.3
Television and satellite radio services	43.4
Internet access services	29.3
Home security services	7.0

1. The Iqaluit households are excluded.
2. The impact of imputation is the proportion of the total value of the estimate that is obtained from imputed data.

Source: Statistics Canada, Survey of Household Spending, 2021.

Table H5
Imputation rates for goods and services including food from stores, by type of imputation and recording method, territorial capitals,[1] 2021

	Transcribed items	Items from a receipt	All items
Type of imputation	percentage		
Imputation of a missing cost for a reported expense			
Food from stores	1.8	0.0	0.8
Other goods and services	6.6	0.0	3.5
All expenditures	3.3	0.0	1.6
Imputation of expenditure items (and their individual cost) from a total expense			
Food from stores	84.9	3.1	40.7
Other goods and services	22.3	2.6	13.1
All expenditures	64.8	3.0	32.7
Imputation of detailed expenditure code			
Food from stores	2.1	1.6	1.8
Other goods and services	4.2	2.8	3.5
All expenditures	2.8	1.9	2.3

1. The Iqaluit households are excluded.

Source: Statistics Canada, Survey of Household Spending, 2021.

Table H6
Imputation rates for snacks, beverages and meals purchased from restaurants or fast-food outlets, by type of imputation and recording method, territorial capitals,[1] 2021

Type of imputation	Transcribed items	Items from a receipt	All items
	percentage		
Imputation of total cost	0.77	0.00	0.62
Imputation of costs for alcoholic beverages	10.77	21.66	12.89
Imputation of meal type (breakfast, lunch, dinner or snack and beverages)	15.38	4.46	13.26

1. The Iqaluit households are excluded.
Source: Statistics Canada, Survey of Household Spending, 2021.

Table H7
Estimated number of households and average household size, territorial capitals,[1] 2021

Domain	Estimated number of households	Average household size
Territorial capitals	20,739	2.54
Whitehorse	12,622	2.41
Yellowknife	8,117	2.73

1. The Iqaluit households are excluded.
Note: Subtotals may not add up to the total due to rounding.
Source: Statistics Canada, Survey of Household Spending, 2021.