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A Comment on the Current Population Survey, Income Distribution
and Poverty.

by

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1. Introduction.

This paper aims to explore the possible uses of the Current Population Survey (C.P.S.) for supplying data about incomes. The question of whether income data can measure unemployment is also considered. The paper is mainly concerned with data on the African population, although many of the arguments could also be applied to the Coloured population. For income data to be useful, information is required not only about averages, but also about their distribution, and the focus of the paper is on the potential of the C.P.S. for supplying such data. No consideration is given to the question of how the distribution is to be measured, or even to how poverty is measured. The term "poverty" is used to mean absolute poverty, as measured by the proportion of the population falling below an appropriate poverty line, while the term "inequality" refers to income inequality as reflected by the usual measures⁽¹⁾.

The C.P.S. draws data from a sample of nearly 10 000 dwellings, representing between 60 000 and 70 000 people, and is an important development in the supply of economic and social statistics. In its present form the C.P.S. collects income

(1) Excellent discussions of measurement of poverty are to be found in: A. Sen, "Poverty: An Ordinal Approach to Measurement", Econometrica, Vol. 44, No. 2, and S. Mencher: "The Problem of Measuring Poverty", British Journal of Sociology, Vol. 18, No. 1. The measurement of inequality is well covered in: A. Sen, The Economics of Inequality, Oxford, 1973.

data relevant to the analysis of labour incomes and a case will be made for broadening the aims of the C.P.S. and for the inclusion of detailed questions relating to household income.

The paper has five sections. The second deals with the needs of academic economists for income data, while the third examines income data for public policy. The fourth section questions whether income can serve as a measure of underemployment. The final section contains a conclusion.

2. Income Data and Economic Analysis.

Statistics on the distribution of personal income are of vital importance to the economist for several reasons. The first of these is to provide data to aid in explaining the factors affecting the distribution and level of income within and also between countries. The importance of such explanations was highlighted by Edwin Cannan in 1905 when he wrote:

"The two greatest ends of economic enquiry seem to me to be the furnishing of general answers to the two questions, first, why whole communities are rich or poor, and, secondly, why inside each community some individuals and families are above and others below the average in wealth Economists sometimes vaguely wonder why economic theory is so unpopular Is there anything in this to excite surprise, if we reflect for a moment on the inadequacy of the answer furnished by the theory of distribution, as at present taught, to the questions in which the ordinary person is interested?" (2)

(2) E. Cannan, 1905, cited in A.B. Atkinson, The Economics of Inequality, Oxford, 1975, 1975.

Since Cannan wrote this, an enormous amount of data on personal income distribution has become available for the developed economies, but there is still a shortage of reliable data for most third world countries⁽³⁾. The focus of economic theory has also, in recent years, shifted away from the study of functional shares, to the determination of personal incomes. Despite this progress the broad field of income distribution presents a great challenge to the economist, irrespective of whether his interest be in the rich or in the poor countries.

In the case of South Africa, estimates of racial shares of income have been made more often than estimates of income distribution within South Africa's racial groups, and for the whole population. In 1943 Frankel and Herzfeld wrote:

"The question of income distribution is one which in spite of its importance has found comparatively little statistical treatment in this country". (4)

This statement still remains true, and in the years since Frankel and Herzfeld wrote only two studies have attempted to measure overall income inequality in South Africa⁽⁵⁾.

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- (3) A World Bank publication now contains data on the size distribution of income for 81 countries. S. Jain, Size Distribution of Income, The World Bank, 1975. Kuznet's comment on the data offered by the compilation for L.D.C's was that "... for many less developed countries the estimates rest on extremely flimsy foundations". S. Kuznet's, "Demographic Aspects of the Size Distribution of Income: An Explanatory Essay", Economic Development and Cultural Change, Vol. 25, No. 1.
- (4) S. Herbert Frankel and J. Herzfeld, "European Income Distribution in the Union of South Africa and the Effect thereon of Income Taxation", South African Journal of Economics, Vol. 11, No. 2, p. 121.
- (5) M.D. McGrath, "Income and Material Inequality in South Africa", in Change, Reform and Economic Growth in South Africa, ed. L. Schlemmer and E. Webster, Ravan Press, 1978, and S. Jain, op. cit. The data in Jain's tabulation is derived from the earlier Adelman and Morris study and is based on a complete misunderstanding of South African statistics since it includes only White urban incomes and Coloured incomes for the Cape Peninsula.

The major factor inhibiting research into income distribution in South Africa has been the lack of consistent comprehensive data for African incomes. The population census generates comprehensive data about income distribution for Whites, Coloureds and Asians, although the accuracy of the data is questionable and the published tabulations leave much to be desired. The population census can also be supplemented with income data for major urban areas, drawn from the Surveys of Consumer Expenditure for Whites and from the Bureau of Market Research (B.M.R.) Income and Expenditure Surveys for Coloureds and Asians. By comparison there is a dearth of data about African incomes. B.M.R. studies cover the major urban areas, but smaller urban areas, Homelands and White-owned farming areas have received very little coverage. Further, the published B.M.R. data is tabulated, unfortunately, in a way which probably suits their member subscribers' marketing needs better than it suits the needs of academic researchers.

Data on both individual and household incomes is clearly needed for the African population, and the C.P.S. can easily supply this data. Questions about individual incomes are already included in the monthly employment questionnaire, and this data will prove valuable, since it will allow, for the first time, a multivariate analysis of some of the determinants of African incomes from work⁽⁶⁾. This data will also allow the testing of many hypotheses which up to now have been untestable

(6) See comments in J.B. Knight and M.D. McGrath, "An analysis of Racial Wage Discrimination in South Africa", Oxford Bulletin of Economics and Statistics, Vol. 39, No. 4.

because of a lack of data, e.g. the hypothesis that "urban insiders" have access to superior jobs and higher incomes than migrants⁽⁷⁾.

The income question in the monthly employment questionnaire does not make any reference to income-in-kind and appears only to refer to wage income. The importance of income received in kind varies between migrants to urban areas, households in White farming areas, and settled urban households, and accounts for approximately ten, twenty and one and a half per cent of the incomes of these households respectively⁽⁸⁾. The omission of these payments will thus overstate differences in income between these three groups. Free food and accommodation are the greatest components of payments-in-kind and it should not be too difficult to include a question on the physical quantities received⁽⁹⁾.

The income question is also not clear about whether production for subsistence is to be included as work income. It is probably impossible to value the contribution that individual members of a rural family make to the farm's output. Thus the individual income question should be explicit in not requiring this source of income from peasant farmers.

(7) See F. Wilson, "The Political Implications for Blacks of Economic Changes Now Taking Place in South Africa", in L. Thompson and J. Butler, Change in Contemporary South Africa, California, 1975.

(8) Estimated from B.M.R. Income and Expenditure Research Reports, Urban Black Households in Johannesburg, No. 80-3. and Multiple Bantu Households in White Rural Areas, No. 31.

(9) A standard value can then be imputed.

Instead a separate question should ask for the total income of rural and homeland families, distinguishing between remittances from migrants, cash income from work and the sale of produce, the value of home produce which is consumed and not exchanged, and any other sources of income.

Economic welfare is determined not only by individual incomes and employment, but also by household or family income in relation to size; and there is agreement that household income adjusted for size of the household is the correct income concept for measuring the adequacy of income in relation to needs⁽¹⁰⁾. The C.P.S. could easily be extended to collect household income data by summing the work income of members and then adding a question on other sources of income, such as pensions or interest. For households largely dependent on subsistence production and remittances, a separate question is needed as was indicated above.

If policies are to be designed to improve the incomes of the masses of South Africans who are at the lower end of the distribution, qualitative and quantitative knowledge of the specific causes of these low incomes is necessary and this can only be obtained from data and analysis⁽¹¹⁾. The extensions to the C.P.S. questionnaire that are proposed here will fill a major void in South Africa's statistics at very little extra cost of collection.

(10) See S. Kuznets, op. cit.

(11) The data must also be made readily available to researchers and this will mean providing relatively free access to unpublished tabulations, or preferably to the computer tapes.

3. Public Policy.

Other equally compelling reasons are provided by the need for data for planning and appraising the effects of economic policy. South Africa is not a country with a distinguished record of concern for social inequalities⁽¹²⁾, and in its economic development plans the elimination of poverty or inequality have never been specific as goals of economic policy. Not even the KwaZulu Government's Executive Council lists the elimination of poverty amongst its economic goals⁽¹³⁾. It is, however, inconceivable that its declared social goals of promoting the fullest potential of its people, and promoting social security and health, can be attained as long as there is widespread absolute poverty. The experience of certain developing countries has shown that a policy of encouraging high growth rates of domestic product need not in itself prevent the poverty of certain groups from worsening, and that active policy measures may often be needed to transmit the benefits of growth to these groups. A common problem of

(12) The rapid improvement brought about in the economic status of the "Poor Whites" is a very notable exception.

(13) As an example, see the Economic Development: Programme for the Republic of South Africa 1974-1979, Government Printer, in which the goal of the E.D.P. is declared to be to "determine the maximum growth rate which ..., could be attained without causing excessive pressure on the available factors of production and/or the balance of payments". The goals of economic and social policy for KwaZulu are given in: Towards a Plan for KwaZulu, KwaZulu Government, 1978, p. vii.

developing countries which prevents "trickle down" from working is urban bias, and there is clear evidence of this in South Africa⁽¹⁴⁾.

In recent years there has been some indication of changes in attitude towards racial income inequality, presumably arising from the desire by the White Government to create a Black elite. Examples are found in attempts to establish a class of African entrepreneurs, and in the partial elimination of wage discrimination in the public sector. Relative inequalities, especially when linked to racial inequality, are known to be powerful instigators of social discontent and the situation is worsened when relative inequality is linked to widespread absolute poverty⁽¹⁵⁾. Writing over a century ago, Marx showed an appreciation of the strong connection between deprivation and social discontent and illustrated the point with a brief parable which is worth restating:

"A house may be large or small; as long as the surrounding houses are equally small it satisfies all social demand for a dwelling. But let a palace arise beside the little house, and it shrinks from a little house to a hut ... however high it (the little house) may shoot up in the course of civilization, if the neighbouring palace grows to an equal or even greater extent, the occupant of the relatively small house will feel more and more uncomfortable, dissatisfied and cramped within its four walls." (16)

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- (14) For discussion see M.S. Ahluwalia, "Income Inequality: Some Dimensions of the Problem", in H. Chenery et al., ed., Redistribution with Growth, Oxford, 1974 and C. Elliot "Income Distribution and Social Stratification: Some Notes on Theory and Practice", The Journal of Development Studies, Vol. 8, No. 3.
- (15) For discussion see T.R. Gurr, Why Men Rebel, Princeton, 1971, especially Ch. 3.
- (16) K. Marx cited in K. Griffin, Land Concentration and Rural Poverty, Oxford, 1976, p. 11.

The parable is clear in its implications for South African economic policy. In future years much greater progress will have to take place in overcoming relative racial inequality, or dissatisfaction of the occupants of the "hut" may escalate into a total rejection of the economic and political system. Moreover, although the elimination of poverty within the African community would be an enormous achievement, it will not necessarily prevent the escalation of social unrest which results from a sense of relative deprivation.

The reasons for the poverty and inequality which exist in South Africa are many. One is to be found in the higher rates of open unemployment which exist amongst Africans. Progress on the employment front alone will not, however, automatically reduce racial income disparities, or eliminate all absolute poverty. For example, the process of opening job categories to African workers may eventually result in the relative wage rate in this job falling, as it loses the scarcity premium previously attached to its White occupants: The result may be a fall in the rate of unemployment but a widening of the wage gap.⁽¹⁷⁾ Moreover, the benefits of employment programmes might create large regional imbalances in opportunities and incomes because of the accentuated spatial segmentation of the African labour market.

Experience elsewhere has shown that once established, it is extremely difficult to break a vicious circle of poverty. Thus if economic policy is to be seriously implemented to

(17) The model for this hypothesis is in J.B. Knight and M.D. McGrath op. cit., pp. 265-270.

eliminate racial inequality and poverty, then their structural causes must first be understood, and reliable data must be available continuously to monitor the effects of policy. The C.P.S. can play an important role in gathering this data. Two recent developments in the field of policy-directed economic statistical systems suggest possible ways of broadening the C.P.S. to play this role within a consistent framework.

Firstly there is the development of the concept of a basic needs strategy⁽¹⁸⁾. The aim of the basic needs strategy is to develop human potential. This goal can be partially achieved by satisfying basic consumption needs as well as by providing essential services for communities, such as safe drinking water, sanitation and health services, and educational facilities. The basic needs strategy requires an explicit goal defined in terms of providing resources which can bring about "the satisfaction of an absolute level of basic needs". Target groups whose incomes and stock of infrastructure are deficient in terms of the norm can then be identified and concrete targets can be set up against which progress can be measured. Basic consumption needs may be measured against income through the use of a "poverty line". Indicators of certain basic need shortfalls are already collected in the C.P.S., e.g. educational data and mortality rates. Other indicators also could easily be included, such as access to drinking water and the availability of sanitary facilities.

(18) Outlined in: Employment, Growth and Basic Needs: A One World Problem, International Labour Office 1976.
The Basic Needs Approach to Development, International Labour Office, 1977.

Policy measures designed to improve African incomes should rightly concentrate on increasing employment, and to this end high economic growth rates are desirable. At the same time, an active effort should be made to spread some of the benefits of growth to the poorest areas⁽¹⁹⁾, and a basic needs profile can provide an important source of data for ranking and initiating projects.

Another important contribution towards developing an integrated system of social statistics is the concept of a "life expectancy table" proposed by Seers⁽²⁰⁾. In this approach, the emphasis is almost entirely on the social components of various life states such as the time spent in education, employment, sickness, retirement, migration, poverty, etc. It offers the possibility of tracing and analysing the connections between different social conditions. Average social coefficients, based on cross-section data, can be derived, and these trace a sequential mosaic of individual life chances in active sequences (such as schooling, economic activity etc) for particular regions. This system of collecting and tabulating data can thus also serve as a means for defining policy choices more clearly.

The life expectancy table is not inconsistent with the concept of a basic needs strategy. Often the time spent in undesirable

(19) In addition to the benefits which will accrue from increased modern sector employment through higher remittances and reduced pressure on the land.

(20) D. Seers: "Life Expectancy as an Integrating Concept in Social and Demographic Analysis and Planning", Institute of Development Studies Conference Paper, 1975 and M. Ward, "An Integrated Social Data System for Urban and Rural Areas", I.B.R.D. Conference Paper, Cambridge, 1978.

states as shown by the life table (e.g. sickness, malnutrition or a small proportion of the school-going cohort actively at school) reflects a deficiency in terms of basic needs criteria.

4. Incomes and Unemployment.

One of the major economic and social problems facing South Africa, as was argued above, is poverty and racial income inequality, and in collecting data there is a need for information about both the problem and its causes. Creation of meaningful employment opportunities can be a social end in itself, since employment can be a factor in creating individual self esteem and a sense of belonging in society. This dimension of employment is what Sen describes as "the recognition aspect"⁽²¹⁾. Creation of employment opportunities is also a way of overcoming both poverty and inequality.

How much of South Africa's racial income inequality is due to unemployment? In 1970, Blacks accounted for 83 per cent of the population, and Africans accounted for 84 per cent of all Black people. At the same time Whites received approximately 72 per cent of personal income, and Africans 19 per cent, resulting in a disparity of 14:1 in the ratio of White to African per capita incomes. The ratio of White to African earnings from employment was 7:1⁽²²⁾. Rural African incomes are considerably below the average and the Homeland economies are heavily dependent on the remittances of migrant workers.

(21) A. Sen, Employment Technology and Development, Oxford, 1975, pp. 5 and 6.

(22) M.D. McGrath, "Income and Material Inequality in South Africa", op. cit.

Even when these remittances were included, 1970 per capita incomes in the Homelands were only R80 per annum⁽²³⁾, 75 per cent of the national average for Africans. Even though African incomes in urban areas are considerably higher, a substantial proportion of the urban families are living in poverty; for example, in 1970, approximately 50 per cent of African families in the Durban area had incomes below their Poverty Datum Line⁽²⁴⁾.

Wage discrimination in the modern sector can explain some of the differences in income, as can the great imbalance in the distribution of modern sector occupations between Whites and Africans, but at the very most these factors can explain only half of the difference in racial per capita income. The other half is due mainly to discrimination against Africans in access to modern sector employment, the unequal racial distribution of income from wealth and entrepreneurship, and the higher dependency ratio among Africans. This is the result of land policies which confine many Africans in the over-crowded reserves, the controls which restrict the movement to and residence in the urban areas, and the policies which impede Africans from acquiring knowledge and skills appropriate for modern sector employment. The open unemployment rates of between 10 and 12 per cent for Africans recorded by the C.P.S. are thus clearly not the major cause of low incomes. This is

(23) Calculated from National Accounts of the Bantu Homelands 1969/70 to 1973/74, Department of Statistics, Report No. 09-17-01. Table 1,1 and 2. Incomes of commuters are included, as well as one-third of the incomes of migrants.

(24) G. Maasdorp and A.S.B. Humphreys ed. , From Shantytown to Towhship, Juta, 1978, pp. 109 and 110.

quite consistent with experience in other developing countries, where open unemployment is usually confined to particular groups of the population, often young secondary school educated members of the workforce. The rate of open unemployment has usually been found to be low in rural areas, unless there is a chronic shortage of land⁽²⁵⁾. In South Africa the pattern is probably similar. A sample survey drawn in Durban in 1972 of nearly 500 African men and women who had left school between 1966 and 1971 after writing the Junior Certificate examination, showed that some 25 per cent were unemployed and looking for work⁽²⁶⁾. If this result is representative of the pattern in other urban areas, openly unemployed Africans in South Africa will probably belong predominantly to this group of educated school leavers, to which must be added migrants resting between contracts. Thus the concept of open unemployment captures information only about the tip of the iceberg in relation to the demand for jobs in the modern sector, were such jobs available.

Can information about low incomes shed light on the magnitude of the employment problem? Five approaches to the measurement of unemployment are suggested by combining categories proposed by Krishna with the categories proposed by Sen⁽²⁷⁾ viz. a time criterion, a willingness criterion, a productivity criterion, a recognition criterion and an income criterion.

(25) Reviewed in D. Turnham, The Employment Problem in Less Developed Countries, O.E.C.D., 1971, pp. 47-56.

(26) Ann Perry, African Secondary School Leavers: Employment Experiences and Attitudes to Employment, South African Institute of Race Relations, 1974.

(27) A. Sen, op. cit. and Raj Krishna, "Unemployment in India", Economic and Political Weekly, Vol. VIII, March 3, 1973.

The method for classifying unemployment in developing countries and in the C.P.S. is a combination of the first two criteria. This definition has been found to be restrictive even when applied to developed countries, and completely misses the low productivity and low income earning class of workers in developing countries⁽²⁸⁾. In attempting to include this group, various productivity definitions of "disguised" unemployment have been offered. All the productivity concepts rely on a marginal productivity measure but there is little agreement on which of the proposed measures is superior and an almost insuperable problem is involved in identifying and measuring marginal product⁽²⁹⁾. The income concept is a pragmatic attempt to break through the theoretical and empirical difficulties of measuring underemployment which are associated with the productivity concept. In terms of the income concept, full time workers are considered as unemployed if incomes fell "below some reference level - say one-third or less of full-time earnings of the employed population"⁽³⁰⁾. The recognition criterion deals with individual perceptions and expectations and arises from the findings of the I.L.O. mission to Ceylon which found cases of people who claimed they were "unemployed" when they meant that their jobs did not offer security and a steady income⁽³¹⁾. This definition extends

(28) Frances Stewart, "Introduction", The Journal of Development Studies, Vol. 11, No. 2.

(29) For contrasting approaches see A. Sen, op. cit., Ch. 4.

(30) D. Turnham, op. cit., p. 69.

(31) Discussed in A. Sen, op. cit.

beyond the others since it could include workers who are dissatisfied with their job status, but who at the time of enumeration are not unemployed in terms of any of the other criteria. The monthly questionnaire of the C.P.S. can be used to provide data about all the criteria mentioned, except for the productivity approach. Should the definition be broadened to include the additional categories?

Consider the recognition aspect first. Frustration with employment can arise at all levels, not simply among the low income earners. It is possible that frustration in work increases with education and rising aspirations, and frustrated workers in this group cannot be considered unemployed in terms of any of the other criteria. The 1972 sample of secondary school leavers points in this direction, since over 50 per cent of the men and 90 per cent of the women employed aspired to a teaching or professional job. These frustrated aspirations are a source of concern, but they are not due to unemployment⁽³²⁾.

Some writers have tried to broaden the concept of employment in South Africa by using a mixture of criteria. An example is found in Simkins' estimates which add together published employment data for most of the modern sector, estimated full time farming units for Homelands, and estimated full time job equivalents for casual agricultural workers⁽³³⁾. The last procedure may have been necessary to get annual rates from monthly data, but the other two steps use either the time and willingness criterion or the income criterion inconsistently.

(32) Ann Perry, *op. cit.*

(33) C. Simkins, "Measuring and Predicting Unemployment in South Africa 1960-1977", in C. Simkins and D. Clarke, Structural Unemployment in Southern Africa, Natal, 1978.

The combination of concepts does not distinguish between the magnitude of open unemployment, or throw light on the extent of underemployment unless it is assumed that all underemployment is concentrated in the Homelands, or highlight the inability of the economy to provide a satisfactory level of living to all the population.

If the income criterion is to be used at all it would seem more consistent to apply it throughout the economy. However, several strong arguments can be advanced for treating unemployment and low incomes as separate issues. Firstly, the level at which the income line is drawn is completely arbitrary. Secondly, a lack of income through lack of work and a lack of income through low productivity are completely different problems which should not be confused. Thirdly, low incomes may be significant for many reasons besides a lack of employment opportunities; and individuals can be openly unemployed and yet not be poor, provided other sources of income are available⁽³⁴⁾.

Stewart concludes:

".... that relative poverty, while clearly an important aspect of employment problems, is neither necessary nor sufficient as a measure of open unemployment, and is only a good measure of underemployment if it is taken to be so by definition". (35)

The time criterion might also be used as a measure of underemployment, by classifying those who work between say five and thirty five hours a week as underemployed.

(34) See Frances Stewart, op. cit., pp. 2 and 3, and A. Sen, op. cit., pp. 38 and 39. Sen does point to one use of the income concept in relation to employment which is useful in the study of labour supply from pre-capitalist type situations, i.e. whether the emoluments the individual receives are conditional on his performing work.

(35) Frances Stewart, ibid., p. 3.

This definition would, however, exclude many full time workers who would be underemployed in terms of the productivity and income criterion. Data on short hours worked will, however, explain some low incomes.

In order to afford the maximum understanding of the structural causes of South Africa's social problems, it therefore seems inadvisable to widen the definition of employment at present used in the C.P.S. This does not mean that income data can be overlooked as being unimportant. Rather it might be better to focus the C.P.S. on the social problems of poverty and inequality, seeking to explain their causes by collecting and analysing data on open unemployment, low income occupations, educational levels and occupation, access to land, migratory labour, family size etc.

5. Conclusion.

The C.P.S. represents an important innovation, and its usefulness can be increased by its expansion to provide household income data. It can also be used as a means for establishing an integrated social and economic statistical system, and this is probably where it is most important. In this role it would not only supply data to academic researchers, but could provide a source of consistent data to policy makers to aid them in initiating the many improvements which must be made in the quality of life of South Africa's Black population if South African society is to survive in the long run.

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