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## A NOTE ON THE COMPARATIVE COST OF LIVING IN SYDNEY AND COUNTRY TOWNS IN NEW SOUTH WALES\*

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A comparison between the cost of living of average wage earners in Sydney and nineteen country towns in New South Wales was carried out in 1974, assuming that expenditure on items of goods and services was distributed in the same proportion as in the Consumer Price Index in both country towns and the city. Housing, which was cheaper in the country, was the only group of major consumer expenditure where a significant difference between city and country town costs could be detected. The differences between the costs of food, clothing, services and miscellaneous items of expenditure in the city and country towns were not significant. A study using regression analysis revealed that there was a significant positive correlation between the size of country towns and the cost of services and housing. There were no significant relationships between town size and the costs of food, clothing or miscellaneous items of expenditure. Nor was a significant relationship found between the distance of country towns from Sydney and the cost of any major consumer expenditure group.

### 1 INTRODUCTION

It is sometimes suggested that the cost of living in Australian country towns is higher than in the metropolitan centres. This belief is so firmly held that some institutions pay higher salaries to staff members located in country towns than to their contemporaries in the city [7].

A comparison of the cost of living between regions or social groups is only possible if the quantity and quality of each type of goods and services consumed in all regions or by all the social groups compared is the same.

Differences in age, family size, income, location, climate, race and many other factors may cause differences in the quantity and quality of any particular goods or services purchased by a consumer [4]. If

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\* Manuscript received April, 1975.

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farmers are compared with town dwellers, the comparison is even more difficult to make. Not only is there a probability that farmers require different quantities and qualities of goods and services to town dwellers, but recent investigations indicate that part of their living requirements in the form of home-grown food and transport are obtained from farm expenditure and not from income [6].

For these reasons the aim of this study is limited to an attempt to compare the cost of living of the average wage earner in country towns in New South Wales with those of his counterpart in Australia's capital cities.

Even the results of this comparison must be treated with caution as it has been necessary to assume that the quantities and qualities of goods and services required by the average wage earner in Australian capital cities and in country towns of New South Wales in 1974 were the same. This may not necessarily be so.

Most of the previous studies of costs in country towns in Australia have been directed at finding the cost of particular kinds of goods and services. The exception was Neutz [5], who, in addition to pointing out that some public services were cheaper in cities with populations of more than 200 000 people than in smaller centres, did tentatively suggest that the cost of living might be lower in small towns, than in large cities.

In 1958, Briggs and Smyth [2] compared the advantages of chain and non-chain grocery stores in country areas and suggested that the independent grocer might have the advantages of selling goods at lower prices and of providing more credit and a more personalized service than chain stores.

Sturgess [8] examined the price of groceries in chain and non-chain stores in both rural and metropolitan areas in New South Wales and Victoria and concluded that chain grocery stores provided goods at lower prices than non-chain stores. He also found that grocery prices in towns more than 320 kilometres from the nearest metropolis were higher than those within the metropolis, but that beyond this distance prices did not increase with distance from the capital city.

## 2 METHODOLOGY

An estimation of the differences in the cost of living of average wage earners in country towns and Sydney can be made using the Commonwealth Statistician's Consumer Price Index (C.P.I.) as a basis. The index is constructed by finding the proportion of income spent on some 273 items by a large sample of wage earners' households in the 6 capital cities. These items represent a high proportion of all the items

on which income is spent. As the proportion of income spent on any particular consumer items varies over time, it is necessary to continually adjust the weightings used.

The weights used in this study were taken from *Labour Report* No. 56, 1971 [1]. These are the most recent weightings available. It is unfortunate that more recent weights were not available as the period between 1971 and early 1974, when the survey was carried out, was one of rapid inflation. As both price and income elasticities vary between consumer goods, the weightings in the C.P.I., which were applicable in 1971 may not be applicable in 1974—an additional reason for treating the results with caution.

The amount spent by a city wage earner on any item of goods or services can be established by multiplying the weighting of that item in the C.P.I. by the average wage. The amount which would have to be spent in any country town to obtain the same quantity of that item can be calculated by multiplying the amount spent by the city dweller on this item by the ratio between its price in a country town and the city price. If the total amounts spent on all items in the C.P.I. in the city and a country town are summed the cost of living in each can be compared.

A comparison of the cost of obtaining any particular group of items such as housing or clothing in the city and a country town can also be obtained by summing the amounts city and country town dwellers would need to spend to obtain the specified group of goods or services of a particular type.

It is also possible (by means of regression analysis) using the same estimated costs, to discover whether the total cost of living or the cost of any particular item is effected by any particular factor such as the size of town, the number of retail outlets, or the distance of the town from the city.

### 3 THE DATA

As the resources available to carry out the investigation were limited it was decided to ask the Country Women's Association (C.W.A.) if their branches would obtain the prices of a clearly defined list of goods and services in country towns and city suburbs in New South Wales. As it was thought that this organization would be unable to obtain the price of all 273 items which make up the C.P.I. it was decided to limit the enquiry to all items which had a weight of more than 0.5 per cent in the C.P.I. This restricted the number of items to the 46 shown in table 1. Although the 46 items are only 17 per cent of the total included in the C.P.I. they represent 55 per cent of the total weightings included in the index because all items with a high weighting have been included.

**TABLE 1**  
*Items Priced in Sydney and Country Towns*

Item	Quantity and description	Consumer price index weighting
<i>Food:</i>		
Bread .. ..	White sliced 1½ lb .. ..	2·087
Fresh milk .. ..	1 quart .. ..	2·455
Butter .. ..	1 lb .. ..	1·422
Potatoes .. ..	5 lb bag .. ..	1·125
Biscuits .. ..	Arnotts shortbread 8 oz .. ..	0·840
Eggs .. ..	21 oz .. ..	0·967
Sugar .. ..	2 lb .. ..	0·813
Bacon .. ..	8 oz .. ..	0·818
Cheese .. ..	Kraft cheddar 8 oz .. ..	0·538
Sweets .. ..	Packet of Fantaes 4 oz .. ..	0·703
Chocolate .. ..	Cadbury's nut milk 3 oz .. ..	1·082
Soft drink .. ..	Cordial 26 oz .. ..	1·483
Ice cream .. ..	Vanilla ½ gal .. ..	1·043
Draught beer .. ..	10 oz glass .. ..	2·334
Bottled beer .. ..	Toohey's flag .. ..	1·427
T-bone steak .. ..	1 lb .. ..	0·802
Rib roast .. ..	1 lb .. ..	0·702
Rump steak .. ..	1 lb .. ..	0·735
Blade steak .. ..	1 lb .. ..	0·610
Corned silver-side .. ..	1 lb .. ..	0·500
Leg of lamb .. ..	1 lb .. ..	0·587
Loin chops .. ..	1 lb .. ..	0·511
Poultry .. ..	Chicken Size 8 .. ..	0·725
Cigarettes .. ..	Rothman's Filter Tip 20 kingsize .. ..	3·224
Total Food .. ..		27·533
<i>Clothing:</i>		
Women's shoes .. ..	Simple court with no fancy design .. ..	1·153
Skirt .. ..	A-line, no pleats, one colour .. ..	0·791
Frock .. ..	Summer, A-line, cotton, no embroidery, etc. .. ..	0·681
Overcoat .. ..	Women's winter coat, pure wool lined .. ..	0·692
Dress material .. ..	Cotton print, 1 yd .. ..	0·522
Pullover .. ..	Women's long sleeved, plain round neck, pure wool .. ..	0·653
Men's shoes .. ..	1 pair .. ..	0·708
Total Clothing .. ..		5·200
<i>Housing:</i>		
Rent of privately owned 5-roomed house .. ..	(a) Brick .. ..	1·043
	(b) Weatherboard .. ..	1·043
Rent of privately owned 1-bedroom flat .. ..		3·114
Total Housing .. ..		5·200
<i>Services:</i>		
Dental filling .. ..	Small .. ..	0·643
Surgery visit to a doctor .. ..		0·851
Car repairs .. ..	Charge by mechanic per hour .. ..	0·791
TV repairs .. ..	Electrician's rate per hour and cost of 1 TV tube .. ..	0·302
Total Services .. ..		2·587

TABLE 1—continued

Item	Quantity and description	Consumer Price Index weighting
<i>Miscellaneous:</i>		
Local government rates..	Unimproved land value of 1 housing block .. .. .	1·917
Electricity .. .. .	Domestic units .. .. .	2·356
Gas .. .. .	Domestic units .. .. .	1·021
House repairs .. .. .	Painting 5 rooms.. .. .	1·960
Motor car .. .. .	202 Holden Kingswood sedan .. .. .	3·381
Car parts .. .. .	202 Short Holden motor .. .. .	0·791
Television set .. .. .	23 in screen. Most popular model .. .. .	0·840
Petrol .. .. .	Shell, super 1 gallon .. .. .	2·136
Total Miscellaneous		14·402
Total All Items ..		54·922

The disadvantage of basing the study on those items in the C.P.I. with a value of greater than 0·5 per cent is that it distorts the weightings of the major expenditure groups in the index. The proportion that each expenditure group forms of the total C.P.I. and the proportion that each major group forms of the total in an index constructed using only those items with a value of greater than 0·5 per cent, is shown in table 2. If only items with a weighting of more than 0·5 per cent in the C.P.I. are used to measure the cost of living, food is over-weighted and clothing, housing and services are under-weighted. This problem can be overcome to some extent by multiplying the total cost of each item in each major expenditure group in each town and suburb, by the ratio between the proportion of total expenditure that group forms of the total C.P.I. and the proportion the same group forms of total expenditure in an index formed of items exceeding 0·5 per cent in the C.P.I. In this study the comparison of the cost of living of average wage earners in New South Wales country towns and the capital cities

TABLE 2

*Proportion Formed by Major Consumer Expenditure Groups of Total Expenditure in the Consumer Price Index and in the Sample of Prices of Goods and Services Collected in Sydney and Country Towns in N.S.W.*

	C.P.I.	Sample	Ratio C.P.I./ Sample
Food .. .. .	31·248	50·13	0·62
Clothing .. .. .	14·126	9·47	1·49
Housing .. .. .	14·209	9·47	1·50
Services .. .. .	12·490	4·71	2·65
Miscellaneous .. .. .	27·927	26·22	1·06
Total .. .. .	100·00	100·00	

was made using data in which each individual item of expenditure with a weighting of more than 0.5 per cent had the same weighting as in the C.P.I. and using the same data transformed in the manner described above so that each major expenditure group (food, clothing, housing, etc.) had the same weighting as in the C.P.I.

To obtain a more accurate comparison of the cost of living in the city and country towns it was decided to limit the investigation to country towns which were at least 200 kilometres from Sydney and to exclude large industrial centres. Newcastle, Wollongong and Gosford were deliberately excluded because the former two cities are large industrial centres and the latter is a dormitory city to Sydney.

A questionnaire asking for the price of the items listed and described in table 1 was mailed to forty-three country branches and four city branches of the C.W.A. Satisfactory returns were obtained from nineteen country towns and one city suburb, Lane Cove. Two additional country towns, Bega and Narromine, returned questionnaires, but these were excluded from the analysis as the data was not complete. One other city suburb, Richmond, returned a completed questionnaire but because there was some doubt of whether Richmond was a suburb, or a satellite town, the data was excluded from the analysis.

The usable nineteen questionnaires received from the C.W.A. were only 47 per cent of the forty-three originally requested. A follow-up survey was not attempted as it was considered that the time which would elapse before additional returns could be obtained would distort the results in the period of rapid inflation in which the survey was carried out. The level of response which was obtained is not very different from that obtained in surveys conducted by mail and there is some evidence to suggest that the accuracy of data from mail surveys with a response level of this order is similar to that obtained by personal surveys where a much higher response level is obtained [3].

To obtain additional information in the city, price data were obtained from two other city suburbs, Gordon and Hurstville, by one of the authors. The names of the country towns and suburbs from which data was obtained, their population and distance from Sydney are shown in table 3.

Originally it had been intended to base housing costs on privately owned and Housing Commission of New South Wales houses and house repairs. However, it was found that the rent of Housing Commission houses and flats depended on the year in which they were built. Thus the cost of housing had to be based on privately owned and rented houses. This has the effect of reducing the weightings given to housing from 14.2 per cent in the original C.P.I., to 5.7 per cent. However, as only 55 per cent of the total weightings in the C.P.I. are used, the proportion housing forms is 9.5 per cent of the total weightings used in this investigation. In addition, as explained above, the total cost of living in country towns and cities was compared using both the original data and data transformed so that all major groups of consumer expenditure (housing, food, etc.) had the same weighting as in the original C.P.I.

TABLE 3

*Country Towns and Suburbs Surveyed*

Town or suburb	Distance from Sydney	Population
	kilometres	
(1) <i>Country towns:</i>		
Albury .. .. .	647	28 400
Bathurst .. .. .	241	17 200
Coffs Harbour .. .. .	609	10 100
Deepwater .. .. .	719	300
Dubbo .. .. .	463	17 800
Gloucester .. .. .	310	2 200
Goulburn .. .. .	226	21 600
Grafton .. .. .	700	16 400
Leeton .. .. .	614	6 600
Lockhart .. .. .	590	900
Moree .. .. .	667	9 100
Mudgee .. .. .	309	5 600
Murrurundi .. .. .	353	900
Muswellbrook .. .. .	290	8 100
Tamworth .. .. .	456	24 600
Taree .. .. .	380	11 900
Temora .. .. .	490	4 500
Trangie .. .. .	531	1 000
(2) <i>Sydney and suburbs:</i>		
Gordon .. .. .	....	N.A.
Hurstville .. .. .	....	N.A.
Lane Cove .. .. .	....	N.A.

N.A. = Not available.

It was also impossible to find the proportion of brick and weather board houses in each town and so it was necessary to assume that equal numbers of each existed. Local rates for an average dwelling of each type were obtained from the respective town councils as it was considered these would be a more accurate estimate than those supplied by the C.W.A.

Electricity charges were obtained from the Electricity Authority of New South Wales who have data comparing the charges to typical domestic consumers in all New South Wales County Councils. Typical charges were grouped under two headings:

- (1) The all electrical home.
- (2) Lighting and small power only.

For those towns where only electricity was available a household was assumed to be an all electrical house. Of the five country towns where gas was available the electrical charges were assumed to lie mid-way between those of an all-electrical house and a house with lighting and small power only. Thus in Dubbo the cost of electricity for the all electrical house was 18 per cent higher than in

Sydney while the charge for electricity for lighting and small power only was 30 per cent higher. Hence the average cost of electricity was assumed to be 24 per cent higher in Dubbo than Sydney. Where gas was available it was assumed that consumption was 4 000 units per annum, which is approximately the median figure for Sydney households. The total cost of gas was obtained by multiplying this quantity by the price for 4 000 units per annum in Sydney and the country towns where gas was available.

The cost of car repairs also presented some difficulty as they consist of the cost of parts and mechanics' wages. Enquiries at the National Roads and Motorists Association yielded information that costs were fairly evenly distributed between parts and labour, thus each were given half the weighting for car repairs in the C.P.I.

In collecting data in Gordon and Hurstville it was found that a large variation in prices existed for the various clothing items listed. There appeared to be no way of ensuring that the same article was priced unless an individual brand was specified. However, if this had been done there was no way of ensuring that the particular brand would have been available in all country towns. A subsequent analysis of the data revealed that prices of clothing items in country towns varied much more between towns than for any other group of items. The mean variation for any one clothing item was never less than 3 per cent and for one item, women's shoes, exceeded 20 per cent. As a great deal of doubt existed concerning the accuracy of ascertaining the price of clothing, because of the difficulty of specifying the type of clothing, all subsequent attempts to establish the difference in the total cost of living between country towns and Sydney were done excluding and including clothing items.

Although all prices were collected during the 3-month period extending from mid-February to mid-May 1974, it was thought that price changes during this period might affect the results as the period was one of rapid inflation. For this reason all data was indexed to the common date, 31st May, 1974. Food items could be indexed using the monthly changes in the C.P.I. For other groups of goods and services, housing, clothing, household supplies and miscellaneous items, only quarterly indices of price changes are available. These were reduced to a monthly basis by assuming price changes were equally spread over each month in the quarter. Such an assumption could lead to inaccuracies, however, the calculated monthly changes were not particularly large ranging from 1.4 per cent for clothing to 0.6 per cent for services.

## 4 RESULTS

### 4.1 COST OF LIVING DIFFERENCES BETWEEN SYDNEY SUBURBS AND COUNTRY TOWNS

The average cost of obtaining all goods which form more than 0.5 per cent of the C.P.I. in each major consumer expenditure group for

three city suburbs and nineteen country towns when each item of goods and services is given the same weighting as in the C.P.I., are shown in table 4. The comparison is based on the assumption that the average city wage earner spends the average wage of \$6,448 on consumer goods and services in the same proportion as the weighting of each item forms of the total C.P.I. and then calculating the amount that wage earners in each country town would have to spend to obtain the same quantity and quality of goods and services from the proportion each country town's price forms of the average city price for the same type of goods or services.

**TABLE 4**

*Average Cost of Obtaining Goods and Services in Sydney and Country Towns of N.S.W.*

	Price data indexed to 31st May, 1974			Unindexed data		
	City	Country	Difference	City	Country	Difference
	\$	\$	per cent	\$	\$	per cent
Food .. .. .	1,779	1,814	+ 2.0	1,775	1,769	- 0.3
Clothing .. ..	337	349	+ 3.6	335	335	0
Housing .. ..	338	212	- 37.3†	335	206	- 38.5†
Services .. ..	167	161	- 3.6	167	158	- 5.4
Miscellaneous ..	931	1,014	+ 8.9	929	991	+ 6.6
Total .. .. .	3,552	3,550	0	3,541	3,459	- 2.4
Total excluding Clothing .. ..	3,215	3,201	- 0.4	3,206	3,124	- 2.15
Total (trans- formed)* .. ..	3,542	3,464	- 2.2	3,533	3,375	- 4.5
Total excluding Clothing (trans- formed)* .. ..	3,040	2,945	- 3.1	3,032	2,876	- 5.1

\* Major consumer expenditure groups transformed to the same weighting as in the C.P.I.

† Difference significant at the 1 per cent level.

The comparison is made using both the raw price data collected in the survey and the same price data indexed to the common date, 31st May, 1974. Total expenditure is compared with and without the items in the clothing group as these were difficult to specify and the accuracy of the data was doubtful. A further comparison of total cost of living is also made after transforming all major expenditure items to the same weighting as in the original C.P.I. by multiplying each item of expenditure in that group by the ratio between its weight in the original C.P.I. and its weight in the survey sample (table 2).

No matter which of the above data transformations is made the average cost of living in country towns examined is lower than the average for the three Sydney suburbs. However, the difference is extremely small,

varying from practically nothing if prices are indexed to a common date, 31st May, 1974, to slightly more than 2 per cent if unindexed data is used. The exclusion of clothing from the total has little effect on the result. The difference increases if the items in each major consumer expenditure group are transformed so that each group has the same weight as in the original C.P.I. but even so the difference barely exceeds 5 per cent. A comparison of cost of items in each major consumer group suggests that housing and services are cheaper in country towns while clothing and miscellaneous items and possible food are dearer in the country. The only large difference is in housing which on average costs 38 per cent less in country towns than in Sydney.

The significance of differences in the means for country towns and for the city was examined using the standard *t* test, after establishing that variance in both groups was the same by means of an *F* test. The results of this examination are shown in table 4. The only major consumer item which is significantly cheaper in the country towns is housing where the difference is significant at the 1 per cent level using either unindexed data or price data indexed to the common date, 31st May, 1974, to allow for inflation. Apparently this difference is not great enough to make the total cost of living significantly lower in country towns as the total cost of living, calculated using indexed or unindexed data or data transformed so that all major consumer expenditure groups have the same weighting as in the original C.P.I., is not significant at the 5 per cent level. The exclusion of the clothing group from the calculation has no effect on this result.

#### 4.2 THE EFFECT OF LOCATION, POPULATION AND THE NUMBER OF RETAIL OUTLETS ON THE COST OF LIVING IN COUNTRY TOWNS

Although there is no significant difference in the cost of any major expenditure item except housing in the average New South Wales country town and Sydney, it is possible that the cost of living in country towns could vary with the size of town or its distance from Sydney. Costs might be higher in towns a long distance from Sydney because of higher transport costs. Similarly goods and services might cost more in small towns because of the limited turnover of goods and services might make overhead costs inordinately high. Again the lack of competition in small towns with a limited number of retail outlets could lead to a monopolistic situation and higher prices being charged. However, it was found that it was impossible to separate the effects of the size of town and the number of retail outlets as the two were highly correlated. The correlation coefficient between the two variables was 0.96 ( $R^2 = 0.92$ ). Thus the investigation was limited to finding the effect of distance of the country towns from Sydney and the population of country towns on the cost of living of average wage earners in country towns.

The total cost of living and the cost of each major consumer expenditure item was regressed on—

- (1) the distance of each town from Sydney; and
- (2) the population of each town.

The effect of combinations of these independent variables on each of the dependent variables was also examined.

Plotting of the data suggested that if a relationship did exist between any of the variables it was a linear relationship. Thus, least squares linear regression was used based on the general equation:

$$y_{1 \text{ to } 6} = a + bx_1 + bx_2$$

where  $y_1$  = the average cost of food

$y_2$  = the average cost of clothing

$y_3$  = the average cost of housing

$y_4$  = the average cost of services

$y_5$  = the average cost of miscellaneous household expenses

$y_6$  = total expenditure on all items

$x_1$  = the distance of country towns from Sydney in kilometres

$x_2$  = the population of the country town in thousands of people

The results of these calculations are shown in table 5.

TABLE 5

*The Relationship Between the Cost of Major Groups of Consumer Expenditure Items and the Population and Distance of Country Towns from Sydney.*

Equation Number	Dependent variable	Intercept	Regression coefficients		R <sup>2</sup>	R <sup>2</sup>
		a	Distance b <sub>1</sub>	Population b <sub>2</sub>		
1	Food I	1814++	— 0.002		< 0.001	— 0.059
2	Food U	1788++	— 0.039		0.025	— 0.032
3	Food I	1810++		0.436	0.006	— 0.053
4	Food U	1763++		0.624	0.015	— 0.043
5	Food I	1809++	0.001	0.440	0.006	— 0.118
6	Food U	1781++	— 0.036	0.527	0.036	— 0.085
7	Clothing I	393++	— 0.090		0.040	— 0.017
8	Clothing U	385++	— 0.101		0.053	— 0.002
9	Clothing I	326++		2.259	0.061	0.005
10	Clothing U	312		2.318	0.068	0.014
11	Clothing I	366++	— 0.077	2.053	0.089	— 0.025
12	Clothing U	357++	— 0.087	2.084	0.108	— 0.004
13	Housing I	231++	— 0.037		0.015	— 0.043
14	Housing U	227++	— 0.042		0.020	— 0.037
15	Housing I	172++		4.015++	0.424++	0.390
16	Housing U	167++		3.945++	0.426++	0.392
17	Housing I	178	— 0.011	3.985++	0.425	0.353
18	Housing U	176++	— 0.017	3.899++	0.429+	0.358
19	Services I	170++	— 0.018		0.167	0.118
20	Services U	169++	— 0.021++		0.206	0.159
21	Services I	156++		0.468+	0.248+	0.204
22	Services U	153++		0.479+	0.251	0.213
23	Services I	165++	— 0.016	0.420+	0.368+	0.289
24	Services U	163	— 0.019	0.430	0.404+	0.330
25	Miscellaneous I	975+	— 0.079		0.026	— 0.031
26	Miscellaneous U	962++	0.059		0.016	— 0.042
27	Miscellaneous I	1030++		— 1.571	0.025	— 0.032
28	Miscellaneous U	1004++		— 1.370	0.021	— 0.037
29	Miscellaneous I	994++	0.070	— 1.382	0.045	— 0.074
30	Miscellaneous U	978++	0.051	— 1.232	0.189	0.088

TABLE 5—continued

Equation Number	Dependent variable			Intercept	Regression coefficients		R <sup>2</sup>	R <sup>2</sup>
				a	Distance b <sub>1</sub>	Population b <sub>2</sub>		
31	Totals—							
32	Total expenses (excluding clothing) I	..	..	3191††	0.021		0.017	0.041
33	U	..	..	3146	0.043		0.004	0.055
34	Total expenses (excluding clothing) I	..	..	3168††		3.349	0.057	0.002
35	U	..	..	3088††		3.679	0.082	0.028
36	Total expenses (excluding clothing) I	..	..	3145††	0.04	3.469	0.062	0.055
37	U	..	..	3098††	0.02	3.624	0.083	0.032
38	Total expenses (including clothing) I	..	..	3584††	0.068		0.008	0.050
39	U	..	..	3531††	0.144		0.041	0.015
40	Total expenses (including clothing) I	..	..	3494††		5.608	0.132	0.081
41	U	..	..	3400††		5.997	0.172	0.123
42	Total expenses (including clothing) I	..	..	3511††	0.032	5.520	0.133	0.025
43	U	..	..	3455††	0.107	5.707	0.194	0.093
44	Transformed totals*—							
45	Total expenses (excluding clothing) I	..	..	2956††	0.023		0.001	0.058
46	U	..	..	2917††	0.082		0.014	0.045
47	Total expenses (excluding clothing) I	..	..	2886††		5.870†	0.153	0.103
48	U	..	..	2815††		6.124	0.183	0.135
49	Total expenses (excluding clothing) I	..	..	2878††	0.016	5.912	0.153	0.047
50	U	..	..	2837††	0.043	6.009	0.187	0.085
51	Total expenses (including clothing) I	..	..	3542††	0.157		0.028	0.029
52	U	..	..	3490††	0.232		0.066	0.012
53	Total expenses (including clothing) I	..	..	3372††		9.236	0.237	0.193
54	U	..	..	3279††		9.579†	0.274	0.232
	Total expenses (including clothing) I	..	..	3423††	0.098	8.971	0.248	0.154
	U	..	..	3369††	0.172	9.114†	0.310	0.224

I = values indexed to 31st May, 1974.

U = Unindexed values.

† Significant at the 5 per cent Level.

†† Significant at the 1 per cent level.

\* Major consumer expenditure groups transformed to the same weighting as in the C.P.I.

The only equations in which the regression coefficients are significantly different are those where population is the independent variable and the dependent variables are the cost of housing, services or total expenses and in the latter case only when the items are transformed so that each major consumer expenditure group has the same weighting as in the original C.P.I. In all three cases costs increase as the size of the country town increases. While this is the result which would be expected for housing it is surprising that services should increase in cost as town population increases. Possibly labour in smaller towns is less skilled and charges a lower price for its services.

Although there is a positive relationship between the cost of services, housing and the total cost of living, and town population, the amount of variation in costs explained by population is not particularly high. Depending on the basis of calculation it is approximately 43 per cent for housing, 25 per cent for services and only 15 per cent for the total cost of living.

The significant equations can be used in conjunction with average Sydney costs (*ceteris paribus*) to calculate the size a country town would have to reach before housing, services or the total cost of living equalled that of Sydney. Using the equations most unfavourable to country towns (equations 15 for housing, 22 for services and 52 for total expenses) in conjunction with average Sydney costs in table 4 calculated on the same basis, it appears that a country town would need to have a population in excess of the following number of people before costs equalled those in Sydney:

Housing	41 000 people
Services	28 000 people
Total cost of living	27 000 people

Before drawing any conclusions concerning costs in large country towns it should be remembered that they are based on extremely limited data. Of the 19 country towns surveyed, only three (Goulburn 20 000 people, Albury 28 400 people, and Tamworth 24 600 people) had a population exceeding 20 000 people. Of the towns outside the Newcastle, Sydney, Wollongong region, only Albury and Broken Hill have populations exceeding 27 000 people. The limited evidence that is available suggests that it is only in the largest country towns of New South Wales that the cost of living might equal that of Sydney. Even this conclusion must be treated with caution as population explains less than one fifth of the variance in the total cost of living.

## 5 CONCLUSIONS

A comparison of the cost of living of average wage earners in country towns and Sydney, based on the price of items which form 55 per cent of the weights in the C.P.I. suggests that there is no significant difference between the average cost of living in Sydney and in nineteen country towns in New South Wales. Of the individual expenditure groups examined only the cost of housing was significantly different, being cheaper in country towns than in Sydney. There was no significant difference between the city and country of food, services, clothing costs or miscellaneous items of expenditure. The results of regression analysis suggest that the cost of housing, services and the total cost of living increases as country town population increases, but that none of these items would have a cost equal to that in Sydney in country towns with a population less than 27 000 people. No significant relationship was found between either the total cost of living or the cost of any major consumer groups of expenditure and the distance of country towns from Sydney.

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