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School of Social Science University of Cape Town

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ON

A SURVEY OF GREATER CAPE TOWN

THE POVERTY LINE
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BY

PROFESSOR EDWARD BATSON

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A FURTHER CALCULATION OF THE POVERTY DATUM LINE

BY

PROFESSOR EDWARD BATSON

[REVISED EDITION OF REPORTS NO. SP 3 AND RS 203]

MARCH 1950 REPORT NO. RS 204

The Poverty Datum Line is a calculation employed to measure standards of living. It is an estimate of the income needed by a household to attain a defined minimum level of health and decency. By a well-established convention, based largely on the work of Bowley, the necessaries for the "minimum level of health and decency" are reckoned to include only the following

1. Food: in sufficient quantity and variety to provide for each member of the household the food value and palatability necessary for health, taking into account the food customs of the Western World.

2. Clothing: the minimum for protection of health and conformity with Western customs.

3. Fuel and Lighting: the minimum compatible with health and conformity with Western customs.

4. Cleaning Materials: a minimum allowance of soap, etc. for personal and household use.

5. Housing. See Appendix B.

6. Transportation, of earners only, between home and work only.

As the Social Survey has repeatedly pointed out, this standard is perhaps more remarkable for what it omits than for what it includes. It does not allow a penny for amusements, for sport, for medicine, for education, for saving, for hire purchase, for holidays, for odd 'bus rides, for newspapers, stationery, tobacco, sweets, hobbies, gifts, pocket money, or comforts or luxuries of any kind, or for any replacements of household equipment. It is not a "human" standard of living. It merely fulfils its purpose of stating the barest minimum upon which subsistence and health can theoretically be achieved under Western conditions, taking only "short-run" considerations into account. (See also Appendix A.)

FOOD

Dieticians have come to a considerable measure of agreement concerning the amount and variety of food that is necessary for health in persons accustomed to Western ways of living. A commonly-accepted standard is that an adequate diet must provide, per equivalent male adult, a daily intake of 3,400 calories, 100 grams protein, and 100 grams fat, as well as minerals and "protective" elements. Minimum dietaries are calculated by ascertaining the cheapest combination of foodstuffs that will provide these elements, given ruling food prices and food habits.

One of the best-known minimum dietaries is that usually referred to as BMA No. 2, a dietary constructed in 1933 by a committee of the British Medical Association appointed to determine the minimum expenditure upon foodstuffs which must be incurred if health and working capacity are to be maintained. This dietary has been adopted as the basis of several Poverty Datum Lines, with occasional misleading results when the Datum Lines have been applied to countries or in circumstances to which the BMA Standard did not relate. The adoption of this Standard, as it stands, within the Union of South Africa, for example, would be strictly justified only if

(i) the physiological needs of the average person were the same in the Union and in Britain;
(ii) food habits were the same in the Union and in Britain;
(iii) the composition of the foodstuffs included in the dietary, and of certain of their substitutes, were the same in the Union and in Britain;
(iv) the relative prices of the common foodstuffs were the same in the Union and in Britain.

Of these assumptions, not one is free from doubt. In the absence of definite evidence to the contrary, assumptions (i) and (iii) must for the time being be allowed to pass, however. In any case, the currently accepted findings on these two points are subject to a very wide margin of statistical and experimental error (disguised but by no means rectified by the apparent precision of text-book tables). Assumption (ii), while demonstrably false, especially where the Non-European population of the Union is concerned, is not false enough to invalidate the use of the BMA standards as a general pattern or model. But assumption (iv) is wide of the mark, largely because the Union's system of customs protection and market control had even long before the war led to the establishment of food prices quite out of proportion to those ruling in countries which had not such a system.

When the Social Survey of Cape Town attempted in 1938-1939 to draw up a minimum dietary for Cape Town, certain difficulties were thus encountered. As far as is known, no previous attempts had been made to construct a Poverty Datum Line suited to Union conditions, and in undertaking this task the Social Survey was obliged to make what use it could of overseas experience and to supplement this with such observation of local conditions as it was itself able to make. The hope was expressed that this procedure would prove adequate, even though it would have been unreasonable to expect for it freedom from those shortcomings usually attendant upon excursions into a new field. Since the first calculation of the Survey Poverty Datum Line, the construction of a Nutrition Standard for South Africa and certain other researches [see Appendix C] have provided data in this field which have either confirmed the Survey's choice of procedure or have at least not suggested conclusive reasons for modifying it in subsequent calculations.

Instead of laying down a single hard-and-fast dietary such as no household would in fact be expected to adhere to, week in, week out, the Survey estimated the minimum weekly sum for which adequate amounts of food could be purchased within each of six main groups of edibles and beverages, allowing for such reasonable variation within each group as would satisfy the desire for variety and permit advantage to be taken of price-variations and fluctuations in supply. (It should perhaps be stressed that this procedure did not in any degree raise the total cost of the dietary as compared with that of a fixed typical diet, but has rather had the opposite effect.) The six groups of food-items were the following:-

1. Animal foodstuffs for at least 50 per cent. of the required protein -- meat, fish, bacon, milk, etc.

2. Cereals and pulse to make up the balance of the required protein -- bread, flour, peas, beans, barley, oatmeal, potatoes, etc.

3. Fats to make up the balance of the required fat -- tail fat, vegetable fat, butter, etc.

4. Sugars, etc., to make up the required calorific content.

5. Fruit and green vegetables to ensure adequate vitamin content.

6. Tea and/or coffee, of no food value, but valued as stimulants.

From a study of the budgets of some 300 households, and of the prices charged at a representative range of shops, the weekly minimum dietary for one male adult drawn up in 1938-1939 and its calculated computed cost were as follows:-

TABLE 203.1

SURVEY SCALE OF FOOD ALLOWANCES

Per Equivalent Male Adult Per Week

Prices of 1938-1939

For animal foodstuffs to provide a minimum of 50 grams of protein per day	3s 0d
For cereals, pulse, and potatoes, to provide the balance of 100 grams of protein per day	2s 6d
For fats to provide the balance of 100 grams	6d
For fresh fruit and vegetables	7d
For sugars to provide the balance of 3,400 calories daily	6½d
For tea and coffee	4½d
Total	7s 6d

From time to time, calculations have been made of the changes in these figures caused by changing prices. On the basis of prices ruling in October 1943 a complete re-calculation yielded the following figures [see Report RS 203]:-

TABLE 203.2

SURVEY SCALE OF FOOD ALLOWANCES

PER EQUIVALENT MALE ADULT PER WEEK
PRICES OF 1943

For animal foodstuffs as above	4s 0d
For cereals, pulse, and potatoes as above ...	3s 4½d
For fats as above	10d
For fresh fruit and vegetables as above ...	10d
For sugars as above	say 6½d
For tea and coffee as above	6d
Total	10s 1d

A new calculation in March 1949 now shows the following changes [see also Report RS 205]:-

TABLE 204.1

SURVEY SCALE OF FOOD ALLOWANCES

PER EQUIVALENT MALE ADULT PER WEEK
Prices of 1949

For animal foodstuffs as above	4s. 10d.
For cereals, pulse, and potatoes as above ...	4s. 8d.
For fats as above	1s. 0d.
For fresh fruit and vegetables as above	1s. 4d.
For sugars as above	8d.
For tea and coffee as above	8d.
Total	13s. 2d.

It will be noted that in 1949 the percentage increase in the cost of each group of foodstuffs as compared with 1938-1939 is: animal foodstuffs 61; cereals, pulse and potatoes 87; fats 100; fresh fruit and vegetables 129; sugars 23; tea and coffee 78. The percentage increase in the cost of the food budget as a whole is 75.6. It should be emphasized that these are the percentage increases in the cost of each group of foodstuffs, not the percentage rise in the prices of the ingredients of the groups. The price of rice, for instance, has risen by several hundred per cent.; but the group "cereals, pulse, and potatoes" which included rice in 1939 has been modified for 1949 so as to provide the necessary 50 grams of protein per day without the use of rice at all. Thus the cost of the group has risen less than the average price of its 1939 components; and this is true of the other groups as well. A retail price index number based on the composition of the groups in 1939 would show an increase by 1949, not of 75.6 per cent., but of approximately 90 per cent.

The above weekly allowance is calculated to supply the needs of an adult male. Women and children need less. In the Cape Town standard the allowances for women and children and for old persons have been calculated as a percentage of the allowance for an adult male, according to the following scale:-

TABLE 3.4

SCALE OF PROPORTIONATE COST OF MINIMUM DIETARIES

Person	Proportionate Cost
Male, aged 16-64	100
Male, aged 65* or more	60
Female, aged 16-59	85
Female, aged 60* or more	60
Child, aged 0-4	50
Child, aged 5-9	60
Child, aged 10-15	85

From the above it follows that the weekly food allowance for a household in 1949 may be calculated by adding the following individual allowances:-

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* There is no physiological warrant for choosing the age 60 to mark the onset of old age in a woman and 65 to mark the onset of old age in a man. Any year to mark the customary cessation of heavy work would be equally justified. But there were other reasons which make it convenient to choose the officially pensionable ages as marking the transition.

TABLE 204.2

SCALE OF INDIVIDUAL WEEKLY FOOD ALLOWANCES

For each male aged 16-64, the sum of	13s. 2d.
For each male aged 65 or more, the sum of	7s.11d.
For each female aged 16-59, the sum of	11s. 2d.
For each female aged 60 or more, the sum of	7s.11d.
For each child aged 10-15, the sum of	11s. 2d.
For each child aged 5-9, the sum of	7s.11d.
For each child aged under 5, the sum of	6s. 7d.

For a breast-fed baby, the sum of 6s. 7d. is credited on behalf of the nursing mother, who needs more food than a man.

CLOTHING

While we have a more or less independent physiological basis for our estimates of the share of food in the Poverty Datum Line, we are driven to base our estimates of the share of clothing upon social considerations alone. Custom and decency, not health, determine the minima of expenditure upon clothing. Here, again, the Cape Town Survey has followed orthodox tradition in ascertaining local distributions of expenditure among persons of very limited means, comparing the prices paid by such persons with the (sometimes lower) prices at which standard articles of clothing were obtainable in local shops, and estimating, again on the basis of actual family budgets, the length of time which such standard articles could be made to last. In this manner it has been calculated that the minimum sums upon which persons of different ages and sexes could be clothed in Cape Town, assuming the utmost economy in purchasing and wearing and repairing, were at the prices ruling in March 1949 as follows:-

TABLE 204.3

SCALE OF INDIVIDUAL WEEKLY CLOTHING ALLOWANCES

Male aged 16-64, per week	4s. 0d.
Male aged 65 or more, per week	3s. 0d.
Female aged 16-59, per week	3s. 4d.
Female aged 60 or more, per week	2s. 6d.
Child aged 10-15, per week	2s. 6d.
Child aged 5-9, per week	1s. 8d.
Child aged 0-4, per week	10d.

A further allowance of 1s. 8d. per week is made for each young woman, employed outside the home, if unmarried.

Examples of the way in which these sums might be laid out are given in table 204.4

TABLE 204.4

SPECIMEN MINIMUM CLOTHING BUDGETS, 1949 PRICES

Annual Expenditure for a Male Adult:-

Footwear and repairs	£2. 0. 0
Suit, Coat, Trousers*	4. 0. 0
Overcoat	16. 0
Headwear	3. 6
Shirts and Underwear	2.12. 6
Socks	12. 0
Sundries	4. 0
Total for one year	£10. 8. 0

Annual Expenditure for a Married Woman:-

Footwear and repairs	£1.15. 0
Dresses, Skirts, Blouses, Jumpers	2.10. 0
Coat, Mackintosh	1. 0. 0
Hats	8. 0
Underwear and Nightwear	2. 0. 0
Stockings	15. 0
Sundries	5. 0
Total for one year	£8.13. 0

Annual Expenditure for an Unmarried Young Woman who is an Earner:-

Footwear and repairs	£2.10. 0
Dresses, Skirts, Blouses, Jumpers	3.15. 0
Coat, Mackintosh	2. 0. 0
Hats	12. 0
Underwear and Nightwear	2.10. 0
Stockings	1. 5. 0
Sundries	8. 0
Total for one year	£13. 0. 0

* For many items in the above lists, more than one year's wear is expected, and a corresponding share only of the cost is debited to the annual budget.

In 1938-1939 and in 1943 the clothing component was computed as follows:-

TABLE 204.5

SCALE OF INDIVIDUAL WEEKLY CLOTHING ALLOWANCES, 1938-1939 AND 1943

	1938-1939	1943
Male aged 16-64, per week	1s. 10d.	3s. 2d.
Male aged 65 or more, per week	1s. 4d.	2s. 6d.
Female aged 16-59, per week	1s. 4d.	2s. 6d.
Female aged 60 or more, per week	1s. 0d.	1s. 10d.
Child aged 10-15, per week	1s. 0d.	1s. 10d.
Child aged 5-9, per week	8d.	1s. 3d.
Child aged 0-4, per week	4d.	8d.

with an allowance of 8d. and 1s. per week respectively for unmarried young women employed outside the home. It will be noted that the percentage increase over the decade is 118 for men and 150 for women and children.

FUEL, LIGHTING, AND CLEANING

The 1949 allowance for fuel is based on the assumption that the cooking and room-heating is done by paraffin and wood at a mean seasonal cost of 3s. per week per household. The allowance for lighting has been based as in 1938-1939 on a compromise between the cost of electric lighting (which has risen very little since 1939) and the cost of candles (which has more than doubled). The 1949 lighting components are computed at 1s. per week per household plus 2d. per week for every person in the household beyond the first, and the 1949 cost of cleaning materials at 5d. per head per week.

These amounts compare with the figures of 1938-1939 and 1943 as follows:-

TABLE 204.6

FUEL, LIGHTING, AND CLEANING COMPONENTS:
WEEKLY AMOUNTS IN PENCE

	1938-1939	1943	1949
Fuel, per household	18	24	36
Lighting, per household	5	6	10
plus per person	1	1	2
Cleaning, per person	2	3	5

THE POVERTY DATUM LINE

The following final tables for 1949 result:-

TABLE 204.7

THE SURVEY POVERTY DATUM LINE
WEEKLY ALLOWANCES IN PENCE, 1949

	Food	Clothing	Cleaning	Lighting	Fuel	Total
Child: under 5 years	79	10	5	2	-	96
Child: 5-9 years inclusive	95	20	5	2	-	122
Child: 10-15 years inclusive	134	30	5	2	-	171
Man: 16-64 years inclusive	156	48	5	2	-	211
Man: 65 years or older	95	36	5	2	-	138
Woman: 16-59 years inclusive	134	40*	5	2	-	181*
Woman: 60 years or older	95	30	5	2	-	132
Household	-	-	-	10	36	46

* Plus 20 for an unmarried woman aged 16-29 inclusive, if an earner.

TABLE 204.8

THE SURVEY POVERTY DATUM LINE
WEEKLY, MONTHLY AND YEARLY ALLOWANCES

	Per Week	Per Month	Per Year
	s. d.	£ s.	£
Child: under 5 years	8. 0	1.15	21
Child: 5-9 years inclusive	10. 2	2. 5	26
Child: 10-16 years inclusive	14. 3	3. 2	37
Man: 16-64 years inclusive	17. 7	3.16	46
Man: 65 years or older	11. 6	2.10	30
Woman: 16-59 years inclusive +	15. 1 +	3. 5 +	39 +
Woman: 60 years or older	11. 0	2. 8	29
Household	3.10	17	10

+ Plus the following sums for a woman, unmarried, aged 16-29 inclusive, if an earner: per week 1s. 8d., per month 7s., per year £4.

TABLE 204.9

THE SURVEY POVERTY DATUM LINE: ALLOWANCES FOR TYPICAL HOUSEHOLDS

COMPOSITION OF HOUSEHOLD	TOTAL HOUSEHOLD ALLOWANCE		
	Per Week £. s. d.	Per Month £. s.	Per Year £
Unmarried Man (16-64) only	1. 1. 5	4.13	56
Unmarried Woman Earner (16-29) only	1. -. 7	4. 9	54
Married Couple, No Children	1.16. 6	7.18	95
Married Couple, 1 Child*	2. 4. 6	9.13	116
	2.10. 9	11. 0	132
Married Couple, 2 Children*	2.12. 6	11. 7	137
	3. 5. 0	14. 2	169
Married Couple, 3 Children*	3. 0. 6	13. 2	157
	3.19. 3	17. 3	206
Married Couple, 4 Children*	3. 8. 6	14.17	178
	4.13. 6	20. 5	243
Married Couple, 5 Children*	3.16. 6	16.11	199
	5. 7. 9	23. 7	280
Aged Man (over 65) only	15. 4	3. 6	40
Aged Woman (over 60) only	14.10	3. 4	39
Aged Married Couple	1. 6. 4	5.14	68

* The allowances for households with children depend on the ages of the children. The above entries are the lowest and the highest possible for each household, the lowest assuming that the children are all under 5 and the highest that they are all between 10 and 16. Children of 16 or more receive adult allowances and are not considered in the above table. The annual Poverty Datum Line for a household comprising one child in each of the three age groups and two parents may be computed as follows:-

	1938-39	1949
adult male	£24. 18. 4	£45. 14. 4
adult female	20. 16. 0	39. 4. 4
child under 5	11. 5. 4	20. 16. 0
child 5 - 9	14. 1. 8	26. 8. 8
child 10 or older	19. 18. 8	37. 1. 0
household allowance	4. 19. 8	9. 19. 4
	£95. 19. 8	£179. 3. 8

The increase amounts to 87 per cent. This is, of course, a Poverty Datum Line increase, not an increase in "the cost of living".

These tables compare with those for 1938-39 as follows:-

TABLE 3.6

THE SURVEY POVERTY DATUM LINE
WEEKLY ALLOWANCES IN PENCE

Consumer Unit	Food	Clothing	Cleaning	Lighting	Fuel	Total
Child: under 5 years	45	4	2	1	-	52
Child: 5-9 years inclusive	54	8	2	1	-	65
Child: 10-15 years inclusive	77	12	2	1	-	92
Man: 16-64 years inclusive	90	22	2	1	-	115
Man: 65 years or older	54	16	2	1	-	73
Woman: 16-59 years inclusive	77	16*	2	1	-	96*
Woman: 60 years or older	54	12	2	1	-	69
Household	-	-	-	5	18	23

TABLE 3.7

THE SURVEY POVERTY DATUM LINE
WEEKLY, MONTHLY, AND YEARLY ALLOWANCES

Consumer Unit	Per Week	Per Month	Per Year
	s. d.	£. s.	£.
Child: under 5 years	4. 4	19	11
Child: 5-9 years inclusive	5. 5	1. 4	14
Child: 10-15 years inclusive	7. 8	1. 13	20
Man: 16-64 years inclusive	9. 7	2. 2	25
Man: 65 years or older	6. 1	1. 6	16
Woman: 16-59 years inclusive	8. 0 +	1. 15 +	21+
Woman: 60 years or older	5. 9	1. 5	15
Household	1. 11	8	5

* Plus 24 for an unmarried woman aged 16-29 inclusive, if an earner.

+ Plus the following sums for a woman, unmarried, aged 16-29 inclusive, if an earner: per week 8d., per month 3s., per year £2.

TABLE 3.8

THE SURVEY POVERTY DATUM LINE
ALLOWANCES FOR TYPICAL HOUSEHOLDS

Composition of Household	Total Household Allowance Per Week £. s. d.	Per Month £. s.	Per Year £
Unmarried man (16-64) only	0.11. 6	2. 10	30
Unmarried woman earner (16-29) only	0.10. 7	2. 6	28
Married couple, no children	0.19. 6	4. 5	51
Married couple, 1 child*	1. 3.10	5. 3	62
	1. 7. 2	5. 18	71
Married couple, 2 children*	1. 8. 2	6. 2	73
	1.14.10	7. 11	91
Married couple, 3 children*	1.12. 6	7. 1	85
	2. 2. 6	9. 4	111
Married couple, 4 children*	1.16.10	8. 0	96
	2.10. 2	10. 18	130
Married couple, 5 children*	2. 1. 2	8. 18	107
	2.17.10	12. 11	150
Male old age pensioner only	0. 8. 0	1. 15	21
Female old age pensioner only	0. 7. 8	1. 13	20
Old-age pensioner married couple	0.13. 9	3. 0	36

The selection and weighting of the items in the Poverty Datum Line does not differ greatly from that employed in the calculation of the official Census Bureau retail prices indices; but costs of the Poverty Datum Line components have increased since 1938 to an appreciably greater extent than the corresponding Census Bureau indices. From a preliminary investigation it appears that this is almost wholly due to the basing of the Poverty Datum Line upon those cheaper brands and qualities of certain necessaries that were available in 1938 and have now disappeared from the retail market, whereas the Census Bureau figures have always been computed from the middle price ranges. If this is the explanation, it would be true to say that the prices of necessaries for the poorest class of consumers have risen considerably more than the official indices reveal [see Appendices A and D].

* The allowances for households with children depend upon the ages of the children. The above entries are the lowest and highest possible for each household, the lowest assuming that the children are all under 5 and the highest assuming that they are all at least 10. Children of 16 or more receive adult allowances and are not considered in the Table.

APPENDIX A

THE POVERTY DATUM LINE AND THE STANDARD OF LIVING

The Poverty Line does not itself measure poverty. It provides a datum from which poverty, defined in a certain way, can be measured by the Available Income Ratio. The Available Income of a household is defined as the sum of the earnings of all the members of the household, plus any other family income (such as pensions or dividends), less the Net Rent paid by the household, less the earning members' travelling expenses to and from work. And the Net Rent is defined as the outgoings in the form of rent, or bond interest on the dwelling occupied, plus rates, plus payment for water supply, less any rents received from sub-tenants. The Available Income Ratio is the Available Income expressed as a percentage of the Poverty Datum Line.

The Available Income Ratio provides a measure of the Standard of Living. It is to a certain extent an arbitrary measure. It ignores individual differences of needs, it ignores "secondary poverty" or failure to plan expenditure in accordance with the adopted scale of needs, it ignores that aspect of poverty that is revealed in sub-standard housing. But it remains the most useful measure known to us, and in practice it proves a sensitive indicator of variations in the standard of living among low-income groups with similar systems of living.

The changes in the level of the Poverty Datum Line do not measure changes in "the cost of living". There are difficulties inherent in all attempts at such measures. "Living" itself assumes a new pattern when prices rise and fall, and there is art as well as science in bridging the gap between the old budget and the new.

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APPENDIX B

FREEDOM OF CHOICE IN HOUSEHOLD BUDGETS

As far as food, clothing, fuel, lighting, and cleaning materials are concerned, the Poverty Datum Line is calculated on the assumption that purchases are made in the cheapest market open to ordinary consumers. It is not difficult to discover by suitable methods of inquiry what the ruling prices are for these necessaries throughout a community, or in the several parts of a community. Such assumptions, however, cannot be made in calculating the expense of housing and transportation. In most Western communities nowadays there is nothing like an open market or a ruling price for housing. Households are largely bound by a variety of circumstances to the dwellings they happen to occupy already; and the dwelling and the workplace practically determine the expenditure for earners' transportation.

It follows that any attempt to reckon in our Datum Line an average, or a market, price for housing would be misleading, exaggerating the socio-economic status of some households and under-stating that of others. The orthodox procedure, open to certain other objections it is true, but on the whole preferable, is to make no allowance at all in the Datum Line for rent or transportation, but to subtract the actual payments made for these purposes by a household from the household income, and to count only the balance as Available Income. This is the procedure that has been followed in the Social Survey of Cape Town.

APPENDIX C

THE POVERTY DATUM LINE AND THE NATIONAL NUTRITION COUNCIL DIET SCALE

The Cape Town Poverty Datum Line was first constructed in 1939, and although it has been kept up to date in respect of changes in the cost of living its original structure has been retained. Developments in nutrition research raise the question whether or not this structure is in need of revision.

In 1939 it was decided to adopt as the basis of the Poverty Datum Line food assessment the scale (usually known as B.M.A. No. 2) which had been proposed by the Nutrition Committee of the British Medical Association (1933) as a minimum for the maintenance of health and working capacity over long periods.

The possible effect of differences between British and South African climatic conditions, foodstuffs, and food habits, could not be assessed; but as such standards as that of Stiebeling (1933), prescribed by the United States Bureau of Home Economics, were not on most points widely divergent from the British standard, it appeared justifiable to ignore the possible effect of differences for which no evidence was available.

Some years after the construction of the Poverty Datum Line, an authoritative South African nutrition standard became available with the publication in the South African Medical Journal of the dietary scale recommended by the Research Committee of the National Nutrition Council. This scale, aiming apparently at the same standard of nutrition as the B.M.A. scale [National Nutrition Council, 1942, 291], differed from it and from the Survey adaptation in certain important respects.

To bring the Social Survey standard into line with that of the National Nutrition Council would require a 10 per cent. reduction in calories, a 30 per cent. reduction in protein (but not first-class protein, in which the Social Survey standard is relatively weak), and possibly a 40 per cent. decrease in iron and a 10 or 20 per cent, increase in calcium, the whole reconciled with maintenance of the vitamins A, B1, B2, and C.

A reduction in the expenditure on cereals would go some way towards meeting these partly conflicting requirements. Calculations suggest that at the prices of 1939 the saving would not have amounted to more than 9d. or 10d. per week, i.e. the cost of the National Nutrition Standard would have been at least 89 per cent. of that of the Social Survey. In general, the reduction in cost resulting from the substitution would not be as great for women and children as for men. Taking this into account, and allowing for food expenditure as amounting to 77 per cent. of the Poverty Datum Line, we may assess at approximately 6 per cent. the mean net reduction in the latter which would result from the substitution.

An impression of the probable sociological significance of such a reduction may be gathered from inspection of the frequency distributions of households by socio-economic status as computed by the Social Survey for 1938-39. The statistics almost certainly justify the conclusion that, had the Social Survey Poverty Datum Line been based on the National Nutrition Council standard instead of B.M.A., the net difference in the Survey estimates of the incidence of poverty in Cape Town would have been negligible. At the most, the effect might have been to reduce the estimate of the incidence of poverty among the total population from 25-29 per cent. to 22-27 per cent., or to reduce the estimate for the Coloured population from 48-58 per cent. to 44-54 per cent. The effect upon the estimate for the European population would have been inconsiderable, and the estimate for the small Asiatic and Native remainder was in any case subject to a much wider margin of possible statistical error than the difference that could have been introduced by substituting the Nutrition Council Standard.

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APPENDIX D

THE POVERTY DATUM LINE AND THE RETAIL PRICE INDEX NUMBER

In April 1941 for the Union Family Income Survey, in January 1942 at the request of the Social Survey Conference, in February 1943 at the request of the National Committee of the Governor-General's National War Fund, and in October 1943 for publication in Report RS 203, the Social Survey estimated the effect of current price changes upon the level of the Poverty Datum Line for a household consisting of a husband, a wife, and three children. The following estimates were thus made of the current Poverty Datum Line as compared with that of December 1938:-

April 1941, rise of 8 per cent. over December 1938
January 1942, rise of 16 per cent. over December 1938
February 1943, rise of 32 per cent. over December 1938
October 1943, rise of 41 per cent. over December 1938

It was repeatedly stressed that these figures could in no sense be regarded as measures of any increase in "the cost of living"; they measured merely the increase in the minimum sum calculated as necessary to secure those bare necessaries of life included in the Poverty Datum Line Budget, thus neglecting, for instance, the effect of rent upon the cost of living for any particular household. The hazardous but conservative assumption, however, that changes in the cost of rent and transport were negligible, and the not unreasonable convention that expenditure on rent and transport would account for about one-fifth of the expenditure in a minimal budget, (see Report SS 13), would permit us to use as a rough-and-ready measure of the increase in the cost of living-on-the-Poverty-Datum-Line the above percentages decreased in each case by one-fifth. The resultant rough-and-ready indices would show:-

April 1941, 6 per cent. increase over December 1938
January 1942, 13 per cent. increase over December 1938
February 1943, 26 per cent. increase over December 1938
October 1943, 33 per cent. increase over December 1938

It is interesting to note that the Census Office "food, fuel, light, rent, and sundries" index for these dates was as follows:-

April 1941, 8 per cent. increase over December 1938
January 1942, 13 per cent. increase over December 1938
February 1943, 23 per cent. increase over December 1938
October 1943, 27 per cent. increase over December 1938

In view of the fact that the Census index is based upon budgets of better-to-do households than the Poverty-Datum-Line households, the slight differences in these two sets of figures are not unexpected. It should, however, be noted that allowance for any increase of rent and transport costs would raise the figures derived from the Poverty Datum Line.

As has been explained in the body of the Report, a complete re-calculation of the Poverty Datum Line was undertaken in March 1949. The calculation showed an increase of about 87 per cent. over December 1938, which, reduced by one-fifth, gives a rough-and-ready index of the increase in cost-of living-on-the-P.D.L. of 69 per cent. The Census Office "food, fuel, light, rent, and sundries" index for March 1949 was 52 per cent. higher than that for December 1938.