measuring the labor force: some results and observations

Editor's note: Measuring the activities of the labor force has long been a concern of census and statistical agencies in countries all over the world. This issue of the census newsletter looks at some of the concepts, methods, results, and policy implications of labor force measurement. On this page Dr. Philip Hauser discusses the labor utilization framework he devised and some results obtained so far from its application in a number of Asian countries. An article by Hauser summarizing and comparing the findings will appear in a forthcoming issue of the Malayan Economic Review.

by Philip M. Hauser

The labor utilization framework is my effort to operationalize the measurement of underemployment in accordance with the concepts set forth by the International Labour Organisation (ILO). The ILO definition of underemployment essentially involves two forms—visible and invisible underemployment. Persons working less than full time, however defined, who want more work are visibly underemployed. Wanting more work is an essential part of that concept because it distinguishes the part-time employed from the part-time unemployed. There are several forms of invisible underemployment, at least two of which, in my judgment, are amenable to operationalization and measurement. One is underemployment by reason of low productivity and the other is underemployment by reason of failure to utilize the highest skill of the person.

Measuring the first of these can be achieved largely through the use of income. Very low income, especially in less developed countries, is a good proxy for low productivity. Full-time workers whose incomes are below the poverty level are taken to be underemployed by reason of low productivity. For countries without an official definition of poverty, I would recommend that the lowest 10 percent of the income distribution be taken as the basis for measuring this group, which is sometimes called the working poor. The measurement of failure to utilize the highest skill of a person can be operationalized by observing the relationship between education or training and occupation.

The labor utilization framework has as its major categories adequately utilized and inadequately utilized workers. The four reasons for inadequate utilization are unemployment, involuntary part-time work, low income for full-time work, and mismatch of occupation and education. The order in which I've listed these categories represents a priority order based on the needs of the population and the possible actions of government to deal with those needs. For example, the first priority are the fully unemployed, the extreme case. Zero hours of work, no job at all, no income (at least from employment), and no mismatch because there is no relationship involved. I think it would be generally agreed that if government action is required, those who are unemployed have the highest priority for government attention. The data that can be derived from this utilization framework have quite different policy implications.

The standard international approach provides a measure of the total work force, the employed and the unemployed, and only that. But the unemployed represent just the tip of the iceberg in developing countries; it does very little good to discover that some relatively small percentage is unemployed when the problem is essentially underemployment. The labor utilization approach measures underemployment, and it can be implemented by simply adding two questions to the present standard approach: one on income (or some proxy) and another on education or training. For relatively little additional expenditure, a country can greatly enrich data available for manpower policy.

At the CAMS-ODA seminar on the work force in Manila last June, data were presented from the application of the method in eight countries: Hong Kong, Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan, and Thai.

Wearing batik shirts and skeptical expressions are Dr. Philip M. Hauser (left) and Mr. Samuel Baum. Dr. Hauser developed the conceptual framework and operating procedures for measuring labor underutilization. Mr. Baum is with the International Statistical Programs Center.
REPORT ON LABOR UTILIZATION IN THAILAND
by Anuri Wanglee

The National Statistical Office (NSO) has just published The Utilization of Labor in Thailand, 1975, its final report on three years of experimentation with Dr. Philip Hauser’s labor utilization approach. It has long been felt in Thailand that the conventional measure of labor utilization—the unemployment rate—is inadequate for Thailand’s special needs. The labor utilization approach was welcomed as a viable alternative to conventional statistics, especially as it appears that this approach will be widely adopted in Asia. NSO adopted the approach as part of its regular labor force surveys in January 1977.

The report presents an overall picture of the Thai labor force based on standard labor force data collected since 1963. Thailand’s exceptionally high rate of female labor force participation is shown to stem from the liberal definitions of work roles used by Thai villagers and from the matrilateral origins of Thai village society. The seasonality of demand for labor in rice agriculture is also discussed, and it is shown how this seasonality is reflected in labor force statistics.

Thailand’s unemployment rate is examined in detail, and three reasons are offered to explain why the unemployment rate is so low. First, the Thai labor force is composed largely of self-employed farmers, who are rarely reported unemployed in any country. Second, most other workers are too poor to be “idle and looking for work,” the standard definition of unemployment. And finally, unemployment is largely an urban middle-class problem. The report shows that many of the unemployed—about a third of the total—are young well-educated people, just out of school, still living with their parents, and looking for their first jobs. The report explains why these young people are very careful and deliberate about choosing their first jobs.

The report summarizes the results of five pilot surveys of labor utilization undertaken to operationalize the approach for use in the regular surveys. The pilot surveys showed that the labor utilization approach, by using measures of labor utilization in addition to unemployment, focused attention on the most pressing problems of labor utilization in Thailand. For the rural population these problems are the seasonality of demand for labor in agriculture and the inefficient organization of the labor force, which is made up largely of numerous households working small plots of land. This was reflected in the composition of that part of the labor force measured as “visibly underemployed” or “underutilized by hours” during different seasons. In the busy season in agriculture this group was made up of young women who, although living on farms, did nonagricultural work. In the slack season in agriculture this group dropped out of the labor force altogether and those measured as visibly underemployed were young men doing agricultural work.

The pilot surveys also revealed a surprising spatial distribution of labor utilization. The highest levels of unemployment and visible underemployment were neither on the farms nor in the metropolis, but in small market towns and the suburbs of provincial capitals.

For the urban population, the chief problem of labor utilization was not unemployment (except for the relatively small middle class) but low returns for their labor, i.e., poverty. Half the labor force in the Bangkok Metropolis was shown to be “underutilized by income,” that is, with an income below the official poverty level ($50.00 per month).

(continued on page 7)
NEW ZEALAND

- Final totals from New Zealand's March 1976 Census of Population and Dwellings are now available and were sent by Correspondent Mark Yurievich of the Department of Statistics. The 1976 population was 3,129,383, an increase of 9.3 percent over the 1971 total compared with a 6.9 percent increase during the 1966-71 period. The North Island gained 217,030 persons (a 10.6 percent increase) whereas 49,722 persons were added to the South Island's population (an increase of 6.1 percent). The number of occupied dwellings rose by 15.2 percent.

In December the Department of Statistics published a preliminary selection of basic subject-matter statistics, based on a randomly selected 10 percent sample of census mesh-blocks. This achievement marked the first time that national analyses of subject-matter census statistics had been released in the same calendar year as the census. Among the findings: of the 3.1 million persons in New Zealand on census night, 2.6 million were born in New Zealand, almost 300,000 in the United Kingdom or the Republic of Ireland, and more than 60,000 in Australia; 69,750 persons identified themselves as Pacific Island Polynesians; persons of New Zealand Maori origin numbered 257,770; considerable increases were reported in the number of women employed full time or part time; and a question on cigarette smoking found that 38.5 percent of men and 30.5 percent of women were regular cigarette smokers.

JAPAN

- Newsletter Correspondent Hirohiko Koyama has been transferred to the General Affairs Section of Japan's Bureau of Statistics, and news from Japan will henceforth be supplied by Shotaro Yanagawa, Deputy Chief of the Population Census Section.

Processing continues on data from the October 1975 Census. The 20 percent tabulation has now been completed, and figures were compiled for regional classifications—by prefecture and shi, ku, machi (town), and mura (village). Several reports on each prefecture will be published by August 1977. Other results to be released by the end of the year are detailed tabulations of place of work and schooling from the 20 percent sample; special tabulations for demographic research work; tabulations by metropolitan area; and demographic maps.

HONG KONG

- Preliminary results from the 1976 By-Census of Hong Kong have been released, and Correspondent Joseph M.K. Lee of the Census and Statistics Department has sent a summary of facts from the first printouts. Detailed cross-tabulations are now being processed and should be produced by March. The first By-Census publication—selected basic tables giving the main characteristics of the population—will be issued in mid-1977.

Preliminary By-Census results show the total population of Hong Kong as of 2 August 1976 to be 4,439,250, an increase of 11.3 percent since 1971, when the population was reported at 3,989,779. The population of Hong Kong Island and the Kowloon Peninsula increased only 4 percent during the five-year period, and that of New Kowloon increased 10 percent. In contrast, New Territories showed a population increase of more than 42 percent, owing mainly to the development of the Tsuen Wan New Town. Hong Kong's marine population continues to decline (from 79,694 persons in 1971 to 58,200 in 1976) as the boat people are resettled on land. The overall population density of Hong Kong is 4,167 persons per square kilometer, up from 3,652 persons in 1971.

The population of Hong Kong is still very young—42 percent were under the age of 20 in 1976. But the median age of the population—which five years ago was 21.8—is now 23.8 years. The overall sex ratio is 104.2 males per hundred females, slightly higher than the 1971 ratio of 103.3. A comparison with the 1971 figures shows that there are 21.1 percent more households in Hong Kong (1,048,630, an increase of 182,799 households since 1971) and fewer persons per household (4.2 in 1976 compared with 4.6 in the earlier census).

AUSTRALIA

- Correspondent Frank Parsons has a new job; he is Director of the Processing and Field Organisation Section of the Australian Bureau of Statistics (ABS). His successor as Director of the Evaluation and User Services Section is Brian Doyle, who has sent the final population totals for states and territories from Australia's June 1976 Census. The figures were released last month and are given below, along with the average annual rate of increase since the 1971 Census.

<table>
<thead>
<tr>
<th>State or territory</th>
<th>Census 30 June 1976</th>
<th>Annual growth rate (1971-76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>4,777,103</td>
<td>0.75</td>
</tr>
<tr>
<td>Victoria</td>
<td>3,646,981</td>
<td>0.81</td>
</tr>
<tr>
<td>Queensland</td>
<td>2,037,197</td>
<td>2.20</td>
</tr>
<tr>
<td>South Australia</td>
<td>1,244,756</td>
<td>1.18</td>
</tr>
<tr>
<td>Western Australia</td>
<td>1,144,817</td>
<td>2.13</td>
</tr>
<tr>
<td>Tasmania</td>
<td>402,866</td>
<td>0.63</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>97,000</td>
<td>2.36</td>
</tr>
<tr>
<td>Australian Capital Territory</td>
<td>197,822</td>
<td>6.53</td>
</tr>
<tr>
<td>Australia</td>
<td>13,548,472</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Preliminary results from the Postenumeration Survey (PES) show about 2 percent underenumeration, compared with 1.3 percent in the 1971 Census. The ABS has decided to adjust state and territory population figures using the final PES results to correct for underenumeration. This decision puts Australia in a unique situation, according to Doyle, with regard to the use of the PES. It is an important decision because the Bureau's population estimates are the basis for the distribution of Federal Electoral Divisions and financial grants to states. Large underenumeration differentials by states could mean changes in Federal distributions.

SINGAPORE

- Correspondent Chian Kim Khoo reports that Singapore's Department of Statistics is planning a two-stage Household Expenditure Survey. The first stage will be held in April and will obtain information from a sample of households about the socioeconomic and demographic characteristics of the population. Data sought will be of the type generally collected in the population census. These data will form the basis for the survey's second stage, which will ask for information on income and expenditure of a sample of households for one year (June 1977 to May 1978). The expenditure data will then be used to form the weighting pattern for revising the consumer price index.
THE SOCIAL DISTRIBUTION OF UNDERUTILIZED LABOR IN THE PHILIPPINES

by Peter C. Smith and Lita J. Domingo

The concept of a "labor force"—defined around specific economic activities taking place within a specific reference period—arose as a response to the measurement needs generated by the labor difficulties of the 1930s in the West (Webb, 1939; Hauser, 1949). For good or ill, the labor force approach to work force measurement appeared just in time to be taken up in toto by those in developing countries responsible for economic planning in the postwar period. The labor force framework is the dominant approach today in the majority of the developing countries, and many of these nations boast long time series of labor force data (cf. Turnham, 1971).

Not surprisingly, extended use has given rise to a range of dissatisfaction with the labor force concept both as a conceptual device and as a measurement tool (see, for example, Turnham, 1971). The labor force approach seems to be deficient as it is applied to developing economies primarily because it assumes the prevalence of the kind of formalized, institutional work situation that is generally found in the West: a clear distinction between work and nonwork activity; home and work place typically separate; and the notion of a "job"—that is, employment for another as the nexus of work—firmly embedded. These assumptions fail to take into consideration the very informal social and economic underpinnings of work in developing economies, especially the prevalence of self-employment and of family work groups rather than formal employment; the informal off-and-on character of much work activity, particularly among the young; the extreme variability in the quality of labor and of work opportunities; and the widespread use of underemployment as a social device for spreading work opportunities around.

Responses to these criticisms recently have taken two forms: (1) proposals for new concepts and measurement procedures that would require entirely new sources of data, gathered ex ante in light of the new concepts; and (2) proposals for new ways of utilizing in a more effective and useful manner the large amounts of data that have already been collected in many countries on the basis of the labor force concept. One of the approaches in the latter category is the so-called labor utilization framework, first presented by Philip Hauser in 1972.

The labor utilization approach may be applied effectively wherever standard labor force data1 for individuals can be supplemented by data on: (1) hours of work; (2) education or training; and (3) income or some proxy thereof. When available, the approach also uses data on the desire of workers for additional working hours and on job-seeking activities. It attempts to measure visible and invisible underemployment as well as outright unemployment. Tabulation on just a few variables provides a classification of the work force into a series of functional categories, as outlined below.

The Total Work Force
A. Utilized adequately
B. Utilized inadequately
1. Due to unemployment
2. Due to inadequate hours of work
3. Due to inadequate income
4. Due to mismatched occupation and education

The four components of inadequate utilization are tabulated in a fixed sequence, B1 to B4, corresponding to the presumed policy priorities assigned by governments to the respective types of underutilization. The "utilized adequately" category (A) is obtained as a residual.

We have recently explored the applicability of the labor utilization framework in a particular Asian society—the Philippines. This brief note is intended to illustrate some of the results and conclusions of that study. We will draw upon our recent report to the Council for Asian Manpower Studies (CAMS), which can be consulted for additional detail (Smith and Domingo, 1976).

Proponents of the labor utilization framework emphasize that the operational criteria used in particular applications must reflect the data available and the characteristics of the society in question (see Hauser, 1972, and Sullivan, 1974).

In our application of the framework to the available Philippine data2 the following criteria have been used. A forty-hour week is the cutoff for time worked. Income cutoffs were obtained as boundaries to the lowest in-

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1. The development of the standard labor force questionnaire is described in Hauser (1949), and the questions adopted in the Philippines are given in Bureau of the Census and Statistics (1970).

2. The analysis is based upon data from the May 1968 National Demographic Survey, conducted by the University of the Philippines Population Institute in collaboration with the Bureau of the Census and Statistics (now National Census and Statistics Office). Interviews were conducted for a stratified, two-stage sample of households representing all areas of the country. For further detail see Mejia-Raymundo (1979) and Bureau of the Census and Statistics (1970).

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Figure 1 Types of underutilization by sector and social role: Philippines, 1968
come quartile (defined within sex, wage-nonwage, and urban-rural classifications of the population). Mismatched educational attainments in relation to specific occupations were defined as those in excess of the mean years of schooling for the occupation. Calculations were performed within each occupational category separately for husbands, wives, and other adults. All the results presented in this note and in our CAMS report are based on these criteria, although clearly other criteria might have been employed. In fact, one of the major kinds of criticism of the underutilization approach has been its arbitrary nature with respect to cutoffs.

### The social distribution of underutilization

As an organizing framework we have focused on mapping the social distribution of underutilized labor, as distinct from its distribution across the usual economic categories. The phrase “social distribution” perhaps requires a few words of explanation. From the perspective of economists and most analysts concerned with labor utilization, the most enlightening utilization rates are those across economic categories: industries, occupational groups, establishments by size and type of technology, and so on. Differences across these categories are certainly of great importance, but we believe that one of the strongest arguments for the utilization approach to work force measurement and one of its most helpful attributes is its effectiveness in separating out and describing levels and kinds of underutilization in various sectors of the social structure—that is, in describing the “social distribution” of underutilization.

Why is the social distribution of underutilization important? The most significant reason is that underutilization (or full-time employment, or almost any resource) is allocated across individuals in a society as much on the basis of traditional, social-structural criteria as on the basis of the economic criteria of general concern to economists. This issue has been raised before, as when sociologists speak of prescriptive bases for occupational attainment as against personal achievement. We emphasize in our discussion that, for example, the allocation of economic roles between men and women, especially between husbands and wives, does not, on the whole, follow economic criteria. This allocation follows instead the social norms that circumscribe wives and husbands as actors in the social system.3

We have pursued this question of social distribution with respect to selected categories of social structure, especially age group, sex, role in the household (male heads, wives, and other adults4), and urban versus rural residence. The distribution of underutilization across these categories is significant for policy, and a substantial portion of the observed underutilization pattern across economic categories can in fact be attributed to these elements of social composition. In this note we will look briefly at these socially defined categories, make a few observations based on the data, and relate them to policy considerations.

In the May 1968 sample 1.2 percent of all male household heads aged 15 or over were unemployed according to the official definition; yet, 50.3 percent were underutilized by the conventions just given. The percentage distribution of the labor force by utilization status for male heads, wives of heads, and other adults is shown below.

<table>
<thead>
<tr>
<th>Utilization status</th>
<th>Male heads</th>
<th>Wives of heads</th>
<th>Other adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>By unemployment</td>
<td>1.2</td>
<td>5.1</td>
<td>12.8</td>
</tr>
<tr>
<td>By hours worked</td>
<td>7.3</td>
<td>17.7</td>
<td>14.6</td>
</tr>
<tr>
<td>By income</td>
<td>22.4</td>
<td>29.5</td>
<td>na</td>
</tr>
<tr>
<td>By mismatched education and occupation</td>
<td>19.4</td>
<td>12.3</td>
<td>29.1</td>
</tr>
<tr>
<td>Total inadequately utilized</td>
<td>50.3</td>
<td>64.6</td>
<td>56.5</td>
</tr>
<tr>
<td>Total adequately utilized</td>
<td>49.7</td>
<td>35.4</td>
<td>43.5</td>
</tr>
</tbody>
</table>

na—not available. Income data are available only for male household heads and their spouses. The overall percentage underutilized among other adults is also affected by this deficiency in the data.

It is evident that the traditional measure of unemployment fails to reflect a very large segment of the underutilization experience in all three social categories.

When these sources of underutilization are combined in the penultimate row, impressive levels of underutilization are indicated. The framework’s real strength, however, lies in its disaggregation of total underutilization into policy-relevant sources. When these sources of underutilization are cross-classified with geographic, economic, and social sectors of the population it is apparent that underutilization is patterned in its distribution across the society. In Figure 1 an illustration of this disaggregation is offered: types of underutilization are shown for the urban and rural sectors and for persons by role in the household.

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3 On the use of womanpower see Castillo (1976).
4 Because of the manner in which the household data were organized, our “other adults” category includes all persons aged 15 or over who are not male heads or their wives. This group includes a few female heads, heads of subfamilies, and others, but the largest proportion by far are unmarried persons living in the homes of their parents.

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Figure 2 The social distribution of the underutilized: Philippines, 1968
Male households heads, both urban and rural, have quite low levels of unemployment, but low income and mismatched skills against occupations are major sources of underutilization, the former especially evident in the rural sector, the latter particularly in the urban. Wives in the rural sector have very high levels of time and income-based underutilization, but very little underutilization due to mismatched skills and occupations. In contrast, urban wives have high unemployment levels and a very high level of mismatch of education and occupation. The “other adults” category differs sharply from heads and wives of heads, revealing very high unemployment and mismatch levels in the urban sector and a high level of time-based underutilization in the rural sector.

These broad patterns reflect social as well as economic processes. Persons in the society have different socially supported claims on permanent, full-time positions in the labor force, and the strength of these claims varies according to social roles. Male heads have the strongest socially defined claims, by virtue of the sex roles assigned to them; other adults have the weakest claims, and wives of heads are immediately defined. The society meets the claims of male heads by allocating them to permanent, largely full-time jobs, though, as the data indicate, these jobs are all too often characterized by low pay or low educational requirements. Wives tend to be allocated to part-time jobs with low pay, and their unemployment rates are higher than those of male heads. Other adults have little socially defined claim on positions in the work force, and their unemployment and time-based underutilization levels are very high indeed.

Underutilization due to mismatched educations and occupations is a luxury experienced largely by high-origin groups, who have been able to obtain relatively high levels of education. Throughout the sample, rural mismatch levels are lower than urban levels, despite the lower educational requirements of rural jobs. The major sources of underutilization due to mismatched skills are other adults of both sectors, urban sector wives, and male heads.

Some immediate, tangible implications of these underutilization differentials for social programs and for labor utilization policies are evident from the “social distribution” of numbers underutilized shown in Table 2. There were 6.9 million underutilized persons in May 1968, 56.6 percent of a total work force of 12.2 million. By far the largest single social sector with respect to numbers underutilized was “other adults,” persons aged 10 or over who were not household heads or spouses thereof.

In 1968, 3.8 million of the total of 6.9 million underutilized persons (55.1 percent) were other adults. Only 27 percent of the underutilized were married male household heads, and only 13 percent were their wives. Moreover, we can focus further upon other adults under the age of 25 with the knowledge that we are still considering within this special group no less than 42 percent of all underutilized persons. It should be apparent that policies directed to reducing underutilization levels among this group, mostly young single adults, will be quite different from those aimed at the utilization problems of household heads or of, say, middle-aged married women.

The preponderance of underutilized labor among the young and unmarried reflects very heavily the prevailing demographic scene rather than differentials in labor force participation or in percentages underutilized. Unmarried persons under the age of 25 constitute 48.2 percent of the population as a whole, a composition reflecting both prevailing high fertility, with its effects on age structure, and recent increases in age at marriage. One immediate implication is that the prevalence of underutilized labor among this group of young adults is not subject to appreciable control by labor policies per se. Instead, population policies will have the greatest impact though, significantly, the benefits of these programs for the labor market cannot be felt for at least a decade. We should also note that one of the demographic changes that holds some hope for lowered fertility in the future—delayed marriage—has had the short-run effect of enlarging the “other adults” category (by causing young men and women to remain single). If the educational system were deliberately expanded now at the college level in order to absorb single young adults, the number of the young and underutilized by reason of mismatched educations and occupations would probably increase. This sequence illustrates the complex manner in which social categories and processes interact with the economy to produce a social distribution of underutilization with conflicting implications for policy.

In the remaining paragraphs we want to discuss a few of the patterns that emerge from additional classifications of the data. First, we will comment on underutilization among persons in broad occupational classes; then we will consider a major geographic disaggregation. Both classifications define recognizable social categories—differing with respect to lifestyles, attitudes, and behavioral characteristics. The classification of persons by broad occupational category is shown in Table 1.

Table 1 Levels of underutilization among male heads, wives, and other adults classified by broad occupational category: Philippines, 1968

<table>
<thead>
<tr>
<th>Broad occupational category and role in household</th>
<th>Unemployment by</th>
<th>Time by</th>
<th>Income by</th>
<th>Mismatch by</th>
<th>Total underutilized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male heads</td>
<td>1.8</td>
<td>2.2</td>
<td>6.9</td>
<td>31.0</td>
<td>41.9</td>
</tr>
<tr>
<td>Wives</td>
<td>1.2</td>
<td>1.6</td>
<td>5.4</td>
<td>88.7</td>
<td>96.9</td>
</tr>
<tr>
<td>Other adults</td>
<td>3.3</td>
<td>3.9</td>
<td>na</td>
<td>69.7</td>
<td>77.0</td>
</tr>
<tr>
<td>Male heads</td>
<td>1.7</td>
<td>7.1</td>
<td>21.0</td>
<td>24.9</td>
<td>54.7</td>
</tr>
<tr>
<td>Wives</td>
<td>1.1</td>
<td>8.3</td>
<td>19.6</td>
<td>9.1</td>
<td>38.2</td>
</tr>
<tr>
<td>Other adults</td>
<td>4.4</td>
<td>15.2</td>
<td>na</td>
<td>22.9</td>
<td>42.4</td>
</tr>
<tr>
<td>Male heads</td>
<td>0.6</td>
<td>8.3</td>
<td>25.6</td>
<td>15.4</td>
<td>49.9</td>
</tr>
<tr>
<td>Wives</td>
<td>3.2</td>
<td>18.1</td>
<td>41.1</td>
<td>5.2</td>
<td>67.6</td>
</tr>
<tr>
<td>Other adults</td>
<td>3.4</td>
<td>18.6</td>
<td>na</td>
<td>32.5</td>
<td>54.6</td>
</tr>
</tbody>
</table>

na—not available.

SOURCE: Smith and Domingo (1976, Appendix Tables).

Timed-based underutilization is high among women in agriculture, a reflection of social patterns of human resource use in this sector, whereas among male heads of households time-based underutilization is high only in the blue-collar sector. Both the agricultural and the formal white-collar sectors provide almost exclusively full-time employment for male household heads. For other adults, both blue-collar and agricultural sectors have high underutilization levels. Both sectors apparently tend to provide recent entrants to the labor force with part-time positions rather than full-time ones.

Income-based underutilization is low in the white-collar sector for both men and women, and we observe that men and women are roughly equally underutilized by income in the blue-collar sector as well. On the other hand, income-based underutilization is very high for agricultural women,
at least in part as a consequence of their part-time status in that sector.

The mismatch phenomenon is rare among wives in blue-collar and agricultural occupations, probably because female educational attainment is relatively low in these sectors. Note that underutilization due to mismatches is very high among women in white-collar occupations, evidence of a substantial misuse of high-level womanpower. Among other adults two phenomena bear special mention: first, mismatch-based underutilization is extremely high in agriculture, suggesting inadequate opportunities for educated young people coming out of agricultural backgrounds; second, underutilization due to mismatches is also exceptionally high in the white-collar sector, indicating that young people are being drawn into white-collar occupations largely at low levels, well below the level for which their education prepared them.

Another kind of disaggregation of the population into target sectors for labor utilization policy is achieved by distinguishing between metropolitan areas (Manila), other urban areas, and the rural population (see Table 2). In 1968 these sectors constituted 11.5, 22.7, and 65.8 percent of the total population aged 10 and over, respectively. The characteristics of these populations differed widely, as did their labor force compositions and problems of utilization.

Table 2 Deviations from the national level of underutilization and contributing sources by type of underutilization: husbands by sector of residence

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage point deviation</th>
<th>Source (type of underutilization)</th>
<th>By unemployment</th>
<th>By time</th>
<th>By income</th>
<th>By mismatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metropolitan</td>
<td>+6</td>
<td>Metabolic</td>
<td>+1</td>
<td>+5</td>
<td>+20</td>
<td>+3</td>
</tr>
<tr>
<td>Other urban</td>
<td>+9</td>
<td>Metabolic</td>
<td>+1</td>
<td>+5</td>
<td>+3</td>
<td></td>
</tr>
<tr>
<td>Below average</td>
<td>-3</td>
<td>Metabolic</td>
<td>-1</td>
<td></td>
<td></td>
<td>-4</td>
</tr>
</tbody>
</table>

With respect to the total underutilized, the metropolitan zone stood 6 percentage points above the national level for husbands whereas the other urban and rural sectors were 9 percentage points above and 3 points below, respectively. For wives the figures are 9 percentage points above, 4 above, and 2 below. The general patterns of deviation are similar in direction for husbands and wives; interestingly, however, total underutilization for wives is greater than for husbands in the metropolitan area but less than for husbands in other urban areas. The urban areas outside the metropolitan region seem to offer greater opportunities for wives than does the metropolis itself.

When we consider the sources of these differences in total underutilization we note basic similarities between husbands and wives, with time- and mismatch-based underutilization as the key sources of differential for each. The particularly high level of total underutilization for husbands in other urban areas is due largely to low pay, whereas education-occupation mismatches are responsible for the high total of underutilization among metropolitan wives. For both husbands and wives in the rural sector low levels of total underutilization result from the rarity of outright unemployment and a generally low level of education-occupation mismatch. These are both negative indicators, however, the former reflecting the rural sector's capacity for shared poverty (cf. Takahashi, 1970, for example), and the latter reflecting the relatively low educational attainments, especially among wives, in the rural sector.

Conclusion

The underutilization framework is undergoing testing and some modification in a number of countries in the Asian region. The Philippine test described in this brief report highlights both significant weaknesses and important strengths. We have not dwelt upon the shortcomings of the underutilization framework here—those are discussed in our CAMS report (Smith and Domingo, 1976) and by a number of other authors. One of the major strengths of the underutilization framework—as we judge it on the basis of our analysis of Philippine data—lies in its disaggregation of overall underutilization levels into socially as well as economically meaningful categories. The resulting information—numerous questions concerning the details of measurement notwithstanding—speaks directly to important matters of employment policy.

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Labor utilization in Thailand (continued from page 2)

For the first time accurate income data existed to show that the official poverty level was set far too high.

The methodological material included in the report will be useful to other statistical agencies interested in using the labor utilization approach. The NSO experimented with a variety of approaches to develop a simple and accurate method of dividing the labor force into two parts, one part below a given income cutoff level, and one above. For the agricultural population approaches included using a proxy for income based on the possession of certain goods (this method was unsuccessful), a conventional accounting procedure (this approach was too complicated), and an imputation of income from the amount of land farmed with a given crop (this method was finally adopted).
After the 1971 Population Census, there was almost no meaningful collection of data on the labor force of Indonesia until the 1976 Interennial Survey. The 1971 Census provided a great deal of information about the regional distribution as well as the occupational and industrial status of the work force, but the results of the Census were not fully satisfactory in providing measures of employment and unemployment. (The 1971 Census was not designed to measure underemployment or underutilization of the labor force.) The Census used the labor force approach, but the data were unsatisfactory partly because the definitions were not strictly followed by the enumerators and partly because the respondents may have misunderstood the questions.

The Census, using the standard labor force approach in the sample questionnaire, asked everyone ten years old or older “What did you do last week?” There were two possible answers to this question: “working” or “not working.” If the answer was “working,” the next questions would be on the work status, the industry, and the occupational classification of the respondent’s job; if the answer was “not working,” the next question would be “Are you looking for work?” If the respondent was not looking for work, he was classified as not economically active and asked whether he was in school, doing housework, retired, or other.

The preliminary figures based on a 10 percent subsample of the census sample produced an unemployment rate of 2.2 percent. This figure was thought to be too low, so the editing and imputation procedures were reinvestigated. The revised editing and imputation procedures attempted to give a broader definition to the concept of unemployment, that is, to include some persons who may have been underemployed. The revised procedure produced an unemployment rate of 8.8 percent for all Indonesia. Although this figure may not sound very high, the provincial variation was high, with the highest rates of unemployment occurring in urban Irian Jaya (19.7 percent) and East Kalimantan (19.6 percent). The Central Bureau of Statistics (CBS) has cautioned planners and researchers about the use of the Census figures, particularly the data on the population seeking work.

With the rapid development Indonesia is now experiencing and in the absence of periodic household surveys or reliable administrative data collection, the pressure for current data about the labor supply as well as information on labor utilization is very great. The need for labor force data and the importance of organizing periodic household labor force surveys has been recognized by Indonesian development planners and policy makers. The decision to conduct such surveys is particularly important for measuring the effects on employment of Indonesia’s first and second Five-Year Development Programs as well as for providing the basis for planning the third Five-Year Development Program.

Since the concepts, definitions, and measurement procedures of employment and unemployment developed and used by the highly industrialized countries cannot adequately depict the real employment situation in a developing country like Indonesia, a specially designed survey with refined concepts and definitions adjusted for Indonesia is required. In this connection, the labor utilization approach developed by Hauser and the CAMS-ODA approach (see Sullivan, 1974) are important references.

Pilot survey

Late in 1975 a pilot labor force survey was conducted by CBS with funds provided by the Department of Manpower, Transmigration, and Cooperation. The survey had three objectives:

• to test the adequacy of the questionnaires with the concepts, definitions, and measurement procedures of employment, unemployment, and underemployment for adoption in the national labor force survey;

• to study the organization and method of training field enumerators and supervisors and data processing for possible adoption in the national labor force survey; and

• to experiment with suitable methods of analysis and interpretation of the data.

In order to accomplish these objectives a rather large sample was required. Four thousand households were enumerated in five urban areas and five rural areas located in four provinces—East Java, Central Java, West Java, and South Sumatra. The data were processed and tabulated for the analysis.

This pilot survey was conducted in November-December 1975, which is the period generally considered to be the busy agricultural season in most parts of the country; thus it was expected that the pilot results would show a very high employment rate in rural areas (see also Sigit and Suharto, 1976). Another study using basically the same set of questionnaires was conducted in February-March 1976 by the National Institute of Economic and Social Studies (LEKNAS) with funds provided by the USAID. This study was carried out during the slack season and although LEKNAS surveyed only Java, about 2,400 households that were enumerated during the peak agricultural season by the CBS enumerators were revisited during the slack season by LEKNAS enumerators. This exercise made possible by the coordinated efforts of the institutions concerned with employment data in Indonesia under a high-level national steering committee. Further analysis of both sources of data is now being carried out separately; it would also be very useful to analyze the data by matching households to provide seasonal comparisons.

The Benchmark Survey

In early 1976 a plan was finalized for the national labor force statistical system. In general a large national labor force survey will be conducted which will be used as benchmark data; then quarterly labor force surveys will measure the changes in levels of employment (and underemployment) activity. Unlike many other countries, Indonesia has never before conducted a continuous quarterly survey. It is expected that a large survey such as the Benchmark Survey may need to be repeated every three or five years.
In 1976 CBS also carried out a national survey on consumption and expenditure. The survey was carried out in three four-month rounds—January-April, May-August, and September-December 1976. It was then decided that the National Labor Force Survey should be integrated with the Consumption and Expenditure Survey on the third sub-round. There were two important reasons for the integration of the two projects. First was the organizational aspect: since both surveys were to be nationwide and would involve all 26 provincial offices, it would be more economical to integrate the two surveys. The second reason was more academic; it would be very valuable if we could relate the information by means of cross-tabulations between the labor force information and the consumption and expenditure behavior of the household. Such cross-tabulations should refine the measurement of the underutilization of the labor force in terms of income; in addition these rare data would also attract researchers who could analyze household income-level distribution and make other household socioeconomic studies. The sample size of the Benchmark Survey was 96,000 households; the Consumption and Expenditure Survey was a subsample of 15,000 households drawn from the Benchmark sample. The total sample is divided into four equal subsamples, one of which was interviewed each month from September to December.

The Consumption and Expenditure Survey questionnaire contained questions about the quantity and value of almost 200 consumer and expenditure items, including food, clothing, housing, medical expenses, school, and recreation.

The Benchmark Survey is now completed and processing is being carried out. The tabulation plans have been designed for provincial and urban-rural breakdowns; further analysis is also planned which includes the Hauser Labor Utilization techniques.

The questionnaires

In order to study the level of utilization of labor, one of the most important variables needed—but one of the most difficult to measure—is income. Several surveys in the past collected income data, but none has produced reliable results. In 1969–71 a Cost of Living Survey produced for the first time relatively good income estimates by having households keep diaries of expenditures. This survey was aimed at developing a new consumption pattern of the households in urban areas for the purpose of improving the weights for the Consumer Price Index of Indonesia. A survey such as this, although it can produce better income data, is very costly and time consuming, requires tight supervision, and must be carefully edited and processed. It is not economical, therefore, to conduct a very large survey or frequent periodical surveys using this approach. It is still very important to obtain, however, as reliably as possible, the level of income of the household as well as individual income. On the other hand, it should also always be borne in mind that the questionnaire must be as simple as possible to reduce the non-sampling error due to enumeration difficulties. The questionnaires consist of two forms, Form I for the household information and Form II for the individual member information.

Form I consists of four sections; the information collected under each section is listed below.

Section IA: Identification of household. Province, regencies/municipality, sub-district, village, census block number, building number, household number, total number of household members ten years old or older. (This number will be used to check that a Form II has been filled out for each eligible household member.)

Section IB: Information on household members. Serial number, name of member usually residing in the household, relationship to head of household, age, and whether still in school.

Section IC: Economic condition of the household. Floor-space of house; construction material of floor, walls, and roof; sources of drinking water and water for other uses; location of source of water; type of lighting; type of various durable goods possessed by the household; whether these goods are strictly for own use or also used for household economic activities; and sources of income of the household (agriculture, industry/cottage industry, trade, transportation, services and other government offices, or other sources including pension). In this part of the questionnaire the income earner in the household is classified either as employer or employee. A separate question ("What is the main source of income for this household?") is used to classify (on usual-status basis) agricultural and nonagricultural households by sources. Based on this designation, certain types of questions are asked.

Section ID: Agricultural household information. The questions in this section are directed only to the agricultural households, that is, to those households having agriculture as one of the income sources. Questions asked include size of land owned, rented, or rented out (in order to obtain the size of land held or operated). This land is classified as wetland, dryland, or fishing area. Other questions are whether irrigation is used and the amount of land irrigated; total number of livestock and poultry; type of farm implements owned; types of farm products produced by the household in units of production and estimated price per unit; and the cost of production including share of crops for landowner and expenditures for seeds, fertilizers, labor, animals (if rented), and other costs. Section D is aimed at capturing the most difficult household income information in the agriculture sector. During the pilot survey, many small farm households interviewed reported having negative incomes. This situation was a result of underreporting production of farm products that were directly consumed.

Form II is directed to all members of the household ten years old or older and consists of eight sections.

Section IIA: Identification of individual. This section is the same as IA except that the line number of the household member is added.

Section IIB: Information on individual. Some of the same information collected in Section IB is repeated here for processing purposes. Questions ask name, sex, age, relation to head of household, school attendance, place of birth, marital status, educational attainment, field of education, and type of short courses taken or training received (for at least two months). It was stressed that these courses should include all courses taken to increase the work capacity or to enable the respondent to find a job or a better job. This was stressed to differentiate between courses that might have been taken for a hobby, leisure, or other noneconomic purposes.

Section IIC: Activity during the past seven days. Each respondent was asked about his daily activities during the past seven days, starting with the day before the interview and working backward. The activities were classified as follows: working, with number of hours specified (C1); not working last week but has a job (C2); seeking work (C3); attending school (C4); doing household work (C5); and other (C6). The answers were recorded in tabular form as shown below. It should be noted that the classifications are not mutually exclusive.
Activity during the past seven days

<table>
<thead>
<tr>
<th>Days</th>
<th>C₁</th>
<th>C₂</th>
<th>C₃</th>
<th>C₄</th>
<th>C₅</th>
<th>C₆</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yesterday*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day before yesterday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 days ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 days ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 days ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 days ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 days ago</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Name of day.
b Total number of hours for C₁ and total number of checks for C₂ to C₆.

The questionnaire is designed so that there are three arrows pointing from Section IIC to the next set of appropriate questions to be asked, either to IID and IIE or to IIF or to IIG or to any combination depending on the respondent's activities during the past seven days. If any of the boxes in C₁ or C₂ are checked, then questions in Sections IID and IIE must be asked; if any of the boxes in C₃ are checked, regardless of what is checked in C₁ and C₂, IIF must be asked. Section IIG is asked only if one or more of the boxes in C₄, C₅, or C₆ is checked and none in C₁, C₂, and C₃ is checked. Different parts of the questionnaire were shaded to assist the interviewer and reduce the possibility of errors.

Section IID: Main activities. This section was completed if the respondent did any work during the past seven days or if he or she was not working but had a job. Information was collected about respondent's main activity, industry, occupation, status, number of employees (if fewer than 10 persons, number of unpaid family workers), location of work (inside or outside the household), total number of hours during the past seven days spent on this job, and net income from this job during the last month (not including farm income in Form I) in cash and in kind. If the respondent is not currently working, the reason for not working was asked.

Section IIE: Secondary activities. This section begins with the question, “Is the job you just mentioned the only job you have?” If the answer is no, the same information sought in Section IID is collected here for the secondary activities. There is yet another question on whether the respondent has any other job and, if he has, the total net income he receives from all his other activities. If he has only one job then he is asked “Do you still have time and are you willing to accept more work?”

Section IIF: Seeking work. This section is intended for those looking for work during the past seven days. Persons seeking work include those who were waiting to be called to work and those who have been looking for work although during the last week they were not physically active in looking for work. As mentioned earlier, the entries of Section IIE were not mutually exclusive and therefore people looking for work could also be those who already had a job and did some work during the past seven days. The information gathered in this section includes length of time respondent has been looking for work and means of support while looking for work (the possible answers are working, occasionally working or assisted by relatives or friends, or other means). If the respondent was currently working he was asked why he was looking for more work. If he was assisted by other people he was asked if he had ever worked before; if he had, he was asked the reason for not working any more. All respondents were asked whether they were looking for a full-time job or a part-time job and what effort they had made to find a job.

Section IIG: Non-economically active population. This section was asked only if the respondent had not done any work during the past seven days and was not looking for work. Respondents asked these questions were going to school, doing household work, or “other” (retired, disabled, and so forth). Included in this section were questions on whether the respondent had been looking for work in the past three months and, if not, why not. The purpose of this last question was to capture data on some of the discouraged workers. Possible answers were “not willing to work,” “have not thought of getting a job,” and “other”; respondents in the last two categories were asked if there were any suitable job they would accept. All respondents were asked whether they had ever worked before; if so, how long ago; and the reasons they stopped working.

Section III: The usual activities. Questions in this section inquired of all respondents their activities during the last twelve months. Working respondents were asked questions about the industry, occupation, status, average monthly income during the last year from main activities and secondary activities, and all other earnings such as rent, dividends, and pensions. There was also space on the form for the interviewer to note if after three calls the respondent could not be contacted and the information was supplied by other members of the household.

The Quarterly Survey
The Quarterly Labor Force Survey will be initiated with the first quarter of 1977. As mentioned earlier, the main aim of this survey is to measure the changes in the level of employment, unemployment, and underemployment in relation to the changes in income level. The amount of information collected is about half of that of the Benchmark Survey. Form I contains only questions similar to Sections IA, IB, and ID whereas Form II contains only questions similar to IIC, IID, IIF, and IIG. Wherever possible simplification was made.

Although currently the total sample size is very large (one year sample size is the same as that of the Benchmark Survey), there is a strong possibility that the size of the sample will be reduced. A reduction will make it possible to produce the survey results in a relatively short time and
New Thai census reports

The first of the subject reports of the 1970 Population and Housing Census of Thailand has been published by the National Statistical Office, Bangkok. The report, Economic Characteristics, was prepared by Fred Arnold and Supani Boonpratuang using a 2 percent sample tape of the data obtained in the census. The report focuses on the economic activity of Thailand's population in 1970, but some comparisons are made with previous years. Data published in the report permit comparative analyses for different regions within the country. Written in Thai and English, Economic Characteristics contains 39 tables on economic activity. It should prove to be a valuable resource for governmental and private agencies that need basic demographic data to plan Thailand's social and economic development.

A few highlights from the report: Thailand has one of the highest rates of economic activity in the world. In April 1970, three out of every four persons aged 11 and over were employed. Part of the explanation for this is the predominance of agriculture in Thailand and the fact that large numbers of women are employed on family farms. According to available data, Thailand is second only to Nepal in Asia as the country with the largest proportion of its work force in agriculture. Although the overall percentage of agricultural workers has dropped—from 84.8 in 1947 to 77.5 in 1970—three out of four economically active Thais are still employed in agriculture. The rate of unemployment in April 1970 was a low 1.3 percent, a rate that many developed countries might well envy. The simplified definition of unemployment used in the census, however, does not account for or measure underemployment, which can be a vital factor in determining economic well-being.

Changes in the importance of various occupations over time have been accompanied by changes in the sex composition of workers in these sectors. The authors note some of the traditionally male occupations in which women are beginning to be represented.

This report, and the other subject reports on fertility and migration to be published later, can be obtained from the National Statistical Office, Office of the Prime Minister, Bangkok, Thailand.

Another new release from the National Statistical Office is The Survey of Migration in Bangkok Metropolitan, 1974, the first of a series of monographs based on a sample survey of migrants to the Bangkok metropolitan area. The sample survey, conducted in 1974 by the National Statistical Office, obtained data by interviewing 3,136 households that had reported migrants living there in an earlier survey (November 1973). Information was collected about 6,857 migrants who had moved into the Bangkok metropolitan between November 1972 and June 1974.

Results of the survey indicated that 2 percent of the Bangkok population—70,600 persons—were estimated to have migrated to Bangkok during the period. Migrants tended to be young—85 percent were under 30—and unmarried. Nearly three-quarters of the migrants had been farmers before they moved; most came to Bangkok from villages in the Northeast or Central Plains region. More than half of those interviewed said they came to Bangkok to find work. Another 25 percent moved for family reasons, and 12 percent came to study there. The labor force participation rates of the migrants interviewed were higher than those of the total population except in the oldest age group.

Despite the fact that migrants in any one year constitute only a small proportion of Bangkok's total population, the 1970 Census revealed that about 35 percent of Bangkok's population was born outside the city. Although migrants have been assimilated into the work force of the metropolis, they have had to make adjustments in their life styles. Such significant changes may present situations for sociological study and concern.

The report, written in Thai and English, contains numerous statistical tables on the migrants; it is also available from the National Statistical Office.

Indonesian fertility and mortality estimates

The Central Bureau of Statistics (CBS) in Jakarta has released the first of a series of research papers resulting from a cooperative project between CBS and the East-West Population Institute with support from the Ford Foundation. Estimates of Fertility and Mortality in Indonesia (Perkiraan Angka Kelahiran dan Kematian di Indonesia) was written by Lee-Jay Cho, Sam Suharto, Geoffrey McNicol, and S.G. Made Mamas. The authors used information derived from the 1971 Population Census of Indonesia to prepare detailed estimates of Indonesian fertility and mortality. Tables present fertility and mortality data by province for all Indonesia and fertility data by regency or municipality for Java. Estimates for certain major socioeconomic divisions are also given. All data refer to the decade 1961–70 and to various subperiods within this time span.

These estimates are important for development planning in Indonesia because they will permit statisticians to make some predictions about future population trends. Since Indonesia is still in the process of improving its vital registration system, it is especially important to make the best possible use of census data for development planning. The report includes a description of the methodology utilized, including the own-children technique developed by Cho, and a series of tables. A monograph evaluating the data and analyzing recent population growth in Indonesia is being prepared by the same authors. Estimates of Fertility and Mortality in Indonesia is written in Indonesian and English.
and is available from the Central Bureau of Statistics, Jakarta, Indonesia.

New monograph on Indian age structure

During his 1971–72 Senior Fellowship at the East-West Population Institute, Professor S.B. Mukherjee compiled a vast amount of data from nine successive censuses of India (1881–1961) and constructed a consistent series of age and sex distributions for the entire period for 29 uniformly defined states and territories of contemporary India. The result of his labors is a monograph, *The Age Distribution of the Indian Population: A Reconstruction for the States and Territories, 1881–1961*, published by the Institute in the fall of 1976. Mukherjee’s work is important for several reasons. He makes available to demographers, economists, and other social scientists census data from India on age and sex in a convenient and usable form, thereby sparing them long hours of searching through myriad census volumes. He also demonstrates how these reconstructed data can be used to derive estimates of the basic demographic parameters. More than 75 tables, 24 figures, and five maps elucidate the work, and an appendix provides summary age and sex distributions for the decade 1961–71, based on preliminary data from India’s 1971 Census.

As Paul Demeny writes in the book’s foreword, “The synergistic possibilities for demographic analysis inherent in successive census descriptions of the state of a population are truly remarkable. In the hands of the skilled analyst, cross-sectional observations can be transformed into reliable estimates of indices characterizing demographic dynamics.” Mukherjee has mined Indian census data with skill and perseverance, and his results, according to Demeny, “not only will be accepted as an authoritative description of a phenomenon that is of interest in its own right, but will also be utilized in future demographic analyses that require such data as raw material.”

The book costs US$5.00 and is being distributed by the University Press of Hawaii, 2840 Kolowalu Street, Honolulu, Hawaii 96822. A small number of complimentary copies are available to demographic institutions in developing countries from the Publications Office of the East-West Population Institute.

Indonesian Survey (continued from page 9)

Avoid the possible compounding backlog in the processing stage. The data are in such demand that no matter how fast one produces the results, they are always too late. Still, in the end, they are better late than not at all.

The Household Multipurpose Survey

In his recent report Ono (1976) has questioned the proposed life of the Quarterly Labor Force Survey. He points out that there would be future questions as to the need for conducting quarterly surveys after the seasonal data are compiled in the first, or possibly the second, 12-month period. This is a valid question and deserves some consideration. The present CBS plan is to extend the Quarterly Labor Force Survey into a current Household Multipurpose Survey.

The proposal is to have a package of questionnaires consisting of the household core questionnaire, which would contain only five basic pieces of information—name, sex, age, relation to head of household, and school attendance—followed by several module questionnaires such as demographic information, economic activity, consumption and expenditure, education, health, culture, household enter-

mbises, and environment. The frequency of each module to be included and the timing for inclusion of a particular module will be decided after a thorough review of the requirements and needs. It is tentatively planned to use five module questionnaires beginning in the first quarter of 1978; these modules are Labor Force, Consumption and Expenditure (much simplified from the current questionnaire), Social and Culture, Health, and Household Enterprises.

A more detailed plan is currently being made; it is certain, however, that the use of rotational sampling is highly recommended. This sampling scheme is designed so that it will be possible to provide measures of annual changes as well as quarterly changes. The total annual sample size is about 28,000 households; it is divided into four equal quarterly samples. The extension of the Labor Force Survey into the Household Multipurpose Survey will not only streamline the program but also broaden the objectives of the survey as a mechanism for periodically producing various socioeconomic statistics on Indonesian households. □

REFERENCES

