

The Guide to the Post Index



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The Guide to the Post Index

Introduction

The Canadian government employs military and civilian expatriates in approximately 400 locations around the world. Canada-based personnel who serve at these posts may experience considerably different living conditions from those in Ottawa-Gatineau, the headquarters of the Canadian federal government. Among these differences are prices for consumer goods and services. Higher prices, fluctuating exchange rates, and inflation at the post may mean that the purchasing power of their Canadian dollar is not as strong as it would be in Ottawa-Gatineau.

The federal government has developed a foreign service compensation system that is embodied in the Foreign Service Directives (FSD), the Military Foreign Service Instructions (MFSI) and the Technical Assistance Regulations (TARs).

One element of foreign service compensation is the Post Living Allowance (PLA), the level of which is regulated by the Post Index (PI). Applied to salary ranges, the Post Index is intended to provide employees with the financial means to maintain a lifestyle comparable to that which would be enjoyed by similar family income earners in Ottawa-Gatineau. The Post Index is not created nor intended to incentivize or induce service abroad.

Post Indexes are compiled and updated in Consumer Prices Division's Government Allowances Section of Statistics Canada, acting in a role of a neutral third party. The provisions of the FSD, including the use of the Post Index in administering the PLA, are determined by employer and employee representatives working within the National Joint Council's (NJC) Foreign Service Directives Committee. At the request of this NJC Committee, Statistics Canada publishes Post Indexes monthly on its website (see: [Canadian Foreign Post Indexes](#)).

Information and explanations contained in this guide reflect determinations made by the NJC. Throughout this guide, reference is made to the FSD 55 but the provisions of the MFSI Section 15 are parallel and apply equally to Canadian Forces members.

Frequently asked questions are included at the end of this publication and are also available on Statistics Canada's website at [Canadian Foreign Post Indexes](#).

1. What is a Post Index?

A Post Index is a comparative measure between the retail price of a representative “basket” (or selection) of products (goods and services) at a foreign location and prices for the same or very similar basket of goods and services in Ottawa-Gatineau, at a given point in time.

The Post Living Allowance (Foreign Service Directive 55) is used to assist federal government employees serving at posts where prices are higher than in Ottawa-Gatineau. Ottawa-Gatineau price levels are expressed as 100. Thus, a Post Index of 110 means that prices at the foreign location are estimated to be about 10 percent higher than those in Ottawa-Gatineau. The Post Index is used in the calculation of the Post Living Allowance (PLA) paid when the post index is greater than 100.

2. What is included and excluded?

The Post Index includes price comparisons for goods and services from thirteen household expenditure categories:

Food purchased from stores	Communications
Meals purchased in restaurants	Transportation
Personal care supplies and services	Tobacco and alcohol
Household supplies and services	Domestic help
Patented medicines (non-prescription)	Household maintenance and repairs
Reading and recreation	Household insurance
Clothing and home furnishings	

In total, more than 400 consumer goods and services or product price specifications are included in the Post Index basket.

Excluded from the basket are items included under other provisions of the FSDs such as shelter, fuel and utilities, furniture, education, vacation trips, etc. The Post Index does not attempt to compare the costs of savings and investments.

No attempt is made to attach a price to physical or environmental factors that determine eligibility of a foreign location for a Post Differential Allowance (FSD 58).

3. The main components of the Post Index

The Post Index is calculated based on three main components:

1. Product **weights**, or the relative importance of each good or service whose price is measured for the Post Index;
2. **Post purchasing patterns**, or the relative importance of each source or outlet where purchases are made, as reported by post personnel; and
3. Product **prices**, converted to Canadian dollars \$CAD, from all purchase sources used by post personnel and prices for the same goods and services in Ottawa-Gatineau.

3.1 The importance of product weights in the Post Index

To produce the Post Index, Statistics Canada determines the goods and services purchased by the typical Canadian household and the proportion of the household budget spent on each using data from the Survey of Household Spending (SHS), conducted among a large cross-section of Canadians. Respondent households are asked to record their expenditures for various types of consumer goods and services during a given year. For the purposes

of the Post Index, a sub-sample of respondents are considered. These include households of one or more persons from the 10 provinces where:

- at least one member was there for the full year, and
- at least one member 21 years or older worked full-time for 52 weeks, and
- this same member had no income from self-employment and had income from wages and salaries, and
- the household’s 2019 income from wages and salaries was at least \$45,000.

New product weights are introduced into the Post Index on an irregular basis. More recent updates to product weights include those based on the 2001 SHS (implemented in 2003), and weights based on the 2005 SHS (implemented in 2009). Weights calculated based on the 2017 SHS were not implemented as Post Index surveys were suspended in March 2020 due to the COVID-19 pandemic.

The 2019 SHS is the latest survey used to establish the typical purchasing profile and resulting product weights. The average household income from wages and salaries before deductions of this group was \$95,087 and the average household size was 3.3 persons (Table 1).

Table 1
Average household income and size by Survey of Household Spending reference year

	Survey of Household Spending (SHS) reference year			
	2001	2005	2017	2019
Average household employment income from wages and salaries before deductions	65,075	80,166	94,906	95,087
			dollars	
Average household size	2.48	2.99	3.00	3.30
			persons	

The SHS serves two main purposes. It:

1. identifies the kinds of goods and services bought by typical households in Canada, and
2. defines the proportion of their expenditures on each of the goods and services included in the survey.

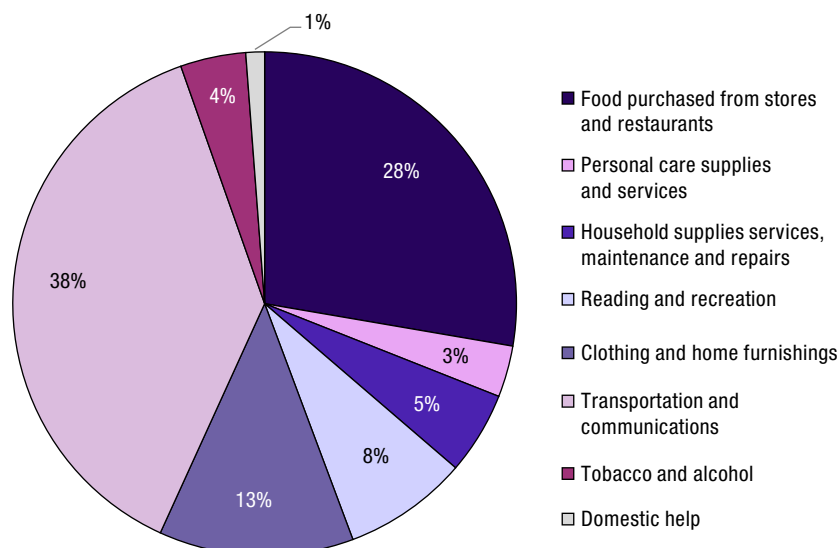
This information is used to determine the goods and services to include in the Post Index basket for pricing as well as the relative importance or “weight” of each. Weights are essential for accurately determining the overall effect of price differences between a foreign post and Ottawa-Gatineau.

To illustrate this concept of weights, Table 2 shows the average amount reported spent in each of four reference years (2001, 2005, 2017 and 2019) on the Post Index basket, grouped into eight major categories. The weighting patterns ultimately used in the calculation of a given Post Index are at the level of individual items.

Table 2
Household expenditures and computation of product (goods and services) weights by Survey of Household Spending reference year

	Amount spent				Relative importance or weight			
	2001	2005	2017	2019	2001	2005	2017	2019
							dollars	
Food purchased from stores and restaurants	8,591	9,106	12,281	12,892	25.3	24.8	26.5	27.7
Personal care supplies and services	1,628	1,763	2,025	1,529	4.8	4.8	4.4	3.3
Household supplies services, maintenance and repairs	1,627	1,678	2,445	2,484	4.8	4.6	5.3	5.3
Reading and recreation	4,416	4,457	3,675	3,737	13.0	12.1	7.9	8.0
Clothing and home furnishings	3,924	4,170	6,212	5,829	11.6	11.3	13.4	12.5
Transportation and communications	12,001	13,755	17,214	17,607	35.4	37.4	37.2	37.8
Tobacco and alcohol	1,289	1,422	2,011	1,970	3.8	3.9	4.3	4.2
Domestic help	424	418	470	505	1.3	1.1	1.0	1.2
Total	33,900	36,768	46,333	46,554	100.0	100.0	100.0	100.0
							percent	

Chart 1
Relative product (goods and services) importance or weights based on the Survey of Household Spending reference year 2019



The weights in Table 2 and Chart 1 relate to the percentage of total household **expenditures** and not total household income.

The importance of using expenditure weights to establish the difference in costs between two locations is shown in the example in Table 3. Consider milk and waxed paper as the only two products included in the Post Index basket with 90% of household expenditures on milk and 10% on waxed paper. A five percent difference in milk prices will normally have a much greater impact on a household's budget than even a 50 percent price difference for waxed paper. The reason is simple: households spend much more on milk than on waxed paper.

Table 3
Importance of expenditure weights

Product	Price ratio base = 100	Equal weights	Product index	Expenditure weight	Product index
	number	percent	number	percent	number
Milk	105	50	53	90	95
Waxed paper	150	50	75	10	15
Post Index	...	...	128	...	110

... not applicable

Notes: Calculation of Product index = price ratio X weights.

Calculation of Post Index = Item index (milk) + Item index (waxed paper)

Placing the same importance on milk and waxed paper (equal-weighted or unweighted average) would result in a Post Index of 128. However, when the greater proportion of household expenditures on milk (90%) is reflected in the Post Index, a more accurate cost difference is reflected with a Post Index of 110. Using expenditure weights means that the overall level of the Post Index will be more heavily influenced by price differentials attached to the categories of goods and services on which Canadians spend the most money.

3.2 Changes to weights since the last basket update

Changes in consumer spending patterns over time is a common research topic including both the amount spent and distribution among the products purchased, as observed in the Survey of Household Spending. Since the previous basket update in 2009 (based on 2005 SHS), consumer spending among the sub-sample of SHS respondents used to calculate the Post Index weights has shifted (Table 4). Average spending increased steadily for food, transportation, communications, and domestic help, while there were decreases in average spending on personal care supplies, reading and recreation, clothing and home furnishings, tobacco and alcohol. On the other hand, the relative proportion of expenditures (weights) stayed the same or increased for food, household supplies, reading and recreation, transportation, communications and domestic help while shifting down for the remaining categories: personal care supplies, clothing and home furnishings, and tobacco and alcohol.

Table 4
Relative Weights 2001 vs. 2005 vs. 2019

	2001	2005	2019
	amount spent (\$CAD)		
Food purchased from stores and restaurants	8,591	9,106	12,892
Personal care supplies and services, maintenance and repairs	1,628	1,763	1,529
Household supplies services	1,627	1,678	2,484
Reading and recreation	4,416	4,457	3,737
Clothing and home furnishings	3,924	4,179	5,829
Transportation and communications	12,001	12,755	17,607
Tobacco and alcohol	1,289	1,422	1,970
Domestic help	424	418	505
Total	33,900	36,768	46,554

3.3 Post purchasing patterns

The term “purchasing pattern” refers to the combination and relative importance of retail outlets and other sources from which post personnel report buying the goods and services included in the Post Index basket. A post purchasing pattern may be very complex or relatively simple, depending on conditions at the post.

Local outlets

The majority of purchases are normally made in **local outlets** at each post. At many locations, purchases of specific goods and services are available to some Canadian expatriates **exempt from sales or value-added taxes**. These goods and services are distinguished from purchases made at full retail value during data processing and are reflected in each post’s purchasing pattern.

Special diplomatic or military stores

Special diplomatic or military stores at some foreign posts offer goods under special arrangements, such as duty or tax-free, to persons with accepted accreditation. These outlets are not an available option for the general public.

Imports

At some locations, post personnel may report **importing products** from other countries, in addition to their local purchases. These imported products may have been purchased while visiting other cities or countries however, more often, they are from export houses, such as Peter Justesen (P.J.). Purchases from online (Internet) sources are also considered to be **direct imports**. Additional costs such as shipping, handling, insurance, etc., are added during purchase processing to reflect the ‘landed price’ of these imported goods.

Brought to post

Items purchased in Canada prior to a posting, and included with effects shipped to the foreign post on initial transfer, or when home on leave, are referred to as **“Brought to post”**. Goods brought from a previous foreign posting are also considered “Brought to post”. Expenditures reported as “Brought to post” are given an index of 100, or

equal to Ottawa-Gatineau. The logic being that goods brought from Canada were purchased in Ottawa-Gatineau at Canadian prices. Goods purchased at a previous foreign post would have been considered under the Post Index calculations at that previous post, providing the necessary compensation to equalize these purchases with similar purchases in Ottawa-Gatineau.

As Ottawa

A percentage of every index is automatically treated “**As Ottawa**”, as per agreement through the NJC deliberation process. As with “Brought to post” expenditures, the index for this part of the Post Index is set at 100.

The most important component treated in this manner is the purchase, depreciation and re-sale cycle of automobiles. The NJC has agreed that this component of the Post Index be based on the principle that Canadians serving abroad are no worse off for this cycle of capital expenditures than they would be had they remained in Canada.

This determination is based on two premises:

1. Under the provisions of FSD 15, a vehicle may be shipped to post, under certain conditions, at no cost to the employee and therefore costs related to the purchase of that vehicle are those of Ottawa-Gatineau.
2. In many locations, vehicles may be purchased free of taxes or duties and may have a lower capital cost than the same vehicle in Ottawa-Gatineau. Further, in some countries, these duty-free vehicles can be sold on the ‘open’ market and, even after a typical three-year posting, the selling price may exceed the original purchase cost.

Despite circumstances where this approach may not be reasonable, for example in countries where right-hand drive vehicles are used, every Post Index is subject to this same treatment.

In posts where crown owned/leased housing or other shelter allowances are provided, household maintenance costs, legal services, and household items such as rugs, small electrical appliances or equipment, etc., also are treated “**As Ottawa**”.

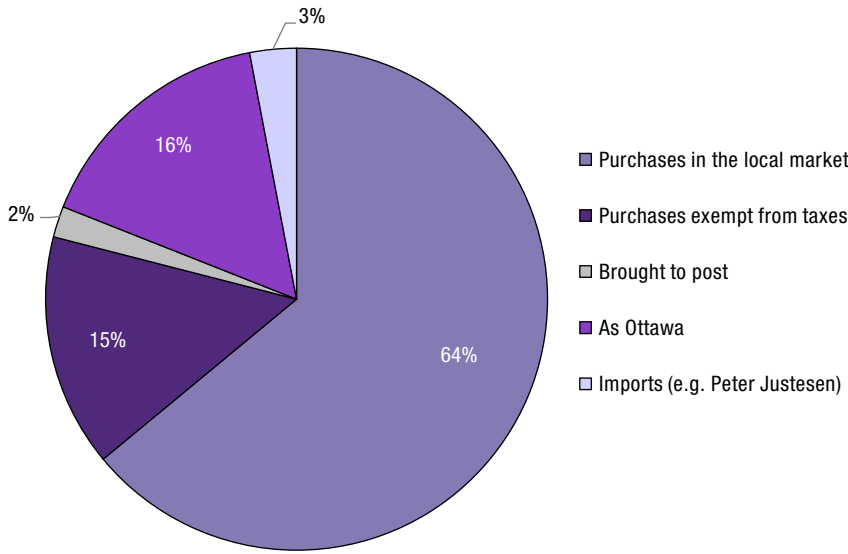
This fixed amount of “As Ottawa”, set at 100, means that every Post Index contains some components that are taken to be at Ottawa-Gatineau price levels. Therefore, even in cases where all purchases are made from local retailers at a post, the overall Post Index level does not solely reflect those local-to-Ottawa-Gatineau price ratios. All Post Indexes will reflect some reduction because of the “As Ottawa” portion of the Index.

Post purchasing pattern

The aggregated “all-items” post pattern is the sum of all the percentages reported for each purchasing source for each good or service, combined to reflect the relative importance of each in the basket (see Chart 1 for a sample post purchasing pattern).

The aggregation of the purchasing patterns reported by each member household is weighted by household size, excluding goods or services that are age or household specific. For example, children’s articles are weighted by the number of children, alcohol and tobacco by the number of adults, and household insurance is weighted equally by the number of respondent households who report this category. As a general example, the reported patterns of households with 5 members, carry much more weight in establishing the average patterns than those of single person households. Every post’s average purchasing pattern is unique to those serving there at the time the survey is conducted.

Chart 2
Example of a post purchasing pattern



3.4 Prices

Information from the Survey of Household Spending, supplemented by successive Post Index survey intelligence enables Statistics Canada to recommend goods and services to be included or replaced in the Post Index basket.

It is much easier to compare the prices of most consumer products between two cities in Canada than it is between a foreign post and Ottawa-Gatineau. Within Canada, matching brands, sizes and quantities can usually be found and prices are already in Canadian dollars. On the other hand, adjustments for package and container weights and measures are often necessary for Post Index purposes, and, when post personnel pay for goods and services in foreign currencies, exchange rates must also be considered.

It is neither necessary nor possible for the basket to include all products purchased within the range of categories of goods and services shown in Table 1, above. A careful selection of key representative goods and services, ensures that the Post Index reflects price differences for a much wider range of products than is sampled. For example, the Post/Ottawa-Gatineau price difference for towels and pillowcases may be a good indicator of the price difference that exists for linens and bedding products overall and be sufficient for this purpose.

Some important criteria and considerations for designing a basket of goods and services includes:

- The good or service should be universally available (or nearly) at all locations because the same survey will be conducted at all posts. Availability may be a particularly constraining consideration in establishing baskets for international price comparisons because of the wide variation in markets, climates and products.
- The good or service should be one commonly purchased by Canadians and have some significance in total household expenditures. Bread and gasoline are two examples of goods that meet these requirements. Diamond necklaces and shoelaces do not. Diamonds are not frequently purchased, if at all, and shoelaces have little significance in the value of total household expenditures.
- The good or service should be easy to identify and conform to a reasonably precise description. Most price collection for a Post Index survey is undertaken by personnel at the post and not by trained price collectors. As a result, item specifications tend to be focused on basic items. For example, in the case of clothing, items such as suits are avoided due to the wide variety of quality differences (styles, materials, etc.) in the marketplace.

- Finally, items are neither included nor excluded on the basis of moral or social judgments. People may regard the inclusion of tobacco or alcohol products as socially undesirable or harmful however they are included because they continue to represent a significant proportion of reported average household expenditures.

4. The Post Index Survey

Typically, a Post Index survey is conducted at each foreign post, in sequence, approximately every 3 to 5 years. Due to the global COVID-19 pandemic, Post Index surveys were suspended starting in March 2020 and resumed in January 2023. The task of collecting prices and other data is shared by personnel of all departments at the post. Survey questionnaires and instructions are forwarded to the post by Statistics Canada through the department responsible for coordinating the survey.

A Post Index survey consists of two questionnaires:

1. Individual Report of Consumer Information, and
2. Pricing Schedules

4.1 Individual Report of Consumer Information

Canada-based members at posts are requested to complete an Individual Report of Consumer Information. Data from these questionnaires are used in calculations of the living cost difference between the foreign post and Ottawa-Gatineau.

Post purchasing pattern

The **Post purchasing pattern** is based on information collected on the percentage of purchases, in terms of quantity not cost, from each type of purchase source (see Section 3.2) for each category of goods and services.

Tax/duty free privileges

Responses to the Individual Report of Consumer Information questionnaires are also used to determine whether post personnel have access to **tax/duty free purchasing privileges** for alcoholic beverages, cigarettes, or gasoline; a factor that influences the cost of these products at the post.

Communications and television services

Costs and other characteristics for **communications and television services**, at the post, including internet access, are requested.

Automobile insurance

If a car is owned or leased, details of **automobile insurance** premiums and coverage are reported. This is in addition to automobile insurance quotes collected on the pricing schedule questionnaires referred to in section 4.2.

Domestic help

Information is collected on the types of **domestic help** employed and their associated costs. The NJC has agreed on a minimum index of 100 for this category. Where hourly labour costs are low relative to Canada (producing low price differentials), it is recognized that expatriates may engage more of these services and spend at least as much as typical Canadians.

Household insurance for tenants

Characteristics and costs of **household contents insurance premiums for tenants** are collected, with post personnel required to provide a photocopy of the policy to facilitate pricing a similar policy in Ottawa-Gatineau for comparison.

4.2 Pricing schedules

Pricing schedule questionnaires are used to collect actual prices paid by post personnel for goods and services and to identify the name of the stores, outlets or retailers where they shop.

Typically, prices from sources used by post personnel, include a minimum of three local outlets and, for most items, two prices, such as two different brands, from each outlet.

At many posts, personnel import goods from export houses located in places such as Denmark or Hong Kong. Post personnel are asked to submit suppliers' invoices for typical import shipments, along with evidence of freight insurance, customs clearance, or other applicable charges. Statistics Canada calculates the final price paid for imported goods during data processing.

There are 36 pricing schedule questions used to collect prices (Table 5).

Table 5
Pricing schedules

Goods or services priced	Question number
Fresh or frozen meats	1
Cured meat and fish	2
Groceries	3 to 9
Frozen foods	10
Fresh fruits and vegetables	11
Personal care supplies	12
Paper, plastic and foil supplies, light bulbs	13
Household supplies	14
Medical and pharmaceutical products (non-prescription)	15
Wine, beer, and cigarettes	16
Recreation equipment	17 to 19
Motor operations costs	20
Women's clothing	21
Men's clothing	22
Children's clothing	23
Household furnishings and equipment	24
Household and personal care services	25
Reading material	26
Communications	27
Movies, video rentals, sports admissions, and performing arts	28
Local transportation	29
Meals in restaurants	30
Liquors and liqueurs	31
Automobile insurance	32
Cable/satellite television service and household insurance	33
Household maintenance and repairs	34
Bank service fees and vehicle registration and licensing	35
Retail sales taxes, value added taxes or service taxes	36

5. Processing price data

The following steps are used to calculate the index for each reported purchase source (purchasing pattern):

- An average price is calculated for each good or service by purchase source. This average price calculation includes adjustments for measures and sizes. For some sources, additional charges such as shipping, packing, insurance, etc. must be added to the purchase price.
- The average price for each good or service from each source is converted to Canadian dollars using the exchange rate in effect for each applicable currency at the time the survey was conducted.
- Each source's average price is compared to the average price in Ottawa-Gatineau, expressed as a ratio. For example, a ratio of 2.0 for a particular product would indicate that the post price from that source is twice the prevailing price in Ottawa-Gatineau.

- d. These item price ratios are then multiplied by the good or service weight, or relative importance, based on the SHS expenditures.
- e. The results are combined or aggregated across all items in a source to produce the index for that source.

Once indexes have been calculated for all reported sources, they are aggregated to form the Post Index for that post. Table 6 illustrates how a Post Index might appear, using the Post purchasing patterns illustrated in Chart 1 (Section 3.2).

Table 6
Example calculation of a Post Index

Source (type of outlet)	Post purchasing pattern	Source index	Index points
	(Outlet significance)		
	percent	number	
Purchases in the local market	64	150	96
Purchases exempt from taxes	15	126	19
Brought to post	2	100	2
As Ottawa	16	100	16
Imports (e.g., Peter Justesen)	3	90	3
Total	100	...	...
Post Index	...	...	136

... not applicable

Notes: Index points are the product of the source index and the associated outlet significance.

In this example, the effective Post Index is 136 (Ottawa-Gatineau = 100) at the time of the survey. This new Post Index undergoes a monthly monitoring (review and update) process from the month the survey was conducted to when the Post Index is published, to ensure the Post Index is up to date (see Section 6, below). The current Post Index, based on the new survey and updated to date of publication, is published or released on Statistics Canada's website. Moving forward, the index undergoes monthly monitoring until the next survey results are published.

6. Monthly monitoring of the Post Index

Once established, Post Indexes are subject to monthly monitoring updates, to ensure their continuing validity. Three factors are considered:

1. Inflation in prices at each source (type of outlet) used at the post.
2. Inflation in Ottawa-Gatineau prices.
3. Exchange rate fluctuations for all currencies in use at a given post (dependent on outlets used), relative to the Canadian dollar.

The monthly monitoring update of each Post Index is effective on the first day of the month, based on the circumstances prevailing in the previous month, i.e., there is a one-month lag. For example, a Post Index effective on August 1, reflects factors from July (see FSD 55).

6.1 Exchange rates

Since post personnel pay for most goods in foreign currencies, exchange rates must be used to convert prices to Canadian dollars. Various types of exchange rates may be obtained for the same currency, e.g., "official rate", "commercial rate", "tourist rate", "parallel rate", "free market rate", so it is imperative to identify the actual exchange rate obtained by post employees. "Black market" rates are never used because post employees are not permitted to exchange funds at these rates.

The average monthly exchange rate for all currencies used in each Post Index are calculated. Bank transaction fees collected in Schedule 35 of the Pricing Schedules are also included.

Exchange rates primarily come from two sources:

- a. Bank of Canada – daily average rates
- b. Bloomberg – daily average rates

When a currency used by employees is not included in the above two sources, some posts may be required to submit a monthly report to Statistics Canada confirming the minimum and maximum rate actually received by employees at the post, as well as the rate most frequently received during the month.

Some posts provide exchange rate information before the end of each month to ensure these rates are reflected in the Post Index.

6.2 Inflation factors

Information on price change in Ottawa and at the post is based on the most recent inflation indicators available from host country national statistical indicators (Consumer Price Index (CPI) or similarly named indexes) or official international organizations that monitor price movements such as Eurostat and the International Monetary Fund. The CPI used for Ottawa-Gatineau is retrieved from [CPI Publication 18-10-0004-01](#) at Statistics Canada. Both the All-Items CPI and Shelter CPI values are used in the adjusted index calculations.

Whenever possible, inflation indicators used in Post Index calculations exclude the Shelter and Fuel and Utilities components, since these are not included in the Post Index. As a result, Post Index inflation may vary from the commonly published national CPIs.

Since CPI-type data is never available immediately, inflation for the current month is always projected to ensure that Post Index levels are kept up to date. When CPI information is available on a frequent and current basis, the Post Index can be monitored over a long period of time with a reasonably high degree of confidence that the index accurately reflects inflation.

At some foreign locations, reliable, official information on local price behaviour may be difficult to obtain. Under these circumstances, Statistics Canada consults with TBS on options that can include:

- a. **Post Index Surveys** outside the regular cycle.
- b. **“Local Price Surveys”** undertaken by post personnel on a regular, continuing basis.
- c. **“Freezing”** the Post Index at a specific value with no monthly monitoring updates.

6.3 Monthly movements in each reported source

The application of the three factors in the monthly monitoring of each Post Index can be demonstrated using the patterns identified in Chart 2, for the source of purchases made on the local market. Calculations are carried out in four steps each month.

1. The inflation rate change (excluding shelter and fuel and utilities) at the post (factor 1) and in Ottawa (factor 2) are calculated and expressed as a ratio.
2. The change in the value of the local currency between the post and Ottawa (factor 2) is calculated (exchange rate change).
3. The inflation rate change ratio and exchange rate change are applied to the post’s local outlet index from the previous month to produce a projected local outlet index.
4. The projected local outlet index is weighted by the importance of the local source in the Post Index (64% in this case) to produce the updated local outlet index.

Image 1
Sample updated, monthly movement calculation, post local outlet index

	Step 1		Step 2		Step 3		Step 4		
Post local outlet index	Post inflation change ÷ Ottawa inflation change	x	Exchange rate change	=	Projected local outlet index	x	Source weight	=	Local outlet index
150	(1.10 ÷ 1.02) = 1.078	x	0.89	=	144	x	0.64	=	92

Where:

Post inflation change: The local rate of inflation (excluding shelter) is 10% (or a ratio of 1.10) since the last survey.

Ottawa inflation change: The rate of inflation (excluding shelter) in Ottawa is 2% (or a ratio of 1.02) since the last survey.

Exchange rate change: The local currency is worth only 89% of its value in terms of the Canadian dollar at the time of the last survey (that is, the Canadian dollar has strengthened relative to the local currency).

The projected local outlet index (144) is lower than it was at the time of the survey (150) because the local currency devaluation has exceeded the difference in the rate of inflation between the post and Ottawa. In other words, the Canadian dollar has appreciated by 12.4% ($1.00 \div 0.89$) while the net inflation changed by only 7.8%. The final factor applied to the local outlet index is 0.9594 (1.078×0.89), or a 4% decrease.

The current month's Post Index will have 92 index points generated from local outlets compared to 96 points at the time of the survey.

The same factors as shown above apply to the movement for the Local Tax-Free portion of the Index and the updated Index would now be 121. The two sources that reflect Canadian dollar expenditures always remain at the same level (i.e., 100.)

For this example, the P.J. Imports portion of the Post Index might move as shown in **Image 2**. The higher rate of inflation at this source, versus Ottawa, and the currency appreciation both increase the outlet index. The factors combine to move the value from 90 to 95 since the time of the survey.

Image 2
Sample updated, monthly movement calculation, Peter Justesen (P.J.) outlet index

P.J. outlet index	x	P.J. (Denmark) inflation change ÷ Ottawa inflation change	x	Exchange rate change	=	Projected P.J. outlet index	x	Weight or importance	=	P.J. outlet index points
90	x	(1.03 ÷ 1.02) = 1.01	x	1.042	=	95	x	0.03	=	3

6.4 The “three percent” rule

When the combined change for all purchase sources causes the Post Index to move by at least 3% either upwards or downwards from its last established level, a new Post Index value becomes effective in accordance with the provisions of FSD 55. Each time a Post Index is reset, an additional overall minimum 3% change, either upwards or downward, must occur before the new Post Index is published. The most current Post Indexes are published on Statistics Canada website on the third working day of each month.

Using the example described above, the updated Post Index would be calculated as shown in Table 7, below. Given that the new Post Index of 131 is more than 3% lower (3.7%) than the survey result (136) shown in Table 6, the PI of 131 would be published, replacing the previous value of 136.

Table 7
Updated calculation of the Post Index

Source (outlet)	Post purchasing pattern	Source index	Index points
	(Outlet significance)		
	percent	number	
Purchases in the local market	64	144	92
Purchases exempt from taxes	15	121	18
Brought to post	2	100	2
As Ottawa	16	100	16
Peter Justesen imports	3	95	3
Total percent	100	...	...
Post Index	...	...	131

... not applicable

Notes: Index points are the product of the source index and the outlet significances.

7. The Post Index and the Post Living Allowance (PLA)

Employing departments are responsible for the application of the Post Index to salary ranges to determine the PLA amount, in accordance with prescribed allowance tables outlined in FSD 55 – Post Living Allowance. The percentage of salary that is adjusted by the Post Index depends on the salary range of each post employee. Engel's Law, an economic theory introduced in 1857 by German statistician Ernst Engel, states that as household income increases, the relative percentage of income spent on food and other products included in the Post Index basket of goods and services decreases or remains the same. An adjustment factor, calculated annually by the team responsible for the Survey of Household Spending, is applied in the formula used to calculate the PLA (FSD 55 – Post Living Allowance - Appendix A - Annual Post Living Allowance – Nominal Salary).

7.1 Purchasing power equal to Ottawa maintained

The most frequent issue raised by post personnel is the loss of allowance dollars, experienced when a Post Index decreases. While the amount of Canadian dollars provided in the PLA does decrease when a Post Index decreases, it is important to note is that this does not mean that the purchasing power required to obtain the PI goods and services at a foreign post is diminished, as compared to Ottawa-Gatineau.

Using the post example from above, and the average household income (before tax) of \$94,906 noted in section 3.1, although the example's Post Index decreases from 136 to 131, this does not necessarily result in less local currency available to make local purchases. In fact, any inflation experienced locally that goes beyond the inflation observed in Ottawa-Gatineau in the same period is taken into account in the Post Living Allowance calculations. Using data published in [FSD 55's Appendix A - Annual Post Living Allowance – Nominal Salary \(June 1, 2022\)](#), the salary level falls in the range \$94,450 - \$95,449. Using the midpoint for this range (\$94,950), typical Canadians spend 48.7% of their salary to acquire the PI goods and services which equates to \$46,241 annually or \$3,853 per month.

In this example, at the time of the survey (when the PI was 136) expenditures at the post looked like Table 6. Overall, 36% more Canadian dollars are required to purchase a similar basket (i.e., \$5,241 = 1.36 x 3,853). The distribution of those Canadian dollars is shown by outlets, grouped by currency used. At this PI level 3,887 units of local currency are needed to purchase local goods and services.

Table 8
Post Index basket expenditures – Post Index = 136

Source (outlet)	Index points	Expenditures	Exchange rate	Expenditures
	number	\$CAD	number	source-specific currency
Purchases with local currency	115	4,432	1.670	2,654
Purchases with \$ Canadian	18	693	1.000	693
Purchases with Danish krone	3	116	0.215	540
Post Index	136	5,241	...	...

... not applicable

When the Post Index decreased to 131, typical monthly expenditures, expressed in \$CAD, decreased to \$5,048 (1.31 x 3,853) with the distribution of that amount shown in Table 8. Even though the lower index results in a lower allowance, or fewer \$CAD available for purchases, *more local currency* is available to purchase goods and services because the cost to exchange to local currency dropped from 1.670 to 1.486. Also, because local inflation is higher in the post than in Ottawa for the period between the PI level change (by 7.8%), a greater amount of local currency is now needed – and this is accounted for in the Post Index level. The 2,853 units of local currency now available reflects both the improved exchange rate and how much local inflation exceeds that of Ottawa-Gatineau.

At all levels, for any given Post Index, the amount of currency needed for purchases made in \$CAD remains fixed.

Table 9
Updated Post Index basket expenditures – Post Index = 131

Source (outlet)	Index points	Expenditures	Exchange rate	Expenditures
	number	\$CAD	number	source-specific currency
Purchases with local currency	110	4,239	1.486	2,853
Purchases with \$ Canadian	18	693	1.000	693
Purchases with Danish krone	3	116	0.224	518
Post Index	131	5,048	...	...

... not applicable

The above can be demonstrated at any level of income and for any change in the PI, either upwards or downwards. The purchasing power of that \$CAD income (plus the PLA) remains the same as for Ottawa in the same period, for any given month for the PI basket of goods and services. It is only during periods between Post Index changes when the Post Index is fluctuating within the +/- 3% range that personnel may be absorbing a higher difference in costs or gaining a benefit depending on whether the monthly calculated Index is higher or lower than the PI level applied to their salary.

7.2 Retroactive adjustments to the Post Index

FSD 55 states that changes to the Post Index resulting from the **monthly review** go into effect on the first day of the month following the month the determination for a change is made. This means that there is a “built in” delay of one month for any changes, increases or decreases, experienced at the post.

When a survey is conducted, the elapsed time between Statistics Canada’s request for survey completion and the release of the results depends on the completeness and timeliness of transmission of the completed questionnaires by the post to Statistics Canada in Ottawa. The majority of the post’s fully completed questionnaires are processed within a few months of when they are received. Protracted delays are often encountered when survey data is incomplete and follow-up by Statistics Canada is necessary.

There is no retroactive application of a change resulting from a survey, however the monthly review process is applied to the index from the survey data to its release so that the index is current.

The NJC has decided that retroactive adjustments to Post Indexes will apply in cases involving the use of erroneous exchange rates, for example, when currency revaluations or devaluations occur suddenly, without enough time for Statistics Canada to implement the new rates prior to publication. If, after an Index has been published, it is determined that an erroneous rate of exchange was applied in the calculations, that PI will be revised retroactively.

Retroactive changes to Post Indexes also occur if it is discovered that Statistics Canada has made an error, such as with survey data processing or monthly review calculations. Likewise, if after the fact, clarification of a particular situation by a department results in changes to the PI level, Post Indexes will be revised from the time that either the error occurred or situation was in effect.

Finally, Post Indexes can be released retroactively if a department identifies a location where personnel are already in place but there is no Post Index for that location. These PIs are effective from the time that posted personnel arrived at the post.

8. Post Indexes where Statistics Canada surveys are not conducted

Statistics Canada does not normally conduct Post Index surveys at posts where there are fewer than four or five Canada based staff members both for statistical reasons and limited post resources. For these small posts, the required Post Index is “linked” to an existing Post Index in a nearby location, and uses the existing post index for the linked location.

Alternatively, US Department of State Indexes of Living Costs Abroad are used. The US figures are converted from a Washington to an Ottawa base. For consistency of methodology, this conversion uses the Ottawa/Washington relationship determined by the Department of State and not the Post Index relationship for these locations. This base index is then subjected to monthly monitoring updates taking into consideration exchange rate fluctuations and inflation factors (see Section 6).

The US Department of State Indexes of Living Costs Abroad includes two separate indexes for each location. The first is called the “U.S. Government Index”, produced specifically for US Government employees who typically have certain duty-free privileges along with access to special purchasing facilities, not necessarily available to others. The second is the “Local Index” computed and published for use by the private sector and other interested organizations. It does not account for any special diplomatic privileges or access.

The “Local Index” is almost always higher than the Government index, as would be expected, and except in a small number of cases where it is known for certain that Canadians have access to all US facilities at a given post, the Local Index is used for Canadian Foreign Post Index purposes.

9. General comments

The Post Index is an indicator founded on standard statistical concepts and procedures. It was designed for a very specific purpose: to ensure, as much as possible, that Canadian government employees serving outside the country are placed in neither a more nor less favorable financial situation than they would be serving in Ottawa-Gatineau. Other FSD provisions are designed to provide incentives for personnel serving abroad.

As a measure of price differences between locations, the Post Index can be regarded as an attempt to represent and compare the many thousands of retail transactions made each month by foreign post personnel and their counterparts at headquarters. The Post Index does have limitations. It is based on retail prices, purchasing and expenditure patterns reported by Canadians performing a temporary diplomatic or military role in a foreign country. It does not represent experiences of expatriates who may be serving under different arrangements. It cannot, for example, measure differences in living costs that any particular family experiences when going outside Canada.

It is unrealistic to ascribe the Post Indexes a degree of precision that goes beyond the real-life limitations imposed by both statistical theory and the constraints of the data on which they are based. Nonetheless, it serves as a general measure of the effect of price differences, exchange rate fluctuations and inflation on the purchasing power of the foreign service community; and that is what its purpose is.

Appendix: Frequently Asked Questions (FAQ)

1. What is the Post Index (PI)?

- ▶ The Post Index (PI) compares the price of a selection or “basket” of goods and services in Ottawa to the price of the same basket of goods and services at a foreign post, at a given point in time.
- ▶ Since Ottawa is the reference city, its PI is set to 100. To estimate the PI at a foreign post, a sample of goods and services and their prices are collected from the foreign post and are then compared to the prices of a similar basket of goods and services in Ottawa. The resulting index provides an indicator of the difference in costs in the foreign post compared to the costs in Ottawa.

For example, in June 2017 the PI for Berlin, Germany was 119; this estimate is interpreted as meaning that the cost of a given basket of goods and services in Berlin was 19 percent higher than its cost in Ottawa.

- ▶ [The Guide to the Post Index](#) provides detailed information on Post Indexes.

2. What is the PI used for?

- ▶ The PI is used to support the payment of a post living allowance to individuals who work abroad for the federal government under the provisions of Foreign Service Directives (FSD), the Military Foreign Service Instructions (MFSI), and the Technical Assistance Regulations (TARs). The Post Living Allowance (PLA) is intended to provide employees with the same purchasing power as that of their counterparts in Ottawa. The amount of the PLA is based on the PI.
- ▶ The National Joint Council’s (NJC) Foreign Service Directive ([FSD 55 – Post Living Allowance \(PLA\)](#)), provides instructions for determining the PLA, including the formula for calculating the allowance using the PI.
- ▶ Applied to salary ranges, the PI equalizes the purchasing power of the portion of the employee’s salary that is used to purchase the PI “basket” of goods and services.

3. The footnote on the table on the Canadian Foreign Post Indexes publication indicates for certain posts the PI is based on U.S. Department of State (USDS) data. Why is it not based on survey data like other posts?

- ▶ A PI can be based on USDS data if the mission has less than 5 full time Canada-based Staff (CBS).

4. Who uses the PI?

- ▶ The Canadian government employs individuals in more than 400 locations outside Canada which include:
 - ◆ employees serving under the terms and conditions of the Foreign Service Directives (FSDs).
 - ◆ persons working under the provisions of the Technical Assistance Handbook (TAH); and
 - ◆ Canadian Forces members serving outside the country either under the terms and conditions of the Military Foreign Service Instructions (MFSIs) or the Foreign Service Directives (FSDs).

5. How does the PI differ from other private sector price indices?

- ▶ The PI was designed to meet a very specific purpose, to support FSD 55 - Post Living Allowance. This directive assists employees where the cost of living is higher than in Ottawa by providing an allowance to compensate for higher costs for goods and services at the post which are not compensated for in other directives. As such, certain expenses such as housing, daycare and education are not included in the calculation of the PI.
- ▶ FSD 55 explains the PI, used in the calculation of the Post Living Allowance, and the Government Allowance and Spatial Price Indexes Section of Statistics Canada is responsible for PI computation.
- ▶ [The Guide to the Post Index](#) provides detailed information on Canadian Foreign Post Indexes.

6. What are the primary sources of information used to calculate the PI?

- ▶ There are three primary sources of information used to calculate the PI
 1. [Canadian Foreign Post Indexes Survey data](#) – as collected by Statistics Canada.
 2. Exchange rates from:
 - Bank of Canada
 - Bloomberg
 - Some posts may be required to submit a monthly report to Statistics Canada confirming the minimum and maximum rate actually received by employees at the Post, as well as the rate most frequently received during the month.
 3. Consumer Price Index (CPI), or comparable indexes, from official statistical offices or official international organizations that monitor price movements, such as the International Monetary Fund.

7. What is a Consumer Price Index (CPI)?

- ▶ A Consumer Price Index (CPI), or similarly named index, is an indicator of changes in consumer prices. It is obtained by comparing the cost of a specified selection or “basket” of goods and services purchased by consumers over time. CPIs are widely used as an indicator of the change in the general level of consumer prices or the rate of inflation.
- ▶ The most recent CPI values are used for PI calculations. However, since CPI type data is never available immediately, inflation for the current month is projected to ensure that PI levels are kept up to date. In circumstances where information is available on a frequent and current basis, the PI can be monitored over a long period of time with a reasonably high degree of confidence.
- ▶ CPI values used for PI purposes exclude the Shelter and Fuel and Utilities components whenever possible since these are not in scope for FSD 55.

8. How often are surveys conducted?

- ▶ A Post Index Survey is completed at each eligible post on a cyclical basis and approximately every three to five years.
- ▶ Requests for specific post surveys may be made outside these timeframes, as approved by the Treasury Board Secretariat. These out of sequence surveys may result from:
 - ◆ volatility of retail prices in a particular country.
 - ◆ instability in currency exchange rates; or
 - ◆ a decision to closely monitor changes in local retail prices faced by Canadian personnel through reference to other indicators.

9. How is the survey data collected at the post?

- ▶ Once the survey is issued by Statistics Canada, the task of collecting prices and other data is shared by the personnel of all departments at the post.
- ▶ A contact at the mission receives specific instructions from Statistics Canada on how to proceed with data collection at the post.

10. Can copies of responses sent to Statistics Canada be provided to the mission?

- ▶ No. Any data collected by Statistics Canada, including Information from Canadian citizens posted to foreign locations, is protected under the *Statistics Act* once received by Statistics Canada.
- ▶ For more information on prohibition against divulging information, consult section 17 (1) of the *Statistics Act*, Revised Statutes of Canada, 1985.

11. Why does the PI change?

- ▶ The PI can change as a result of a new survey and/or the monthly monitoring.
 - ◆ Results of a new survey
 - A survey conducted at the foreign post may result in a change in the PI as the new data will reflect actual current prices (how much goods and services cost) and purchasing patterns (where goods and services are purchased)
 - ◆ Monthly monitoring
 - Post Indexes are subject to monthly monitoring
 - Three factors are considered monthly when monitoring the PI:
 1. fluctuations in exchange rates relative to the Canadian dollar,
 2. inflation in Ottawa prices, and
 3. inflation in prices at the post, as indicated by CPI's.
 - A new PI value becomes effective only if the total change in the PI is more than 3% either upwards or downwards.

12. Why has the PI decreased after the latest survey, despite increasing local prices and/or strengthening of the local currency relative to the Canadian dollar?

- ▶ While nominal increases to local prices can be indicative of local inflation, it is important to remember that most Canada based staff posted abroad are paid in Canadian dollars. A PI uses exchange rates to Canadian dollars and prices in Ottawa as their base. Local price increases at a post tend to occur in conjunction with devaluation of the local currency. Therefore, even though local prices seem to increase, it is likely the rate of exchange moves in favour of Canadians posted abroad as the buying power of the Canadian dollar on the local economy may be increasing relative to local inflation. When the local currency strengthens relative to the Canadian dollar, it is likely to impact the PI.
- ▶ Post Indexes are subject to a monthly review, or tracking process, to assess their continuing validity (see Question 11 above).

13. What is the source of CPI's and exchange rates used to calculate a PI?

- ▶ Currency exchange rates and CPIs are collected by Statistics Canada from national statistical agencies, central banks, and other internationally recognized bodies such as the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the World Bank.
- ▶ The Bank of Canada (BoC) and Bloomberg are the primary sources of exchange rates.

14. The PI for the post has not changed or dropped, however prices at post have been increasing weekly. How can this be?

- ▶ In the months between surveys, the monthly review of the PI considers the following three elements. These must all be considered when interpreting the resulting PI.
 1. fluctuations in exchange rates relative to the Canadian dollar,
 2. inflation in Ottawa prices, and
 3. inflation in prices at the post as indicated by CPI's.
- ▶ For example, inflation at the post may be the same as inflation in Ottawa. Fluctuations in exchange rate will impact the index. If the exchange rate for the local currency increases, the Canadian dollar will have more purchasing power at the post. An increase in local prices may be offset by the increased value of the Canadian dollar, resulting in no change to the post index. The value of the Canadian dollar may even increase enough to result in a drop in the post index.

As indicated in Question 11 above, a new PI value becomes effective only if the total change in the PI is more than 3%, either upwards or downwards.

15. The mission has recently experienced high employee turnover. Is the latest survey still representative?

- ▶ Yes, the latest survey continues to be representative of costs at the post compared to costs in Ottawa.

16. What does “effective date” mean?

- ▶ The Canadian Foreign Post Indexes tables contain several variables, including the variable “effective date” which usually reflects the month and year the index became applicable.
- ▶ If a new location is identified where personnel are already in place but for which a PI does not exist, those PIs are released retroactively and are effective from the time that posted personnel arrived at the post.
 - ◆ If PI at the new location has been calculated based on data from a new Canadian Foreign Post Index survey, the “effective date” in the published tables reflects the month and year the survey was conducted.

17. What is a Post Purchasing Pattern?

- ▶ The term “purchasing pattern” refers to the combination and relative importance of various retail outlet types or other sources from which personnel at a post report buying the goods and services contained in the PI basket. These include:
 - ◆ Local stores (part of the local economy)
 - ◆ Local special outlets
 - Duty free
 - Tax free (VAT rebates)
 - Military facilities
 - ◆ Canadian source
 - ◆ Online or direct importation (e.g., Amazon)
 - ◆ Brought to Post
 - ◆ As Ottawa
- ▶ A post purchasing pattern may vary depending on the conditions at the post. The majority of purchases are normally made in local outlets at each location. At many locations, purchases of certain goods and services are available to some Canadian expatriates exempt from sales or

value-added taxes. These goods and services are separated from purchases made at full retail values within each post's purchasing pattern.

- ▶ Items purchased in Canada prior to a posting for inclusion with effects to be shipped to the post at the time of relocation are referred to as “Brought to Post”. Goods purchased and brought from a previous posting abroad are also considered “Brought to Post”. Expenditures reported “Brought to Post” are given an index of 100, or equal to Ottawa.
- ▶ The complete “all-items” post pattern is the sum of all the percentages reported for each purchasing source for each item, combined to reflect the relative importance of each item in the basket.
- ▶ More information on Purchasing Patterns can be found in [The Guide to the Post Index](#).

18. I cannot find the answer to my question in these FAQ's or The Guide to the Post Index.

Who can I contact?

Department

Global Affairs Canada

Global Affairs Canada (employees under provisions of the Technical Assistance Handbook)

Canadian Armed Forces

Organizational e-mail

FSD.Allowances-Indemnites.DSE@international.gc.ca

FinancialPolicies-GrantsandContributions@international.gc.ca

DCBA4ForeignServices-ServicealetrangerDRASA4@forces.gc.ca

Additional Resources

Foreign Service Directives:

[Foreign Service Directives : April 1, 2019](#)

Military Foreign Service Instructions:

[Chapter 10 - Foreign Services Instructions](#)

Canadian Foreign Post Index:

[Canadian Foreign Post Indexes \(statcan.gc.ca\)](#)

The Guide to the Post Index:

[The Guide to the Post Index \(statcan.gc.ca\)](#)