NEW BUDGET STANDARD POVERTY LINES FOR MALAYSIA

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In this paper, shortcomings of the official poverty line are examined. A new set of budget standard poverty lines were derived for various years between 1959 and 1981, by first estimating the food budget for Malaysian households. Then, an allowance for non-food items was obtained on the basis of the estimated food budget, and the relationship between the proportion of income allocated on food and non-food items, together yielding the poverty line. The results suggest that the official and other estimates of the poverty line income were generally higher, and thus have overestimated the extent of poverty in Malaysia.

1. INTRODUCTION

Poverty can be defined either in absolute or in relative terms. In the absolute sense, it is defined as an income level that is inadequate for purchasing the minimum necessities of life. Relative poverty is concerned with the relative position of income groups along the national income scale. There is much disagreement on the most appropriate concept of poverty in relation to a given society. However, there seems to be some consensus that in the context of Third World Countries the absolute poverty concept is more appropriate, while in high income countries, relative poverty may be more important (Sen, 1983, p. 153).

The Malaysian government adopts a budget standard poverty line to measure, plan and design policies to ameliorate poverty (Malaysia, 1976) which is described in the following section. In section 3 a new budget standard poverty line is defined for the country. In the final section a discussion of the results and implications of this study is undertaken.

2. THE GOVERNMENT'S POVERTY LINE INCOME

The official poverty line currently used amounts to a monthly household income of $246.05 (Malaysian dollars) for rural households, $272.59 for urban households, and $252.36 for all households, for an average household of size 5.4 persons at June 1977 prices (see Shari, 1974, p. 242). The poverty lines were obtained as the sum of the following: (a) the minimum cost of a food basket which meets the required caloric and protein intake for an average Malaysian, using least expensive food items and including an allowance of 5 percent for the purchase of spices, condiments, coffee, etc., and a "safety" margin to meet the special requirements of particular members of households, for instance, heads of households employed in more intensive occupational activities, etc., (b) the

minimum cost of clothing and footwear based on the assessed requirements of inmates of residential welfare institutions, and (c) the minimum requirements with respect to other non-food items, namely, rent, fuel and power; furniture and household equipment; medical care and health expenses; transport and communication; recreation, education and cultural services, using actual expenditures on these items incurred by households in the less than $200 monthly income category, as obtained from the Household Expenditure Survey (HES) 1973.

The Government's poverty line, estimated by the Economic Planning Unit (EPU) has a number of conceptual as well as theoretical limitations. Firstly, it is difficult to defend the poverty line income on the basis of a strictly subsistence notion of poverty. The non-food component of the poverty budget includes items of expenditure which might be considered nonessential for subsistence, in particular, expenditure on recreation, education and cultural services. Secondly, taking actual expenditure of households in the less than $200 monthly income category and regarding it as the minimum standard for purposes of the poverty line estimate is questionable. It prejudges the level of minimum requirements. The choice of the $200 income criterion is arbitrary. Thirdly, the official poverty line ignores economies and diseconomies of scale in the consumption of food and non-food items and so does not reflect the actual pattern of consumption behaviour of households. The EPU's food costs of the poverty budget were derived as the sum of the food costs of individual members in the household which were estimated on *a priori* nutritional requirements for each member of the household. Such a procedure is misleading as it ignores the possibility of complementarity and cannot be regarded as reflecting the average pattern of household consumption.

We tested for the prescence of economies and diseconomies of scale in household consumption for Malaysian households. The following model was fitted to the mean per capita expenditure by household size data from the 1973 Household Expenditure Survey.

$$E_{ij} = a + bS_j + cS_j^2 + U_{ij}$$

where E_{ij} = the mean per capita expenditure on commodity i by household j, S_j = household size ($j = 1, \ldots 10$), U_{ij} = error term.

The regression equations were estimated for urban and rural households and for eight categories of expenditure following the classification of expenditure used in the *HES Report* (Department of Statistics, Malaysia, n.d.). The results of the regression analysis are given in Appendix A. The coefficients of b and c have the expected signs, thus indicating the presence of economies of scale in consumption among Malaysian households for all expenditure groups except furniture and furnishing for rural households and furniture and furnishing, medical, and miscellaneous expenditure categories for urban households. The results also suggest that differences exist in economies of scale between urban and rural households.

It is clear from the above discussion that the official budget standard poverty lines are unsatisfactory. The government's poverty line measure is rather crude (Shari, 1979). Researchers at the World Bank regard the official poverty line to

be high both by international and Asian standards (Hasan, 1978). These and the above shortcomings have warranted a re-estimation of the poverty line income which is undertaken in the following section.

3. DEFINING THE BUDGET STANDARD POVERTY LINE

Ideally, the poverty line income should be defined in such a way that we have little hesitancy in regarding an individual or family with income below that figure as poor. The poverty budget we have selected consists of the following food and non-food items: (1) food (F), (2) clothing and footwear (C), (3) rent, fuel and power (R), (4) furniture, furnishing and household equipment and operation (H), and (5) personal items or sundries (S). The poverty line (PL) is then a function of F, C, R, H, and S, that is, $PL = f(F, C, R, H, S)$. The sum of the minimum cost of all these items would yield the required poverty line income.

A. *Cost of a Minimum Diet*

Generally, minimum food requirements are derived from a low scale diet or minimum diet designed on the basis of normative nutritional requirements, with respect to calories, proteins, and other nutrients. However, nutritional requirements vary from person to person, and across regions, and scales of diets are usually devised for an average or representative person. The scale of diets based on nutritional requirements alone is not sufficient. Minimum cost considerations have also to be taken into account. In addition, for the minimum diet to be realistic, it should also reflect the consumption pattern of the group it represents. No such ideal low scale diets have ever been designed for Malaysians.

Accordingly, we have devised a new low scale diet, essentially by scaling down the Ministry of Welfare's low scale diet (used to estimate the poverty line income for determining the level of public assistance), in view of its over-specification with respect to most of the nutritional contents. In the process of trimming down the Ministry's food budget we have taken account of firstly, the energy contents—calories and proteins—of the low scale diet, and secondly, whether the selected food items for inclusion in the budget reflect the dietary pattern of common households. The energy content of EPU's low scale diet was about 2,530 calories and 53 grams of protein per capita per day for an average adult of moderate activity. The diet we have devised allows for about 2,400 calories and 55 grams of proteins for an average adult male of moderate activity, as recommended by Dr Chong (1969) of the Institute for Medical Research, Malaysia. By comparison, the World Bank, which recently shifted its focus from a relative to an absolute income approach, allows for 2,100 calories per adult equivalent (Bussink, 1980). The revised diet is shown in Table 1. This diet, when translated into energy content using food composition tables for use in West Malaysia (Department of Social and Preventive Medicine, 1971), yields a caloric value of 2,406, and 57 grams of proteins.

The cost of this low scale diet is arrived at by first multiplying the purchasable quantity (column 2 of Table 1) with the average retail or market price of the commodity. The sum of the cost of all items will give the minimum food cost.

TABLE 1

A Low Scale Diet and Cost for an Average Adult Male per day in 1973

Food Type	Amount Purchased in gms[1]	Waste %[1]	Quantity in gms[2]	1973 Prices in Kati[3]	Cost per Day (M$)	% of Total Cost[4]
Cereals						
Rice	340	—	340	0.28	0.16	19.6
Bread	57	—	57	0.30/loaf	0.05	6.1
Pulses/legumes						
Green Peas	28	—	28	0.45	0.02	2.4
Soya Bean curd	57	—	57	0.27 (5 pieces)	0.03	3.7
Long Beans	57	9	52	0.32	0.03	3.7
Vegetables						
Spinach	28	18	23	0.24	0.01	1.2
Kang kong	28	19	23	0.24	0.01	1.2
Sawi bunga	57	13	50	0.32	0.03	3.7
Bean sprouts	57	—	57	0.19	0.02	2.4
Tomatoes	57	2	56	0.54	0.05	6.1
Fruits						
Papayas	85	32	58	0.16	0.02	2.4
Meat						
Chicken/Beef	18	—	18	2.46	0.07	8.5
Fish						
Ikan kembon	16	40	10	0.64	0.02	2.4
Ikan cincaru	16	40	10	0.74	0.02	2.4
Eggs	12	11	11	0.13 (each)	0.04	4.9
Condensed milk	28	—	28	0.73/tin	0.05	4.9
Sugar	30	—	30	0.45	0.02	2.4
Cooking oil	57	—	57	0.91 per qt bottle	0.08	9.8
Accesory Food						
Onions	14	11	12	0.54	0.01	1.2
Curry powder	7	—	7	1.19	0.03	3.7
Coffee/Tea	7	—	7	0.80	0.05	6.1
Salt	14	—	14	0.11	—	—
Total Cost					0.82	100

[1] The proportion of purchased quantities and edible proportion (Department of Social and Preventive Medicine, 1971).

[2] Edible proportions were used to calculate the energy contents of the low scale diet.

[3] One *Kati* is equivalent to 4/3 lb. Market prices/average retail prices (Department of Statistics, Malaysia, 1973).

[4] These percentages are for 1973

The average retail prices for each year were obtained from the *Monthly Statistical Bulletin* issued by the Department of Statistics. The cost of the diet was estimated for various years from 1959 to 1981 and is shown in Table 2 for selected years for which income data are available for Malaysia. The cost of the low scale diet was approximately $0.70 per day for an adult in 1959. The same basket of goods will cost $1.58 in 1981 prices, that is an increase of 125 percent.

Generally, prices differ between urban and rural areas, and also from one region to another. However, such price differentials are unavailable. The Department of Statistics publishes only one set of average prices for the country as a whole. In this respect, it may be of interest to note that the Ministry of Welfare

TABLE 2

MINIMUM FOOD COST FOR DIFFERENT PERSONS FOR SELECTED YEARS, 1959-81

(Malaysian dollars per month)

Persons	1959	1965	1967	1970	1973	1976	1981
Adult							
Male or Female							
over 18 years	0.70	0.73	0.77	0.77	0.83	1.24	1.58
Children							
Less than 5	0.24	0.25	0.26	0.26	0.28	0.42	0.54
5-12 years	0.29	0.30	0.32	0.32	0.34	0.51	0.65
13-18 years	0.33	0.34	0.36	0.36	0.39	0.58	0.74
Mean	0.29	0.30	0.31	0.31	0.34	0.50	0.64

Note: 1959 is the earliest year for which detailed retail prices are available for Malaysia.

Services found no significant variation between urban and rural prices for the food items considered in its poverty budget in 1974 (Malaysia, 1976).

Food cost for other individuals in the household was derived using adult equivalent scales with respect to total food. This was found to be 0.34 (less than 5 years), 0.41 (5-12 years), 0.47 (13-18 years) and 1.0 (adult of more than 18 years) (see Cheam, 1979). An average household of 5 persons consists of one person each in the age groups, less than 5 years, 6-12 years, and 13-18 years in 1957 and 1970. The minimum food costs for these three categories of persons are shown in Table 2.

To determine the food bill for a family or a household (family and household here are used interchangeably), it is necessary to have information on the exact composition of the household, with respect to the number of adults and children. No information on the precise make up of the household is available. However, the amount of the actual expenditure on food does reflect, albeit indirectly, household composition. Taking as the standard the food expenditure of a two person household or a couple, the actual food outlay of other households can then be expressed as a proportion or ratio of the standard family. These ratios were estimated for urban, rural and for all households in 1973. Thus a ratio of 2.54 for a eight person household would mean that this type of family will spend about two and half times more on food compared to a two person household. The urban and rural ratios were found to be fairly similar. Taking the ratios for the country, normative (minimum) food cost for households of different size can be derived on the basis of the estimated food cost for a standard two person (adult) household. This has been estimated for a single day and for an average month of 30.4 days (365/12) in 1973 (Table 3). Assuming these ratios to be constant from year to year, and using a similar procedure, the minimum food cost by household size for other years were obtained as given in Table 4.

B. *The Requirements for Non-food Items*

The four non-food items considered in the poverty budget are (a) clothing and footwear which include shirts, pants, shoes and slippers, (b) rent, fuel and

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TABLE 3

NORMATIVE FOOD COSTS PER DAY AND PER MONTH BY HOUSEHOLD SIZE,
1973

Household Size	Ratio of Standard Family	Cost per Day ($)	Cost per Month ($)
1	0.50	0.83	25.23
2	1.00	1.66	50.46
3	1.33	2.21	67.18
4	1.59	2.64	80.26
5	1.92	3.19	96.98
6	2.09	3.47	105.49
7	2.24	3.72	113.08
8	2.54	4.22	128.29
9	2.87	4.76	144.70
10+	3.72	6.18	187.87

TABLE 4

NORMATIVE FOOD COST BY HOUSEHOLD SIZE PER MONTH FOR SELECTED YEARS,
1959-1981

(Malaysian dollars per month)

Household Size	1959	1965	1967	1970	1973	1976	1981
1	21.28	22.19	23.41	23.41	25.23	37.70	48.03
2	42.56	44.38	46.82	46.82	50.46	75.39	96.06
3	56.60	59.03	62.26	62.26	67.18	100.27	127.76
4	67.68	70.58	74.44	74.44	74.44	119.96	152.75
5	81.72	85.22	89.89	89.89	96.98	144.76	184.45
6	88.96	92.77	97.85	97.85	105.49	157.58	200.79
7	95.34	99.43	104.87	104.87	113.08	168.89	215.20
8	108.11	112.74	118.92	118.92	128.29	191.51	244.02
9	122.15	127.39	134.37	134.37	144.70	216.38	275.71
10+	158.33	165.11	174.16	174.16	187.87	280.46	357.36

power, (c) furniture, furnishing and household equipment, consisting of the cost
of utensils, furniture, washing and cleaning materials and other expenditures
necessary for the daily operation of the household, and (d) personal items or
sundries comprising of expenditures on items of personal care like hair-cut and
toiletries, etc. Unlike food, no yardsticks have been worked for non-food items
in any scientific way (Rudra, 1974). Thus, it is difficult to prescribe a minimum
standard on any of these non-food items for Malaysian households. Following
the practice in the literature of using the food-non-food relationship to define
the poverty line (see Orshansky, 1965; Rao, 1981) we have estimated the minimum
requirements for the four non-food items in the poverty budget on the basis of
the relationship between food and non-food expenditures of households on the
one hand, and the proportion of total household income allocated on these
non-food items, on the other. It must be emphasised here that this procedure
does not tell us about the minimum requirements. It merely provides an estimate

of the non-food components of the poverty budget which may be deemed as reasonable or unreasonable in the context of the society under consideration.

Non-food requirements were estimated separately for urban and rural households, based on the data from HES 1973. Taking the actual percentages as the independent variable and household size as the dependent variable, a line or a curve of best fit was fitted to remove any irregularities in the data. The actual and the smoothed values for the expenditure items are in Appendix B. These estimated percentages were used to calculate the minimum requirements for non-food items. Where the results were inconclusive, as in the case of furniture, furnishing and household equipment and operation, actual percentages were used. The minimum requirements for non-food items (MRNF) for each household size were estimated using the following relationship.

$$MRNF_{ij} = FC_i / FP_j X NFP_{ij}$$

where, $MRNF_{ij}$ = minimum requirements with respect to non-food item j (j refers to clothing, rent, fuel and power; furniture and furnishing, and personal items), for household of size i, ($i = 1$ to 10), FC_i = estimated food cost for household of size i, FP_i = the estimated percentage of income allocated to food by household i and NFP_{ij} = Percentage of income spent on non-food item j by household i.

Using the above formulae, the minimum requirements, say, for clothing and footwear, for a urban two-person household for a month in 1973 was derived as follows. The estimated food cost for a couple is $50.46(FC) (from Table 4), and the proportion of income devoted to clothing by the same household (NFP) is 6.14 percent. Substituting , we obtain (MRNF) = $7.00 (to the nearest dollar). The minimum costs for other non-food items in the poverty budget were similarly derived for urban and rural households. The HES 1973 does not provide a separate classification for personal items. The Household Budget Survey of 1957/58 shows urban households on the average spent 2.09 percent of their total expenditure on this item, while for rural households it was around 1.28 percent. We have assumed these percentages to be constant throughout the period 1957–81, for different household size.

Household expenditure patterns have changed significantly in Peninsular Malaysia since 1957 (Department of Statistics, Malaysia, n.d.). In particular the proportion of total household expenditure on food by an average household declined from 57.9 percent in 1957/58 to 46.4 percent by 1973, giving an annual rate of change of 0.7 percent. The average annual rate of change for clothing and footwear was 0.08 percent, household equipment and operation, 0.08 percent, and rent, fuel, and power, 0.05 percent during the same period. The minimum requirements for non-food items for the various years between 1959–81 were estimated using the above formula and these estimated percentages for the respective years.

C. *The Poverty Line Income*

The poverty line can now be obtained as the sum of the two food measures, namely, the minimum cost of the food budget by household size (Table 4) and an amount spent on non-food items estimated using these minimum food costs

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and the proportion of income spent on non-food items as explained above. The poverty line in 1959 for a household of 5 persons works out to be $140.00 in the urban areas, $122.00 in the rural areas and $131.00 for all areas (see Table 5). In terms of per capita, it was $25.00, $23.00 and $24.00 respectively. To maintain a standard of living at the poverty line, the same household would require $280.00 (urban), $231.00 (rural) and $256.00 for the country, in 1977. In 1981 prices, the comparable poverty lines were $360.00, $291.00 and $325.00, which are about one and a half times more than the 1959 level. The per capita poverty lines for each region are also shown in the table.

TABLE 5

POVERTY LINE BY HOUSEHOLD SIZE, PENINSULAR MALAYSIA FOR SELECTED YEARS, 1959–81

(Dollars per month per household)

Household size	Year						
	1959	1965	1967	1970	1973	1976	1981
	Urban						
1	36.37	39.15	41.81	42.67	47.06	72.20	97.06
2	77.99	84.49	90.45	92.68	102.66	158.25	214.79
3	99.45	107.00	114.20	116.44	128.40	196.39	262.67
4	111.53	125.19	133.45	135.80	149.29	228.04	303.07
5	140.09	150.02	159.83	162.45	178.45	271.77	360.11
6	148.34	158.33	168.47	170.87	187.13	284.44	374.87
7	155.56	165.62	176.04	178.26	194.89	295.56	387.85
8	171.72	182.30	193.57	195.67	213.60	323.04	422.05
9	187.17	198.04	210.02	211.86	230.33	348.06	452.48
10+	235.36	248.32	263.06	264.91	287.95	433.49	561.25
Per capita	24.79	26.52	28.20	28.57	31.27	47.48	62.48
	Rural						
1	34.23	36.46	38.78	39.29	42.97	65.27	85.86
2	70.28	75.02	79.85	81.02	88.73	134.97	178.12
3	88.05	93.25	98.92	99.83	108.81	164.20	213.66
4	98.41	108.77	115.27	116.15	126.27	190.44	246.66
5	122.45	129.13	136.76	137.66	149.57	224.99	290.86
6	131.77	138.79	146.92	147.77	160.31	241.10	311.13
7	137.80	144.86	153.23	153.95	166.83	250.53	322.47
8	156.59	164.60	174.13	174.93	189.66	284.64	366.31
9	175.02	183.83	194.41	195.21	211.16	317.27	407.88
10+	225.34	236.56	250.13	251.10	271.99	407.85	524.00
Per capita	22.54	23.84	25.24	25.40	27.57	41.48	53.58
	All Areas						
1	35.30	37.81	40.29	40.98	45.01	68.73	91.46
2	74.13	79.76	85.15	86.85	95.69	146.61	196.45
3	93.75	100.13	106.56	108.13	118.60	180.30	238.16
4	104.97	116.98	124.36	125.97	137.78	209.24	274.87
5	131.27	139.57	148.29	150.05	164.01	248.38	325.49
6	140.06	148.56	157.69	159.32	173.72	262.77	343.00
7	146.68	155.24	164.64	166.11	180.86	273.04	355.16
8	164.16	173.45	183.85	185.30	201.63	303.84	394.18
9	181.09	190.93	202.21	203.53	220.74	332.67	430.18
10	230.35	242.44	256.60	258.00	279.97	420.67	542.63
Per capita	23.67	25.18	26.72	26.99	29.42	44.48	58.03

4. RESULTS AND IMPLICATIONS

It is now possible to compare our estimate of the poverty lines with those of the government (EPU), Ministry of Welfare services, and other researchers. Table 6 provides a comparison of the different poverty lines by household size for the year 1973. The EPU's poverty line for a standard family of 5.4 persons namely, $252.36 per month at June 1977 prices was first deflated to the 1973 price level and then translated for other household sizes using appropriate equivalence scales (see Perumal, 1986). The Welfare Ministry devised three alternative methods of arriving at the budget standard poverty lines. Anand (1977) evaluated the three methods and concluded that only method 2 and method 3 come close to the definition of absolute poverty in Malaysia. Anand, however, adopted a per capita poverty line income of $25 per month in 1970 prices, which was derived on the basis of using a relative notion of poverty for Malaysia (1977, p. 7) It can be seen from the table that our estimate namely, $29.42 per capita per month is the lowest of all the available estimates. The Ministry of Welfare's estimates are higher than that of EPU, and are about 20 to 46 percent higher than our estimates. The official poverty lines are on the average 9 percent more than that estimated by this study and thus overestimate the extent of poverty.

The incidence of poverty in Peninsular Malaysia in 1970 based on the EPU's poverty line income was 49.3 percent of households or approximately 791,000 households. By 1976 this has declined to 39.6 percent or 764,400 households giving an average annual rate of poverty elimination of 1.6 percent. The comparable figures using our poverty line income estimates are 38.1 percent (611,800 households) and 34.2 percent (671,400) in 1970 and 1976, respectively (Malaysia, 1976). Accordingly, the average rate of poverty declined by only 0.7 percent per annum between 1970 and 1976. The official poverty incidence rate of almost half

TABLE 6

A COMPARISON OF THE VARIOUS ESTIMATES OF POVERTY LINES FOR PENINSULAR MALAYSIA, 1973

(Dollars per month)

Household size	Author's Estimates	E.P.U.'s Poverty Lines	Ministry of Welfare Services	
			Method 1	Method 2
1	45.01	59.69	49.61	72.38
2	95.69	101.17	99.30	78.68
3	118.60	121.40	129.04	105.49
4	137.78	144.67	171.87	140.46
5	164.01	166.92	208.46	171.34
6	173.72	179.06	258.09	210.67
7	180.86	200.31	294.48	241.56
8	201.63	217.51	344.14	280.90
9	220.74	244.82	380.53	311.79
10	279.97	316.65	430.49	351.12
Per capita	29.42	31.85	43.02	35.72

Sources: Malaysia (1978), Malaysia, Ministry of Welfare Services (1976).

of all Malaysian households in 1970, and the poverty eradication rate of more than 1.5 percent per annum (1970-76) are not supported by other evidence.

Our results suggest that using the inflation rate to deflate the poverty line from one year to another often used in the Malaysian context and in the literature in general may be somewhat inappropriate. More specifically, our estimated poverty lines held constant in real terms increased on the average by 14 percent between 1959-70, and approximately 115 percent from 1970 to 1981, while the consumer price index rose by 9 percent and 87 respectively. This tends to underestimate the magnitude of the poverty lines presumably due to the larger component of the food content in the poverty budget, as compared to the basket of goods used to measure the cost of living index in Malaysia. Food prices rose much more than the other items during this period.

Undoubtedly, the choice of a poverty line depends on the purpose for which it is designed, and it is "doubtful whether a single poverty line can ever satisfy the demands of the researcher, the politician, the administrator, the population at large, and most importantly, the poor themselves" (Saunders, 1980). However, a precise definition and identification of the poor are crucial to ensure that measures designed to ameliorate poverty are targeted at the population most in need.

RESULTS OF REGRESSION ANALYSIS

Expenditure group	Constant Term	Coefficient of Sj	Coefficient of Sj^2	R^2	F Value
		Rural			
Food	41.667	−5.605 (−10.44)	0.324 (7.759)	0.964	60.206
Beverages and Tobacco	10.273	−2.061 (−5.183)	0.126 (4.085)	0.848	16.689
Clothing and Footwear	6.207	−0.954 (−4.602)	0.057 (3.559)	0.823	12.669
Gross Rent and Power	18.615	−3.331 (−8.935)	0.184 (6.324)	0.957	39.987
Furniture and Furnishing	3.602	−0.383* (−3.072)	0.0152* (1.571)	0.855	2.467
Medical and Health	1.333	−0.201 (−7.002)	0.0123 (5.770)	0.900	33.293
Transport	15.154	−2.644 (−8.846)	0.153 (6.553)	0.951	42.943
Recreation and Entertaintment	6.091	−1.024 (−6.127)	0.063 (4.818)	0.887	23.209
Miscellaneous Expenses	22.339	−4.798 (−4.179)	0.301 (3.374)	0.773	11.383
		Urban			
Food	67.051	−9.227 (−10.82)	0.495 (7.282)	0.974	53.029
Beverages and Tobacco	16.652	−3.200 (−5.683)	0.190 (4.239)	0.889	17.966
Clothing and Footwear	9.666	−1.583 (−8.500)	0.088 (5.230)	0.954	33.195
Gross Rent and Power	37.272	−5.073 (−8.544)	0.214 (4.517)	0.976	20.406
Furniture and Furnishing	7.078	−0.519* (0.783)	0.0008* (−0.015)	0.582	0.000
Medical and Health	2.075	−0.086* (−0.472)	0.000* (−0.001)	0.329	0.000
Transport	29.987	−4.931 (−2.815)	0.261 (1.868)	0.732	3.491
Recreation and Entertainment	13.801	−1.968 (−5.410)	0.114 (3.930)	0.887	15.445
Miscellaneous Expenses	62.018	−13.380* (−5.808)	0.979* (4.339)	0.893	18.824

Note: Values in parentheses are the corresponding t-values.

*Indicates coefficients which were not significant. All other coefficients were significant at the 5 percent level.

ACTUAL AND ESTIMATED PERCENTAGE OF INCOME ALLOCATED ON FOOD AND
NON-FOOD ITEMS, BY HOUSEHOLD SIZE, PENINSULAR MALAYSIA, 1973

Household Size	Food		Clothing and Footwear		Gross Rent and Power		Furniture and Furnishing	
	A	E	A	E	A	E	A	E
Rural								
1	32.16	33.82	5.24	4.96	14.23	15.23	2.31	—
2	37.85	37.94	4.72	5.26	14.80	14.85	4.26	—
3	45.41	41.59	5.74	5.56	15.52	14.46	4.47	—
4	55.68	44.78	5.92	5.86	14.20	14.08	4.45	—
5	46.56	47.50	6.03	6.16	14.00	13.69	4.63	—
6	50.00	49.76	6.48	6.46	13.48	13.31	4.81	—
7	49.03	51.56	6.65	6.76	12.69	12.93	3.54	—
8	52.21	52.89	7.25	7.06	12.29	12.54	4.42	—
9	56.04	53.76	7.95	7.36	12.29	12.16	3.89	—
10+	53.83	54.16	7.10	7.66	11.49	11.77	3.54	—
Urban								
1	28.15	26.99	4.22	3.85	14.44	15.61	1.80	—
2	30.15	18.71	4.08	3.99	17.29	16.46	5.38	—
3	30.63	30.43	4.15	4.12	17.96	17.01	4.51	—
4	30.60	32.15	3.81	4.26	18.58	17.26	4.04	—
5	31.53	33.88	4.17	4.39	16.10	17.23	4.75	—
6	34.85	35.60	4.66	4.52	15.12	16.90	4.04	—
7	34.70	37.32	4.55	4.66	16.43	16.29	3.96	—
8	40.85	39.04	4.01	4.76	15.98	15.38	3.70	—
9	45.03	40.76	5.74	4.93	14.61	14.17	2.93	—
10+	40.63	42.48	5.17	5.06	12.48	12.68	2.80	—

Note: A = Actual values are from the Household Expenditure Survey, 1973 (Department of
Statistics, n.d.). E = Estimated values were derived either from a linear relationship of the form
$EP = a + bN$, or a nonlinear equation of the form $EP = a + bN + cN^2$, where EP is the percentage of
income allocated by households on the expenditure items, and N the household size.

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