

Grocery Price Survey

Technical Paper – December 2005

Background

In August 1999, the Legislative Assembly Select Committee on Territory Food Prices presented a report on their *Inquiry into Food Prices in the Northern Territory*. A key recommendation of this report was that the Government monitor grocery prices across the Northern Territory and that the results be published on a regular basis. Treasury was given the task of developing and implementing an appropriate survey to fulfil this recommendation.

Survey Methodology

The Grocery Price Survey measures the cost of purchasing an average basket of goods at each of the 26 supermarkets included in the survey. The grocery basket comprises the following 10 Sub-groups and 29 Expenditure Classes of the 14th Series Australian Bureau of Statistics' Consumer Price Index:

- Dairy and Related Products
 - Milk
 - Cheese
 - Ice Cream and Other Dairy Products
- Bread and Cereal Products
 - Bread
 - Cakes and Biscuits
 - Breakfast Cereals
 - Other Cereal Products
- Meat & Seafoods
 - Beef and veal
 - Lamb and mutton
 - Pork
 - Poultry
 - Bacon and Ham
 - Processed Meat
 - Fish and other seafood
- Fruit & Vegetables
 - Fruit
 - Vegetables
- Non-alcoholic Drinks & Snack Food
 - Soft drinks waters and juices
 - Snacks and confectionery
- Other Foods
 - Eggs
 - Jams, honey and sandwich spreads
 - Tea, coffee and food drinks
 - Food additives and condiments
 - Fats and oils
 - Food n.e.c
- Household Supplies
 - Household cleaning agents
 - Other household supplies
- Pharmaceuticals
 - Pharmaceuticals
- Sport and other recreation
 - Pets, pet foods and supplies
- Personal Care
 - Toiletries and personal care products

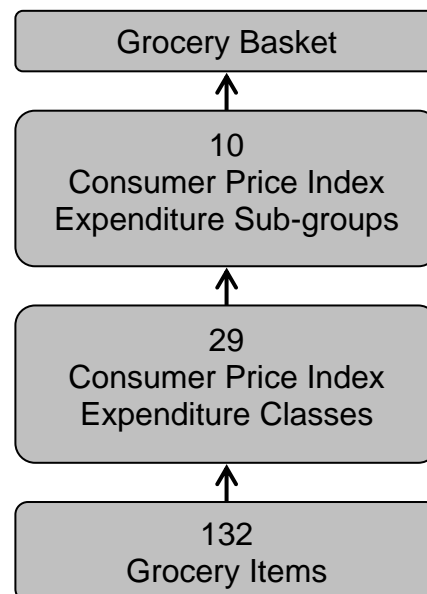


Prices of 132 grocery items were surveyed to represent price levels in the 29 expenditure classes.

The 132 items were selected with consideration to:

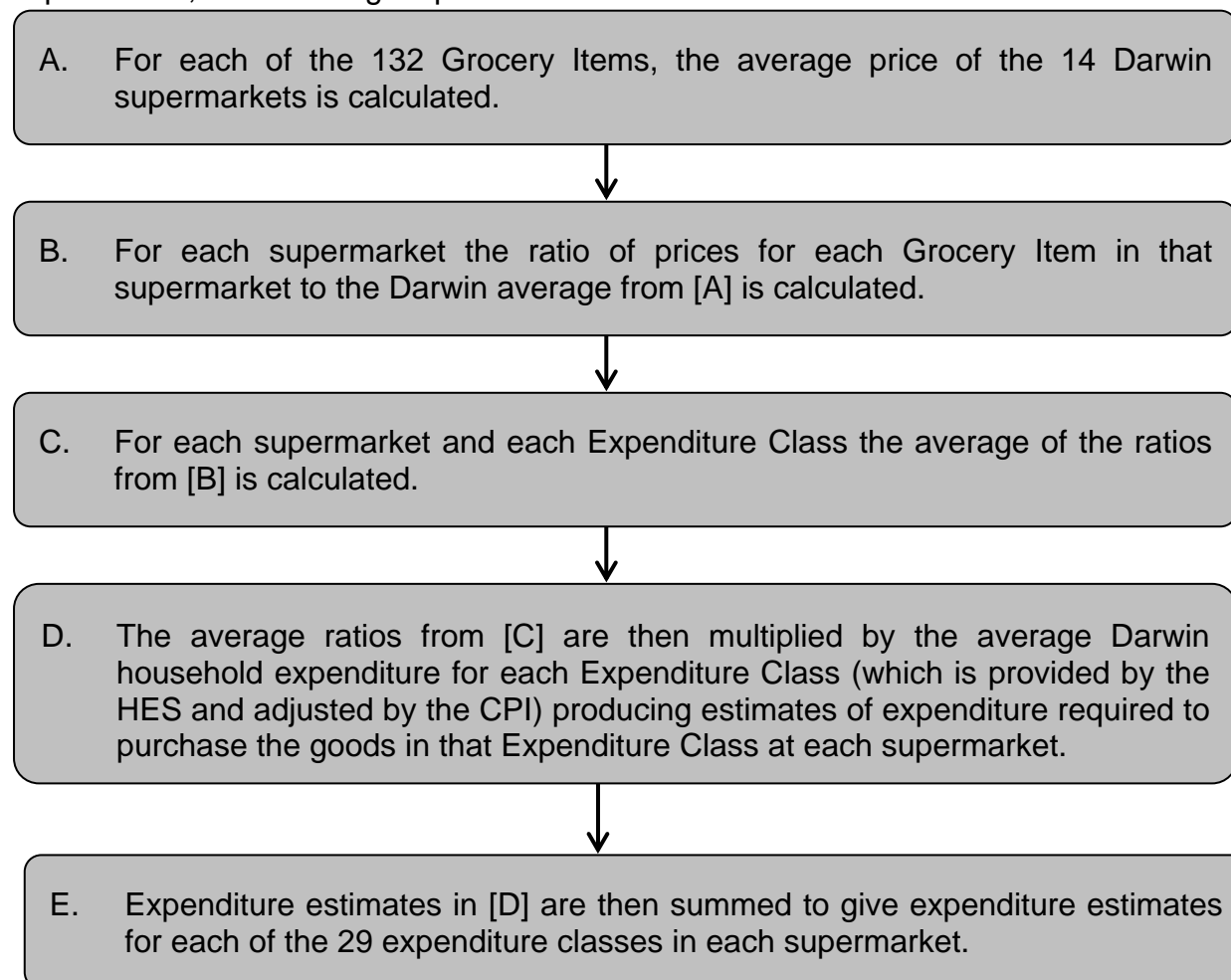
- average weekly household expenditure on the Expenditure Class;
- the homogeneity of the Expenditure Class;
- items included in other surveys; and
- shelf space in Darwin supermarkets.

Average weekly household grocery expenditure estimates for Darwin are derived from the Australian Bureau of Statistics' 1998-99 *Household Expenditure Survey*, updated by movements in the Darwin Consumer Price Index (CPI) for the 15th Series CPI expenditure classes included in the basket.



Expenditure estimates were obtained for the 29 Expenditure Classes. In the December quarter 2005, the average household expenditure on this total basket of goods was estimated at \$173.53.

To estimate the level of expenditure required to purchase the grocery basket in each supermarket, the following steps are taken:



F. The average Darwin household expenditure for each Expenditure Class is updated each survey period by multiplying it by the latest CPI data.

Mathematically the process is represented as follows:

Where:

E_s = average household expenditure (E) on grocery items at supermarket s

E_{dc} = average Darwin household expenditure (E_d) on grocery items in expenditure class c

P_{si} = price (P) in supermarket s of grocery item i

P_{di} = average Darwin price (P_d) of grocery item i

n = number of grocery items in expenditure class c

m = number of expenditure classes in the grocery basket

c = expenditure class

i = grocery item

$$E_s = \sum_{c=1}^m \left(E_{dc} \times \frac{\sum_{i=1}^n \left(\frac{P_{si}}{P_{di}} \right)}{n} \right)$$

Survey Outline

Frequency – Conducted in a randomly chosen week twice yearly with no advance notice given to any supermarket surveyed.

Coverage – The survey is conducted across the Territory:

- Darwin (14 supermarkets)
- Katherine (1)
- Alice Springs (3)
- Nhulunbuy (1)
- Yulara (1)

In addition the survey is conducted in the following Queensland locations to assist comparison with Darwin and Alice Springs respectively:

- Cairns (4)
- Mount Isa (2)

Prices Collected – For each item, the regular or special price is collected where the item is of normal quality. The survey does not collect discounted prices for items that are damaged, old stock or sold in bulk packaging. Prices of items and the items surveyed are not revealed to ensure that supermarkets are not able to manipulate prices.

Generic goods are included in the grocery basket where they are significant in the Expenditure Class.

Comparisons

Comparison of results obtained from the Grocery Price Survey and the results reported in the *Inquiry into Food Prices in the Northern Territory* can be only made with considerable care. The *Inquiry* used a similar methodology but was limited to 45 items, from a slightly narrower range of goods, selected from information provided by the supermarkets.

Comparison of results of the Grocery Price Survey with ABS Cat No. 6403.0 *Average Retail Prices of Selected Items* is not meaningful because the latter publishes unweighted unit prices rather than the average household expenditure estimates produced by the Grocery Price Survey.

Major Review

Following the release of the 2003-04 Household Expenditure Survey (HES), a 'new' basket was introduced for the December 2005 survey. The HES is published every 5 years and provides updated information on consumer preferences and expenditure patterns by jurisdiction and capital city. In order to keep the items in the grocery basket consistent with changing consumer expenditure patterns, periodical reviews of items and weightings are necessary.

Further, the introduction of the 15th series Consumer Price Index (CPI), which is also based on the HES, provided a timely opportunity to review the methodology for calculating the cost of the basket. This is the first time the basket and its weightings have been reviewed and updated since the Grocery Price Survey commenced in 2000.

The new Darwin average base expenditure (calculated by NT Treasury using the 2003-04 HES data), for each expenditure class, will be used as the base expenditure over the next 5 years (until the next HES is released in 2008-09) and will continue to be adjusted for inflation with each survey period.

The review involved updating the 10 sub-groups, and 29 expenditure classes (and items within the classes) in the original survey. The rationale for examining these categories is that, to update the survey over time, there is a requirement for the items in the expenditure classes to broadly correlate with detailed quarterly CPI data which is available from the ABS.

Changes resulting from the review include:

1. the Personal Care Products expenditure class being incorporated into the Household Supplies expenditure class;
2. the Pharmaceuticals expenditure class being removed from the basket;
3. 26 items being deleted from the survey and 30 new items being introduced (the basket now has 136 items);
4. a break in the time series of data; and
5. for comparative purposes, information being collected for Series One and Series Two surveys until December 2006.

These changes to the survey reflect modifications to the 15th series CPI and, the reality that it is not possible to accurately update expenditure on grocery store-sourced pharmaceuticals using available 15th series CPI data. This is because the Pharmaceuticals sub-group in the CPI is dominated by prescription drugs which are not dispensed at grocery stores.

Coles Northlakes supermarket has been introduced into the survey as of December 2005, and replaces Bi-Lo Northlakes.

Series Two Survey Structure

In comparison to the Series One structure on page 1, the Series Two survey comprises the following 8 Sub-groups and 28 Expenditure Classes of the 15th Series Australian Bureau of Statistics' Consumer Price Index:

- Dairy and Related Products
 - Milk
 - Cheese
 - Ice Cream and Other Dairy Products
- Bread and Cereal Products
 - Bread
 - Cakes and Biscuits
 - Breakfast Cereals
 - Other Cereal Products
- Meat & Seafoods
 - Beef and veal
 - Lamb and mutton
 - Pork
 - Poultry
 - Bacon and Ham
 - Processed Meat
 - Fish and other seafood
- Fruit & Vegetables
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- Household Supplies
 - Household cleaning agents
 - Toiletries and personal care products
 - Other household supplies
- Sport and other recreation
 - Pets, pet foods and supplies