WEP 2-21/WP. 40

WORLD EMPLOYMENT PROGRAMME
Population and Employment Project

Population and Employment
Working Paper No. 40

Concepts of Labour Force Participation and Underutilisation

by

G.M. Standing

These papers are issued to stimulate discussion and criticism. They should not be quoted without the permission of the author.

Copyright © International Labour Organisation
Geneva

July 1976

PREFACE

With the current emphasis on basic needs it is tempting to disregard employment as one of them because of its association with wage labour in factories, on plantations or in menial services. Such employment can hardly be described as a basic need; far from it. Yet whether in an environment in which the only available jobs are of that type or in an environment in which there are more challenging and creative forms of work, the lack of employment and in particular the lack of opportunity to accept employment is a psychological and economic deprivation.

One of the human needs is surely to feel a part of human society, and there are few surer ways of depriving a human being of that sense of attachment than by cutting him or her off from employment. To paraphrase Freud, work is man's strongest tie to reality, so the absence of work and the absence of the social interactions associated with work, endanger the individual's appreciation and comprehension of reality.

In this paper the concern is with the statistical concepts of labour underutilisation whereas of course underutilisation of human productive potential is beyond the realm of labour force statistics. Nevertheless, it is surely true that unemployment and economic inactivity represent a major means by which a large proportion of mankind are deprived of a basic need given the social and economic conditions in which they have to live.

This paper is a draft and since it touches on the work of a number of researchers in WEP and in the ILO it is being circulated as a working paper in the hope that it will stimulate comments. It is a draft chapter for a forthcoming book synthesising and summarising work carried out by the Population and Employment Branch of the Employment and Development Department on patterns of labour force participation in low-income countries.

Table of Contents

	Page
Introduction	1
The Labour Force Approach	1
The Activity Rate Concept and Gainful Employment	3
The Labour Force Approach and Labour Supply	10
Time Use Surveys	18
Labour Underutilisation and Normative Approaches	28
The Labour Efficiency Approach	25
The Labour Surplus Approach	28
The Symptomatic Approach	29
The Hauser Approach	34
The Socially Approved Labour Force	36
The Classical-Marxian Approach: Productive and Unproductive Labour	39
Summary and Conclusions	42

Introduction

Indices of labour force participation have two complementary functions, the first being to provide a measure of labour supply, the second to indicate the extent of labour utilisation. But the search for adequate labour force concepts to measure labour supply and underutilisation in low income industrialising economies in particular has caused seeemingly endless controversy, during which many social scientists who have attempted to derive appropriate methodologies have given up in despair. The difficulties stem in large part from the rather hazy notion of labour supply.

In measuring labour supply and underutilisation essentially two approaches are possible, behavioural or normative. The principal behavioural method is the conventional labour force approach which in this chapter will be compared with a variety of normative approaches and more elaborate extensions of the labour force approach. While the various ambiguities and arguments associated with the several approaches will be reviewed no attempt will be made to suggest an appropriate or ideal measurement of labour supply and labour force participation. On the contrary, the major theme is that there are no ideal labour force concepts and that empirical investigation must make use of a range of related concepts and methodological approaches, none of which are ideal but which, taken together, give a broad picture of the dimensions and characteristics of labour supply.

The Labour Force Approach

The conventional approach to measuring the labour force is to multiply the "working age population" by the "economic activity rate", which is supposed to provide an approximate measure of aggregate labour supply. Whereas the working age population is usually regarded as a socially determined demographic measure the activity rate is calculated by dividing the sum of the employed and unemployed

by the total working age population, which by definition consists of the employed, unemployed, and economically inactive over a specified age.

The labour force approach was initially adopted in the United States at a time when there was a widespread desire to generate data on the extent and incidence of unemployment in the slump conditions of the 1930's. For that purpose the previously accepted 'gainful worker' approach was found to be seriously deficient, essentially because censuses and sample surveys which relied on the latter procedure only gave information on an individual's gainful occupation without referring to his or her current activity. As a result it was not possible to estimate the number of workers who were employed, unemployed, ill, retired or not able or willing to work for some other reason; moreover, all first-time job-seekers were effectively excluded from the labour force because by definition they had no gainful occupation. It was as an attempt to remedy these deficiencies that the labour force approach laid stress on current activity and in particular on whether an individual was employed, unemployed and seeking work or economically inactive.

By 1970, and in many countries long before 1970, the superiority of the labour force approach over previous methods had been generally accepted and was given what amounted to an international seal of approval when the ILO and the UN formally recommended its use in all population censuses carried out in or around 1970.[1]

The labour force approach is behavioural in the sense that it measures labour supply and underutilisation on the basis of past or current behaviour. However, the difficulties associated with this approach, particularly when applied to conditions typical of many low-income countries, are considerable. Essentially the criticisms can be classified into two types, those concerned with distinguishing between each of the separate categories and those concerned with the usefulness and validity of the classification schema as a means of measuring the degree of labour under-utilisation and aggregate labour supply.

---

[1] See, for example, United Nations, Principles and Recommendations for the 1970 Population Censuses, 1969, pp 26-27.

The Activity Rate Concept and Gainful Employment

The labour force approach is based on the notion of economic activity, which in turn is based on two criteria, the distinction between economic and non-economic uses of time and the distinction between active and inactive. Neither distinction has been easy to make. Some critics of the labour force approach would contend that in low income countries, particularly in rural areas dominated by subsistence agriculture, the concept of economic activity is effectively meaningless because it is either impossible to have any clear conception of what is work and what is not or absurd to distinguish between 'labour force work' and other forms of work which are typically excluded from the term economic activity. When the specialisation of activities has not been developed, work, leisure and consumption will tend to be intermingled, without any sharp distinction of one from the other. Social activities essential in some societies may be casual leisure pursuits in another. For instance, men sitting under a tree deciding what action to take over some local dispute would probably not be called working, yet in another country their informal deliberations would be replaced by the salaried employment of judges and barristers.

In practice, economic activity is based on the notion of "gainful employment" which is usually defined as "any occupation by which the person who pursues it receives compensation in money or in kind, or in which he assists in the production of marketable goods and services."[1] But in certain respects this definition seems to be defective. First, by a rigorous interpretation of the definition a beggar could be counted as gainfully employed since, hopefully, he occasionally receives compensation for his endeavours. Consequently, so that the beggar would not be counted, gainful employment might be defined by some reference to production.[2] But then suppose the beggar attempts to increase his income by singing to passers-by; he would be producing a service of sorts,

---

[1] G.T. Jones, Basic Concepts and Definitions for Measurement of Underutilisation of Labour in Developing Countries, with special reference to data required for Rural Employment Policy, FAO mimeographed paper, 1972, p.1.

[2] This is supposing that it is appropriate to exclude beggars from the gainfully employed.

just as he would if his begging took the form of insisting on cleaning cars or windows. In that case it might seem that one could either relate gainful employment to expected demand or to the 'recognition' aspect of employment.[1] If the existence of demand, rather that its expectation, was taken as a criterion then it would tend to result in the exclusion of many handicraftsmen, for instance, who produce articles hoping to subsequently stimulate a demand for their products.

There are similar difficulties with the suggestion that to be described as gainfully employed an individual should be producing 'marketable' goods or services. Many goods or services which are potentially marketable are not marketed nor are they intended to be marketed; so gainful employment should probably only refer to those activities for which income in cash or kind is the intended or desired outcome. Yet not only is this often hard to determine in advance but strict application of this condition would tend to result in the exclusion of many production workers in the subsistence sectors, including those involved in various forms of family labour, exchange labour, and labour provided to meet various social obligations, all of which are common in rural areas and if ignored or excluded would lead to serious underestimates of the amount of work being performed and overestimates of labour 'available' for work.

Rather than attempt to devise a logically consistent conceptualisation the labour force approach adopts a basically 'functionalist' position by which certain activities not resulting in the production of goods or services for sale legitimately are excluded from the definition of economic work. Besides criminal activities the main category of work deliberately excluded consists of activities connected with domestic consumption. By the same token, whereas all forms of work designed to gain income in cash or kind are included, only those activities in the pure subsistence

---

[1] A. Sen, Employment, Technology and Development, 1974. Sen stressed that employment has three complementary aspects relating to income, production, and the subjective recognition of the activity as meaningful employment.

sectors which result, or are intended to result, in the actual production of goods rather than personal services are counted as gainful employment. Consequently one common criticism of the economic activity concept is that the work many women do, ostensibly outside the labour force, such as walking long distances in rural areas to fetch water, is of as much use-value as being economically active in the more conventional sense. But this misgiving can be overstated, since the need to spend a large part of the day in this kind of work, which may indeed have considerable use-value, precludes labour force participation.[1] In that case the likely effect of the provision of drainage and water facilities on the rate of participation becomes an important policy question, particularly in assessing women's rate of assimilation into the non-domestic or wage labour force.

This, of course, is not to suggest that the distinction between economic and non-economic activity is easy to make, especially in the subsistence or "informal" sectors of low-income economies. There is evidently some arbitrariness involved in defining gainful employment, but this does not mean that the approach cannot be used in the analysis of changing patterns of production and consumption. Moreover it is flexible, to the extent that as certain service or domestic activities are commercialised they can be reclassified as economic activity.

Retaining the conventional distinction between economic, labour force activity and domestic, non-economic activity, does not involve any presumption that the one is necessarily more productive or desirable than the other, but the analysis of labour force participation should be geared to explain shifts between various types of activity, particularly in the course of economic growth, as the economy is transformed from an agrarian, semi-subsistence way of life to one in which wage labour is predominant.

---

[1] G.F. White, D.J. Bradley and A.V. White, Drawers of Water: Water Use in East Africa, 1972.

It remains true, however, that in a rural context in particular, economic activity, and by implication the activity rate, is hard to define satisfactorily and in so far as the recorded national activity rates are statistical artifacts crucially determined by definitions adopted, time of survey, and even national or group-specific attitudes as to what an individual would regard as economic activity, global comparative studies and projections are of limited use except to the extent that they stimulate a desire to clarify concepts.[1]

The difficulties in making valid comparisons stem in part from the fact that the concepts and operational definitions of concepts used in different countries and at different times in the same country have varied. But even when concepts are identical aggregate measures can only be compared with great caution since the interpretation of the statistics derived from the application of a particular concept will depend on the nature of the economy in which it is applied. For instance those censuses which have recorded labour force participation by reference to an individual's 'main activity' may seriously underrecord economic activity in an economy in which a large proportion of the population pursues dual or multiple roles, but represent a more reasonably accurate picture in an economy where the degree of specialisation of activities is much greater. In fact those surveys which have classified labour force participation on the basis of main activity have tended to report much lower female activity rates, as well as lower rates of economic activity among school age children, than in economies where respondents have been asked about both primary and

---

[1] Cf. J.D. Duraad, Economic Development and Dimensions of the Labour Force: Some Results of a Comparative International Study, International Population Conference, Liège, 1973, pp. 397-409. This was a study of "100 countries" in which conceptual ambiguities and differences were hardly discussed. The same author did discuss some of the problems in an earlier publication which he helped to prepare: U.N., Methods of Analysing Census Data on Economic Activities of the Population, UN Population Studies No. 43, 1968. Also, J.D. Durand, The Labour Force in Economic Development, 1975, pp. 8-13.

secondary activities. For instance, unlike most other censuses conducted in Arab countries the Sudanese census enquiry asked for details of both primary and secondary occupations. The result was that in the 1956 Census the age-standardised female activity rate was nearly 40% whereas in most Arab countries recorded rates have usually been below 10%. Yet if only those women who reported a gainful occupation as their primary activity were counted the Sudanese rate also dropped below 10%.[1] Similarly the dramatic decline in female labour force participation recorded in the Indian Censuses of 1961 and 1971 can be explained largely in terms of the change of definition, for in 1961 a minimum of only one hour's work in the past week was required for inclusion in the labour force, whereas in 1971 the basis for classification was main activity.

The reference period for classifying people as working, unemployed or economically inactive is also crucial and has varied between a day, the previous week or month, and 'during the past year'. If a short reference period is adopted the recorded rates will often depend largely on whether or not the survey is taken in the harvest or slack season, in a period of peak labour demand or one of seasonal slack. Indeed for reasons of convenience, so that productive time is not lost in answering the enumerators questions and to ensure a reasonable response, it is apparent that many labour force surveys and censuses have been timed to correspond with periods of relative slackness. So unless the survey questions take this into account the picture is liable to be blurred. Then again the amount of work deemed to merit classification as a labour force participant has varied enormously. And in some cases it has been the practice to classify members of certain population groups, such a women living on farms, as economically active or inactive merely on the basis of such criteria as age, sex and family relationships, without regard to their actual activities.[2]

---

[1] Durand, 1975, op.cit., p. 53.

[2] UN, 1968, op.cit., p. 5.

So the observed levels of economic activity are heavily influenced by the nature of the questions asked in the surveys; they are also influenced by the phrasing of the questions, by popular preconceptions among both the interviewers and respondents, and cultural restraints on admitting certain activities. And because there has been a general sharpening of the questions in more recent surveys the results make comparisons with earlier statistics even more problematical.

Undoubtedly one of the major difficulties with the application of the labour force approach in low-income countries, and indeed in industrialised countries as well, has concerned the treatment of unpaid family workers. An ILO resolution recommended that to be counted as employed and economically active family workers must work one-third of 'normal hours'.[1] But this is not entirely satisfactory since, as will be argued later, such terms as 'normal' raise their own problems. As it is, some countries have effectively treated all female unpaid family workers as economically inactive whereas others have taken the other extreme. An instance of the latter practice was the recent labour force participation survey carried out in Sri Lanka.[2] But the former practice has been much more common, notably in rural areas of Latin American countries and, most conspicuously, in Moslem countries of the Middle East where cultural factors have apparently contributed to the absurdly low recorded rates of female activity.[3] A particularly bizarre example highlighted recently concerned Ethiopia, where a recent census recorded a female activity rate of 7 per cent when in fact, as an ILO mission reported, women were engaged in a broad range of productive activities throughout the country.[4] This

---

[1] ILO Resolution adopted by the Eighth International Conference of Labour Statisticians, Geneva, November-December 1954, Section 6(4c).

[2] Central Bank of Ceylon, The determinants of Labour Force Participation Rates in Sri Lanka, 1974.

[3] See for instance, A.M.N. El Shafei, The Current Labour Force Sample Survey in Egypt, International Labour Review, Vol. LXXXII, No. 5. November 1960, pp. 432-449.

[4] ILO, Employment and Unemployment in Ethiopia, 1973, Annex K, pp. 118-44.

tendency to under-record the economic activity of women, particularly when they work as unpaid family workers or combine domestic and non-domestic activities, is consistent with the common practice of excluding subsistence activities from national income, or under-recording them, which has the twin effect of making certain countries seem poorer than they are and of having a higher economic growth rate than is really the case. Similarly, as has been stressed in much of the recent development literature many forms of occupation in the so-called informal sector, including both 'illegitimate' and 'legitimate' economic activities, tend to be missed in official statistics.[1] To the extent that these informal sector activities are excluded labour 'availability' will be overestimated, just as subsequent economic growth will tend to be overestimated when such activities are shifted into the more fully recorded 'formal' sector.

---

[1] K. Hart, Informal Income Opportunities and Urban Employment in Ghana, Journal of Modern African Studies, Vol. II, No. 1, 1973, pp 61-89.

The Labour Force Approach and Labour Supply

The labour force approach was designed to yield an aggregate measure of labour supply and by implication an indication of the underutilisation of potential labour. It was supposed to do this by stressing the activity status of individuals, supply being measured by the economically active in the working age population. This approach is based on a series of assumptions. The first, which represents a relatively minor problem, is that the population of working age can be clearly defined. While it is evident that it is often difficult to attach precision to this concept, since many children work, the problem can be overcome by the adoption of upper and lower age limits as policy objectives, such that for instance those below the age of 14 or above the age of 65 are excluded from all calculations of labour force size, unemployment, and labour supply.

A second assumption is that labour force participation and labour supply can be validly represented by a straightforward dichotomy of those inside the labour force and those outside it. This seems unwarranted for several reasons. First, labour supply cannot be measured simply by the number of employed and unemployed, however defined. Labour supply consists of hours, days and months of work, effort or intensity of work, and commitment to continuity of work and to specific jobs. When these aspects of supply are taken into consideration the labour force, as a stock of employed and unemployed workers, is unlikely to be an adequate proxy for labour supply. Certainly it is quite conceivable that changes in any or all of those dimensions of labour supply could counteract changes in supply as measured by the proportion of the working age population in the labour force.

The question is whether or not it is possible to refine the labour force approach to produce a more realistic and reliable index of supply. As far as the employed are concerned it is often suggested that hours of work should be the measure. Unfortunately there is a problem of identification since hours

worked reflect opportunities. Statically, workers may be prepared to work longer hours for a pro rata increase in income, or desire to work fewer hours for correspondingly less income; dynamically, changing income opportunities may increase or decrease observed 'supply'. Moreover a distinction has to be drawn between 'gross' hours of work and 'net' hours. Often there would be no justification for doing a job quickly because there would be nothing else to do once the job was finished. An own-account shoe-repairer may be at work for eight hours a day or longer but actually work for less than one hour. It might be suggested that the net hours worked would correspond to demand whereas the gross hours would give an approximate indication of supply, but there would still be difficulties. For instance a farmer may spend five hours in the field doing two hours 'effective work' but if the amount of work was increased he might not be capable of working a third or fourth hour; the effort-price might simply be too great for him to carry out the work. This merely emphasises the necessity of studying labour supply by reference to behavioural constraints on the duration and intensity of labour, the capacity to work, and the structure of incentives.

Besides recognition of the duration and intensity of labour supply the significance of the degree of labour force commitment is usually overlooked. Strictly speaking, a labour force consisting largely of workers fully committed to regular labour force participation should not be equated with one in which an equal proportion of the working age population is economically active but where the labour force consists largely of workers intermittently participating and withdrawing from the labour force.

Another reason why the labour force approach is unlikely to produce a reliable index of labour supply is that it relies on the notion of 'activity', the economically inactive being excluded from labour supply. Yet the distinction between the active and inactive is not easy. In the case of the employed

- defined as wage labourers, employers, the self-employed and unpaid family workers - by no means all will be economically active at the time of survey: some will be ill, some absent from work from choice or necessity, and some not working because there was no work to be done. For this reason, among others, the estimated number actively in employment will depend on both the choice of time period to which the labour force questions refer and to the minimum amount of work required to qualify as being employed. There is also some inconsistency in treating apprentices as economically active and trainees at technical institutions as inactive; although it could probably be argued that the one is contributing to output and earning an income while the other is not, this is not necessarily the case.

Yet the difficulties in drawing a distinction between the active and inactive unemployed are much greater. Indeed because of the conceptual ambiguities the whole notion of unemployment is often derided as an inappropriate 'western' concept in economically underdeveloped countries where there is no comprehensive institutional registration of the unemployed or no system of unemployment compensation. The difference between industrialised and low-income countries in this respect is actually only one of degree, and it is ultimately a pragmatic decision as to whom of those without work should be included in the labour force. While it is generally agreed by statisticians that to be called economically active a person without work has to be "available and wanting work" during a specified period, which might be as short as a week or as long as the previous month, availability is not easily defined. A person may only be willing to accept work of a certain sort, with a specified income, lasting a specified

limited number of hours during a particular period, and unless all this is carefully taken into account the availability criterion is liable to significantly inflate the economically active unemployed and artificially raise the recorded labour force participation rate. The other criterion commonly adopted is that the individual should not only be available and wanting work but should have demonstrated it by having been 'seeking' work at some time during a specified reference period which may be as short as the past week or as long as the past month. This too fails to provide a clear unambiguous indicator of labour supply. As with the availability criterion it cannot be used to measure supply because it makes no reference to the nature and duration of desired work or the acceptable income for such work. But compared with the criterion of availability this activity yardstick is liable to deflate the unemployment total, since in a labour surplus economy not only are formal channels for job-searching rudimentary and ineffectual but the expected returns to job-seeking are liable to be very low. In sum, the labour force approach with its reliance on the notion of activity can only provide a crude measure of aggregate labour supply. Basically the approach relies on drawing inferences from past behaviour for future behaviour, so that the study of supply has to be based on a careful analysis of the whole range of constraints, incentives and opportunities conditioning the existing pattern of economic activity. For that purpose a criticism is that in many low-income countries, particularly in the rural areas, the common procedure of determining "activity in the past week" is an inadequately short period for identifying labour supply, especially if as if often the case the survey in question is carried out in the slack season. In that case it might be considered appropriate to derive a composite measure of labour supply by obtaining information on the amount of time spent working in the past week, the number of days spent working in the last month, and the approximate amount of time in days, or weeks, or months,

in economic activities during the past year. While possibly a laudable objective this composite approach has certain practical difficulties. Memory lapse is a fairly common phenomenon among all kinds of people. To ask an illiterate and innumerate man working in a field how many hours he worked last week, let alone how many hours last month, is hard enough. Not only will he have difficulty in counting the hourly units but what one may consider part of his work schedule another may exclude. This is often likely to apply to the time taken in travel to and from work, or resting between tasks while at work, both of which can account for large proportions of the total working day. When it comes to estimating work behaviour further back than the previous week the practical response problems can become daunting , to the extent that even in comparing averages computed from fairly large samples the quality and reliability of the information must be suspect. One potential answer to this dilemma would be the use of much more detailed and sophisticated sampling techniques than are typically used in labour force surveys or censuses, such as "work sampling" on a continuing basis over the whole year. Unfortunately this technique would be extremely expensive to operate and would require highly trained and competent statisticians and enumerators. Another would be the use of time-use surveys, which will be discussed later.

An alternative to assessing labour supply by reference to present or past behaviour is to analyse it from the perspective of reported willingness and capacity to work. The two approaches need not be seen as alternatives, but complementary. The justification for concentrating on attitudes is that the analysis can emphasise aspects of labour supply which are only implicit or ignored in the crude labour force approach. For instance, the conventional treatment of the unemployed cannot provide a reliable measure of labour supply because even if the 'active' could be distinguished from the 'inactive' it could be argued that a certain proportion of the unemployed are 'voluntarily' idle. Having information on the unemployed's

aspirations and expectations, their job preferences and intensity of job search would provide a much clearer picture of labour supply. Similarly, the conventional approach ignores the important issue of the time period to which information is supposed to apply; to treat someone searching for a temporary job, perhaps to compensate for a slack period in a family business, as equivalent to someone seeking a permanent livelihood is likely to give a distorted impression of the nature of labour supply. Moreover, the reference to 'availability' for work in the conventional labour force approach is unclear, since it could refer to availability last week, next week, next month, or next year. At the very least one should distinguish between 'readily available' labour and the 'latently available,' those who could be expected to become available if certain enabling conditions changed or were met. By broadening the range of questions such distinctions could be made, which would help to provide a more informative and sensitive index of labour supply. Ideally labour economists should develop short-run and long-run reaction functions, so that labour 'supply' has time as well as income arguments. And of course this applies as much to the 'underemployed' as to the non-employed. The standard reference to "involuntary visible underemployment" is unclear as neither income incentives nor time are mentioned.[1] Yet the desire for additional work will itself be a function of the potential benefits and of the opportunity to adjust to a new life-style, which will necessarily take time. The short-run change in labour supply may be quite different from the long-run change. For instance, a number of surveys have found that some respondents working very long workweeks claim they would like additional hours of work. This apparent paradox may be explained simply by the difference between 'gross' and 'net' (or effective) work time, so that given time and opportunity

---

[1] The notion of underemployment will be discussed below.

to adjust his additional work-load the worker may be able to reduce gross working hours and compress the actual work into a shorter, more intense period. Similarly a person who is working part-time and who claims he is unable to work any additional hours may still be "involuntarily underemployed", since if certain enabling conditions were met the desire or ability would materialise.[1]

Obtaining information on various aspects of labour supply, such as aspirations, expectations, and the willingness to work, may also suggest explanations for changing patterns of employment and the distribution of employment opportunities between different labour force groups. Since such changes are often not understood very well this would seem to be an important justification for shifting the focus away from simply studying labour supply by reference to past behaviour.

In short there would seem to be a need to refine the labour force approach to include information on intentions and aspirations. Gauging attitudes is notoriously difficult, and aspirations and intentions may be highly flexible, yet to create an index of supply one should have some knowledge of the actual preferences of individuals and some indication of the intensity and realism of those preferences, or at least be in a position to make some assumptions about them. Having said that, the link between intentions and behaviour is not clear. The willingness to work, aspirations, and labour force commitment are no doubt conditioned by expectations derived from past experience, but little is known about the malleability of intentions and aspirations. If they were shown to be highly malleable or that subsequent behaviour did not correspond closely to current intentions the theory of labour supply would be seriously impaired as an analytical framework for assessing labour potential and underutilisation.

---

[1]Incidentally since it would often be desirable to determine the likely effects of certain proposed policies on labour force participation before implementing any long-term planning strategy one possible way of doing so would be to carry out a sample survey which included questions based on certain conditional statements beginning, "If..". An alternative or complementary approach would be the use of simulation models such as BACHUE.

The same could be said about drawing inferences from current or past behaviour for future labour supply. But an assessment based on stated preferences and reported willingness to work at least would tend to include the 'passive employed', the 'underemployed', and 'discouraged workers' in the estimate of labour supply, and could also take account of 'overemployment' those whose desired supply is less than the amount of time they are forced to work. Thus although it is a most important question whether the study of intentions and aspirations provides a better or worse guide to future behaviour than the study of past behaviour use of both approaches would seem to be required if an explanation of the pattern of labour force participation in any particular economy is to be provided, and especially if the objective is to predict likely changes in labour supply in response to changes in socio-economic conditions and employment opportunities.

Time Use Surveys

Owing to the inherent difficulties with drawing meaningful distinctions between economic and non-economic activities in low income economies many researchers feel that at least in rural areas it is more appropriate to collect information on the allocation of time to all types of activity. A number of detailed time-use surveys along those lines have been carried out and in the present context their principal advantage is indeed that they make no a priori judgment about what is and what is not economic activity. They can also be useful for gaining a more realistic estimate of the actual work schedules of certain population groups in societies where cultural norms restrict the admittance of economic activity, such as seems to be the case for married women living in Moslem Arab countries. While a male respondent to a household survey questionnaire might claim that his wife and daughter were not working in any labour force activity more detailed questioning into exactly what they were doing might show that in fact the women were doing work which was really economic activity. Similarly, it has been suggested on the basis of time-use surveys that the proportion of time spent in agricultural employment in low-income economies is often overstated by conventional labour force statistics. The comprehensive time-use survey can produce lower estimates of the amount of time spent working in agriculture simply by leading to a reclassification of certain tasks as domestic activities.[1] This approach can also be useful for measuring labour-use when 'occupational multiplicity' or non-specialisation is common. In short, there is little doubt that important insights into the patterns and determinants of the allocation of time can be gained from comprehensive time-use studies.[2]

---

[1] See, for instance, D. Pudsey, Economic Case Studies of Nine Tea-Outgrowers in Uganda, Entebbe, Uganda Ministry of Agriculture and Cooperatives, August 1966; Jones, op. cit. p.8.

[2] In a sense their development was foreshadowed by the work of Chayanov. A.V. Chayanov, The Theory of Peasant Economy, 1966 (ed. D. Thorner et al); S. Tax, Penny Capitalism, 1951; A. Szalai (ed.), The Use of Time, 1971; and studies summarised in J.H. Cleave. African Farmers: Labour Use in the Development of Smallholder Agriculture, 1974.

In fact they represent a logical extension of the essentially behavioural labour force approach. Their drawbacks are that they tend to be very expensive to apply, they require highly trained and competent interviewers, they take a great deal of time, and the results are likely to be subject to serious measurement and sampling errors because responses will tend to be highly sensitive to such factors as the weather, the respondents health and mood, the availability of complementary people and goods, and the interviewer's perceptions, probings and character. They also tend to be so detailed that scientific model building may be hindered rather than helped, and almost of necessity require multidisciplinary analysis. Finally any substantial, significant changes in time use, whether in the form of 'time deepening' (more activities per unit of time) or in the allocation of time to various types of activities will tend to be slow, therefore requiring a considerable body of data over an extended period. Of course, most of these difficulties are practical ones and despite them time-use studies can provide valuable information. As an example of an international comparative survey Table 1, taken from Szalai's book, provides information from 15 time-use surveys from 12 different countries.[1] Tables II and III present comparable information derived from several rural time-use studies in Africa.

Whether or not time-use surveys are refined and the difficulties of application overcome their use need not preclude the less detailed type of labour survey and can be used to supplement such surveys. This may continue to be their primary function.

---

[1] Szalai, ibid, p. 114.

Table 1.

Total sample: average time spent in 37 primary activities (in minutes per day; weighted to ensure equality of days of the week and eligible respondents per household)

	Belgium	Kazanlik, Bulgaria	Olomouc Czechoslovakia	Six cities France	100 electoral districts, Fed. Rep. Germany	Osnabrück Fed. Rep. Germany	Hoyerswerda, German Dem. Republic	Gyor, Hungary	Lima-Callao Peru	Torun Poland	Forty-four cities, USA	Jackson, USA	Pskov, USSR	Kragujevac, Yugoslavia	Maribor Yugoslavia
total N	2077	2096	2192	2805	1500	978	1650	1994	782	2754	1243	778	2891	2125	1995
total minutes*	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
1. main job	255	338	297	242	225	210	254	315	200	287	225	225	324	230	254
2. second job	4	0	1	5	2	4	2	3	10	3	5	5	2	1	11
3. at work other	4	25	6	8	6	4	22	15	4	8	12	11	13	9	17
4. travel to job	24	41	33	22	18	16	32	41	37	37	25	19	33	27	29
total work	287	404	337	277	250	234	310	374	251	334	266	259	371	267	311
5. cooking	46	39	64	45	59	49	65	60	71	59	44	45	55	70	76
6. home chores	64	36	51	70	71	73	78	55	40	51	58	57	38	49	57
7. laundry	22	12	31	26	25	20	40	35	45	34	26	24	28	28	41
8. marketing	13	14	27	20	22	26	23	14	16	16	14	16	10	22	14
total housework	145	100	172	162	177	167	206	164	172	160	142	141	131	168	188
9. care to garden/pets	8	23	8	11	31	18	11	33	2	3	3	3	8	6	49
10. shopping	6	4	6	6	3	4	5	4	9	12	18	17	14	5	5
11. other household care	15	18	27	22	19	21	16	21	6	19	24	25	17	26	27
household care	29	45	41	39	53	42	32	58	17	33	45	45	39	37	81
12. basic child care	12	9	16	32	16	14	30	12	18	16	22	23	18	14	16
13. other child care	5	8	15	9	11	11	15	17	5	18	10	8	17	9	13
total child care	17	17	31	40	27	25	45	30	23	34	32	31	35	23	29
14. personal care	44	55	71	57	54	59	49	53	47	56	69	61	49	58	47
15. eating	104	86	65	106	102	103	76	73	100	72	81	78	72	79	69
16. sleep	501	418	468	498	510	503	474	473	497	467	470	480	462	472	477
personal needs	649	618	604	661	665	665	600	599	643	595	620	619	583	609	592
17. personal travel	17	24	15	16	4	7	14	15	25	21	31	31	34	24	19
18. leisure travel	14	18	12	15	13	19	11	14	28	17	19	23	21	24	18
non-work travel	31	42	27	31	17	25	26	30	52	38	50	54	55	48	36
19. study	16	11	16	13	6	12	11	16	36	21	12	9	38	14	20
20. religion	5	0	1	4	5	6	0	1	4	5	10	11	0	0	1
21. organisations	4	7	7	2	2	4	12	3	2	4	6	6	8	5	4
study participation	25	18	24	19	13	22	23	20	42	31	28	26	46	19	24
22. radio	8	20	11	5	7	4	4	11	8	10	4	3	10	16	6
23. TV (home)	81	14	64	55	61	72	80	39	52	64	91	99	33	34	41
24. TV (away)	3	2	2	3	2	2	1	4	2	6	1	2	5	3	0
25. read newspaper	16	14	13	14	12	13	13	12	10	16	24	25	15	20	19
26. read magazine	5	1	3	4	12	13	2	1	6	3	6	5	5	1	1
27. read books	14	21	20	7	5	6	7	14	2	17	5	4	29	7	8
28. movies	4	10	4	3	3	3	1	5	6	4	3	2	15	7	6
total mass media	131	79	116	91	98	112	108	85	87	120	134	140	113	87	81

continued .....

	Belgium	Kazanlik Bulgaria	Olomouc, Czecho-slovakia	Six cities France	100 electoral districts Fed. Rep. Germany	Osnabrück Fed. Rep. Germany	Hoyerswerda German Dem. Rep.	Gyor. Hungary	Lima-Callao Peru	Torun -Poland	Forty-four cities, USA	Jackson, USA	Pskov, USSR	Kragujevac Yugoslavia
total N	2077	2096	2192	2805	1500	978	1650	1994	782	2754	1243	778	2891	2125
total minutes*	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
29. social (home)	15	5	7	12	13	18	10	7	10	25	25	27	4	29
30. social (away)	25	8	15	20	32	32	16	16	19	22	38	39	9	42
31. conversation	15	9	11	17	17	18	11	13	27	13	18	16	8	28
32. active sports	2	2	2	1	5	4	1	2	2	1	6	5	4	0
33. outdoors	10	24	12	11	39	32	18	17	13	10	2	5	14	13
34. entertainment	5	14	2	3	4	3	2	3	4	2	5	3	3	2
35. cultural events	3	1	3	1	1	2	1	1	1	1	1	1	3	1
36. resting	27	41	17	33	17	19	10	15	63	24	9	12	11	31
37. other leisure	27	13	18	23	14	20	20	9	14	11	20	18	13	36
total leisure	128	116	86	121	140	147	91	81	152	95	123	126	67	181
total free time	297	231	239	245	264	300	233	200	309	262	301	310	247	311
total travel	56	89	62	58	39	58	60	74	90	78	78	76	88	77

*** Because of rounding, subtotals do not sum to exactly 1440 minutes**

TABLE II

Average Time Spent by Farmers on Farm and Nonfarming Activities: Battor, Ghana, 1964-65

	Days per Farmer	
Economic Activity		209.5
Work on farm	174	
Fishing	13.5	
Visits to market	3	
Communal labour	12.5	
House construction	6.5	
Social Obligations		61
Attended funerals	28	
Attended courts	2	
Attended celebrations	2	
Travel off farm	28	
Miscellaneous	1	
Leisure and sickness		94.5
Resting	53.5	
Sundays	25	
Stayed home because of rain	5.5	
Illness - farmer sick	9.5	
- family sick	1	

Source: R.M. Lawson, The Traditional Utilisation of Labour in Agriculture on the Lower Volka, Ghana, The Economic Bulletin of Ghana, Vol. XII,I 1968, pp. 55-6

Table III

Hours Spent of Farm and Nonfarm Activities by Women in Embu District, Kenya, and Two Areas of Buganda, Uganda (Hours per Head per Week)

	Nembure, Embu		Mukono, Buganda		Gombe, Bugand	
			Season			
	Dry	Wet	Dry	Wet	Dry	Wet
Domestic work						
Food preparation	18.4	14.3	15.5	11.9	14.7	15.4
Washing and cleaning	3.4	6.8	17.4	10.7	3.4	2.6
Firewood and water	4.1	2.6	1.0	3.8	0.4	0.6
Marketing	0.5	3.3	nil	1.0	nil	nil
Farm work*						
Food crop	16.1	15.1	16.1	13.6	10.8	12.6
Cash crop	14.2	13.8			7.3	3.3
Medical treatment	0.8	0.8	0.5	1.6	5.6	8.5
Leisure	14.2	13.6	37.5	39.7	38.4	36.3
Other	-	-	3.1	7.9	1.9	1.2
Total hours recorded	71.7	70.3	91.6	90.2	82.5	80.5

* Includes farm marketing.

Source: J. Wills, Unpublished data cited in Cleave, op. cit, p. 186

Labour Underutilisation and Normative Approaches

Whereas the labour force approach, and the extensions to time use surveys and inclusion of indices of intentions, expectations and aspirations, represent a behavioural methodology for assessing labour supply and underutilisation, a number of alternatives have been suggested which in part could be described as normative. Some of the alternative approaches are almost purely normative, while some are a mixture of both behavioural and normative elements.

The emphasis of the normative approaches has been on measuring labour underutilisation, for a major objection raised against the labour force approach as typically applied is that in its apparent treatment of the employed and unemployed as two clearly defined homogeneous groups, with the economically inactive as a third, it is not appropriate for measuring the degree and incidence of labour underutilisation in low-income economies in which 'under-employment' is a more widespread symptom of underutilisation than open unemployment.[1] Just as the measured activity rate may be an inadequate index of labour supply because it is the result of demand as much as supply and because it is unrealistic to treat all the employed and unemployed as 'supplying' an equivalent amount of labour, so the open unemployment rate is an inadequate and even misleading index of labour underutilisation. This is partly because it depends crucially on the measured activity rate and the definition of employment and unemployment, and partly because many of those ostensibly in employment are underutilised, either earning less than they are able and willing to do, working at a lower level of productivity than they are capable of working, or working for shorter periods less intensively than they would be able and willing to work.

It should be noted immediately that this line of criticism has been directed at the labour force approach as applied in industrialised as well as low-income economies, and that

---

[1] A.D. Smith, Concepts of Labour Force Underutilisation, ILO, Geneva, 1971.

it is strictly inaccurate to claim that the approach having been developed in an industrialised country is appropriate there but not when exported as a 'western' conceptual approach to low-income economies. As early as 1962 in the Gordon Report on U.S. employment it was stated, "The relatively simple dichotomy between those in and out of the labour force ..... (no longer provides) ... a satisfactory measure of the labour supply".[1] And in the late 1960s successive refinements to the basic concepts led some observers to conceive of a subemployment index as a more appropriate measure of the demand for labour and labour underutilisation. The subemployed were to include the unemployed, discouraged workers, people working part time who wanted full-time work, and family heads who did not earn enough to keep their families out of poverty.[2] Nevertheless the dissatisfaction with the labour force approach has been much greater in low income economies and has led to the suggestion of a number of alternatives.

---

[1] The President's Committee to Appraise Employment and Unemployment, 1962.

[2] Miller suggested that in 1970 in the 12 largest metropolitan areas of the US "the subemployment rate was about two and a half times as great as the unemployment rate." H.P. Miller, Subemployment in Poverty Areas of large U.S. cities Monthly Labour Review, October 1973, Vol. 96, No. 10, pp 13.

The Labour Efficiency Approach

A widely discussed method for overcoming some of the shortcomings of the labour force approach to the measurement of labour underutilisation has been suggested by Gunnar Myrdal, who has developed his criticisms of the standard approach as applied to low income economies in a number of published works.[1] Along with several colleague-observers of South Asian economies, he has argued that the labour force approach as applied to low income economies is an inappropriate and misleading adaptation of western concepts, because measuring labour surplus in terms of unemployment and underemployment leads to a failure to appreciate the real constraints on labour utilisation. According to Myrdal, "we must discard entirely the concepts of 'unemployment' and 'underemployment' as inadequate to reality. We have to base our analyses of labour utilisation of simpler behavioural concepts: which people work at all, for what periods during the day, week, month and year do they work, and with what intensity and effectiveness."[2] According to Paul Streeten, writing in a similar vein, "Approaches in terms of 'employment', 'unemployment' and 'underemployment' are misleading because they suggest that an increase in effective demand and the provision of equipment are all that is needed to absorb labour and raise production, while all other conditions are adapted or easily and quickly adaptable to full labour utilisation".[3]

---

[1] Notably in G. Myrdal, Asian Drama, Vol. 2, (Penguin), 1968 Ch. 21, pp 961-1027; and, ibid, Vol. 3, Appendix 16, pp 2203-2221

[2] G. Myrdal, in an FAO interview reported in Ceres (Rome), Vol. 4, No. 2, March-April, 1971 p. 32. See also J. Weeks, Does Employment Matter?, in R. Jolly et al (eds.) Third World Employment 1973, pp 61-66.

[3] P. Streeten, "A Critique of Development Concepts," European Journal of Sociology, Vol 11. No 1. 1970. Italics added. Streeten continues, "In fact, a number of other measures are necessary for a full mobilisation and utilisation of manpower better feeding, improvements in health, training and education, transport and housing, and fundamental attacks on prevailing attitudes to life and work (e.g. women's participation, a contempt for certain kinds of work, the desire to minimise work, lack of discipline) and on institutions (introduction of standard working week and working day, creation of labour market, provision of information, readiness to move from one place to another or to change one's occupation, etc.)"

One of Myrdal's principal objections to the labour force approach is that it fails to take account of variations in labour efficiency and therefore cannot be used to derive an adequate measure of labour underutilisation. Accordingly, Myrdal proposed that the level of actual labour utilisation be expressed as the product of the following three ratios:-

$$\frac{\text{working numbers}}{\text{labour force}} \times \frac{\text{man hours}}{\text{working hours}} \times \frac{\text{output}}{\text{man hours}} = \frac{\text{output}}{\text{labour force}}$$

He called the three ratios on the left hand side participation, duration and efficiency respectively.[1] As this represents a composite index of labour utilisation Myrdal concluded "underutilisation of the labour force is the non-achievement of those values of the three components of labour utilisation which can reasonably be assumed to be brought about by feasible policy measures during a planning period."[2]

Streeten, who like Myrdal based his index on the earlier work of Michael Lipton, extends the identity so as to produce what he calls the dimensions of "Income (or Product) per Head of the Population":

$$\frac{\text{Income}}{\text{Population}} = \frac{\text{Production}}{\text{Hours Worked}} \times \frac{\text{Hours Worked}}{\text{Labour Force}} \times \frac{\text{Labour Force}}{\text{People of Working Age}} \times \frac{\text{People of Working Age}}{\text{Population}}$$

The four components are respectively hourly productivity, the working time rate, the participation rate, and a demographic variable. This is of course, merely a straightforward extension of the approach suggested in Myrdal's book.

The difficulties associated with this approach stem in large part from the fact that in achieving a degree of comprehensiveness the method has to rely on several crucial assumptions and value judgments. Words like 'reasonably' and 'feasible' used by Myrdal explicitly introduce a subjective element into the measurement of underutilisation, which may be necessary and appropriate for some purposes but is liable to make intertemporal and international comparisons and the detection of trends extremely difficult. Furthermore Myrdal evidently regards the labour force as a constant, which is unlikely to be the case. If it is not invariant with respect to economic

---

1 Myrdal, 1968, Vol 2, p 1016

2 ibid. Italics added.

growth, then changes in its size and composition following an increase in the rate of growth would tend to distort the movement of the labour utilisation or underutilisation index.

Ely has criticised Myrdal for criticising other attempts to measure labour underutilisation and yet not suggesting how his alternative index should be measured empirically.[1] Certainly in practice conceptual problems faced by other approaches are also found in Myrdal's schema. For instance problems associated with the definitions of 'working numbers', 'man hours', and even 'output'. Sometimes too, the outright rejection of terms such as unemployment, employment and underemployment seem to be based on something like guilt-by-association. The quotation from Streeten's paper illustrates this quite clearly but there is no reason to infer from measures of unemployment and underemployment that the only requirement is an increase in effective demand. Nevertheless to the extent that this approach directs attention away from simplistic aggregates such as deficient demand unemployment and towards a more detailed examination of actual behaviour and institutional constraints to behaviour it has much to recommend it. An extension of it consists of comprehensive time-use studies, which are discussed very briefly in a latter section of this paper. Nevertheless this approach does not seem to be an alternative to the labour force approach but only a necessary extension and refinement which treats underutilisation as a multidimensional phenomenon.

---

[1] J.E. Ely, Some Comments on the Treatment of the Problems of the Inadequate Statistics of South Asian Countries in Asian Drama by G. Myrdal, Journal of Economic Literature, Vol. VIII, March 1970, p. 50.

The Labour Surplus Approach

An alternative and cruder method simply defines labour surplus as labour supply (s) less labour required (N) divided by labour supply (s), i.e. $\frac{S-N}{S}$.[1] Again as with the labour efficiency method, it would be necessary to introduce some planner's notion of productivity norm in order to measure labour requirement, and it ignores the potential effects of productivity changes on the supply of labour. Both 'required labour' and 'labour supply' (which is here defined as a stock of available labour) are unlikely to be constants, and policy measures designed to reduce the 'labour surplus' might well increase S and reduce N, thus raising the observed labour surplus. Indeed labour requirement is a technological concept, the dimensions of which would be dependent on technological change. To operationalise the approach required labour might be estimated from current output and some productivity level which could "reasonably" be expected in "local circumstances", a "static" labour surplus, or from current output and productivity levels which might be target levels, yielding a "dynamic labour surplus".

Another objection is that, as with Myrdal's proposed approach, it is an aggregate figure which would emerge and not a disaggregated one that would indicate the nature of the underutilisation and the distribution between, say, men and women workers in different age groups. Moreover, not being disaggregated it is not particularly useful as a guide to policy formation, since it cannot distinguish the different individuals or groups who experience the underutilisation.

---

1 Smith, op. cit., pp. 41.43; and D Turnham, The Employment Problem in Less Developed Countries, OECD, Paris, 1970. pp82-6.

The Symptomatic Approach

Perhaps the most widely discussed form of labour underutilisation in low-income countries has been underemployment, but as a concept it has proved particularly elusive and controversial.[1] Several approaches to measuring labour underutilisation based on a classification of different types of underemployment have been proposed. The first of these, and the one officially recommended by the ILO, relies crucially on the identification of two categories of underemployed workers. First, there are those who are in "visible" underemployment, defined as 'involuntarily working part time or for shorter than usual periods of work'.[2] In contrast "invisible" underemployment exists when a person's working time is not abnormally reduced but whose employment is inadequate in other respects, such as:-

(i) when his job does not permit full use of his highest existing skill or capacity;
(ii) when his earnings from employment are abnormally low;
(iii) when he is employed in an establishment or economic unit whose productivity is abnormally low.[3]

Subcategories (i) and (ii) have been called 'disguised underemployment', while (iii) has been called 'potential underemployment'.

Unfortunately this schema is riddled with ambiguities. Indeed a rigorous interpretation of the definition of disguised underemployment might lead to the conclusion that

---

[1] For a review of some of the theoretical and empirical objections to the marginal productivity criteria sometimes used to identify the underemployed see Smith, op. cit., pp 34-41.

[2] ILO: Measurement of Underemployment: Concepts and Methods, 11th International Conference of Labour Statisticians, Report IV, 1966, p.16.

[3] ibid.

most workers in most countries of the world are 'invisibly underemployed'. Moreover the difference between visible and invisible underemployment is dependent of the definition of 'usual'. If it is defined as the national average then the average itself will move if short time workers either cease to work or increase their work load. In other words there would need to be some estimate of an average, or target, or norm - the latter especially, since "abnormally" figures prominently in the ILO set of definitions. Accordingly explicit assumptions have to be introduced, but this in itself would not resolve the problem since it would be absurd to define as underemployed everyone earning less, or working fewer hours, or working at a lower level of productivity than the respective average or norm. When an average or norm is involved some individuals or sectors will have below average hours and productivity levels, just as others will have above average levels. And are the latter to be defined as "overemployed"? One further difficulty with this approach - and indeed the surplus labour approach - is that one can formulate definitions in terms of a "planners norm" or some "behavioural norm", which may or may not be the same thing. Nevertheless, assuming a judicious use of 'norms' was possible a measurement methodology could be developed to correspond to the ILO schema, as long as the disguised underemployed in the sense of subcategory (i) were ignored.[1] Briefly the suggestion is that the average degree of underemployment in the economy could be estimated by a process of standardisation of the three forms of underemployment. Thus for hours worked, earnings and per capita output the average degree of underemployment would equal $\frac{\text{Norm} - \text{Average Actual}}{\text{Norm}} \times 100$.

---

[1] Smith, op. cit., p. 46, rationalises the omission of this group on the grounds that (1) it is hard to measure, (2) many of those concerned (the educated underemployed) are not among the poorest, and (3) "earnings and productivity criteria have relatively more appeal." This threefold rationalisation seems unconvincing.

In all the proposed approaches to labour force analysis the term economically active is taken to include the unemployed. Yet to include the unemployed in some aggregate measure of labour underutilisation one has to know first of all something about the unemployed's potential productivity and how long they would be prepared or able to work. This could perhaps be overcome by the introduction of some set of 'norms', or some set of assumptions about productivity and hours-days per week various categories of unemployed could be expected to want or be able to work. Even so and more fundamentally, it is by no means clear as to who should be included in the unemployed. The difficulties of the 'availability for work' and 'seeking work' criteria have already been discussed. An alternative approach that might be feasible would be to regard all those having the physical capacity to work who are without means of support as unemployed, in which case an analytical framework would be required to explain <u>open</u> unemployment. However this would raise the problem of defining what was an adequate 'means of support' and the objection that non-physical constraints on capacity to work should also be taken into account.

Conceptually the unemployed can be classified as belonging to one of at least three separate categories of unemployed - open, concealed, and latent. The open unemployed would be those who are or who consider themselves to be actively seeking work. The concealed unemployed would be those who are "available and wanting" work but who have been discouraged from actively seeking work. And the latent unemployed would be those who might enter the labour force if employment opportunities were to improve, even though they are not technically unemployed at present. The third category would include those involved in certain 'informal sector' activities or 'second choice' non-employment activities such as formal or informal education.

By multiplying the three figures representing average degrees of underemployment by the proportion of the employed labour force affected in each case and summing the total, the extent of underemployment could be estimated.[1] Since the definition was made with the purpose of making international comparisons and establishing international policy targets, the norm would presumably reflect some international average. The next step would be to incorporate the fully unemployed, who are meant to be included in the estimate since by definition they experience a degree of underemployment of 100 per cent. Their inclusion would produce what Smith has called 'an Integrated Symptomatic Framework':

Total Population - Economically Inactive
Economically Active - Unemployed
- Underemployed - Visible Underemployed
- Invisible Underemployed
- Fully employed

The difficulty at this point is that having defined and provisionally operationalised the concept of underutilisation of the employed work force the treatment of the unemployed still remains unsatisfactory even though Smith claimed that the integration of the unemployed into the symptomatic framework "would present no difficulties".[2] The unemployed may be the limiting case of the underemployed but they are also the limiting case of the economically inactive, and that in itself raises familiar conceptual problems discussed earlier.

---

[1] Smith, ibid, p. 44. As some people could be underemployed in more than one sense the mutual exclusivity problem could be overcome by combining the disguised and potential (low earnings and low productivity) groups. ibid., p. 46.

[2] ibid, p. 45.

Certain people might be technically employed in some informal activity but would not recognise it as a legitimate form of employment; no doubt with this sort of activity in mind Sen has correctly stressed the significance of the recognition aspect of employment-unemployment classifications.[1] A quite distinct but possibly very important group of non-employed are those who <u>believe</u> they have or actually have a job but who are not at work. They may not attempt to work because they are ill or suffering from malnutrition or they may consider the effort-price of attempting to work too high. One might call these the 'discouraged employed' in contrast to 'discouraged jobseekers' those to whom the term discouraged workers is usually taken to apply.

These technical problems make it difficult to obtain a satisfactory estimate of the number of unemployed, but basically there seems no valid way of assessing labour underutilisation in terms of the unemployed unless knowledge is gained of their labour supply as expressed by the amount and type of work they would be able and willing to perform.

---

[1] A. Sen, <u>Employment, Technology and Development</u>, 1974.

The Hauser Approach

This method, which Hauser proposed at a meeting convened by the ILO in November 1971, is really a slightly different variant of the Symptomatic approach.[1] It could be used with the standard labour force approach if the latter was extended to include supplementary information on education, training, and income or some proxy for income. By this means Hauser noted that the following functional categories of the work force could be measured:

The Total Work Force
- Utilised adequately
- Underutilised
  - by employment
  - by input
  - by productivity
  - by mismatch of occupation and education.

Since they are covered by the category "underutilised by input", those in employment wanting more work could also be included.[2] If questions about the desire for additional work are not included in the census or survey Hauser suggests that the tabulated results should "classify all persons with less than full-time work as 'underutilised' by input".[3] This is surely an invalid procedure, since by no means all those working short workweeks would want or be capable of working full-time workweeks, however that might be defined. Hauser further suggested that

---

[1] In addition, Hauser in collaboration with other members of "the Organisation of Demographic Associates in S.E. Asia" has proposed an alternative classification of types of work, involving a total of four categories and twenty sub-categories. Though this will not be discussed here, the approach is certainly a promising one. See P.M. Hauser, The Work Force in Developing Areas, in I Berg (ed), Human Resources and Economic Welfare, 1972, pp 142-61.

[2] It should be noted that throughout this discussion the term employment has been used in the widest sense, whereas Guy Hunter would seem to regard the term as applying solely to paid employment, reserving the term "livelihoods" for the more general form of economic activity. G. Hunter, Modernising Peasant Societies, OUP, 1969; G. Hunter, Employment Policy in Tropical Africa, International Labour Review, Vol 103, No. 6 1972, pp 207-64.

[3] P. Hauser, On the Measurement of Labour Utilisation for Manpower Policy, International Technical Cooperation Centre Review, Vol. III, No 3 (11), July 1974, p. 68

all those reporting full time work whose income falls below "an income level determined by policy officials to be a suitable point for policy and programme purposes" should be classified as "underutilised by productivity".[1] This also seems an erroneous procedure, not because it is necessarily subjective but because it assumes a correspondence between labour, income and productivity.

The mismatch category is interesting and potentially useful, those whose occupations are "incompatible" with their education or training being classified as "underutilised by mismatch".[2] However, the difficulty with defining compatibility in any objective sense is a major drawback - Hauser implying that the mean educational level for each occupation should be the yardstick.[3] But there is no reason to suppose that this will reflect the appropriate amount of education for a specific occupation - in some cases the required amount of education for the job in question will be below the actual average amount while in others a shortage of educated manpower might mean that inadequately educated and untrained workers were employed in great numbers. Moreover is it a mismatch if a worker has an education 'compatible' with his occupation but is nevertheless unable to work as much as he might want or is earning less than he might reasonably be expected to earn in that occupation? Hauser's simple category is readily shown to be rather difficult to operationalise in any genuinely valid way.

Scepticism should not be taken too far however because the symptomatic type of approach does have the merit that it attempts to measure both the rate and incidence of underutilisation in a comprehensive manner.

---

[1] ibid.

[2] ibid.

[3] ibid, p. 70. This approach was used in a study carried out in the Philippines. L.J. Domingo, A Report on the Trial Application of Hauser's Proposed Methodology for the Measurement of Underutilisation of Labour, Population Institute, University of the Philippines, Manila, Dec., 1972, pp 8-16 (mimeographed) Hauser also suggested the possible use of socio-economic or prestige scales of occupations compared with numerical ratings of various levels of education in such occupations, op. cit., p. 74.

The Socially Approved Labour Force

One policy-oriented approach would be for planners and policy makers to measure labour underutilisation by reference to predetermined standards of potential social productivity. This approach would be both a derivative of the labour force approach, in so far as the concepts used would be basically no different, and a generalisation of other normative approaches. Twice blessed in this way, it might also be said to have a merciful or welfare element since in determining the criteria for social productivity factors other than physical or revenue product could be considered, such as the need to achieve a greater degree of income equality or to increase the income earning opportunities of women relative to men or teenagers to all other groups. In effect this would involve a process of weighting the degree of underemployment or underutilisation of specific population groups, and then seeking policies which would reduce the extent of weighted labour underutilisation.

Such a scheme would seem to underly Simon Kuznets' brief suggestion that labour underutilisation should be measured by reference to a "socially approved labour force", and that those groups not encompassed by this concept should, if not ignored, be treated as a secondary problem.[1]

So far nobody has developed, let alone operationalised, a weighting scheme for measuring labour underutilisation, though in practice most government planners will operate with an implicit set of values evident from the selection of policies which favour the promotion of employment of specific groups in the population. Perhaps this is not surprising given the difficulties inherent in this type of approach but its principal attraction is that it would force

---

[1] S. Kuznets, in correspondence, cited in ILO, Scope, Approach and Content of Research-Oriented Activities of the World Employment Programme, Geneva, 1972, p.16.

manpower planners and other policy makers to clarify implicit values and objectives and make them explicit in a most concrete form.

Nevertheless the difficulties that would be involved in an application of such an approach are formidable. Most fundamentally, who would decide what criteria should be used to determine the appropriate social productivity weights? Evidently this would be as much a political as an economic set of decisions.[1] Indeed this approach would deliberately make the incidence of labour underutilisation political, the suggestion being that if 'social values' assign a low degree of concern to, say, the employment of women then increasing their employment opportunities would be a low priority concern. In identifying a socially approved labour force, the labour underutilisation of certain groups would be considered of higher priority than that of others, so an implication would be that it would somehow be a misallocation of resources to attempt to find work for certain groups of potential workers, perhaps women, children and the elderly, when there were large numbers of unemployed belonging to the socially approved segment of the labour force - or perhaps socially sensitive might be a better term. In effect politicians and planners might decide that the social dissatisfaction index, as it were, would be reduced more effectively by concentrating on getting jobs and higher incomes for young adult males, because they are likely to be the most politically active, vociferous and troublesome group in the population. Therefore one potential abuse

---

[1] In the case of specific countries, whether weights were implicit in policy decisions or made explicit in this type of approach to measuring labour underutilisation, the weights would really be endogenously determined by cultural and historical factors. Identification of those weights and even the changing scale of weights could therefore be useful for explaining and predicting policy decisions as endogenous phenomena in composite models of economic and social change.

of an approach that attempts to derive a weighted measure of labour underutilisation is that it opens the way to social pressure groups, with weightings and decisions being taken on the basis of expediency rather than on some more objective measure of 'social productivity' and welfare. Yet by the same criterion the explicit adoption of a weighting scheme for evaluating policy might actually avoid the tendency or temptation to act on the basis of temporary expediencies and fluctuating political whims.

It may indeed be desirable to develop an explicitly stated weighting scale for measuring labour underutilisation but the concept of a socially approved labour force in its simplest form is unlikely to prove very useful. Each individual and each class in a population will have their view of what should constitute the socially approved labour force, and no consensus could be guaranteed either to emerge or be maintained for any length of time. Moreover not only will the socially approved group consist of a range of sub-groups of varying degrees of 'social approval' but the selection of a socially approved labour force is likely to alter patterns of behaviour so as to increase the size of that part of the total work force. For instance, suppose on the basis of the social welfare function underlying the weighting scale male heads of households were identified as the core segment of the socially approved labour force whose unemployment and underemployment was a matter to be rectified with the utmost urgency. This might lead to a rapid rise in the male headship rate, and increasing bitterness among those either omitted altogether from the socially approved labour force or given a position of lower priority. Socially and politically devisive, even if operationally feasible, the composition of the chosen elite group could hardly be expected to remain stable. Therefore, to reiterate, while the development of a weighted scale for measuring labour under-utilisation on the basis of some measure of social productivity combining welfare and productivity elements may be feasible and desirable, the notion of a socially approved labour force is liable to be unhelpful.

The Classical-Marxian Approach: Productive and Unproductive Labour

The labour force approach is consistent with the utility theory of value - a currency speculator, a factory worker, a manager, and a farmer are all treated as equally economically active, and it would be inconsistent with the approach to exclude a full time **criminal.** For gauging immediately available labour supply this may not matter but for some purposes, such as estimating the total labour reserve for productive activities and the degree of social misuse of labour, such a classification is manifestly unsatisfactory. Another approach, again not necessarily a straightforward alternative to the labour force approach, is one based on the classical or Marxian distinction between productive and unproductive labour. The Marxist model is essentially concerned with what Marxists see as the emergence, absorption and growth of surplus labour in the course of capitalist industrialisation. As such, for the study of underutilisation in peasant and non-wage sectors it would not be significantly different from other approaches and indeed is not designed to deal with that phenomenon.[1] Moreover, Lewis' model or some variant of it, in which labour supply to the emerging capitalist sector from the rural traditional sector is assumed to be perfectly elastic, would probably be sufficient for the classical purpose of analysing the process of economic development.[2]

A Marxist schema for analysing labour surplus would consist of two components, the first of which would conform to the standard categories covered by most other approaches to labour underutilisation. Thus for Marx the 'relative surplus population' would comprise (i) the unemployed, (ii) the partially unemployed, (iii) displaced workers

---

[1] Chayanov's peasant economy model might be incorporated, representing a distinctive mode of production. See A.V. Chayanov, The Theory of Peasant Economy, (ed. D. Thorner et al), 1966.

[2] W.A. Lewis, Economic Development with Unlimited Supplies of Labour, Manchester School of Economic and Social Studies, Vol XXII, 1954, pp 139-191.

of middle-age or more who despite a skill are forced to join "the ranks of the supernumeraries", (iv) migrants displaced by capitalist production in agriculture, (v) the "stagnant" sector which "forms a part of the active labour army, but with extremely irregular employment", (vi) paupers, "the 'dangerous' classes," made up of" (a) those able to work, (b) orphans, etc., (c) the demoralised and ragged, and those unable to work", chiefly "people who succumb to their incapacity for adaptation, due to the division of labour", plus the aged and "victims of industry".[1] This classification could be quite easily mapped into the standard labour force categories as refined in the ILO-Smith-Hauser approaches. In addition, however, the classical-Marxist approach would consider as a special category of underutilised labour all those employed in socially unproductive labour. In the Marxian model, by definition, all work performed for the purpose of extending the process of capital accumulation would be classified as productive labour, while all forms of work which had as its function the consumption or transfer of revenue would be classified as unproductive labour.[2] In this schema most service activities would be classified as unproductive, though transport of goods being essential to the production of commodities, would not. Presumably any activity which involved making money out of money, or which dealt with financial transfers of one kind or another, would be classified as unproductive.

Domestic labour causes some methodological problems, despite the fact that Marx himself called it "free labour" and implied for all its undoubted use-value it was unproductive labour.[3] To the extent that domestic labour helps to reproduce labour-

[1] K. Marx, Capital Vol. 1, New World Paperback edition, pp 641-644.

[2] K. Marx, Theories of Surplus Value, Part 1, p. 157.

[3] K. Marx, Capital, Vol. 1, p. 395

power (the capacity to perform productive labour) and therefore, from a Marxian point of view, enables the capitalist to more effectively exploit the wage-labourer it might be considered to be productive labour.[1] To this Marxists would probably argue that although it may be socially necessary, domestic labour cannot really be called productive labour because it has no direct relation to capital, or in other words is not wage-labour, and in any case does not necessarily reproduce labour-power used to perform productive labour. In either case it seems that if this approach was to be systematised into a useful form of labour force statistics domestic labour, along with all forms of subsistence work, should be separated from those activities which are regarded as unproductive labour and which are essentially dependent on the existence of commodity-production.

The separation of productive and unproductive forms of labour has the potential merit that it directs attention to a major failing of many economies, what from a socially productive point of view is misuse of labour in non-productive activities. Its critics would claim that it makes a normative judgment in decreeing what is and what is not productive. But so too do methods based on the utility theory of value. It would be a simple value judgment to exclude prostitutes from the gainfully employed labour force, or thieves who by their standards are gainfully employed and probably not part of the readily available labour supply. In sum, there must be considerable doubt whether it is valid or possible to operationalise the distinction between productive and unproductive labour, but it does aim to use labour force statistics to explain capital accumulation, economic growth and the misallocation of labour to wasteful or parasitic forms of activity. The fact is that there is no strict correspondence between labour and product and between labour and income, and the virtue of the classical approach is that it does attempt to relate labour and product in a more meaningful way than could possibly be the case with the labour force approach.

---

[1] Such 'free labour' might also be called productive consumption. K. Mark, Theories of Surplus Value 1, pp. 291-2.

Summary and Conclusions

The difficulties of deriving adequate labour force statistical, or operational, concepts for measuring either labour supply or labour underutilisation stem in large part from the rather hazy notion of labour supply and the almost equally broad concept of labour underutilisation.[1]

Underutilisation of labour has many facets and can be measured in terms of income, productivity, the duration and intensity of employment, or the underuse of labour resulting from its misallocation. The purpose of measuring labour underutilisation is to identify the extent to which the economy and socio-economic policies have failed to absorb labour supply, to identify trends in the extent of labour absorption, and as a result to determine appropriate policy requirements, which will depend on the level of available and potentially available labour supply, the expected supply responses to policy and other socio-economic changes, and the types of labour underutilisation to be remedied.

Consistent with that set of objectives or requirements, the purpose of having measures of labour supply is to have knowledge of the productive potential of the labour force, to measure the likely labour supply responses to changes in policies or the level and structure of incentives, and to identify the constraints and determinants of labour supply. The difficulty is that the term labour supply is really only a loose, comprehensive concept. And since labour supply is a flow concept it can only be expressed in terms of specified incentives, opportunities and constraints.[2] In the same way

---

[1] For instance, the commonly used term labour surplus is almost always left vague or undefined, thus allowing one observer to deduce that labour surplus is increasing or decreasing within a particular economy because the unemployment rate has increased or decreased, and another to deny that conclusion on the ground that the unemployed rate is a misleading idea of labour surplus.

[2] For instance, if one postulates a sector of opportunity wage rates and a sector of time periods over which labour supply responses might take place one will have to to n.t. offer points.

labour underutilisation cannot be measured in the abstract - a man suffering from chronic malnutrition or general fatigue may be fully employed if he works two hours a day, but if provided with an adequate diet and better working conditions might be considerably underemployed working four hours a day, in the sense that he would be prepared to work more hours at the current wage rate.

Labour supply encompasses a number of related aspects of work behaviour, including the supply of workers to the labour force, the supply of effort on the job, the supply of 'gross' hours and 'net' hours (or total and effective hours, taking account of the intensity of labour per unit of time) and labour commitment, both to the labour force and to particular tasks or forms of employment.[1] Moreover the notion of a labour supply function or a labour force participation function is unclear since, as conventionally applied, it makes no reference to time not to aspirations or expectations, nor to the degree of commitment to a particular 'level' of supply. From a theoretical and empirical point of view, and as a research priority, it would be desirable to distinguish several supply or response functions according to the period of time over which the response is meant to occur. For instance, one could specify an <u>impact</u> response (or supply) function in which supply responses were observed in the immediate aftermath of a change in some factor determining labour supply. Then there would be a <u>short-term</u> response function, involving the changes in labour supply that would occur in the period before it was possible to make other behavioural changes necessary to allow the <u>desired</u> response.

---

[1] The question of commitment in the analysis of labour supply has not received sufficient emphasis. A labour force consisting of a large proportion of workers who move in and out of the labour force at irregular intervals is quite different from one in which all or most remain continuously in the workforce for many years.

This should be differentiated from the longer term response function, indicating the changes in supply when sufficient time had elapsed to allow for the other behavioural changes and possibly a post-adjustment response function, when changes, in some factor influencing labour supply had become a new norm.[1]

How then should labour supply be studied? For only if this question is adequately answered can further developments and improvements be made in the area of data gathering. Thus, first, there is a need to clarify what is meant by labour supply and to recognise that one aspect of supply many not be an adequate proxy for other aspects or for supply in any general sense. Second, the theory of labour supply should really be expressed in terms of several labour supply functions, recognising that for instance the elasticity of labour force participation, as one aspect of labour supply, with respect to any particular determinant will depnd on the time period of response. Third, the theory of labour supply should be more closely integrated with a general theory of labour commitment, to labour force activities in general, to specific occupations and to specific sectors of economic activity. Fourth, more attention should be paid to the potential cross-elasticities between various types of economic and non-economic activities; for instance labour supplied to unpaid family work may not be available for or respond to alternative non-domestic employment opportunities. Policies designed to absorb labour and reduce the extent of labour underutilisation require knowledge of those cross-elasticities, or the potential labour supply to particular sectors as well as the potential supply to the labour force in general.

---

[1] To give an example: A change in the actual number of children born to women on average may have little effect on a generation of women whose upbringing had been conditioned by the expectation that they would be predominantly occupied in childbringing. But when the smaller family size had become the social norm women's pattern of lifetime labour force participation might change and they might develop greater labour force commitment through early training and education.

Because labour supply is such a loose and comprehensive concept and because the underutilisation of labour is so hard to adequately conceptualise let alone measure empirically, it is hardly surprising that all the statistical approaches that have been proposed or applied have failed to satisfy the critics. Certainly none of the approaches to measuring labour supply and underutilisation of labour considered in this chapter are ideal. But the various elements of supply involved make it unlikely that one approach is preferable to all others. The need is almost certainly for the use of more than one approach to make up for conceptual inadequacies of any method taken by itself - for instance when a regular labour force survey is conducted small time-use surveys could be used to check that the information gathered in the larger survey is not misleading, or that the larger syrvey is not omitting significant activities. This is probably essential, particularly in rural areas, since, surveys using conventional labour force concepts are liable to be treated with scepticism, whether justified or not. However, concepts, especially those suitable for large-scale empirical studies, are rarely if ever perfect and if social scientisits waited until ideal data became available little analysis would ever get done.[1] While methodological and conceptual problems should be recognised, in practice in the quest for data a line must be drawn between what is misleading, what is provisionally acceptable and useful, and what would be ideal. It is to be hoped that the studies produced in the latter part of this volume fall into the second category.

It is evident that what primarily distinguishes the labour force approach from most of the alternative methods for measuring labour underutilisation which have recently been proposed is that they introduce to varying degrees a normative element, whereas with both the labour force and the classical-Marxian

---

[1] On the other hand suggestions for methodological improvements should at least take account of the restraints on data gatherers. Thus Smith's proposal that labour force analysis should be conducted in terms of "annual man hours" is scarvely realistic, particularly in low-income countries. Smith, op.cit, p. 81.

approaches, as well as with time-use studies, which are merely refined labour force surveys, the emphasis is on measuring labour supply and surplus labour directly and essentially behaviourally. Both the normative and behavioural types of approach have their limitations, but for measuring labour underutilisation with the prupose of developing policies for reducing its extent and altering its incidence the method adopted by Hauser and colleagues working in South-East Asia and the symptomatic approach recommended by the ILO, both of which can be seen as extensions of the labour force approach, seem to be most promising, though neither deal with the question of socially unproductive labour which Marxists would claim represents a major element of labour underutilisation.[1]

Both for providing indices of labour supply and labour utilisation the labour force approach, taken by itself, is inadequate. The superficially concise distinction between the employed, the unemployed, and the economically inactive cannot provide a valid measure of labour supply and seems quite likely to be misleading, particularly when applied to rural and village areas. In its favour, the threefold approach is not only fairly easy to apply but requires no behavioural assumptions other than that past behaviour is a guide to future behaviour. Against this the basic labour force approach may involve misleading simplicity, while the behavioural assumption underlying the approach may be a dubious one to make. On this latter point it is possible to conceive of an extension of the conventional labour force approach to include questions about aspirations, expectations and intentions so as to gain a clearer impression of the potential supply of labour as well as the immediately available supply. This would be in addition to information more often collected on other dimensions of labour force participation than the individual's activity status, such as hours or days of work performed by the employed and desired hours of work among the unemployed and underemployed.[2] But

---

[1] It would be interesting to explore the possibility of developing a specifically policy-oriented approach based on a method of weighting sketched earlier. However the notion of weighting by the extent to which labour is socially productive evidently needs to be made less vague before this could reasonably be considered.

[2] For an experimental attempt to incorporate aspirations and intentions into indices of labour supply see the study on Jamaica summarized below.

extending the labour force approach to include questions about aspirations raises the complex issue of the relationship between present intentions, which are conditioned by past experience, and subsequent behaviour; they may not be reliable if there was a radical change in the socio-economic environment.

The basic labour force approach is undoubtedly simple, so a question arises as to the extent really simple approaches are useful. Fundamentally there would seem to be four arguments for using a rudimentary labour force approach. First, there is the practical one that it is relatively inexpensive and easy to collect data on a continuing basis, a factor which may be particularly important when more complex approaches would entail excessive complexities for investigators, respondents and the available analysts. Secondly, it can be argued that by eschewing albeit-interesting details the simpler approach can provide an impressionistic picture of the labour force and the incidence of participation and non-participation, a picture which may actually be clearer than would be the case with more elaborate classifications. Third, while the simple approach may not be able to indicate the exact dimensions of labour supply it might provide a reasonable set of proxy indicators and at least measure what Myrdal has called "the immediately available labour supply". Finally, if it does not provide an adequate measure of the <u>level</u> of labour underutilisation it might give a satisfactory index of the <u>trends</u> in utilisation.

Of these four arguments the validity or appropriateness of the first and second will of course depend on the reasonableness of the other two. The third argument has already been discussed. Essentially the issues involved are whether or not the notion of economic activity can be applied in low income economies and if so whether or not statistics based on the distinction between ecpnomic and non-economic activity can give an approximate measure of labour supply given the flexibility and variability of supply schedules in economies characterised by low levels of labour 'commitment'. The factors influencing commitment require considerably more research, by the argument that the notion of economic

activity is spurious in low-income countries can be overstated and in any case can be overcome to a large extent by careful applications of the labour force approach, perhaps by the introduction of supplementary questions into the schedules or by resort to time-use surveys.[1]

As for the fourth aspect of the basic labour force approach, that it may be able to indicate trends if not actual levels of labour underutilisation, the question is whether or not studies of labour supply based on the simple labour force concepts involved in that approach can provide reliable estimates of supply elasticities, and, related to that, whether the unemployment rate, however invalid for measuring the level of labour underutilisation, is an adequate proxy for the aggregate demand for labour, moving in the same direction as changes in demand and doing so predictably. These are empirical questions that form a major element of the research into patterns of labour force participation. Ultimately the extent to which the labour force approach can provide indices of trends in labour underutilisation will depend in part on the degree of positive correlation between the different forms of underemployment and in part on the relationships of unemployment, underutilisation and labour force participation rates, which will be discussed in chapter four.

To the extent that the labour force approach can be refined to take account of various sorts of inefficient labour use, underemployment, and types of unemployment, it should provide an approximate guide to the level and incidence of labour underutilisation. But even assuming that such an extension was possible it would still only give a partial picture of readily available labour supply. To get much further it would be necessary

---

[1] The simplest labour force approach, in which activities are divided into two categories, and the most detailed and exhaustive time-use survey are the two limits of a spectrum, and most labour force surveys fall somewhere within that spectrum. It is a matter of judgment how detailed the survey needs to be in any specific location to be reliable.

to develop a richer behavioural framework for studying labour supply, one which took account of capacities to adjust, the historical formation of behavioural norms, the perceptions of the structure of incentives and opportunities, and the physical and social constraints on participation in different types of economic activities. In other words the statistics derived from any refined labour force approach must be treated as tentative and partial indicators of labour supply and under-utilisation, to be complemented by studies of the determinants of labour commitment, intensity of labour and the relationship of labour use to actual economic production. Then recognising that labour supply is multidimensional the identification of the determinants of labour force participation is only one limited task in the development of an analytical framework for studying and forecasting labour supply.

Population and Employment Project

Working Papers Available

WEP 2-21/WP.1 Household Savings and Demographic Change in the Philippines
- by Peter Peek, May 1974.

WEP 2-21/WP.2 Fertility and Labour Force Participation: Philippines 1968
- by José Encarnacion, Jr., March 1974.

WEP 2-21/WP.3 An Analysis of International Variations in Birth Rates: Preliminary Results
- by Richard Anker, 1974.
(No longer available; a revised version of this paper has been issued as WEP 2-21/WP.16 of this series.)

WEP 2-21/WP.4 Migration in the Philippines
- by René Wéry, March 1974.
(No longer available.)

WEP 2-21/WP.5 BACHUE-2: Version - I A Population and Employment Model for the Philippines
- by R. Wéry, G.B. Rodgers and M.D. Hopkins, July 1974.
(No longer available; will be re-issued in a revised version.)

WEP 2-21/WP.6 The Effects of Group Level Variables on Fertility in a Rural Indian Sample
- by Richard Anker, August 1974.

WEP 2-21/WP.7 The Economic Analysis of Fertility: A Study for Brazil
- by Edy Luiz Kogut, September 1974.

WEP 2-21/WP.8 Patterns of Consumption in the Philippines with Particular Reference to Demographic Factors
- by Edita Abella Tan and Gwendolyn R. Tecson, October 1974.

WEP 2-21/WP.9 Female Participation in Economic Activity in Colombia
- by Alejandro Angulo and Cecilia L. de Rodriguez, January 1975.

WEP 2-21/WP.10 Production, Employment and Wages in Modern and Traditional Sectors: Argentine Case (1950-1970)
- by Javier Villaneuva, February 1975.

WEP 2-21/WP.11 Fertility and Desired Fertility: Longitudinal Evidence from Thailand
- by G.B. Rodgers, February 1975.

WEP 2-21/WP.12 Income Inequality in the Philippines: A Decomposition Analysis
- by Mahar Mangahas, February 1975.

WEP 2-21/WP.13 Family Composition and Female Employment: The Case of Chile
- by Peter Peek, May 1975.

WEP 2-21/WP.14 Population Change and Economic Growth: A Long-Term Econometric Model of the Japanese Economy
- by Ryoshin Minami and Akira Ono, April 1975.

WEP 2-21/WP.15 On the Evaluation of Population and Employment Policy
- by G.B. Rodgers, R. Wéry and M.D.J. Hopkins, April 1975.

WEP 2-21/WP.16 An Analysis of Fertility Differentials in Developing Countries
- by Richard Anker, April 1975.

WEP 2-21/WP.17 Technological Change in Input-Output Relationships
- by René Wéry, May 1975.

WEP 2-21/WP.18 Employment Structure, Income Distribution and Internal Migration in Brazil
- by Leda Maria Fraenkel, Mario Duayer de Sanza, Mary Garcia Castro, Giselia Potengy Grabois, Eugenio Tucci Neto, May 1975.

WEP 2-21/WP.19 An Analysis of Migration to Greater Khartoum (Sudan)
- by Amarjit S. Oberai, May 1975.

WEP 2-21/WP.20 A Structural Overview of BACHUE-Philippines
- by M.J.D. Hopkins, G.B. Rodgers and R. Wéry, May 1975.

WEP 2-21/WP.21 The Effects of Household Size, Structure and Income on Expenditure Patterns
- by Kwang Suk Kim and Dai Young Kim, May 1975.

WEP 2-21/WP.22 Labour Force Growth, Utilisation and Determinants in Singapore
- by Pang Eng Fong, June 1975.

WEP 2-21/WP.23 Aspiration Wages, Migration and Female Employment
- by Guy Standing, November 1975.

WEP 2-21/WP.24 The Determinants of Labour Force Participation in Yugoslavia
- by Miroslav Rasević, November 1975.

WEP 2-21/WP.25 A Simultaneous Equations Model of Household Behaviour
- by Peter Peek, November 1975.

WEP 2-21/WP.26 1. The Yugoslav Firm: Theory and Reality
2. Investment Decision-Making in the Yugoslav Self-Managed Enterprise
- by Laura D'Andrea Tyson, November 1975.

WEP 2-21/WP.27 1. The Yugoslav Banking System and Monetary Control
2. Trade Credit and Illiquidity Crises in the Yugoslav Economy
- by Laura D'Andrea Tyson, November 1975.

WEP 2-21/WP.28 Economic Determinants of Demographic Behaviour in Kenya
- by James C. Knowles and Richard Anker, December 1975.

WEP 2-21/WP.29 Basic Needs, Growth and Redistribution: A Quantitative Approach
- by M.J.D. Hopkins and H. Scolnik, December 1975.

WEP 2-21/WP.30 Labour Policy and Fertility in Developing Countries
- by Ronald G. Ridker and Olivia Schieffelin Nordberg, February 1976.

WEP 2-21/WP.31 Effects of Household Structure, Size and Household Income on Expenditure Patterns
- by M.T.R. Sarma, February 1976.

WEP 2-21/WP.32 Demographic Change and the Size of the Government Sector
- by A.C. Kelley, February 1976.

WEP 2-21/WP.33 The Education and Employment of Children: A Comparative Study of San Salvador and Khartoum
- by Peter Peek, March 1976.

WEP 2-21/WP.34 Demographic Factors in Government Expenditure: An International Comparison
- by René Wéry, March 1976.

WEP 2-21/WP.35 Demographic Effects on Tax Shares During Economic Development
- by Bruce R. Bolnick, March 1976.

WEP 2-21/WP.36 Desired Fertility, Income, and the Valuation of Children
- by Cheng-Tung Chang

WEP 2-21/WP.37 1. The Impact of Unionisation on Negotiated Wages in the Manufacturing Sector in Kenya

2. The Role of Competitive Forces in the Determination of Wage Increases in Less Developed Economies: The Case of Kenya
- by William J.House and Henry Rempel

WEP 2-21/WP.38 Rural-to-Urban Migration and Some Economic Issues: A Review Utilising Findings of Surveys and Empirical Studies Covering the 1965-1975 Period.
- by Oded Stark

WEP 2-21/WP.39 The Myth of the Cavern Revisited or are models useful?
- by R. Wéry, G.B. Rodgers and M.J.D. Hopkins

WEP 2-21/WP.40 Concepts of Labour Force Participation and Underutilisation
- by G.M. Standing