



# Food price index review: 2014



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# Food price index review: 2014

## Purpose

*Food price index review: 2014* outlines the changes we made as a result of a review of the food price index (FPI), and implemented in [Food Price Index: July 2014](#).

## Summary

- Three items were added to the FPI basket; none were removed.
- The relative importance of the restaurant meals and ready-to-eat food subgroup has increased reflecting an increase in household spending.
- The relative importance of the non-alcoholic beverages subgroup has decreased, largely reflecting the availability of better information to estimate soft drink expenditure.
- Households purchased about the same quantity of fruit and vegetables; meat, poultry, and fish; and grocery food in the year to June 2013 (2012/13) as they did in the year to June 2010 (2009/10).
- Regional price change for the five broad regions is now weighted using regional spending patterns rather than population shares, in line with recommendation 6 of the *Report of the Consumers Price Index Advisory Committee 2013* (see [CPI Advisory Committee 2013 – report](#).)

## About the FPI

The FPI measures the changes in prices that households pay for food. Price change is measured by tracking the prices of individual food items that make up a representative food basket.

We review the FPI every three years as part of a wider consumers price index (CPI) review to ensure the index remains relevant.

The 2014 review has reselected this basket, and updated the relative importance of the items within it.

## Changes to the FPI basket

The FPI basket is organised into five ‘subgroups’, which can be further broken down into 14 ‘classes’ and 62 ‘sections’ (17 of which are publicly available). Each section (eg ‘beef and veal’) is made up of items that are representative of that section.

We include particular items in the FPI basket to ensure there is a good representation across the subgroups, classes, and sections. We select more items for classes and sections where there is a relatively high variation in price change (that is, where the prices of items in the class or section tend to move differently), than for classes and sections with little variation (that is, where prices move similarly).

As part of the 2014 review, we added three items to the FPI basket:

- packaged leaf salad
- frozen prawns
- breakfast food drinks.

We did not remove any items from the basket.

## Updating product specifications

The specifications (eg pack sizes, varieties) of different food items are reviewed as part of our rolling field outlet review. The rolling field outlet review takes place in the years between three-yearly CPI Reviews.

[See Progress with the CPI rolling review of retail outlets](#) for information on the review's scope.

We made some minor changes to the specifications of some items as a result of reviewing the basket. However, we did not explicitly review the specifications of food items as part of the 2014 FPI review.

Prices for chicken breasts are now tracked separately from other types of chicken pieces. This is to better represent price change for different types of chicken pieces, which have a high weight in the FPI. Previously, chicken breasts were collected under a single 'chicken pieces' item.

We now track prices for 250ml containers of energy drink in supermarkets, and 350ml containers in convenience stores. Previously, we tracked prices of 350ml containers in both types of store.

The FPI basket now contains 166 items (with three additions and two new product specifications); previously it contained 161 items.

We did not add or discontinue any class or sub-group level series in either the FPI or the CPI as part of the 2014 review.

[See 100 years of CPI – Basket change](#) for an interactive visualisation of a selection of basket additions and removals in the CPI (including food) over the past 100 years.

See table 4 in the Food price index review: 2014 – tables in 'Available files', for a list of the 166 items in the 2014 basket.

## Information sources on food spending

Our main source of information for the 2014 FPI review was the 2012/13 Household Economic Survey (HES). The survey ran from July 2012 to June 2013 (2012/13), and was completed by about 3,400 households. It collected information on what households spend on food, and other goods and services.

[See Household Economic Survey: Year ended June 2013](#) for more information on the HES.

We also used information from food manufacturers and distributors, and supermarket scan data from the Nielsen Company.

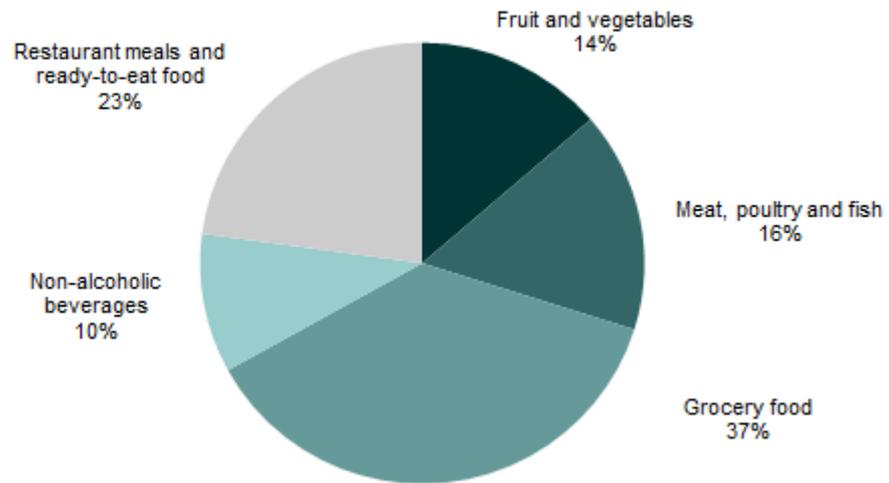
About 77 percent of estimated household expenditure was derived directly from the 2012/13 HES. Fourteen percent was derived entirely from other information sources, and the remaining 8 percent used a combination of HES and other information sources.

## Relative importance of different types of food

Figure 1 shows the relative importance of the FPI subgroups. This is referred to as an expenditure weight. We calculate the weights of the subgroups based on their share of total household spending on food. For example, for every \$100 households spend on food about \$14 is spent on fruit and vegetables. We estimate this spending using the HES and other sources.

**Figure 1**

**Relative importance of food price index subgroups**  
Expenditure weights June 2014

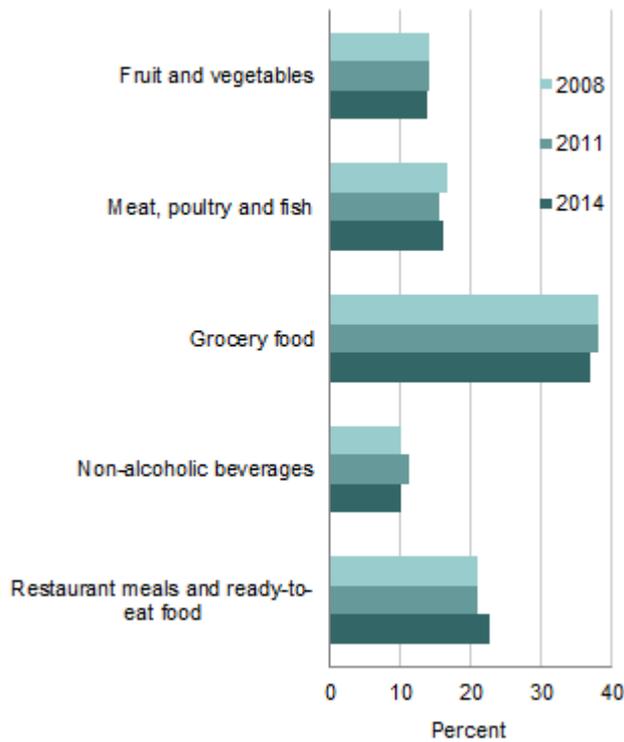


Source: Statistics New Zealand

Figure 2 shows the relative importance of the food subgroups at the 2008, 2011, and 2014 FPI reviews.

**Figure 2**

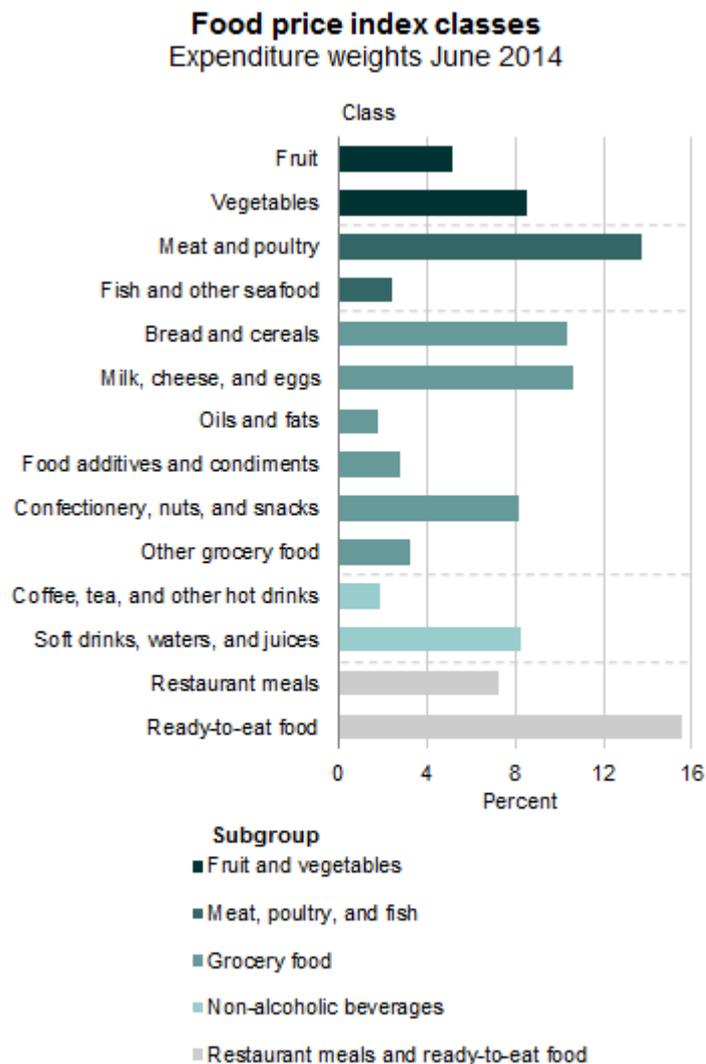
**Food price index subgroups**  
Expenditure weights June 2008, 2011,  
and 2014



Source: Statistics New Zealand

Figure 3 shows the relative importance of the FPI classes.

**Figure 3**



Source: Statistics New Zealand

Spending on restaurant meals and ready-to-eat food increased 14.9 percent. This was partly influenced by a 4.2 percent increase in prices between June 2011 and June 2014. The relative importance of the 'restaurant meals and ready-to-eat food' subgroup, increased from 20.97 percent to 22.86 percent.

The expenditure weight for non-alcoholic beverages decreased. This was largely due to an improvement to the method and data sources used to estimate soft drink expenditure. The relative weight of the non-alcoholic beverages subgroup decreased from 11.20 percent to 10.20 percent. In 2008, the relative weight was 10.18 percent. Spending on other types of non-alcoholic beverages, such as coffee, bottled water, and energy drinks, increased.

Households purchased roughly the same quantities of grocery food in 2012/13 as they did in 2009/10, after accounting for the 2.6 percent increase in the number of households over that period. Household spending on grocery food increased 2.6 percent, while prices were flat. The relative weight of the grocery food subgroup decreased from 38.13 to 37.09 percent, due to the increase in relative spending on restaurant meals and ready-to-eat food.

Spending on meat, poultry, and fish increased 8.6 percent. However, households purchased roughly the same quantities of meat, poultry, and fish in 2009/10 as in 2012/13 after accounting for price and population change over that period.

The relative weight of the meat, poultry, and fish subgroup increased from 15.68 percent to 16.15 percent, which is similar to its weight to 2008. Within this subgroup the relative expenditure weights of pork; mutton, lamb, and hogget; and poultry all increased, while the weight of preserved, prepared and processed meat decreased. The relative weights of beef and veal; and fish and other seafood were relatively flat.

Spending on fruit and vegetables increased by 3.0 percent, but after accounting for price and population change, the quantity of fruit and vegetables purchased by households in 2012/13 was similar to 2009/10. There has been a slight increase in the quantity of vegetables purchased, which was offset by a similar decrease in the quantity of fruit purchased. The relative weight of the fruit and vegetables subgroup has decreased slightly.

See table 1 in the Food price index review: 2014 – tables in ‘Available files’, for the updated 2014 FPI weights.

The [CPI Advisory Committee 2013](#) recommended expressing the FPI and CPI weights as dollar values (average weekly household spending) as well as percentages. We plan to compare CPI and FPI expenditure estimates derived from the HES and other sources to other estimates of household spending before we publish this. This will help ensure our estimates of the level of household spending are consistent with other sources, after differences in scope and known areas of under-reporting have been accounted for. We will provide an update on this work at a later date.

## Updating the relative importance of supermarkets

We collect food prices from 56 supermarkets across 12 regional pricing centres. We have updated the relative importance of these supermarkets to reflect changes to market shares at the regional level. We have also updated the relative importance of supermarkets relative to other stores for items where prices are also collected in other store types.

## Change to regional expenditure weights

We now collect FPI prices from 12 regional pricing centres: Whangarei, Auckland, Hamilton, Tauranga, Napier-Hastings, New Plymouth, Palmerston North, Wellington, Nelson, Christchurch, Dunedin, and Invercargill. Before 1 July 2014, we also collected FPI prices in Timaru, Rotorua, and Wanganui.

However, in line with recommendation 7 of the [CPI Advisory Committee 2013](#), we stopped collecting prices in these three pricing centres, so we could divert the cost of collection towards funding CPI-related initiatives such as household living-costs price indexes and seasonally adjusted analytical CPI series.

Price changes for Timaru, Rotorua, and Wanganui will be directly represented by Christchurch, Palmerston North, and Tauranga respectively. Reducing the number of pricing centres will not affect the number of regional CPI series we publish. However, we will no longer publish regional FPIs for Timaru, Wanganui, and Rotorua.

[See Decision on 2013 CPI Advisory Committee recommendations](#) for more information on this decision.

The 2014 FPI Review is the first to use regional expenditure weights for the five broad regions (Auckland, Wellington, rest of North Island, Canterbury, and rest of South Island). We used regional expenditure weights and population shares to determine the relative

importance of each of the 12 centres (each centre is allocated a weight, referred to as a regional expenditure weight).

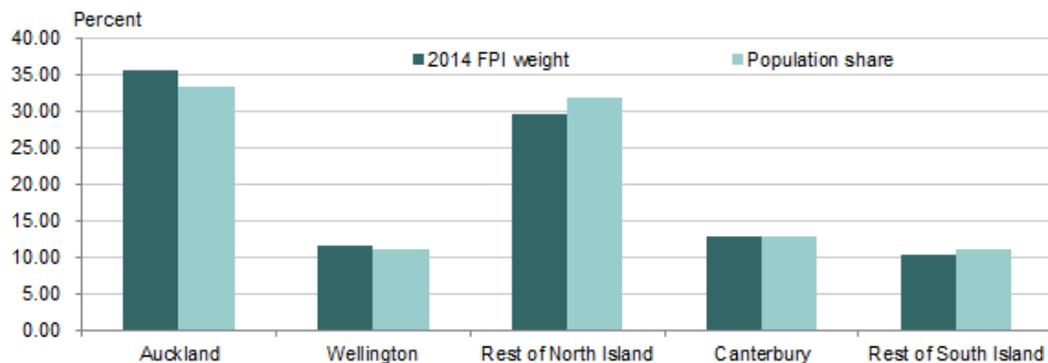
For broad regions with multiple pricing centres (rest of North Island and rest of South Island), we use population shares to allocate the regional expenditure weight to the pricing centres. Previously, we used national expenditure weights in each of the (then) 15 regional pricing centres, weighted by the centre's population share. This change was recommended by the 2013 CPI Advisory Committee (recommendation 6) and aligns with international best practice.

Regional expenditure weights ensure that price changes at a regional level are accurately reflected in the national FPI. For example, a price change in Auckland (which has 33.37 percent of the population and an FPI regional expenditure weight of 35.52 percent) would have about three times the effect on the national FPI as the same price change in Wellington (which has 11.11 percent of the population and an FPI regional expenditure weight of 11.69 percent).

Figure 4 compares the proportion of food expenditure in each region (2014 FPI weight) with the region's share of the New Zealand population according to the 2013 Census. We would have used these population shares had we not implemented the committee's recommendation.

**Figure 4**

#### Regional expenditure and population proportions



Source: Statistics New Zealand

See table 2 in the Food price index review: 2014 – tables in 'Available files', for the 2014 FPI regional expenditure weights.

We calculated regional expenditure weights as proportions of national expenditure (eg 35.52 percent of food expenditure is in the Auckland region) for each FPI class or section (the lowest published level) using HES regional expenditure. We applied class/section level proportions to the individual items within that class or section (eg the regional proportions for fruit were applied to national expenditure on each fruit item) to derive regional expenditure on each individual item (eg spending on apples in Auckland).

Regional expenditure was then expressed in June 2014 prices for the respective region (eg apple expenditure in Auckland was expressed in June 2014 apple prices collected in Auckland). The group-level regional weights were then calculated by aggregating all food expenditure in each broad region.

Table 5 shows the proportion of food expenditure on restaurant meals and ready-to-eat food relative to other food in the five broad regions, compared with the entire country.

**Table 5****Proportion of restaurant meals and ready-to-eat food, and other food expenditure in the five broad regions**

Broad region	Restaurant meals and ready-to-eat food expenditure	Other food expenditure
	Percent <sup>(1)</sup>	
Auckland	24	76
Wellington	28	72
Rest of North Island	21	79
Canterbury	23	77
Rest of South Island	21	79
New Zealand	23	77
1. Percent of total food spending		

Average weekly spending on food per household was about 12 percent higher in the Auckland region compared with the average for all New Zealand households, and about 3 percent higher in the Wellington region. Average spending was about 8 percent lower than the New Zealand average for the rest of the North Island, and 3 and 10 percent lower for Canterbury and the rest of the South Island respectively.

## Upcoming publications

Information on the 2014 CPI Review will be published on 8 October 2014.

The review will be implemented when *Consumer Price Index: September 2014 quarter* is released on 23 October 2014.

The next review of the FPI basket and weights will be in 2017.