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DISCUSSION  
PAPER

88.2

HOUSEHOLD  
MEAT  
CONSUMPTION  
IN SYDNEY  
AND MELBOURNE

Australian Bureau of  
Agricultural and Resource Economics

Discussion paper 88.2

HOUSEHOLD  
MEAT  
CONSUMPTION  
IN SYDNEY  
AND MELBOURNE

Project 31311

Scott Bartley, Katrina Ball and  
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## FOREWORD

In recent years both cattle and lamb producers have expressed concern that the share of their products in the diets of Australian consumers is declining relative to other sources of protein. As a consequence, the Australian Meat Research Committee and its successor, the Australian Meat and Live-stock Research and Development Corporation requested and funded this study into household meat consumption in Australia. Information in this report is based on a household survey conducted by the Bureau of Agricultural Economics in Sydney and Melbourne during 1984.

This report contains extensive statistical information on purchases of meat and seafood and household eating habits, analysis of the influence of various household characteristics on these purchase patterns and eating habits, an analysis of changes in the demand for individual meats and seafood over the past 20 years, and a discussion of the likely influence of these factors on future demand for meat and seafood.

Movements in relative prices are the dominant cause of changes in the purchases of individual meats and seafood in Australia. However, other factors also influence household purchases, including the size, composition and income of the household and the age, ethnic origin and employment status of the housekeeper. There is no evidence of any long term change in household demand for beef beyond that indicated by movement in the prices of beef, other meats and seafood. However, there do appear to have been demand shifts away from lamb and mutton toward poultry, pork and seafood. Total demand for meat and seafood is expected to continue to increase in future years with increases in household income and population growth. However, while the demand for meat and seafood should increase in general, further changes in the composition of demand, particularly away from lamb toward poultry, are likely.

This study was undertaken in the Meat Section of the Bureau.

ROBERT BAIN  
Director

Australian Bureau of  
Agricultural and Resource Economics  
Canberra

March 1988

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## CONTENTS

<b>Summary</b>	1
1. Introduction	5
2. Average Household Meat Usage	7
2.1 Household characteristics	7
2.2 Food purchases	9
2.3 Meal preparation	11
2.4 Meals obtained away from home	13
3. Factors Influencing Household Meat Demand	14
3.1 Methods of analysis	14
3.2 Income	14
3.3 Household size and composition	21
3.4 Age of housekeeper	23
3.5 Birthplace of housekeeper	26
3.6 Education level	29
3.7 Working housekeepers	29
3.8 Microwave ovens and freezers	31
3.9 Attitudes to meat and seafood	32
4. Changes in Meat Consumption Over the Last 20 Years	34
4.1 Apparent consumption of meat	34
4.2 Household survey data	36
5. Implications for Future Meat and Seafood Demand	40
5.1 Income effects	40
5.2 Household size and composition effects	40
5.3 Age effects	40
5.4 Cultural trends	43
5.5 Changing lifestyles	43
5.6 Conclusions	45
Appendix A: Survey Development and Data Preparation	46
Appendix B: Econometric Analyses of Household Demand for Meat and Seafood	63
Appendix C: Survey Questionnaire	86
Appendix D: Statistical Tables of Survey Data	99
Glossary	139
References	141

## Figures

1	Shares of household expenditure on food purchases excluding meals obtained away from home	9
2	Shares of quantity of meats and seafood purchased	10
3	Method of preparation of meals containing meat or fish prepared from household food supplies	10
4	Meals obtained away from home	12
5	Proportions of each type of meat in meals obtained away from home	12
6	Expenditure on meats and seafood and all foods per person by income per person	16
7	Proportions of meals obtained away from home by income per person	20
8	Average weekly quantity of meat and seafood purchased per person according to household size	20
9	Proportions of meals obtained away from home according to household size	20
10	Expenditure on meat and seafood per person according to age of housekeeper: comparison of survey results between 1964-65 and 1984	22
11	Proportions of meals obtained away from home by age of housekeeper	24
12	Proportions of total meat and seafood expenditure by birthplace of housekeeper	28
13	Share of total meat and seafood expenditure according to whether housekeeper works or studies	30
14	Net percentage of households who ate more and who ate less of various meats and fish than two years prior to the survey	33
15	Apparent consumption of meat per person 1964-65 to 1984-85	34
16	Apparent consumption of meat per person and real retail prices of meat	35
17	Changes in meat and seafood prices in Sydney from 1964-65 to 1984	37
18	Changes in individual prices relative to changes in the average price of all other meats and seafood in Sydney between 1964-65 and 1984	38
19	Changes in the share of meat and seafood purchases allocated to individual meats and seafood in Sydney from 1964-65 to 1984	38
20	Share of total meat and seafood expenditure by income per person	41
21	Share of total expenditure on meals obtained away from home by income per person	41



22	Share of total meat and seafood expenditure according to household size	42
23	Share of total expenditure on meals obtained away from home by household size	42
24	Share of total meat and seafood expenditure according to age of housekeeper	44
25	Share of total expenditure on meals obtained away from home according to age of housekeeper	44
A1	Interviews by week of field operations	51
B1	The processes of cohort flow and ageing over time	81

### Text tables

1	Characteristics of the average household	7
2	Household weekly expenditure on food purchases for preparation of meals at home	8
3	Proportion of households purchasing various foods during the survey period and during the preceding two years	11
4	Proportion of meals prepared from household food supplies which were defrosted, reheated or cooked in a microwave oven, by type of meat	13
5	Average weekly expenditures per person on household purchases of meals and other foods according to gross income per person	15
6	Average weekly quantities of meats and seafoods purchased per person as proportions of total meat and seafood purchases per person, according to gross income per person	18
7	Expenditure elasticities for meats and seafood with respect to total expenditure on meat and seafood	19
8	Average weekly quantities of meats and seafoods purchased per person as proportions of total meat and seafood purchases per person, according to age of housekeeper	25
9	Average weekly quantities of meats and seafoods purchased per person as proportions of total meat and seafood purchases per person, according to birthplace of housekeeper	27
10	Average weekly quantities of meats and seafoods purchased per person as proportions of total meat and seafood purchases per person, according to the amount of time the housekeeper devotes to work or study	31

## Appendix tables

A1	Results of field operations	49
A2	Survey regions, local government areas and completion statistics	53
A3	Calculation of number of persons per family for each birthplace zone	56
A4	Calculation of number of families of each birthplace group, in Sydney and Melbourne, 1981	57
A5	Calculation of factors for updating Australian population by birthplace to October 1984	58
A6	Calculation of proportions of families of each birthplace group, October 1984	59
A7	Calculation of populations for each survey region, 1984	60
A8	Calculation of proportions of the populations in each household size group	61
A9	Calculation of proportions of family heads in each age group	61
A10	Calculation of estimated number of occupants of private dwellings in the survey areas	62
B1	Variables used in household purchases analysis	66
B2	Expenditure share model coefficients	72
B3	Linear expenditure system coefficients	72
B4	Comparison of expenditure elasticities	74
B5	Censored regressions for single equation estimation of expenditure shares	75
B6	Variables used in 'meals obtained away from home' analysis	78
B7	Cohort table of real weekly household expenditure on meats and seafood purchases	81
B8	Variables used in cohort analysis	83
D1	Average household weekly expenditures on meats and other food purchases, by city	100
D2	Household weekly expenditures on meats and other food purchases as proportions of total expenditure on food purchases, and comparison with previous surveys	101
D3	Household purchases of meats and seafoods as proportions of total quantity of meat and seafood purchased, and comparison with previous surveys	101

D4	Average weekly expenditures per person on household purchases of meats and other foods, according to gross income per person	102
D5	Average weekly purchased quantities of meats and seafoods per person according to gross income per person	104
D6	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to gross income per person	105
D7	Average weekly expenditures on meats and other foods per person according to size of household	106
D8	Average weekly purchased quantities of meats and seafoods per person according to size of household	108
D9	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to size of household	109
D10	Average weekly expenditures on meats and other foods per person according to composition of household	110
D11	Average weekly purchased quantities of meats and seafoods per person according to composition of household	112
D12	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to composition of household	113
D13	Average weekly expenditures on meats and other foods per person according to age of housekeeper	114
D14	Average weekly purchased quantities of meats and seafoods per person according to age of housekeeper	116
D15	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to age of housekeeper	117
D16	Average weekly expenditures on meats and other foods per person according to birthplace of housekeeper	118
D17	Average weekly purchased quantities of meats and seafoods per person according to birthplace of housekeeper	120
D18	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to birthplace of housekeeper	121
D19	Average weekly expenditures on meats and other foods per person according to education level of housekeeper	122
D20	Average weekly purchased quantities of meats and seafoods per person according to education level of housekeeper	124

D21	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to education level of housekeeper	125
D22	Average weekly expenditures on meats and other foods per person according to the amount of time the housekeeper devotes to work or study	126
D23	Average weekly purchased quantities of meats and seafoods per person according to the amount of time the housekeeper devotes to work or study	128
D24	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to the amount of time the housekeeper devotes to work or study	129
D25	Average weekly expenditures on meats and other foods per person according to ownership of a freezer or microwave oven	130
D26	Average weekly purchased quantities of meats and seafoods per person according to ownership of a freezer or microwave oven	131
D27	Average weekly purchased quantities of meats and seafoods per person as proportions of total meat and seafood purchases per person, according to ownership of a freezer or microwave oven	131
D28	Proportions of household meals obtained at home and away from home according to income per person	132
D29	Proportions of household meals obtained at home and away from home according to size of household	132
D30	Proportions of household meals obtained at home and away from home according to age of housekeeper	133
D31	Proportions of household meals obtained at home and away from home according to birthplace of housekeeper	133
D32	Proportions of household meals obtained at home and away from home according to education level of housekeeper	134
D33	Proportions of household meals obtained at home and away from home according to the amount of time the housekeeper devotes to work or study	134
D34	Proportions of meals containing meat prepared from household food supplies by type of meat and meal time	135
D35	Methods of preparation of meals as proportions of total meals, according to type of meat or fish	135
D36	Proportions of meals containing meat or fish prepared from household food supplies, by method of preparation and meal time	136
D37	Methods of preparation of evening meals as proportions of total evening meals, according to the amount of time the housekeeper devotes to work or study	136

- D38 Proportions of households stating their consumption of various meats or fish to have increased, remained unchanged or declined over the two-year period prior to the survey, and frequency of reasons for change 137
- D39 Proportions of households stating their consumption of various meats or fish to have increased, remained unchanged or declined over the two-year period prior to the survey, according to age of housekeeper 138

## HOUSEHOLD MEAT CONSUMPTION IN SYDNEY AND MELBOURNE

### SUMMARY

Australian cattle and lamb producers have expressed concern that their products are losing ground in the diets of domestic consumers to other sources of protein, particularly pork, poultry and seafood. During 1984, the Bureau undertook a major survey of meat consumption in households in Sydney and Melbourne, at the request of the Australian Meat Research Committee. This study formed part of a program of consumer research aimed at determining factors influencing the demand for meat and seafood. It should provide a basis for developing marketing and promotion strategies for red meats and give insights into those factors which may influence the demand for meat and seafood in future years.

The 1984 Household Meat Consumption Survey was designed to be consistent with earlier surveys conducted by the Bureau in Sydney and Melbourne in the 1960s. The survey was based on a random selection of households in Sydney and Melbourne urban areas. Housekeepers were interviewed between mid-October and early December 1984 and asked to complete a meals diary and a food expenditure diary over a two week period. Data were obtained for 424 households in Sydney and 468 households in Melbourne. The samples were weighted to take account of non-response and to be representative of the populations of Sydney and Melbourne. The objectives of the survey were:

- to provide statistical information on quantities of meat and seafood purchased, the expenditure on meat and seafood purchases, and on household eating habits;
- to examine the effects of various demographic and socio-economic factors and ownership of freezers and microwave ovens on household meat and seafood consumption; and
- to examine changes in meat and seafood purchases and expenditure and in eating habits over the past 20 years.

### Expenditure, purchases and eating habits of the average household

Sydney and Melbourne households spent around \$85 a week on food in 1984, on average, of which \$62 was spent on household food supplies and \$23 on meals obtained away from home. About a third of expenditure on household food supplies was on meat and seafood, and of this, nearly two-thirds was on red meat. Households purchased on average just under 5 kg of meat and seafood a week. Beef was the principal meat purchase at 1.6 kg per household per week followed by lamb (1.1 kg) and poultry (0.9 kg). Beef, lamb and poultry accounted for about three-quarters of meat and seafood purchased by households. Seafood and pigmeat (pork, bacon and ham) were each less than 10 per cent of meat and seafood purchases. Purchases of fresh mutton were negligible.

On average nine out of ten meals were prepared from household food supplies, and just under half of these meals contained meat or seafood. Almost half of all meat or fish meals prepared at the home were grilled or fried. Households with a microwave oven used it to cook about one in ten of meals containing meat or seafood, and most frequently to cook pork, poultry and fish. Meals obtained away from home were mostly from another home, a sandwich bar or fast food store (which includes 'family' restaurants). Beef,

poultry and seafood were the main categories of meat or seafood obtained away from the home.

#### Factors affecting household meat demand

Other research has postulated that the demand for meat and seafood has undergone substantial change in recent years. This related work suggested a variety of causal factors such as increasing numbers of working housekeepers, declining household size and changing age structure of the population. The impact of a range of characteristics of households and housekeepers on the demand for meat and seafood has been assessed in the present study.

The income of a household has a small influence on expenditure on meat and seafood purchases for household food supplies and also on the proportion of meals obtained away from home. However, a change in expenditure on meat and seafood purchases caused by a change in household income would not influence all meats equally. When income is higher, relatively more poultry and beef are likely to be purchased compared with lamb, seafood and pork. Expenditure on meals obtained away from home, as opposed to the actual proportion of meals obtained away from home, is strongly influenced by the income of the household. Increases in real household incomes are therefore likely to have a positive effect, at least in the short term, on the demand for most meats as well as promoting further eating away from home.

The size of the household and the number of adults and children also influence the food purchases of the household and its meal habits. Larger households purchase less per person of most food items, and the proportion of meals obtained away from home declines. Meat and seafood purchases in one person households exceeded 2.2 kg per week, compared with 1.5 kg per person in four person households. The proportion of each meat or seafood category in total purchases is largely unaffected by the size of the household, although households with children tend to purchase less poultry and more red meats. With average household size likely to continue to fall, average per person meat and seafood purchases and meals obtained away from home can be expected to increase.

Households with older housekeepers spend more per person on household purchases of most meat and other food items. Housekeepers 55 years and over spend 75 per cent more on meats and seafood purchases than do those under 25 years of age. This relationship is largely the result of differences in factors such as the income, size and composition of the household and the proportion of meals eaten away from home. Young households (housekeeper under 25 years of age) purchase twice as many meals away from home as do households with a housekeeper over 45 years of age. In addition, there is some evidence that young households have a lower demand for meat and seafood than other households. However, despite a lower demand now it is not possible to conclude that these consumers will continue to have a low demand for meat and seafood as they grow older.

The allocation of meat and seafood purchases is also influenced by the age of the housekeeper. Expenditure on lamb and offal purchases increases with age while expenditure on poultry, seafood (other than fish) and smallgoods declines.

The birthplace of the housekeeper affects both the total quantity of meat and seafood purchased and preferences for individual meats. Households whose housekeeper was born in Asia purchase, on average, a third more meat

and seafood than do those with housekeepers born in Australia, and half as much again as those born in Northern Europe. The difference in purchases accordingly to birthplace is even greater for individual meats. For example, comparing Asian born housekeepers with those born in Australia, Asian born housekeepers purchase four times as much pork while their Australian born counterparts purchase three times as much lamb. Changes in the ethnic composition of the population are therefore likely to favour some meats or seafoods over others. However, the effects on aggregate consumption of such changes are expected to be limited since such changes account for only a small proportion of the total population. Thus the buying patterns of households with Australian or New Zealand born housekeepers will continue to dominate overall consumption habits.

Households whose housekeeper is employed outside the home or studies full-time obtain a greater proportion of their meals away from home, while household purchases of meat and seafood are only slightly less than other households. Therefore, total meat and seafood consumption may be greater in households with a working housekeeper.

Although other research has suggested that consumption of red meats may be lower in households with a microwave oven, this study has found that ownership of a microwave oven is associated with higher expenditure on meat and seafood in total, and particularly the red meats. Households owning a microwave oven spent 9 per cent more on red meat than other households. While chicken and fish were cooked in the microwave oven more frequently than beef or lamb, it seems likely that the convenience of the microwave oven for defrosting beef and lamb before cooking outweighs the preference for cooking white meats in the microwave oven.

Housekeepers were questioned on the household's meat consumption over the previous two years. Over the two year period prior to the survey, beef, lamb, poultry and fish were each consumed in at least 94 per cent of households. About half the households surveyed reported changed eating habits, the trends being away from red meats, particularly beef, toward poultry and seafood. Apart from changes in tastes and preferences, principal reasons given for these changes were related to health and diet. These responses indicate a high degree of concern about the effects of red meat on health. Recently released Australian research on nutritional aspects of a range of meats may have some effect on these perceptions of the health implications of eating red meat. Price was also a factor reported as influencing consumption of a meat.

Other research has also suggested that education levels of housekeepers may be a factor associated with trends away from meat, particularly red meats. The present analysis does not support this hypothesis.

#### Changes in demand since 1964

Analyses using aggregate consumption data have generally concluded that most of the change in the consumption of different meats which has occurred over the past 20 years is due to changes in income and relative prices. However, there have apparently been downward shifts in the underlying demand for mutton and possibly lamb and a possible upward shift in the demand for poultry.

In this study, changes in household consumption between 1964-65 and 1984 were compared with price movements during the period, to see whether there were any movements in consumption which could not be explained by responses



to changes in prices. In addition to confirming the shifts away from mutton and lamb and toward poultry, this analysis also indicates a possible upward shift in the demand for pork and seafood. These shifts may be partially explained by changes in the average size of households, differences between young and old households in the demand for meats and seafood, changes in the migrant composition of the population, increased participation by housekeepers in the workforce, and health concerns. Developments in the marketing and promotion of pork and poultry in the years preceding the survey are another factor which may have contributed to these shifts.

#### Implication for future meat and seafood demand

Total demand by households for meat and seafood is expected to increase, due mainly to growth of the population and possible increases in real household income. The extent to which the demand growth due to rising incomes is reflected in quantities consumed, however, will depend upon how much of the additional expenditure is directed toward increased quality or greater value added in items purchased. Other factors which would be expected to support the upward trend in overall demand are any further increase in the number of working housekeepers and any further changes in the migrant composition of the population. One factor which could have a negative influence on total meat and seafood demand would be if the lower consumption of meat and seafood which is apparent in young households persists as members of these households grow older.

Any increase in real income per household is expected to favour the consumption of poultry and beef at the expense of pork and, to a lesser extent, lamb and seafood. A continuation of recent trends towards smaller households, a changed migrant base, more working housekeepers and the use of microwave ovens may lead to further shifts away from lamb toward pork, seafood and poultry. A persistence of present differences in demand for meat and seafood by young consumers as they grow older could also see further shifts in demand away from lamb toward poultry.

Trends in the major demand factors considered in this report are expected to lead to a rise in the underlying demand for meat or seafood. However, expectations of demand growth do not imply that the quantities of all meats and seafoods purchased by Australian households will necessarily increase in the foreseeable future. Other factors such as taste and lifestyle changes, new food products and services, new cooking methods and promotion campaigns may also alter the demand for meats and seafoods in the future. Also, while household demand or desire to purchase meat and seafoods may increase, changes in relative prices of the different meats and seafoods due to movements in domestic supply or export demand could easily outweigh the effects on household consumption of the underlying growth in demand.

## 1. INTRODUCTION

Australian livestock producers have focused considerable attention over recent years on the marketing and promotion of meat. This follows concern by both cattle and lamb producers that their products are losing market share to other sources of protein, particularly pork, poultry and seafood. Such concerns have been raised at industry conferences (Brunton 1986; Bryant 1983; Jenkins 1986; McKinna 1984). Reasons commonly put forward for this alleged trend away from red meat are major changes in dietary attitudes and lifestyles as well as demographic, socio-economic and technological developments.

Debate on this issue has highlighted the shortage of knowledge of the characteristics of consumer demand for meat in Australia. At the request of the Australian Meat Research Committee, the Bureau undertook a major survey of meat consumption in Sydney and Melbourne households late in 1984. This study was part of a program of consumer research funded by the committee, and its successor the Australian Meat and Live-stock Research and Development Corporation. Other work has included attitudinal consumer research for the Cattle Council of Australia (McKinna Et Al 1984) and product development studies by the Queensland Meat Industry Authority (Hopkins and Congram 1985). The Australian Meat and Live-stock Corporation, the Western Australian Department of Agriculture and the Victorian Department of Agriculture have also recently undertaken attitudinal and product development research into meats.

The cross-section survey work by consultants David McKinna Et Al and the Australian Meat and Live-stock Corporation identified a range of factors as influencing meat and seafood consumption and adversely affecting the status of red meat (Australian Meat and Live-stock Corporation 1984; McKinna Et Al 1984). Some of the factors were:

- weight and diet consciousness and growing knowledge about, and concern for, nutrition;
- an increasing proportion of households with a working housekeeper;
- greater acceptance of alternative foods;
- increasing usage and acceptance of fast foods and meals eaten away from home;
- a trend toward smaller households;
- a move away from red meat by younger households; and
- increasing usage of labour saving and time saving devices, especially microwave ovens and freezers.

There have been previous surveys of meat consumption and meat buying behaviour in Australian households, by the Bureau in Sydney and Melbourne in the 1960s (BAE 1967, 1970), and by the Queensland Department of Primary Industries in Brisbane in 1972 (Roberts and Neville 1974). The Australian Bureau of Statistics collected data on meat expenditure by Australian households in 1974-75, 1975-76 and 1984 in its Household Expenditure Surveys (ABS 1977, 1978, 1986a) but these do not provide data on the quantity of meat purchased or on meat eating habits.

The objectives of the 1984 Household Meat Consumption Survey were:

- to provide statistical information on the pattern of meat purchases and expenditure, on meat buying and eating habits, and on the use of home freezers and microwave ovens;
- to examine the effect of various demographic and socio-economic factors, and freezer and microwave oven ownership, on meat consumption, expenditure, buying habits and eating habits; and
- to examine changes in meat consumption, expenditure, buying habits and eating habits over the past 20 years and to determine the factors underlying these changes.

The information from this survey should prove useful in developing marketing and promotion strategies for red meats and for projecting the effects of future changes in population characteristics on the demand for meats and seafoods.

The survey was based on a random selection of households in Sydney and Melbourne, between mid-October and early December 1984 (appendix A). The housekeeper was interviewed and asked to complete a meals diary and a food expenditure diary over a two-week period (appendix C). Data were obtained on:

- purchases of meat and seafood and other food items,
- meals prepared at home and obtained away from the home,
- the use of freezers and microwave ovens,
- attitudes and habits influencing the purchase of meat, and
- household characteristics.

Data sets were obtained for 424 households in Sydney and 468 households in Melbourne. The data were weighted to be representative of the populations of Sydney and Melbourne (appendix A). The results are outlined in this part of the report; further details of methodology and results are given in the appendices.

## 2. AVERAGE HOUSEHOLD MEAT USAGE

This section describes household characteristics, meat and seafood purchases and eating habits for the average household in Sydney and Melbourne.

### 2.1 Household Characteristics

The average size of the Sydney and Melbourne households surveyed was 2.92 persons with 0.67 persons under the age of 15 years (table 1). This compares with an average household size of 2.80 persons for Sydney and Melbourne derived from data in the 1984 Australian Bureau of Statistics Household Expenditure Survey (ABS 1986a). Differences between this Bureau's survey figures and those derived from the Australian Bureau of Statistics survey may be explained by differences in the samples. Average household income for those households responding to the income question was \$23 900. This is comparable to an estimate of \$25 800 derived from data in the Australian Bureau of Statistics Household Expenditure Survey for Sydney and Melbourne (Australian Bureau of Statistics 1986a). The figure obtained in the Household Meat Consumption Survey is close to the Australian Bureau of Statistics figure even though a relatively simple procedure was used in our survey to collect this information. Average income per household member for the Household Meat Consumption Survey was \$10 000. Just under half of households owned a large refrigerator freezer or separate freezer while one out of five owned a microwave oven.

Table 1: CHARACTERISTICS OF THE AVERAGE HOUSEHOLD(a)

Item	Unit	Sydney	Melbourne	Both cities
<u>Persons in household</u>				
Males under 15	no.	0.32 (6.7)	0.38 (7.6)	0.35 (5.1)
Males 15 and over	no.	1.02 (3.1)	1.04 (3.5)	1.03 (2.3)
Females under 15	no.	0.34 (8.1)	0.29 (8.6)	0.32 (5.9)
Females 15 and over	no.	1.20 (2.6)	1.21 (2.6)	1.21 (1.9)
Total	no.	2.90 (2.2)	2.95 (2.2)	2.92 (1.6)
<u>Income</u>				
Gross household income(b)	\$	23 790 (3.9)	24 020 (3.5)	23 890 (2.7)
Gross income per person(b)	\$	9 870 (5.8)	10 180 (4.3)	10 010 (3.8)
<u>Freezers and microwave ovens</u>				
Households with				
a microwave oven	%	23.3 (7.8)	17.4 (11.2)	20.6 (6.5)
Households with a freezer(c)	%	43.3 (5.7)	42.4 (4.6)	42.9 (3.8)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne. (b) Average for households supplying income information. (c) Includes households with a large refrigerator freezer or a separate freezer.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table 2: HOUSEHOLD WEEKLY EXPENDITURE ON FOOD PURCHASES FOR PREPARATION OF MEALS AT HOME(a)(b)

Item	Expenditure		Quantity purchased		
	Amount	Percentage	Weight	Percentage of total meat and seafood	Price
	\$	%	kg	%	\$/kg
Beef	6.65 (4.3)	10.7 (3.3)	1.569 (6.4)	32.3 (3.9)	4.24 (3.2)
Veal	0.71 (13.1)	1.1 (13.0)	0.130 (16.1)	2.7 (16.2)	5.44 (7.3)
Lamb	3.19 (4.8)	5.1 (4.6)	1.067 (5.1)	22.0 (4.3)	2.99 (2.5)
Pork	1.03 (8.0)	1.7 (8.3)	0.243 (8.6)	5.0 (8.7)	4.21 (4.1)
Offal	0.19 (13.4)	0.3 (13.2)	0.070 (12.5)	1.4 (12.2)	2.66 (5.8)
Total red meat	11.79 (3.3)	19.0 (2.5)	3.093 (4.4)	63.7 (1.8)	3.81 (2.2)
Poultry	2.94 (8.0)	4.7 (6.6)	0.920 (6.5)	18.9 (4.7)	3.20 (3.0)
Bacon and ham	1.04 (6.6)	1.7 (5.8)	0.164 (6.9)	3.4 (6.1)	6.33 (3.0)
Other meat	1.13 (6.8)	1.8 (6.6)	0.252 (8.7)	5.2 (7.6)	4.47 (4.8)
Fish	1.95 (7.5)	3.1 (7.3)	0.389 (6.7)	8.0 (7.2)	5.01 (4.1)
Other seafood	0.36 (23.3)	0.6 (22.9)	0.042 (20.0)	0.9 (20.5)	8.53 (8.4)
Total meat and seafood	19.21 (3.2)	30.9 (1.7)	4 860 (3.8)		3.95 (1.9)
Fruit and vegetables	10.15 (3.1)	16.3 (2.0)			
Eggs	1.52 (3.7)	2.4 (2.9)			
Cheese	2.12 (4.3)	3.4 (3.8)			
Bread	3.25 (3.6)	5.2 (2.1)			
Milk	3.77 (3.8)	6.1 (2.7)			
Frozen food	2.26 (8.3)	3.6 (7.1)			
Other food groceries	19.96 (3.4)	32.1 (1.8)			
Total food	62.24 (2.8)				

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne. (b) Does not include meals obtained away from home.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

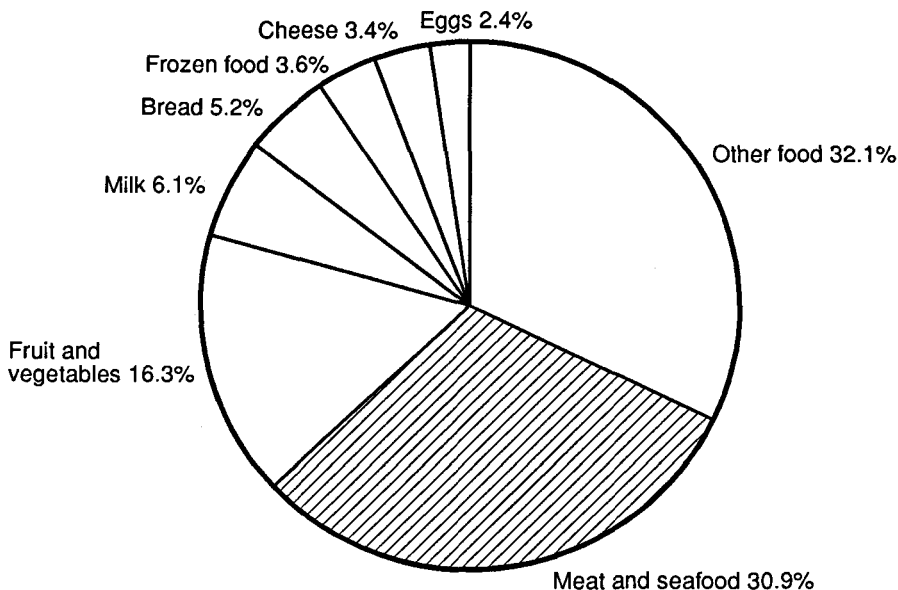
## 2.2 Food Purchases

Average expenditure on food for Sydney and Melbourne households was approximately \$85 per week, of which \$62 was spent on food purchases for meals prepared at home and \$23 on meals obtained away from the home (appendix table D1). This compares with a figure of around \$76 derived from data in the 1984 Australian Bureau of Statistics Household Expenditure Survey (Australian Bureau of Statistics 1986a). About one-third of expenditure for household food supplies was spent on meat and seafood (table 2, figure 1). In terms of quantity, red meat purchases accounted for approximately two-thirds of total meat and seafood purchases (figure 2). Beef was the principal meat purchased followed by lamb and poultry. Purchases of seafood, pork, bacon and ham and veal were much smaller by comparison. In contrast with the earlier surveys by this Bureau (BAE 1967, 1970), fresh mutton accounted for a negligible proportion of meat purchases: fresh mutton was purchased by less than 1 per cent of households participating in the survey. Most mutton consumed by the household is in the form of processed meat products, such as smallgoods or meat pies. Pork is another major component of many of these products.

Only 3 per cent of households did not purchase any meat or seafood during the two-week survey period (although some of these households ate meat from freezer supplies purchased prior to the survey). Eight per cent did not purchase any red meats. Beef was purchased by 84 per cent of households while lamb, poultry and seafood were each purchased by over 60 per cent of households during the two-week period. Pork, veal and offal were each purchased by less than one-third of households (table 3).

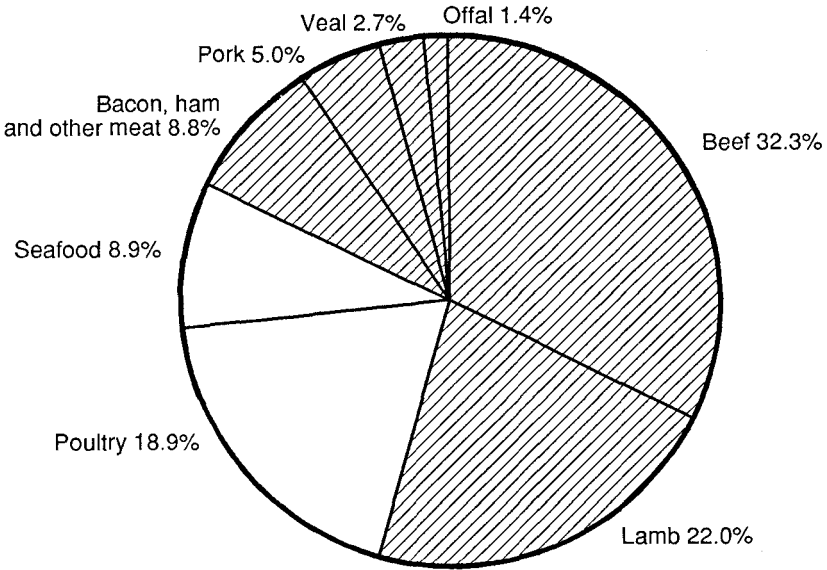
**Figure 1:** Shares of household expenditure on food purchases excluding meals obtained away from home

ABARE chart



**Figure 2:** Shares of quantity of meats and seafood purchased

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**Figure 3:** Method of preparation of meals containing meat or fish prepared from household food supplies

ABARE chart

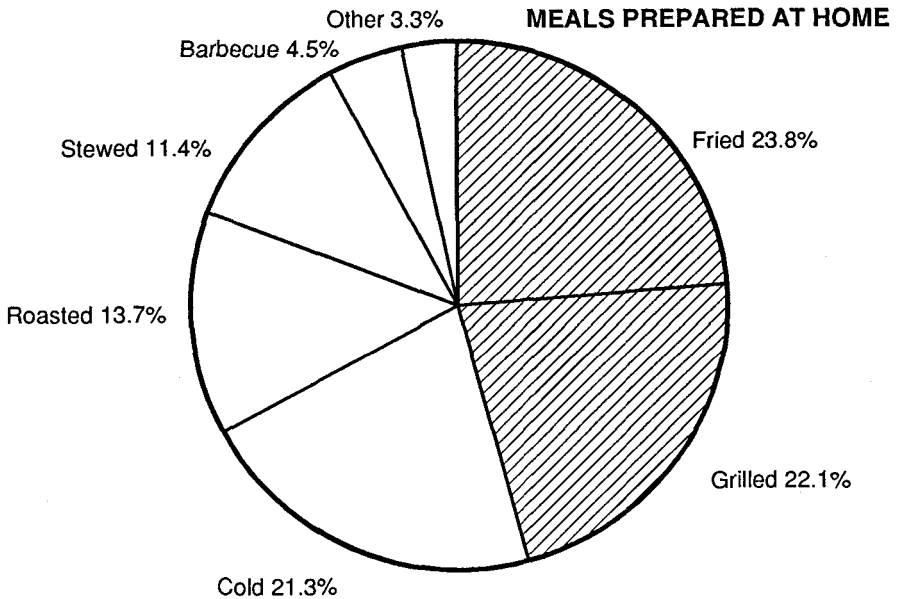


Table 3: PROPORTION OF HOUSEHOLDS PURCHASING VARIOUS FOODS DURING THE SURVEY PERIOD AND DURING THE PRECEDING TWO YEARS(a)

Item	Two week	Two years
	survey period	prior to survey
	%	%
Beef	84 (1.8)	98 (0.4)
Veal	17 (8.0)	73 (2.0)
Lamb	65 (2.7)	94 (0.8)
Mutton	1 (36.7)	25 (5.0)
Pork	30 (5.6)	84 (1.4)
Offal	13 (10.2)	53 (3.3)
Any red meat	92 (1.1)	
Poultry	65 (3.0)	98 (0.5)
Canned meat excluding fish	34 (5.8)	
Bacon and ham	14 (9.7)	
Smallgoods	44 (4.2)	
Fish	58 (3.4)	96 (0.8)
Other seafood	9 (11.7)	
Any meat or seafood	97 (0.5)	
All foods	100 (0.0)	

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne. (b) The proportion of households which actually used these meats in meals prepared at home, within the two week period, was higher than the figures suggest as some households consumed meat from freezer supplies purchased prior to the survey.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Households were also asked about their meat and seafood consumption in the two years prior to the survey. During the previous two years beef, lamb, poultry and fish were each eaten by at least 94 per cent of households (table 3). Pork and veal were less frequently eaten, being consumed by 84 per cent and 73 per cent of households respectively. Offal was only eaten by one in two households during the two years prior to the survey.

### 2.3 Meal Preparation

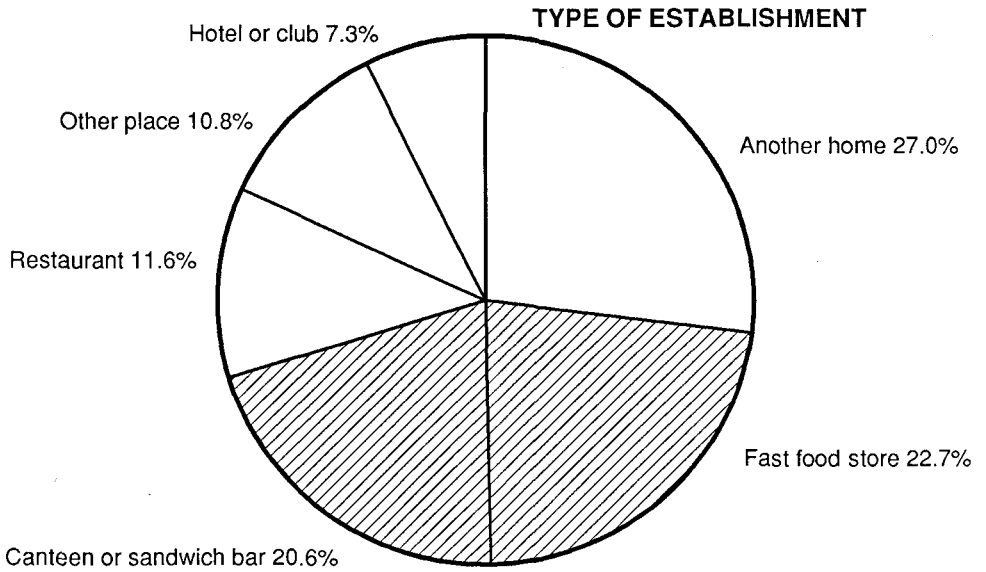
Approximately nine out of ten meals were prepared from household food supplies, and nearly half of these meals contained meat. Beef was included in 36 per cent of meals containing meat, followed by bacon or ham, lamb, poultry and fish. Pork and veal were each included in less than 5 per cent of meals containing meat (appendix table D34).

Frying and grilling were the most popular methods of preparation during the survey period, which spanned mid-October to mid-December. Cold meat was served at one in five meals, being most popular for midday meals (figure 3, appendix tables D35 and D36).



**Figure 4:** Meals obtained away from home

ABARE chart



**Figure 5:** Proportions of each type of meat in meals obtained away from home

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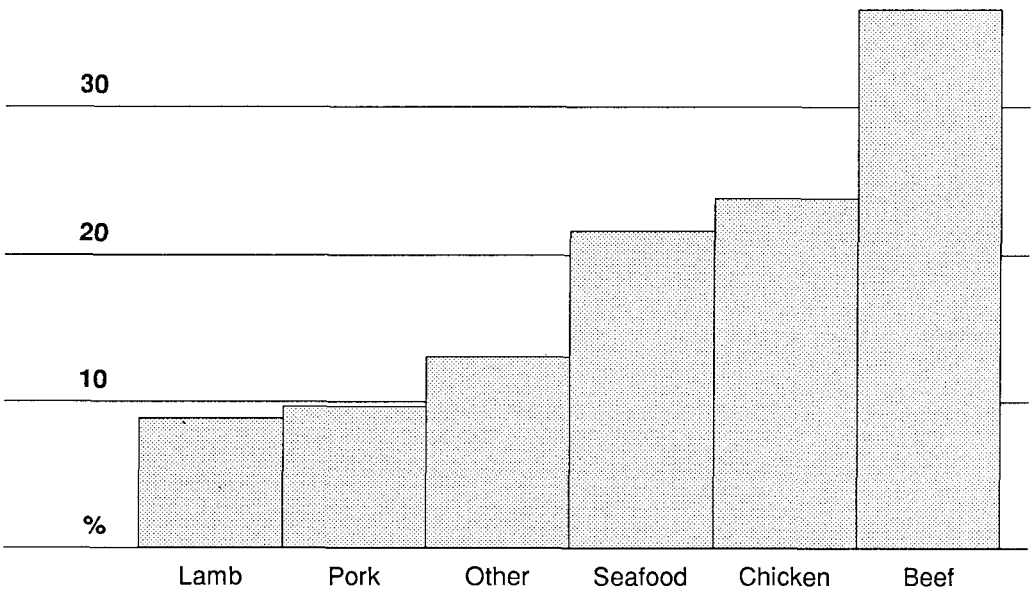


Table 4: PROPORTION OF MEALS PREPARED FROM HOUSEHOLD FOOD SUPPLIES WHICH WERE DEFROSTED, REHEATED OR COOKED IN A MICROWAVE OVEN, BY TYPE OF MEAT(a)(b)

Type of meat	Defrost	Reheat	Cook
	%	%	%
Beef	19.9 (13.9)	10.7 (16.0)	8.1 (16.1)
Veal	24.4 (35.0)	11.7 (39.2)	8.1 (47.0)
Lamb	22.0 (15.6)	6.0 (22.0)	6.8 (23.2)
Pork	19.4 (16.3)	10.2 (33.1)	13.8 (19.1)
Chicken	12.4 (16.2)	8.7 (24.3)	13.2 (16.1)
Fish	8.0 (29.6)	4.9 (27.7)	18.6 (18.2)
All meals	15.0 (11.6)	7.4 (12.7)	9.4 (10.5)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne. (b) Households owning a microwave oven.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Households with a microwave oven used it to cook about one in ten of their meals containing meat or seafood (table 4). The microwave oven was more popular for cooking fish than for other meats. It was also used for defrosting about 15 per cent of meals containing meat. Red meats were defrosted in this way more often than chicken or fish.

#### 2.4 Meals Obtained Away from Home

On average 13 per cent of household meals were obtained away from home, at an average expenditure of \$23 per week, or 27 per cent of household expenditure on food. Fast food stores and canteens or sandwich bars together accounted for nearly half of meals obtained away from home, and meals obtained at another person's home for a quarter (figure 4). Beef or veal was included in over a third of meals obtained away from home which contained some meat or seafood (figure 5). Chicken and seafood were the next most frequently eaten in meals obtained away from home. Lamb and pork each accounted for only one in ten of these meals.

### 3. FACTORS INFLUENCING HOUSEHOLD MEAT DEMAND

In this section, meat and seafood purchase and expenditure patterns are analysed according to selected household and housekeeper characteristics-income, size and composition of the household, age, birthplace, education and employment status of the housekeeper, microwave ovens and freezers in the household, and attitudes towards meat. The influence of these factors is assessed using both tabular and econometric analyses.

#### 3.1 Methods of Analysis

The relationships between various household characteristics and meat expenditure and purchases can be analysed in two ways. The simplest way of analysing these relationships is by studying tabulated data. For example, by dividing the sample into income groups as in table 5, it can be seen that expenditure on food tends to be higher in households with higher levels of household income per person. However, this form of analysis has limitations. Factors other than household income per person, such as household size or the birthplace of the housekeeper, may also influence food expenditure. To see the relationship between household income and expenditure independent of household size, the data for each household size group would have to be tabulated separately. However, subclassing the data in this way will often result in very small samples. Estimates obtained from small samples are much less likely to give an accurate picture of the overall population than those obtained from larger samples.

A more sophisticated method of analysing data so as to avoid sample problems is through the use of an econometric model. This technique is commonly used in demand studies to determine the influence of a characteristic, such as the size or income of the household, in isolation from other influences.

Both tabular and econometric methods of analysis have been used in this study. Appendix D contains the tabulated data, and details of the econometric analysis are provided in appendix B.

#### 3.2 Income

Income is generally accepted as one of the most important factors influencing consumption. As the income of the household increases the consumption of most types of food also tends to increase, although usually at a slower rate than income. However, this is not true for all food items, Mutton consumption, for example, has been found to decline as income increases over a certain range. The rate at which the consumption of a food item responds to a change in income can vary with different food items and over different ranges of income.

##### (a) Meat and seafood purchases

###### Tabular results

Figure 6 illustrates expenditure per household member on all food and meat and seafood purchases according to the level of income per household member for the 1984 survey and also for the two surveys conducted in the 1960s (BAE 1967, 1970). As the level of household income per person rises so

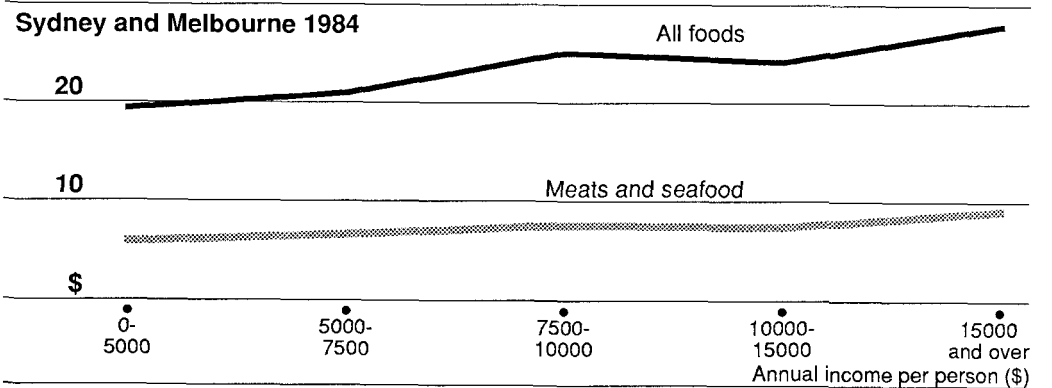
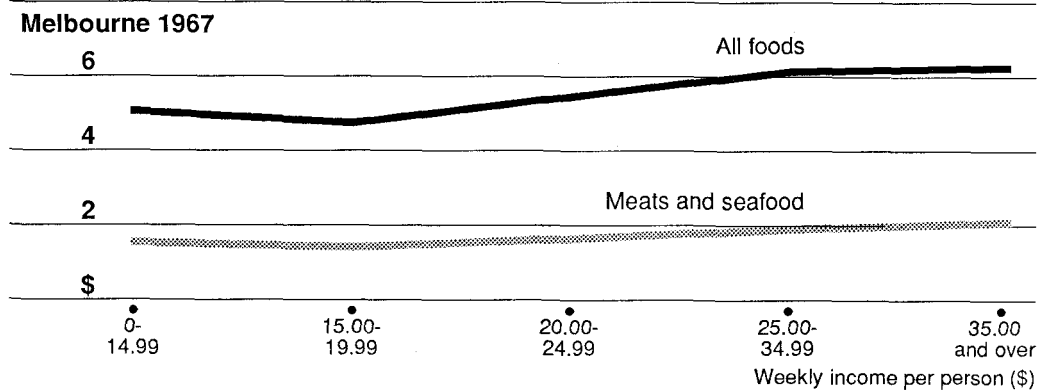
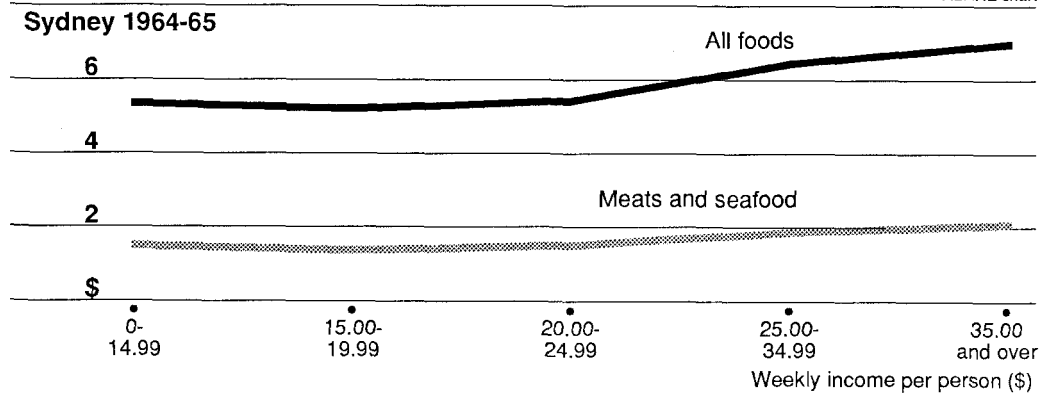
Table 5: AVERAGE WEEKLY EXPENDITURES PER PERSON ON HOUSEHOLD PURCHASES OF MEATS AND OTHER FOODS ACCORDING TO GROSS INCOME PER PERSON(a)

Item	Unit	Gross income per person				
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over
Number of households	no.	186	141	122	107	117
Household size	no.	3.45 (8.4)	3.08 (8.7)	3.10 (10.5)	2.75 (14.2)	1.75 (11.1)
Gross income per person	\$	3 350 (8.3)	6 000 (8.9)	8 310 (10.2)	12 010 (10.1)	23 720 (13.1)
<u>Average weekly expenditure per person</u>						
Beef	\$	1.97 (9.6)	2.40 (13.8)	2.50 (21.1)	2.80 (15.4)	3.06 (15.6)
Veal	\$	0.28 (31.8)	0.25 (20.6)	0.42 (49.7)	0.20 (40.7)	0.19 (37.1)
Lamb	\$	1.04 (12.0)	1.04 (17.5)	1.36 (15.8)	1.31 (16.0)	1.21 (19.1)
Pork	\$	0.35 (25.7)	0.34 (24.2)	0.32 (22.9)	0.30 (30.1)	0.45 (25.9)
Total red meat	\$	3.75 (9.2)	4.13 (12.2)	4.66 (16.3)	4.70 (12.9)	5.02 (13.4)
Poultry	\$	0.88 (13.7)	1.09 (15.4)	1.10 (21.0)	1.15 (15.9)	1.19 (19.8)
Canned meat, excluding fish	\$	0.06 (22.0)	0.06 (24.5)	0.08 (71.3)	0.11 (42.3)	0.11 (31.4)
Bacon and ham	\$	0.30 (15.2)	0.32 (16.3)	0.46 (22.9)	0.36 (20.7)	0.38 (17.7)
Smallgoods	\$	0.23 (21.2)	0.31 (21.2)	0.30 (30.9)	0.24 (21.3)	0.22 (21.6)
Other meat and undefined	\$	0.06 (38.4)	0.05 (47.1)	0.02 (47.3)	0.06 (43.7)	0.10 (58.3)
Fish	\$	0.51 (12.2)	0.61 (19.8)	0.73 (17.3)	0.73 (15.1)	1.50 (33.1)
Other seafood	\$	0.09 (32.8)	0.04 (38.7)	0.18 (53.7)	0.08 (44.7)	0.61 (61.0)
Total meat and seafood	\$	5.87 (8.9)	6.62 (10.4)	7.53 (16.2)	7.43 (11.5)	9.12 (16.7)
Total food	\$	19.38 (8.4)	21.81 (9.4)	25.08 (13.3)	24.16 (10.6)	27.97 (11.9)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne.  
Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

**Figure 6:** Expenditure on meats and seafood and all foods per person by income per person

ABARE chart



too does expenditure on food purchases and on meat and seafood. Table 5 shows that expenditure on red meat was higher with higher income per person. Expenditure on beef was higher with higher income while expenditure on veal appears to be lower among higher income groups. Expenditure on lamb was at a maximum in the \$7500 to \$15 000 per person income range and then declined for households with higher income per person. Expenditure on pork appeared to be progressively less as incomes were higher, except for the highest income range. Expenditures on poultry and seafood were progressively higher at higher income levels. A report on the results of a 1980-81 consumer expenditure survey in the United States revealed similar patterns of expenditure on meat (Smallwood and Blaylock 1985).

In general, the quantity of meat and seafood purchased, like expenditure, was also higher with higher income per household member (appendix table D5). However, in contrast to this overall trend, households in the middle income range purchased the greatest quantity of meat and seafood. This group of households also purchased the greatest quantity of red meat.

As a proportion of the total quantity of meat and seafood purchased, more beef was purchased at higher incomes per person (table 6). Lamb accounted for over 20 per cent of purchases for incomes up to \$15 000 per person, but the proportion was lower for higher incomes. The proportion of pork was also generally lower in the higher income ranges. The net effect was that the proportion of purchases accounted for by red meat increases to 65 per cent in the \$10 000 to \$15 000 per person income range then falls to 60 per cent for higher incomes, lower than for all other income groups. The share of purchases allocated to poultry, like pork, was also lower for the higher income households while the reverse was true for seafoods.

#### Econometric results

As mentioned earlier, the tabulated data may not correctly reveal the real underlying relationship between income and expenditure on meat and seafood due to the influence of other factors. Econometric analysis (appendix B1) reveals that when the influence of income is isolated from other influences such as age or birthplace of housekeeper, household income is found to have a positive effect on expenditure on household meat and seafood purchases. This responsiveness of expenditure to an increase in income (the income elasticity of expenditure on meat and seafood) is, however, quite low: a 1 per cent increase in gross household income results in only a 0.07 per cent increase in expenditure on meat and seafood purchases for household food supplies.

In earlier surveys, income elasticities of per person expenditure on meat and seafood were found to be 0.32 for Sydney in 1964-65 (BAE 1967) and 0.24 for Melbourne in 1967 (BAE 1970). The difference between these elasticities of the 1960s and the 1984 survey result may be due to the growth in household income which has occurred over the last 20 years. Between 1967-68 and 1984-85 real household disposable income per person increased by 62 per cent (Australian Bureau of Statistics 1985a). With this substantial growth in disposable income some commodities which were formerly considered luxury items, like steak and fresh fruit, may have become more basic expenditure items and thus may now be less responsive to changes in income.

While the income of the household is found to have an effect on total expenditure on household meat and seafood purchases, not all meats and

Table 6: AVERAGE WEEKLY QUANTITIES OF MEATS AND SEAFOODS PURCHASED PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO GROSS INCOME PER PERSON(a)

Item	Unit	Gross income per person				
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over
Number of households	no.	186	141	122	107	117
Household size	no.	3.45 (8.4)	3.08 (8.7)	3.10 (10.5)	2.75 (14.2)	1.75 (11.1)
Gross income per person	\$	3 350 (8.3)	6 000 (8.9)	8 310 (10.2)	12 010 (10.1)	23 720 (13.1)
<u>Proportion of total quantity per person</u>						
Beef	%	30.1 (6.4)	32.8 (9.6)	33.3 (13.1)	33.8 (8.8)	35.0 (8.1)
Veal	%	3.8 (34.6)	2.5 (20.9)	3.1 (51.8)	2.4 (52.0)	2.2 (54.2)
Lamb	%	22.0 (8.1)	20.7 (10.0)	22.8 (11.5)	24.0 (10.7)	16.6 (17.4)
Pork	%	5.6 (23.3)	5.4 (21.1)	3.7 (27.1)	3.3 (24.7)	4.6 (26.4)
Total red meat	%	63.9 (3.1)	63.7 (4.7)	64.2 (3.4)	65.5 (3.5)	60.1 (6.0)
Poultry	%	20.1 (9.5)	20.6 (13.1)	17.1 (7.3)	18.5 (11.3)	17.9 (15.4)
Canned meat, excluding fish	%	0.8 (21.6)	0.9 (24.5)	0.8 (62.9)	1.3 (43.4)	1.1 (31.3)
Bacon and ham	%	3.0 (13.2)	3.0 (15.5)	3.5 (15.1)	2.9 (16.2)	3.4 (20.0)
Smallgoods	%	3.5 (16.9)	3.3 (21.3)	4.6 (24.7)	2.5 (19.6)	2.5 (27.4)
Other meat and undefined	%	1.0 (34.1)	1.2 (57.4)	0.2 (49.2)	0.6 (38.1)	1.1 (36.0)
Fish	%	6.8 (10.1)	7.0 (14.3)	8.6 (21.5)	8.1 (13.1)	11.3 (20.2)
Other seafood	%	0.9 (31.6)	0.3 (32.0)	1.0 (62.6)	0.6 (45.9)	2.7 (47.8)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table 7: EXPENDITURE ELASTICITIES FOR MEATS AND SEAFOOD WITH RESPECT TO TOTAL EXPENDITURE ON MEAT AND SEAFOOD

Type of meat	Expenditure elasticity
Beef and veal	1.06
Lamb	0.57
Pork	-1.16
Poultry	2.18
Other meat and undefined	1.35
Seafood	0.55

seafoods respond equally to a change in expenditure. Expenditure elasticities, which measure the responsiveness of expenditure on a particular meat or seafood to a change in total expenditure on meat and seafood, are presented in table 7. The expenditure elasticity is greatest for poultry: for a 1 per cent increase in total meat and seafood expenditure there is an associated increase in poultry expenditure of over 2 per cent. The 'other meats' category also has an elasticity greater than 1. Within the red meat group, beef has the highest elasticity at 1.1. The elasticity for lamb is lower than for beef while for pork the elasticity is negative, that is, expenditure on pork actually declines as total expenditure increases. Seafood has an elasticity similar to that of lamb. Thus as total expenditure increases the proportions of expenditure on poultry and the 'other meat' group increase while the proportion of expenditure on beef remains almost unchanged. The proportions of expenditure on other categories of meat and seafood decline as total expenditure increases.

Income elasticities for the individual meats can be calculated by multiplying the income elasticity for total expenditure on meat and seafood by the respective expenditure elasticities.

(b) Meals away from home

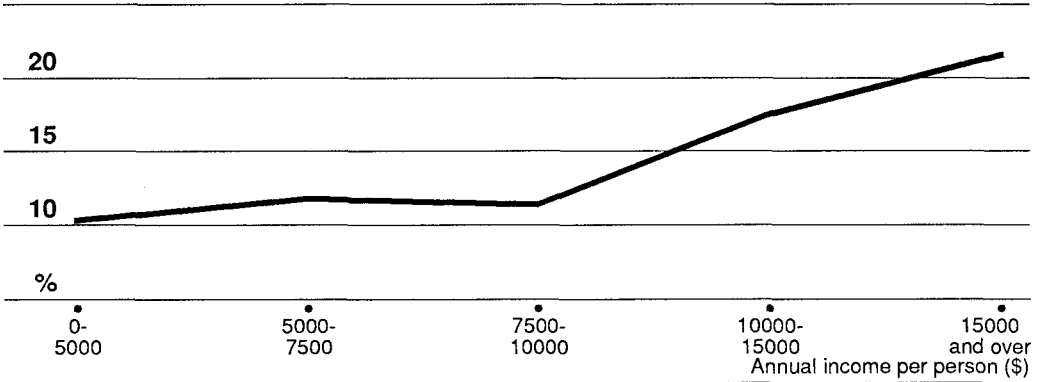
There was little variation in the number of meals obtained away from home over the lower income ranges (figure 7). However, above a level of \$10 000 per person the proportion of meals away from home rises from one in ten meals to over one in five in those households with an income of over \$15 000 per person. While this increase is partially explained by a greater proportion of working persons in high income households, as well as differences in other household characteristics, econometric analysis (appendix B1) confirms that household income does have a small effect on the proportion of meals obtained away from home. An increase in gross household income of 1.0 per cent increases the proportion of meals obtained away from home by 0.07 per cent.

Expenditure on meals obtained away from home is also found to respond to household income. A 1 per cent increase in gross household income increases household expenditure on meals obtained away from home by 0.32 per cent. The 1980-81 US consumer expenditure survey also showed that expenditure on meals away from home increased with an increase in the income of the household (Smallwood and Blaylock 1985).



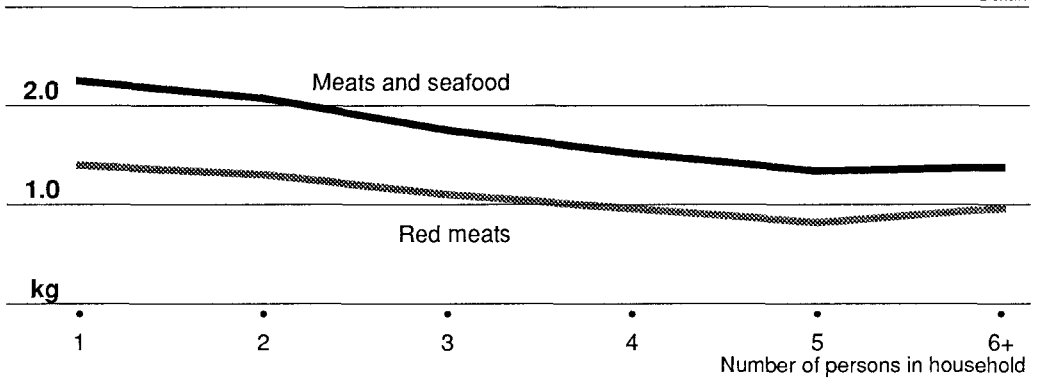
**Figure 7:** Proportions of meals obtained away from home by income per person

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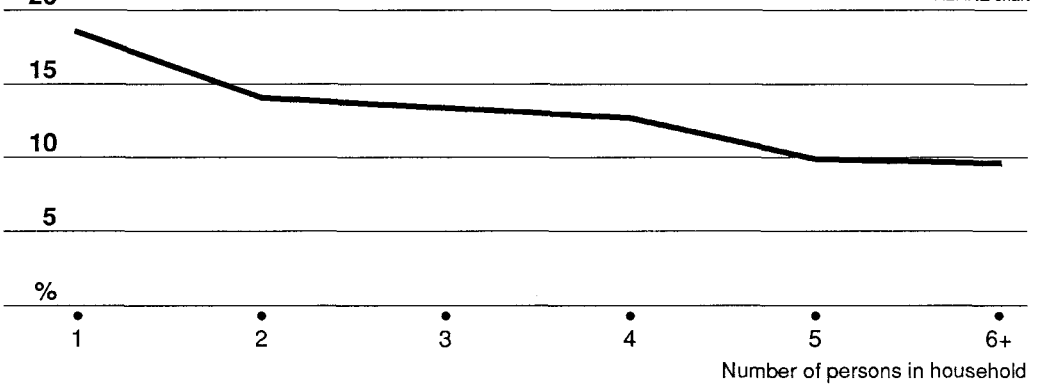
**Figure 8:** Average weekly quantity of meat and seafood purchased per person according to household size

ABARE chart



**Figure 9:** Proportions of meals obtained away from home according to household size

ABARE chart



### 3.3 Household Size and Composition

#### (a) Meat and seafood purchases

The size of the household and the proportion of adults and children are also major factors determining household meat consumption. In larger households less meat and seafood is purchased per household member (figure 8). In general, this relationship also applies to expenditure per person, for most food items. There are most likely several factors involved. Larger households have lower average incomes per household member. As seen earlier (section 3.2), lower income per person has the effect of reducing the amount of meat and seafood purchased. Meat may also be used more economically in larger households - there may be less wastage of meat. Larger households also generally have a higher proportion of children. When econometric analysis (appendix B1) is used to separate the effect of household size from effects of other factors such as household income, household size, as expected, is found to affect expenditure on meat and seafood purchases. Expenditure per adult (15 years and over) was approximately twice the average level of expenditure per child (under 15 years).

For poultry and seafood the share of purchases was lower with larger households (appendix table D9). Families with children are likely to purchase less poultry and more red meat than others, although these effects are small (appendix table D12 and econometric analysis, appendix B1). This may be because larger families may find other meats are better value for money than poultry. This result may also be due to lower income per person in families with children. The tabulated data do not reveal any other strong trends in the allocation of purchases as the size of the household increases.

Household size has declined from 3.5 persons in 1966 (Australian Bureau of Statistics 1969) to 2.8 persons in 1984 (Australian Bureau of Statistics 1986a). The rise in poultry consumption over the period may be due in part to this negative relationship between household size and purchases of poultry.

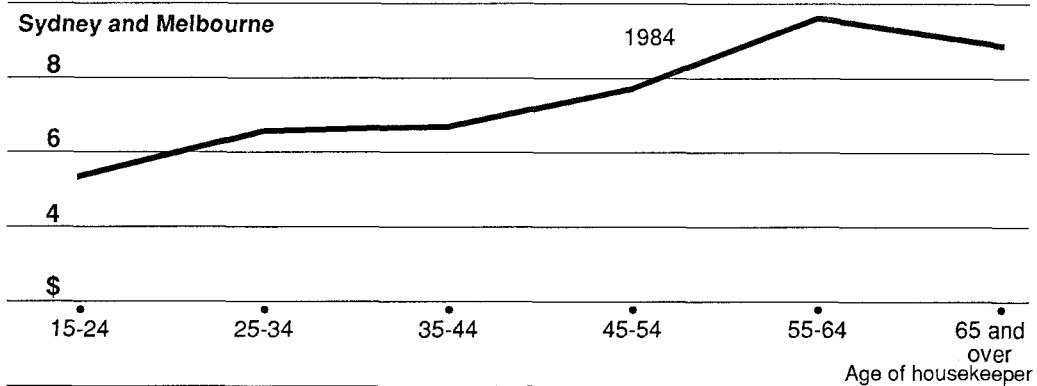
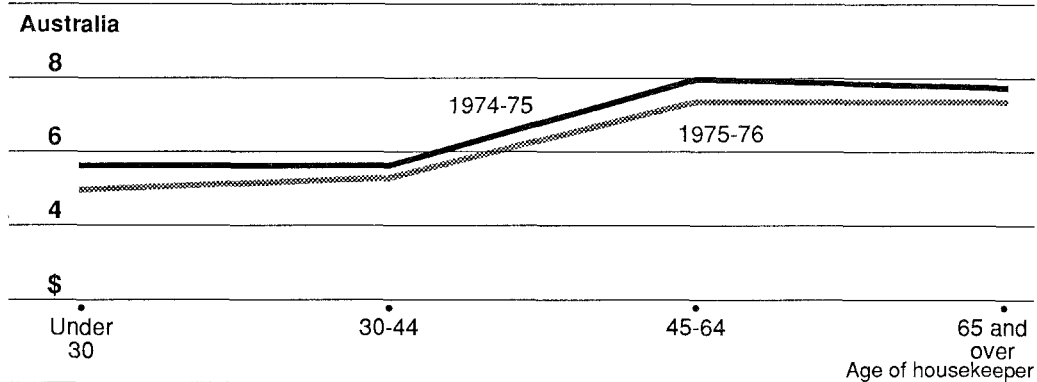
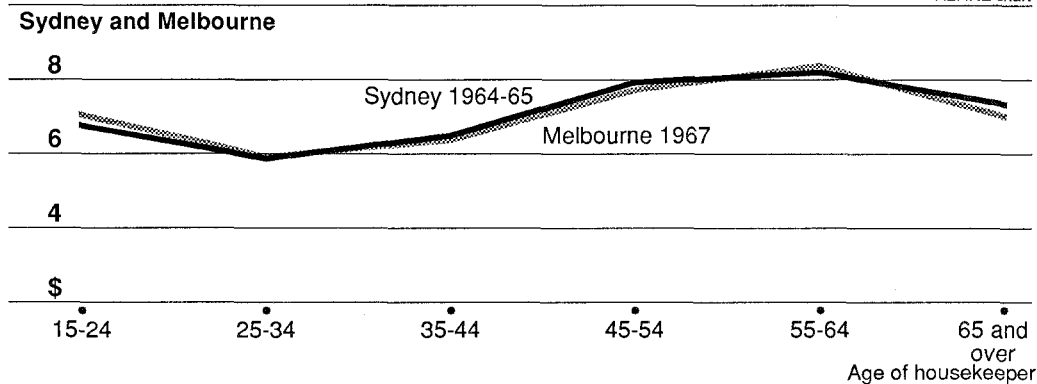
#### (b) Meals away from home

Small households, in addition to purchasing more meat and seafood per household member, also obtained a larger percentage of meals away from home (figure 9). Single person households obtained one out of every five meals away from home while households with five or more members obtained only one out of ten meals away from home. Econometric analysis (appendix B2) also shows that the number of meals away from home decreases as size of the household increases, and that this effect is greater for an increase in the number of children than for an increase in the number of adults. The tendency to eat fewer meals away from home in larger households can be explained largely by the effect of lower income per person in a larger household. Another factor may be that there is a declining marginal effort in preparing a meal for each additional person. That is, little additional effort is required to prepare a meal for three people compared with preparing a meal for two people.

Similar results were obtained in the United States in 1980-81 (Smallwood and Blayloch 1985). Generally, as the size of the household increased, food expenditure per person and expenditure on meals obtained away from home declined.

**Figure 10:** Expenditure on meat and seafood per person according to age of housekeeper: comparison of survey results between 1964-65 and 1984

ABARE chart



### 3.4 Age of Housekeeper

#### (a) Demand for meat and seafood

##### Tabular results

The relationship between age of the housekeeper and expenditure on meat and seafood purchases for meals prepared at home is illustrated in figure 10. Four other Australian surveys over the last 20 years found a similar relationship (BAE 1967, 1970; Australian Bureau of Statistics 1977, 1978). Expenditure per person is generally lowest among households with a young housekeeper and then rises to be highest among households with a housekeeper in their late fifties or early sixties. In households with a housekeeper over 65 years, per person expenditure on meat and seafood declines. There is a similar relationship for the quantity of meat and seafood purchased per household member. Purchases of individual meats and other food items are reasonably consistent with this pattern.

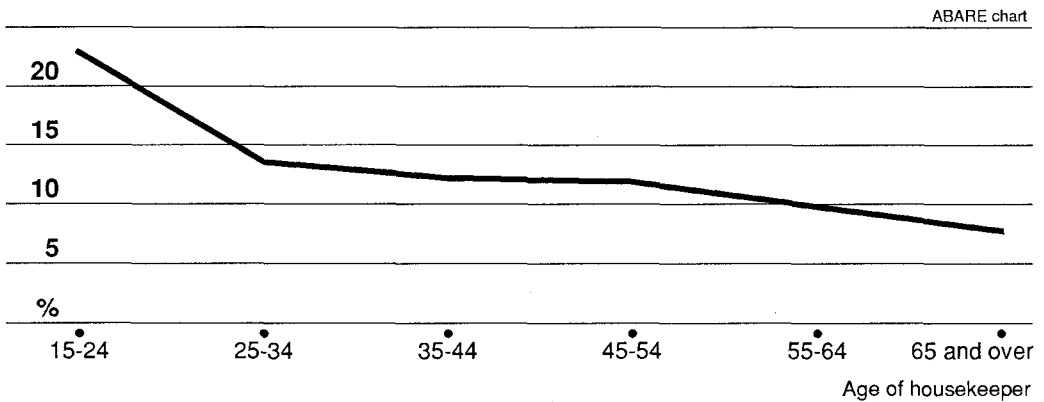
It has been suggested (McKinna Et Al 1984) that young consumers are shifting away from red meat, and that, as young households replace the current older generation, the demand for meat and seafood will decline. An alternative explanation is that the lower expenditure on meat and seafood purchases in households with a younger housekeeper may be the outcome of other factors, such as household size and composition, household income and eating away from home, which change as the household ages. As discussed earlier (section 3.2 and 3.3), there are strong relationships between household expenditure on meat and seafood purchases for household food supplies and both the income and the size of the household: as household income increases, expenditure per person on meat and seafood is likely to increase, and the reverse occurs as household size increases. Further, the proportion of meals obtained away from home is lower with older housekeepers (figure 11). Households with a young housekeeper, aged 15-24 years, obtained nearly three times as many of their meals away from home as households with a housekeeper aged 65 years or over.

The fact that all five Australian surveys of the last 20 years found a similar relationship between the age of the housekeeper and expenditure on meat and seafood purchases suggests that factors such as income, household size and composition and eating away from home may be the major factors influencing household purchases. However, comparing the 1960s surveys of Sydney and Melbourne with the 1984 survey (figure 10) it appears that the difference between young and older households has increased. This may be the result of a shift in demand as suggested by McKinna Et Al, or simply a general change in the influence of one or more of these other factors; for example eating away from home may have become more popular for all age groups.

##### Econometric results

Econometric analysis of the 1984 survey data (appendix B1) reveals that, after influences such as household income, household size and other household and housekeeper characteristics are removed, households with a housekeeper aged 15-24 years spend less on meat and seafood purchases for meals at home than all other households. As further evidence of this difference in demand, the proportion of households stating they now ate less of each meat was highest where the housekeeper was aged 15-24 years, particularly for veal, lamb, pork and fish. For all the other age groups, the older the housekeeper the more they tended to report eating less of

**Figure 11:** Proportions of meals obtained away from home by age of housekeeper



each meat (appendix table D39). However, this analysis cannot take into account other factors which may change with age, such as attitudes.

The data from the BAE surveys for Melbourne in 1967 and 1984 were also used in an econometric model designed to assess differences in the demand for meat and seafood between young and older households while attempting to account for age related influences (appendix B3). It was concluded that most of the variation between each age group in expenditure on meat and seafood purchases could be explained by income, household size and composition, the proportion of meals eaten away from home and other household characteristics. However, this analysis revealed that there is still some difference in expenditure on meat and seafood between households with a young housekeeper and those with an older housekeeper. Housekeepers in the older age groups spend more on meat and seafood purchases than households presently with a housekeeper below 50 years of age. This second finding may explain part of the increase in the margin of expenditure between young and older households between the 1960s and 1984 (figure 10). An analysis of red meat expenditure provided similar results.

However, although these analyses suggest that young households use less meat and seafood for preparation of meals at home than older households no definite conclusions can be drawn as to whether this difference is likely to be sustained as these households age. In fact the composition of households which are the present 15-24 years group is likely to change dramatically as the households age. Many future housekeepers of this age group would not be represented as they still reside in their parent's households. Further, these households are likely to change from group households to family households. Thus it is not possible to definitely conclude that the demand for meat and seafood will be adversely affected by persistence of this lower level of demand for meat and seafood purchases as members of current young households become members of older groups.

(b) Allocation of meat and seafood expenditure

Lamb, offal and red meat in total were each a greater proportion of household meat and seafood purchases, in terms of quantity, in older households than in younger households, while the reverse relationship was evident for pork, seafood other than fish and smallgoods (table 8, appendix

Table 8: AVERAGE WEEKLY QUANTITIES OF MEATS AND SEAFOODS PURCHASED PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO AGE OF HOUSEKEEPER(a)

Item	Unit	Age of housekeeper (years)					
		15-24	25-34	35-44	45-54	55-64	65 and over
Number of households	no.	186	141	122	107	117	103
Household size	no.	2.35 (12.9)	3.38 (7.5)	3.87 (8.0)	3.21 (9.8)	2.28 (15.5)	1.56 (9.3)
Gross income per person	\$	11 350 (17.7)	10 030 (12.1)	9 430 (11.6)	10 370 (13.9)	8 550 (15.4)	12 300 (28.0)
<u>Proportion of total quantity per person</u>							
Beef	%	29.2 (7.7)	33.1 (5.0)	32.8 (12.2)	33.1 (7.9)	31.0 (8.7)	34.7 (8.1)
Veal	%	1.6 (43.9)	2.3 (46.3)	2.4 (35.2)	4.6 (32.3)	1.5 (33.7)	2.7 (39.2)
Lamb	%	19.7 (18.4)	19.3 (10.8)	19.7 (10.8)	22.4 (10.1)	23.4 (8.8)	24.0 (11.1)
Pork	%	6.3 (33.3)	5.9 (16.5)	5.4 (21.6)	4.2 (19.3)	4.3 (23.5)	2.6 (20.4)
Total red meat	%	57.1 (8.0)	61.9 (4.6)	61.4 (4.8)	67.6 (2.9)	62.7 (4.6)	66.2 (3.7)
Poultry	%	23.7 (11.6)	17.0 (6.1)	20.6 (13.3)	16.7 (9.8)	19.4 (12.7)	19.6 (11.4)
Canned meat, excluding fish	%	2.2 (30.7)	1.0 (26.1)	0.9 (28.7)	0.6 (26.9)	1.4 (38.0)	0.4 (45.9)
Bacon and ham	%	3.1 (22.8)	3.5 (16.1)	3.6 (10.7)	3.1 (11.5)	3.6 (23.0)	2.5 (22.8)
Smallgoods	%	4.3 (33.8)	3.4 (15.5)	5.0 (17.9)	2.7 (22.6)	2.2 (26.0)	1.6 (33.9)
Other meat and undefined	%	0.5 (54.8)	1.0 (51.9)	1.0 (34.4)	0.7 (38.6)	1.3 (50.6)	0.6 (43.0)
Fish	%	7.2 (33.3)	9.8 (17.7)	6.5 (17.6)	8.0 (12.0)	9.1 (16.2)	9.0 (15.6)
Other seafood	%	1.9 (57.7)	2.5 (47.5)	1.1 (41.2)	0.5 (49.4)	0.4 (44.2)	0.2 (44.5)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

table D15). However, econometric analysis of meat and seafood expenditure (appendix B1) finds age to be an important factor only in lamb and poultry expenditure. The proportion of household expenditure on total meat and seafood purchases spent on lamb increases with the age of the housekeeper while the proportion spent on poultry declines. The difference between the tabular and the econometric results obtained for offal, smallgoods and seafood other than fish can be explained as an outcome of aggregation of meat categories in the econometric analysis. Thus the tabular results, which show a relationship between age and proportions of meat purchases, are valid. In the case of pork the econometric results, that age was not a factor in pork expenditure, should be accepted.

### 3.5 Birthplace of Housekeeper

#### (a) Purchases of meat and seafood

Households with a housekeeper born in Eastern Europe, Asia or the United Kingdom or Ireland had the highest expenditure per person on food and on meat and seafood and purchased the greatest quantity of meat and seafood per person (table 9, appendix tables D16, D17). All other households including those with an Australian or New Zealand born housekeeper spent less per household member on food.

Econometric analysis (appendix B1) reveals that, when other influences such as income and household size are removed, households with an Asian born housekeeper are found to have the highest level of expenditure on meat and seafood purchases per household member. The next highest expenditure is in households with a housekeeper born in Eastern Europe followed by those with a housekeeper born in Southern Europe, or the United Kingdom or Ireland. Households with an Australian or New Zealand born housekeeper spend less per household member on meat and seafood purchases than most other households. Only households from Northern Europe spend less than households with an Australian or New Zealand born housekeeper.

Households with an Australian or New Zealand born housekeeper allocated a larger share of the quantity of meat and seafood purchased to lamb than did other households (table 9, appendix table D18). Households with a housekeeper born in the United Kingdom or Ireland were relatively heavy purchasers of beef and lamb. These two groups of households allocated more of purchases to red meat than any other households. Households with Northern European born housekeepers purchased only a small proportion of red meat but the proportions of purchases of offal, canned meats and smallgoods were higher than for other households. Households with a housekeeper born in Eastern Europe allocated more of purchases to beef than did any other household. These households were also big buyers of poultry but purchased little lamb. Households with a Southern European born housekeeper favoured veal more than other households, devoting over 9 per cent of purchases to this meat. Households with an Asian born housekeeper purchased the lowest proportions of beef, veal and lamb but the highest proportions of pork, poultry and seafood. In terms of total expenditure Australian households are responsible for the biggest share of each meat - over half the total expenditure for all except pork. This is to be expected since Australian households make up the majority of the population (figure 12).

Econometric analysis (appendix B1) reveals that, when the birthplace of the housekeeper is separated from other influences, immigrant households in general spend a larger proportion of their total expenditure on seafood and

Table 9: AVERAGE WEEKLY QUANTITIES OF MEATS AND SEAFOODS PURCHASED PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO BIRTHPLACE OF HOUSEKEEPER(a)

Item	Unit	Birthplace of housekeeper							Other
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East		
Number of households	no.	605	88	28	18	61	30	19	
Household size	no.	2.88 (5.2)	2.56 (10.7)	2.94 (22.9)	2.85 (24.7)	3.66 (12.0)	2.95 (17.7)	3.51 (22.2)	
Gross income per person	\$	10 060 (6.4)	16 090 (30.9)	9 150 (25.4)	5 930 (28.9)	7 680 (20.9)	9 700 (32.9)	7 960 (23.9)	
<u>Proportion of total quantity per person</u>									
Beef	%	32.7 (3.0)	35.9 (11.5)	31.9 (10.0)	37.7 (29.1)	30.8 (16.2)	26.6 (12.5)	22.5 (15.5)	
Veal	%	1.8 (23.3)	3.4 (53.3)	1.4 (34.4)	4.9 (47.5)	9.2 (33.9)	0.2 (81.2)	0.6 (68.2)	
Lamb	%	25.7 (4.5)	19.5 (16.7)	10.7 (30.6)	8.3 (26.4)	13.8 (17.9)	6.0 (40.3)	21.4 (28.2)	
Pork	%	3.9 (10.1)	4.3 (25.7)	6.5 (30.4)	6.2 (48.2)	5.7 (24.3)	10.8 (43.3)	3.4 (34.7)	
Total red meat	%	65.5 (1.9)	64.7 (7.1)	56.8 (4.0)	60.4 (10.3)	61.5 (6.5)	47.3 (11.0)	54.3 (9.1)	
Poultry	%	18.4 (5.7)	17.9 (22.1)	19.0 (19.5)	22.5 (25.5)	19.3 (11.1)	22.4 (14.4)	27.3 (15.4)	
Canned meat, excluding fish	%	0.9 (17.9)	1.3 (22.2)	2.9 (70.2)	0.1 (81.8)	0.2 (53.6)	1.7 (46.8)	0.6 (91.8)	
Bacon and ham	%	3.3 (6.6)	3.6 (15.9)	2.6 (30.7)	4.9 (50.5)	1.9 (33.2)	2.3 (41.9)	2.1 (57.6)	
Smallgoods	%	3.1 (10.3)	1.7 (27.9)	8.3 (26.8)	7.1 (26.6)	2.9 (50.7)	1.4 (52.4)	0.7 (51.5)	
Other meat and undefined	%	1.0 (21.9)	0.5 (58.0)	3.0 (42.7)	0.1 (106.9)	1.0 (51.9)	0.3 102.9)	0.9 (84.5)	
Fish	%	7.0 (8.7)	9.3 (22.9)	7.4 (29.0)	4.8 (46.7)	13.0 (19.8)	19.4 (20.3)	13.5 (19.8)	
Other seafood	%	0.9 (22.3)	1.0 (56.0)	0.1 (98.9)	0.1 (104.2)	0.3 (88.5)	5.3 (69.1)	0.7 (75.4)	

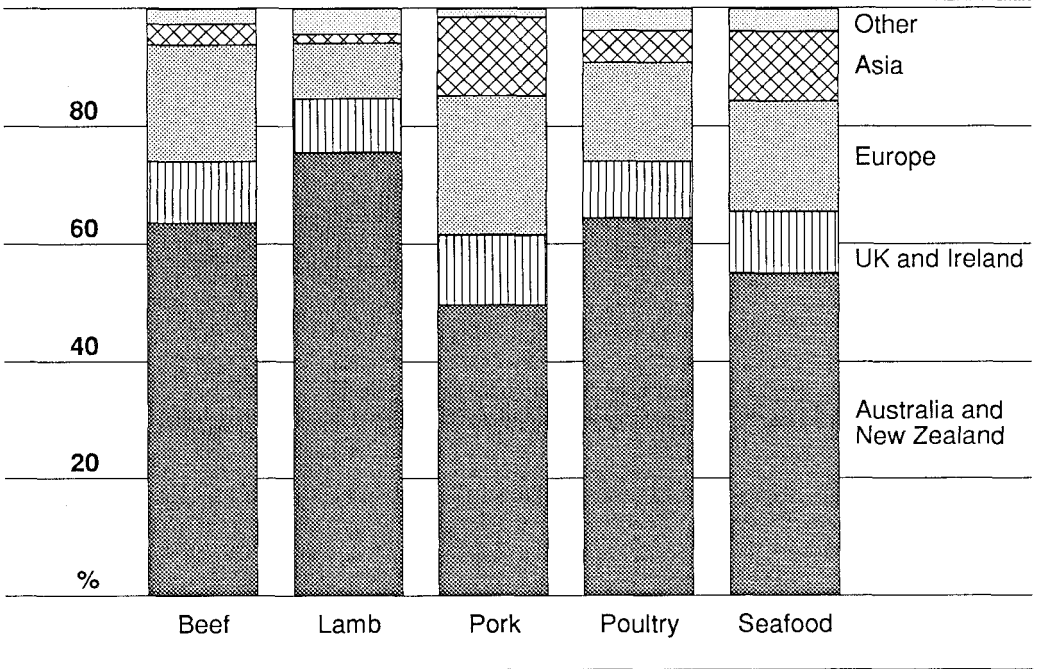
(a) All values have been weighted to be representative of the populations of Sydney and Melbourne.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.



**Figure 12:** Proportions of total meat and seafood expenditure by birthplace of housekeeper

ABARE chart



poultry than other households. This result differs from the findings of a consumer survey of seafood consumption in Australia (Department of Primary Industry 1978) which concluded that the country of origin of the respondent had no discernible effect on the amount of fish and seafood consumed.

A further finding from the econometric analysis (appendix B1) is that households whose migrant housekeeper has been here longer exhibit purchase patterns more like those of households with Australian or New Zealand born housekeepers. This is likely to result from exposure of migrant households to new cultures and a new set of relative prices for meats and seafoods. The presence of migrant groups in Australia has also probably influenced the consumption patterns for Australian and New Zealand born housekeepers.

(b) Meals away from home

Households with an Australian, New Zealand or Asian born housekeeper obtained the highest proportion of meals away from home followed by households with a housekeeper born in the United Kingdom or Ireland, Eastern Europe or Northern Europe (appendix table D31). Households with a housekeeper born in Southern Europe obtained the smallest proportion of their meals away from home.

Econometric analysis (appendix B2) shows that, after the removal of effects of household income, household composition and other factors, households with a housekeeper born in Northern or Southern Europe or Asia obtain fewer of their meals away from home than other households. This effect identified by the econometric analysis is the actual effect resulting from cultural differences in lifestyles. Expenditure on meals obtained away

from home was not found to be influenced by the birthplace of the housekeeper.

### 3.6 Education Level

A further factor which has been raised as having an adverse effect on meat consumption, particularly that of red meat, is an increase in nutritional awareness (McKinna Et Al 1984). In the light of adverse publicity linking red meat and heart disease some consumers may be shifting away from red meat. To test this hypothesis the influence of the education level of the housekeeper was analysed on the assumption that nutritional awareness is associated with the education level of the housekeeper.

Neither the tabulated data (appendix tables D19 to D21) nor econometric analysis (appendix B1), show any relationship between education level of the housekeeper and meat and seafood purchases. However, education level was found to be associated with the proportion of meals obtained away from home, the proportion being higher where the housekeeper's education level was higher (appendix table D32 and appendix B2). This relationship may be the result of lifestyle differences.

### 3.7 Working Housekeepers

Recent survey work (McKinna Et Al 1984) has led to the suggestion that changes in people's lifestyles are having an adverse impact on meat consumption. With increased participation by housekeepers in the workforce, housekeepers may have less time to spend in the kitchen than their parents. This in turn may be causing a shift in demand away from meats and seafoods, particularly those which are more difficult to prepare, towards easier to prepare foods. Between 1967 and 1983 the participation rate of females in the workforce increased from 37.2 per cent to 44.0 per cent. This increase was due entirely to married females whose participation rate increased from 30.5 per cent to 41.8 per cent (Australian Bureau of Statistics 1984). In this survey, households whose housekeeper was working or studying, either full time or part time, accounted for half the total expenditure on meat and seafood purchases (figure 13).

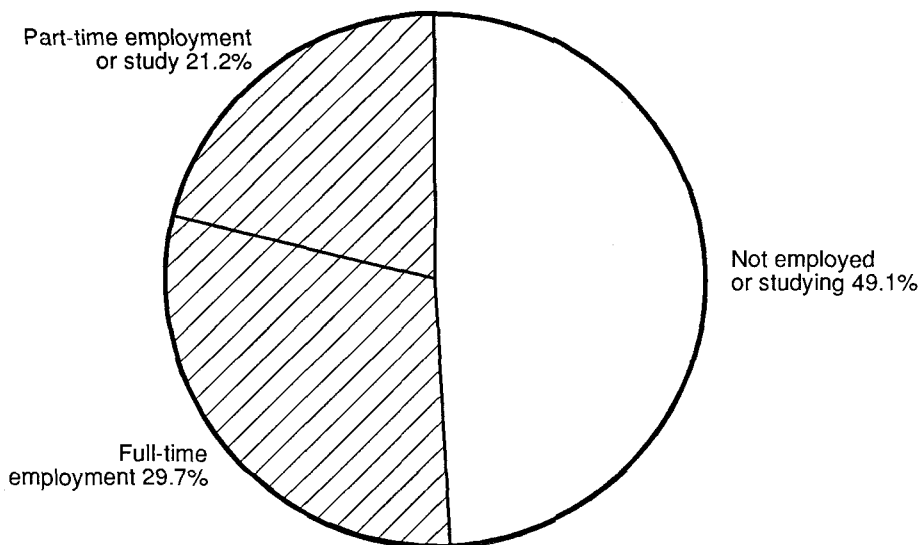
#### (a) Purchases of meat and seafood

Households where the housekeeper works or studies on a full-time basis purchased slightly less meat and seafood per person than households where the housekeeper does not work or study (appendix table D23). Expenditure on meat and seafood purchases, however, was higher for households where the housekeeper works or studies full time, indicating that more expensive meats were purchased (appendix table D22). Expenditure on meat and seafood and the quantity purchased per household member were lowest in households where the housekeeper is engaged in part time work or study, probably due to the larger average household size.

Econometric analysis, however (appendix B2), shows that when the influence of working status of the housekeeper is separated from other influences, the working status of the housekeeper has no influence on expenditure on meat and seafood purchases. Higher income associated with working housekeepers as well as differences in other characteristics are most likely the influences which result in the higher expenditure as shown in appendix table D22.

**Figure 13:** Share of total meat and seafood expenditure according to whether housekeeper works or studies

ABARE chart



There were small differences in the types of meat purchased between households where the housekeeper works or studies full-time and others where this is not the case (table 10, appendix table D24). The proportion of beef was similar, but less lamb and poultry and more seafood and smallgoods were purchased by households with a working housekeeper. Econometric analysis (appendix B1) reveals that housekeepers who work or study full time also purchase a smaller proportion of pork than non-working housekeepers.

(b) Preparation of meals

It has been suggested that households with a working housekeeper use faster cooking methods such as grilling and frying more often than other households (McKinna Et Al 1984; Australian Meat and Live-stock Corporation 1986). However, from this survey it was found that, for the evening meal, working housekeepers used frying or grilling only slightly more than non-working housekeepers (appendix table D37). Further, what differences there are may be due partially to the influence of other household characteristics such as income and household size on the cuts of meat purchased. Thus these results do not show that the selection of preparation methods is a major factor influencing meat consumption.

(c) Meals away from home

In households where the housekeeper works or studies full time, approximately one in five meals were obtained away from home, almost double the proportion in households where the housekeeper did not work or study (appendix table D33). While part of this difference would be related to higher income and a greater number of persons employed in households where

Table 10: AVERAGE WEEKLY QUANTITIES OF MEATS AND SEAFOODS PURCHASED PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY(a)

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying
Number of households	no.	228	160	397
Household size	no.	2.65 (7.2)	3.55 (10.7)	2.79 (5.1)
Gross income per person	\$	14 360 (8.3)	11 020 (27.9)	7 690 (9.7)
<u>Proportion of total quantity per person</u>				
Beef	%	32.8 (8.6)	36.1 (4.2)	32.1 (4.9)
Veal	%	2.5 (32.7)	1.3 (19.9)	3.0 (22.9)
Lamb	%	19.4 (10.0)	21.1 (12.0)	23.4 (5.7)
Pork	%	4.9 (19.0)	3.9 (19.5)	4.7 (13.2)
Total red meat	%	61.1 (4.2)	63.8 (4.1)	65.1 (2.3)
Poultry	%	18.6 (9.5)	18.6 (10.7)	19.5 (6.2)
Canned meat excluding fish	%	1.0 (25.5)	1.0 (44.4)	0.9 (19.3)
Bacon and ham	%	3.9 (17.1)	2.8 (15.4)	3.4 (8.3)
Smallgoods	%	4.1 (19.5)	1.9 (15.1)	2.9 (13.4)
Other meat and undefined	%	0.1 (38.1)	1.7 (43.7)	0.7 (22.4)
Fish	%	8.5 (19.7)	9.7 (13.6)	7.1 (9.5)
Other seafood	%	2.2 (43.3)	0.6 (46.3)	0.5 (20.7)

(a) All values have been weighted to be representative of the populations of Sydney and Melbourne.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

the housekeeper works, econometric analysis (appendix B2) reveals that, when the influence of these factors is removed, the working status of the housekeeper in itself has a positive influence on the proportion of meals eaten away from home.

Although the quantity of meat and seafood purchased by households with a working housekeeper was slightly less, with the addition of meat included in meals obtained away from home it is likely that households with a working housekeeper actually consume more meat than other households.

### 3.8 Microwave Ovens and Freezers

Cost and labour saving devices such as microwave ovens and freezers are increasingly being used. It has been claimed that this has influenced the demand for meat and seafood in total and its allocation among the various components (McKinna Et Al 1984).

#### (a) Microwave ovens

While expenditure per person on food in total was similar between households with and without a microwave oven, expenditure on meat and

seafood purchases was higher in households with a microwave oven (appendix table D25, appendix B1). Expenditure on frozen food was also much greater in these households. An explanation may be that preparing meals containing meat is easier with a microwave oven than by conventional methods, because both defrosting and cooking are easier. A similar reasoning may also explain the greater expenditure on frozen foods.

Econometric analysis (appendix B1) also found that, for a given level of expenditure, and with other influences such as household size removed, households with a microwave oven spend more on beef, lamb, pork and seafood and less on poultry and other meats than do other households. The results are contrary to the suggestions that having a microwave oven would increase use of poultry and fish relative to red meats. Although pork, chicken and fish were more frequently cooked in microwave ovens than beef, veal and lamb (see table 4), the higher expenditure on beef and lamb may be related to the convenience of a microwave oven for defrosting these meats. On approximately one in five occasions beef and lamb were defrosted in the microwave oven before preparation of the meal.

#### (b) Freezers

From the tabulated data there appears to be a relationship between the ownership of a separate home freezer or large freezer in a refrigerator and purchases of meat and seafood (appendix tables D25 to D27). However, econometric analysis (appendix B1) shows that, when separated from other influences such as household size, freezer ownership is not a factor explaining variations in household expenditure on meat and seafood nor does it affect the allocation of expenditure between individual meats and seafood.

### 3.9 Attitudes to Meat and Seafood

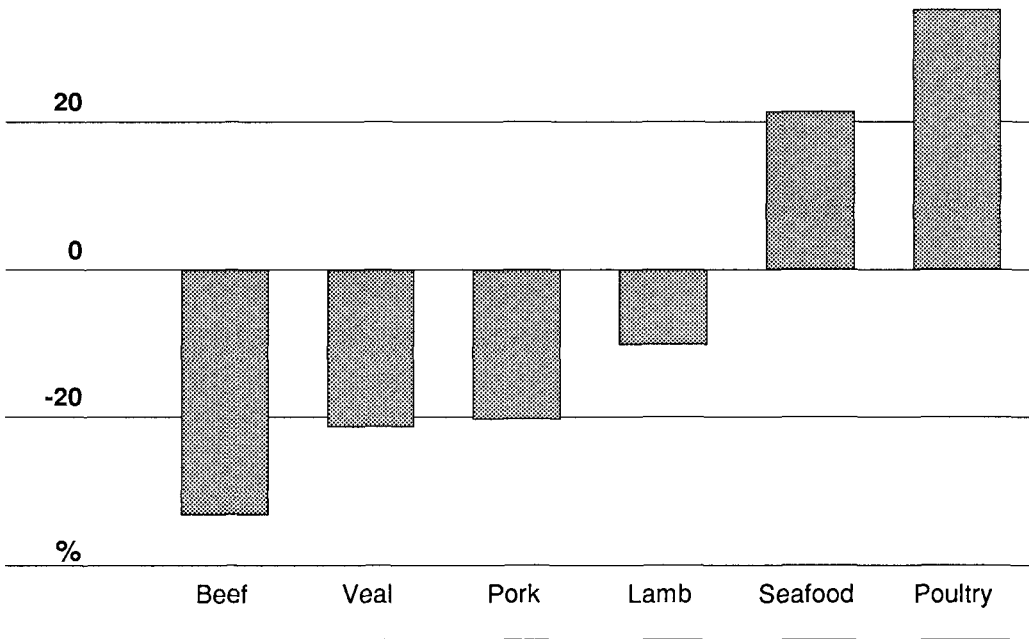
Much of current consumer research on meat has been directed toward obtaining information on attitudes toward meat and their influence on meat consumption. A major target of the work has been to assess the impact that concerns about health and diet have on the consumption of meat, particularly red meat. Work by McKinna Et Al (1984) and the Australian Meat and Live-stock Corporation (1984) as well as a host of independent researchers has generally found the effect of meat on health is considered by consumers to be important. Some researchers have even suggested that the poor health image of red meats is having a major impact on meat consumption habits.

As part of the present study several questions were asked about consumption of various meat items over the previous two years. The housekeeper was first asked if each meat had been eaten in the household over the previous two years and if so whether over that period consumption had increased, remained unchanged or decreased. Where consumption had changed the respondent was then asked for one or more reasons for the change. The intention of this question was to set up a framework for respondents to convey their attitudes toward meat without the use of leading questions.

For each type of meat or fish around 50 per cent of housekeepers stated that their household's consumption of that category had changed (appendix table D38). Beef fared the worst. Although some households said they had increased their consumption of beef, 43 per cent said they now ate less beef than two years ago. There was also a net movement away from veal, pork and

**Figure 14:** Net percentage of households who ate more and who ate less of various meats and fish than two years prior to the survey

ABARE chart



lamb (figure 14). For both poultry and seafood, on the other hand, a large number of households said they now ate more. Apart from a change in tastes and preferences, health and diet considerations were the main reasons given for changes in consumption (appendix table D38). This factor was a major reason for eating less beef, lamb and pork and more poultry and fish. Another important reason given for changes in meat consumption was price. Convenience of preparation was generally stated as a reason by only around one in ten of respondents who were eating more of a particular meat.

These results tend to support the conclusions of other research (McKinna et al 1984), that red meat has a poor health image and that people generally perceive that it is better to eat more poultry and seafood. However, while these results suggest that red meat does have a poor health image it is not possible to definitely conclude, from this analysis or from earlier analyses, that this image is having a significant influence on red meat consumption. Furthermore, the release of research results on the nutrient composition of Australian meats and poultry (Greenfield 1987) may help alter ideas on the role of red meat in the diet.

#### 4. CHANGES IN MEAT CONSUMPTION OVER THE LAST 20 YEARS

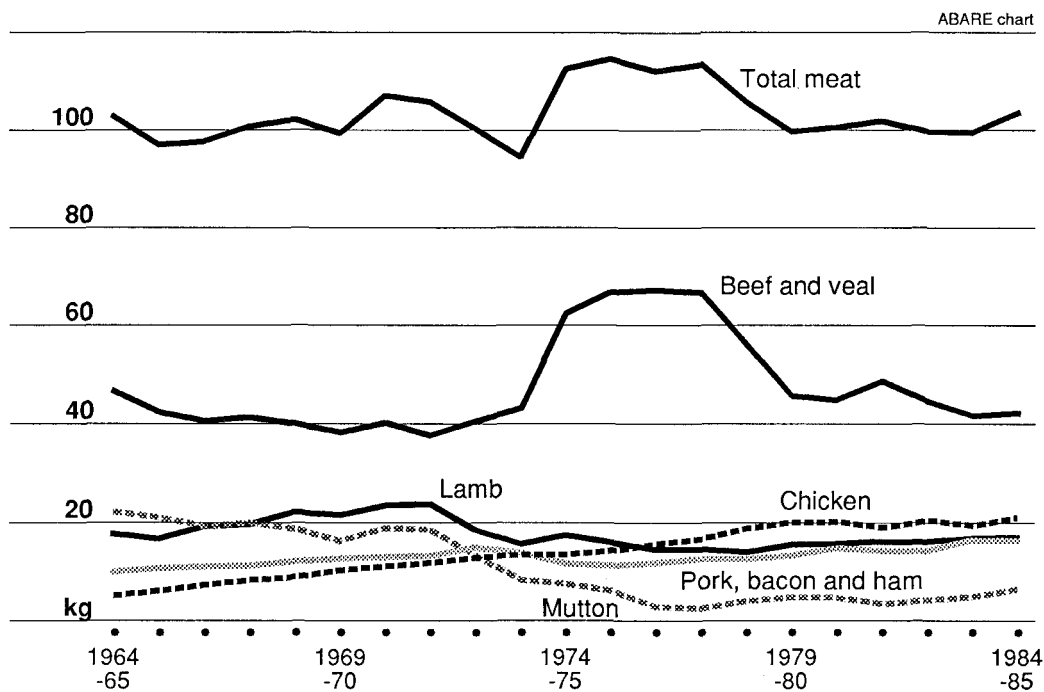
In this section changes in apparent consumption of various meats between 1964-65 and 1984-85 are presented. The household data from the Bureau's surveys of the 1960s are compared with the 1984 survey results and the reasons for any changes over the twenty year period are explored.

##### 4.1 Apparent Consumption of Meat

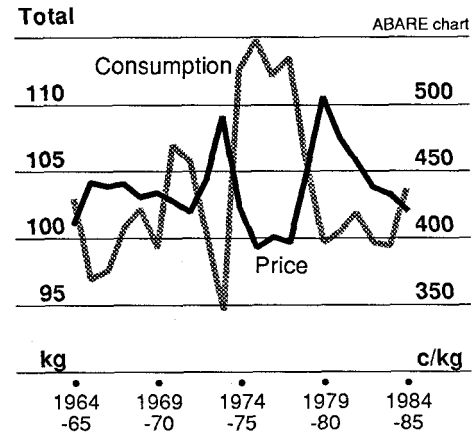
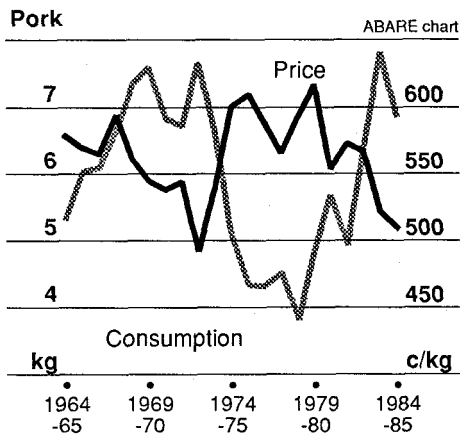
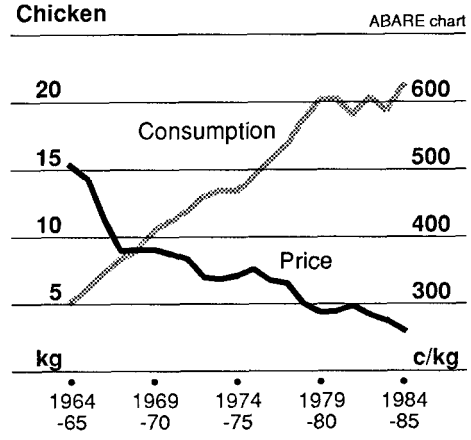
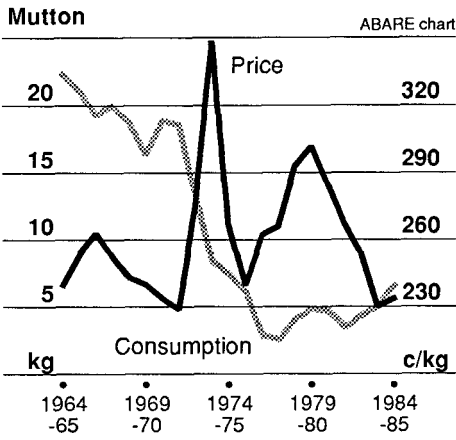
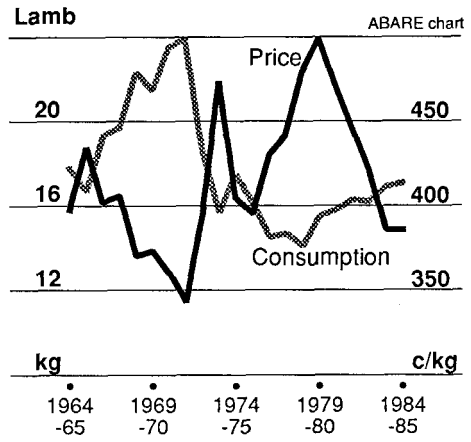
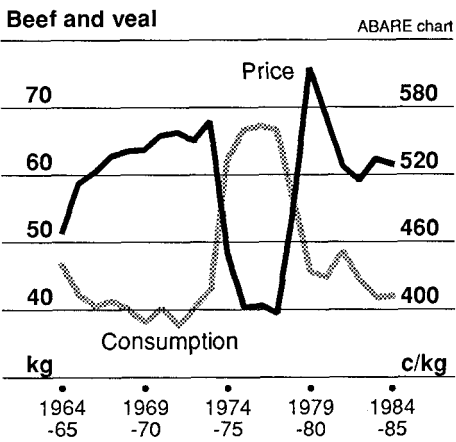
Apparent consumption of meat overall has remained relatively stable over the last twenty years, at around 100 kg per person per year, except between 1974-75 and 1978-79 when consumption was high in response to extremely low beef prices (figure 15). The consumption of individual meats has, however, shown some variation. While beef consumption has fluctuated widely with no evidence of any long term trend, there do appear to be underlying trends in the consumption of lamb, mutton, pigmeat and chicken. The consumption of pig meat (pork, bacon and ham) and poultry has increased since 1964-65 while mutton consumption has declined dramatically. Lamb consumption has shown only a slight decline since 1964-65; however, throughout this period consumption has fluctuated, largely in line with changes in supply.

Analyses of apparent consumption data have generally found that most of the variation in consumption can be explained by changes in prices and incomes (Weeks and Reeves 1983; Martin and Porter 1985; Chalfant and Alston 1986). The close relationship between the price and the consumption of an individual meat is shown in figure 16: generally, when price increases,

Figure 15: Apparent consumption of meat per person 1964-65 to 1984-85



**Figure 16:** Apparent consumption of meat per person and real retail prices of meat





consumption declines and vice versa. Martin and Porter (1985) concluded there was no evidence of a shift in the demand for beef and chicken over the twenty year period. In the case of pork, they concluded there had been no shift in demand, though some of the evidence was conflicting. For lamb, their analysis suggested the possibility of a downward shift in demand from 1982-83. However, there was no evidence of a shift in demand over a longer historical period. Mutton demand was found to have suffered a major downward shift.

Chalfant and Alston (1986) also analysed the data used by Martin and Porter, using different methods of analysis. They concluded that there had in fact been downward shifts in the demand for lamb and mutton and they also found some evidence that there had been an upward shift in the demand for poultry. Again there was mixed evidence in the case of pork.

However, apparent consumption data do not necessarily reflect what is happening at the household level due to the inclusion of the manufacturing sector and the catering industry (Chalfant and Alston 1986). If changes in the demand for meat are occurring at the household level then household data need to be studied for insight into the nature of the changes and possible explanations for the changes. As an example of the divergence between apparent consumption and household consumption, mutton consumption, according to apparent consumption data, was around 21 kg per person in the mid-1960s (BAE data), whereas according to Bureau surveys during this period (BAE 1967, 1970), household consumption of unprocessed mutton was closer to 3 kg per person. Although some mutton is consumed by households in the form of processed meat products, it is likely that much of the remainder is manufactured in other forms, such as pet food.

#### 4.2 Household Survey Data

Survey data based on observations of meat use at a single time can at best only identify possible factors affecting consumption and cannot measure shifts in demand. Further, asking consumers questions about any changes in their consumption is open to bias and incorrect response.

Data from the Household Meat Consumption Surveys conducted in the 1960s and again in 1984 provide a unique opportunity to test for changes in demand at the household level and possible causes for these shifts. This data set also includes data on seafood, a category omitted from many apparent consumption analyses.

The following analysis is based on the comparison of the two Sydney samples of 1964-65 and 1984. Similar results were obtained when the two Melbourne samples were compared.

To assess whether there have been shifts in household demand for meats, movements in real prices and changes in each meat's share of the total quantity of meat and seafood purchased per household were compared. (Quantity shares are used in this analysis rather than absolute quantities as the latter may contain biases arising from methods used to collect the data.) However, this analysis was limited as at best it could only take into account the direct relationship between the price of a meat and the amount consumed. The effects of changes in household income and changes in the prices of other meats were not explicitly taken into account in this analysis. Further, as with previous analyses, some bias may result from treating meats and seafood as aggregate commodities. Changes in the

composition of purchases of a particular meat due to non-price factors such as bulk buying may have some influence on average price paid and quantities purchased. With these limitations, conclusions about shifts in demand can only be drawn where major discrepancies exist between movements in the price and shares of each meat consumed. Even these conclusions should be considered tentative.

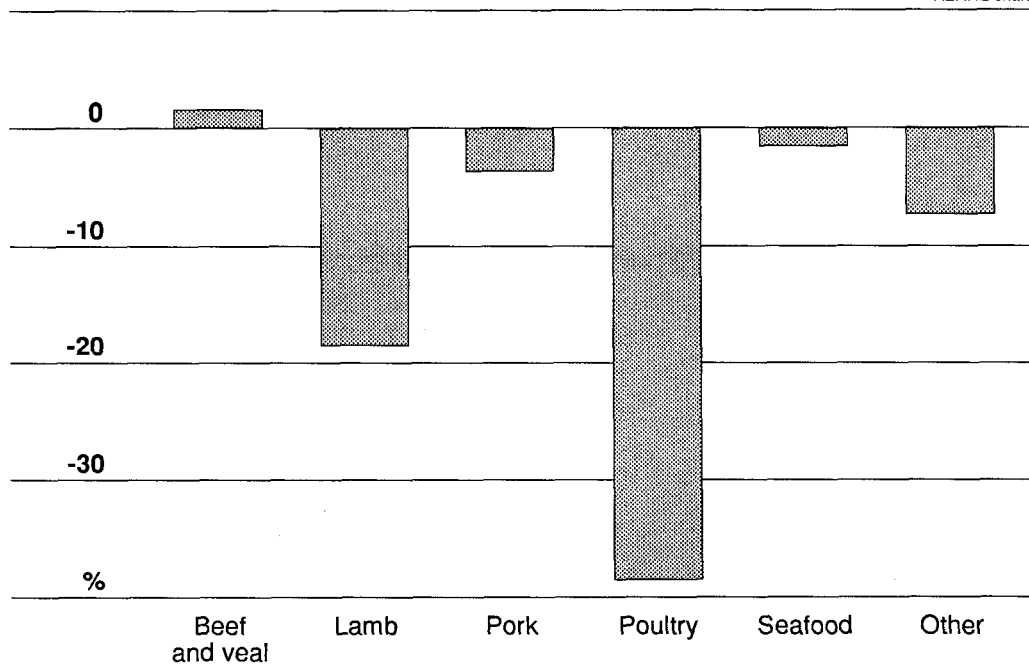
Between 1964-65 and 1984 the real price of all meats and seafood fell, except for beef and veal (figure 17). The price reduction was greatest for poultry, followed by lamb. Poultry and lamb became relatively cheaper compared with the average price for all other meats and seafood while beef and veal, pork, and seafood became relatively dearer (figure 18). On the basis of these price movements one would expect households to buy relatively more lamb and poultry and less beef and veal, seafood, and pork in 1984 compared with 1964-65.

The actual change in meat shares between 1964-65 and 1984 is illustrated in figure 19. Over the period, the shares of beef and veal, and lamb declined by around 7 per cent. Purchases of the other meats category declined from 14 per cent to 10 per cent, mainly as a result of a decline in mutton's share of purchases. Poultry more than tripled its share, increasing from 6 per cent to 20 per cent of purchases. The shares of seafood and pork in total meat and seafood purchases each rose between 1 and 2 per cent, an increase of about 30 per cent in the shares of these meats.

The decline in the shares of lamb and mutton purchases and, to a lesser extent, the increase in the shares of seafood and pork were contrary to expectations based on prices. The increase in poultry's share is much

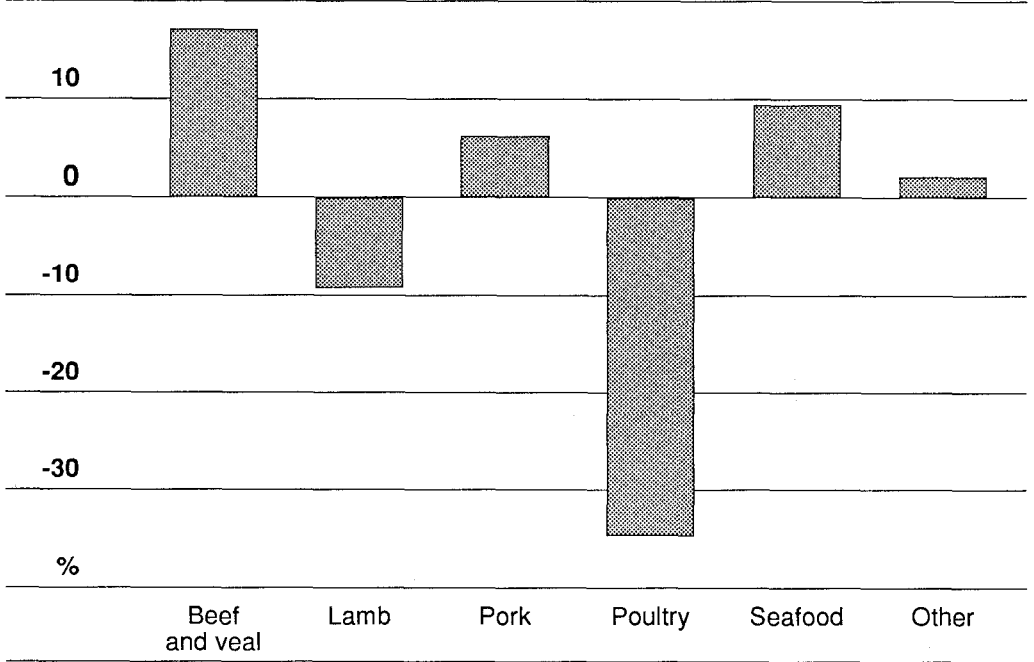
**Figure 17: Changes in meat and seafood prices from 1964-65 to 1984**

ABARE chart



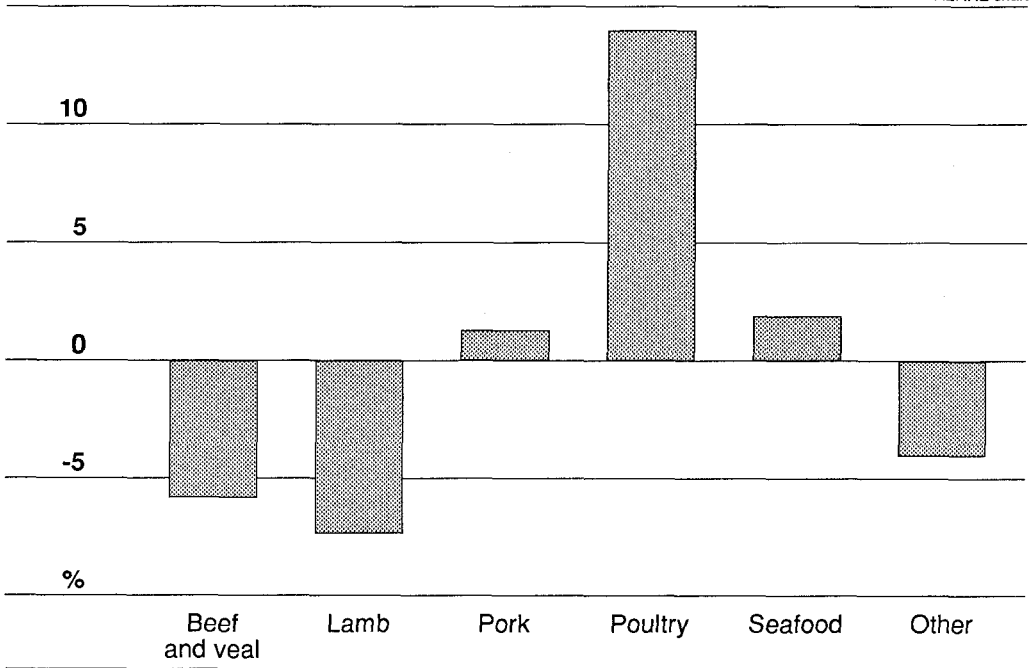
**Figure 18:** Changes in individual prices relative to changes in the average price of all other meats and seafood in Sydney between 1964-65 and 1984

ABARE chart



**Figure 19:** Changes in the share of meat and seafood purchases allocated to individual meats and seafood in Sydney from 1964-65 to 1984

ABARE chart



greater than anticipated. From this very limited analysis it appears that there may have been a downward shift in household demand for lamb and mutton and possibly an upward shift in the demand for seafood, pork and poultry. These shifts in household demand are generally similar to those identified through analysis of apparent consumption data.

The apparent shifts in the demand for lamb, seafood pork and poultry may be partially explained by changes in the household characteristics discussed in section 3, such as a decline in the average size of households, differences between young and older households in the demand for meats and seafood, changes in the composition of the migrant portion of the community and, to a lesser extent, increased participation by housekeepers in the workforce and use of microwave ovens. However, analysis earlier in this report has also shown that increasing participation by housekeepers in the workforce would tend to reduce the shares of pork and poultry while use of microwave ovens tends to favour lamb rather than poultry. Health concerns, lifestyle changes, other than those related to workforce participation, the development of new pork and poultry products and promotion campaigns for these meats may also have contributed. The shift from lamb to seafood and poultry is consistent with the health concerns recorded by survey respondents (see section 3.9). However, these concerns would also be consistent with a downward shift in demand for beef and pork.

## 5. IMPLICATIONS FOR FUTURE MEAT AND SEAFOOD DEMAND

The findings of this report contain some important indications of likely shifts in household meat demand in the future. In this section these implications are drawn out by highlighting the socio-economic and demographic factors found to be important in determining household meat demand.

### 5.1 Income Effects

The income of the household has a small influence on expenditure on meat and seafood purchases for preparation of meals at home, and on meals obtained away from home. However, a change in household expenditure on meat and seafood caused by a change in household income would not influence all meats equally. Poultry, beef and the 'other meats' group would be more favourably influenced by a rise in income than lamb, seafood and pork.

These results suggest several implications for future household expenditure on, and consumption of, meat and seafood. For most households, any real increases in household income would most likely result in increased purchases of, and expenditure on, most types of meat and seafood. More meals would be obtained away from home and the amount of money spent on these meals would also increase. Expenditure on poultry and beef would be likely to rise faster than that for pork, lamb and seafood. For those households currently in the highest income range, growth in real household income may eventually lead to a decline in the quantity of meat and seafood purchased for preparation of meals at home as more meals are bought away from home.

At present, households where income per person is below \$10 000 account for around two-thirds of total expenditure on household meat and seafood purchases (figure 20), and half of expenditure on meals obtained away from home (figure 21). Because of the dominance of the lower income households in expenditure on meat and seafood, any increases in real household income (at least in the near future) is likely to increase the demand for most meats and seafood for preparation of meals at home as well as increasing eating away from home.

### 5.2 Household Size and Composition Effects

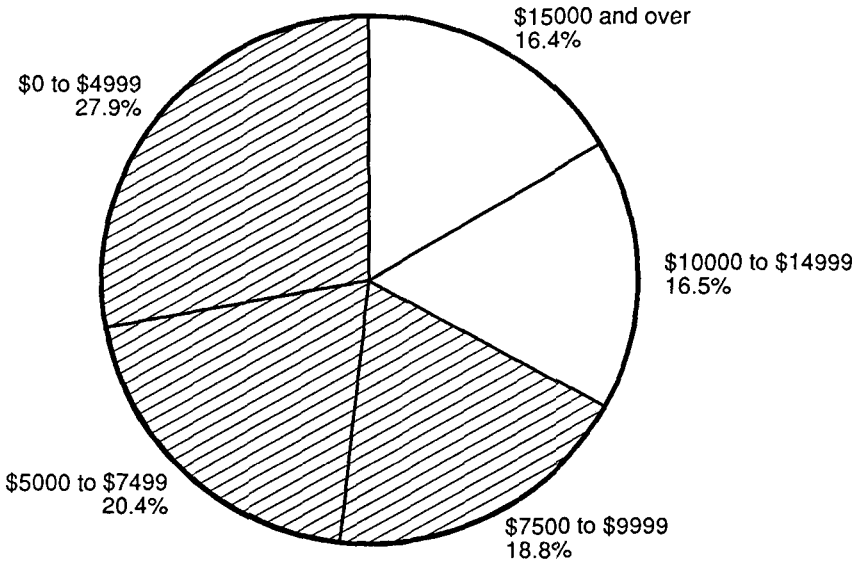
In larger households, per person purchases of most food items and the proportion of meals obtained away from home are lower. In general, the allocation of purchases is unaffected by the size of the household, but households with children tend to purchase less poultry and more red meat than other households. At present, households with two, three or four persons account for two-thirds of total expenditure on meat and seafood purchases (figure 22) and a slightly larger share of expenditure on meals obtained away from home (figure 23). Should average household size continue to fall as it has over the past 20 years, it is reasonable to expect that average per person meat and seafood purchases and the proportion of meals obtained away from home will increase.

### 5.3 Age Effects

As the age of the housekeeper increases so too does expenditure on most purchases of meat and other food items for preparation of meals at home. The

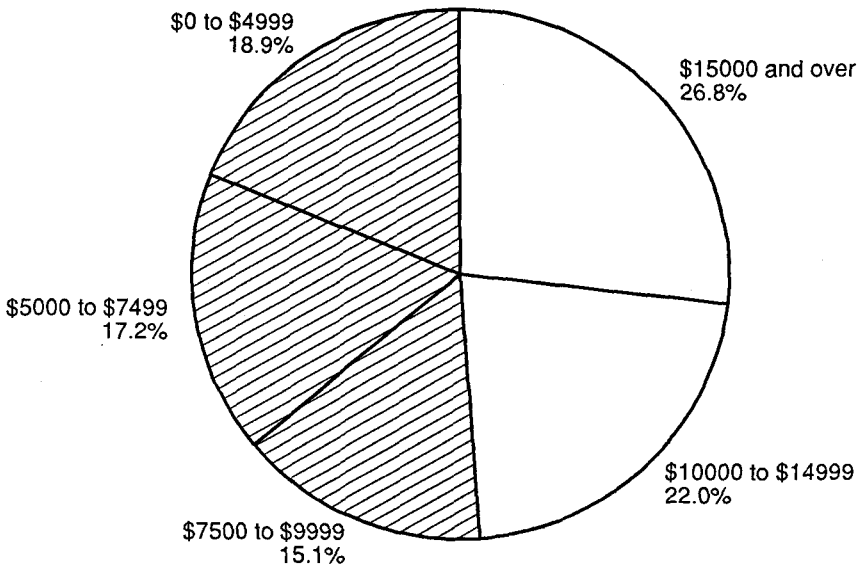
**Figure 20:** Meat and seafood expenditure by income per person

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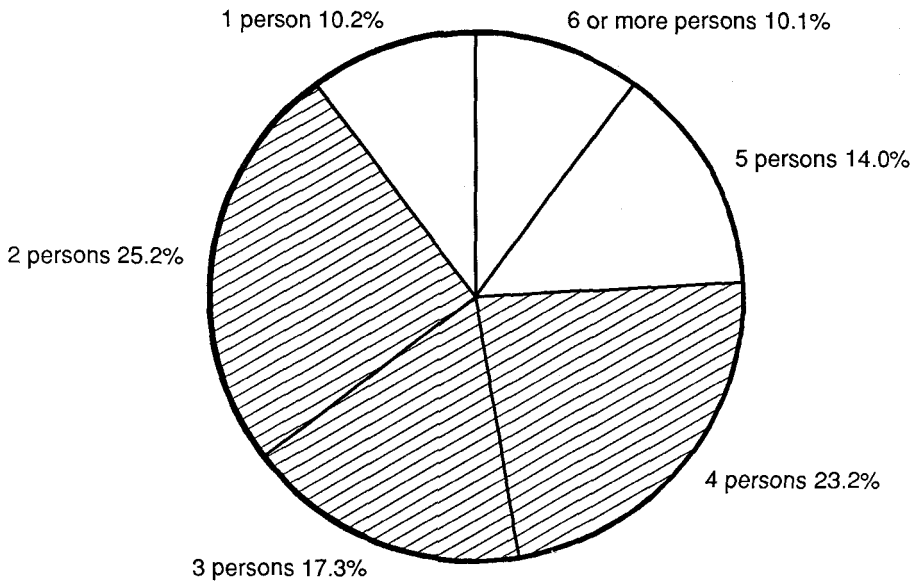
**Figure 21:** Share of total expenditure on meals obtained away from home by income per person

ABARE chart



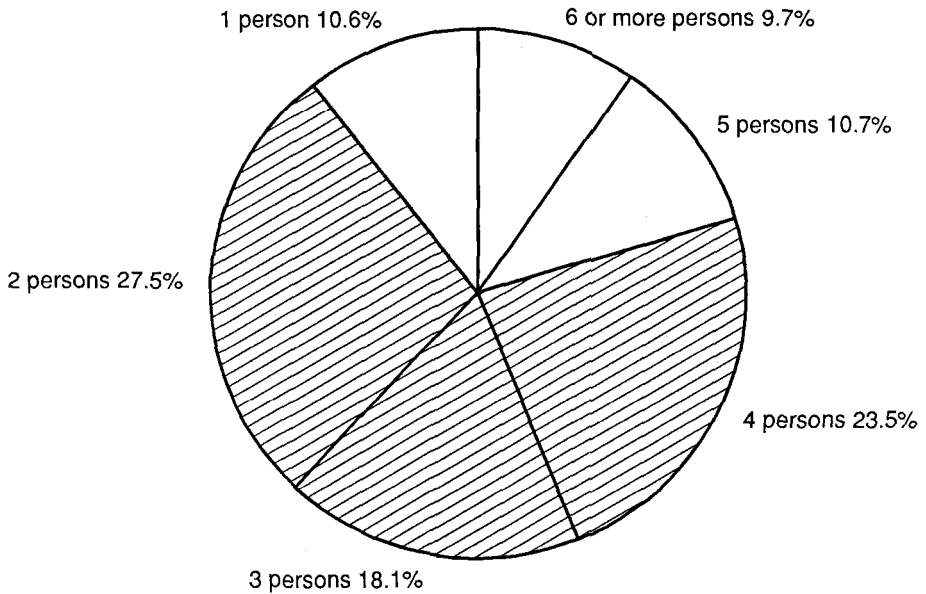
**Figure 22:** Share of total meat and seafood expenditure according to household size

ABARE chart



**Figure 23:** Share of total expenditure on meals obtained away from home by household size

ABARE chart



proportion of meals purchased away from home decreases as the age of the housekeeper increases. Expenditure on lamb and offal purchases increases with age while expenditure on poultry, seafood other than fish, and smallgoods purchases declines.

These relationships are largely the result of changes in factors such as the income, size and composition of the household and the proportion of meals eaten away from home. In addition there is also some evidence that younger households - those with a housekeeper aged 15-24 years - do have a lower demand for meat and seafood than other households. Households with a housekeeper aged 45 or over account for 44 per cent of household expenditure on meat and seafood purchases (figure 24) and one-third of expenditure on meals obtained away from home (figure 25). The proportion of the Australian population aged 45 or over is projected to increase by around 8 per cent over the next 20 years (Australian Bureau of Statistics 1985b). This ageing of the population will have a positive impact on total expenditure on meat and other food items but a negative influence on the proportion of meals purchased away from home. The pattern of meat consumption may also alter in favour of lamb and offal and against poultry, seafood other than fish, and smallgoods.

It is not possible to conclude that the lower demand by housekeepers aged 15-24 years will be maintained as they age. This group accounts for only 6 per cent of expenditure on meat and seafood purchases but almost 15 per cent of expenditure on meals obtained away from home. If these purchasing habits were to be sustained their influence could more than offset the demand trends indicated above.

#### 5.4 Cultural Trends

To the extent that cultural factors influence meat and seafood consumption, changes in the ethnic composition of the population may affect consumption levels of meats and seafood. Over the past two decades the proportion of Australian and New Zealand born residents in the population has remained around 80 per cent (Australian Bureau of Statistics 1985a, 1986b). However, there have been shifts in the composition of the foreign born population towards more Asian born and fewer European born residents. With similar trends expected to continue (Department of Immigration and Ethnic Affairs 1986), the demand for pork, poultry and seafood should increase relative to other meats, particularly lamb. However, these effects would have only a minor impact due to the dominance of households with Australian or New Zealand born housekeepers.

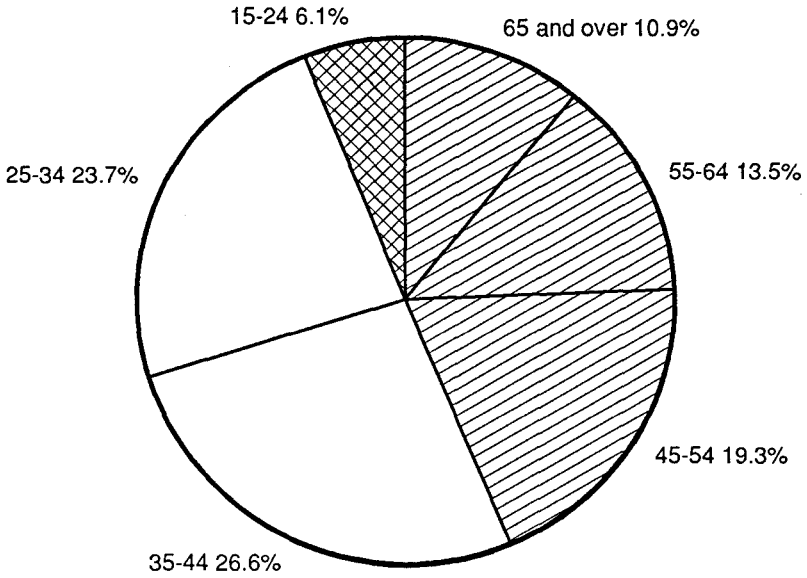
#### 5.5 Changing Lifestyles

Although an upward trend in housekeeper participation in the workforce or in study is likely to cause a further fall in the number of meals eaten at home, it is not expected to have a major impact on the amount of meat purchased for preparation of meals at home. The increase in household income as more housekeepers take up employment is likely to result in a rise in the total quantity of meat eaten, when meals away from home are taken into account, and a further shift in household purchases toward more expensive meats. Of the meat categories, seafood and smallgoods are likely to be favoured by this trend at the expense of lamb, pork and poultry.



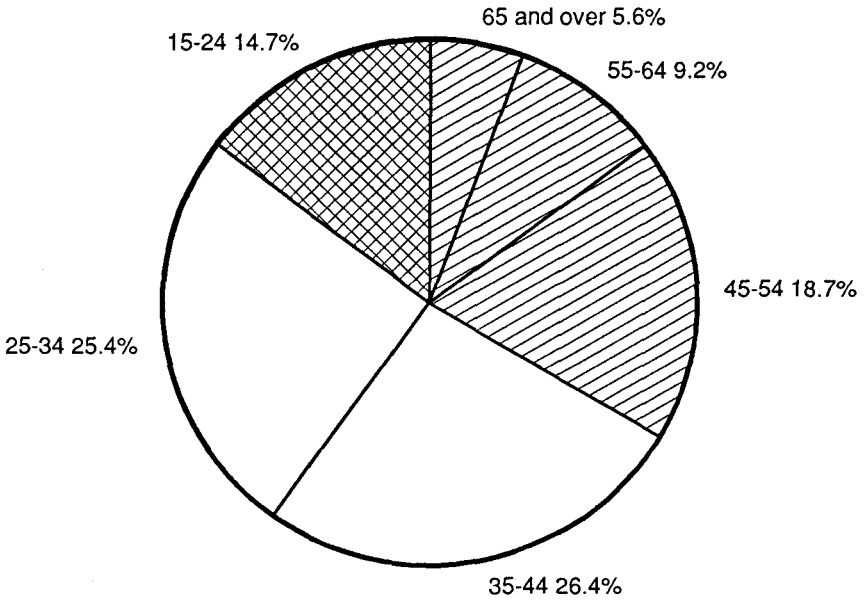
**Figure 24:** Share of total meat and seafood expenditure according to age of housekeeper

ABARE chart



**Figure 25:** Share of total expenditure on meals obtained away from home according to age of housekeeper

ABARE chart



## 5.6 Conclusions

Likely trends in the socio-economic and demographic factors identified in this report as affecting household meat consumption indicate that total demand for meat and seafood should increase in the foreseeable future. This conclusion holds both for meat and seafood purchased for meals prepared at home and for meals containing meat obtained away from home. The main factors leading to this outcome would be growth of the population and increased real household income. Other factors that would support this trend would be any further increase in the number of housekeepers who are also employed outside the home or shift in the migrant base. One factor that could have a negative influence on total meat and seafood demand would be any persistence of the apparent decrease in the demand for meat and seafood by members of young households as these consumers grow older.

The composition of demand for meat and seafood is likely to be influenced by a number of factors. An increase in real household income would be expected to influence the consumption of poultry and beef more favourably than that of pork and to a lesser extent, lamb and seafood. A continuation of recent trends towards smaller households, more Asian migrants, more housekeepers being employed outside the home and the use of microwave ovens may lead to further shifts away from lamb toward pork, seafood and poultry. If young consumers maintain their differences in demand for meat and seafood as they grow older, there could be further shifts in demand away from lamb toward poultry.

Developments in areas not covered in this report may also have a major influence on future demand for total meat and seafood and for individual categories of meat and seafood. These could include taste changes, shifts in lifestyle other than the increase in the number of working housekeepers, the availability of new food products and services, new cooking methods other than microwave ovens and the impact of meat promotion campaigns.

Furthermore, an increase in household demand for individual categories of meat and seafood will not necessarily ensure growth in their consumption. Changes in relative prices of different meats and seafoods due to shifts in domestic supply or export demand should continue to be the main cause of year-to-year fluctuations in consumption.

## Appendix A

### SURVEY DEVELOPMENT AND DATA PREPARATION

#### A1 Introduction

The 1984 Household Meat Consumption Survey was conducted in the Sydney and Melbourne urban areas during October, November and December of 1984. A sample of housekeepers were interviewed about their household's meat and seafood preferences and asked to complete a diary of their meat and seafood purchases and meals during a two-week period. The survey was designed by the Bureau, and field work was carried out by a survey research contractor, who collected data and prepared it for computational and statistical analysis by the Bureau.

#### A2 Sample Design and Selection

The sample was designed to cover all households in private dwellings, excluding those in caravans, in Sydney and Melbourne urban areas. The areas covered by the survey were very close to the capital city urban areas of Sydney and Melbourne as identified by the Australian Bureau of Statistics, with urban areas of Brisbane Water and The Entrance-Terrigal portions of Gosford Shire also included in the Sydney survey, and the Flinders, Hastings and Mornington Shires, which are largely rural, excluded from the Melbourne survey (table A1). The selection units used for the survey were private dwellings, and the enumeration units were households. A household was included in the survey if it was at its usual residence or was staying at its current residence for at least the two weeks of the survey. These coverage rules are a slightly modified version of those used in the Australian Bureau of Statistics Household Expenditure Survey of 1984 (Australian Bureau of Statistics 1986a).

The sample designed for the survey was of a multistage area type involving two stages of selection. The first stage of selection was designed and implemented with the following principles in mind.

It was decided that a sample of 900 completed household records, split equally between Sydney and Melbourne, would be required to enable valid conclusions about household meat consumption. It was further decided that a quota of three effective dwellings per census collection district (CD) selected for sampling would provide a relatively unclustered sample for the survey data analysis. Thus, in the first stage of selection 151 CDs were selected in the Sydney survey area and 150 in the Melbourne survey area.

The CDs were selected by the Australian Bureau of Statistics within local government areas with a probability of selection proportional to their size, expressed as the number of occupied dwellings recorded in these areas at the 1981 census. Under this regime the selection of three effective dwellings per selected CD would, assuming equal non-response rates across CDs, have resulted in a self-weighting survey design.

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This report is based on a draft report prepared by Terence W. Beed & Associates.

At the time of design of the survey it was believed that a diary placement rate of 80 per cent and a diary completion rate of 75 per cent of placements were achievable. Based on these expected completion rates it was planned to contact an average five dwellings per selected CD with the placement of four diary sets.

The second stage of selection was dwelling selection. A convenient starting point within the CD was chosen by the Bureau, from which the interviewer's route was marked to ensure a consistent traverse through the CD. To avoid selection bias caused by starting from a convenient rather than a random starting point, the between dwelling skip interval was originally set to 20 to ensure that the interviewer would traverse virtually the whole CD. However, this resulted in high travel costs, so after the commencement of field operations, the skip interval was reduced to 15 or, where a CD had less than 200 households, to 5 for the subsequent traverse of the CD. Multiple dwelling units such as flats or units were traversed in alphabetical or numerical order.

At each selected dwelling, the interviewer attempted to contact a respondent, the housekeeper, who would be interviewed and would complete the meat consumption diaries. Interviewers made repeated visits to each dwelling until one of a number of authorised outcomes was achieved: diary placement, refusal, non-contact after three visits, ineligible dwelling, vacant dwelling and other reasons precluding an interview. When language problems were encountered households were retained in the sample where possible by using interviewers with language skills.

In the design of the survey it was thought that a maximum of 10 dwellings visited in each CD would result in 4 diary placements. In practice however, survey response was much lower than anticipated in some areas and hence this ceiling was raised to 15, and finally 20 dwellings, in an attempt to obtain the required number of responses.

To assist in timely placement of the diaries, interviewers were permitted to approach up to 5 dwellings at any one time. Where no contact was made interviewers were required to make up to three more calls at different times of the day and over different days to avoid selection bias against working households. When one of the authorised outcomes was achieved the interviewer could begin canvassing the next eligible household in the CD. As the survey progressed, the ceiling was raised from 5 to 10 households to counter lower than expected response levels and a shortage of interviewers.

In summary, the design can be regarded as being a compromise between 'probability sampling with call-backs' and 'probability sampling with quotas'. The possibility of operational difficulties must be taken into account in the design of many surveys. Such difficulties include relatively high levels of non-response; difficulties due to inherent problems in the subject matter under study which would preclude the collection of precise definitive data; and other non-sampling errors. Such circumstances were anticipated for a complex survey of the kind planned by the Bureau, and experience from a pilot survey conducted by the Bureau in Canberra and Queanbeyan confirmed this. In the light of this, the sample was seen to be, in the words of the Australian Bureau of Statistics, 'a good compromise between statistical validity and operational simplicity' (personal communication).

The survey was planned to be completed in around six weeks with most diaries being placed in the first two weeks, to ensure expenditure and purchase data would be collected from all respondents in similar conditions.

Pre-field preparations for this survey included the small scale pilot survey conducted by the Bureau in the Canberra-Queanbeyan urban area, and extensive field staff briefing and training sessions staged on the premises of the fieldwork contractor. Every attempt was made to ensure that the interviewers employed by the fieldwork contractor were thoroughly trained in the procedures of respondent contact and selection, the administration of questionnaires, the placement and retrieval of the diaries, and other related field activities.

### A3 Field Tasks

The interviewers had four field tasks:

- household selection
- interview and diary placement
- mid-term contact and
- diary collection.

The interviewer visited selected dwellings as described above, and attempted to contact the housekeeper of the household. Interviewers kept call sheets documenting their progress through the CD. If the person contacted did not wish to participate in the survey interviewers requested details on the age and sex composition of the household and whether the housekeeper worked. These details were collected to check for non-response bias in the final sample.

When the interviewer recruited a household, the interviewer asked to speak to the housekeeper. The housekeeper was the person purchasing food for the household and preparing meals. Where these tasks were split the person preparing the meals was designated as the housekeeper. When no one person could be clearly assigned to either of these tasks one person was selected arbitrarily. An initial interview was conducted with the housekeeper to collect information on household characteristics, whether the household had a freezer or a microwave oven, and meat and fish eating habits and preferences. The housekeeper was given meat consumption and expenditure diaries (appendix C) and the interviewer explained how to complete them. Even when the housekeeper was not willing to accept the diaries, but was prepared to undertake the interview, the interview information was collected. This information was valuable for checking for non-response bias.

Diaries were kept for two weeks. A few days after the diary period began, the interviewer telephoned the household (or wrote a letter to households without telephones) to iron out difficulties being experienced by the respondent and generally check on progress with the assignment. The interviewer returned to each household to collect diaries, checking their completion, and assisting in any areas that were incomplete or causing concern. Where diaries were not completed they were still collected where possible.

Bureau staff conducted field visits and attended debriefings of field staff who were experiencing response problems. A range of quality control procedures were conducted by the fieldwork contractor to ensure the completeness and consistency of information collected, to make regular

reports on progress, and to develop a computer file of field performance characteristics.

#### A4 Field Performance

The results of the field operations are given in table A1. 'Placement rate' of diaries was 52 per cent, well below the 80 per cent anticipated in the original survey design. Only 40 per cent of dwellings visited resulted in completed diary sets. From 1157 diary sets placed, 845 were returned completed, a 'wastage' of 27 per cent, which was about what had been expected and allowed for in the survey design.

From table A2, it is apparent that the response rate was lower in Sydney than it was in Melbourne. Of the 892 data sets, 424 were collected in Sydney and 468 in Melbourne. The respective placement and completion rates were 48 per cent and 36 per cent in Sydney compared with 57 per cent and 44 per cent in Melbourne. This result is symptomatic of the operational difficulties the contractor experienced with field staff in the Sydney region. The field resources of the contractor had to be boosted with those of the University of Sydney's Sample Survey Centre and several Bureau officers.

Not all of the CDs were covered as planned. In Sydney, one of the 151 CDs, and in Melbourne five of the 150 CDs were not covered at all. Further, of the remaining 150 Sydney CDs, seven were incompletely covered by the field staff (involving the loss of 11 potential placements) while six of the remaining 145 CDs in Melbourne were incompletely covered (involving the loss of nine potential placements). It was originally planned that a CD would be deemed to be fully covered if four sets of diaries had been placed in it, or if 10 dwellings had been visited. However, the response rate was much lower than expected, so in some CDs as many as 15 or 20 dwellings were visited for a placement of only two or three diaries.

The field activities also took longer than planned. The survey field operations commenced on 20 October 1984, and respondents commenced keeping

Table A1: RESULTS OF FIELD OPERATIONS

Item	Sydney	Melbourne	Total
Calls	2 134	1 980	4 114
Dwellings visited	1 408	1 248	2 656
Non contacted and ineligible dwellings	239	196	435
Eligible dwellings	1 169	1 052	2 221
Refusals	574	447	1 021
Language problems and other reasons for no interview	35	8	43
Households accepting diaries(a)	560	597	1 157
Diary sets collected	424	468	892
Meals diaries complete	419	468	887
Expenditure diaries partially complete	414	463	877
Expenditure diaries fully complete	399	450	849
Both diaries fully complete	395	450	845

(a) Not all respondents provided income information.

diaries on 21 October. The field operations were planned to last six weeks (including diary collection two weeks after the last interview) with the majority of placements to occur in the first two weeks of operations. However, the last diaries were placed on 13 December 1984, eight weeks after commencement of field operations. The pattern of interview completion is depicted by figure A1. Around 50 per cent of the 1157 interviews were obtained in the first two weeks, and it took six more weeks to obtain the remainder.

#### A5 Data Preparation

##### (a) Data verification and cleaning

Information collected from the survey was subject to a high level of quality control during preparation. These measures included entry verification, range checking and cross-checking of data. After the information was received the Bureau also undertook a substantial program of data verification and editing. The final set of information was recorded on a detailed set of data files. These files were:

- Field performance - survey operation data
- Household details - characteristics of household and occupants data
- Household details (interviews only) - characteristics of household and occupants data for households providing interviews only
- Expenditure - expenditure and purchase data
- Buying occurrences - purchases by retail outlet data
- Meals diary - detailed meal data
- Meals summary - summarised meal data
- Freezer and pets' meat - freezer transaction and pet meat data
- Refusals - characteristics of refusals data

##### (b) Survey weights

The aim of the fieldwork was to obtain completed data sets from 3 households per CD in each of 301 CDs to provide a self weighting sample. However, because response rates were lower than expected and problems were encountered with interviewer performance, the pattern of response was far from uniform. As a result, the sample could not be regarded as self weighting, and a suitable weighting procedure had to be devised by the Bureau. After these weights were applied, the sample was found to be 70 to 80 per cent efficient.

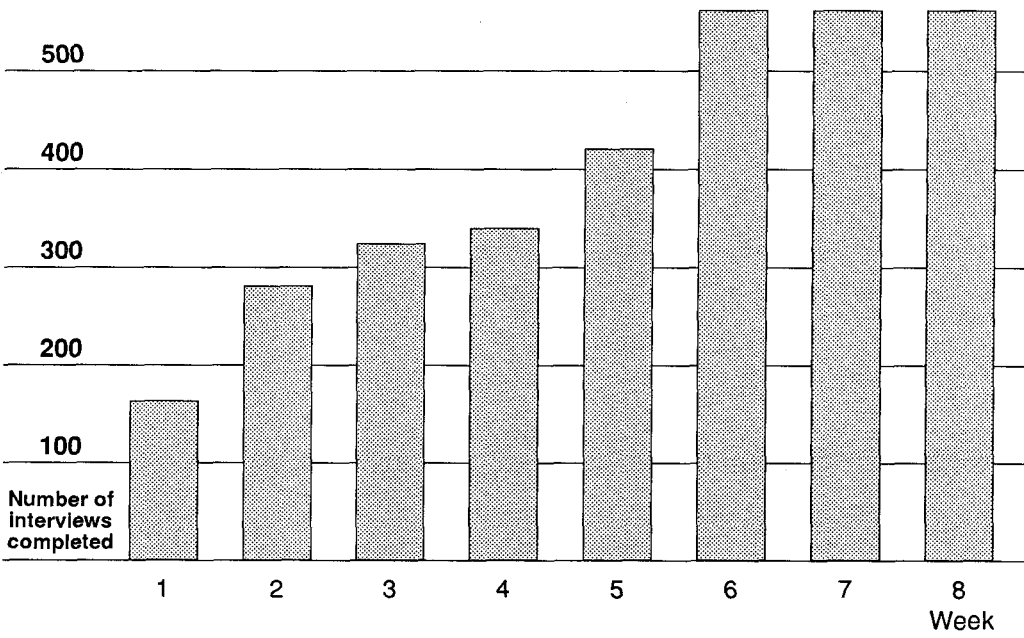
Four sets of weights were developed, three for diary items and one for interview items. All sets of weights were constrained to agree with the following five sets of benchmarks:

- estimates of the proportions of household heads born in various groups of countries (for example, Northern Europe, the Middle East);
- estimates of the number of persons in each region (see table A1) into which the Sydney and Melbourne survey areas were divided;
- estimates of the proportions of the population in Sydney and Melbourne in households of different sizes (one person, two person, and so on);
- estimates of the proportion of household heads in certain age-sex categories; and

**Figure A1: Interviews by week of field operations**

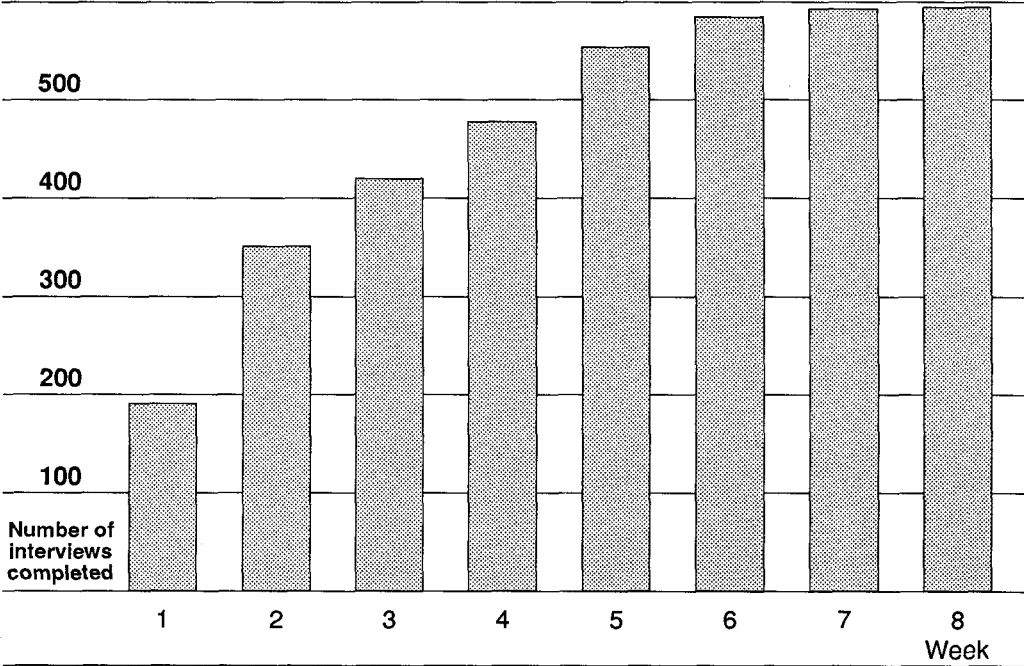
**Sydney**

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**Melbourne**

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- estimates of the population in the Sydney and Melbourne survey areas at the time the survey was conducted.

For each household supplying a diary, there are four such weights (three for different levels of completion of diary items and one for interview items), while for each household supplying only an interview there is one weight only. These weights may be thought of as raising factors which, when applied to the respondent households, result in estimates of total numbers of persons or households having a given characteristic in each city. Since the numbers of responding households are around 500 in each city, most of the weights are of the order of 2000.

The benchmarks were applied in two ways. First there was an iterative process which calculated preliminary weights. At the start of the iterative process the weights were each set to unity. Each iteration contained four steps. At the first step the weights were constrained to sum to benchmarks for household head birthplace groupings, at the second to benchmarks for regions (see table A2), at the third to benchmarks for household sizes and at the fourth to benchmarks for household head age-sex categories (these were benchmarks 1 to 4). Once the iterative process had converged, the resulting weights were converted to raising factors which summed to the estimated populations of the two survey areas at the time the survey was conducted (benchmark 5).

The procedure by which the updated 1984 estimates were compiled is set out in tables A3-A9. Data from the 1981 census were used to calculate the number of persons per family according to the birthplace of the head of the household (table A3), for New South Wales and Victoria. This permitted estimates to be made of the numbers of families for each birthplace group in Sydney and Melbourne in 1981 (table A4). The numbers of families were updated to October 1984 estimates, and the proportions of each group of families in Sydney and Melbourne were calculated (tables A5 and A6). Table A7 gives the adjusted population for each survey region. Table A8 contains the benchmark calculations for household size. Table A9 contains the corresponding calculations for age and sex of head of household while table A10 contains calculations to derive estimated populations in the survey areas of Sydney and Melbourne.

Table A2: SURVEY REGIONS, LOCAL GOVERNMENT AREAS AND COMPLETION STATISTICS

Region	Local government area	Number of census districts selected	Number of census districts with returns	Responses	
				Interview only	Diaries collected
<u>Sydney</u>					
1	Randwick	5	5	2	17
	Waverley	4	4	3	13
	Woollahra	3	3	4	5
	Total	12	12	9	35
2	Leichhardt	3	3	1	11
	Marrickville	5	5	4	14
	South Sydney	2	2	4	4
	Sydney	4	3	5	7
	Total	14	13	14	36
3	Ashfield	2	2	4	4
	Burwood	2	2	4	4
	Concord	1	1	0	4
	Drummoyne	2	2	3	2
	Strathfield	2	2	1	7
	Total	9	9	12	21
4	Bankstown	7	7	3	22
	Canterbury	7	7	5	24
	Hurstville	3	3	5	8
	Total	17	17	13	54
5	Botany	2	2	1	7
	Kogarah	3	3	2	11
	Rockdale	5	5	3	15
	Sutherland(a)	8	8	9	18
	Total	18	18	15	51
6	Campbelltown(a)	3	3	3	8
	Liverpool(a)	4	4	4	11
	Total	7	7	7	19
7	Auburn	2	2	1	5
	Parramatta	6	6	5	19
	Total	8	8	6	24
8	Fairfield(a)	6	6	5	12
	Holroyd	3	3	3	9
	Total	9	9	8	21
9	Baulham Hills(a)	3	3	3	9
	Blacktown(a)	6	6	9	15
	Total	9	9	12	24

(Continued on next page)

Table A2 (continued)

Region	Local government area	Number of census districts selected	Number of census districts with returns	Responses	
				Interview only	Diaries collected
10	Blue Mountains(a)	2	2	2	6
	Penrith(a)	4	4	3	13
	Total	6	6	5	19
11	Gosford(b)	5	5	5	15
	Warringah(a)	9	8	1	26
	Total	14	13	6	41
12	Hornsby(a)	4	4	6	10
	Ku-ring-gai(a)	5	5	4	17
	Willoughby	3	3	1	9
	Total	12	12	11	36
13	Lane Cove	2	2	2	5
	Manly	3	3	2	10
	Mosman	2	2	0	8
	North Sydney	3	3	4	6
	Ryde	6	6	10	14
	Total	16	16	18	43
Total Sydney		151	149	136	424
<u>Melbourne</u>					
1	Altona	2	2	1	8
	Footscray	3	3	4	6
	Sunshine(a)	5	5	7	12
	Werribee(a)	2	2	3	5
	Williamstown	2	2	0	8
	Total	14	14	15	39
2	Fitzroy	2	2	0	8
	Melbourne	4	2	1	4
	Port Melbourne	1	1	2	2
	Prahran	3	3	1	11
	Richmond	1	1	2	3
	St Kilda	4	3	3	7
	South Melbourne	1	1	0	4
	Total	16	13	9	39
3	Brunswick	3	3	6	7
	Coburg	4	4	1	15
	Essendon	4	4	6	13
	Preston	6	6	6	20
	Total	17	17	19	55

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Table A2 (continued)

Region	Local government area	Number of census districts selected	Number of census districts with returns	Responses	
				Interview only	Diaries collected
4	Box Hill	4	4	7	9
	Camberwell	6	6	5	18
	Hawthorn	2	2	1	8
	Heidelberg	4	4	4	14
	Kew	2	1	1	0
	Northcote	3	3	1	10
Total		21	20	19	59
5	Brighton	3	2	2	6
	Chelsea	2	2	3	7
	Frankston(a)	5	5	8	15
	Moorabin	6	6	5	20
	Mordialloc	2	2	2	8
	Sandringham	2	2	3	5
Total		20	19	23	61
6	Berwick(a)	2	2	3	7
	Dandenong(a)	2	2	2	6
	Springvale(a)	4	4	3	13
Total		8	8	8	26
7	Caulfield	6	6	2	21
	Malvern	3	3	6	7
	Oakleigh	3	3	3	9
	Waverley	6	6	6	21
Total		18	18	17	58
8	Croydon	2	2	1	8
	Doncaster(a)	4	4	3	15
	Nunawading	5	5	1	16
	Ringwood	2	2	0	8
Total		13	13	5	47
9	Broadmeadows	5	5	4	20
	Keilor(a)	4	4	1	16
	Whittlesea(a)	2	2	2	7
Total		11	11	7	43
10	Diamond Valley(a)	2	2	3	6
	Eltham(a)	1	1	0	4
	Knox(a)	4	6	2	21
	Lillydale(a)	3	3	2	10
	Sherbrooke(a)	2	0	0	0
Total		12	12	7	41
Total Melbourne		150	145	129	468

(a) Capital city urban area only. (b) Brisbane Water urban area and the Entrance - Terrigal urban area only.

Table A3: CALCULATION OF NUMBER OF PERSONS PER FAMILY FOR EACH BIRTHPLACE ZONE

Birthplace of head of household	New South Wales			Victoria		
	Families(a)	Persons in families(b)	Persons per family	Families(a)	Persons in families(b)	Persons per family
	no.	no.	ratio	no.	no.	ratio
Australia and New Zealand	1 259 170	4 087 453	3.246	868 490	2 943 951	3.390
United Kingdom and Ireland	160 475	337 515	2.103	122 596	260 083	2.121
Germany and the Netherlands	30 404	60 236	1.981	33 679	65 046	1.931
Poland and Yugoslavia	36 638	76 955	2.100	39 449	82 236	2.085
Greece, Italy and Malta	72 867	148 179	2.034	103 096	215 456	2.090
Lebanon	13 272	36 950	2.784	3 533	10 143	2.871
Other countries	121 796	312 906	2.569	84 261	212 099	2.517
Not stated	23 108	66 023	2.857	15 138	43 429	2.869

(a) Source: Australian Bureau of Statistics Population Census 1981, table BL356. (b) Source: Australian Bureau of Statistics Population Census 1981, table BL302.

Table A4: CALCULATION OF NUMBER OF FAMILIES OF EACH BIRTHPLACE GROUP, IN SYDNEY AND MELBOURNE, 1981

Birthplace of head of household	Sydney			Melbourne		
	Persons(a)	Number of persons per family, New South Wales(b)	Estimated number of families	Persons(a)	Number of persons per family, Victoria(b)	Estimated number of families
	no.	ratio	no.	no.	ratio	no.
Australia, New Zealand Canada, United States	2 388 811	3.246	735 891	1 965 365	3.390	579 779
United Kingdom and Ireland	246 742	2.103	117 316	209 999	2.121	98 988
Northern Europe	61 977	1.981	31 283	63 427	1.931	32 841
Eastern Europe	93 653	2.100	44 588	101 278	2.085	48 584
Southern Europe (plus Cyprus)	146 952	2.034	72 264	213 121	2.090	101 979
Middle East	68 673	2.784	24 667	36 965	2.871	12 876
Balances of Asia, Africa Oceania	127 192	2.569	49 508	87 137	2.517	34 617
Balances of Americas	22 474	2.569	8 748	10 519	2.517	4 179
Not stated	48 222	2.857	16 878	35 006	2.869	12 202
Total	3 204 696		101 143	2 722 817		926 065

(a) Source: Australian Bureau of Statistics Population Census 1981, tables 11 and 31. (b) From table A3.

Table A5: CALCULATION OF FACTORS FOR UPDATING AUSTRALIAN POPULATION BY BIRTHPLACE TO OCTOBER 1984

Birthplace	Population according to 1981 census(a)	Estimated population 30 June 1981(a)	Estimated population 30 June 1983(a)	Ratio of 1981 estimate to 1981 census count	Ratio of 1983 estimate to 1981 estimate	Ratio of October 1984 estimate to 1983 estimate(b)	Updating factor(c)
	'000	'000	'000	ratio	ratio	ratio	
Australia, New Zealand, Canada, United States	11 594.8	12 035.9	12 358.5	1.0380	1.0268	1.02	1.0871
United Kingdom and Ireland	1 120.9	1 175.7	1 203.2	1.0489	1.0234	1.00	1.0743
Austria, Finland, France, Germany, The Netherlands	249.4	263.2	272.9	1.0553	1.0369	1.01	1.1052
Czechoslovakia, Hungary, USSR, Poland, Yugoslavia	302.0	317.7	326.6	1.0520	1.0280	1.01	1.0923
Greece, Italy, Malta, Portugal, Spain, Cyprus	527.5	551.2	554.8	1.0449	1.0065	1.00	1.0517
Israel, Lebanon, Turkey, Egypt	11.0	117.1	120.2	1.0645	1.0265	1.02	1.1146
Other Asia, Africa, Oceania	390.0	414.8	491.9	1.0636	1.1859	1.13	1.4253
Other Americas	45.2	47.7	50.5	1.0553	1.0587	1.03	1.1508
Not stated	177.1						
Total	14 516.9	14 923.3	15 378.6				

(a) Source: Australian Bureau of Statistics (1985c). (b) Based on data made available by Department of Immigration. (c) Updating factor is the product of the three ratios calculated here.

Table A6: CALCULATION OF PROPORTIONS OF FAMILIES OF EACH BIRTHPLACE GROUP, OCTOBER 1984

Birthplace	Updating factor(a)	Estimated no. of families				Proportion of total no. of families	
		Sydney		Melbourne		Sydney	Melbourne
		June 1981(b)	October 1984(c)	June 1981(b)	October 1984(c)		
no.	no.	no.	no.	ratio	ratio		
Australia, New Zealand Canada, United States	1.0871	735 891	799 897	597 799	620 299	0.67039	0.62991
United Kingdom and Ireland	1.0734	117 316	125 927	98 988	106 254	0.10553	0.10619
Northern Europe	1.1052	31 283	34 574	32 841	35 252	0.02897	0.03523
Eastern Europe	1.0923	44 588	48 703	48 584	53 068	0.04081	0.05303
Southern Europe (and Cyprus)	1.0517	72 264	76 000	101 979	107 251	0.06369	0.10718
Middle East	1.1146	24 667	27 494	12 876	14 352	0.02304	0.01434
Other Asia, Africa, and Oceania	1.4253	49 508	70 564	34 617	49 340	0.05913	0.04931
Other Americas	1.1508	8 748	10 067	4 179	4 809	0.00844	0.00481
Total			1 193 316		1 000 625		

(a) From table A5. (b) From table A4. (c) June 1981 figure times updating factor.



Table A7: CALCULATION OF POPULATIONS FOR EACH SURVEY REGION, 1984

Region	Population of whole local government areas 1984(a)	Population of excluded parts 1981(b)	Estimated population of excluded parts 1984	Estimated population of survey area 1984
<u>Sydney</u>				
1	232 500			232 500
2	219 950			219 950
3	152 250			152 250
4	347 600			347 600
5	341 250	1 614	1 856	339 394
6	206 700	14 407	16 856	190 132
7	178 550			178 550
8	224 400	3 151	3 624	220 776
9	291 950	21 669	24 954	266 996
10	193 150	39 242	45 128	148 022
11	284 800	14 539	16 720	268 080
12	273 300	9 657	11 106	262 194
13	244 900			244 900
Total Sydney				3 071 344
<u>Melbourne</u>				
1	255 500	5 430	6 244	249 256
2	237 700			237 700
3	317 300			317 300
4	310 200			310 200
5	233 400	172	198	233 202
6	305 000	30 500	35 075	269 925
7	280 100			280 100
8	273 700	1 563	1 797	271 903
9	298 000	8 521	9 799	288 210
10	241 700	29 622	34 065	207 635
Total Melbourne				2 665 422

(a) Source: Sydney - Australian Bureau of Statistics (1985d); Melbourne - Australian Bureau of Statistics (1985e). (b) Derived from Australian Bureau of Statistics unpublished data.

Table A8: CALCULATION OF PROPORTIONS OF THE POPULATION IN EACH HOUSEHOLD SIZE GROUP

No. of occupants of dwelling	Sydney		Melbourne	
	Occupants(a)	Proportion of	Occupants(a)	Proportion of
		total		total
	no.	ratio	no.	ratio
1	189 382	0.06805	161 234	0.06423
2	559 195	0.20097	486 555	0.19383
3	492 079	0.17685	427 140	0.17016
4	710 869	0.25548	662 876	0.26407
5	464 176	0.16682	442 536	0.17629
6	214 104	0.07694	200 345	0.07981
7	86 134	0.03096	76 572	0.03051
8 and over	66 569	0.02392	52 954	0.02110
<b>Total</b>	<b>2 782 508</b>		<b>2 510 212</b>	

(a) Source: Australian Bureau of Statistics Population Census 1981, Table 130.

Table A9: CALCULATION OF PROPORTIONS OF FAMILY HEADS IN EACH AGE GROUP

Age	Sydney		Melbourne	
	Persons(a)	Proportion of	Persons(a)	Proportion of
		total		total
	no.	ratio	no.	ratio
<b>Males</b>				
29	130 611	0.11869	115 778	0.12642
30-34	109 489	0.09950	92 497	0.10100
35-39	97 660	0.08875	82 277	0.08984
40-44	83 832	0.07618	72 294	0.07894
45-49	74 027	0.06727	64 726	0.07068
50-54	77 112	0.07007	67 031	0.07319
55-59	73 061	0.06639	61 418	0.06706
60-64	56 048	0.05093	44 876	0.04900
65-69	45 481	0.04133	35 947	0.03925
70	59 425	0.05400	48 986	0.05349
<b>Females</b>				
34	85 803	0.07797	69 440	0.07582
35-54	75 044	0.06820	56 875	0.06210
55-69	71 389	0.06488	54 359	0.05936
70	61 448	0.05584	49 313	0.05385
<b>Total</b>	<b>1 100 430</b>		<b>915 817</b>	

(a) Source: Australian Bureau of Statistics Population Census 1981.

Table A10: CALCULATION OF ESTIMATED NUMBER OF OCCUPANTS OF PRIVATE DWELLINGS IN THE SURVEY AREAS

Item	Sydney	Melbourne
Estimated residential population in capital city statistical division(a)		
- June 1981(a)	3 279 500	2 806 300
- June 1983(a)	3 335 000	2 865 700
- June 1984(a)	3 355 200(p)	2 888 400(p)
- October 1984(b)	3 362 000	2 896 000
Adjustment to population of private dwellings in urban areas		
- population in statistical division, Census June 1981(c)	3 204 696	2 722 817
- occupants of private dwellings in urban area, Census June 1981(c)	2 782 508	2 510 212
- adjustment factor(d)	0.8683	0.9219
- estimate of number of occupants of private dwellings, urban area, October 1984(e)	2 919 000	2 670 000
Adjustment to survey area boundaries		
- urban population, June 1981	2 874 843	2 579 075
- survey area population, June 1981	2 957 754	2 533 502
- adjustment factor(f)	1.0288	0.9823
- estimate of number of occupants of private dwellings in the survey area(g)	3 003 000	2 623 000

(a) Australian Bureau of Statistics (1985c). (b) Estimated by linear extrapolation, using rate of increase between June 1983 and June 1984. (c) Australian Bureau of Statistics Population Census 1981, Table 130. (d) Proportion of occupants of private dwellings in urban areas to population in capital city statistical division. (e) Estimated population in capital city statistical division, October 1984, times adjustment factor (d). (f) Proportion of urban population, June 1981, to estimated number of private dwellings, urban area, October 1984. (g) Estimated occupants of private dwellings, urban area, October 1984, times adjustment factor (f). (p) Preliminary.

Appendix B

**ECONOMETRIC ANALYSES OF HOUSEHOLD DEMAND FOR MEAT AND SEAFOOD**

This appendix contains a description of the econometric analysis reported throughout this paper. This analysis is presented in three sections:

- influence of socio-economic and demographic factors on purchases of meat and seafood for preparation of meals at home;
- influence of socio-economic and demographic factors on demand for meals obtained away from home and expenditure on meals obtained away from home; and
- the effect of ageing of the present younger generations on purchases of meat and seafood for preparation of meals at home.

Each section contains a brief introduction to the issues being addressed, reference to econometric techniques and data, and presentation of model results. To avoid duplication with the text of the report the results of each analysis are only discussed where considered appropriate.

**B1 Meat and Seafood Purchases for Preparation of Meals at Home**

(a) Introduction

Recent qualitative cross-section survey work has suggested that demand for meat at the household level has been affected by a range of demographic and social factors (McKinna Et Al 1984). In the present study, the demand for meat and seafood for preparation at the household level was modelled, to assess the influence of demographic and socio-economic factors at different stages of the meat and seafood buying process. The following issues are addressed at relevant stages of the analysis:

- whether the education level of the housekeeper affects household expenditure on meat and seafood or the type and diversity of meat and seafood purchased;
- whether households with a housekeeper employed outside the home or studying full time ('working' housekeeper) purchase less meat and seafood, or different types of meat and seafood, compared with households with a housekeeper not employed outside the home or studying full time ('non-working' housekeeper);
- whether households with a young housekeeper purchase less meat and seafood in general, but particularly lamb, compared with households with an older housekeeper;
- whether ethnic background influences the expenditure pattern;

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Section B1 is an extract from a paper presented at the 30th Annual Conference of the Australian Agricultural Economics Society (Ball and Bartley 1987); Section B3 is based on a paper presented at the 29th Annual Conference of the Australian Agricultural Economics Society (Bartley 1986).

- whether there is any difference between household expenditure on meat and seafood in Sydney and Melbourne; and
- the effect of income on household expenditure on meat and seafood and the effect of expenditure level on allocation between meat types and seafood.

(b) Econometric modelling

Two specific meat buying stages are identified for analysis as characteristics may differ in importance between stages of the meat buying process. It is assumed that each household maximises a utility function  $u_i = u_i(q_1, q_2, \dots, q_n)$  subject to a budget constraint:

$$(1) \quad \sum_{i=1}^n p_i q_i = y$$

where  $p_i q_i$  is expenditure on the  $i$ th good, and  $y$  is household income.

It is assumed that household budgeting can occur in two stages. The household initially decides how much will be spent on individual commodity groups and then allocates expenditure within each grouping. The utility function becomes:

$$(2) \quad u_i = u_i[v_1(q_1, q_2), v_2(q_3, q_4), \dots, v_m(q_{n-1}, q_n)]$$

where  $v_1$  is, for example, meat and seafood consumption,  $v_2$  is consumption of durables, and so on.

In this process the household achieves the same consumption allocation as would occur in a one-step procedure. Separability allows the meat and seafood commodity group to be considered in isolation from other groups of commodities.

The initial allocation decision was modelled in a single equation for the demand for total meat and seafood. The second-stage allocation decision was then modelled in a demand system incorporating six meat types. Results from this analysis were compared with a single equation approach. Since cross-section data were used, it is assumed that prices were constant over the survey period, and that households within a city had the choice of purchasing at the same prices. The advantage of household meat expenditure data over apparent consumption data is that demographic issues can be addressed directly and true income and expenditure elasticities can be obtained in isolation from price changes.

(c) Data

Expenditures on meat and seafood items were categorised according to the type of meat, into the groups beef and veal, lamb, pork, poultry, other meats, and seafood. Under this aggregation into groups the results of the ensuing analysis for each meat group may not be applicable to an individual item within each group. This problem is likely to be greatest within the two categories seafood and other meats. Seafood includes prawns, tinned fish, fresh fish and so on, while other meats includes bacon and ham, smallgoods, canned meat, game and so on.

The survey data were weighted to take account of non-response and to ensure representativeness with regard to the populations of Sydney and Melbourne. These survey weights were used in the analysis reported here, after being appropriately normalised to the actual number of observations used to fit a particular regression. There were 27 households which did not purchase meat or seafood during the sample period. These households are not of interest and so were excluded from the analysis.

The demographic and socio-economic characteristics that were hypothesised to affect total household demand for meat and the individual meat categories are detailed in table B1. The age of the housekeeper was categorised into dummy variables A1 to A5 rather than left as a continuous variable, as it was included specifically to see if households with a young housekeeper had different expenditure habits from older housekeepers. The aim of this specification was to isolate possible differences in characteristics such as lifestyle that may be associated with younger and older housekeepers. Household size was split up into children and adults, to reflect differences in household composition. Dummy variables OS and LR account for differences in culture, lifestyle and taste between Australian-born housekeepers and those born overseas. Variable LR allows for an adjustment in expenditure patterns to occur over time for non-Australian-born housekeepers (following Ryan, Wales and Woodland 1982). Housekeepers born overseas are further subcategorised into their region of origin using dummy variables B1 to B6. The remaining variables account for differences in social characteristics: dummy variables M and F were introduced to see if the presence of microwave ovens or freezers influences meat and seafood expenditure while WS, OP and MA reflect lifestyles-working housekeepers, one-parent families and meals obtained away from home. The education level of the housekeeper was included as a proxy variable to account for the nutritional awareness of the housekeeper. This variable was incorporated as a dummy variable rather than a continuous variable after examination of the tabulated data: the only relationship shown in the tabulated data was higher expenditure on red meat by households whose housekeeper had less than five years of secondary education. The education variable was set up to identify this group. The income variable is weekly gross household income or, where relevant, total expenditure on meat and seafood prepared at home.

#### (d) Total meat and seafood purchases

The aim of the first stage of the analysis was to test the influence of various household characteristics on total expenditure on household meat and seafood purchases and to assess the validity of several of the issues raised by previous cross-section work. For example, there is a question of whether households with a working housekeeper purchase less meat and seafood than households with a non-working housekeeper.

On theoretical considerations, the appropriate technique for modelling household expenditure on meat and seafood purchases is a systems approach including expenditure on other food items and other commodity groups. Because the data necessary for this approach were not available from the survey, a Box-Cox transformation model has been applied. This type of model has been used in earlier demand studies (BAE 1967, 1970; Haidacher, Craven, Huang, Smallwood and Blaylock 1982).

A semi-log formulation of this model was employed, both on theoretical grounds and because of data limitations. The influence of household income on food expenditure was hypothesised to decline as income increases. A

Table B1: VARIABLES USED IN HOUSEHOLD PURCHASES ANALYSIS

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Age of housekeeper

A1 is 1 if age of housekeeper is 15-24; 0 otherwise  
A2 is 1 if age of housekeeper is 25-34; 0 otherwise  
A3 is 1 if age of housekeeper is 35-44; 0 otherwise  
A4 is 1 if age of housekeeper is 45-64; 0 otherwise  
A5 is 1 if age of housekeeper is 65 or more; 0 otherwise

Household composition

CH is number of household members 0-14 years  
AD is number of household members 15 years and over

Birthplace of housekeeper and length of residence

OS is 1 if the housekeeper was not born in Australia, New Zealand, Canada or the United States; 0 otherwise(a)  
LR is  $1/R+1$  if OS = 1 (R is years of residence); 0 if OS = 0(a)  
B1 is 1 if housekeeper born in the United Kingdom or Ireland; 0 otherwise(b)  
B2 is 1 if housekeeper born in Northern Europe; 0 otherwise(b)  
B3 is 1 if housekeeper born in Eastern Europe; 0 otherwise(b)  
B4 is 1 if housekeeper born in Southern Europe; 0 otherwise(b)  
B5 is 1 if housekeeper born in Asia; 0 otherwise(b)  
B6 is 1 if housekeeper not born in Australian and B1 to B5 are 0;  
0 otherwise

Socio-economic characteristics

M is 1 if household owns a microwave oven; 0 otherwise  
F is 1 if household owns a freezer; 0 otherwise  
WS is 1 if housekeeper works or studies full time outside the home;  
0 otherwise  
OP is 1 for a one-parent household; 0 otherwise  
MA is the ratio of meals obtained away from home to total meals eaten(b)  
ED is 1 if education level of the housekeeper is primary school level or below; 0 otherwise  
C is 1 for a Melbourne household; 0 for a Sydney household  
Inc is weekly gross household income(b)  
Exp is weekly total expenditure on meat and seafood for preparation of meals at home

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(a) Variables not used in total meat and seafood analysis. (b) Variables not used in analysis of individual meat categories.

double log model could not be applied because of zero values for several continuous variables.

The model was estimated using household expenditure on meat and seafood purchases as the dependent variable. Demographic and social variables were included using linear demographic translating. Demographic scaling was not used because with a single cross-section sample this technique can lead to identification problems (Deaton 1986). In addition, Lewbel (1986) has shown that an additively separable utility function is both a necessary and a sufficient condition for demographic scaling to be justified theoretically. This study did not meet this condition. Household expenditure is typically related to disposable income. While the ideal proxy for this would be total household expenditure, gross household income was used as a proxy for household expenditure as it was the only information on income collected. The income of the household, the number of adults and children in the household and the proportion of meals obtained away from home were included in the model, being hypothesised to be the principal determinants of household expenditure. Other variables included were dummy variables for the age, birthplace, education level and working status of the housekeeper, for one-parent households and for city. Dummy variables were also included for the presence of a microwave oven or home freezer. The reference category for the age variables was A4 (45-64 years).

The model was initially estimated using ordinary least squares, using weights normalised to  $N = 690$ , and tested for heteroskedasticity. The sample was restricted to households which provided reliable income data. As the Breusch-Pagan test (Breusch and Pagan 1979) indicated the presence of heteroskedasticity of the form  $\sigma^2 = h(z_1'b)$ , the model was re-estimated using generalised least squares. Variables A2, A3 and A5, OP, WS, ED, B6 and F were found to be insignificant, based on individual t-statistics and a joint Wald test, and so they were subsequently dropped from the model. Although the income variable was also found to be insignificant, it was retained due to collinearity between the income and the intercept terms. All other variables were significant at least at the 10 per cent level. The final model is shown below, with t statistics in parentheses.

$$\begin{aligned}
 (3) \quad \text{Exp} = & -60.5 + 122.0 \ln \text{Inc} + 448.5 \text{AD} + 193.8 \text{CH} - 299.1 \text{A1} \\
 & (-0.18) \quad (1.88) \quad (8.80) \quad (4.24) \quad (-2.38) \\
 & - 687.1 \text{MA} + 291.3 \text{B1} - 386.8 \text{B2} + 882.8 \text{B3} + 597.1 \text{B4} \\
 & (-2.55) \quad (1.95) \quad (-1.89) \quad (3.20) \quad (2.65) \\
 & + 962.5 \text{B5} + 172.3 \text{C} + 250.4 \text{M}. \\
 & (3.49) \quad (2.05) \quad (2.17) \\
 & \text{Buse's } R^2 = 0.33.
 \end{aligned}$$

Buse's  $R^2$  takes account of the adjustment made for heteroskedasticity. The usual goodness of fit measure is inappropriate in this instance (Buse 1973).

As expected the income and the size and composition of the household have an influence on expenditure on household meat and seafood. The implied income elasticity of expenditure on meat and seafood was 0.07. Expenditure per adult was twice that per child. Expenditure on household purchases of meats and seafood was reduced as the proportion of meals obtained away from home increased.



Households with a housekeeper aged 15-24 years spent less on household meat and seafood purchases than other households; those with a housekeeper born in Northern Europe spent less than households with an Australian or New Zealand born housekeeper. Households with a housekeeper born in the United Kingdom or Ireland, Eastern or Southern Europe, or Asia spent more on meat and seafood purchases than Australian and New Zealand households.

Melbourne households spent more on household meat and seafood purchases than Sydney households (possibly due to higher prices in Melbourne) and households owning a microwave oven also spent more. The education level and the working status of the housekeeper were not significant determinants of expenditure on meat and seafood purchases.

(e) Expenditure on various types of meat and seafood

. Systems estimation

An attempt was made to model the demand for meat and seafood types so as to determine what household characteristics affect the allocation of total meat expenditure between meat and seafood types. Expenditure elasticities for particular meat and seafood types were calculated so that relative income effects could be considered.

Modellers of Australian meat demand have taken one of three approaches. Early studies (for example, Marceau 1967) specified and estimated meat types individually using an ad hoc approach. Other studies (for example, Main, Reynolds and White 1976), have estimated demand for meat types jointly using a systems approach, but have not explicitly utilised demand theory in formulating the model. Recent studies (Reynolds 1978; Fisher 1979; Wales and Woodland 1983; Murray 1984) have formulated demand systems based on utility theory. This study takes an utility theory approach. Single equation regressions were also estimated for comparison purposes.

Price elasticities are meaningless with constant prices, so the associated restrictions of symmetry, homogeneity, and negative semi-definiteness of the substitution matrix do not have to be considered in this system. The adding-up constraint associated with the budget constraint is still relevant. The model to be estimated is:

$$(4) \quad w_i = a_i + b_i \ln M$$

where  $w_i$  is expenditure share of the  $i$ th good and  $M$  is total expenditure on meat and seafood. Models of this type are discussed by Deaton (1986). The adding-up constraint requires  $\sum a_i = 1$  and  $\sum b_i = 0$ . Marshallian demand curves and subsequent budget shares are obtained for this system from a translog reciprocal indirect utility function using Roy's identity.

This system is appealing for a meat expenditure system because it does not imply additivity. The linear expenditure system was also estimated so that results could be directly compared with the earlier study by Wales and Woodland (1983). For this reason demographic characteristics were incorporated into the models using the method of demographic translating applied in the Wales and Woodland study. It is assumed that the demographic characteristics are linear functions of the  $a_i$  and  $c_i$  parameters respectively (where  $c_i$  parameters are constant terms in the linear expenditure system) and that:

$$(5) \quad \sum_{i=1}^n a_{ij} = 0 \quad \text{and} \quad \sum_{i=1}^n c_{ij} = 0, \quad \text{for all } j$$

$$\sum_{i=1}^n a_{i0} = 1 \quad \text{and} \quad \sum_{i=1}^n c_{i0} = 0$$

so that the adding-up condition is not violated.

Estimation problems and procedure. The use of microdata can introduce complex estimation problems when a large proportion of households did not consume a particular meat category during the survey period. The model is a censored regression model, because the dependent variable is truncated to the left of zero, and this must be taken into account in specifying the density function. Deaton (1986) points out that zeros frequently occur simply because items were not purchased during a short survey period. Of the 822 households in the sample, 94 did not purchase beef and veal, 263 did not purchase lamb, 550 did not purchase pork, 264 did not purchase poultry, 299 did not purchase seafood and 230 did not purchase from the other meats category. Because of the high proportion of zero purchases, particularly of pork, if least squares estimation were applied to each equation or if a Seemingly Unrelated Regressions approach were taken using all the observations then biased estimates would result. Biased estimates would also occur if only positive observations of each meat category were used (Amemiya 1984).

Wales and Woodland (1983) have estimated a meat demand system specifying the likelihood function by mapping the density lying outside the unit simplex onto its boundary. As this approach requires complex integration it is only computationally feasible up to a three-equation system (Deaton 1986). Lee and Pitt (1983) suggest an approach that uses virtual prices to transform binding constraints into non-binding ones. Their method is no simpler computationally and so would be burdensome to apply to a larger system. To isolate factors that influence demand for the particular meat types being considered it is necessary to estimate a larger system than three equations, so neither of these methods could realistically be applied.

This study applies a Tobit-style approach to a Zellner's System of Seemingly Unrelated Regressions using a variant of Heckman's two-step estimator. Tobit-style methods are discussed by Amemiya (1984) and Maddala (1983).

The model is:

$$(6) \quad y_{1i}^* = X_{1i} B_1 + u_{1i}$$

$$y_{ji}^* = X_{ji} B_j + u_{ji}$$

$$y_{ni}^* = X_{ni} B_n + u_{ni}$$

where  $y_{ji}$  is  $y_{ji}^*$  if  $y_{ji}^* > 0$ , and 0 if  $y_{ji}^* \leq 0$  for all  $i = 1, \dots, T$  and  $j = 1, \dots, n$ .

Heckman's procedure can be applied in two forms. The usual procedure uses only the positive observations for the dependent variable but includes another component in the regression to overcome the selectivity bias. Each equation becomes:

$$(7) \quad y_{ji} = X_{ji}B_j + \sigma_j u \frac{f(w)}{F(w)}_i + u_{ji}$$

where  $f(w)$  is a density function and  $F(w)$  is a cumulative distribution function.

Heckman assumed  $u \sim \text{i.i.d. } N(0, \sigma^2)$  and so applied the probit model to the dichotomous variable, to obtain consistent estimates of  $w$ . In this case, because of software problems the logistic distribution was used. Amemiya (1981) notes that probit and logit models give similar results and that it is difficult to distinguish between the two models statistically.

The  $n$ th equation in the system is redundant because of the adding-up condition. It can be derived as a residual from the estimated Seemingly Unrelated Regressions system.

The Seemingly Unrelated Regressions system in stacked form becomes:

$$(8) \quad \begin{bmatrix} y_1 \\ \vdots \\ \vdots \\ \vdots \\ \vdots \\ \hat{y}_{n-1} \end{bmatrix} = \begin{bmatrix} x_1:P_1, & 0, & 0, & \dots, & 0 \\ 0, & x_2:P_2, & \dots, & & 0 \\ 0, & 0, & x_3:P_3, & \dots, & 0 \\ 0, & 0, & 0, & \dots, & x_{n-1}:P_{n-1} \end{bmatrix} \begin{bmatrix} B_1 \\ \vdots \\ \tilde{\sigma}_1 \\ \vdots \\ B_{n-1} \\ \tilde{\sigma}_{n-1} \end{bmatrix} + \begin{bmatrix} u_1 \\ \vdots \\ \vdots \\ \vdots \\ u_{n-1} \end{bmatrix}$$

for  $y_{ji} > 0$  and  $P_i = \frac{f(w)}{F(w)}_i = \Pr(y_{ji} = 0)$ .

The estimates from this procedure will not be as efficient as the true maximum likelihood estimates. The approach, however, is computationally feasible, estimates the demand equations as a system, and takes account of zero expenditures in the  $n - 1$  estimated equations.

The alternative form of Heckman's procedure that uses all the observations was also estimated using a method of Maddala's (Maddala 1983). The model, however, showed an unacceptably high level of multicollinearity given that the purpose of the study was to make inferences about demographic variables, and so results are not presented.

A nested model procedure was used to test the significance of the demographic and social variables. The initial maintained hypothesis was set up to include variables from all categories of characteristics. The Heckman's two-step procedure was repeated at each stage so that appropriate

probabilities could be used in each equation in the restricted model and the new maintained model. The first stage included all observations, so weights were normalised to  $N = 822$ . In the second stage only households which had expenditures on all six meat categories could be included, to satisfy the adding-up constraint, so weights were normalised to  $N = 100$ . Wald test statistics based on the system variance-covariance matrix were computed for each separate group of characteristics tested.

System results. The model was estimated as detailed in equation (4). The null hypothesis, that the explanatory variables have no effect on the shares of meat expenditure, was accepted for all variables except household size.

Wales and Woodland (1983) estimated a linear expenditure meat demand system with beef and veal, lamb and 'other meats' categories using data from the Bureau's 1964-65 Household Meat Consumption Survey. As their study aggregated poultry, seafood and 'other meats' and focused on the household head rather than the housekeeper, their results are not strictly comparable with those of the present study. Wales and Woodland found, as did this study, that household size variables, while significant, did not have a large effect on the pattern of consumption of various types of meat. However, they found a significant difference between consumption patterns of native-born Australians and of immigrants. They found that new immigrants initially ate less lamb and beef than Australian-born households, but increased expenditure on these meats as their length of residence increased. The present study did not find these factors significant. The difference between the Wales and Woodland results and those of the present study may reflect the different immigration pattern of the last 20 years, with a shift away from European based immigration towards Asian. If the European and Asian migrant groups consume different meat and seafood types the net effect may not be significantly different from the consumption pattern of Australian-born consumers. Also, the Wales and Woodland study did not include social characteristics as explanatory variables so they did not test for their effect. When the linear expenditure system was estimated with the 1984 data the null hypothesis, that the explanatory variables have no effect on the composition of meat consumption, was accepted for all variables except household size, possession of microwave oven and working housekeeper.

Final coefficient estimates for the expenditure share model

$$w_i = a_{i0} + \sum_{j=1}^2 a_{ij} d_j + b_i \ln \text{Exp}$$

are presented in table B2. An example is given to show how these results are interpreted.

Example. For a given level of expenditure on meat and seafood an additional child under 15 will increase the share of total meat and seafood expenditure spent on beef and veal by 0.04 per cent and 'other meat' by 2.96 per cent, while the share spent on lamb, pork, poultry and seafood will decline by 0.9 per cent, 0.8 per cent, 0.8 per cent and 0.5 per cent respectively.

While household size and composition affect expenditure shares significantly, the proportions involved are small. These results are consistent with the Wales and Woodland study. Other demographic and social characteristics do not significantly affect the shares of meat expenditure.

Table B2: EXPENDITURE SHARE MODEL COEFFICIENTS(a)

	Constant	CH	AD	ln Exp
Beef and veal	0.171 (0.313)	0.001 (0.012)	0.001 (0.011)	0.021 (0.038)
Lamb	0.744 (0.684)	-0.009 (0.010)	0.012 (0.009)	-0.074 (0.073)
Pork	1.299 (1.535)	-0.008 (0.006)	0.004 (0.005)	-0.108 (0.132)
Poultry	-1.356 (0.484)	-0.008 (0.009)	-0.010 (0.008)	0.174 (0.054)
Seafood	0.690 (1.162)	-0.005 (0.009)	-0.009 (0.008)	-0.055 (0.113)
Other meat	-0.548	0.030	0.002	0.042

Note: Variables are defined in table B1. Figures in parentheses are standard errors.

Table B3: LINEAR EXPENDITURE SYSTEM COEFFICIENTS(a)

Category	Constant	CH	AD	M	WS	Exp
Beef and veal	0.513 (0.170)	0.019 (0.058)	0.149 (0.051)	0.102 (0.155)	0.034 (0.146)	0.115 (na)
Lamb	0.592 (0.141)	-0.052 (0.035)	0.073 (0.032)	0.133 (0.094)	-0.185 (0.088)	0.003 (na)
Pork	0.945 (0.185)	-0.013 (0.027)	0.021 (0.024)	0.077 (0.071)	-0.050 (0.067)	0.000 (na)
Poultry	-2.440 (0.296)	-0.222 (0.085)	-0.163 (0.072)	-0.079 (0.218)	-0.081 (0.205)	0.740 (na)
Seafood	0.896 (0.171)	-0.002 (0.034)	0.038 (0.028)	-0.044 (0.090)	0.123 (0.086)	0.000 (na)
Other meat	-0.506	0.270	-0.118	-0.189	-0.159	0.142

na Not available.

Note: Variables are defined in table B1. Figures in parentheses are standard errors.

Table B3 presents the final coefficient estimates for the linear expenditure system

$$q_i = (c_{i0} - b_i \sum c_j) + \sum_{j=1}^4 c_{ij} d_j + b_i \text{Exp}, 0 < b_i < 1$$

to enable direct comparisons to be made with the Wales and Woodland study. In this system, an increase in the number of children under 15 will increase household expenditure on beef and veal, and 'other meats', while expenditure on lamb, pork and poultry and seafood will fall. These results also show that the effects are small.

Although demographic variables had no significant effect on the pattern of meat expenditure, the social variables possession of a microwave oven and working housekeeper are significant influences in this model.

Although the two demand systems are not directly comparable, because the expenditure share model assumes weak separability while the linear expenditure system assumes strong separability and additivity, the directions of change derived from both models are the same for all categories except the other meats group and seafood.

Expenditure elasticities for the two demand systems are reported in table B4. The null hypothesis, that total meat and seafood expenditure does not affect the shares of individual meat categories in expenditure, was tested with the initial model, which included all variables, as the maintained hypothesis. Wald test statistics were 41.6 for the expenditure share model and 3036.8 for the linear expenditure system distributed as  $\chi^2_5 [\chi^2_5 (0.05) = 11.07]$ . For the share model, this indicates that expenditure elasticities differ significantly from one.

Table B4 also presents expenditure elasticities from other meat demand studies. Ryan, Wales and Woodland (1982) converted income elasticities from earlier studies to expenditure elasticities. Care needs to be taken in comparing elasticities, as the meat categories do not correspond across studies. The elasticities for beef and lamb computed from the share system are approximately the same as those obtained from the other cross-section studies. For poultry, both the share system and linear expenditure system give an expenditure elasticity greater than 1. Comparing the elasticities with elasticities from time-series studies, the pork elasticity in the linear expenditure model is about the same as in the Fisher (1979) study. Although it might appear that the additivity assumption associated with the linear expenditure system has an adverse effect on expenditure elasticities, a set of preferences with a Gorman polar form was also used by Ryan, Wales and Woodland.

These results indicate that the expenditure elasticity for poultry is higher than for red meats. Within the red meat category, beef has the highest expenditure elasticity, followed by lamb. Pork may be an inferior good, with a negative elasticity in the share model and an elasticity of approximately zero in the linear expenditure system. No inferior goods are possible in the linear expenditure system with the constraint  $0 < b_i < 1$  that must be applied to expenditure parameters.

Table B4: COMPARISON OF EXPENDITURE ELASTICITIES(a)

Analysis	Beef and veal	Lamb	Pork	Poultry	Seafood	Other meat
BAE (1970)						
- Melbourne	1.105	0.421	0.632(b)	0.737		
BAE (1967)						
- combined Sydney	1.080	0.600				
Ryan, Wales and Woodland (1982)(c)						
- Melbourne	1.077	0.641				
- Sydney recalls	0.990	0.673				
- Sydney dairy	0.836	0.674				
1984 Household Meat Consumption Survey						
- Expenditure share system(d)	1.057	0.574	-1.156	2.183	0.551	1.345
- Linear expenditure system(d)	0.317	0.017	0.000	5.031	0.000	1.158
- Single equation estimation(d)	1.154	0.879	-3.451	1.693	0.469	1.002
Fisher (1979)	0.93	0.16	0.07	0.34		
Murray (1979)	0.93 to 1.36	0.76 to 0.85	1.06 to 1.73	-0.49 to 1.34		

(a) Care needs to be taken in comparing elasticities as the meat categories do not correspond across studies. (b) Includes smallgoods. (c) Using the 1967 and 1970 BAE survey data, as appropriate. (d) For the share model and single equation estimation, expenditure elasticities are derived as  $1 + b_i/w_i$ . The elasticities for the linear expenditure system model are given by the ratio of the marginal budget share to the average budget share,  $b_i/\bar{w}_i$ .

#### Single equation estimation

In this section, individual meat and seafood categories were estimated separately to allow for the possibility that the system as estimated may not be completely representative of the entire sample. The results from the single equation approach cannot be directly compared with those from the systems approach, nor interpreted in the same way, because the adding-up constraints can no longer hold. The equations were estimated in share form.

All demographic variables (household size, age structure, birthplace and education) and social characteristics (one-parent family, working housekeeper, possession of microwave oven or freezer) were included initially as possible explanatory variables. Variables which were insignificant, based on individual t-statistics, were dropped and a joint F-test was performed. The F statistics are reported with each equation. The preferred censored regressions obtained using the Heckman procedure are presented in table B5.

Table B5: CENSORED REGRESSIONS FOR SINGLE EQUATION ESTIMATION OF EXPENDITURE SHARES(a)

Beef and veal

$$w_1 = -0.058 - 0.0411 F + 0.033 C + 0.005 OS - 0.574 LR + 0.056 \ln \text{Exp} \\ (-0.415) (-2.359) (2.139) (0.240) (-3.500) (3.085) \\ + 0.807 \text{Pr}(y_i < 0) \\ (6.938)$$

$$\bar{R}^2 = 0.0872 (F = 1.96 \sim F_{9, 712})$$

Lamb

$$w_2 = 0.234 + 0.013 CH - 0.118 OS - 0.375 LR + 0.062 A2 + 0.066 A3 \\ (1.128) (1.625) (-4.587) (-2.148) (1.726) (1.858) \\ + 0.086 A4 + 0.121 A5 - 0.021 \ln \text{Exp} + 0.514 \text{Pr}(y_i < 0) \\ (2.348) (2.674) (-0.945) (4.575)$$

$$\bar{R}^2 = 0.21 (F = 1.21 \sim F_{6, 558})$$

Pork

$$w_3 = 2.260 + 0.030 CH + 0.118 M + 0.229 OP + 0.070 C - 0.014 OS + 0.274 LR \\ (8.431) (3.753) (4.327) (4.151) (4.260) (-0.694) (2.409) \\ - 0.223 \ln \text{Exp} - 0.790 \text{Pr}(y_i < 0) \\ (-8.908) (-5.525)$$

$$\bar{R}^2 = 0.34 (F = 0.528 \sim F_{7, 256})$$

Poultry

$$w_4 = -0.688 - 0.041 CH + 0.015 AD + 0.086 OP + 0.053 OS + 0.248 LR \\ (-2.294)(-4.180) (2.541) (3.548) (2.911) (2.475) \\ - 0.178 A2 - 0.114 A3 - 0.154 A4 - 0.134 A5 - 0.105 ED - 0.068 WS \\ (-4.858) (-3.654) (-4.830) (-4.379) (-3.510) (-3.929) \\ + 0.102 \ln \text{Exp} + 1.022 \text{Pr}(y_i < 0) \\ (2.682) (6.228)$$

$$\bar{R}^2 = 0.27 (F = 0 \sim F_{2, 544})$$

(Continued on next page)



Table B5 (continued)

Seafood

$$w_5 = 0.535 - 0.076 \text{ OP} + 0.070 \text{ OS} + 0.190 \text{ LR} - 0.065 \ln \text{ Exp}$$

$$(3.785)(-2.793) \quad (3.828) \quad (1.642) \quad (-4.360)$$

$$+ 0.373 \text{ Pr}(y_i < 0)$$

$$(3.770)$$

$$\bar{R}^2 = 0.27 \quad (F = 0.948 \sim F_{10, 507})$$

Other meat

$$w_6 = 0.149 - 0.013 \text{ AD} - 0.049 \text{ C} + 0.014 \text{ OS} + 0.235 \text{ LR} + 0.0003 \ln \text{ Exp}$$

$$(1.476)(-2.474) \quad (-2.249) \quad (0.928) \quad (2.294) \quad (0.023)$$

$$- 0.040 \text{ Pr}(y_i < 0)$$

$$(-0.628)$$

$$\bar{R}^2 = 0.03 \quad (F = 0.912 \sim F_9, 576)$$

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(a) t-statistics are shown in parentheses.

Note: Variables are defined in table B1.

Expenditure elasticities for the single equation estimation are shown in table B4. The elasticities from this approach are comparable to those obtained from the expenditure share system approach, so the results of the single equation approach are consistent with the conclusions drawn from the systems approach. Minor differences may be due to the violation of the adding-up constraint implicit in the single equation approach. These results also agree with the conclusion that the effect of demographic and social variables is small.

The main difference in the results from the different approaches was in the effect of birthplace of the housekeeper on consumption patterns. Direct comparisons, however, between the approaches cannot be made as the adding-up constraints do not hold in the single equation approach.

B2 Meals Obtained Away from Home(a) Introduction

Earlier studies have suggested that a trend toward eating away from home may be reducing demand for meat (Weeks and Reeves 1983; McKinna et al 1984). However, there has been no earlier quantitative study of demand for meals away from home. In this study the demand for meals obtained away from home (including 'take-away' meals served and eaten at home) and expenditure on meals obtained away from home were modelled. The data from the 1984 Household Meat Consumption Survey were used to assess what impact various socio-economic and demographic characteristics of Australian households have

on the demand for meals obtained away from home and expenditure on meals obtained away from home. Issues addressed in this analysis were:

- what impact the income and composition of a household have on the proportion of meals obtained away from home and expenditure on these meals;
- whether the education level of the housekeeper influences these meal habits;
- whether households with a young housekeeper have higher demand for meals obtained away from home;
- whether households with a housekeeper working or studying obtain more meals away from the home; and
- whether the demand for meals obtained away from home and expenditure on these meals differ between households in Sydney and Melbourne and between households of different backgrounds.

(b) Econometric issues

Two stages in the demand for meals obtained away from home were identified for analysis, as characteristics may differ in importance in influencing the proportion of meals obtained away from home and the level of expenditure on these meals. A two-stage budgeting procedure is assumed to be undertaken by each household, as described in section B1. Both the proportion of meals obtained away from home and the level of expenditure on meals obtained away from home were modelled in single equations. Since cross-section data were used, it is assumed that prices were constant over the survey period and that households within each city had the choice of purchasing at the same price.

(c) Data

The survey data were weighted to take account of non-response and to ensure representativeness with regard to the populations of Sydney and Melbourne. These survey weights were used in the analysis, after being appropriately normalised to the actual number of observations used to fit a particular regression.

The demographic and socio-economic characteristics that were hypothesised to affect household demand for meals obtained away from home and expenditure on meals obtained away from home are detailed in table B6. Gross household income, used as a proxy for household expenditure (see section B1), was included in each model in logarithmic form under the hypothesis that the demand for meals obtained away from home increases at a declining rate as income increases. Household size was split into adults and children to reflect differences in household composition. Age of the housekeeper was included to assess whether demand for meals away from home changes as the household ages. This variable was tested both as a set of dummy variables and as a continuous variable, the latter form being accepted based on the coefficients of the dummy variables. The number of persons in the household who work was hypothesised to influence the number of meals obtained away from home. Whether the housekeeper works (or studies) was also included as an explanatory variable under the hypothesis that if the housekeeper works fewer meals will be prepared within the home. The education level of the housekeeper was included as a single dummy variable

Table B6: VARIABLES USED IN 'MEALS OBTAINED AWAY FROM HOME' ANALYSIS

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Inc is weekly gross household income  
PMA is proportion of meals obtained away from home  
MA is number of meals obtained away from home  
Exp is weekly expenditure on meals obtained away from home in cents (1984 values)  
Age is age of housekeeper  
CH is number of household members 0-14 years  
AD is number of household members 15 years and over  
Emp is number of employed household members  
WS is 1 if housekeeper works or studies full time; 0 otherwise  
ED is 1 if the education level of the housekeeper is four years' secondary school or below; 0 otherwise  
B1 is 1 if housekeeper born in the United Kingdom or Ireland; 0 otherwise  
B2 is 1 if housekeeper born in Northern Europe; 0 otherwise  
B3 is 1 if housekeeper born in Eastern Europe; 0 otherwise  
B4 is 1 if housekeeper born in Southern Europe; 0 otherwise  
B5 is 1 if housekeeper born in Asia; 0 otherwise  
B6 is 1 if housekeeper not born in Australia and B1 to B5 are 0; 0 otherwise  
C is 1 for Melbourne household; 0 for Sydney household

---

after testing of various forms of representation. The city in which the household resides was included as a dummy variable to account for differences in lifestyles and price levels between the two cities. The birthplace of the housekeeper was also included as one of six dummy variables, to account for cultural differences in lifestyles.

(d) Demand for meals obtained away from home

The proportion of household meals obtained away from home was regressed against all variables listed in table B6, using Heckman's two-step estimation technique because there were many zero purchases (see section B1). Demographic and socio-economic variables were included using linear demographic translating (see section B1). After an initial run of the model two of the birthplace variables, B1 and B3, and C, the city, were found to be insignificant on the basis of individual t-statistics and a joint Wald test. These variables were subsequently removed and the model re-estimated. The income variable was retained in the final model although it was insignificant because of a multicollinearity problem with the intercept term. Final model results are presented in equation (9).

$$(9) \quad PMA = 26.4 + 1.2 \ln Inc - 1.7 AD - 3.5 CH - 0.4 Age + 2.3 Emp$$

$$(5.33)(1.39) \quad (-2.62) \quad (-6.75) \quad (-6.02) \quad (2.30)$$

$$+ 5.5 \text{ WS} + 2.7 \text{ ED} - 6.5 \text{ B2} - 4.7 \text{ B4} - 7.3 \text{ B5}$$

$$(3.80) \quad (2.43) \quad (-1.88) \quad (-1.99) \quad (-2.75)$$

$$- 9.3 \text{ B6} + 17.8 \text{ Pr}(Y_i < 0).$$

$$(-2.59) \quad (1.59)$$

$$\bar{R}^2 = 0.31.$$

The mean proportion of meals obtained away from home was 17.4 per cent. The implied income elasticity of the demand for meals obtained away from home was 0.07. An increase in the size of the household decreases the proportion of meals obtained away from home. This effect is twice as strong for an increase in the number of children than for an increase in the number of adults. Working members of the household tend to increase the proportion of meals away from home. The proportion of meals obtained away from home decreases as the age of the housekeeper rises but is positively correlated with the level of education of the housekeeper and is higher in households where the housekeeper works or studies. Households with a housekeeper born in Northern or Southern Europe, Asia or an unspecified country purchase fewer meals away from home than households with a housekeeper born in Australia or New Zealand, the United Kingdom or Ireland or in Eastern Europe.

(e) Expenditure on meals obtained away from home

Expenditure on meals obtained away from home was regressed against all variables listed in table B6 again using Heckman's two-step estimation technique and linear demographic translation of demographic and socio-economic variables. After the initial run of the model the variables Age, Emp, WS, ED and B1 to B6 were found to be insignificant on the basis of individual t-statistics and a joint Wald test. These variables were removed from the model and the model re-estimated. Final model results are presented in equation (10).

$$(10) \quad \text{Exp} = -4195.5 + 870.1 \ln \text{Inc} + 478.7 \text{ AD} - 297.3 \text{ CH} - 515.6 \text{ C}$$

$$(-5.39) \quad (6.41) \quad (5.76) \quad (-3.53) \quad (-2.96)$$

$$+ 112.6 \text{ MA} - 267.6 \text{ Pr}(Y_i < 0).$$

$$(14.67) \quad (-0.43)$$

$$\bar{R}^2 = 0.47.$$

The mean expenditure on meals obtained away from home was \$27.58 a week. The implied income elasticity of the demand for meals obtained away from home was 0.32. Expenditure is also influenced by the composition of the household and the city. Adults have a positive influence on expenditure while children have a negative influence. Expenditure on meals obtained away from home is also lower for households in Melbourne than in Sydney.

### B3 Differences in Meat Demand Between Younger and Older Households

#### (a) Introduction

In this study the demand for meat and seafood purchased for preparation of meals at home, in total, and demand for red meat are modelled to assess the hypothesis that the household demand for meat, particularly red meat, will decline as present younger generations replace the present older generations.

Recent survey work (McKinna Et Al 1984) identified a relationship between the age of the housekeeper and the quantity and type of meat consumed in the household. Older households were found to consume more fish and red meat (excluding veal) than younger households. The difference was greatest for pork and lamb. In contrast, veal, poultry and game were more heavily consumed by young households. From this relationship and other findings of the David McKinna Et Al survey, its authors concluded that the market for meat, particularly red meat, is significantly biased toward older households. That is, older households consume significantly more meat than younger households. Following from this, the authors suggested that, as the present younger generations become the older generations, the demand for meat, and particularly the demand for red meat, is likely to decline.

This conclusion implies that there exists some structural difference between the demand for meat from the members of the young households and that from the members of the older households. For the consumption of meat to decline, this difference would have to be lasting, so that as present young consumers aged they would continue to demand less meat than their elders. In the social sciences, this type of difference is termed a cohort difference (Rentz, Reynolds and Stout 1983).

A cohort is any group of individuals who are related by some common feature, usually time of birth (Glenn 1981). Differences in the behaviour of cohorts may arise because any particular historical event affects all the cohorts at a different stage of their development and hence may shape their behaviour in different ways (Rentz and Reynolds 1980).

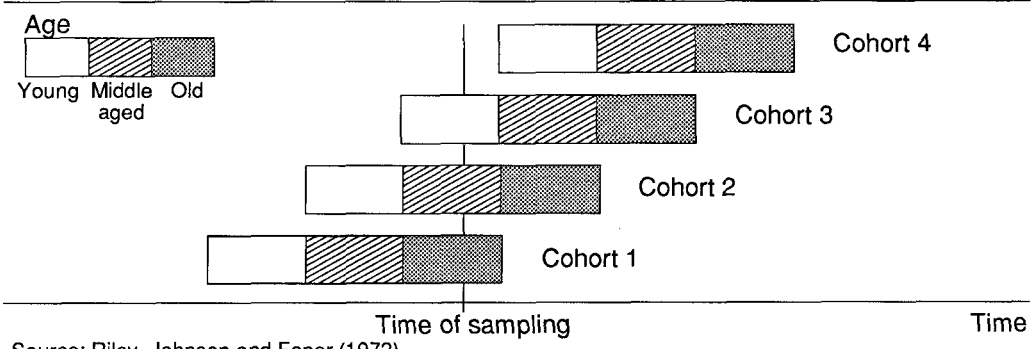
An alternative hypothesis would be that there exists a positive lifecycle consumption pattern for meat - that the observed relationship between age of the housekeeper and expenditure may be explained by the changing size, composition and income of the household as it ages as well as by possible changes in tastes and attitudes. The objective of this analysis is to determine the relative importance of cohort and lifecycle factors for meat consumption.

#### (b) A note on the analysis of cross-section data

In the analysis of households using cross-section data, it is implicitly assumed that households in the cross-section sample are homogeneous (De Vega and Fisher 1983). Often, however, this assumption is not valid. The type of heterogeneity caused by cohort effects is often overlooked. Figure B1 illustrates how this type of heterogeneity enters data obtained by cross-section sampling. The vertical line represents the time of sampling. As well as obtaining a cross-section of age groups, illustrated by the different shadings, the sample also contains a cross-section of cohorts shown as different bars. Thus, when the researcher uses cross-section data, the lifecycle consumption profile has confounded in it both cohort and

**Figure B1:** The processes of cohort flow and ageing over time

ABARE chart



Source: Riley, Johnson and Foner (1972)

lifecycle effects. Techniques have been developed to account for this type of heterogeneity in the data (Riley, Johnson and Foner 1972).

The main requirement when applying cohort analysis techniques is a data set covering several sets of observations at different times. The basic method of applying cohort analysis is to construct a cohort table (table B7) where each time of observation forms a column and each lifecycle group forms a row. One restriction is that the observation times be equally spaced and that each lifecycle group be specified so that its range is equal to the period between each observation time. Each cohort can then be traced through time along the diagonals of the table.

However, the columns still confound lifecycle and cohort effects, the rows confound cohort and period effects and the diagonals confound lifecycle and period effects (Glenn 1981). In an attempt to quantify the separate effects, Mason, Mason, Winsbourough and Poole (1973) developed a multivariate (dummy variable) analysis technique for modelling the data. The model is of the form shown in equation (11).

$$(11) \quad Y = K + a_1A + b_1P + c_1C + E$$

**Table B7: COHORT TABLE OF REAL WEEKLY HOUSEHOLD EXPENDITURE ON MEATS AND SEAFOOD PURCHASES**

Age group	1967 (P1)	1984 (P2)	Cohort
	\$	\$	
A1 (17-33 years)	7.09	6.72	
A2 (34-50 years)	7.37	7.70	C5
A3 (51-67 years)	8.47	9.90	C4
A4 (68-84 years)	7.24	10.95	C3
			C2
			C1

where K is the grand mean,  $a_i$  represents the effect of the  $i$ th age group,  $b_i$  represents the effect of the  $i$ th period,  $c_i$  represents the effect of the  $i$ th cohort and E is the error term. Other explanatory variables can also be included in this model when analysing the data.

However, in this form the parameters are not estimatable, due to linear dependency among the three effects, that is,  $C = P - A$ . If at least one pair of cohorts, ages or periods are constrained to be equal, the model can be estimated. However, while the estimates vary with the choice of the constraint, the goodness of fit does not; hence selection of the appropriate model on this basis is impossible. Mason et al. (1973) propose that more than this minimum number of constraints be imposed. This would allow the goodness of fit of the model to vary and the most appropriate choice of constraints could be selected according to the goodness of fit of the model.

(c) Data

Data from the BAE Household Meat Consumption Surveys of Melbourne in 1967 (BAE 1970) and 1984 were chosen for the cohort analysis. The data were very limited compared with those normally used for cohort analysis because only two time points were available and the length of time between these samples limited to four the number of age groups available for comparison. This resulted from the requirement that the period between each observation and the size of each age group be equalised. The 1984 survey data were used unweighted to maintain comparability with the earlier data.

To allow for direct comparability between the data sets, expenditure was expressed in 1984 dollars - that is, an adjustment was made for inflation as measured by a food price index of six capital cities.

(d) Expenditure on meat and seafood purchases

To assess the validity of the two hypotheses, a cohort modelling approach similar to that of Mason et al. (1973) and Knoke and Hout (1974) was employed to analyse household expenditure on all meat and seafood purchases, and household expenditure on red meat purchases. Household expenditure was selected as the dependent variable rather than expenditure per person, as better model results were obtained. These results were, however, consistent with those using expenditure per person as the dependent variable.

The minimum number of constraints were applied to the model, and additional explanatory variables - household income, the number of adults and children in the household, the proportion of meals prepared from household food supplies and dummy variables for the birthplace of the housekeeper - were included using linear demographic translating (see section B1). The required constraint was applied to the two oldest age groups. This constraint was selected on the basis that individual analysis of each data set revealed no consistent influence of the age of the housekeeper. The income variable was included in logarithmic form to account for a declining rate of change in expenditure per person as income increases. The original form of this model is shown in equation (12).

$$(12) \quad \text{Exp}_i = K + a_1P2 + b_1A1 + b_2A2 + c_1C1 + c_2C2 + c_3C3 + c_4C4 \\ + d_1 \ln \text{Inc} + d_2AD + d_3CH + d_4MH + d_5B1 + d_6B2 \\ + d_7B3 + d_8B4 + d_9B5 + E.$$

Table B8: VARIABLES USED IN COHORT ANALYSIS

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Exp<sub>1</sub> is weekly expenditure on all meat and seafood for preparation of meals at home, in cents (1984 values)

Exp<sub>2</sub> is weekly expenditure on all red meats for preparation of meals at home, in cents (1984 values)

K is intercept

P1 is 1 if from 1967 sample; 0 otherwise

P2 is 1 if from 1984 sample, 0 otherwise

A1 is 1 if age of housekeeper is 17-33; 0 otherwise

A2 is 1 if age of housekeeper is 34-50; 0 otherwise

A3 is 1 if age of housekeeper is 51-67; 0 otherwise

A4 is 1 if age of housekeeper is 68-84; 0 otherwise

C1 is 1 if A4 is 1 and P2 is 0; 0 otherwise

C2 is 1 if A3 is 1 and P2 is 0, or if A3 is 1 and P2 is 1; 0 otherwise

C3 is 1 if A2 is 1 and P2 is 0, or if A3 is 1 and P2 is 1; 0 otherwise

C4 is 1 if A1 is 1 and P2 is 0, or if A2 is 1 and P2 is 1; 0 otherwise

C5 is 1 if A1 is 1 and P2 is 1; 0 otherwise

Inc is weekly gross household income

CH is number of household members 0-14 years

AD is number of household members 15 years and over

MH is percentage of meals prepared from household food supplies

B1 is 1 if housekeeper born in the United Kingdom or Ireland; 0 otherwise

B2 is 1 if housekeeper born in Northern Europe; 0 otherwise

B3 is 1 if housekeeper born in Eastern Europe; 0 otherwise

B4 is 1 if housekeeper born in Southern Europe; 0 otherwise

B5 is 1 if housekeeper not born in Australia and B1 to B4 are 0; 0 otherwise

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Definitions of the variables in equation (12) are provided in table B8. The observation time, age and cohort dummy variables were measured as deviations from the reference categories, P1, A3 and A4 (constraint) and C1, respectively.

#### All meats and seafoods

After an initial run of the model, P2, A1, A2, B1, B2 and B5 were found to be insignificant and were dropped from the equation. The variables C4 and C5 were also found to be insignificant but were not removed from the model due to instability of the remaining cohort variables and on the basis of a Wald test for significance of the remaining cohort variables. The final estimates and t-statistics are shown in equation (13).



$$\begin{aligned}
 (13) \quad \text{Exp}_1 &= -3420.3 + 249.8 \text{ C2} + 296.9 \text{ C3} + 244 \text{ C4} + 45 \text{ C5} + 334.5 \text{ Ln Inc} \\
 &\quad (-5.55) \quad (1.61) \quad (1.89) \quad (1.46) \quad (-0.24) \quad (5.31) \\
 &+ 436.7 \text{ AD} + 144.3 \text{ CH} + 8.9 \text{ MH} + 715.6 \text{ B4} + 779.2 \text{ B5}. \\
 &\quad (11.70) \quad (4.38) \quad (3.69) \quad (3.26) \quad (6.52) \\
 \bar{R}^2 &= 0.31.
 \end{aligned}$$

The mean expenditure on total meat and seafood purchases was \$21.75 a week. The results suggest that households which currently have a housekeeper aged 50 years or older (C2 and C3) do have a higher level of expenditure on meat and seafood purchases for preparation of meals at home than younger households and this may explain part of the relationship shown in figure 10 (section 3.4). However, the analysis also shows that other factors such as the income and composition of the household, the proportion of meals prepared from household food supplies and other household characteristics are major determinants of expenditure on meat and seafood purchases.

#### Red meat

The variables B2, B4 and B6 were found to be insignificant in explaining household expenditure on red meat purchases and were thus removed from the model. Again C4 and C5 were found to also be insignificant but were retained in the model. Final estimates and t-statistics are shown in equation (14).

$$\begin{aligned}
 (14) \quad \text{Exp}_2 &= -2.315 - 197.4 \text{ P2} + 221.8 \text{ C2} + 214.6 \text{ C3} + 154.9 \text{ C4} \\
 &\quad (-4.91) \quad (-2.68) \quad (1.89) \quad (1.79) \quad (1.17) \\
 &- 130.1 \text{ C5} + 243.2 \text{ ln Inc} + 299.1 \text{ AD} + 125.4 \text{ CH} \\
 &\quad (-0.80) \quad (5.08) \quad (10.43) \quad (4.86) \\
 &+ 5.7 \text{ MH} - 346.1 \text{ B3} + 392.3 \text{ B5}. \\
 &\quad (3.03) \quad (-2.52) \quad (4.33) \\
 \bar{R}^2 &= 0.29.
 \end{aligned}$$

The mean expenditure on total red meat purchases was \$15.36 a week. Again the results of this model suggest older households have a higher demand for red meats, for household food supplies, than younger households, and again other household characteristics are also major determinants of demand. Interestingly, P2 suggests there has been an overall decline in real expenditure on red meats for household food supplies between 1967 and 1984. This decline is most likely related to the large reduction in the price of chicken relative to other meats and the associated increase in the consumption of chicken.

As a test of the relative explanatory power of the cohort and lifecycle variables, the models were run using only the lifecycle and household characteristic variables and, then, only the cohort variables. The  $\bar{R}^2$  values associated with this form of the model were 30 per cent and 28 per cent values respectively for the lifecycle model and only 8 per cent and 10 per cent respectively for the cohort model. This result supports the hypothesis that lifecycle factors and household characteristics are more important determinants of consumption than the cohort effects.

(e) The future for meat and seafood demand

Household meat consumption patterns over the period to 2001 will be affected by changes in the average household income and size of households, changes in the cohort composition of the population, changes in the price of meat relative to other foods and changes in other demographic factors. Assuming that new cohorts reveal consumption patterns similar to the present younger half of the population (C4 and C5), cohort transfer associated with an ageing of the present members of the population will have some negative impact on demand for meat and seafood for household food supplies. However, the negative cohort effects associated with the ageing of present members of the population are likely to be more than offset by an upward trend in household incomes (ABS 1985a) and future population growth (ABS 1985b). Further, due to the availability of only two data observation times it is possible that the cohort effects detected are being caused by other factors not included in the model which also change as the household ages. Other such factors may be attitudes toward meat and other foods and the timing of financial commitments for example, buying a home.

Appendix C

**SURVEY QUESTIONNAIRE AND DIARIES**

The interview conducted with the housekeeper - the person who usually prepares the meals and purchases the food for the household - is reproduced below. Portions which were used for the interviewer's call records have been omitted.

Following this the expenditure diary and the meals diary which were left with the respondent for completion in the subsequent two weeks are reproduced.

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B. INTRODUCTION

Good .... my name is .... from Reark Research, a national market research company. At the moment we are conducting a major survey on behalf of the Bureau of Agricultural Economics into household meat purchasing and consumption.

SHOW LETTER: This letter by the Director of the Bureau of Agricultural Economics explains briefly what this survey is about and why we would like your assistance.  
(Allow respondent time to read letter before proceeding)  
(IF REFUSAL GO TO SECTION G)

SCREEN: For this study, I need to speak to the person here who usually prepares the meals and purchases the food for the household.

(NOTES: 1. Where these two tasks are split, person who prepares meals is Person 1 and to be interviewed.  
2. If both tasks are shared equally either person can be Person 1 and be interviewed.)

REINTRODUCE IF NECESSARY

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C HOUSEHOLD PARTICULARS SECTION

Before proceeding with the actual survey, I need to ask some questions about your household and the people who live in it. This information will be used to provide the meat industry with a detailed cross-section of information on Australian meat consumers. All information you provide will of course be kept "strictly confidential".

Q.1a) Firstly I need to ask you some questions about each person who lives here. To do this, it might be easier if you give me their first name or initial, starting with yourself.

(RECORD NAME OR INITIAL IN SPACE FOR PERSON 1 IN GRID ON NEXT PAGE)

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b) The next person will be your spouse (or defacto partner). What is his first name or initial?

IF NO SPOUSE/DE FACTO PARTNER ASK: Well who is the major income earner in the household?

(RECORD NAME OR INITIAL IN SPACE FOR PERSON 2) (IF NO PERSON 2 WRITE "N/A" IN ALL BOXES FOR PERSON 2)

NOTE: IF PERSON 1 IS THE MAJOR INCOME EARNER THERE WILL BE NO PERSON 2 IN WHICH CASE WRITE "N/A" IN SPACES FOR PERSON 2

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c) And what is the first name or initial of all the other household members who will be residing here over the next two weeks, starting with the oldest and going through to the youngest?

(RECORD NAMES OR INITIALS OF ALL OTHER HOUSEHOLD MEMBERS WHO WILL BE RESIDING IN THE HOUSEHOLD OVER THE NEXT TWO WEEKS) (IF A HOUSEHOLD MEMBER WILL NOT BE THERE FOR ANY MORE THAN SEVEN DAYS OVER THE NEXT TWO WEEKS PLEASE DO NOT INCLUDE THEM HERE)

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Q.2 ASK Q.2a) TO 2g) FOR EACH PERSON IN HOUSEHOLD BEFORE MOVING ONTO NEXT PERSON, Q.2h) TO Q.2m) ARE ONLY TO BE ASKED OF PERSONS 1 AND 2.

a) ASK FOR ALL PEOPLE IN HOUSEHOLD EXCEPT PERSON 1, START WITH PERSON 2. FOR PERSON 1 GO STRAIGHT TO Q.2b)

HAND CARD 1

Let's now talk about (...say next person's name or initial...). Using this card, what is (his/her) relationship to you?  
(RECORD APPROPRIATE CODE IN COLUMN a) BELOW)

b) SEX: IF OBVIOUS RECORD CODE AUTOMATICALLY IN COLUMN b) OTHERWISE ASK:  
What is (...say name/initial...) sex?

c) AGE: And what was (your/their) age last birthday?  
(RECORD "YEARS" IN COLUMN c)

NOTE: ASK Q.2d)e)f)g) BELOW ONLY OF PEOPLE AGED 16 PLUS, OTHERWISE WRITE "N/A"

d) MARITAL STATUS: HAND CARD 2  
Which of the items on this card best describes (your/their) current marital status? (RECORD CODE IN COLUMN d) BELOW)

e) EMPLOYMENT STATUS: HAND CARD 3  
Which of the items on this card best describes (your/their) current employment status?  
(RECORD CODE IN COLUMN e) BELOW)

f) OCCUPATION: ONLY ASK IF IN WORKFORCE  
What type of work do (you/he/she) perform?  
(WRITE IN FULL IN COLUMN f) BELOW)  
PROBE FOR INDUSTRY AND POSITION

g) PAY CYCLE: ASK EVERYONE HAND CARD 4  
Which of these items best describes how often (you/he/she) are/is paid or receive a pension or benefits of any type? (RECORD IN COLUMN g)

NOTE: Q.2h) TO Q.2m) ONLY TO BE ASKED OF PERSONS 1 AND 2, FOR ALL OTHER HOUSEHOLD MEMBERS GO TO Q.2a)

h) EDUCATION LEVEL: HAND CARD 5  
Which of these items best describes the highest educational qualification (you/he/she) has achieved to date? (RECORD IN COLUMN h)

i) CURRENT EDUCATIONAL ENROLMENT: HAND CARD 6  
And which of the items on this card best describes (your/his/her) current educational enrolment status?  
(RECORD IN COLUMN i))

j) BIRTHPLACE: HAND CARD 7  
And in which of the countries on this card were (you/he/she) born? (RECORD IN COLUMN j)BELOW)  
(IF NECESSARY WRITE IN FULL BELOW COLUMN j))

k) LENGTH OF TIME IN AUSTRALIA: ONLY ASK IF BORN OVERSEAS  
How many years have (you/he/she) lived in Australia?  
(RECORD IN COLUMN k)

l) ETHNIC ASSOCIATION: HAND CARD 8  
And with which of these ethnic or cultural groups do (you/he/she) most strongly identify yourself?  
(RECORD IN COLUMN l)) (IF NECESSARY WRITE IN FULL UNDER COLUMN l))

m) RELIGION: HAND CARD 9  
Which item on this card best describes (your/his/her) religious denomination?  
(RECORD IN COLUMN m))

PERSON	FIRST NAME OR INITIAL	a) R/SHIP TO PERSON 1	b) SEX 1=F 2=M	c) AGE LAST B'DAY	d) MARITAL STATUS	e) EMPLOYMENT STATUS	f) TYPE OF WORK NORMALLY PERFORMED	g) PAY CYCLE	h) EDUCATION LEVEL	i) CURRENT EDUCATION ENROL'T	j) BIRTH PLACE	k) LENGTH OF TIME IN AUST	l) ETHNIC ASSOC.	m) RELIGIOUS DENOM
		CODE	CODE	YEARS	CODE	CODE	WRITE IN FULL DESCRIPTION	CODE	CODE	CODE	CODE	YEARS	CODE	CODE
1		N/A												
2														
OTHER														
HOUSEHOLD														
MEMBERS														

IF MORE ROOM NEEDED USE SPACES BELOW

f) Work: Person 1 -----  
Person 2 -----

j) Birthplace: Person 1 -----  
Person 2 -----

l) Ethnic Assoc.: Person 1 -----  
Person 2 -----

m) Religion: Person 1 -----  
Person 2 -----

D. HOUSEHOLD INCOME

Q.3 If the major income earner of the household receives a regular pay on what day or days will a pay day occur over the next two weeks? (CHECK DATE(S) ALSO AND WRITE IN) (IF NONE WRITE IN "NIL")

(IF NOT APPLICABLE WRITE IN "N/A")	DAY	DATE
	PAY ONE	
(IF DON'T KNOW WRITE IN "D.K.")	PAY TWO	

Q.4 HAND CARD 10

I now need to ask about the household income.

Could you please tell me what was the total gross income (before tax) of your household for the 1983/84 financial year to the nearest thousand dollars. Please include all household income ... that is ... income from all household members and all sources such as those listed on that card. (RECORD BELOW)

IF RESPONDENT CANNOT GIVE A FIGURE GO TO Q.5 OTHERWISE GO TO Q.6a)

- \$ .....
- Don't Know ..... 1
- Refused ..... 2

Q.5 ASK ONLY IF NO FIGURE OBTAINED IN Q.4. OTHERWISE GO TO Q.6 HAND CARD 11

Using this card as a guide, could you tell me the approximate gross income range for your household for the 1983/84 year?

	( )		( )
Net Loss .....	1	\$45,000 - \$49,999 ..	11
0 - \$4,999 .....	2	\$50,000 - \$54,999 ..	12
\$5,000 - \$9,999 ....	3	\$55,000 - \$59,999 ..	13
\$10,000 - \$14,999 ..	4	\$60,000 - \$64,999 ..	14
\$15,000 - \$19,999 ..	5	\$65,000 - \$69,999 ..	15
\$20,000 - \$24,999 ..	6	\$70,000 - \$74,999 ..	16
\$25,000 - \$29,999 ..	7	\$75,000 - \$79,999 ..	17
\$30,000 - \$34,999 ..	8	\$80,000 - \$84,999 ..	18
\$35,000 - \$39,999 ..	9	\$85,000 - \$89,999 ..	19
\$40,000 - \$44,999 ..	10	Over \$90,000 .....	20

E. HOUSEHOLD COLD STORAGE AND COOKING FACILITIES

Q.6a) ASK EVERYONE

Do you have the use of a freezing chamber which is part of a refrigerator here?

- Yes ..... 1
- (GO TO Q.7a) No ..... 2

b) IF "YES" IN Q.6a) HAND CARD 12 AND ASK

And which of these items best describes it's size?

- Small ..... 1
- Medium ..... 2
- Large ..... 3

Q.7a) ASK EVERYONE

Do you have the use of a separate home freezer?

- Yes ..... 1
- (GO TO Q.8) No ..... 2

b) IF "YES" IN Q.7a) ASK

And would you describe it as small, medium or large? (IF NECESSARY EXAMINE FREEZER YOURSELF)

- Small ..... 1
- Medium ..... 2
- Large ..... 3

Q.8 ASK EVERYONE

Do you have the use of a microwave oven here?

- Yes ..... 1
- No ..... 2

F. MEAT EATING HABITS

Now I'd like to ask you some questions about the household's meat eating habits.

Q.9a) Firstly I'm going to read out a list of different types of meats. As I read out each one please tell me whether your household has or has not eaten that meat in the last two years.  
(RECORD BELOW IN COLUMN a) FOR EACH ONE)

b) FOR EACH ONE NOT EATEN IN Q.9a) ASK

What reason or reasons are there for not eating  
(... SAY NAME OF MEAT NOT EATEN ...)  
in your household in the last two years?  
(RECORD BELOW IN COLUMN b) FOR EACH ONE NOT EATEN)

c) ASK FOR EACH MEAT EATEN IN Q.9a)

For each of those meats that your household has eaten in the last two years I'd like you to tell me whether your household now eats more, the same or less of that meat compared to two years ago?  
(RECORD IN COLUMN c) BELOW)

d) CHECK ANSWER TO Q.9c) IF "MORE" OR "LESS" EATEN ASK FOR EACH ONE

What reason or reasons are there for eating (more/less) of (SAY MEAT) in your household compared with two years ago?  
(WRITE IN REASONS IN COLUMN d) BELOW)

NOW GO TO Q.9c) ON TOP RIGHT SIDE OF PAGE

MEAT TYPE	a) ( ) EATEN		b) ( ) REASONS FOR NOT EATING IN LAST 2 YEARS	CODE COLUMN FOR b)	c) ( ) NOW EAT C/W 2 YEARS AGO			d) ( ) REASONS FOR EATING MORE OR LESS C/W 2 YEARS AGO	CODE COLUMN FOR d)
	YES	NO			MORE	SAME	LESS		
Beef ( )	1	2			1	2	3		
Veal ( )	1	2			1	2	3		
Lamb ( )	1	2			1	2	3		
Mutton/ Hoggett ( )	1	2			1	2	3		
Pork ( )	1	2			1	2	3		
Poultry ( )	1	2			1	2	3		
Offal ( )	1	2			1	2	3		
Fish ( )	1	2			1	2	3		

NOW GO TO SECTION H: DIARY COMPLETION PROCEDURES EXPLANATION

# EXPENDITURE DIARY

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## HOW TO COMPLETE THIS DIARY

This diary contains three sections:

1. Fresh and frozen meat
2. Canned, preserved or other meat
3. Other food

These sections should be completed on a daily basis by filling in the appropriate information for each purchase.

### Food obtained without payment

Where food is obtained without cost, e.g. eggs from a friend or vegetables from the garden, please indicate these items along with other food purchases and give an estimate of their retail value in the 'Amount Spent' column.

### Points to remember

1. Record only **food expenditure** in this diary.  
You may need to check with other household members for details of any food they may have purchased for the household. A household member is any person who will reside in your household for the entire diary period.
2. **Do not** record expenditure on food purchased and eaten away from home in this diary.
3. **Meat includes poultry, fish and seafood.** A list of some of the more common cuts of meat is provided.
4. Obtain **weight and price** information from the **butcher or the supermarket wrapper for each piece of meat purchased.** A *weight conversion table* is provided.
5. Record expenditure for each item **separately.**

If you have any difficulties in completing this diary and would like assistance, please telephone Rerak Research on 212 2822 in Sydney or 240 8733 in Melbourne during office hours and ask for the field department.

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## SOME COMMON CUTS OF MEAT

TYPE OF MEAT	CUT OF MEAT		
<b>Beef</b>	Steak—T-bone	<b>Lamb</b> <b>Mutton/hogget</b>	Chop—leg
	—sirloin		—chump
	—fillet		—shortloin
	—rump		—neck
	—topside		Cutlet
	—blade		Roast—leg
	—round		—shoulder
	—chuck		—ribloin (crown)
	—skirt		Forequarter
	Roast—sirloin		Side
	—rib		Whole carcass
	—topside		<b>Pork</b>
	Silverside		Chop—leg
	Brisket		—loin
	Mince		—foreloin
Sausage	—rump		
Side	—forequarter		
Hindquarter	Steak—leg		
Whole carcass	—butterfly		
<b>Veal</b>	Steak	—rump	
	Chops	—fillet	
	Cutlets	Roast—leg	
	Roast—leg	—shoulder	
	—shoulder	Spare ribs	
	—round	Mince	
	Side	Sausages	
	Hindquarter	Side	
	Whole carcass	Whole carcass	
	<b>Offal</b>	Heart	<b>Poultry</b>
Tripe		Chicken	
Kidney		Turkey	
Liver		<b>Fish</b>	
Brains		na	
Tongue		<b>Seafood</b>	
Oxtail		na	
		<b>Game</b>	
		na	
		<b>Bacon</b>	
	na		
	<b>Ham</b>		
	na		
	<b>Smallgoods</b>		
	na		

## CONVERSION TABLE

pounds to grams

lb	oz	kg.g
	8	.225
1		.450
1	8	.675
2		.900
2	8	1.130
3		1.360
3	8	1.585
4		1.810
4	8	2.040
5		2.270
5	8	2.495
6		2.720
6	8	2.945
7		3.170
7	8	3.400
8		3.630
8	8	3.855
9		4.080
9	8	4.305
10		4.530









## MEALS DIARY

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### HOW TO COMPLETE THIS DIARY

#### MEALS PREPARED AT HOME

This includes all meals prepared at home and taken to work, school or elsewhere. **Do not** include meals obtained away from home but eaten at home.

Q.1 and Q.2 Include **both** household members and guests. **Always** complete this section. Use a zero to indicate where no meals are eaten.

Q.3 (a) to (e) A list of common meat cuts is provided on the cover flap of this diary. **Meat includes poultry, fish and seafood.** Where more than one meat is eaten at a meal, enter details for the main meat(s).

#### MEALS OBTAINED AWAY FROM HOME

This includes all meals obtained away from home even if they were taken home to be served and eaten. **Do not** include meals prepared at home but eaten away from the home.

Q.1 and Q.2 Include only household members; **do not** include guests. Always complete this section. Use a zero to indicate where no meals are eaten.

Q.3 Indicate the approximate total cost of **all food** obtained away from home at this meal time. (Include all food and drink).

Q.4 This includes 'family restaurants' such as McDonalds, Pizza Hut, Kentucky Fried Chicken etc.

#### FREEZER RECORD

Record all meat placed in or taken from your fridge-freezer or separate home freezer in this table. If there is insufficient space for all entries, there is an additional table provided at the end of this diary.

**Note that** the date is required in that table.

Record the weight in grams or kilograms of all meat placed in or removed from the freezer. Where actual weights are not available, please indicate weight as accurately as possible. If necessary, describe the quantity concerned, e.g. 4 medium lamb leg chops. Tick the appropriate column to indicate whether meat was placed in the freezer or removed from the freezer.

#### MEAT FED TO PETS

Record all meat (**not canned or leftovers** from a meal) fed to pets in this table. This may include meat not fit for human consumption.

#### Points to remember

1. Meat includes poultry, fish and seafood.
2. A **separate page** is provided for **each day** of the diary period.
3. You may need to **check with other household members** for details of meals eaten at or away from home. A household member is any person who will reside in your household for the entire diary period. Any other person should be included as a **guest of your household**.
4. A **spare** diary page and freezer record is provided at the **end** of the diary.

If you have any difficulties in completing this diary and would like assistance please telephone Reark Research on 212 2822 in Sydney or 240 8733 in Melbourne during office hours and ask for the field department.

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# DAILY RECORD OF MEALS

Day \_\_\_\_\_ Date / /

## MEALS PREPARED AT HOME

MORNING MIDDAY EVENING

1. No. of **adults** (15 years and over) who consumed a meal prepared at home. No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
2. No. of **children** (under 15 years) who consumed a meal prepared at home. No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
3. If **meat** was eaten by anyone at this meal indicate:
  - (a) **How many** people ate meat (adults and children)? No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
  - (b) What was the main **type(s)** of meat eaten? (see cover flap) \_\_\_\_\_
  - (c) What **cut(s)** of meat was this? (see cover flap) \_\_\_\_\_
  - (d) How was this meat **prepared**?  
 Fried Grilled Cold BBQ'd  
 Stewed Hot roast Other (specify) \_\_\_\_\_
  - (e) If a **microwave oven** was used to prepare the meat, was it used to defrost, reheat and/or cook the meat? (Tick the appropriate box or boxes)
 

<input type="checkbox"/>	Defrost	<input type="checkbox"/>	Defrost	<input type="checkbox"/>	Defrost
<input type="checkbox"/>	Reheat	<input type="checkbox"/>	Reheat	<input type="checkbox"/>	Reheat
<input type="checkbox"/>	Cook	<input type="checkbox"/>	Cook	<input type="checkbox"/>	Cook

OFFICE USE ONLY 

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## MEALS OBTAINED AWAY FROM HOME

MORNING MIDDAY EVENING

1. No. of **adults** (15 years and over) who consumed a meal obtained away from home. No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
2. No. of **children** (under 15 years) who consumed a meal away from home. No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
3. What was the **total cost** of this purchase(s)? (include food and drinks). \$ \_\_\_\_\_ \$ \_\_\_\_\_ \$ \_\_\_\_\_
4. If any **meat** was eaten at this meal indicate:
  - (a) **How many** people ate each of the following meats?
    1. Lamb or mutton No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    2. Beef or veal No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    3. Pork No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    4. Poultry No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    5. Fish or seafood No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    6. Other meat No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
  - (b) **How many** people ate a meal obtained from each place?
    1. Fast food store/cafe No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    2. Restaurant No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    3. Canteen/sandwich bar No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    4. Hotel/club No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    5. Another home No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_
    6. Other No. \_\_\_\_\_ No. \_\_\_\_\_ No. \_\_\_\_\_

## DAILY RECORD OF FREEZER DEPOSITS/WITHDRAWALS

## DAILY RECORD OF MEAT FED TO PETS (excluding canned)

TYPE OF MEAT	CUT OF MEAT	OFFICE USE ONLY	ESTIMATED WEIGHT (a) kg • g	PLACED IN (tick) TAKEN OUT	TYPE OF MEAT	CUT OF MEAT	OFFICE USE ONLY	ESTIMATED WEIGHT kg • g

(a) A conversion table from pounds to kilograms is provided on the cover flap. If exact weight is unknown use an estimate of weight or a description of the number of items and their size.



# EXAMPLE

## MORNING

In the morning the Jackson family ate at different times. Mrs Jackson and her eldest two children had bacon and sausages, while Mr Jackson and his youngest son had cereal and toast for breakfast.

## EVENING

In the evening the whole family ate together. Mrs Jackson took a chicken out of the freezer and used her microwave oven to defrost and cook the chicken. Even the cat ate well with 250 g of fresh heart.

## MIDDAY

Mrs Jackson and her children had cold roast sirloin sandwiches for lunch while Mr Jackson had tuna and beef sandwiches and a drink, costing \$2.60 at the work canteen.

### DAILY RECORD OF MEALS

Day *Friday* Date *28/9/84*

#### MEALS PREPARED AT HOME

	MORNING	MIDDAY	EVENING
1. No. of <b>adults</b> (15 years and over) who consumed a meal prepared at home.	No. <i>2</i>	No. <i>1</i>	No. <i>2</i>
2. No. of <b>children</b> (under 15 years) who consumed a meal prepared at home.	No. <i>3</i>	No. <i>3</i>	No. <i>3</i>
3. If <b>meat</b> was eaten by anyone at this meal indicate:			
(a) <b>How many</b> people ate meat (adults and children)?	No. <i>3</i>	No. <i>4</i>	No. <i>5</i>
(b) What was the main <b>type(s)</b> of meat eaten? (see cover flap)	<i>bacon/beef</i>	<i>beef</i>	<i>poultry</i>
(c) What <b>cut(s)</b> of meat was this? (see cover flap)	<i>na/sausages</i>	<i>sirloin roast</i>	<i>chicken</i>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>OFFICE USE ONLY</b>			
(d) How was this meat <b>prepared</b>			
Fried Grilled Cold BBQ'd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stewed Hot roast Other (specify)	<i>fried</i>	<i>cold</i>	<i>hot roast</i>
(e) If a <b>microwave oven</b> was used to prepare the meat, was it used to defrost, reheat and/or cook the meat? (Tick the appropriate box or boxes)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### MEALS OBTAINED AWAY FROM HOME

	MORNING	MIDDAY	EVENING
1. No. of <b>adults</b> (15 years and over) who consumed a meal obtained away from home.	No. <i>0</i>	No. <i>1</i>	No. <i>0</i>
2. No. of <b>children</b> (under 15 years) who consumed a meal away from home	No. <i>0</i>	No. <i>0</i>	No. <i>0</i>
3. What was the <b>total cost</b> of this purchase(s)? (include food and drinks).	\$	\$ <i>2.60</i>	\$
4. If any <b>meat</b> was eaten at this meal indicate:			
(a) <b>How many</b> people ate each of the following meats:			
1. Lamb or mutton	No.	No.	No.
2. Beef or veal	No.	No. <i>1</i>	No.
3. Pork	No.	No.	No.
4. Poultry	No.	No.	No.
5. Fish or seafood	No.	No. <i>1</i>	No.
6. Other meat	No.	No.	No.
(b) <b>How many</b> people ate a meal obtained from each place?			
1. Fast food store/cafe	No.	No.	No.
2. Restaurant	No.	No.	No.
3. Canteen/sandwich bar	No.	No. <i>1</i>	No.
4. Hotel/club	No.	No.	No.
5. Another home	No.	No.	No.
6. Other	No.	No.	No.

#### DAILY RECORD OF FREEZER DEPOSITS/WITHDRAWALS

#### DAILY RECORD OF MEAT FED TO PETS (excluding canned)

TYPE OF MEAT	CUT OF MEAT	OFFICE USE ONLY	ESTIMATED WEIGHT (a) kg + g	PLACED IN (tick) TAKEN OUT	TYPE OF MEAT	CUT OF MEAT	OFFICE USE ONLY	ESTIMATED WEIGHT kg + g
<i>poultry</i>	<i>chicken</i>		<i>1.600</i>	<input checked="" type="checkbox"/>	<i>offal</i>	<i>heart</i>		<i>250</i>
			.					.
			.					.
			.					.

(a) A conversion table from pounds to kilograms is provided on the cover flap. If exact weight is unknown use an estimate of weight or a description of the number of items and their size.

## Appendix D

### STATISTICAL TABLES OF SURVEY DATA

The tables in this appendix can be classified into four sections:

- . Tables D1 to D3 show average expenditure and purchase patterns for the 1984 survey and changes in the distribution of household food expenditure and meat and seafood purchases since the 1960s.
- . Tables D4 to D27 present detailed expenditure and purchase data according to selected characteristics of the household.
- . Tables D28 to D37 contain data on meal habits of households both at home and away from the home.
- . Tables D38 to D39 present respondent attitudes to different meats and their perceived changes in consumption over the last two years.

All data from the 1984 survey have been weighted to be representative of the population of Sydney and Melbourne. An explanation of the weighting process is provided in appendix A. Data from the earlier surveys were deemed self weighting.

Relative standard errors are provided with all 1984 data, expressed as percentages of the estimates. Relative standard errors may be interpreted as follows: if the relative standard error of an estimate is 5.0 per cent then if a population census were taken rather than a sample there would be a 95 per cent chance that the census value would be within plus or minus 2 times 5.0 per cent of the sample estimate.

Because some households did not complete all the required data sets, the maximum feasible data set was used for each type of table in order to obtain the most efficient estimates. Due to the use of different samples, some averages, for example, income, may have different values in different tables.



Table D1: AVERAGE HOUSEHOLD WEEKLY EXPENDITURES ON MEATS AND OTHER FOOD PURCHASES, BY CITY

Item	Sydney			Melbourne			Both cities		
	Amount spent	Weight	Price	Amount spent	Weight	Price	Amount spent	Weight	Price
	\$	g	\$/kg	\$	g	\$/kg	\$	g	\$/kg
Beef	6.43 (5.2)	1 490 (6.0)	4.31 (3.2)	6.91 (6.9)	1 662 (11.5)	4.16 (3.3)	6.65 (4.3)	1 569 (6.4)	4.24 (3.2)
Veal	0.87 (18.0)	159 (22.6)	5.48 (7.2)	0.51 (15.9)	96 (18.1)	5.36 (7.4)	0.71 (13.1)	130 (16.1)	5.44 (7.3)
Lamb	3.08 (7.2)	1 013 (8.1)	3.04 (2.4)	3.32 (6.4)	1 130 (6.3)	2.94 (2.5)	3.19 (4.8)	1 067 (5.1)	2.99 (2.5)
Pork	1.02 (11.8)	239 (13.0)	4.25 (4.1)	1.04 (10.7)	249 (11.1)	4.17 (4.2)	1.03 (8.0)	243 (8.6)	4.21 (4.1)
Offal	0.19 (20.0)	76 (18.8)	2.53 (6.1)	0.18 (17.1)	63 (14.6)	2.84 (5.4)	0.19 (13.4)	70 (12.5)	2.66 (5.8)
Other red meat	0.05 (37.6)	20 (41.0)	2.25 (20.6)	0.03 (35.1)	6 (37.8)	4.52 (10.2)	0.04 (27.8)	14 (33.8)	2.69 (17.2)
Total red meat	11.63 (4.4)	2 996 (5.1)	3.88 (2.1)	11.98 (5.0)	3 206 (7.3)	3.74 (2.2)	11.79 (3.3)	3 093 (4.4)	3.81 (2.2)
Poultry	3.00 (13.2)	945 (10.3)	3.18 (3.1)	2.87 (7.2)	891 (7.0)	3.22 (3.0)	2.94 (8.0)	920 (6.5)	3.20 (3.0)
Canned meat, excluding fish	0.19 (17.2)	39 (17.6)	4.87 (5.1)	0.22 (13.6)	44 (15.3)	5.01 (4.9)	0.20 (11.0)	41 (11.7)	4.94 (5.0)
Bacon and ham	0.94 (9.3)	150 (10.0)	6.27 (3.1)	1.15 (9.4)	180 (9.5)	6.38 (3.0)	1.04 (6.6)	164 (6.9)	6.33 (3.0)
Smallgoods	0.58 (11.7)	128 (11.5)	4.53 (6.9)	0.99 (11.7)	214 (17.1)	4.64 (6.8)	0.77 (8.4)	167 (11.1)	4.59 (6.8)
Other meat and undefined	0.21 (25.3)	56 (27.6)	3.69 (10.5)	0.10 (19.1)	30 (20.3)	3.35 (11.6)	0.16 (18.7)	44 (19.9)	3.59 (10.8)
Fish	1.71 (7.9)	359 (8.6)	4.78 (4.3)	2.21 (12.3)	424 (10.1)	5.23 (3.9)	1.95 (7.5)	389 (6.7)	5.01 (4.1)
Other seafood	0.39 (26.6)	49 (25.1)	8.03 (8.9)	0.32 (41.8)	35 (33.3)	9.35 (7.6)	0.36 (23.3)	42 (20.0)	8.53 (8.4)
Total meat and seafood	18.66 (4.6)	4 721 (4.9)	3.95 (1.9)	19.85 (4.4)	5 022 (5.9)	3.95 (1.9)	19.21 (3.2)	4 860 (3.8)	3.95 (1.9)
Fruit and vegetables	10.34 (4.4)			9.94 (4.2)			10.15 (3.1)		
Eggs	1.43 (5.8)			1.61 (4.6)			1.52 (3.7)		
Cheese	1.91 (6.7)			2.36 (5.5)			2.12 (4.3)		
Bread	3.26 (4.7)			3.25 (5.5)			3.25 (3.6)		
Milk	3.75 (4.8)			3.80 (6.0)			3.77 (3.8)		
Frozen food	2.53 (12.5)			1.96 (8.8)			2.26 (8.3)		
Other food groceries	19.97 (4.9)			19.94 (4.7)			19.96 (3.4)		
Total food	61.84 (4.0)			62.70 (3.8)			62.24 (2.8)		

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D2: HOUSEHOLD WEEKLY EXPENDITURES ON MEATS AND OTHER FOOD PURCHASES AS PROPORTIONS OF TOTAL EXPENDITURE ON FOOD PURCHASES, AND COMPARISON WITH PREVIOUS SURVEYS

Item	Sydney		Melbourne	
	1964-65(a)	1984	1967(a)	1984
	%	%	%	%
Beef	10.5	10.4 (4.0)	10.9	11.0 (5.2)
Veal	0.9	1.4 (18.0)	1.5	0.8 (15.8)
Lamb	6.9	5.0 (7.3)	7.0	5.3 (5.2)
Mutton	0.7	-	0.8	-
Pork	1.1	1.6 (11.8)	1.7	1.7 (11.5)
Offal	0.4	0.3 (19.3)	0.5	0.3 (17.4)
Other red meat	0.0	-	0.0	-
Total red meat	20.5	18.8 (3.6)	22.4	19.1 (3.3)
Poultry	2.0	4.9 (11.1)	3.2	4.6 (5.6)
Canned meat, excluding fish	0.2	0.3 (17.1)	0.3	0.4 (13.2)
Bacon and ham	1.5	1.5 (7.9)	1.8	1.8 (8.3)
Smallgoods	1.6	0.9 (11.1)	1.2	1.6 (11.5)
Other meat and undefined	0.1	0.3 (25.0)	0.1	0.2 (19.7)
Fish	2.0	2.8 (7.6)	1.5	3.5 (12.0)
Other seafood	0.2	0.6 (25.7)	0.1	0.5 (41.6)
Total meat and seafood	28.1	30.2 (2.5)	30.7	31.7 (2.3)
Fruit and vegetables	15.7	16.7 (3.0)	13.6	15.9 (2.6)
Eggs	4.2	2.3 (4.8)	3.9	2.6 (3.4)
Cheese		3.1 (6.2)		3.8 (4.3)
Bread(b)	6.3	5.3 (3.0)	6.1	5.2 (3.1)
Milk(c)	8.2	6.1 (3.5)	8.4	6.1 (4.2)
Frozen food		4.1 (10.5)		3.1 (7.9)
Other food groceries(d)	37.5	32.3 (2.5)	37.2	31.8 (2.4)

(a) Relative standard errors not available for this data.

(b) Includes other bakery products for the 1964-65 and 1967 surveys. (c) Includes cream for the 1964-65 and 1967 surveys.

(d) Includes cheese and frozen foods for the 1964-65 and 1967 surveys. - Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D3: HOUSEHOLD PURCHASES OF MEATS AND SEAFOODS AS PROPORTIONS OF TOTAL QUANTITY OF MEAT AND SEAFOOD PURCHASED, AND COMPARISON WITH PREVIOUS SURVEYS(a)

Item	Sydney		Melbourne	
	1964-65(a)	1984	1967(a)	1984
	%	%	%	%
Beef	37.9	31.6 (3.7)	32.3	33.1 (6.9)
Veal	2.8	3.4 (22.5)	4.0	1.9 (18.8)
Lamb	28.8	21.5 (6.9)	27.4	22.5 (5.1)
Mutton	3.8	0.3 (51.6)	4.0	-
Pork	3.8	5.1 (12.7)	5.4	5.0 (11.6)
Offal	1.9	1.6 (18.0)	2.4	1.3 (14.7)
Other red meat	0.0	0.1 (65.3)	0.0	0.1 (49.2)
Total red meat	79.2	63.5 (2.7)	75.5	63.8 (2.5)
Poultry	6.0	20.0 (7.3)	11.4	17.8 (4.9)
Canned meat, excluding fish	0.6	0.8 (17.1)	0.9	0.9 (15.6)
Bacon and ham	2.5	3.2 (8.6)	3.3	3.6 (8.7)
Smallgoods	4.6	2.7 (11.2)	3.4	4.3 (14.5)
Other meat and undefined	0.4	1.2 (27.1)	0.6	0.6 (21.1)
Fish	6.1	7.6 (8.7)	4.9	8.4 (11.7)
Other seafood	0.5	1.0 (25.6)	0.2	0.7 (34.1)

(a) Relative standard errors not available for this data.

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D4: AVERAGE WEEKLY EXPENDITURES PER PERSON ON HOUSEHOLD PURCHASES OF MEATS AND OTHER FOODS, ACCORDING TO GROSS INCOME PER PERSON

Item	Unit	Gross income per person						All households
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over	Not stated	
Number of households	no.	186	141	122	107	117	176	849
Household size	no.	3.45 (8.4)	3.08 (8.7)	3.10 (10.5)	2.75 (14.2)	1.75 (11.1)	3.18 (7.4)	2.92 (3.0)
Gross income per person	\$	3 350 (8.3)	6 000 (8.9)	8 310 (10.2)	12 010 (10.1)	23 720 (13.1)		10 270 (6.4)
<b>Beef</b>								
- Dearer steak	\$	0.62 (16.4)	0.82 (16.7)	0.86 (19.6)	0.85 (16.2)	1.19 (22.6)	1.14 (16.6)	0.91 ( 7.2)
- Other steak	\$	0.44 (15.4)	0.50 (18.1)	0.44 (23.5)	0.96 (23.7)	0.85 (26.5)	0.71 (16.7)	0.63 ( 8.0)
- Roast	\$	0.29 (18.3)	0.18 (23.4)	0.40 (20.7)	0.33 (27.8)	0.26 (29.7)	0.25 (26.4)	0.28 ( 9.0)
- Mince	\$	0.32 (13.1)	0.57 (33.8)	0.47 (36.2)	0.38 (20.7)	0.52 (27.5)	0.43 (16.8)	0.44 (10.0)
- Sausage	\$	0.27 (14.8)	0.26 (18.0)	0.32 (45.5)	0.29 (17.6)	0.21 (26.1)	0.34 (19.5)	0.28 ( 9.1)
- Other and undefined	\$	0.03 (51.8)	0.06 (62.6)	0.02 (47.9)	-	0.03 (52.6)	0.20 (55.7)	0.06 (35.1)
Total	\$	1.97 (9.6)	2.40 (13.8)	2.50 (21.2)	2.80 (15.4)	3.06 (15.6)	3.07 (12.2)	2.61 ( 4.1)
<b>Veal</b>								
- Steak	\$	0.17 (44.6)	0.16 (28.3)	0.10 (41.7)	0.05 (38.8)	0.08 (36.6)	0.20 (36.0)	0.14 (16.9)
- Chops and cutlets	\$	0.07 (46.1)	0.05 (41.5)	0.22 (79.7)	0.03 (58.0)	0.06 (94.1)	0.04 (42.7)	0.08 (34.7)
- Other and undefined	\$	0.05 (52.9)	0.04 (50.3)	0.10 (75.8)	0.11 (59.2)	0.05 (60.5)	0.01 (67.2)	0.06 (27.9)
Total	\$	0.28 (31.8)	0.25 (20.6)	0.42 (49.7)	0.20 (40.7)	0.19 (37.1)	0.26 (29.6)	0.27 (14.7)
<b>Lamb</b>								
- Chops and cutlets	\$	0.55 (15.3)	0.54 (20.9)	0.76 (19.2)	0.81 (16.3)	0.66 (20.9)	0.79 (12.7)	0.67 (5.6)
- Roast	\$	0.32 (17.1)	0.31 (30.1)	0.42 (21.7)	0.28 (26.7)	0.45 (33.9)	0.36 (20.9)	0.36 (10.1)
- Other and undefined	\$	0.18 (28.2)	0.18 (29.8)	0.19 (34.3)	0.21 (41.8)	0.10 (43.3)	0.26 (33.3)	0.19 (12.8)
Total	\$	1.04 (12.0)	1.04 (17.5)	1.36 (15.8)	1.31 (16.0)	1.21 (19.1)	1.41 (13.8)	1.22 (5.1)
<b>Pork</b>								
- Steak and chops	\$	0.18 (26.0)	0.20 (24.4)	0.18 (29.5)	0.20 (38.9)	0.15 (36.0)	0.23 (23.0)	0.19 (11.3)
- Roast	\$	0.08 (55.7)	0.05 (42.8)	0.02 (63.0)	0.08 (48.6)	0.16 (50.7)	0.11 (30.8)	0.09 (20.9)
- Sausage	\$	0.02 (49.5)	0.06 (61.8)	0.03 (42.4)	0.01 (48.2)	0.06 (44.3)	0.08 (26.7)	0.05 (20.6)
- Other and undefined	\$	0.06 (47.6)	0.03 (53.4)	0.09 (37.5)	0.02 (54.6)	0.08 (35.4)	0.05 (38.1)	0.05 (17.4)
Total	\$	0.35 (25.7)	0.34 (24.2)	0.32 (22.9)	0.30 (30.1)	0.45 (25.9)	0.47 (16.3)	0.38 (8.9)

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Table D4 (continued)

Item	Unit	Gross income per person						All households
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over	Not stated	
Offal	\$	0.08 (29.0)	0.09 (41.4)	0.05 (34.5)	0.07 (36.1)	0.11 (49.3)	0.10 (40.8)	0.08 (17.8)
Other red meat	\$	0.03 (53.4)	-	0.01 (86.8)	0.02 (54.8)	-	0.01 (58.2)	0.01 (29.8)
Total red meat	\$	3.75 (9.2)	4.13 (12.2)	4.66 (16.3)	4.70 (12.9)	5.02 (13.4)	5.31 (11.3)	4.56 (3.3)
Poultry	\$	0.88 (13.7)	1.09 (15.4)	1.10 (21.0)	1.15 (15.9)	1.19 (19.8)	1.31 (18.1)	1.11 (6.9)
Canned meat, excluding fish	\$	0.06 (22.0)	0.06 (24.5)	0.08 (71.3)	0.11 (42.3)	0.11 (31.4)	0.10 (24.8)	0.09 (14.4)
Bacon and ham	\$	0.30 (15.2)	0.32 (16.3)	0.46 (22.9)	0.36 (20.7)	0.38 (17.7)	0.44 (17.9)	0.37 (6.7)
Smallgoods	\$	0.23 (21.2)	0.31 (21.2)	0.30 (30.9)	0.24 (21.3)	0.22 (21.6)	0.27 (27.5)	0.26 (8.5)
Other meat and undefined	\$	0.06 (38.4)	0.05 (47.1)	0.02 (47.3)	0.06 (43.7)	0.10 (58.3)	0.08 (40.5)	0.06 (23.2)
Fish	\$	0.51 (12.2)	0.61 (19.8)	0.73 (17.3)	0.73 (15.1)	1.50 (33.1)	0.82 (14.7)	0.81 (11.5)
Other seafood	\$	0.09 (32.8)	0.04 (38.7)	0.18 (53.7)	0.08 (44.7)	0.61 (61.0)	0.07 (31.1)	0.18 (35.8)
Total meat and seafood	\$	5.87 (8.9)	6.62 (10.4)	7.53 (16.2)	7.43 (11.5)	9.12 (16.7)	8.41 (10.6)	7.44 (3.7)
Fruit and vegetables	\$	2.84 (10.4)	3.79 (9.8)	4.58 (13.8)	4.39 (12.2)	5.19 (11.2)	3.84 (10.1)	4.01 (3.4)
Eggs	\$	0.47 (9.6)	0.57 (14.0)	0.64 (14.9)	0.52 (12.8)	0.69 (15.7)	0.62 (12.8)	0.58 (4.3)
Cheese	\$	0.65 (15.1)	0.67 (12.9)	0.87 (17.4)	0.79 (13.6)	1.08 (13.3)	0.83 (12.8)	0.81 (5.0)
Bread	\$	1.07 (8.8)	1.18 (9.7)	1.31 (15.0)	1.09 (11.2)	1.24 (12.5)	1.09 (8.5)	1.16 (3.4)
Milk	\$	1.20 (9.4)	1.30 (9.9)	1.39 (13.4)	1.15 (12.2)	1.53 (21.9)	1.24 (9.3)	1.30 (5.0)
Frozen food	\$	0.58 (13.0)	0.93 (21.7)	0.94 (21.1)	0.71 (16.3)	0.96 (26.4)	0.78 (14.5)	0.80 (8.5)
Other food groceries	\$	6.69 (10.1)	6.76 (13.2)	7.80 (12.5)	8.07 (12.7)	8.15 (12.5)	7.44 (10.1)	7.41 (3.5)
Total food	\$	19.38 (8.4)	21.81 (9.4)	25.08 (13.3)	24.16 (10.6)	27.97 (11.9)	24.25 (9.0)	23.51 (2.9)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D5: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO GROSS INCOME PER PERSON

Item	Unit	Gross income per person						All households
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over	Not stated	
Number of households	no.	186	141	122	107	117	176	849
Household size	no.	3.45 (8.4)	3.08 (8.7)	3.10 (10.5)	2.75 (14.2)	1.75 (11.1)	3.18 (7.4)	2.92 (3.0)
Gross income per person	\$	3 350 (8.3)	6 000 (8.9)	8 310 (10.2)	12 010 (10.1)	23 720 (13.1)		10 270 (6.4)
<b>Beef</b>								
- Dearer steak	g	103 (16.7)	132 (18.9)	137 (23.1)	121 (14.9)	189 (23.3)	181 (16.5)	144 (7.6)
- Other steak	g	95 (14.7)	117 (20.3)	97 (20.4)	219 (25.2)	164 (24.1)	142 (17.0)	135 (7.7)
- Roast	g	65 (18.4)	40 (24.2)	103 (25.3)	72 (28.2)	48 (30.8)	55 (27.6)	62 (9.7)
- Mince	g	95 (13.2)	142 (27.4)	136 (32.5)	91 (19.8)	150 (27.1)	128 (19.6)	123 (9.3)
- Sausage	g	92 (13.9)	88 (17.2)	170 (60.2)	100 (21.9)	63 (26.2)	126 (26.2)	105 (14.7)
- Other and undefined	g	6 (44.6)	14 (63.5)	41 (76.5)	1 (100.0)	72 (87.2)	49 (68.2)	31 (42.3)
Total	g	456 (8.9)	534 (13.9)	684 (30.4)	603 (16.4)	686 (17.8)	681 (14.3)	600 (5.9)
<b>Veal</b>								
- Steak	g	32 (55.0)	24 (30.3)	12 (47.0)	6 (36.1)	11 (35.5)	25 (31.6)	20 (21.1)
- Chops and cutlets	g	14 (45.3)	9 (37.1)	34 (74.9)	6 (59.8)	24 (96.5)	8 (47.5)	16 (34.7)
- Other and undefined	g	11 (56.0)	8 (49.9)	8 (74.9)	31 (67.4)	8 (57.3)	2 (56.4)	12 (31.1)
Total	g	57 (36.1)	41 (21.3)	64 (49.3)	43 (51.0)	43 (55.7)	36 (25.2)	47 (16.6)
<b>Lamb</b>								
- Chops and cutlets	g	157 (15.3)	144 (20.0)	204 (18.0)	237 (20.4)	166 (20.6)	247 (13.1)	190 (5.5)
- Roast	g	94 (16.7)	87 (28.8)	154 (27.0)	86 (23.4)	110 (31.2)	98 (21.9)	104 (9.0)
- Other and undefined	g	84 (26.0)	106 (30.9)	110 (33.6)	106 (36.9)	49 (49.1)	156 (34.2)	102 (12.9)
Total	g	334 (11.8)	337 (16.6)	468 (17.7)	430 (16.5)	326 (18.4)	500 (16.2)	395 (5.3)
<b>Pork</b>								
- Steak and chops	g	38 (24.4)	50 (24.7)	32 (28.0)	32 (34.1)	25 (29.3)	37 (21.7)	36 (10.6)
- Roast	g	18 (51.2)	15 (45.4)	9 (67.7)	18 (50.8)	36 (54.3)	28 (30.5)	21 (20.1)
- Sausage	g	7 (47.2)	16 (54.1)	12 (45.1)	4 (48.0)	14 (40.9)	22 (28.8)	13 (18.8)
- Other and undefined	g	22 (55.1)	6 (53.8)	22 (43.7)	6 (57.1)	16 (36.4)	12 (39.6)	15 (22.0)
- Total	g	85 (26.3)	88 (24.0)	75 (21.5)	59 (27.8)	91 (27.2)	100 (15.2)	85 (8.9)
Offal	g	26 (29.2)	36 (48.8)	26 (41.6)	28 (35.0)	31 (40.0)	33 (43.3)	30 (16.4)
Other red meat	g	12 (51.1)	1 (100.0)	2 (80.0)	8 (56.4)	1 (100.0)	4 (67.4)	5 (31.2)
Total red meat	g	970 (8.5)	1 036 (12.5)	1 319 (20.9)	1 171 (13.3)	1 178 (14.7)	1 353 (12.9)	1 161 (4.3)
Poultry	g	305 (13.9)	336 (17.2)	351 (19.9)	331 (15.9)	351 (23.9)	424 (16.9)	350 (6.7)
Canned meat, excluding fish	g	12 (23.0)	14 (23.7)	16 (65.8)	23 (43.1)	21 (34.1)	18 (23.2)	17 (14.3)
Bacon and ham	g	46 (15.8)	48 (17.4)	72 (23.1)	52 (20.2)	66 (21.3)	76 (22.8)	60 (7.8)
Smallgoods	g	53 (19.9)	53 (21.5)	94 (38.3)	45 (20.9)	49 (26.5)	51 (24.7)	57 (11.3)
Other meat and undefined	g	14 (33.3)	20 (56.4)	4 (47.8)	11 (35.9)	22 (39.2)	22 (41.6)	16 (18.9)
Fish	g	103 (12.3)	114 (17.0)	177 (21.7)	144 (16.0)	221 (27.0)	174 (16.1)	153 (8.3)
Other seafood	g	14 (32.1)	5 (34.9)	21 (59.4)	10 (47.4)	53 (55.0)	11 (30.9)	19 (27.8)
Total meat and seafood	g	1 517 (8.4)	1 626 (10.8)	2 055 (19.6)	1 788 (11.9)	1 962 (15.2)	2 129 (11.3)	1 833 (3.8)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D6: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO GROSS INCOME PER PERSON

Item	Unit	Gross income per person						All households
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over	Not stated	
Number of households	no.	186	141	122	107	117	176	849
Household size	no.	3.45 (8.4)	3.08 (8.7)	3.10 (10.5)	2.75 (14.2)	1.75 (11.1)	3.18 (7.4)	2.92 (3.0)
Gross income per person	\$	3 350 (8.3)	6 000 (8.9)	8 310 (10.2)	12 010 (10.1)	23 720 (13.1)		10 270 (6.4)
<b>Beef</b>								
- Dearer steak	%	6.8 (15.4)	8.1 (16.3)	6.7 (17.1)	6.8 (12.6)	9.6 (20.2)	8.5 (12.0)	7.8 (7.3)
- Other steak	%	6.3 (12.5)	7.2 (18.2)	4.7 (15.9)	12.2 (18.0)	8.4 (20.5)	6.7 (14.1)	7.4 (7.5)
- Roast	%	4.3 (17.1)	2.4 (23.2)	5.0 (27.2)	4.0 (23.6)	2.5 (30.0)	2.6 (25.9)	3.4 (9.3)
- Mince	%	6.2 (12.1)	8.8 (25.1)	6.6 (17.2)	5.1 (18.3)	7.7 (21.4)	6.0 (13.4)	6.7 (8.2)
- Sausage	%	6.0 (12.8)	5.4 (13.2)	8.3 (44.1)	5.6 (17.7)	3.2 (23.7)	5.9 (21.2)	5.7 (13.3)
- Other and undefined	%	0.4 (46.3)	0.9 (61.4)	2.0 (60.7)	0.1 (100.4)	3.7 (81.6)	2.3 (66.6)	1.7 (40.5)
Total	%	30.1 (6.4)	32.8 (9.6)	33.3 (13.1)	33.8 (8.8)	35.0 (8.1)	32.0 (6.9)	32.7 (3.8)
<b>Veal</b>								
- Steak	%	2.1 (53.8)	1.5 (31.4)	0.6 (50.4)	0.4 (36.9)	0.6 (40.7)	1.2 (30.6)	1.1 (21.2)
- Chops and cutlets	%	0.9 (44.4)	0.6 (35.0)	1.6 (75.8)	0.3 (58.2)	1.2 (94.6)	0.4 (47.3)	0.9 (34.1)
- Other and undefined	%	0.7 (55.6)	0.5 (48.7)	0.9 (77.6)	1.7 (68.5)	0.4 (54.5)	0.1 (57.6)	0.6 (31.3)
Total	%	3.8 (34.6)	2.5 (20.9)	3.1 (51.8)	2.4 (52.0)	2.2 (54.2)	1.7 (24.5)	2.6 (16.3)
<b>Lamb</b>								
- Chops and cutlets	%	10.3 (13.6)	8.9 (16.9)	9.9 (17.1)	13.3 (14.8)	8.5 (19.3)	11.6 (9.1)	10.4 (5.5)
- Roast	%	6.2 (13.8)	5.3 (25.3)	7.5 (14.5)	4.8 (20.6)	5.6 (32.6)	4.6 (19.6)	5.7 (8.6)
- Other and undefined	%	5.5 (23.9)	6.5 (26.7)	5.3 (33.7)	6.0 (35.6)	2.5 (46.3)	7.3 (28.7)	5.5 (12.1)
Total	%	22.0 (8.1)	20.7 (10.0)	22.8 (11.5)	24.0 (10.7)	16.6 (17.4)	23.5 (9.5)	21.6 (4.6)
<b>Pork</b>								
- Steak and chops	%	2.5 (22.3)	3.1 (21.2)	1.5 (32.1)	1.8 (33.5)	1.3 (29.1)	1.8 (22.0)	2.0 (10.1)
- Roast	%	1.2 (48.0)	1.0 (45.2)	0.5 (69.2)	1.0 (46.9)	1.8 (52.3)	1.3 (27.9)	1.2 (20.1)
- Sausage	%	0.4 (45.5)	1.0 (52.2)	0.6 (49.2)	0.2 (49.1)	0.7 (42.0)	1.0 (27.7)	0.7 (18.7)
- Other and undefined	%	1.4 (54.3)	0.4 (54.0)	1.1 (46.7)	0.3 (57.0)	0.8 (36.3)	0.6 (41.2)	0.8 (22.3)
Total	%	5.6 (23.3)	5.4 (21.1)	3.7 (27.1)	3.3 (24.7)	4.6 (26.4)	4.7 (14.0)	4.6 (8.7)
Offal	%	1.7 (29.9)	2.2 (45.0)	1.3 (41.7)	1.6 (32.0)	1.6 (33.5)	1.6 (42.2)	1.6 (15.8)
Other red meat	%	0.8 (49.7)	-	0.1 (80.4)	0.4 (55.9)	0.1 (101.0)	0.2 (67.3)	0.3 (31.0)
Total red meat	%	63.9 (3.1)	63.7 (4.7)	64.2 (3.4)	65.5 (3.5)	60.1 (6.0)	63.6 (4.2)	63.4 (2.0)
<b>Poultry</b>								
Canned meat, excluding fish	%	20.1 (9.5)	20.6 (13.1)	17.1 (7.3)	18.5 (11.3)	17.9 (15.4)	19.9 (11.7)	19.1 (4.8)
Bacon and ham	%	0.8 (21.6)	0.9 (24.5)	0.8 (62.9)	1.3 (43.4)	1.1 (31.3)	0.9 (19.8)	0.9 (13.6)
Smallgoods	%	3.0 (13.2)	3.0 (15.5)	3.5 (15.1)	2.9 (16.2)	3.4 (20.0)	3.6 (22.4)	3.3 (7.2)
Other meat and undefined	%	3.5 (16.9)	3.3 (21.3)	4.6 (24.7)	2.5 (19.6)	2.5 (27.4)	2.4 (23.1)	3.1 (10.6)
Fish	%	1.0 (34.1)	1.2 (57.4)	0.2 (49.2)	0.6 (38.1)	1.1 (36.0)	1.0 (41.7)	0.9 (18.4)
Other seafood	%	6.8 (10.1)	7.0 (14.3)	8.6 (21.5)	8.1 (13.1)	11.3 (20.2)	8.2 (16.2)	8.4 (8.1)
	%	0.9 (31.6)	0.3 (32.0)	1.0 (62.6)	0.6 (45.9)	2.7 (47.8)	0.5 (30.8)	1.0 (27.5)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D7: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO SIZE OF HOUSEHOLD

Item	Unit	Number of persons in household						All households
		1	2	3	4	5	6 or more	
Number of households	no.	97	234	156	204	106	52	849
Gross income per person	\$	16 410 (15.8)	10 860 (9.1)	9 080 (10.8)	6 870 (8.1)	5 730 (13.1)	5 950 (24.1)	10 270 (6.4)
<b>Beef</b>								
- Dearer steak	\$	1.53 (17.4)	1.04 (12.4)	0.64 (15.3)	0.57 (12.3)	0.60 (18.9)	0.58 (29.1)	0.91 (7.2)
- Other steak	\$	0.82 (26.8)	0.81 (13.8)	0.47 (15.5)	0.43 (12.6)	0.47 (19.1)	0.52 (28.9)	0.63 (8.0)
- Roast	\$	0.31 (29.0)	0.36 (16.1)	0.27 (18.7)	0.21 (18.4)	0.20 (31.1)	0.16 (37.6)	0.28 (9.0)
- Mince	\$	0.62 (31.0)	0.40 (13.7)	0.50 (25.5)	0.36 (11.5)	0.37 (18.2)	0.26 (22.2)	0.44 (10.0)
- Sausage	\$	0.38 (20.8)	0.27 (13.7)	0.31 (34.5)	0.21 (15.1)	0.24 (21.2)	0.30 (25.3)	0.28 (9.1)
- Other and undefined	\$	0.12 (63.0)	0.04 (59.9)	0.03 (41.2)	0.02 (56.7)	0.01 (56.2)	0.27 (97.5)	0.06 (35.1)
Total	\$	3.78 (12.8)	2.92 (9.3)	2.23 (14.2)	1.80 (8.2)	1.89 (14.0)	2.09 (21.3)	2.61 (4.1)
<b>Veal</b>								
- Steak	\$	0.07 (45.9)	0.21 (29.9)	0.09 (34.8)	0.14 (43.2)	0.13 (40.0)	0.10 (45.7)	0.14 (16.9)
- Chops and cutlets	\$	0.10 (54.0)	0.12 (71.4)	0.05 (46.0)	0.06 (34.6)	0.02 (40.7)	0.01 (73.0)	0.08 (34.7)
- Other and undefined	\$	0.07 (81.3)	0.05 (45.5)	0.10 (51.8)	0.06 (44.4)	0.01 (81.1)	0.01 (66.6)	0.06 (27.9)
Total	\$	0.23 (41.4)	0.38 (28.9)	0.24 (28.5)	0.25 (27.7)	0.16 (34.2)	0.13 (38.1)	0.27 (14.7)
<b>Lamb</b>								
- Chops and cutlets	\$	0.97 (17.7)	0.76 (10.4)	0.64 (13.6)	0.38 (10.4)	0.42 (20.9)	0.70 (37.3)	0.67 (5.6)
- Roast	\$	0.40 (35.7)	0.45 (18.0)	0.35 (16.4)	0.30 (12.7)	0.25 (23.3)	0.13 (31.6)	0.36 (10.1)
- Other and undefined	\$	0.12 (39.4)	0.24 (23.4)	0.14 (46.5)	0.23 (20.2)	0.17 (32.6)	0.16 (61.4)	0.19 (12.8)
Total	\$	1.50 (17.9)	1.45 (10.6)	1.13 (12.3)	0.91 (9.2)	0.85 (16.0)	1.00 (29.3)	1.22 (5.1)
<b>Pork</b>								
- Steak and chops	\$	0.23 (29.2)	0.22 (21.8)	0.14 (22.2)	0.18 (21.8)	0.14 (32.4)	0.18 (40.1)	0.19 (11.3)
- Roast	\$	0.10 (60.0)	0.13 (35.8)	0.06 (36.1)	0.07 (32.7)	0.05 (54.7)	0.01 (100.0)	0.09 (20.9)
- Sausage	\$	0.03 (60.1)	0.09 (31.9)	0.03 (32.3)	0.03 (29.8)	0.05 (30.1)	-	0.05 (20.6)
- Other and undefined	\$	0.02 (58.4)	0.05 (32.7)	0.07 (38.0)	0.08 (41.0)	0.06 (61.8)	0.07 (56.9)	0.05 (17.4)
Total	\$	0.38 (24.9)	0.48 (18.3)	0.30 (15.9)	0.37 (18.8)	0.30 (23.1)	0.26 (34.8)	0.38 (8.9)

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Table D7 (continued)

Item	Unit	Number of persons in household						All households
		1	2	3	4	5	6 or more	
Offal	\$	0.13 (44.6)	0.12 (25.0)	0.04 (30.9)	0.05 (21.2)	0.03 (54.3)	0.04 (33.7)	0.08 (17.8)
Other red meat	\$	0.01 (100.0)	0.03 (45.9)	-	0.02 (47.2)	-	0.01 (100.0)	0.01 (29.8)
Total red meat	\$	6.04 (12.2)	5.37 (9.0)	3.94 (10.9)	3.40 (7.3)	3.24 (13.6)	3.53 (19.7)	4.56 (3.3)
Poultry	\$	1.44 (17.1)	1.21 (11.5)	1.04 (15.8)	0.85 (9.6)	0.98 (37.3)	0.80 (21.9)	1.11 (6.9)
Canned meat, excluding fish	\$	0.16 (33.2)	0.08 (23.2)	0.07 (21.9)	0.06 (19.1)	0.04 (29.4)	0.06 (38.5)	0.09 (14.4)
Bacon and ham	\$	0.25 (21.1)	0.51 (12.3)	0.39 (14.5)	0.36 (13.7)	0.32 (20.0)	0.16 (24.4)	0.37 (6.7)
Smallgoods	\$	0.18 (24.0)	0.30 (19.9)	0.24 (27.9)	0.33 (16.0)	0.26 (18.9)	0.14 (28.8)	0.26 (8.5)
Other meat and undefined	\$	0.08 (65.3)	0.07 (27.7)	0.09 (40.9)	0.04 (50.9)	0.04 (35.2)	0.02 (58.7)	0.06 (23.2)
Fish	\$	1.40 (32.1)	0.77 (11.5)	0.71 (14.6)	0.71 (13.7)	0.38 (18.0)	0.38 (31.7)	0.81 (11.5)
Other seafood	\$	0.42 (75.1)	0.16 (28.1)	0.19 (43.1)	0.05 (35.5)	0.08 (41.9)	0.05 (67.5)	0.18 (35.8)
Total meat and seafood	\$	9.97 (13.8)	8.46 (8.5)	6.68 (10.4)	5.80 (7.0)	5.34 (14.6)	5.14 (18.2)	7.44 (3.7)
Fruit and vegetables	\$	5.67 (9.5)	4.38 (9.2)	3.95 (10.6)	2.93 (7.6)	2.81 (12.6)	2.34 (17.7)	4.01 (3.4)
Eggs	\$	0.82 (13.6)	0.60 (9.2)	0.55 (9.8)	0.48 (10.0)	0.43 (12.6)	0.40 (17.2)	0.58 (4.3)
Cheese	\$	0.97 (13.1)	0.94 (10.7)	0.82 (11.0)	0.65 (9.8)	0.60 (12.5)	0.47 (16.9)	0.81 (5.0)
Bread	\$	1.35 (10.3)	1.15 (8.8)	1.11 (9.4)	1.09 (7.6)	1.09 (11.7)	1.02 (15.8)	1.16 (3.4)
Milk	\$	1.45 (19.5)	1.14 (9.4)	1.41 (9.9)	1.31 (7.3)	1.32 (11.6)	1.19 (16.3)	1.30 (5.0)
Frozen food	\$	0.88 (28.3)	0.85 (11.6)	0.68 (11.5)	0.78 (12.1)	0.88 (31.7)	0.58 (28.2)	0.80 (8.5)
Other food groceries	\$	8.25 (11.6)	9.05 (9.3)	6.54 (11.2)	6.12 (8.1)	5.88 (15.6)	5.88 (16.8)	7.41 (3.5)
Total food	\$	29.37 (10.2)	26.56 (8.1)	21.75 (9.2)	19.16 (6.4)	18.35 (12.3)	17.03 (15.4)	23.51 (2.9)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.



Table D8: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO SIZE OF HOUSEHOLD

Item	Unit	Number of persons in household						All households
		1	2	3	4	5	6 or more	
Number of households	no.	97	234	156	204	106	52	849
Gross income per person	\$	16 410 (15.8)	10 860 (9.1)	9 080 (10.8)	6 870 (8.1)	5 730 (13.1)	5 950 (24.1)	10 270 (6.4)
<b>Beef</b>								
- Dearer steak	g	244 (19.2)	160 (12.4)	99 (15.0)	100 (13.0)	84 (18.5)	106 (30.8)	144 (7.6)
- Other steak	g	159 (26.0)	181 (14.5)	100 (15.9)	95 (13.2)	101 (18.3)	112 (27.7)	135 (7.7)
- Roast	g	69 (30.8)	81 (16.3)	61 (19.5)	50 (22.8)	41 (30.7)	34 (45.2)	62 (9.7)
- Mince	g	170 (28.0)	105 (14.6)	152 (21.9)	99 (10.4)	108 (18.3)	77 (22.3)	123 (9.3)
- Sausage	g	118 (29.4)	95 (14.0)	156 (51.5)	71 (15.4)	87 (20.1)	101 (25.5)	105 (14.7)
- Other and undefined	g	66 (83.5)	13 (48.6)	39 (67.0)	5 (39.8)	2 (55.5)	110 (95.4)	31 (42.3)
Total	g	825 (15.5)	634 (9.1)	607 (23.9)	420 (8.2)	424 (13.5)	540 (25.2)	600 (5.9)
<b>Veal</b>								
- Steak	g	8 (45.8)	22 (27.9)	16 (36.8)	36 (56.1)	17 (38.0)	16 (61.8)	20 (21.1)
- Chops and cutlets	g	29 (71.9)	19 (65.8)	10 (50.4)	12 (35.2)	5 (43.3)	3 (79.9)	16 (34.7)
- Other and undefined	g	13 (79.7)	6 (47.0)	25 (60.3)	14 (47.5)	2 (72.6)	3 (69.0)	12 (31.1)
Total	g	49 (49.9)	48 (30.0)	51 (34.1)	62 (35.6)	24 (30.6)	22 (48.6)	47 (16.6)
<b>Lamb</b>								
- Chops and cutlets	g	252 (17.4)	225 (12.2)	178 (12.5)	120 (12.0)	116 (18.7)	201 (36.1)	190 (5.5)
- Roast	g	99 (36.3)	129 (16.0)	120 (20.8)	93 (13.8)	70 (22.3)	37 (32.1)	104 (9.0)
- Other and undefined	g	75 (43.3)	128 (22.8)	59 (44.4)	136 (21.5)	95 (31.9)	83 (67.9)	102 (12.9)
Total	g	426 (19.4)	482 (11.0)	358 (13.2)	349 (10.8)	281 (16.0)	321 (31.5)	395 (5.3)
<b>Pork</b>								
- Steak and chops	g	34 (27.2)	41 (19.7)	27 (22.9)	41 (22.4)	31 (29.8)	39 (43.9)	36 (10.6)
- Roast	g	25 (62.9)	30 (32.9)	14 (38.5)	21 (34.3)	13 (51.5)	1 (100.0)	21 (20.1)
- Sausage	g	9 (63.0)	19 (30.5)	9 (32.0)	12 (32.9)	14 (28.3)	1 (100.0)	13 (18.8)
- Other and undefined	g	5 (58.9)	11 (32.9)	16 (38.0)	24 (54.9)	20 (61.6)	22 (54.6)	15 (22.0)
Total	g	73 (28.9)	101 (17.7)	66 (16.1)	99 (21.2)	78 (22.7)	63 (37.1)	85 (8.9)
Offal	g	43 (43.8)	44 (25.9)	15 (28.4)	21 (20.8)	12 (48.6)	17 (35.9)	30 (16.4)
Other red meat	g	3 (100.0)	7 (45.4)	1 (72.9)	9 (59.6)	-	5 (100.0)	5 (31.2)
Total red meat	g	1 419 (14.3)	1 315 (8.8)	1 098 (16.0)	960 (7.6)	819 (13.0)	967 (21.9)	1 161 (4.3)
<b>Poultry</b>								
Canned meat, excluding fish	g	452 (20.2)	389 (12.3)	321 (14.4)	273 (10.5)	294 (30.6)	244 (23.8)	350 (6.7)
Bacon and ham	g	30 (34.3)	16 (22.3)	17 (25.3)	12 (20.3)	8 (30.9)	11 (39.9)	17 (14.3)
Smallgoods	g	39 (22.4)	85 (14.8)	67 (18.6)	52 (12.7)	45 (19.4)	29 (23.5)	60 (7.8)
Other meat and undefined	g	37 (27.8)	66 (19.9)	66 (39.2)	57 (16.3)	70 (27.2)	27 (28.2)	57 (11.3)
Fish	g	17 (47.3)	16 (26.2)	21 (43.6)	15 (63.0)	13 (38.8)	8 (68.0)	16 (18.9)
Other seafood	g	219 (26.1)	164 (14.7)	139 (15.5)	142 (11.4)	80 (18.6)	88 (39.0)	153 (8.3)
Total meat and seafood	g	37 (67.1)	19 (26.8)	20 (49.6)	7 (39.6)	11 (43.0)	6 (63.2)	19 (27.8)
Total meat and seafood	g	2 250 (13.2)	2 072 (8.7)	1 749 (13.9)	1 519 (7.1)	1 340 (14.0)	1 381 (20.1)	1 833 (3.8)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D9: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO SIZE OF HOUSEHOLD

Item	Unit	Number of persons in household						All households
		1	2	3	4	5	6 or more	
Number of households	no.	97	234	156	204	106	52	849
Gross income per person	\$	16 410 (15.8)	10 860 (9.1)	9 080 (10.8)	6 870 (8.1)	5 730 (13.1)	5 950 (24.1)	10 270 (6.4)
Beef								
- Dearer steak	%	10.8 (15.6)	7.7 (10.4)	5.6 (14.0)	6.6 (11.6)	6.3 (16.2)	7.7 (23.3)	7.8 (7.3)
- Other steak	%	7.1 (23.7)	8.7 (12.7)	5.7 (16.0)	6.3 (11.7)	7.5 (16.1)	8.1 (25.1)	7.4 (7.5)
- Roast	%	3.1 (28.3)	3.9 (13.4)	3.5 (22.7)	3.3 (21.6)	3.1 (29.2)	2.4 (46.3)	3.4 (9.3)
- Mince	%	7.6 (24.5)	5.1 (13.2)	8.7 (11.2)	6.5 (9.6)	8.1 (12.3)	5.6 (23.2)	6.7 (8.2)
- Sausage	%	5.3 (26.3)	4.6 (11.2)	8.9 (40.1)	4.7 (13.3)	6.5 (15.3)	7.3 (20.6)	5.7 (13.3)
- Other and undefined	%	2.9 (80.1)	0.6 (47.6)	2.2 (56.3)	0.4 (38.7)	0.2 (56.1)	8.0 (87.1)	1.7 (40.5)
Total	%	36.7 (7.8)	30.6 (5.3)	34.7 (11.7)	27.7 (5.5)	31.6 (7.6)	39.1 (13.7)	32.7 (3.8)
Veal								
- Steak	%	0.3 (45.1)	1.1 (27.9)	0.9 (38.0)	2.4 (54.9)	1.3 (33.8)	1.2 (58.5)	1.1 (21.2)
- Chops and cutlets	%	1.3 (70.8)	0.9 (63.7)	0.6 (52.8)	0.8 (33.9)	0.4 (41.0)	0.2 (78.5)	0.9 (34.1)
- Other and undefined	%	0.6 (78.7)	0.3 (46.5)	1.5 (60.4)	0.9 (47.4)	0.2 (71.3)	0.2 (71.4)	0.6 (31.3)
Total	%	2.2 (48.5)	2.3 (28.0)	2.9 (35.3)	4.1 (34.1)	1.8 (25.8)	1.6 (45.6)	2.6 (16.3)
Lamb								
- Chops and cutlets	%	11.2 (14.3)	10.9 (9.8)	10.2 (13.7)	7.9 (10.2)	8.7 (16.2)	14.6 (28.6)	10.4 (5.5)
- Roast	%	4.4 (35.3)	6.2 (12.5)	6.9 (14.6)	6.2 (12.1)	5.3 (17.7)	2.7 (33.6)	5.7 (8.6)
- Other and undefined	%	3.3 (38.1)	6.2 (19.8)	3.4 (44.5)	8.9 (20.0)	7.1 (30.1)	6.0 (61.5)	5.5 (12.1)
Total	%	18.9 (15.2)	23.2 (5.9)	20.4 (10.9)	23.0 (8.1)	21.0 (11.7)	23.3 (22.0)	21.6 (4.6)
Pork								
- Steak and chops	%	1.5 (26.7)	2.0 (18.2)	1.6 (25.9)	2.7 (20.7)	2.3 (28.5)	2.8 (39.1)	2.0 (10.1)
- Roast	%	1.1 (60.3)	1.4 (30.2)	0.8 (41.1)	1.4 (34.4)	1.0 (52.2)	0.1 (102.3)	1.2 (20.1)
- Sausage	%	0.4 (61.5)	0.9 (29.7)	0.5 (34.7)	0.8 (33.8)	1.0 (27.5)	0.0 (101.3)	0.7 (18.7)
- Other and undefined	%	0.2 (59.4)	0.5 (32.6)	0.9 (38.5)	1.6 (54.0)	1.5 (61.7)	1.6 (50.9)	0.8 (22.3)
Total	%	3.2 (26.3)	4.9 (15.1)	3.8 (20.0)	6.5 (20.1)	5.8 (22.2)	4.5 (31.7)	4.6 (8.7)
Offal	%	1.9 (39.9)	2.1 (25.0)	0.9 (29.7)	1.4 (20.0)	0.9 (46.9)	1.2 (30.9)	1.6 (15.8)
Other red meat	%	0.2 (99.9)	0.3 (45.3)	0.1 (74.5)	0.6 (57.7)	-	0.4 (100.8)	0.3 (31.0)
Total red meat	%	63.1 (5.9)	63.5 (2.6)	62.8 (3.6)	63.2 (2.8)	61.1 (7.2)	70.0 (4.9)	63.4 (2.0)
Poultry	%	20.1 (14.9)	18.8 (7.1)	18.3 (7.6)	18.0 (6.8)	21.9 (21.5)	17.7 (13.3)	19.1 (4.8)
Canned meat, excluding fish	%	1.3 (32.7)	0.8 (21.0)	1.0 (31.2)	0.8 (20.0)	0.6 (26.1)	0.8 (37.6)	0.9 (13.6)
Bacon and ham	%	1.7 (23.6)	4.1 (12.3)	3.8 (16.0)	3.5 (11.0)	3.4 (12.6)	2.1 (23.3)	3.3 (7.2)
Smallgoods	%	1.6 (31.2)	3.2 (17.1)	3.8 (28.4)	3.8 (15.5)	5.2 (23.3)	2.0 (27.2)	3.1 (10.6)
Other meat and undefined	%	0.8 (46.1)	0.8 (26.0)	1.2 (45.5)	1.0 (62.3)	0.9 (39.1)	0.6 (69.9)	0.9 (18.4)
Fish	%	9.7 (21.0)	7.9 (12.0)	8.0 (19.8)	9.3 (9.0)	6.0 (18.3)	6.4 (35.6)	8.4 (8.1)
Other seafood	%	1.6 (63.3)	0.9 (25.7)	1.1 (50.7)	0.5 (38.2)	0.9 (40.6)	0.5 (63.2)	1.0 (27.5)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D10: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO COMPOSITION OF HOUSEHOLD

Item	Unit	Three person households			Four person households		
		2 adults 1 child	3 adults no children	All households	2 adults 2 children	4 adults no children	All households
Number of households	no.	69	78	156	117	54	204
Gross income per person	\$	8 110 (15.6)	11 330 (16.3)	9 080 (10.8)	6 370 (10.4)	7 780 (17.8)	6 870 (8.1)
<b>Beef</b>							
- Dearer steak	\$	0.56 (24.1)	0.79 (20.9)	0.64 (15.3)	0.52 (19.3)	0.64 (21.7)	0.57 (12.3)
- Other steak	\$	0.51 (23.5)	0.50 (22.6)	0.47 (15.5)	0.45 (17.0)	0.46 (24.4)	0.43 (12.6)
- Roast	\$	0.19 (36.8)	0.31 (24.9)	0.27 (18.7)	0.13 (26.2)	0.37 (31.2)	0.21 (18.4)
- Mince	\$	0.69 (42.1)	0.31 (23.4)	0.50 (25.5)	0.37 (13.7)	0.33 (21.8)	0.36 (11.5)
- Sausage	\$	0.37 (62.9)	0.26 (29.9)	0.31 (34.5)	0.23 (16.8)	0.18 (33.3)	0.21 (15.1)
- Other and undefined	\$	0.01 (54.0)	0.06 (48.7)	0.03 (41.2)	0.01 (56.5)	0.02 (67.7)	0.02 (56.7)
Total	\$	2.32 (28.6)	2.23 (16.3)	2.23 (14.2)	1.70 (11.6)	2.00 (15.8)	1.80 (8.2)
<b>Veal</b>							
- Steak	\$	0.12 (53.8)	0.08 (40.3)	0.09 (34.8)	0.11 (30.6)	0.04 (44.2)	0.14 (43.2)
- Chops and cutlets	\$	0.09 (60.3)	0.03 (63.3)	0.05 (46.0)	0.02 (43.8)	0.10 (50.8)	0.06 (34.6)
- Other and undefined	\$	0.20 (59.6)	0.03 (70.8)	0.10 (51.8)	0.06 (69.0)	0.05 (53.7)	0.05 (44.4)
Total	\$	0.41 (38.4)	0.13 (33.9)	0.24 (28.5)	0.20 (30.8)	0.19 (36.6)	0.25 (27.7)
<b>Lamb</b>							
- Chops and cutlets	\$	0.46 (20.3)	0.85 (19.5)	0.64 (13.6)	0.39 (14.9)	0.41 (22.8)	0.38 (10.4)
- Roast	\$	0.26 (33.7)	0.39 (20.1)	0.35 (16.4)	0.25 (17.2)	0.37 (27.4)	0.30 (12.7)
- Other and undefined	\$	0.12 (58.5)	0.18 (56.5)	0.14 (46.5)	0.20 (28.1)	0.17 (53.7)	0.23 (20.2)
Total	\$	0.84 (20.8)	1.42 (17.0)	1.13 (12.3)	0.84 (12.0)	0.95 (21.6)	0.91 (9.2)
<b>Pork</b>							
- Steak and chops	\$	0.13 (39.0)	0.18 (25.0)	0.14 (22.2)	0.21 (30.9)	0.13 (32.0)	0.18 (21.8)
- Roast	\$	0.06 (53.8)	0.06 (59.2)	0.06 (36.1)	0.05 (52.9)	0.03 (81.1)	0.07 (32.7)
- Sausage	\$	0.03 (45.4)	0.03 (47.5)	0.03 (32.3)	0.04 (32.9)	0.03 (71.4)	0.03 (29.8)
- Other and undefined	\$	0.07 (39.4)	0.08 (61.5)	0.07 (38.0)	0.11 (54.7)	0.08 (50.6)	0.08 (41.0)
Total	\$	0.29 (27.0)	0.34 (22.3)	0.30 (15.9)	0.40 (26.3)	0.27 (29.2)	0.37 (18.8)

(Continued on next page)

Table D10 (continued)

Item	Unit	Three person households			Four person households		
		2 adults 1 child	3 adults no children	All households	2 adults 2 children	4 adults no children	All households
Offal	\$	0.04 (53.0)	0.05 (36.1)	0.04 (30.9)	0.06 (27.1)	0.04 (34.9)	0.05 (21.2)
Other red meat	\$	-	-	-	0.01 (71.7)	0.03 (75.7)	0.02 (47.2)
Total red meat	\$	3.90 (21.4)	4.17 (14.8)	3.94 (10.9)	3.21 (9.7)	3.48 (15.3)	3.40 (7.3)
Poultry	\$	1.25 (28.8)	0.91 (18.0)	1.04 (15.8)	0.75 (12.1)	1.00 (19.3)	0.85 (9.6)
Canned meat, excluding fish	\$	0.09 (31.4)	0.05 (38.0)	0.07 (21.9)	0.06 (27.7)	0.07 (34.0)	0.06 (19.1)
Bacon and ham	\$	0.37 (23.0)	0.43 (21.6)	0.39 (14.5)	0.31 (18.7)	0.46 (30.5)	0.36 (13.7)
Smallgoods	\$	0.31 (46.4)	0.18 (30.2)	0.24 (27.9)	0.32 (22.3)	0.37 (34.4)	0.33 (16.0)
Other meat and undefined	\$	0.07 (54.1)	0.12 (57.9)	0.09 (40.9)	0.06 (58.4)	0.02 (56.1)	0.04 (50.9)
Fish	\$	0.57 (24.2)	0.92 (0.71)	0.71 (14.6)	0.72 (21.3)	0.78 (22.1)	0.71 (13.7)
Other seafood	\$	0.06 (81.5)	0.33 (48.5)	0.19 (43.1)	0.07 (40.9)	-	0.05 (33.5)
Total meat and seafood	\$	6.62 (21.0)	7.11 (13.4)	6.68 (10.4)	5.51 (9.8)	6.18 (16.0)	5.80 (7.0)
Fruit and vegetables	\$	3.95 (17.1)	4.18 (15.0)	3.95 (10.6)	2.61 (9.0)	3.24 (19.2)	2.93 (7.6)
Eggs	\$	0.51 (16.8)	0.62 (15.8)	0.55 (9.8)	0.41 (10.1)	0.52 (17.8)	0.48 (10.0)
Cheese	\$	0.82 (18.1)	0.85 (17.9)	0.82 (11.0)	0.51 (10.1)	0.89 (19.2)	0.65 (9.8)
Bread	\$	1.03 (18.4)	1.23 (13.6)	1.11 (9.4)	0.97 (9.8)	1.27 (17.3)	1.09 (7.6)
Milk	\$	1.36 (17.6)	1.44 (15.7)	1.41 (9.9)	1.29 (9.5)	1.30 (17.6)	1.31 (7.3)
Frozen food	\$	0.63 (19.7)	0.78 (16.5)	0.68 (11.5)	0.68 (16.3)	0.85 (22.5)	0.78 (12.1)
Other food groceries	\$	6.12 (17.2)	6.99 (15.5)	6.54 (11.2)	5.73 (11.3)	7.20 (17.2)	6.12 (8.1)
Total food	\$	21.04 (16.7)	23.21 (13.0)	21.75 (9.2)	17.72 (8.4)	21.45 (15.2)	19.16 (6.4)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D11: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO COMPOSITION OF HOUSEHOLD

Item	Unit	Three person households			Four person households		
		2 adults 1 child	3 adults no children	All households	2 adults 2 children	4 adults no children	All households
Number of households	no.	69	78	156	117	54	204
Gross income per person	\$	8 110 (15.6)	11 330 (16.3)	9 080 (10.8)	6 370 (10.4)	7 780 (17.8)	6 870 (8.1)
<b>Beef</b>							
- Dearer steak	g	86 (24.6)	120 (20.1)	99 (15.0)	94 (19.8)	109 (23.8)	100 (13.0)
- Other steak	g	106 (24.7)	106 (23.3)	100 (15.9)	98 (16.7)	106 (26.0)	95 (13.2)
- Roast	g	43 (36.5)	66 (25.3)	61 (19.5)	33 (24.3)	91 (39.3)	50 (22.8)
- Mince	g	193 (37.7)	105 (24.7)	152 (21.9)	106 (13.5)	92 (21.3)	99 (10.4)
- Sausage	g	239 (76.7)	90 (29.9)	156 (51.5)	82 (17.8)	58 (32.9)	71 (15.4)
- Other and undefined	g	63 (91.9)	24 (62.1)	39 (67.0)	4 (51.9)	6 (67.4)	5 (39.8)
Total	g	730 (45.7)	510 (16.9)	607 (23.9)	417 (11.2)	461 (16.9)	420 (8.2)
<b>Veal</b>							
- Steak	g	24 (53.2)	13 (46.4)	16 (36.8)	21 (41.2)	10 (52.7)	36 (56.1)
- Chops and cutlets	g	18 (62.7)	4 (62.7)	10 (50.4)	6 (41.7)	23 (56.2)	12 (35.2)
- Other and undefined	g	51 (69.0)	7 (73.2)	25 (60.3)	17 (72.5)	10 (56.3)	14 (47.2)
Total	g	92 (43.6)	23 (39.1)	51 (34.1)	45 (37.8)	44 (38.6)	62 (35.6)
<b>Lamb</b>							
- Chops and cutlets	g	138 (20.5)	225 (17.8)	178 (12.5)	119 (16.7)	135 (26.2)	120 (12.0)
- Roast	g	101 (47.8)	124 (22.3)	120 (20.8)	79 (18.3)	115 (29.6)	93 (13.8)
- Other and undefined	g	50 (58.1)	77 (50.0)	59 (44.4)	114 (29.6)	92 (48.9)	136 (21.5)
Total	g	289 (25.2)	426 (17.3)	358 (13.2)	312 (14.0)	342 (24.0)	349 (10.8)
<b>Pork</b>							
- Steak and chops	g	26 (40.5)	32 (26.0)	27 (22.9)	46 (31.3)	30 (31.7)	41 (22.4)
- Roast	g	16 (52.5)	8 (58.1)	14 (38.5)	16 (51.6)	6 (82.0)	21 (34.3)
- Sausage	g	10 (48.0)	9 (45.3)	9 (32.0)	16 (36.6)	11 (77.1)	12 (32.9)
- Other and undefined	g	16 (39.8)	18 (60.9)	16 (38.0)	37 (66.9)	16 (56.5)	24 (54.9)
Total	g	68 (27.4)	67 (21.8)	66 (16.1)	116 (30.5)	63 (28.7)	99 (21.2)
Offal	g	11 (52.7)	20 (33.0)	15 (28.4)	23 (25.9)	18 (40.1)	21 (20.8)
Other red meat	g	1 (100.0)	1 (100.0)	1 (72.9)	1 (83.4)	19 (81.1)	9 (59.6)
Total red meat	g	1 191 (33.3)	1 048 (14.6)	1 098 (16.0)	914 (9.8)	948 (17.3)	960 (7.6)
Poultry	g	328 (25.5)	324 (20.4)	321 (14.4)	235 (13.0)	315 (19.4)	273 (10.5)
Canned meat, excluding fish	g	24 (35.6)	9 (40.9)	17 (25.3)	13 (29.9)	14 (33.4)	12 (20.3)
Bacon and ham	g	63 (25.8)	73 (29.8)	67 (18.6)	46 (19.9)	63 (26.2)	52 (12.7)
Smallgoods	g	96 (60.8)	40 (30.7)	66 (39.2)	49 (16.9)	73 (32.7)	57 (6.3)
Other meat and undefined	g	12 (47.6)	29 (62.2)	21 (43.6)	24 (72.0)	7 (58.6)	15 (63.0)
Fish	g	120 (17.1)	171 (20.3)	139 (15.5)	138 (17.4)	172 (23.1)	142 (11.4)
Other seafood	g	6 (70.0)	36 (55.7)	20 (49.6)	11 (47.2)	2 (100.0)	7 (39.6)
Total meat and seafood	g	1 839 (24.3)	1 730 (13.1)	1 749 (13.9)	1 431 (9.9)	1 593 (16.3)	1 519 (7.1)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D12: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO COMPOSITION OF HOUSEHOLD

Item	Unit	Three person households			Four person households		
		2 adults 1 child	3 adults no children	All households	2 adults 2 children	4 adults no children	All households
Number of households	no.	69	78	156	117	54	204
Gross income per person	\$	8 110 (15.6)	11 330 (16.3)	9 080 (10.8)	6 370 (10.4)	7 780 (17.8)	6 870 (8.1)
<b>Beef</b>							
- Dearer steak	%	4.7 (24.1)	6.9 (14.4)	5.6 (14.0)	6.6 (15.4)	6.9 (22.0)	6.6 (11.6)
- Other steak	%	5.8 (26.2)	6.1 (17.5)	5.7 (16.0)	6.8 (15.2)	6.7 (22.7)	6.3 (11.7)
- Roast	%	2.4 (42.5)	3.8 (23.4)	3.5 (22.7)	2.3 (24.3)	5.7 (33.6)	3.3 (21.6)
- Mince	%	10.5 (13.3)	6.0 (19.2)	8.7 (11.2)	7.4 (11.6)	5.8 (20.5)	6.5 (9.6)
- Sausage	%	13.0 (49.8)	5.2 (25.9)	8.9 (40.1)	5.7 (16.0)	3.6 (28.9)	4.7 (13.3)
- Other and undefined	%	3.4 (65.4)	1.4 (61.3)	2.2 (56.3)	0.3 (50.4)	0.4 (67.1)	0.4 (38.7)
Total	%	39.7 (18.1)	29.5 (9.3)	34.7 (11.7)	29.1 (7.3)	28.9 (10.4)	27.7 (5.5)
<b>Veal</b>							
- Steak	%	1.3 (58.3)	0.7 (45.3)	0.9 (38.0)	1.5 (40.5)	0.6 (51.3)	2.4 (54.9)
- Chops and cutlets	%	1.0 (67.9)	0.2 (62.2)	0.6 (52.8)	0.4 (41.3)	1.5 (50.0)	0.8 (33.9)
- Other and undefined	%	2.8 (73.7)	0.4 (71.3)	1.5 (60.4)	1.2 (72.0)	0.7 (54.9)	0.9 (47.4)
Total	%	5.0 (50.5)	1.3 (37.2)	2.9 (35.3)	3.1 (37.0)	2.7 (32.7)	4.1 (34.1)
<b>Lamb</b>							
- Chops and cutlets	%	7.5 (25.4)	13.0 (12.1)	10.2 (13.7)	8.3 (15.2)	8.5 (17.4)	7.9 (10.2)
- Roast	%	5.5 (21.9)	7.2 (21.2)	6.9 (14.6)	5.5 (17.6)	7.2 (26.6)	6.2 (12.1)
- Other and undefined	%	2.7 (63.1)	4.5 (46.3)	3.4 (44.5)	8.0 (26.5)	5.8 (43.7)	8.9 (20.0)
Total	%	15.7 (14.8)	24.6 (11.5)	20.4 (10.9)	21.8 (10.4)	21.5 (15.5)	23.0 (8.1)
<b>Pork</b>							
- Steak and chops	%	1.4 (47.9)	1.9 (26.8)	1.6 (25.9)	3.2 (28.0)	1.9 (26.4)	2.7 (25.7)
- Roast	%	0.9 (62.2)	0.4 (57.1)	0.8 (41.1)	1.2 (52.8)	0.4 (76.6)	1.4 (34.4)
- Sausage	%	0.6 (52.5)	0.5 (45.2)	0.5 (34.7)	1.1 (37.8)	0.7 (73.4)	0.8 (33.8)
- Other and undefined	%	0.9 (46.9)	1.1 (57.3)	0.9 (38.5)	2.6 (64.8)	1.0 (54.9)	1.6 (54.0)
Total	%	3.7 (38.4)	3.9 (19.1)	3.8 (20.0)	8.1 (28.2)	4.0 (21.2)	6.5 (20.1)
Offal	%	0.6 (60.3)	1.2 (30.6)	0.9 (29.7)	1.6 (23.3)	1.2 (40.9)	1.4 (20.0)
Other red meat	%	-	0.1 (100.2)	0.1 (74.5)	0.1 (82.5)	1.2 (75.8)	0.6 (57.7)
Total red meat	%	64.8 (5.5)	60.6 (5.9)	62.8 (3.6)	63.9 (3.1)	59.5 (5.7)	63.2 (2.8)
Poultry	%	17.8 (11.5)	18.7 (14.0)	18.3 (7.6)	16.5 (7.0)	19.8 (13.2)	18.0 (6.8)
Canned meat, excluding fish	%	1.3 (49.8)	0.5 (39.2)	1.0 (31.2)	0.9 (28.0)	0.9 (34.8)	0.8 (20.0)
Bacon and ham	%	3.4 (17.6)	4.2 (27.4)	3.8 (16.0)	3.3 (17.7)	4.0 (16.8)	3.5 (11.0)
Smallgoods	%	5.2 (34.5)	2.3 (29.6)	3.8 (28.4)	3.4 (16.8)	4.6 (24.8)	3.8 (15.5)
Other meat and undefined	%	0.7 (53.9)	1.7 (64.6)	1.2 (45.5)	1.7 (70.3)	0.4 (55.6)	1.0 (62.3)
Fish	%	6.5 (39.1)	9.9 (15.7)	8.0 (19.8)	9.6 (12.7)	10.8 (15.7)	9.3 (9.0)
Other seafood	%	0.3 (73.5)	2.1 (55.2)	1.1 (50.7)	0.8 (44.2)	0.1 (100.8)	0.5 (38.2)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D13: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO AGE OF HOUSEKEEPER

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
Number of households	no.	74	228	204	133	107	103	849
Household size	no.	2.35 (12.9)	3.38 (7.5)	3.87 (8.0)	3.21 (9.8)	2.28 (15.5)	1.56 (9.3)	2.92 (3.0)
Gross income per person	\$	11 350 (17.7)	10 030 (12.1)	9 430 (11.6)	10 370 (13.9)	8 550 (15.4)	12 300 (28.0)	10 270 (6.4)
<b>Beef</b>								
- Dearer steak	\$	0.56 (22.2)	0.78 (19.0)	0.68 (19.7)	1.06 (19.8)	1.27 (23.9)	1.14 (17.1)	0.91 (7.2)
- Other steak	\$	0.31 (23.9)	0.63 (22.2)	0.46 (14.5)	0.69 (21.3)	0.93 (18.7)	0.76 (22.6)	0.63 (8.0)
- Roast	\$	0.16 (51.8)	0.21 (24.1)	0.21 (27.1)	0.31 (23.2)	0.39 (24.6)	0.40 (21.4)	0.28 (9.0)
- Mince	\$	0.38 (23.9)	0.49 (20.2)	0.43 (25.9)	0.38 (18.3)	0.45 (25.0)	0.46 (41.5)	0.44 (10.0)
- Sausage	\$	0.21 (37.4)	0.22 (19.7)	0.28 (32.2)	0.26 (17.9)	0.38 (22.5)	0.37 (16.5)	0.28 (9.1)
- Other and undefined	\$	0.01 (100.0)	-	0.09 (82.3)	0.09 (51.2)	0.01 (61.6)	0.17 (56.2)	0.06 (35.1)
Total	\$	1.63 (19.9)	2.34 (13.6)	2.15 (15.4)	2.80 (14.5)	3.43 (16.0)	3.32 (12.2)	2.61 (4.1)
<b>Veal</b>								
- Steak	\$	0.12 (46.3)	0.08 (31.0)	0.10 (30.3)	0.26 (42.5)	0.19 (47.8)	0.09 (42.5)	0.14 (16.9)
- Chops and cutlets	\$	-	0.06 (63.4)	0.03 (42.5)	0.08 (38.0)	0.05 (84.7)	0.22 (66.8)	0.08 (34.7)
- Other and undefined	\$	0.00 (0.0)	0.01 (49.8)	0.06 (59.8)	0.11 (36.4)	0.06 (61.9)	0.08 (81.3)	0.06 (27.9)
Total	\$	0.12 (45.0)	0.16 (30.6)	0.20 (27.1)	0.45 (29.1)	0.30 (36.5)	0.40 (43.8)	0.27 (14.7)
<b>Lamb</b>								
- Chops and cutlets	\$	0.33 (23.3)	0.48 (14.1)	0.50 (16.9)	0.77 (16.9)	0.92 (14.1)	1.10 (17.1)	0.67 (5.6)
- Roast	\$	0.27 (40.6)	0.27 (18.5)	0.36 (22.9)	0.31 (16.5)	0.45 (21.7)	0.52 (29.6)	0.36 (10.1)
- Other and undefined	\$	0.14 (50.1)	0.14 (28.4)	0.19 (26.9)	0.20 (36.4)	0.33 (29.6)	0.16 (34.8)	0.19 (12.8)
Total	\$	0.74 (25.2)	0.89 (11.8)	1.05 (13.8)	1.27 (12.8)	1.69 (13.8)	1.77 (17.0)	1.22 (5.1)
<b>Pork</b>								
- Steak and chops	\$	0.12 (39.8)	0.18 (23.8)	0.19 (25.7)	0.17 (21.5)	0.31 (28.3)	0.16 (32.2)	0.19 (11.3)
- Roast	\$	0.08 (100.0)	0.09 (42.1)	0.08 (49.1)	0.08 (37.6)	0.14 (54.4)	0.06 (58.1)	0.09 (20.9)
- Sausage	\$	0.11 (56.2)	0.04 (25.4)	0.03 (29.9)	0.05 (52.3)	0.06 (42.7)	0.03 (56.2)	0.05 (20.6)
- Other and undefined	\$	-	0.06 (32.3)	0.11 (31.1)	0.04 (43.2)	0.02 (60.9)	0.03 (61.1)	0.05 (17.4)
Total	\$	0.31 (41.3)	0.37 (17.3)	0.42 (19.2)	0.35 (19.3)	0.53 (26.3)	0.29 (23.8)	0.38 (8.9)

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Table D13 (continued)

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
Offal	\$	-	0.07 (58.2)	0.04 (28.4)	0.14 (34.2)	0.13 (34.4)	0.12 (37.3)	0.08 (17.8)
Other red meat	\$	-	-	0.01 (67.5)	0.02 (59.3)	0.06 (47.8)	-	0.01 (29.8)
Total red meat	\$	2.81 (19.7)	3.83 (11.5)	3.86 (12.0)	5.03 (11.6)	6.12 (13.7)	5.90 (13.0)	4.56 (3.3)
Poultry	\$	1.05 (21.9)	0.81 (13.2)	1.22 (20.4)	1.03 (13.1)	1.41 (16.9)	1.29 (17.1)	1.11 (6.9)
Canned meat, excluding fish	\$	0.15 (40.0)	0.06 (20.5)	0.06 (21.2)	0.07 (30.0)	0.17 (43.3)	0.05 (41.9)	0.09 (14.4)
Bacon and ham	\$	0.25 (25.0)	0.32 (13.1)	0.41 (15.5)	0.37 (15.6)	0.50 (21.9)	0.37 (19.6)	0.37 (6.7)
Smallgoods	\$	0.26 (25.9)	0.25 (15.7)	0.35 (20.0)	0.24 (21.5)	0.21 (28.8)	0.21 (35.1)	0.26 (8.5)
Other meat and undefined	\$	0.02 (52.8)	0.04 (41.6)	0.09 (55.4)	0.05 (36.4)	0.12 (52.1)	0.05 (42.7)	0.06 (23.2)
Fish	\$	0.59 (44.7)	0.87 (37.4)	0.58 (13.3)	0.83 (14.6)	1.03 (17.3)	0.96 (21.4)	0.81 (11.5)
Other seafood	\$	0.23 (51.1)	0.39 (64.6)	0.14 (49.5)	0.10 (56.5)	0.07 (44.2)	0.04 (42.0)	0.18 (35.8)
Total meat and seafood	\$	5.35 (18.2)	6.57 (15.3)	6.71 (12.6)	7.73 (10.5)	9.62 (13.7)	8.87 (11.6)	7.44 (3.7)
Fruit and vegetables	\$	3.84 (17.5)	3.32 (10.5)	3.88 (10.5)	4.24 (11.7)	4.63 (12.8)	4.56 (11.0)	4.01 (3.4)
Eggs	\$	0.52 (20.2)	0.51 (13.5)	0.48 (9.6)	0.51 (12.8)	0.71 (13.1)	0.84 (12.6)	0.58 (4.3)
Cheese	\$	0.72 (20.1)	0.70 (11.6)	0.79 (10.0)	0.95 (12.2)	0.99 (20.6)	0.76 (12.8)	0.81 (5.0)
Bread	\$	1.17 (17.1)	0.97 (9.2)	1.13 (9.7)	1.23 (11.8)	1.35 (12.0)	1.24 (11.1)	1.16 (3.4)
Milk	\$	1.21 (17.1)	1.25 (9.0)	1.56 (18.0)	1.25 (10.9)	1.22 (12.8)	1.20 (12.8)	1.30 (5.0)
Frozen food	\$	0.83 (19.0)	0.77 (22.7)	0.69 (13.1)	1.04 (21.3)	0.97 (20.0)	0.61 (22.1)	0.80 (8.5)
Other food groceries	\$	6.84 (18.6)	5.83 (9.4)	7.82 (9.5)	7.64 (11.3)	9.39 (12.6)	7.71 (13.2)	7.41 (3.5)
Total food	\$	20.49 (16.6)	19.91 (10.5)	23.06 (9.7)	24.58 (10.2)	28.89 (12.0)	25.77 (10.3)	23.51 (2.9)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.



Table D14: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO AGE OF HOUSEKEEPER

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
Number of households	no.	74	228	204	133	107	103	849
Household size	no.	2.35 (12.9)	3.38 (7.5)	3.87 (8.0)	3.21 (9.8)	2.28 (15.5)	1.56 (9.3)	2.92 (3.0)
Gross income per person	\$	11 350 (17.7)	10 030 (12.1)	9 430 (11.6)	10 370 (13.9)	8 550 (15.4)	12 300 (28.0)	10 270 (6.4)
<b>Beef</b>								
- Dearer steak	g	89 (21.5)	121 (19.0)	102 (19.8)	181 (19.8)	195 (23.2)	188 (20.0)	144 (7.6)
- Other steak	g	74 (30.2)	114 (19.1)	105 (15.9)	154 (21.8)	188 (19.3)	179 (23.1)	135 (7.7)
- Roast	g	31 (61.1)	40 (21.3)	50 (26.8)	67 (24.0)	96 (28.3)	100 (22.0)	62 (9.7)
- Mince	g	135 (28.1)	139 (19.9)	122 (23.2)	100 (19.3)	129 (27.9)	110 (35.9)	123 (9.3)
- Sausage	g	81 (35.3)	74 (18.9)	136 (48.5)	80 (17.6)	141 (32.3)	117 (16.7)	105 (14.7)
- Other and undefined	g	1 (100.0)	2 (52.5)	55 (64.4)	29 (44.0)	2 (62.3)	87 (77.2)	31 (42.3)
Total	g	411 (20.3)	490 (12.3)	570 (22.9)	612 (14.5)	750 (18.1)	781 (15.0)	600 (5.9)
<b>Veal</b>								
- Steak	g	22 (45.8)	11 (28.2)	16 (33.4)	48 (52.5)	19 (44.4)	11 (43.9)	20 (21.1)
- Chops and cutlets	g	1 (100.0)	20 (80.5)	8 (43.1)	14 (39.1)	9 (84.0)	34 (63.4)	16 (34.7)
- Other and undefined	g	0 (0.0)	2 (48.2)	19 (67.0)	23 (34.3)	7 (55.8)	15 (79.7)	12 (31.1)
Total	g	23 (44.4)	34 (49.4)	42 (34.4)	85 (33.1)	36 (35.0)	60 (43.1)	47 (16.6)
<b>Lamb</b>								
- Chops and cutlets	g	123 (25.8)	133 (13.1)	145 (14.4)	225 (19.6)	244 (14.9)	296 (16.1)	190 (5.5)
- Roast	g	74 (37.6)	75 (18.3)	109 (20.9)	95 (18.0)	131 (22.8)	142 (27.3)	104 (9.0)
- Other and undefined	g	81 (53.8)	78 (29.9)	89 (23.8)	94 (35.0)	190 (30.3)	102 (36.1)	102 (12.9)
Total	g	277 (25.2)	286 (12.2)	343 (12.2)	414 (13.9)	565 (16.6)	540 (16.9)	395 (5.3)
<b>Pork</b>								
- Steak and chops	g	35 (40.9)	36 (19.8)	34 (24.1)	36 (23.8)	54 (27.4)	25 (29.1)	36 (10.6)
- Roast	g	26 (100.0)	20 (37.3)	19 (42.0)	20 (41.4)	33 (50.1)	14 (58.4)	21 (20.1)
- Sausage	g	28 (50.4)	12 (25.6)	9 (32.8)	10 (42.2)	12 (46.9)	11 (60.0)	13 (18.8)
- Other and undefined	g	-	19 (35.3)	31 (40.3)	11 (45.3)	4 (59.5)	9 (57.3)	15 (22.0)
Total	g	89 (40.5)	87 (15.7)	94 (21.6)	77 (20.9)	103 (26.5)	59 (23.8)	85 (8.9)
Offal	g	1 (72.6)	17 (40.4)	16 (28.0)	57 (33.8)	42 (34.0)	49 (40.9)	30 (16.4)
Other red meat	g	2 (100.0)	1 (69.6)	4 (67.3)	4 (61.2)	22 (46.8)	1 (100.0)	5 (31.2)
Total red meat	g	803 (20.1)	914 (10.7)	1 068 (15.2)	1 248 (11.4)	1 517 (15.1)	1 490 (13.5)	1 161 (4.3)
Poultry	g	334 (21.7)	252 (12.6)	358 (21.0)	308 (13.1)	468 (17.7)	440 (18.8)	350 (6.7)
Canned meat, excluding fish	g	31 (36.1)	14 (23.9)	15 (28.1)	11 (27.0)	33 (42.2)	8 (43.9)	17 (14.3)
Bacon and ham	g	43 (28.2)	52 (16.6)	62 (14.7)	58 (16.1)	87 (28.3)	57 (21.4)	60 (7.8)
Smallgoods	g	61 (35.2)	50 (16.0)	86 (27.0)	50 (23.7)	53 (29.8)	35 (32.2)	57 (11.3)
Other meat and undefined	g	7 (55.1)	15 (52.2)	17 (37.7)	13 (39.3)	30 (50.6)	13 (43.0)	16 (18.9)
Fish	g	101 (36.7)	144 (24.2)	113 (13.5)	148 (13.6)	220 (18.7)	202 (20.3)	153 (8.3)
Other seafood	g	27 (59.3)	37 (54.2)	19 (44.6)	10 (53.2)	9 (44.2)	5 (42.5)	19 (27.8)
Total meat and seafood	g	1 408 (17.8)	1 478 (11.1)	1 739 (14.2)	1 846 (10.3)	2 418 (13.7)	2 250 (12.9)	1 833 (3.8)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D15: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO AGE OF HOUSEKEEPER

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
Number of households	no.	74	228	204	133	107	103	849
Household size	no.	2.35 (12.9)	3.38 (7.5)	3.87 (8.0)	3.21 (9.8)	2.28 (15.5)	1.56 (9.3)	2.92 (3.0)
Gross income per person	\$	11 350 (17.7)	10 030 (12.1)	9 430 (11.6)	10 370 (13.9)	8 550 (15.4)	12 300 (28.0)	10 270 (6.4)
<b>Beef</b>								
- Dearer steak	%	6.3 (17.4)	8.2 (17.4)	5.9 (15.1)	9.8 (15.9)	8.1 (15.9)	8.3 (17.7)	7.8 (7.3)
- Other steak	%	5.3 (28.1)	7.7 (13.2)	6.1 (16.5)	8.4 (17.9)	7.8 (17.4)	8.0 (21.0)	7.4 (7.5)
- Roast	%	2.2 (56.3)	2.7 (19.2)	2.9 (27.8)	3.6 (20.2)	4.0 (24.9)	4.4 (18.9)	3.4 (9.3)
- Mince	%	9.6 (19.7)	9.4 (14.5)	7.0 (13.9)	5.4 (16.0)	5.3 (20.0)	4.9 (33.8)	6.7 (8.2)
- Sausage	%	5.7 (24.9)	5.0 (17.4)	7.8 (38.3)	4.4 (13.2)	5.9 (26.0)	5.2 (14.8)	5.7 (13.3)
- Other and undefined	%	0.1 (101.7)	0.1 (52.3)	3.1 (58.5)	1.6 (40.9)	0.1 (63.5)	3.9 (72.8)	1.7 (40.5)
Total	%	29.2 (7.7)	33.1 (5.0)	32.8 (12.2)	33.1 (7.9)	31.0 (8.7)	34.7 (8.1)	32.7 (3.8)
<b>Veal</b>								
- Steak	%	1.6 (45.2)	0.8 (28.1)	0.9 (34.7)	2.6 (51.8)	0.8 (43.4)	0.5 (39.9)	1.1 (21.2)
- Chops and cutlets	%	0.1 (100.9)	1.4 (77.3)	0.5 (43.4)	0.8 (38.3)	0.4 (83.5)	1.5 (59.9)	0.9 (34.1)
- Other and undefined	%	0.0 (0.0)	0.2 (49.0)	1.1 (67.4)	1.2 (33.9)	0.3 (55.1)	0.7 (79.3)	0.6 (31.3)
Total	%	1.6 (43.9)	2.3 (46.3)	2.4 (35.2)	4.6 (32.3)	1.5 (33.7)	2.7 (39.2)	2.6 (16.3)
<b>Lamb</b>								
- Chops and cutlets	%	8.7 (20.2)	9.0 (12.1)	8.4 (14.5)	12.2 (14.9)	10.1 (9.6)	13.2 (13.1)	10.4 (5.5)
- Roast	%	5.2 (31.9)	5.1 (18.5)	6.3 (17.1)	5.2 (17.4)	5.4 (18.1)	6.3 (21.9)	5.7 (8.6)
- Other and undefined	%	5.7 (51.3)	5.3 (28.6)	5.1 (24.8)	5.1 (35.0)	7.9 (25.2)	4.5 (32.8)	5.5 (12.1)
Total	%	19.7 (18.4)	19.3 (10.8)	19.7 (10.8)	22.4 (10.1)	23.4 (8.8)	24.0 (11.1)	21.6 (4.6)
<b>Pork</b>								
- Steak and chops	%	2.5 (36.3)	2.4 (19.6)	2.0 (24.6)	2.0 (23.3)	2.2 (25.7)	1.1 (29.2)	2.0 (10.1)
- Roast	%	1.9 (96.2)	1.4 (38.7)	1.1 (39.1)	1.1 (40.1)	1.4 (46.1)	0.6 (55.1)	1.2 (20.1)
- Sausage	%	2.0 (44.7)	0.8 (25.4)	0.5 (34.6)	0.6 (41.2)	0.5 (48.0)	0.5 (56.4)	0.7 (18.7)
- Other and undefined	%	-	1.3 (35.7)	1.8 (41.2)	0.6 (43.9)	0.2 (60.6)	0.4 (58.1)	0.8 (22.3)
Total	%	6.3 (33.3)	5.9 (16.5)	5.4 (21.6)	4.2 (19.3)	4.3 (23.5)	2.6 (20.4)	4.6 (8.7)
Offal	%	0.1 (74.3)	1.1 (34.9)	0.9 (28.8)	3.1 (30.6)	1.7 (35.6)	2.2 (38.3)	1.6 (15.8)
Other red meat	%	0.2 (101.6)	-	0.2 (68.5)	0.2 (61.4)	0.9 (45.7)	-	0.3 (31.0)
Total red meat	%	57.1 (8.0)	61.9 (4.6)	61.4 (4.8)	67.6 (2.9)	62.7 (4.6)	66.2 (3.7)	63.4 (2.0)
Poultry	%	23.7 (11.6)	17.0 (6.1)	20.6 (13.3)	16.7 (9.8)	19.4 (12.7)	19.6 (11.4)	19.1 (4.8)
Canned meat, excluding fish	%	2.2 (30.7)	1.0 (26.1)	0.9 (28.7)	0.6 (26.9)	1.4 (38.0)	0.4 (45.9)	0.9 (13.6)
Bacon and ham	%	3.1 (22.8)	3.5 (16.1)	3.6 (10.7)	3.1 (11.5)	3.6 (23.0)	2.5 (22.8)	3.3 (7.2)
Smallgoods	%	4.3 (33.8)	3.4 (15.5)	5.0 (17.9)	2.7 (22.6)	2.2 (26.0)	1.6 (33.9)	3.1 (10.6)
Other meat and undefined	%	0.5 (54.8)	1.0 (51.9)	1.0 (34.4)	0.7 (38.6)	1.3 (50.6)	0.6 (43.0)	0.9 (18.4)
Fish	%	7.2 (33.3)	9.8 (17.7)	6.5 (17.6)	8.0 (12.0)	9.1 (16.2)	9.0 (15.6)	8.4 (8.1)
Other seafood	%	1.9 (57.5)	2.5 (47.5)	1.1 (41.2)	0.5 (49.4)	0.4 (44.2)	0.2 (44.5)	1.0 (27.5)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D16: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO BIRTHPLACE OF HOUSEKEEPER

Item	Unit	Birthplace of housekeeper							All households	
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East	Other		
Number of households	no.	605	88	28	18	61	30	19	849	
Household size	no.	2.88 (5.2)	2.56 (10.7)	2.94 (22.9)	2.85 (24.7)	3.66 (12.0)	2.95 (17.7)	3.51 (22.2)	2.92 (3.0)	
Gross income per person	\$	10 060 (6.4)	16 090 (30.9)	9 150 (25.4)	5 930 (28.9)	7 680 (20.9)	9 700 (32.9)	7 960 (23.9)	10 270 (6.4)	
<b>Beef</b>										
- Dearer steak	\$	0.88 (7.5)	1.03 (31.3)	0.54 (45.6)	1.15 (53.6)	1.23 (29.6)	0.56 (35.3)	0.90 (42.0)	0.91 (7.2)	
- Other steak	\$	0.60 (9.1)	0.74 (28.2)	0.62 (43.9)	0.48 (54.1)	0.38 (26.6)	1.64 (46.0)	0.37 (44.0)	0.63 (8.0)	
- Roast	\$	0.28 (9.6)	0.26 (27.5)	0.26 (62.4)	0.24 (62.0)	0.22 (54.1)	0.58 (53.4)	0.09 (78.7)	0.28 (9.0)	
- Mince	\$	0.39 (9.0)	0.42 (30.8)	0.58 (37.8)	1.52 (63.9)	0.35 (24.3)	0.54 (67.9)	0.26 (47.9)	0.44 (10.0)	
- Sausage	\$	0.30 (7.9)	0.30 (34.8)	0.18 (42.1)	0.54 (86.0)	0.12 (35.9)	0.10 (71.9)	0.09 (47.3)	0.28 (9.1)	
- Other and undefined	\$	0.04 (49.8)	0.05 (65.7)	0.02 (100.0)	0.07 (100.0)	0.24 (91.9)	-	0.30 (90.5)	0.06 (35.1)	
Total	\$	2.50 (5.2)	2.80 (20.5)	2.20 (27.5)	3.98 (41.3)	2.54 (22.6)	3.42 (39.3)	2.01 (27.9)	2.61 (4.1)	
<b>Veal</b>										
- Steak	\$	0.11 (16.6)	0.05 (49.0)	0.09 (61.0)	0.18 (55.2)	0.64 (39.7)	0.03 (77.4)	0.02 (100.0)	0.14 (16.9)	
- Chops and cutlets	\$	0.05 (35.2)	0.24 (93.0)	0.01 (100.0)	0.30 (55.1)	0.10 (55.9)	0.00 (00.0)	0.02 (100.0)	0.08 (34.7)	
- Other and undefined	\$	0.03 (60.9)	0.10 (68.2)	0.06 (75.4)	0.30 (45.0)	0.17 (53.8)	0.00 (0.0)	0.00 (0.0)	0.06 (27.9)	
Total	\$	0.18 (19.0)	0.39 (60.2)	0.16 (44.6)	0.78 (34.0)	0.92 (30.8)	0.03 (77.4)	0.05 (70.8)	0.27 (14.7)	
<b>Lamb</b>										
- Chops and cutlets	\$	0.71 (7.0)	0.77 (24.9)	0.36 (47.9)	0.24 (62.1)	0.60 (27.1)	0.26 (45.5)	1.15 (46.1)	0.67 (5.6)	
- Roast	\$	0.43 (12.2)	0.25 (28.1)	0.07 (73.8)	0.28 (70.7)	0.18 (39.3)	0.08 (54.9)	0.25 (52.5)	0.36 (10.1)	
- Other and undefined	\$	0.22 (13.9)	0.25 (42.7)	0.07 (100.0)	0.05 (100.0)	0.06 (51.8)	0.06 (74.7)	0.03 (100.0)	0.19 (12.8)	
Total	\$	1.36 (6.6)	1.26 (19.8)	0.50 (38.8)	0.56 (60.7)	0.84 (23.6)	0.40 (34.4)	1.44 (38.2)	1.22 (5.1)	
<b>Pork</b>										
- Steak and chops	\$	0.15 (14.0)	0.12 (27.2)	0.32 (52.1)	0.27 (59.5)	0.33 (36.2)	0.74 (41.1)	0.06 (54.4)	0.19 (11.3)	
- Roast	\$	0.07 (26.8)	0.18 (49.6)	0.04 (74.2)	0.29 (85.2)	0.06 (83.7)	0.05 (82.6)	0.10 (85.8)	0.09 (20.9)	
- Sausage	\$	0.04 (24.8)	0.06 (45.1)	0.19 (71.7)	0.03 (100.0)	0.05 (45.9)	0.04 (64.9)	0.03 (100.0)	0.05 (20.6)	
- Other and undefined	\$	0.03 (23.2)	0.08 (56.0)	0.04 (72.9)	0.12 (52.6)	0.04 (60.2)	0.26 (54.6)	0.07 (60.2)	0.05 (17.4)	
Total	\$	0.29 (10.8)	0.45 (27.0)	0.60 (43.2)	0.71 (55.9)	0.48 (31.6)	1.09 (37.6)	0.27 (48.4)	0.38 (8.9)	

(Continued on next page)

Table D16 (continued)

Item	Unit	Birthplace of housekeeper								All households
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East	Other		
Offal	\$	0.05 (16.2)	0.09 (43.7)	0.15 (45.5)	0.28 (63.6)	0.08 (43.9)	0.33 (67.5)	0.29 (92.7)	0.08 (17.8)	
Other red meat	\$	0.01 (38.0)	0.01 (100.0)	0.07 (71.6)	0.01 (100.0)	0.04 (91.6)	0.02 (100.0)	0.00 (0.0)	0.01 (29.8)	
Total red meat	\$	4.38 (5.1)	4.99 (17.1)	3.69 (25.3)	6.33 (34.7)	4.89 (17.4)	5.29 (31.4)	4.06 (29.6)	4.56 (3.3)	
Poultry	\$	1.01 (9.0)	1.24 (21.8)	0.91 (32.4)	2.03 (46.0)	0.99 (16.4)	1.68 (30.3)	1.57 (25.0)	1.11 (6.9)	
Canned meat, excluding fish	\$	0.07 (19.3)	0.15 (27.1)	0.22 (63.3)	0.01 (70.8)	0.02 (58.2)	0.18 (43.7)	0.02 (84.6)	0.09 (14.4)	
Bacon and ham	\$	0.36 (7.6)	0.47 (17.4)	0.25 (30.8)	0.78 (43.7)	0.27 (33.0)	0.34 (36.6)	0.21 (65.9)	0.37 (6.7)	
Smallgoods	\$	0.25 (8.9)	0.14 (25.2)	0.55 (34.7)	0.75 (48.4)	0.31 (54.0)	0.16 (52.8)	0.09 (65.9)	0.26 (8.5)	
Other meat and undefined	\$	0.05 (20.5)	0.13 (74.7)	0.15 (44.0)	0.01 (100.0)	0.10 (56.5)	0.02 (100.0)	0.08 (100.0)	0.06 (23.2)	
Fish	\$	0.59 (7.9)	1.04 (29.7)	0.60 (36.8)	0.98 (41.6)	1.10 (22.6)	3.23 (58.6)	1.07 (29.7)	0.81 (11.5)	
Other seafood	\$	0.12 (23.2)	0.18 (69.0)	-	0.01 (100.0)	0.04 (78.7)	1.62 (90.1)	0.14 (87.5)	0.18 (35.8)	
Total meat and seafood	\$	6.84 (4.9)	8.35 (16.2)	6.38 (24.6)	10.91 (33.8)	7.72 (14.2)	12.52 (41.6)	7.22 (25.9)	7.44 (3.7)	
Fruit and vegetables	\$	3.85 (5.1)	4.45 (15.5)	4.57 (33.9)	4.84 (28.9)	4.05 (19.4)	4.10 (24.5)	4.27 (21.9)	4.01 (3.4)	
Eggs	\$	0.57 (5.8)	0.62 (19.9)	0.48 (25.0)	0.59 (31.9)	0.55 (15.9)	0.87 (23.5)	0.41 (27.2)	0.58 (4.3)	
Cheese	\$	0.73 (5.2)	0.79 (16.2)	0.86 (27.0)	1.36 (41.2)	1.42 (19.7)	0.65 (41.9)	0.72 (29.4)	0.81 (5.0)	
Bread	\$	1.14 (4.9)	1.22 (13.0)	1.06 (26.7)	1.47 (28.9)	1.23 (17.1)	1.05 (28.5)	0.87 (21.9)	1.16 (3.4)	
Milk	\$	1.26 (5.3)	1.87 (26.9)	1.17 (29.2)	1.34 (32.9)	1.08 (16.6)	1.23 (23.3)	0.86 (23.5)	1.30 (5.0)	
Frozen food	\$	0.82 (9.1)	0.72 (23.6)	0.40 (38.4)	1.28 (59.6)	0.65 (22.7)	0.84 (64.2)	0.81 (34.2)	0.80 (8.5)	
Other food groceries	\$	7.64 (5.1)	7.66 (12.3)	7.73 (30.2)	6.96 (30.2)	6.17 (16.4)	5.37 (27.4)	7.28 (35.1)	7.41 (3.5)	
Total food	\$	22.84 (4.4)	25.68 (13.4)	22.66 (24.9)	28.74 (28.6)	22.88 (13.5)	26.63 (32.6)	22.44 (23.7)	23.51 (2.9)	

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D17: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO BIRTHPLACE OF HOUSEKEEPER

Item	Unit	Birthplace of housekeeper								All households
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East	Other		
Number of households	no.	605	88	28	18	61	30	19	849	
Household size	no.	2.88 (5.2)	2.56 (10.7)	2.94 (22.9)	2.85 (24.7)	3.66 (12.0)	2.95 (17.7)	3.51 (22.2)	2.92 (3.0)	
Gross income per person	\$	10 060 (6.4)	16 090 (30.9)	9 150 (25.4)	5 930 (28.9)	7 680 (20.9)	9 700 (32.9)	7 960 (23.9)	10 270 (6.4)	
<b>Beef</b>										
- Dearer steak	g	138 (8.5)	185 (29.4)	70 (41.6)	144 (46.5)	201 (31.5)	88 (31.5)	141 (42.5)	144 (7.6)	
- Other steak	g	133 (9.6)	157 (26.2)	129 (39.6)	85 (50.9)	82 (30.7)	279 (40.7)	88 (43.5)	135 (7.7)	
- Roast	g	65 (11.1)	59 (27.8)	50 (65.2)	66 (71.9)	34 (55.3)	107 (55.2)	31 (71.0)	62 (9.7)	
- Mince	g	113 (10.0)	144 (32.4)	143 (36.0)	327 (63.3)	95 (26.1)	121 (58.4)	61 (45.8)	123 (9.3)	
- Sausage	g	102 (8.3)	130 (44.5)	57 (40.8)	386 (94.9)	32 (37.8)	24 (74.1)	36 (50.6)	105 (14.7)	
- Other and undefined	g	9 (35.3)	104 (92.9)	31 (100.0)	122 (94.0)	92 (94.9)	2 (100.0)	60 (90.3)	31 (42.3)	
Total	g	560 (5.8)	780 (23.3)	481 (26.9)	1 131 (60.9)	537 (26.3)	620 (34.3)	416 (26.5)	600 (5.9)	
<b>Veal</b>										
- Steak	g	14 (17.0)	9 (51.4)	11 (63.1)	26 (53.3)	115 (47.7)	3 (73.3)	6 (100.0)	20 (21.1)	
- Chops and cutlets	g	12 (50.6)	35 (91.1)	4 (100.0)	55 (56.6)	19 (59.3)	0 (0.0)	6 (100.0)	16 (34.7)	
- Other and undefined	g	6 (59.5)	30 (76.0)	6 (70.8)	66 (48.3)	26 (53.3)	0 (0.0)	0 (0.0)	12 (31.1)	
Total	g	31 (24.6)	74 (53.3)	21 (43.3)	147 (35.4)	160 (36.4)	3 (73.3)	12 (70.8)	47 (16.6)	
<b>Lamb</b>										
- Chops and cutlets	g	203 (7.2)	213 (23.4)	97 (43.8)	51 (69.3)	155 (25.5)	80 (48.2)	319 (46.9)	190 (5.5)	
- Roast	g	120 (10.8)	81 (28.0)	23 (72.4)	122 (79.0)	58 (44.1)	23 (54.2)	68 (51.8)	104 (9.0)	
- Other and undefined	g	116 (13.1)	129 (45.4)	40 (100.0)	75 (100.0)	28 (61.4)	38 (71.4)	9 (100.0)	102 (12.9)	
Total	g	440 (6.7)	423 (22.3)	160 (38.5)	248 (59.8)	241 (21.8)	141 (35.8)	396 (38.8)	395 (5.3)	
<b>Pork</b>										
- Steak and chops	g	29 (13.0)	25 (27.8)	50 (42.2)	55 (58.7)	62 (34.3)	134 (38.3)	9 (52.5)	36 (10.6)	
- Roast	g	18 (27.8)	39 (46.7)	11 (71.9)	58 (84.9)	18 (83.0)	14 (81.6)	22 (81.7)	21 (20.1)	
- Sausage	g	12 (23.0)	16 (41.8)	30 (71.1)	13 (100.0)	11 (44.3)	10 (62.9)	9 (100.0)	13 (18.8)	
- Other and undefined	g	8 (23.1)	14 (49.7)	7 (70.9)	61 (61.5)	8 (73.2)	92 (66.1)	24 (61.0)	15 (22.0)	
Total	g	67 (11.3)	94 (26.8)	98 (39.8)	186 (42.6)	99 (32.0)	250 (41.3)	63 (46.5)	85 (8.9)	
<b>Offal</b>										
Other red meat	g	18 (15.8)	29 (41.8)	84 (53.2)	96 (77.6)	27 (43.0)	79 (59.6)	115 (89.1)	30 (16.4)	
	g	5 (41.7)	4 (100.0)	10 (72.0)	3 (100.0)	7 (93.8)	7 (100.0)	0 (0.0)	5 (31.2)	
Total red meat	g	1 120 (5.4)	1 404 (18.8)	855 (25.3)	1 812 (46.5)	1 070 (19.0)	1 101 (26.8)	1 002 (30.3)	1 161 (4.3)	
<b>Poultry</b>										
Canned meat, excl. fish	g	315 (8.1)	388 (27.4)	286 (36.1)	675 (43.4)	335 (17.5)	522 (27.9)	503 (23.9)	350 (6.7)	
Bacon and ham	g	15 (19.1)	27 (23.3)	44 (71.9)	3 (71.0)	3 (55.6)	40 (40.8)	10 (92.3)	17 (14.3)	
Smallgoods	g	57 (8.0)	78 (18.1)	39 (35.6)	145 (54.1)	34 (33.0)	53 (38.7)	39 (73.3)	60 (7.8)	
Other meat and undefined	g	52 (11.2)	37 (26.7)	125 (39.2)	213 (59.1)	50 (50.1)	32 (47.3)	13 (53.7)	57 (11.3)	
Fish	g	17 (22.1)	12 (60.5)	45 (50.4)	3 (100.0)	17 (51.9)	7 (100.0)	17 (100.0)	16 (18.9)	
Other seafood	g	120 (9.2)	202 (28.9)	111 (37.2)	145 (40.5)	225 (19.9)	451 (44.3)	248 (27.4)	153 (8.3)	
Total meat and seafood	g	1 711 (5.0)	2 171 (16.7)	1 506 (25.9)	2 998 (41.3)	1 741 (15.2)	2 328 (29.5)	1 846 (25.9)	1 833 (3.8)	

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D18: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO BIRTHPLACE OF HOUSEKEEPER

Item	Unit	Birthplace of housekeeper								All households
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East	Other		
Number of households	no.	605	88	28	18	61	30	19	849	
Household size	no.	2.88 (5.2)	2.56 (10.7)	2.94 (22.9)	2.85 (24.7)	3.66 (12.0)	2.95 (17.7)	3.51 (22.2)	2.92 (3.0)	
Gross income per person	\$	10 060 (6.4)	16 090 (30.9)	9 150 (25.4)	5 930 (28.9)	7 680 (20.9)	9 700 (32.9)	7 960 (23.9)	10 270 (6.4)	
<b>Beef</b>										
- Dearer steak	%	8.1 (7.2)	8.5 (22.3)	4.7 (33.1)	4.8 (45.8)	11.6 (27.8)	3.8 (41.7)	7.7 (41.0)	7.8 (7.3)	
- Other steak	%	7.8 (8.7)	7.2 (24.6)	8.6 (28.5)	2.8 (36.2)	4.7 (28.4)	12.0 (24.5)	4.8 (43.9)	7.4 (7.5)	
- Roast	%	3.8 (9.5)	2.7 (28.9)	3.3 (65.8)	2.2 (77.1)	2.0 (52.1)	4.6 (41.9)	1.7 (67.8)	3.4 (9.3)	
- Mince	%	6.6 (7.6)	6.6 (27.9)	9.5 (24.5)	10.9 (46.5)	5.5 (23.1)	5.2 (35.2)	3.3 (45.2)	6.7 (8.2)	
- Sausage	%	6.0 (7.1)	6.0 (36.8)	3.8 (37.2)	12.9 (62.8)	1.8 (35.9)	1.0 (72.9)	1.9 (47.6)	5.7 (13.3)	
- Other and undefined	%	0.5 (34.9)	4.8 (86.3)	2.1 (92.2)	4.1 (61.7)	5.3 (86.3)	0.1 (102.0)	3.2 (75.0)	1.7 (40.5)	
Total	%	32.7 (3.0)	35.9 (11.5)	31.9 (10.0)	37.7 (29.1)	30.8 (16.2)	26.6 (12.5)	22.5 (15.5)	32.7 (3.8)	
<b>Veal</b>										
- Steak	%	0.8 (15.5)	0.4 (53.4)	0.7 (61.4)	0.9 (60.4)	6.6 (45.4)	0.2 (81.2)	0.3 (96.8)	1.1 (21.2)	
- Chops and cutlets	%	0.7 (50.0)	1.6 (90.8)	0.3 (89.8)	1.8 (63.7)	1.1 (60.4)	0.0 (0.0)	0.3 (99.7)	0.9 (34.1)	
- Other and undefined	%	0.3 (58.7)	1.4 (76.2)	0.4 (66.5)	2.2 (59.4)	1.5 (50.7)	0.0 (0.0)	0.0 (0.0)	0.6 (31.3)	
Total	%	1.8 (23.3)	3.4 (53.3)	1.4 (34.4)	4.9 (47.5)	9.2 (33.9)	0.2 (81.2)	0.6 (68.2)	2.6 (16.3)	
<b>Lamb</b>										
- Chops and cutlets	%	11.9 (4.9)	9.8 (19.7)	6.4 (30.5)	1.7 (43.9)	8.9 (22.0)	3.4 (50.2)	17.3 (36.3)	10.4 (5.5)	
- Roast	%	7.0 (9.6)	3.7 (29.0)	1.5 (74.8)	4.1 (44.2)	3.4 (43.0)	1.0 (60.8)	3.7 (52.3)	5.7 (8.6)	
- Other and undefined	%	6.8 (12.3)	6.0 (39.8)	2.7 (99.9)	2.5 (97.1)	1.6 (59.7)	1.6 (74.2)	0.5 (98.7)	5.5 (12.1)	
Total	%	25.7 (4.5)	19.5 (16.7)	10.7 (30.6)	8.3 (26.4)	13.8 (17.9)	6.0 (40.3)	21.4 (28.2)	21.6 (4.6)	
<b>Pork</b>										
- Steak and chops	%	1.7 (11.8)	1.2 (30.0)	3.3 (38.0)	1.8 (60.7)	3.6 (29.7)	5.8 (39.8)	0.5 (60.6)	2.0 (10.1)	
- Roast	%	1.0 (27.1)	1.8 (43.5)	0.7 (65.2)	1.9 (81.1)	1.1 (75.0)	0.6 (91.4)	1.2 (65.5)	1.2 (20.1)	
- Sausage	%	0.7 (22.7)	0.7 (42.0)	2.0 (62.2)	0.4 (106.2)	0.6 (45.1)	0.4 (70.2)	0.5 (84.5)	0.7 (18.7)	
- Other and undefined	%	0.5 (23.4)	0.7 (51.3)	0.5 (69.0)	2.0 (73.8)	0.4 (71.1)	4.0 (65.6)	1.3 (64.0)	0.8 (22.3)	
Total	%	3.9 (10.1)	4.3 (25.7)	6.5 (30.4)	6.2 (48.2)	5.7 (24.3)	10.8 (43.3)	3.4 (34.7)	4.6 (8.7)	
<b>Offal</b>	%	1.1 (15.6)	1.4 (37.3)	5.6 (47.1)	3.2 (76.4)	1.6 (41.3)	3.4 (43.6)	6.2 (73.3)	1.6 (15.8)	
<b>Other red meat</b>	%	0.3 (41.1)	0.2 (101.1)	0.7 (63.3)	0.1 (106.9)	0.4 (95.5)	0.3 (102.9)	0.0 (0.0)	0.3 (31.0)	
<b>Total red meat</b>	%	65.5 (1.9)	64.7 (7.1)	56.8 (4.0)	60.4 (10.3)	61.5 (6.5)	47.3 (11.0)	54.3 (9.1)	63.4 (2.0)	
<b>Poultry</b>	%	18.4 (5.7)	17.9 (22.1)	19.0 (19.5)	22.5 (25.5)	19.3 (11.1)	22.4 (14.4)	27.3 (15.4)	19.1 (4.8)	
<b>Canned meat, excluding fish</b>	%	0.9 (17.9)	1.3 (22.2)	2.9 (70.2)	0.1 (81.8)	0.2 (53.6)	1.7 (46.8)	0.6 (91.8)	0.9 (13.6)	
<b>Bacon and ham</b>	%	3.3 (6.6)	3.6 (15.9)	2.6 (30.7)	4.9 (50.5)	1.9 (33.2)	2.3 (41.9)	2.1 (57.6)	3.3 (7.2)	
<b>Smallgoods</b>	%	3.1 (10.3)	1.7 (27.9)	8.3 (26.8)	7.1 (26.6)	2.9 (50.7)	1.4 (52.4)	0.7 (51.5)	3.1 (10.6)	
<b>Other meat and undefined</b>	%	1.0 (21.9)	0.5 (58.0)	3.0 (42.7)	0.1 (106.9)	1.0 (51.9)	0.3 (102.9)	0.9 (84.5)	0.9 (18.4)	
<b>Fish</b>	%	7.0 (8.7)	9.3 (22.9)	7.4 (29.0)	4.8 (46.7)	13.0 (19.8)	19.4 (20.3)	13.5 (19.8)	8.4 (8.1)	
<b>Other seafood</b>	%	0.9 (22.3)	1.0 (56.0)	0.1 (98.9)	0.1 (104.2)	0.3 (88.5)	5.3 (69.1)	0.7 (75.4)	1.0 (27.5)	

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D19: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO EDUCATION LEVEL OF HOUSEKEEPER

Item	Unit	Highest education of housekeeper						All households
		Primary or less	Secondary 1-4 years	Secondary 5-6 years	Trade or technical	Tertiary	Not stated	
Number of households	no.	75	336	181	85	163	9	849
Household size	no.	2.86 (11.6)	2.99 (7.7)	3.08 (7.7)	2.63 (13.6)	2.92 (9.3)	1.76 (37.4)	2.92 (3.0)
Gross income per person	\$	6 570 (17.5)	8 110 (10.4)	9 520 (12.1)	13 060 (16.3)	15 040 (20.7)		10 270 (6.4)
<b>Beef</b>								
- Dearer steak	\$	1.09 (24.7)	0.85 (10.8)	0.95 (15.5)	1.07 (30.9)	0.73 (19.1)	1.54 (65.5)	0.91 (7.2)
- Other steak	\$	0.85 (21.8)	0.69 (11.9)	0.47 (15.9)	0.76 (38.0)	0.44 (23.4)	1.33 (64.8)	0.63 (8.0)
- Roast	\$	0.41 (33.0)	0.29 (13.9)	0.21 (24.1)	0.27 (35.6)	0.20 (23.1)	1.08 (55.9)	0.28 (9.0)
- Mince	\$	0.26 (33.6)	0.41 (10.2)	0.33 (16.5)	0.56 (35.6)	0.58 (33.1)	1.10 (64.7)	0.44 (10.0)
- Sausage	\$	0.33 (25.2)	0.28 (11.3)	0.25 (22.1)	0.27 (22.1)	0.28 (35.2)	0.62 (95.6)	0.28 (9.1)
- Other and undefined	\$	0.24 (64.4)	0.08 (49.6)	0.01 (63.0)	0.01 (73.4)	0.03 (56.7)	0.02 (100.0)	0.06 (35.1)
Total	\$	3.19 (19.0)	2.61 (7.4)	2.21 (12.4)	2.93 (22.0)	2.26 (16.3)	5.69 (52.5)	2.61 (4.1)
<b>Veal</b>								
- Steak	\$	0.35 (45.2)	0.12 (31.8)	0.06 (37.8)	0.17 (36.9)	0.12 (22.2)	0.17 (100.0)	0.14 (16.9)
- Chops and cutlets	\$	0.12 (43.2)	0.09 (69.6)	0.06 (48.1)	0.09 (100.0)	0.04 (40.6)	0.00 (0.0)	0.08 (34.7)
- Other and undefined	\$	0.18 (43.1)	0.04 (66.6)	0.03 (52.8)	0.03 (52.0)	0.07 (64.4)	0.00 (0.0)	0.06 (27.9)
Total	\$	0.65 (30.6)	0.25 (32.6)	0.14 (25.3)	0.29 (39.7)	0.23 (24.1)	0.17 (100.0)	0.27 (14.7)
<b>Lamb</b>								
- Chops and cutlets	\$	0.65 (22.4)	0.83 (9.9)	0.58 (15.0)	0.63 (25.5)	0.43 (14.4)	1.60 (51.0)	0.67 (5.6)
- Roast	\$	0.39 (32.7)	0.39 (11.5)	0.26 (20.8)	0.27 (33.0)	0.40 (29.3)	0.56 (75.6)	0.36 (10.1)
- Other and undefined	\$	0.17 (44.5)	0.16 (20.5)	0.23 (24.0)	0.08 (38.0)	0.21 (33.6)	0.67 (64.5)	0.19 (12.8)
Total	\$	1.21 (20.9)	1.38 (8.2)	1.07 (11.8)	0.98 (20.3)	1.04 (16.2)	2.84 (49.4)	1.22 (5.1)
<b>Pork</b>								
- Steak and chops	\$	0.36 (30.4)	0.21 (21.3)	0.18 (25.2)	0.10 (37.0)	0.13 (25.7)	0.09 (100.0)	0.19 (11.3)
- Roast	\$	0.19 (54.9)	0.06 (28.1)	0.06 (49.1)	0.25 (47.2)	0.01 (61.6)	0.27 (85.4)	0.09 (20.9)
- Sausage	\$	0.03 (53.0)	0.03 (29.0)	0.09 (39.6)	0.02 (53.4)	0.05 (28.1)	0.14 (100.0)	0.05 (20.6)
- Other and undefined	\$	0.03 (71.8)	0.05 (29.0)	0.06 (48.8)	0.10 (41.4)	0.04 (43.5)	0.07 (100.0)	0.05 (17.4)
Total	\$	0.61 (31.6)	0.35 (15.0)	0.39 (24.1)	0.47 (29.2)	0.23 (19.8)	0.57 (50.4)	0.38 (8.9)

(Continued on next page)

Table D19 (continued)

Item	Unit	Highest education of housekeeper						All households
		Primary or less	Secondary 1-4 years	Secondary 5-6 years	Trade or technical	Tertiary	Not stated	
Offal	\$	0.04 (34.4)	0.08 (28.1)	0.10 (34.4)	0.12 (62.6)	0.08 (46.3)	0.12 (86.4)	0.08 (17.8)
Other red meat	\$	0.04 (66.3)	0.02 (39.4)	0.01 (67.3)	0.00 (0.0)	0.00 (100.0)	-	0.01 (29.8)
Total red meat	\$	5.74 (17.9)	4.69 (6.9)	3.92 (11.3)	4.80 (18.4)	3.84 (12.3)	9.40 (45.5)	4.56 (3.3)
Poultry	\$	1.07 (21.8)	0.96 (9.9)	1.22 (17.4)	1.35 (24.0)	1.09 (17.5)	2.25 (45.4)	1.11 (6.9)
Canned meat, excl. fish	\$	0.03 (46.0)	0.08 (31.7)	0.10 (19.3)	0.08 (44.0)	0.10 (32.2)	0.33 (71.1)	0.09 (14.4)
Bacon and ham	\$	0.23 (26.3)	0.39 (11.9)	0.40 (15.1)	0.40 (20.1)	0.38 (19.4)	0.39 (71.3)	0.37 (6.7)
Smallgoods	\$	0.22 (41.3)	0.23 (14.5)	0.29 (17.7)	0.25 (22.0)	0.33 (25.2)	0.04 (77.4)	0.26 (8.5)
Other meat and undefined	\$	0.08 (52.6)	0.07 (26.9)	0.05 (31.2)	0.12 (82.7)	0.03 (46.8)	0.01 (100.0)	0.06 (23.2)
Fish	\$	0.77 (21.0)	0.76 (13.5)	0.66 (12.3)	1.28 (54.7)	0.71 (21.8)	2.01 (73.5)	0.81 (11.5)
Other seafood	\$	0.01 (100.0)	0.10 (32.6)	0.13 (34.5)	0.86 (67.7)	0.11 (42.4)	0.00 (0.0)	0.18 (35.8)
Total meat and seafood	\$	8.15 (16.7)	7.26 (7.0)	6.77 (10.6)	9.14 (24.4)	6.58 (11.9)	14.43 (43.4)	7.44 (3.7)
Fruit and vegetables	\$	4.40 (20.6)	3.66 (7.3)	3.62 (12.6)	4.63 (15.6)	4.51 (9.4)	4.50 (46.6)	4.01 (3.4)
Eggs	\$	0.67 (16.6)	0.59 (8.8)	0.47 (10.1)	0.70 (18.5)	0.55 (14.1)	0.85 (43.9)	0.58 (4.3)
Cheese	\$	0.95 (24.2)	0.70 (8.5)	0.78 (11.5)	0.88 (18.2)	0.99 (13.0)	0.27 (53.5)	0.81 (5.0)
Bread	\$	1.26 (15.5)	1.18 (6.9)	1.09 (10.6)	1.19 (12.6)	1.10 (11.9)	1.27 (49.2)	1.16 (3.4)
Milk	\$	1.23 (16.8)	1.27 (7.4)	1.23 (8.9)	1.77 (31.4)	1.23 (11.5)	1.17 (50.0)	1.30 (5.0)
Frozen food	\$	0.67 (22.5)	0.85 (10.9)	0.75 (13.9)	1.05 (34.0)	0.72 (25.8)	0.65 (56.8)	0.80 (8.5)
Other food groceries	\$	7.11 (18.0)	7.53 (7.9)	7.14 (11.0)	8.06 (16.0)	7.35 (9.6)	6.59 (45.0)	7.41 (3.5)
Total food	\$	24.45 (15.4)	23.03 (6.8)	21.85 (9.4)	27.42 (16.9)	23.04 (9.5)	29.73 (43.3)	23.51 (2.9)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.



Table D20: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO EDUCATION LEVEL OF HOUSEKEEPER

Item	Unit	Highest education of housekeeper						All households
		Primary or less	Secondary 1-4 years	Secondary 5-6 years	Trade or technical	Tertiary	Not stated	
Number of households	no.	75	336	181	85	163	9	849
Household size	no.	2.86 (11.6)	2.99 (7.7)	3.08 (7.7)	2.63 (13.6)	2.92 (9.3)	1.76 (37.4)	2.92 (3.0)
Gross income per person	\$	6 570 (17.5)	8 110 (10.4)	9 520 (12.1)	13 060 (16.3)	15 040 (20.7)		10 270 (6.4)
<b>Beef</b>								
- Dearer steak	g	166 (25.4)	135 (11.9)	155 (15.8)	175 (30.8)	106 (18.9)	300 (61.2)	144 (7.6)
- Other steak	g	196 (23.1)	149 (12.6)	108 (16.6)	130 (32.0)	94 (24.5)	268 (68.6)	135 (7.7)
- Roast	g	86 (32.0)	68 (15.6)	45 (24.9)	51 (31.1)	45 (27.4)	277 (57.4)	62 (9.7)
- Mince	g	74 (28.7)	124 (11.3)	91 (16.9)	154 (35.4)	138 (30.2)	416 (63.0)	123 (9.3)
- Sausage	g	92 (22.5)	98 (11.7)	87 (21.2)	80 (21.3)	134 (54.3)	356 (97.3)	105 (14.7)
- Other and undefined	g	81 (79.4)	14 (35.4)	5 (83.8)	1 (65.2)	85 (70.0)	6 (100.0)	31 (42.3)
Total	g	694 (20.1)	588 (7.8)	492 (12.3)	591 (19.4)	602 (26.1)	1 623 (55.9)	600 (5.9)
<b>Veal</b>								
- Steak	g	44 (40.0)	22 (46.4)	8 (41.7)	22 (34.0)	16 (21.8)	23 (100.0)	20 (21.1)
- Chops and cutlets	g	23 (44.0)	14 (65.6)	11 (50.8)	37 (100.0)	9 (43.0)	0 (0.0)	16 (34.7)
- Other and undefined	g	27 (43.5)	8 (63.6)	5 (54.0)	9 (50.8)	20 (69.7)	0 (0.0)	12 (31.1)
Total	g	94 (28.1)	44 (33.8)	24 (27.9)	68 (56.5)	46 (34.1)	23 (100.0)	47 (16.6)
<b>Lamb</b>								
- Chops and cutlets	g	174 (21.4)	239 (10.5)	163 (14.7)	150 (22.4)	122 (15.3)	529 (54.7)	190 (5.5)
- Roast	g	100 (30.7)	118 (11.6)	76 (19.7)	63 (30.4)	119 (23.7)	211 (81.9)	104 (9.0)
- Other and undefined	g	99 (47.2)	92 (21.4)	126 (21.9)	39 (34.3)	101 (30.7)	419 (71.2)	102 (12.9)
Total	g	374 (20.6)	449 (8.9)	365 (11.4)	252 (18.0)	342 (14.9)	1 159 (55.0)	395 (5.3)
<b>Pork</b>								
- Steak and chops	g	68 (28.1)	38 (19.4)	40 (24.6)	20 (37.6)	22 (27.0)	12 (100.0)	36 (10.6)
- Roast	g	51 (48.6)	14 (28.8)	13 (46.9)	60 (49.5)	3 (63.8)	65 (81.0)	21 (20.1)
- Sausage	g	6 (48.5)	8 (27.3)	23 (33.8)	6 (53.9)	14 (29.0)	56 (100.0)	13 (18.8)
- Other and undefined	g	9 (71.3)	11 (23.8)	26 (51.8)	21 (45.0)	10 (48.5)	13 (100.0)	15 (22.0)
Total	g	133 (30.9)	71 (13.0)	102 (24.5)	107 (30.8)	49 (20.0)	148 (48.9)	85 (8.9)
<b>Offal</b>								
Other red meat	g	18 (35.5)	28 (28.5)	34 (33.9)	31 (42.7)	33 (50.2)	61 (89.8)	30 (16.4)
	g	16 (62.8)	6 (43.1)	2 (63.7)	0 (0.0)	2 (100.0)	2 (100.0)	5 (31.2)
Total red meat	g	1 329 (17.8)	1 186 (7.1)	1 019 (10.8)	1 049 (16.7)	1 074 (17.8)	3 015 (48.6)	1 161 (4.3)
<b>Poultry</b>								
Canned meat, excl. fish	g	345 (21.6)	321 (10.1)	371 (15.8)	422 (28.1)	300 (17.4)	869 (44.4)	350 (6.7)
Bacon and ham	g	5 (46.4)	16 (29.9)	21 (22.2)	20 (47.8)	17 (31.9)	33 (71.1)	17 (14.3)
Smallgoods	g	35 (27.5)	61 (12.0)	65 (17.7)	60 (21.5)	64 (24.7)	56 (78.6)	60 (7.8)
Other meat and undefined	g	41 (43.4)	54 (17.7)	56 (16.4)	55 (21.3)	77 (32.4)	6 (71.8)	57 (11.3)
Fish	g	14 (47.9)	22 (27.9)	16 (37.7)	15 (60.4)	6 (40.3)	2 (100.0)	16 (18.9)
Other seafood	g	166 (22.2)	142 (12.0)	151 (13.5)	175 (40.9)	132 (24.8)	470 (61.9)	153 (8.3)
	g	3 (100.0)	13 (31.7)	15 (31.4)	79 (58.9)	11 (41.7)	0 (0.0)	19 (27.8)
Total meat and seafood	g	1 937 (16.8)	1 817 (7.1)	1 715 (10.1)	1 876 (18.4)	1 680 (16.1)	4 451 (42.7)	1 833 (3.8)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D21: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO EDUCATION LEVEL OF HOUSEKEEPER

Item	Unit	Highest education of housekeeper						Tertiary	Not stated	All households
		Primary or less	Secondary 1-4 years	Secondary 5-6 years	Trade or technical					
Number of households	no.	75	336	181	85					849
Household size	no.	2.86 (11.6)	2.99 (7.7)	3.08 (7.7)	2.63 (13.6)			2.92 (9.3)	1.76 (37.4)	2.92 (3.0)
House income per person	\$	6 570 (17.5)	8 110 (10.4)	9 520 (12.1)	13 060 (16.5)			15 040 (20.7)		10 270 (6.4)
Beef	%	8.6 (21.3)	7.4 (9.1)	9.1 (13.2)	9.3 (26.0)			6.3 (19.8)	6.7 (36.7)	7.8 (7.3)
- Dearer steak	%	10.1 (17.0)	8.2 (11.6)	6.3 (12.9)	6.9 (24.5)			5.6 (23.5)	6.0 (52.5)	7.4 (7.5)
- Other steak	%	4.4 (26.5)	3.8 (13.9)	2.6 (22.0)	2.7 (28.1)			2.7 (27.7)	6.2 (49.0)	3.4 (9.3)
- Roast	%	3.8 (23.1)	6.8 (8.6)	5.3 (13.8)	5.2 (29.9)			8.2 (24.0)	9.4 (33.5)	6.7 (8.2)
- Mince	%	4.7 (20.3)	5.4 (8.7)	5.1 (16.3)	4.5 (22.2)			8.0 (43.0)	8.0 (72.8)	5.7 (13.5)
- Sausage	%	4.2 (73.5)	0.8 (35.2)	0.3 (83.5)	-			5.1 (59.6)	0.1 (105.7)	1.7 (40.5)
- Other and undefined	%	35.8 (10.1)	32.4 (3.6)	28.7 (6.4)	31.5 (10.1)			35.9 (13.0)	36.5 (23.7)	32.7 (3.8)
Total	%									
Veal	%	2.3 (37.1)	1.2 (47.0)	0.5 (37.5)	1.2 (36.5)			1.0 (23.4)	0.5 (91.2)	1.1 (21.2)
- Steak	%	1.2 (45.1)	0.8 (65.8)	0.6 (49.2)	2.0 (96.8)			0.6 (43.4)	0.0 (0.0)	0.9 (34.1)
- Chops and cutlets	%	1.4 (38.7)	0.5 (62.2)	0.3 (53.0)	0.5 (51.9)			1.2 (70.3)	0.0 (0.0)	0.6 (31.3)
- Other and undefined	%	4.9 (24.4)	2.4 (33.8)	1.4 (23.8)	3.6 (34.1)			2.7 (35.1)	0.5 (91.2)	2.6 (16.5)
Total	%									
Lamb	%	9.0 (15.3)	13.1 (7.5)	9.5 (11.0)	8.0 (19.8)			7.2 (17.3)	11.9 (36.0)	10.4 (5.5)
- Chops and cutlets	%	5.2 (24.2)	6.5 (9.9)	4.4 (17.8)	3.3 (31.1)			7.1 (20.7)	4.8 (78.9)	5.7 (8.6)
- Roast	%	5.1 (43.9)	5.1 (19.7)	7.4 (21.0)	2.1 (38.6)			6.0 (29.4)	9.4 (43.4)	5.5 (12.1)
- Other and undefined	%	19.3 (12.0)	24.7 (5.1)	21.3 (7.7)	13.4 (17.8)			20.3 (13.3)	26.0 (31.7)	21.6 (4.6)
Total	%									
Pork	%	3.5 (19.4)	2.1 (17.9)	2.4 (21.0)	1.1 (38.8)			1.3 (30.0)	0.3 (107.1)	2.0 (10.1)
- Steak and chops	%	2.6 (38.9)	0.8 (29.1)	0.8 (46.6)	3.2 (47.3)			0.2 (65.5)	1.5 (74.9)	1.2 (20.1)
- Roast	%	0.3 (50.8)	0.5 (27.4)	1.3 (30.5)	0.3 (54.4)			0.8 (31.5)	0.3 (96.9)	0.7 (18.7)
- Sausage	%	0.5 (73.4)	0.6 (23.5)	1.5 (51.1)	1.1 (48.1)			0.6 (50.6)	0.3 (107.1)	0.8 (22.3)
- Other and undefined	%	6.9 (21.2)	3.9 (11.9)	6.0 (21.6)	5.7 (30.1)			2.9 (24.0)	3.3 (44.7)	4.6 (8.7)
Total	%									
Offal	%	0.9 (37.9)	1.5 (28.2)	2.0 (31.7)	1.7 (34.9)			2.0 (46.6)	1.4 (89.1)	1.6 (15.8)
Other red meat	%	0.8 (62.4)	0.3 (41.7)	0.1 (63.1)	0.0 (46.3)			0.1 (100.6)	-	0.3 (31.0)
Total red meat	%	68.6 (4.3)	65.3 (2.3)	59.4 (3.6)	56.0 (9.2)			63.9 (3.9)	67.7 (13.2)	63.4 (2.0)
Poultry	%	17.8 (12.0)	17.7 (6.9)	21.6 (10.4)	22.5 (17.4)			17.9 (10.0)	19.5 (29.2)	19.1 (4.8)
- Canned meat, excluding fish	%	0.3 (49.0)	0.9 (27.0)	1.2 (21.6)	1.0 (49.8)			1.0 (30.8)	0.7 (49.0)	0.9 (13.6)
- Bacon and ham	%	1.8 (22.2)	3.4 (9.7)	3.8 (14.3)	3.2 (20.2)			3.8 (25.5)	1.3 (56.3)	3.3 (7.2)
- Smallgoods	%	2.1 (37.7)	3.0 (15.9)	3.3 (14.9)	2.9 (25.1)			4.6 (43.9)	0.1 (81.2)	3.1 (10.6)
- Other meat and undefined	%	0.7 (48.8)	1.2 (26.3)	0.9 (35.2)	0.8 (53.6)			0.4 (23.4)	-	0.9 (18.4)
Fish	%	8.6 (20.0)	7.8 (10.0)	8.8 (12.5)	9.3 (31.0)			7.9 (21.8)	10.6 (56.6)	8.4 (8.1)
Other seafood	%	0.1 (99.1)	0.7 (29.0)	0.9 (31.3)	4.2 (47.4)			0.7 (43.6)	0.0 (0.0)	1.0 (27.5)

- Negligible amount.  
Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D22: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Number of households	no.	228	160	397	64	849
Household size	no.	2.65 (7.2)	3.55 (10.7)	2.79 (5.1)	3.40 (14.1)	2.92 (3.0)
Gross income per person	\$	14 360 (8.3)	11 020 (27.9)	7 690 (9.7)	7 520 (19.2)	10 270 (6.4)
<b>Beef</b>						
- Dearer steak	\$	1.18 (15.1)	0.75 (19.1)	0.85 (10.6)	0.53 (21.5)	0.91 (7.2)
- Other steak	\$	0.60 (20.5)	0.65 (18.0)	0.67 (11.4)	0.50 (31.4)	0.63 (8.0)
- Roast	\$	0.20 (21.3)	0.19 (26.8)	0.31 (12.2)	0.59 (32.1)	0.28 (9.0)
- Mince	\$	0.44 (19.1)	0.46 (14.1)	0.44 (17.3)	0.41 (27.8)	0.44 (10.0)
- Sausage	\$	0.25 (28.2)	0.31 (15.7)	0.30 (10.6)	0.21 (28.9)	0.28 (9.1)
- Other and undefined	\$	0.04 (58.8)	0.02 (72.3)	0.09 (47.6)	0.02 (70.7)	0.06 (35.1)
Total	\$	2.72 (11.2)	2.38 (12.1)	2.67 (7.6)	2.25 (18.6)	2.61 (4.1)
<b>Veal</b>						
- Steak	\$	0.14 (33.9)	0.11 (26.2)	0.16 (23.0)	0.02 (64.4)	0.14 (16.9)
- Chops and cutlets	\$	0.04 (39.6)	0.03 (35.2)	0.12 (46.2)	0.09 (88.5)	0.08 (34.7)
- Other and undefined	\$	0.06 (46.7)	0.01 (81.1)	0.06 (41.3)	0.13 (76.0)	0.06 (27.9)
- Total	\$	0.23 (24.6)	0.14 (21.2)	0.34 (21.4)	0.24 (53.5)	0.27 (14.7)
<b>Lamb</b>						
- Chops and cutlets	\$	0.61 (14.1)	0.63 (14.6)	0.75 (9.2)	0.49 (25.7)	0.67 (5.6)
- Roast	\$	0.35 (19.9)	0.38 (28.0)	0.35 (12.8)	0.38 (22.3)	0.36 (10.1)
- Other and undefined	\$	0.17 (29.1)	0.16 (26.2)	0.22 (17.9)	0.07 (59.6)	0.19 (12.8)
Total	\$	1.13 (11.6)	1.17 (14.2)	1.33 (8.0)	0.94 (20.2)	1.22 (5.1)
<b>Pork</b>						
- Steak and chops	\$	0.18 (26.1)	0.20 (23.0)	0.20 (15.1)	0.15 (43.5)	0.19 (11.3)
- Roast	\$	0.12 (40.2)	0.05 (46.2)	0.09 (29.2)	0.03 (59.1)	0.09 (20.9)
- Sausage	\$	0.07 (32.1)	0.04 (31.2)	0.03 (31.4)	0.11 (54.9)	0.05 (20.6)
- Other and undefined	\$	0.05 (31.4)	0.01 (53.2)	0.07 (25.7)	0.07 (40.3)	0.05 (17.4)
Total	\$	0.42 (18.4)	0.29 (19.4)	0.38 (14.0)	0.36 (29.8)	0.38 (8.9)

(Continued on next page)

Table D22 (continued)

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Offal	\$	0.08 (45.5)	0.06 (47.1)	0.07 (19.8)	0.23 (36.4)	0.08 (17.8)
Other red meat	\$	-	0.01 (100.0)	0.02 (40.9)	0.04 (58.3)	0.01 (29.8)
Total red meat	\$	4.58 (9.1)	4.05 (11.3)	4.81 (6.5)	4.06 (16.2)	4.56 (3.3)
Poultry	\$	1.11 (13.4)	1.16 (24.8)	1.09 (8.7)	1.13 (22.9)	1.11 (6.9)
Canned meat, excluding fish	\$	0.08 (24.6)	0.09 (50.9)	0.08 (19.7)	0.09 (55.2)	0.09 (14.4)
Bacon and ham	\$	0.40 (16.5)	0.32 (16.8)	0.41 (9.4)	0.15 (30.8)	0.37 (6.7)
Smallgoods	\$	0.30 (18.2)	0.17 (15.6)	0.26 (13.8)	0.32 (31.9)	0.26 (8.5)
Other meat and undefined	\$	0.06 (59.2)	0.08 (40.6)	0.05 (23.4)	0.15 (40.9)	0.06 (23.2)
Fish	\$	0.93 (29.8)	0.86 (21.3)	0.68 (12.6)	1.04 (37.0)	0.81 (11.5)
Other seafood	\$	0.42 (53.2)	0.10 (55.2)	0.07 (24.1)	0.11 (50.9)	0.18 (35.8)
Total meat and seafood	\$	7.88 (11.5)	6.84 (12.8)	7.45 (6.2)	7.05 (17.0)	7.44 (3.7)
Fruit and vegetables	\$	4.40 (7.1)	4.01 (11.0)	3.80 (6.1)	3.78 (16.2)	4.01 (3.4)
Eggs	\$	0.52 (8.9)	0.54 (14.3)	0.63 (7.9)	0.59 (18.6)	0.58 (4.3)
Cheese	\$	0.96 (9.9)	0.81 (11.4)	0.75 (9.7)	0.56 (16.0)	0.81 (5.0)
Bread	\$	1.12 (7.6)	1.17 (10.5)	1.18 (5.8)	1.11 (18.5)	1.16 (3.4)
Milk	\$	1.42 (14.6)	1.34 (10.7)	1.23 (6.1)	1.24 (16.0)	1.30 (5.0)
Frozen food	\$	0.79 (15.2)	0.89 (19.0)	0.83 (12.3)	0.48 (19.3)	0.80 (8.5)
Other food groceries	\$	7.21 (9.3)	8.35 (10.0)	7.23 (6.7)	7.18 (16.7)	7.41 (3.5)
Total food	\$	24.30 (8.1)	23.96 (10.2)	23.10 (5.5)	22.00 (14.6)	23.51 (2.9)

- Negligible amount.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D23: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Number of households	no.	228	160	397	64	849
Household size	no.	2.65 (7.2)	3.55 (10.7)	2.79 (5.1)	3.40 (14.1)	2.92 (3.0)
Gross income per person	\$	14 360 (8.3)	11 020 (27.9)	7 690 (9.7)	7 520 (19.2)	10 270 (6.4)
<b>Beef</b>						
- Dearer steak	g	185 (15.2)	122 (21.8)	137 (11.1)	79 (21.5)	144 (7.6)
- Other steak	g	114 (17.7)	157 (20.4)	142 (11.6)	116 (33.1)	135 (7.7)
- Roast	g	40 (22.5)	49 (34.4)	71 (13.1)	131 (32.5)	62 (9.7)
- Mince	g	122 (18.0)	127 (13.8)	123 (15.3)	115 (27.9)	123 (9.3)
- Sausage	g	106 (45.8)	109 (15.2)	108 (13.5)	65 (28.8)	105 (14.7)
- Other and undefined	g	27 (60.6)	65 (95.6)	23 (57.7)	16 (85.0)	31 (42.3)
Total	g	595 (15.7)	629 (16.4)	603 (8.4)	522 (20.2)	600 (5.9)
<b>Veal</b>						
- Steak	g	28 (48.9)	14 (25.3)	20 (21.8)	3 (60.8)	20 (21.1)
- Chops and cutlets	g	7 (41.3)	5 (33.8)	24 (45.4)	17 (89.3)	16 (34.7)
- Other and undefined	g	10 (45.0)	2 (86.8)	12 (39.8)	40 (89.1)	12 (31.1)
Total	g	45 (33.2)	22 (20.4)	56 (23.3)	60 (64.7)	47 (16.6)
<b>Lamb</b>						
- Chops and cutlets	g	166 (13.4)	179 (15.1)	214 (9.2)	152 (25.8)	190 (5.5)
- Roast	g	102 (19.7)	104 (25.1)	102 (12.2)	119 (22.3)	104 (9.0)
- Other and undefined	g	83 (28.8)	85 (27.0)	125 (18.9)	60 (57.1)	102 (12.9)
Total	g	351 (11.4)	369 (13.3)	440 (8.7)	330 (21.0)	395 (5.3)
<b>Pork</b>						
- Steak and chops	g	31 (22.3)	42 (22.5)	38 (14.5)	33 (45.3)	36 (10.6)
- Roast	g	27 (42.4)	11 (45.2)	23 (26.8)	9 (60.4)	21 (20.1)
- Sausage	g	19 (29.4)	12 (31.9)	8 (34.5)	22 (45.0)	13 (18.8)
- Other and undefined	g	12 (31.5)	4 (54.1)	20 (32.0)	18 (44.7)	15 (22.0)
Total	g	89 (18.6)	68 (18.7)	88 (14.5)	82 (27.3)	85 (8.9)
<b>Offal</b>						
Offal	g	26 (40.9)	22 (44.5)	28 (22.9)	81 (38.9)	30 (16.4)
Other red meat	g	2 (71.2)	3 (100.0)	7 (43.1)	9 (62.3)	5 (31.2)
Total red meat	g	1 107 (11.1)	1 112 (13.5)	1 222 (6.9)	1 084 (17.3)	1 161 (4.3)
<b>Poultry</b>						
Poultry	g	338 (15.6)	324 (21.2)	366 (9.3)	355 (24.8)	350 (6.7)
Canned meat, excluding fish	g	18 (25.7)	18 (48.4)	17 (20.5)	10 (49.9)	17 (14.3)
Bacon and ham	g	70 (19.5)	49 (17.0)	63 (10.0)	20 (30.4)	60 (7.8)
Smallgoods	g	74 (24.3)	34 (17.5)	54 (14.0)	62 (35.9)	57 (11.3)
Other meat and undefined	g	12 (41.8)	29 (41.3)	12 (23.3)	29 (40.3)	16 (18.9)
Fish	g	155 (19.7)	169 (24.8)	134 (11.1)	250 (32.7)	153 (8.3)
Other seafood	g	40 (45.7)	10 (47.0)	10 (22.4)	19 (62.3)	19 (27.8)
Total meat and seafood	g	1 813 (10.6)	1 744 (14.6)	1 878 (6.5)	1 830 (17.1)	1 833 (3.8)

Table D24: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Number of households	no.	228	160	397	64	849
Household size	no.	2.65 (7.2)	3.55 (10.7)	2.79 (5.1)	3.40 (14.1)	2.92 (3.0)
Gross income per person	\$	14 360 (8.3)	11 020 (27.9)	7 690 (9.7)	7 520 (19.2)	10 270 (6.4)
<b>Beef</b>						
- Dearer steak	%	10.2 (13.7)	7.0 (18.7)	7.3 (9.6)	4.3 (17.1)	7.8 (7.3)
- Other steak	%	6.3 (16.4)	9.0 (21.2)	7.6 (9.7)	6.3 (30.2)	7.4 (7.5)
- Roast	%	2.2 (20.8)	2.8 (31.1)	3.8 (11.9)	7.2 (25.4)	3.4 (9.3)
- Mince	%	6.7 (12.9)	7.3 (13.1)	6.6 (13.4)	6.3 (20.2)	6.7 (8.2)
- Sausage	%	5.9 (40.2)	6.3 (11.4)	5.7 (11.5)	3.5 (24.3)	5.7 (13.3)
- Other and undefined	%	1.5 (55.3)	3.7 (85.1)	1.2 (59.3)	0.9 (78.1)	1.7 (40.5)
Total	%	32.8 (8.6)	36.1 (4.2)	32.1 (4.9)	28.5 (9.7)	32.7 (3.8)
<b>Veal</b>						
- Steak	%	1.6 (49.0)	0.8 (26.8)	1.1 (20.8)	0.2 (63.5)	1.1 (21.2)
- Chops and cutlets	%	0.4 (40.2)	0.3 (29.4)	1.3 (45.3)	0.9 (88.5)	0.9 (34.1)
- Other and undefined	%	0.5 (43.8)	0.1 (86.5)	0.6 (39.8)	2.2 (87.4)	0.6 (31.1)
Total veal	%	2.5 (32.7)	1.3 (19.9)	3.0 (22.9)	3.3 (63.0)	2.6 (16.3)
<b>Lamb</b>						
- Chops and cutlets	%	9.2 (12.8)	10.3 (13.6)	11.4 (7.0)	8.3 (22.3)	10.4 (5.5)
- Roast	%	5.7 (18.4)	6.0 (23.1)	5.4 (11.0)	6.5 (21.7)	5.7 (8.6)
- Other and undefined	%	4.6 (28.2)	4.9 (28.0)	6.6 (16.9)	3.3 (55.8)	5.5 (12.1)
Total lamb	%	19.4 (10.0)	21.1 (12.0)	23.4 (5.7)	18.0 (18.1)	21.6 (4.6)
<b>Pork</b>						
- Steak and chops	%	1.7 (21.6)	2.4 (22.0)	2.0 (13.4)	1.8 (44.4)	2.0 (10.1)
- Roast	%	1.5 (43.4)	0.6 (46.5)	1.2 (24.4)	0.5 (58.0)	1.2 (20.1)
- Sausage	%	1.1 (29.1)	0.7 (34.1)	0.4 (34.4)	1.2 (44.4)	0.7 (18.7)
- Other and undefined	%	0.7 (31.7)	0.2 (54.4)	1.1 (32.8)	1.0 (46.6)	0.8 (22.3)
Total	%	4.9 (19.0)	3.9 (19.5)	4.7 (13.2)	4.5 (26.5)	4.6 (8.7)
Offal	%	1.4 (39.4)	1.3 (35.5)	1.5 (22.1)	4.5 (31.7)	1.6 (15.8)
Other red meat	%	0.1 (71.7)	0.2 (101.1)	0.4 (42.9)	0.5 (58.7)	0.3 (31.0)
Total red meat	%	61.1 (4.2)	63.8 (4.1)	65.1 (2.3)	59.3 (7.5)	63.4 (2.0)
Poultry	%	18.6 (9.5)	18.6 (10.7)	19.5 (6.2)	19.4 (17.6)	19.1 (4.8)
Canned meat, excluding fish	%	1.0 (25.5)	1.0 (44.4)	0.9 (19.3)	0.6 (45.1)	0.9 (13.6)
Bacon and ham	%	3.9 (17.1)	2.8 (15.4)	3.4 (8.3)	1.1 (31.3)	3.3 (7.2)
Smallgoods	%	4.1 (19.5)	1.9 (15.1)	2.9 (13.4)	3.4 (30.3)	3.1 (10.6)
Other and undefined	%	0.1 (38.1)	1.7 (43.7)	0.7 (22.4)	1.6 (40.5)	0.9 (18.4)
Fish	%	8.5 (19.7)	9.7 (13.6)	7.1 (9.5)	13.7 (23.8)	8.4 (8.1)
Other seafood	%	2.2 (43.3)	0.6 (46.3)	0.5 (20.7)	1.1 (56.2)	1.0 (27.5)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D25: AVERAGE WEEKLY EXPENDITURES ON MEATS AND OTHER FOODS PER PERSON ACCORDING TO OWNERSHIP OF A FREEZER OR MICROWAVE OVEN

Item	Unit	Freezer	No freezer	Microwave	No microwave	All households
Number of households	no.	395	454	200	649	849
Household size	no.	3.32 (5.3)	2.62 (5.4)	3.41 (9.1)	2.78 (3.8)	2.92 (3.0)
Gross income per person	\$	9 240 (9.5)	10 980 (9.3)	10 240 (11.5)	10 280 (7.9)	10 270 (6.4)
Beef	\$	2.45 (8.7)	2.72 (6.0)	2.93 (14.4)	2.51 (4.7)	2.61 (4.1)
Veal	\$	0.21 (18.9)	0.31 (21.6)	0.20 (28.1)	0.29 (16.3)	0.27 (14.7)
Lamb	\$	1.25 (8.2)	1.20 (7.5)	1.34 (13.1)	1.18 (6.3)	1.22 (5.1)
Pork	\$	0.35 (13.6)	0.40 (13.4)	0.34 (21.1)	0.39 (10.6)	0.38 (8.9)
Offal	\$	0.07 (27.4)	0.09 (25.3)	0.06 (44.5)	0.09 (20.3)	0.08 (17.8)
Other red meat	\$	0.01 (41.8)	0.02 (40.1)	0 (0.0)	0.02 (29.8)	0.01 (29.8)
Total red meat	\$	4.34 (7.2)	4.73 (5.4)	4.87 (11.8)	4.48 (4.4)	4.56 (3.3)
Poultry	\$	1.09 (12.0)	1.13 (7.9)	1.30 (17.0)	1.06 (7.3)	1.11 (6.9)
All other meat and undefined	\$	0.83 (9.5)	0.74 (8.7)	0.85 (14.6)	0.76 (6.9)	0.78 (5.5)
Fish	\$	0.64 (10.2)	0.93 (17.2)	0.69 (20.2)	0.84 (13.9)	0.81 (11.5)
Other seafood	\$	0.12 (34.8)	0.22 (47.6)	0.13 (44.7)	0.19 (41.8)	0.18 (35.8)
Total meat and seafood	\$	7.02 (7.0)	7.76 (6.1)	7.84 (11.4)	7.32 (5.2)	7.44 (3.7)
Fruit and vegetables	\$	3.59 (7.6)	4.32 (5.3)	3.74 (10.6)	4.09 (4.8)	4.01 (3.4)
Eggs	\$	0.57 (8.4)	0.59 (6.2)	0.63 (13.8)	0.57 (5.1)	0.58 (4.3)
Cheese	\$	0.76 (8.9)	0.85 (7.2)	0.71 (13.1)	0.84 (6.2)	0.81 (5.0)
Bread	\$	1.17 (6.6)	1.15 (5.8)	1.17 (10.0)	1.15 (4.7)	1.16 (3.4)
Milk	\$	1.45 (9.3)	1.19 (5.2)	1.43 (9.3)	1.26 (6.8)	1.30 (5.0)
Frozen food	\$	0.92 (14.4)	0.71 (10.8)	1.14 (20.0)	0.70 (8.7)	0.80 (8.5)
Other food groceries	\$	7.24 (7.4)	7.54 (6.3)	6.93 (10.2)	7.55 (4.7)	7.41 (3.5)
Total food	\$	22.71 (6.5)	24.11 (5.2)	23.59 (9.8)	23.49 (4.2)	23.51 (2.9)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D26: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON ACCORDING TO OWNERSHIP OF A FREEZER OR MICROWAVE OVEN

Item	Unit	Freezer	No freezer	Microwave	No microwave	All households
Number of households	no.	395	454	200	649	849
Household size	no.	3.32 (5.3)	2.62 (5.4)	3.41 (9.1)	2.78 (3.8)	2.92 (3.0)
Gross income per person	\$	9 240 (9.5)	10 980 (9.3)	10 240 (11.5)	10 280 (7.9)	10 270 (6.4)
Beef	g	573 (9.3)	620 (8.9)	737 (19.4)	560 (6.0)	600 (5.9)
Veal	g	44 (27.4)	50 (22.1)	40 (45.6)	49 (17.3)	47 (16.6)
Lamb	g	436 (8.7)	365 (8.3)	494 (14.9)	367 (6.7)	395 (5.3)
Pork	g	83 (13.3)	86 (13.9)	82 (25.1)	86 (10.2)	85 (8.9)
Offal	g	32 (26.5)	28 (22.3)	22 (38.7)	32 (18.8)	30 (16.4)
Other red meat	g	4 (49.1)	5 (41.1)	0 (0.0)	6 (31.2)	5 (31.2)
Total red meat	g	1 171 (7.5)	1 154 (6.6)	1 375 (14.7)	1 100 (5.1)	1 161 (4.3)
Poultry	g	351 (11.5)	349 (8.6)	373 (15.3)	343 (8.1)	350 (6.7)
All other meat and undefined	g	161 (10.2)	141 (11.0)	181 (17.9)	140 (7.7)	149 (6.9)
Fish	g	127 (9.8)	174 (12.3)	119 (17.7)	163 (9.9)	153 (8.3)
Other seafood	g	13 (29.7)	23 (37.7)	15 (38.5)	20 (32.9)	19 (27.8)
Total meat and seafood	g	1 823 (6.7)	1 841 (6.2)	2 063 (13.1)	1 767 (5.0)	1 833 (3.8)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D27: AVERAGE WEEKLY PURCHASED QUANTITIES OF MEATS AND SEAFOODS PER PERSON AS PROPORTIONS OF TOTAL MEAT AND SEAFOOD PURCHASES PER PERSON, ACCORDING TO OWNERSHIP OF A FREEZER OR MICROWAVE OVEN

Item	Unit	Freezer	No freezer	Microwave	No microwave	All households
Number of households	no.	395	454	200	649	849
Household size	no.	3.32 (5.3)	2.62 (5.4)	3.41 (9.1)	2.78 (3.8)	2.92 (3.0)
Gross income per person	\$	9 240 (9.5)	10 980 (9.3)	10 240 (11.5)	10 280 (7.9)	10 270 (6.4)
Beef	%	31.4 (5.7)	33.7 (5.1)	35.8 (8.9)	31.7 (3.8)	32.7 (3.8)
Veal	%	2.4 (26.8)	2.7 (21.8)	1.9 (45.4)	2.8 (16.6)	2.6 (16.3)
Lamb	%	23.9 (6.3)	19.8 (6.5)	23.9 (10.4)	20.8 (5.2)	21.6 (4.6)
Pork	%	4.5 (11.9)	4.7 (13.7)	4.0 (25.4)	4.8 (8.9)	4.6 (8.7)
Offal	%	1.8 (25.1)	1.5 (22.0)	1.1 (37.0)	1.8 (17.9)	1.6 (15.8)
Other red meat	%	0.2 (48.4)	0.3 (40.9)	0.0 (0.0)	0.4 (30.6)	0.3 (31.0)
Total red meat	%	64.3 (3.2)	62.7 (2.4)	66.6 (4.0)	62.2 (2.1)	63.4 (2.0)
Poultry	%	19.2 (8.8)	19.0 (5.3)	18.1 (11.0)	19.4 (5.2)	19.1 (4.8)
All other meat and undefined	%	8.8 (8.4)	7.6 (8.7)	8.8 (10.7)	7.9 (6.8)	8.2 (5.9)
Fish	%	6.9 (8.5)	9.4 (11.7)	5.8 (17.8)	9.3 (8.3)	8.4 (8.1)
Other seafood	%	0.7 (28.4)	1.3 (37.0)	0.7 (38.1)	1.1 (31.5)	1.0 (27.5)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.



Table D28: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO INCOME PER PERSON

Item	Unit	Gross income per person						All households
		\$0 to \$4 999	\$5 000 to \$7 499	\$7 500 to \$9 999	\$10 000 to \$14 999	\$15 000 and over	Not stated	
Number of households	no.	194	146	123	115	125	184	887
Household size	no.	3.56 (9.1)	3.05 (9.4)	3.05 (11.2)	2.66 (10.9)	1.78 (9.5)	3.20 (7.2)	2.93 (2.9)
Gross income per person	\$	3 320 (7.7)	5 950 (9.0)	8 310 (10.7)	12 070 (9.7)	23 610 (11.8)		10 180 (5.8)
Home	%	89.7 (0.9)	88.2 (1.0)	88.6 (1.3)	82.5 (1.5)	78.4 (2.0)	89.7 (0.7)	87.3 (0.5)
Restaurant	%	0.9 (13.4)	1.3 (16.0)	1.3 (16.7)	2.2 (12.5)	3.3 (12.0)	1.3 (10.9)	1.5 (6.1)
Fast food(a)	%	2.6 (10.7)	2.9 (9.6)	2.5 (14.4)	4.5 (14.3)	3.9 (13.2)	2.1 (11.8)	2.9 (5.4)
Canteen or sandwich bar	%	1.9 (14.3)	2.2 (16.0)	2.5 (22.6)	3.4 (15.3)	5.1 (13.2)	2.3 (14.3)	2.6 (7.0)
Hotel or club	%	0.5 (23.6)	0.6 (14.0)	1.1 (21.6)	1.4 (17.8)	1.9 (17.7)	0.9 (16.8)	0.9 (7.2)
Another home	%	3.3 (13.1)	3.6 (16.8)	3.1 (14.4)	4.9 (15.7)	4.5 (11.6)	2.3 (12.9)	3.4 (6.2)
Other places	%	1.1 (14.4)	1.3 (14.1)	1.1 (25.8)	1.0 (16.7)	3.0 (18.3)	1.4 (13.3)	1.4 (6.9)
Total meals away	%	10.3 (8.0)	11.8 (7.5)	11.4 (10.4)	17.5 (7.0)	21.6 (7.3)	10.3 (6.3)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D29: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO SIZE OF HOUSEHOLD

Item	Unit	Number of persons in household					All households	
		1	2	3	4	5		6 or more
Number of households	no.	98	251	161	212	111	54	887
Gross income per person	\$	16 120 (15.5)	10 000 (8.9)	8 920 (10.6)	6 900 (8.9)	5 800 (12.2)	5 590 (20.1)	10 180 (5.8)
Home	%	81.5 (2.5)	85.9 (1.2)	86.7 (1.2)	87.3 (0.9)	90.2 (0.8)	90.4 (1.5)	87.3 (0.5)
Restaurant	%	2.1 (21.4)	1.9 (12.1)	1.8 (12.9)	1.4 (10.0)	1.0 (15.3)	0.9 (24.1)	1.5 (6.1)
Fast food(a)	%	2.2 (20.7)	2.9 (10.5)	3.1 (11.2)	2.9 (8.2)	2.8 (12.7)	2.9 (20.1)	2.9 (5.4)
Canteen or sandwich bar	%	3.7 (21.8)	2.7 (14.4)	2.8 (12.2)	3.0 (10.7)	1.9 (18.6)	1.7 (25.8)	2.6 (7.0)
Hotel or club	%	2.1 (25.9)	1.5 (12.7)	0.9 (16.1)	0.7 (14.2)	0.5 (20.4)	0.3 (34.7)	0.9 (7.2)
Another home	%	6.5 (21.6)	3.7 (10.1)	3.4 (11.8)	3.5 (12.2)	2.5 (14.3)	2.2 (26.4)	3.4 (6.2)
Other places	%	1.9 (25.9)	1.4 (18.1)	1.3 (14.2)	1.3 (14.4)	1.2 (17.2)	1.6 (19.8)	1.4 (6.9)
Total meals away	%	18.5 (10.8)	14.1 (7.2)	13.4 (7.8)	12.7 (6.1)	9.9 (7.7)	9.6 (13.9)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D30: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO AGE OF HOUSEKEEPER

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
Number of households	no.	76	232	213	143	117	106	887
Household size	no.	2.38 (11.6)	3.43 (7.0)	3.85 (8.3)	3.26 (9.0)	2.20 (10.7)	1.56 (10.1)	2.93 (2.9)
Gross income per person	\$	11 000 (18.3)	10 090 (11.7)	9 600 (11.3)	10 050 (11.3)	8 810 (15.5)	11 820 (25.4)	10 180 (5.8)
Home	%	77.1 (2.7)	86.4 (1.0)	87.8 (1.0)	88.1 (1.0)	90.2 (1.2)	92.2 (1.3)	87.3 (0.5)
Restaurant	%	3.2 (13.5)	1.5 (12.2)	1.4 (10.9)	1.3 (14.1)	1.3 (18.3)	0.9 (27.1)	1.5 (6.1)
Fast food(a)	%	5.7 (12.1)	3.3 (8.4)	3.0 (9.7)	2.4 (11.8)	2.1 (26.7)	0.8 (28.1)	2.9 (5.4)
Canteen or sandwich bar	%	4.6 (14.4)	2.7 (13.9)	2.9 (11.6)	3.1 (12.9)	1.4 (25.2)	0.3 (38.5)	2.6 (7.0)
Hotel or club	%	1.2 (20.4)	0.6 (15.9)	0.9 (16.5)	1.0 (18.8)	1.4 (19.6)	1.2 (28.8)	0.9 (7.2)
Another home	%	6.1 (17.8)	4.0 (8.9)	2.4 (11.7)	2.8 (15.3)	3.1 (15.3)	3.9 (26.7)	3.4 (6.2)
Other places	%	2.1 (25.8)	1.5 (13.2)	1.6 (13.7)	1.3 (16.7)	0.5 (21.7)	0.8 (25.5)	1.4 (6.9)
Total meals away	%	22.9 (9.0)	13.6 (6.3)	12.2 (6.9)	11.9 (7.4)	9.8 (11.4)	7.9 (15.2)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D31: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO BIRTHPLACE OF HOUSEKEEPER

Item	Unit	Birthplace of housekeeper							All households
		Australia and New Zealand	UK and Ireland	Northern Europe	Eastern Europe	Southern Europe	Asia except Middle East	Other	
Number of households	no.	632	90	28	18	66	31	22	887
Household size	no.	2.86 (4.6)	2.59 (12.3)	2.95 (23.0)	2.84 (25.3)	3.62 (10.2)	3.05 (16.3)	4.24 (26.7)	2.93 (2.9)
Gross income per person	\$	10 090 (6.4)	15 560 (28.8)	9 240 (25.0)	6 050 (28.4)	7 540 (17.6)	9 380 (32.2)	7 600 (32.2)	10 180 (5.8)
Home	%	86.4 (0.7)	87.9 (1.3)	89.3 (1.6)	88.4 (3.6)	91.0 (1.3)	86.9 (2.5)	93.2 (1.7)	87.3 (0.5)
Restaurant	%	1.5 (6.0)	1.4 (18.9)	1.0 (33.5)	1.5 (40.7)	1.0 (25.3)	2.6 (24.9)	0.8 (49.8)	1.5 (6.1)
Fast food(a)	%	3.1 (7.2)	2.0 (17.4)	2.9 (20.3)	2.3 (31.7)	2.6 (20.9)	2.3 (24.9)	2.1 (48.3)	2.9 (5.4)
Canteen or sandwich bar	%	2.7 (8.1)	3.1 (19.3)	1.0 (38.9)	2.6 (43.0)	1.9 (25.0)	3.3 (31.6)	2.1 (30.6)	2.6 (7.0)
Hotel or club	%	1.0 (8.0)	1.2 (24.6)	0.8 (36.2)	0.4 (53.9)	0.5 (28.8)	1.0 (48.0)	0.4 (83.7)	0.9 (7.2)
Another home	%	3.9 (6.9)	2.9 (16.3)	3.7 (35.9)	3.7 (64.3)	1.8 (26.8)	2.9 (25.0)	0.9 (61.9)	3.4 (6.2)
Other places	%	1.5 (7.9)	1.5 (17.0)	1.2 (52.3)	1.1 (38.8)	1.1 (36.1)	1.0 (31.0)	0.6 (49.9)	1.4 (6.9)
Total meals away	%	13.7 (4.1)	12.1 (9.7)	10.7 (13.4)	11.6 (27.1)	9.1 (12.8)	13.1 (16.4)	6.8 (24.0)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D32: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO EDUCATION LEVEL OF HOUSEKEEPER

Item	Unit	Highest education of housekeeper						All households
		Primary or less	Secondary 1-4 years	Secondary 5-6 years	Trade or technical	Tertiary	Not stated	
Number of households	no.	83	351	187	86	171	9	887
Household size	no.	3.13 (11.6)	2.97 (5.4)	3.06 (7.0)	2.62 (14.4)	2.87 (8.4)	1.80 (38.0)	2.93 (2.9)
Gross income per person	\$	6 650 (15.6)	8 020 (9.0)	9 670 (12.1)	13 030 (15.2)	14 500 (16.8)		10 180 (5.8)
Home	%	93.0 (1.0)	88.2 (0.7)	86.3 (1.1)	84.6 (2.5)	85.0 (1.2)	88.2 (3.5)	87.3 (0.5)
Restaurant	%	0.5 (27.6)	1.2 (9.1)	1.8 (11.4)	1.8 (21.0)	2.0 (10.3)	1.0 (51.7)	1.5 (6.1)
Fast food(a)	%	2.0 (23.2)	2.9 (7.9)	3.2 (10.2)	2.6 (16.6)	3.0 (10.5)	3.5 (48.9)	2.9 (5.4)
Canteen or sandwich bar	%	2.0 (21.4)	2.3 (12.0)	2.9 (11.3)	3.8 (22.9)	2.9 (14.9)	1.4 (50.5)	2.6 (7.0)
Hotel or club	%	0.4 (38.5)	1.1 (12.3)	0.9 (12.6)	1.0 (30.8)	0.8 (17.0)	2.1 (47.5)	0.9 (7.2)
Another home	%	1.6 (29.5)	3.3 (9.1)	3.3 (16.8)	3.9 (18.9)	4.6 (9.2)	3.5 (72.1)	3.4 (6.2)
Other places	%	0.6 (37.3)	1.1 (15.0)	1.7 (12.7)	2.4 (18.8)	1.6 (15.2)	0.4 (49.6)	1.4 (6.9)
Total meals away	%	7.0 (13.7)	11.8 (5.5)	13.7 (6.9)	15.4 (13.5)	15.0 (6.9)	11.8 (25.5)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D33: PROPORTIONS OF HOUSEHOLD MEALS OBTAINED AT HOME AND AWAY FROM HOME ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Number of households	no.	240	166	412	69	887
Household size	no.	2.66 (6.0)	3.48 (9.5)	2.83 (5.1)	3.44 (13.9)	2.93 (2.9)
Gross income per person	\$	14 400 (7.7)	10 710 (26.6)	7 600 (9.5)	7 360 (17.5)	10 180 (5.8)
Home	%	81.1 (1.5)	87.0 (1.3)	90.0 (0.5)	92.4 (1.2)	87.3 (0.5)
Restaurant	%	2.5 (9.9)	1.6 (12.3)	1.0 (9.2)	0.9 (25.3)	1.5 (6.1)
Fast food(a)	%	4.4 (8.0)	2.6 (12.2)	2.3 (7.8)	2.1 (19.6)	2.9 (5.4)
Canteen or sandwich bar	%	4.7 (10.8)	2.9 (14.8)	1.7 (11.3)	1.0 (20.1)	2.6 (7.0)
Hotel or club	%	1.2 (14.5)	0.8 (17.9)	0.9 (13.2)	0.5 (28.2)	0.9 (7.2)
Another home	%	4.2 (10.9)	3.6 (13.3)	3.2 (9.5)	2.3 (24.3)	3.4 (6.2)
Other places	%	2.0 (15.5)	1.6 (12.9)	1.0 (10.5)	0.9 (33.1)	1.4 (6.9)
Total meals away	%	18.9 (6.4)	13.0 (8.8)	10.1 (4.8)	7.6 (14.6)	12.7 (3.7)

(a) Includes family restaurants, for example, McDonalds, Kentucky Fried Chicken.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D34: PROPORTIONS OF MEALS CONTAINING MEAT PREPARED FROM HOUSEHOLD FOOD SUPPLIES BY TYPE OF MEAT AND MEAL TIME(a)

Item	Morning	Midday	Evening	All meals
	%	%	%	%
Beef	22.8 (11.9)	30.9 (3.7)	40.3 (2.5)	35.9 (2.3)
Veal	0.8 (48.8)	1.5 (20.8)	3.4 (9.1)	2.6 (10.3)
Lamb	5.1 (25.5)	9.8 (6.5)	20.9 (4.2)	16.1 (4.0)
Pork	3.5 (25.5)	3.7 (11.9)	5.7 (6.3)	4.9 (6.3)
Poultry	3.4 (27.9)	13.7 (5.5)	17.0 (3.7)	14.9 (3.7)
Bacon and ham	63.4 (4.9)	35.1 (4.4)	5.9 (5.8)	19.8 (3.5)
Other meats	2.2 (43.4)	1.1 (27.0)	1.9 (11.6)	1.7 (11.2)
Fish	2.9 (31.6)	9.6 (7.3)	10.2 (4.5)	9.5 (4.5)

(a) Numbers may sum to more than 100 as more than one meat may be eaten at a meal.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D35: METHODS OF PREPARATION OF MEALS AS PROPORTIONS OF TOTAL MEALS, ACCORDING TO TYPE OF MEAT OR FISH

Preparation method	Beef	Veal	Lamb	Pork	Chicken	Fish	Total meat and fish
	%	%	%	%	%	%	%
Fried	24.9 (4.6)	51.1 (7.9)	12.9 (10.3)	26.3 (8.9)	13.3 (8.6)	35.1 (5.4)	23.8 (3.0)
Grilled	24.2 (4.4)	15.8 (20.1)	39.1 (5.0)	26.2 (7.7)	6.2 (13.0)	21.9 (8.6)	22.1 (3.1)
Stewed	18.5 (6.1)	13.6 (21.7)	6.7 (9.7)	7.2 (21.3)	12.3 (11.9)	6.3 (15.9)	11.4 (4.8)
Hot roast	9.2 (7.0)	9.7 (27.1)	21.9 (4.8)	16.0 (10.9)	32.4 (4.2)	4.0 (17.4)	13.7 (3.1)
Cold	13.5 (7.0)	6.2 (29.3)	12.4 (8.2)	14.4 (14.7)	26.7 (6.2)	24.8 (7.6)	21.3 (3.5)
Barbecue	5.9 (8.0)	3.6 (29.0)	6.0 (12.3)	6.4 (34.2)	5.2 (18.1)	0.8 (38.4)	4.5 (7.1)
Other	3.9 (17.6)	0.0 (0.0)	1.0 (25.7)	3.6 (23.1)	3.9 (18.1)	7.0 (19.3)	3.3 (10.9)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D36: PROPORTIONS OF MEALS CONTAINING MEAT PREPARED FROM HOUSEHOLD FOOD SUPPLIES BY METHOD OF PREPARATION AND MEAL TIME

Preparation method	Morning	Midday	Evening	All meals
	%	%	%	%
Fried	26.3 (9.6)	8.9 (8.8)	25.4 (3.3)	23.8 (3.0)
Grilled	52.8 (6.0)	11.2 (7.4)	23.9 (2.8)	22.1 (3.1)
Stewed	3.0 (36.4)	5.7 (10.6)	10.7 (5.4)	11.4 (4.8)
Hot roast	0.6 (44.1)	6.9 (9.4)	17.5 (3.4)	13.7 (3.1)
Cold	12.7 (20.2)	55.0 (3.3)	8.8 (6.2)	21.3 (3.5)
Barbecue	1.3 (31.3)	4.2 (11.6)	3.6 (7.4)	4.5 (7.1)
Other	3.3 (33.8)	8.1 (9.8)	10.3 (5.0)	3.3 (10.9)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D37: METHODS OF PREPARATION OF EVENING MEALS AS PROPORTIONS OF TOTAL EVENING MEALS, ACCORDING TO THE AMOUNT OF TIME THE HOUSEKEEPER DEVOTES TO WORK OR STUDY

Item	Unit	Employed or studying full time	Employed or studying part time	Not employed or studying	Other and not stated	All households
Number of households	no.	240	166	412	69	887
Fried	%	25.1 (5.6)	23.2 (6.6)	22.9 (4.5)	27.4 (10.3)	23.8 (3.0)
Grilled	%	23.3 (6.2)	23.3 (6.9)	22.1 (5.3)	16.4 (15.1)	22.1 (3.1)
Stewed	%	11.2 (8.9)	9.8 (10.0)	11.8 (6.4)	12.6 (21.4)	11.4 (4.8)
Hot roast	%	13.2 (5.8)	13.1 (6.6)	13.6 (4.2)	15.7 (14.3)	13.7 (3.1)
Cold	%	18.3 (7.4)	21.9 (7.0)	22.9 (4.7)	18.9 (13.6)	21.3 (3.5)
Barbecue	%	5.8 (11.9)	5.4 (17.4)	3.4 (11.1)	4.6 (20.7)	4.5 (7.1)
Other	%	2.8 (15.6)	3.3 (25.4)	3.3 (15.9)	4.4 (31.0)	3.3 (10.9)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D38: PROPORTIONS OF HOUSEHOLDS STATING THEIR CONSUMPTION OF VARIOUS MEATS OR FISH TO HAVE INCREASED, REMAINED UNCHANGED OR DECLINED OVER THE TWO-YEAR PERIOD PRIOR TO THE SURVEY, AND FREQUENCY OF REASONS FOR CHANGE

Item	Unit	Beef	Veal	Lamb	Pork	Poultry	Fish
<u>Total number of households</u>	no.	1 133	858	1 090	984	1 134	1 118
<u>Direction of change</u>							
- more	%	10.1 (9.7)	12.9 (9.0)	16.9 (7.3)	12.1 (8.5)	43.6 (3.5)	34.6 (4.1)
- no change	%	46.6 (3.5)	53.1 (3.5)	56.1 (2.8)	55.6 (3.2)	47.9 (3.2)	52.2 (2.8)
- less	%	43.3 (3.5)	34.1 (5.0)	27.1 (5.7)	32.3 (5.4)	8.5 (10.5)	13.2 (8.5)
<u>Households eating less</u>	no.	485	290	272	309	92	137
<u>Reasons for eating less(a)</u>							
- Changed household composition	%	6.9 (17.7)	5.2 (31.1)	8.1 (21.4)	6.0 (24.4)	14.6 (27.1)	10.3 (31.3)
- Price	%	30.8 (7.5)	35.0 (8.2)	16.3 (17.0)	21.6 (11.5)	14.3 (26.3)	17.9 (18.3)
- Health and diet	%	37.8 (6.5)	17.9 (16.3)	36.4 (10.6)	47.6 (7.7)	13.7 (27.6)	9.7 (30.0)
- Convenience	%	1.7 (37.3)	2.7 (34.4)	2.1 (39.1)	1.4 (47.5)	5.2 (47.1)	5.1 (47.1)
- Change in preferences	%	32.6 (6.8)	37.8 (7.7)	38.7 (8.3)	26.6 (11.4)	47.3 (10.1)	35.8 (13.6)
- Other	%	3.2 (23.8)	9.3 (18.4)	4.3 (36.5)	5.2 (25.2)	6.9 (46.5)	20.3 (18.7)
- Don't know	%	4.2 (23.4)	4.5 (34.3)	8.1 (21.3)	6.8 (22.0)	4.0 (72.4)	9.5 (32.7)
<u>Households eating more</u>	no.	123	111	202	128	503	405
<u>Reasons for eating more(a)</u>							
- Changed household composition	%	27.4 (12.8)	9.1 (28.1)	17.0 (15.1)	10.7 (24.6)	4.1 (19.5)	4.6 (24.0)
- Price	%	8.9 (34.6)	5.1 (35.5)	30.9 (11.9)	22.4 (20.4)	18.9 (8.8)	8.7 (13.6)
- Health and diet	%	11.6 (28.5)	32.4 (15.7)	4.1 (34.5)	2.5 (51.0)	36.5 (8.2)	47.9 (7.2)
- Convenience	%	14.5 (25.1)	10.1 (32.7)	9.6 (24.0)	11.0 (25.1)	16.4 (12.7)	11.0 (17.5)
- Change in preferences	%	42.0 (12.2)	45.8 (11.9)	41.2 (8.4)	51.6 (10.4)	43.5 (6.2)	38.2 (6.7)
- Other	%	11.4 (27.4)	7.4 (38.4)	8.7 (26.9)	10.7 (27.0)	8.8 (15.9)	13.0 (14.8)
- Don't know	%	1.1 (71.3)	4.3 (47.8)	3.7 (35.0)	3.8 (44.1)	3.8 (23.5)	2.8 (30.6)

(a) Percentages may add to more than 100, some respondents giving several reasons.

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

Table D39: PROPORTIONS OF HOUSEHOLDS STATING THEIR CONSUMPTION OF VARIOUS MEATS OR FISH TO HAVE INCREASED, REMAINED UNCHANGED OR DECLINED OVER THE TWO-YEAR PERIOD PRIOR TO THE SURVEY, ACCORDING TO AGE OF HOUSEKEEPER

Item	Unit	Age of housekeeper (years)						All households
		15-24	25-34	35-44	45-54	55-64	65 and over	
<b>Beef</b>								
Number of households	no.	102	301	267	174	146	143	1 133
More	%	11.2 (29.8)	16.2 (15.1)	13.4 (16.6)	5.6 (28.3)	6.2 (36.5)	3.9 (40.3)	10.1 (9.7)
Same	%	37.9 (12.4)	43.4 (7.5)	45.0 (7.3)	51.8 (7.2)	48.1 (10.0)	51.8 (9.5)	46.6 (3.5)
Less	%	51.0 (10.2)	40.4 (8.2)	41.6 (7.4)	42.6 (8.3)	45.8 (10.6)	44.4 (10.7)	43.3 (3.5)
<b>Veal</b>								
Number of households	no.	84	245	209	140	103	77	858
More	%	10.4 (31.9)	16.0 (15.6)	13.5 (16.6)	13.7 (23.5)	14.5 (31.0)	3.4 (58.4)	12.9 (9.0)
Same	%	35.7 (15.0)	47.6 (6.7)	57.4 (5.8)	55.8 (7.2)	56.9 (9.6)	64.0 (8.6)	53.1 (3.3)
Less	%	53.9 (10.4)	36.4 (8.3)	29.1 (12.1)	30.5 (13.8)	28.5 (18.4)	32.5 (16.3)	34.1 (5.0)
<b>Lamb</b>								
Number of households	no.	96	292	251	172	140	139	1 090
More	%	18.9 (22.2)	24.3 (12.2)	23.0 (12.9)	11.0 (22.0)	10.9 (26.3)	7.7 (28.0)	16.9 (7.3)
Same	%	35.8 (14.2)	52.9 (5.6)	52.9 (6.3)	59.8 (6.6)	64.0 (7.1)	66.2 (7.5)	56.1 (2.8)
Less	%	45.3 (11.8)	22.8 (11.6)	24.1 (13.9)	29.3 (11.4)	25.1 (15.2)	26.1 (18.3)	27.1 (5.7)
<b>Pork</b>								
Number of households	no.	84	258	239	164	127	112	984
More	%	15.3 (26.8)	13.2 (16.4)	15.0 (15.9)	7.5 (25.9)	14.0 (29.3)	7.3 (32.9)	12.1 (8.5)
Same	%	36.3 (15.7)	57.5 (6.4)	56.3 (6.7)	60.8 (7.3)	55.9 (9.6)	57.3 (7.5)	55.6 (3.2)
Less	%	48.4 (12.5)	29.3 (11.0)	28.8 (12.0)	31.8 (14.3)	30.1 (15.6)	35.5 (12.2)	32.3 (5.4)
<b>Poultry</b>								
Number of households	no.	102	303	267	179	145	138	1 134
More	%	51.2 (9.9)	48.3 (6.0)	47.6 (6.7)	41.9 (8.0)	43.1 (10.8)	28.5 (16.9)	43.6 (3.5)
Same	%	34.4 (15.5)	44.7 (6.1)	48.5 (6.7)	50.6 (7.4)	46.9 (9.9)	57.9 (7.7)	47.9 (3.2)
Less	%	14.3 (25.3)	7.0 (24.1)	3.9 (31.8)	7.6 (27.0)	10.0 (26.2)	13.6 (23.1)	8.5 (10.5)
<b>Fish</b>								
Number of households	no.	99	302	262	179	142	134	1 118
More	%	41.1 (11.5)	44.3 (6.3)	37.0 (8.9)	31.0 (13.1)	29.3 (14.6)	20.1 (18.8)	34.6 (4.1)
Same	%	35.4 (12.8)	44.3 (6.8)	53.2 (6.7)	55.8 (7.4)	58.0 (8.2)	64.9 (7.2)	52.2 (2.8)
Less	%	23.5 (18.9)	11.5 (17.9)	9.8 (22.7)	13.2 (19.8)	12.7 (30.4)	15.0 (20.0)	13.2 (8.5)

Note: Figures in parentheses are relative standard errors, expressed as percentages of the estimates.

## GLOSSARY

**Adult:** A person aged 15 years or over.

**Apparent consumption:** Apparent consumption refers to the domestic disappearance of an item, being calculated as local production plus imports minus exports with an adjustment for changes in stocks.

**Child:** A person aged less than 15 years.

**Demand shift:** A change in demand which is not due to a change in economic factors such as changing incomes or relative prices. Examples of factors causing a shift in demand are changing tastes or changes in the demographic characteristics of the population.

**Demographic characteristics:** Characteristics of the population such as household size, ethnic composition of the population, age structure of the population, education of the population.

**Elasticity:** The percentage change in one item, for example, expenditure on meat, resulting from a 1 per cent change in a second item, for example, household income.

**Household:** A group of people who live together (in a single dwelling) as a single unit in the sense that they have common housekeeping arrangements, that is, they have some common provision for food and other essentials of living. Persons living in the same dwelling but having separate catering arrangements constitute separate households.

**Housekeeper:** The person performing the duties of purchasing food for the household and preparing meals. Where these tasks were split the person preparing the meals for the household was designated as the housekeeper. When no one person could be clearly assigned to either of these tasks one person was selected arbitrarily.

**Income:** Information on gross annual household income from all sources, including wages, interest, benefits, and so on, was collected to the nearest \$1000 where possible. If this could not be answered confidently, respondents were then asked to select an appropriate income range defined in \$5000 groups.

**Income per person:** Gross household income divided by the number of persons in the household.

**Meals obtained away from home:** All meals of household members not obtained from household food supplies including meals obtained away from home but prepared and eaten within the home.

**Inferior good:** A commodity which experiences declining demand in response to increase in household income.

**Meals prepared at home:** All meals prepared from household food supplies for household and non-household members including meals prepared from household food supplies but eaten away from home.

**Meat:** Beef, veal, pork, mutton, lamb, offal, poultry, ham, bacon, game and processed meat products such as canned meat, smallgoods, and so on.



**Purchases:** Food purchased for household food supplies. Does not include meals obtained away from home.

**Red meat:** Beef, veal, pork, mutton, lamb and offal.

**Relative standard errors:** Relative standard errors may be interpreted as follows: if the relative standard error of an estimate is 5.0 per cent then if a population census were taken rather than a sample there would be a 95 per cent chance that the census value would be within plus or minus 2 times 5.0 per cent of the sample estimate.

**Seafood:** Fish and other seafoods, such as prawns, oysters and so on.

**Socio-economic characteristic:** Characteristics of the population which have both economic and social aspects such as household income and work status of the housekeeper.

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