

## MEASUREMENT OF INADEQUATE LABOR UTILIZATION AMONG FILIPINO MALE HOUSEHOLD HEADS\*

By

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The ability of policy makers to devise effective measures and programs of action for specific problems in an economy is greatly affected by the nature of available information. Any data set, given specific subjects, is largely determined by the basic concepts underlying it, the collection practices used, and the analytical framework established.

Data on a nation's work force are among the vital elements in national policy formulation. The concept of "labor force" or the "modern approach" to the productive utilization of manpower developed in the West has served as a guide for the purpose of collection and analysis of work force data in most countries throughout the world. The adoption of this concept and its extensive use in the developing economies have been questioned because the underlying basic assumptions can not realistically be made in these countries.<sup>1</sup> Although there is a growing acceptance of its inapplicability in the developing areas, the fact remains that until a new approach based on a broader knowledge and deeper understanding of the conditions of the region is evolved and accepted, these countries may still avail of the concept for the measurement of their work forces and their utilization. Under these circumstances, therefore, the proposed methodology outlined by Philip M. Hauser in his paper, "Population Change and Development in Manpower, Labour Force, Employment and Income," which is designed to make more effective use of existing data gathered with the use of the "labor force" approach, is significant.<sup>2</sup>

In his paper, Hauser underscores the inability of the "modern approach" to measure underemployment and the link be-

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tween labor underutilization and poverty. He proposes a framework by which three forms of underutilization of labor are identified through a series of cross-tabulations — those inadequately utilized by hours of work, by income and by mismatch of occupational and educational levels. These forms of underutilization when added to the standard measure of unemployment available from the "modern approach" will then constitute the total inadequately utilized labor.

### SOURCE OF DATA

The data for this study came from the National Demographic Surveys (NDS) conducted in May-June 1968 by the University of the Philippines Population Institute in collaboration with the Bureau of the Census and Statistics.

*Sample:* Although there was an attempt to include all persons, ten years and above, in the study it was deemed necessary because of poor income data to limit the analysis to the male household head group which exhibited relatively good quality data.<sup>3</sup> The total weighted size of our chosen sample was 36,804 males composed of 26.1 per cent urban and 73.9 per cent rural dwellers. A weighting factor of 4 was applied to the urban sample and 12 to the rural because of the difference in sampling proportions. The figures when multiplied by 100 will give an estimate of the Philippine population under consideration.

Aside from the quality of data, focusing on the male household heads makes possible a more meaningful use of the Hauser framework for the following reasons: (1) the ability to control for other demographic variables aside from sex and relationship to household head, namely, marital status (97.3% are married) and age 59.5% belong to age group 25-44 years and 32.5% to 45-64), (2) the significance of the male household heads in terms of economic activity when compared with either females or other members of the household unit. It should also be added that whenever weaknesses of concept are noted in studies of the labor force, exceptions are always made for male data as being based on a group which exhibits the most rational pattern of economic behavior.

### METHODOLOGY

Following the categorization scheme laid out in the Hauser paper, members of the labor force were classified into two

groups — adequately utilized and inadequately utilized. Implicit in these categories is the need to establish norms of adequacy along the three dimensions of hours worked, income and skill.

The standard definition of unemployed was used to separate out the employed workers.<sup>4</sup> For the first screening of the employed, the reported number of hours worked during the survey week, the standard adopted was the 40-hour work week which has a legal basis in the Philippines (the "Eight Hour Labor Law") assuming a five-day work week.<sup>5</sup> Using the NDS question on "wanting more work," the workers were then classified as follows:

*Utilized by hours of work* — those who worked 40 hours or more during the survey week and those who may not have worked 40 hours but who did not want more work.

*Utilized inadequately by hours of work* — those who worked less than 40 hours and expressed desire for more work.

With the inadequacy of the use of time dimension in the assessment of the underemployment problem, Hauser incorporates the income approach in the methodology and uses this to further screen out the underutilized sector from those who have been classified as "utilized by hours of work." The primary task for this test is to set the "poverty line" and this was accomplished after several experiments. So as not to introduce bias into the analysis, significant characteristics of the group were controlled and the combination of locale and class of worker was noted to be most effective in maintaining homogeneity in the various income groups. Using these controls, an approximation was made of the status of workers in the relatively modern and traditional sectors of the economy. The wage earner group was composed of 78.3 per cent working in private business while the rest were connected with the government. Non-wage earners, on the other hand, were composed of 98.1 per cent self-employed, 1.7 per cent employers and 0.2 per cent unpaid family workers. Table 1 shows two sets of income cut-offs — the lowest decile income and the lowest quartile income cut-offs. The two sets of standards may have varying usefulness for policy. With the income test, persons who had incomes equal to or below the reference level were considered "utilized inadequately by income" or productivity.

The final screening identifies workers who are experiencing underutilization by use of lower rather than highest skill as obtained by the comparison of present occupation with the highest occupation possible from education or training.

Skill is a value-laden word and therefore there is a problem of its definition and measurement especially with limited data available. The concept of skill was simplified by using the highest educational attainment of individuals as its indicator. Whether or not a person's skill or educational background is adequately utilized is determined by knowing his type of occupation. Occupational categories have been criticized as being poorly defined and unstandardized thus compounding the problem. Using the data available, utilization is based on whether or not the individual's education "matches" his occupation.

When the education-occupation compatibility test was applied a strong positive relationship between the two variables is hypothesized. But upon inspection, the two education-occupation matrices for the two locales found in Tables 2 and 3, (occupations are arranged using ranking of occupations developed by Pullum)<sup>6</sup> a wide dispersion of workers is noticeable along the different educational levels and occupational groupings. Regression analysis when applied to the type of relationship between the variables, resulted in  $r^2$  of .36529 for urban and 0.17305, suggesting their tenuous relationship. Although it may be advanced that the low correlation could be a function of some technical considerations, some findings regarding socio-cultural and economic situation in the Philippines account in part the seemingly weak relationship between education and occupation (See Bacol, Hollnsteiner, Bulatao).

With these findings, making judgments as to whose education is "mismatched" with his occupation could be largely intuitive, so an approximation to this approach is devised to minimize the degree of arbitrariness in the test.

Given the sample composed of male household heads utilized in terms of input and income, the average educational attainment of workers in various occupational groups was calculated. In statistical terms, this would be equivalent to solving for the mean education. These mean educational levels will then be assumed to be the amount of training or skill required for the different occupations. Thus, given one occu-

pational group, those who have an educational attainment equal to the computed mean education are classified as "utilized" while those who have had training higher than the standard are "underutilized". Cases of "overutilization" could likewise be spotted as those wherein workers have less than the required educational background.

The residual after this final test will then comprise the "adequately utilized labor".

## REVIEW OF SOME FINDINGS

In the Philippines, the standard labor force measure of unemployment has commonly been used as an index for evaluation of the performance of the economy. The government has responded in terms of specific measures and policies to provide more job opportunities for those not engaged in productive economic activity. The relative importance placed on the problem of unemployment by policy makers is reflected in the most recent developmental plan, FY 1974-1977, laid out by the National Economic and Development Authority (NEDA). The whole Plan is attuned to the "goal of employment generation. Accordingly, all programs in the Development Plan are directed towards generating more employment opportunities." Though it is an accepted fact that the unemployed represent wasted resources, the examination of its composition reveals findings which may lead one to question the seeming over-reliance on the ability of the unemployment rate to portray the real problem of the work force.

Table 4 gives the structure of unemployment as revealed by the 1968 NDS data. The difference in the magnitude of the rates as computed for specific groups indicates that the problem of unemployment is not a general problem but is concentrated on specific population groups. Significant rates are computed for the younger age groups, 10-14 and 15-24 years, for both sexes residing in both residence groups. These young unemployed are mostly unmarried and are related to the household heads suggesting that the former are mostly dependents enjoying the protection and support of their families. To emphasize this point, Table 5 shows the economic circumstances of the families of these problem groups as evidenced by their incomes. The first income group has low cell frequencies for all groups but they show consistently high rates of unemployment. From incomes of ₱100 and above, one notes that for

the younger unmarried age groups, the unemployment rates increase with increasing family income but this same pattern does not characterize the older age group. This may be interpreted to mean that the problem of the latter group is not so urgent nor as grave as they do not lack family support to see them through no-income periods. The related group also shows a similar trend which is more evident if the income were grouped into two: those less than ₱2000 and those with ₱2000 and over.

The structure of economic activity in the developing countries is said to preclude quantification of idleness within a large sector of their work forces thus, the concept of underemployment was used to supplement this lack. Operationally, this entails classification of workers by hours worked and whether or not more work is desired. The sector where the concept of unemployment is said to be most ineffective is the self-employed group which comprises a large segment of the labor force. Applying the concept of "visible underemployment" (working less than 40 hours but wanting more work) to the NDS data on total labor force, however, reveals that the type of worker greatly affected by this problem is the unpaid family worker. (See Table 6).

Examination of the composition of the unemployed and the underemployed does not account for the seriousness of the problem as most of those who are jobless appear to have a tenuous connection with the labor market and those who are marginally employed and wanting more work are mostly those whose contribution to total economic activity may be considered to be intermittent or sporadic. These findings suggest the need to go beyond the use of a time dimension and thus to examine the circumstance for the remainder of the employed.

#### A. *Unemployment and Inadequate Utilization by Hours of Work*

Employing the first phase of the classification scheme in the Hauser framework resulted in isolating the unemployed and those "inadequately utilized by hours of work" among the male household heads. Table 7 summarizes the performance of this group in both the urban and rural areas as regards utilization by hours of work. With this methodology, it can be seen that both residence groups have about the same measurable degree of utilization by labor input; slightly over 90 per cent of the two groups were composed of those working

40 hours but not wanting additional work. The difference lies in the fact that while there are slightly more urban workers who are working full time, there are more rural workers who have no desire for more work though they are working less than 40 hours. Nearly 6 per cent of urban employed and over 7 per cent of rural employed are classified as underutilized by hours of work. These figures appear significant when compared with their respective unemployment rates of 2.9 per cent and 1.2 per cent.

To give a better perspective on the situation, occupational groups were added to the analysis. For both place-of-residence groups shown on Table 8, the largest proportion utilized is among the white-collar workers composed of professionals, administrators and managers, clerical and sales workers. These workers generally belong to some formal organization and therefore are easily subject to standardization, like hours of work, especially those who are salaried workers or wage earners. Next to the white-collar workers the blue-collar urban dweller group had the greatest number of utilized workers, but the rural-based blue-collar worker represented the smallest proportion of utilized labor. Perhaps, like the white collar job holders, the blue collar workers in urban areas were also affected by standards imposed on workers. Among agricultural workers, those in rural areas fared better than urban workers. The main difference was that more rural workers worked full-time as agricultural workers. Proximity to place of work may have had some influence on this phenomenon.

In each industry we note the differential performance of the two classes of workers (See Table 9). In the agricultural sector, rural wage workers showed less proportions of underutilized labor by hours of work than wage workers in the urban areas, (5.8% vs. 9.5%). This is coupled with a low rate of unemployment: 1.9 per cent for the former as against 7.3 per cent for the latter. For the non-agricultural sector, the reverse is observed. This result was accounted for by the greater proportion of full-time workers among the urban wage workers. The underutilized segment is also considerably lower for urban wage workers with 3.3 per cent working less than 40 hours and wanting more work as compared with 9.1 per cent of the urban non-wage workers. The unemployment rates, however, were lowest for the non-wage rural worker (0.8 per cent).

### B. *Utilized Inadequately by Income*

As is presented in Table 1, the income cut-offs varied widely. With this seeming arbitrariness, therefore, it is most interesting to note that despite such wide variation in values used as reference levels and the magnitudes of the resulting "underutilized" groups, the general characteristics of the "poor" delineated by the lowest decile and lowest quartile cut-offs were similar and consistent.

Table 10 disclosed that 17.9 per cent of those who are wage earners and slightly over 10 per cent of non-wage earners who had agricultural type occupations were "underutilized" in terms of the lowest decile of income while smaller proportions of both types of workers in the white collar (2.7 per cent) and blue collar jobs (8.8 per cent) were in the same category. For the lowest quartile group, the equivalent values are of course larger with 42 per cent among agricultural wage workers and over a quarter of agricultural non-wage workers. However, these figures are much larger when compared with the other occupational groups.

Findings above are consistent with those presented in the two subsequent tables (See Table 11 and 12). For both residence groups, Table 11 revealed that the agricultural industry group was underutilized by a figure which was 4.3 per cent in excess of that of the non-agricultural industry group (7.0%). For the lowest quartile group, the imbalance was maintained as we note 28 per cent of the agricultural group was underutilized by income when compared with only 18.5 per cent outside of agriculture. Table 12 shows that a greater proportion of workers in farm households than non-farm households were underutilized regardless of measure used.

For all sectors, the proportions underutilized among the urban dwellers surpassed that of the rural-based workers. The proportion underutilized among wage earners also exceeded that of non-wage earners. This may have resulted from the relatively higher cut-offs used for urban dwellers and wage workers.

All of these findings revealed the low productivity of agriculture-based economic activities.

Results of studies made on agrarian organization and operation have afforded some insights into the situation. Among



the problem areas pin-pointed by those studies were the need for new variety seeds, new farming techniques and agricultural technology leading to an increase in production,<sup>8</sup> examination of land reform, and some socio-cultural transformations as manifested by attitude towards productivity among tenants and landlords.<sup>9</sup> If these problems are solved, a certain degree of modernization and prosperity may be achieved. One possible by-product of this modernization may be the increase in non-farm employment in the agricultural sectors which is beginning to be observed even at this stage. This is believed to play an important role in the absorption of low skill labor.<sup>10</sup>

Therefore, the agricultural sector merits all the attention because it is not only an important source of income of most of the Filipinos but also because of its potential for labor absorption.

### C. *Inadequate Utilization by Mismatched Occupation*

Establishing the different educational "cut-offs" for each occupation serves as the basis of a classification for "utilized" and "underutilized" workers. The classification of "overutilized" workers is also made, but its interpretation should be approached with caution because as stated earlier, the individual's acquired skill is measured here only in terms of formal education and therefore job training which is a prerequisite to most jobs (not to mention the unquantifiable "self-development") is not reflected in the data. "Overutilized" workers may simply be described as those who have lower educational levels than the other workers of a given occupation.

Tables 13 to 14 classified those who belonged to the upper income quartile group by education. The summary figures for both place-of-residence groups showed that about 40 per cent of the workers being examined were "underutilized" by skill although the distribution of workers across these variables differed for the two areas.<sup>11</sup>

Because of the method employed, it is to be expected that all those belonging to the lowest category, "No Schooling", will be classified as "utilized" on the education criteria. Aside from the technicalities involved here, this result suggests that even with a lack of educational preparation, these workers were able to secure and hold their jobs thus placing them at par with those in the same job types but with formal education.

The largest educational group for both places of residence consisted of those male household heads with elementary school attainment. It should be noted from Table 13 that the urban group had higher proportions of their workers who were "utilized", 94 per cent, when compared with 62 per cent for the rural group. However, a considerable proportion of these workers in both sectors were classified as "overutilized". The large percentage of "underutilized" workers for the rural group may be a reflection of the high concentration of workers in the lower educational groups and consequently, the low mean education computed, so then even those with elementary grade level appeared as "over-educated" for their jobs. The figures may also indicate the fact that the quality of manpower required by rural-based occupations require relatively lower educational preparation than those for the urban areas.

The difference in the proportions "utilized" and "underutilized" for the two areas is also obvious for the high school group with only 6 per cent of the rural population "utilized" as compared with 38 per cent for the urban group. This may be explained in part by the fact that higher school standards in the urban areas enable the urban workers to find themselves in better occupational positions than their rural counterparts. Perhaps even more important than the degree of utilization among the high school educated workers is the degree of underutilization among them. It will follow from the figures cited above that urban workers have a comparatively smaller proportion underutilized but in spite of this, the figure, just like that for the rural group, is quite significant and merits attention. In the Philippines, the secondary schools are beset with problems ranging from financing, poor quality teachers to the need for curricular reforms. The interaction of these factors may have resulted in generally lower high school standards and poorer quality students.

For both residence groups, similar proportions of workers with some college training were classified as "utilized" and "underutilized". This educational group represented those who may have had intentions of specializing in chosen fields or who may have had taken non-degree courses. As suggested above, the rate of underutilization among these workers is also at an alarming level. More than three quarters of this group are not adequately utilized. It cannot be ascertained what proportion of these workers are still pursuing their aim for specialization and in the meantime settling for jobs other

than those in their chosen fields or are in jobs requiring only high school or elementary school training, which may be easily obtainable considering the edge they have over the lesser educated groups. The less-than-college degree trained group may also be partly composed of those who have dropped out of college at the time of interview and therefore cannot qualify for their desired occupations. These observations tend to indicate that a college undergraduate may not be much better off than a person with just a high school background, or that if there is a difference, on-the-job-training may sufficiently compensate for the lack of a college education. To a certain extent, this situation may be reflective of the quality of education offered by Philippine colleges, therefore, the system and the operations of these institutions need to be examined.

Philippine figures on the proportion of the population pursuing higher education when compared with those of other countries, developed or underdeveloped, suggest an over-investment in this level of education in the country. Yet even with this situation, higher education has remained "fat, sluggish, slow to adjustment to national development needs, and expensive."<sup>12</sup> More than one-third of the urban college degree holders are "underutilized" suggesting that despite higher education, these persons find difficulty in obtaining suitable jobs. The proportion is smaller in the rural areas. The size of the sample in this level precludes a detailed study by specific degrees obtained.<sup>13</sup>

This seeming "functional" point of view may of course be questioned by those who may believe that educational benefits should not be viewed in terms of their contribution to economic development but rather in terms of individual development. But as a limited economic approach to human resource development distorts the true meaning of the aspirations of modern man and modern societies, so will a purely humanistic approach. For as long as one accepts that one of the goals of societies is rapid economic growth, there can really be no conflict.<sup>14</sup>

In the Philippines, shortages in school facilities, and instructional materials, questionable quality of teachers, inadequate or uncertain financing, high drop out rates, a large sector in private enterprise, even politics in personnel management and need for curricular reforms reflect this quality problem. Re-definition of goals and strong basic policies are required to solve these problems in the educational system.

Table 15 shows the classification of workers by broad occupational categories. Bearing in mind the methodology, it will be observed that mismatches occurred to such a degree that in most categories, over two-fifths to a half of the workers were reported engaged in occupations which were also undertaken by those with less schooling. For both residence groups, the clerical workers had the greater proportion of underutilized workers followed by the Proprietors and Managers for the urban and Service workers for the rural areas. These observations reflect the heterogeneity of Philippine labor and to an extent, the flexibility of staffing procedures in various industries.

Table 15 also records the percentage "overutilized" which further illustrates the diversity of the occupational structure. To what extent the figure reflect low skill-low productivity-low wage cost for employers is a good area for study.

With the use of the education-occupation compatibility test, the supply side of the educated manpower was examined. Some slight indications of the demand for such manpower were given. The findings underscore the need to integrate educational planning and manpower planning so as to minimize imbalance. There should be correspondence between the educational quality of labor supply as expressed in terms of formal schooling completed and the demand for labor expressed in terms of specific skills and job qualifications.

#### *A Note on Multiple Underutilization*

The tabulations that have been made reflect the fact that the categories of inadequately utilized labor derived with the use of the Hauser methodology are defined as mutually exclusive. A person is counted as underutilized only once even if he may actually be experiencing two or all three types of underutilization. It has been shown that the framework can give valuable data which describe the nature and extent of the employment problem. But perhaps it may also be helpful to have additional information on multiple underutilization among the workers.

#### *METHODOLOGY*

To identify the workers who experienced more than one type of underutilization, the following is required:

1. apply the income test to those classified as underutilized by labor input. The two income groups that result from this (lowest and upper three quartiles) will be further tested for education-occupation compatibility.
2. test those classified as utilized by hours of work but not by income for education-occupation compatibility.

In these additional screenings, standards are determined in the same manner as outlined in deriving the first set of information, i.e., they are computed for each group in question.

A diagrammatic presentation of the final results may be seen in Figure 1. The broken lines separate the additional categories from the first set of categories which are found to the left of and above the lines. The disaggregation of the inadequately utilized workers into the additional categories further reveals the complexity of the problem of the Philippine labor force. More than 12 per cent of the workers experience two or more types of underutilization. It will be observed, however, that except for the additional category "utilized" inadequately by income and mismatch occupation", the original set of categories characterizing the type of underutilization still contains the majority of these workers. This is primarily the result of the methodology employed in the classification of workers. Perhaps this is an indication that the extension of the Hauser framework may be unnecessary although it serves as basis for the belief that workers are possibly underutilized by more than one criterion. It should be stated here that this additional exercise demonstrates the fact that data gathered through the labor force approach can be more useful given an effective framework.

As the flow of operation is traced in Figure 1, one basic feature of the framework is made evident — a built-in priority system as implied by the order of tests. Inadequately utilized workers are identified and segregated from the rest of the workers in a manner that seems to give emphasis to what is felt to be the most immediate type of underutilization experienced by the individual workers. First identified are the unemployed, who together with those marginally employed represents a group in need of more employment opportunities. Then among those working a sufficient number of hours may be found those whose incomes need to be increased and finally, among these meeting the standards of hours of work and in-

come are those who need jobs that will demand a fuller utilization of their skills.

The orientation towards policy of the Hauser framework is manifest in this priority system as the different groups of workers that result in this classification scheme represent definite types of problem areas.

Discussion of the characteristics of the workers classified as inadequately utilized in the previous sections implies three broad areas of policy with direct bearing on the question of labor utilization — labor and social legislation, agrarian and industrial policies, and manpower and educational policies. A review of the existing policies in the Philippines will reveal that the economy is not lacking specific policies designed to alleviate the problem of utilization. What is needed perhaps is a more intensive implementation of these policies and the recognition of the fact that a graver problem of underutilization of a large portion of the labor faces the Philippine labor force.

This is the real value of the Hauser framework because by offering this segmented view of the question of underutilization among workers, the problem may best be understood and policy makers may be better guided in their formulation of solutions to the problem.

TABLE 1  
PERCENTAGE OF WORKERS UNDERUTILIZED BY  
INCOME USING DIFFERENT POVERTY STANDARDS

Local/Class of Worker Income Standard	Income/Year	Number	% of Total
	P	n'	%
Urban/Wage			
a. Lowest Decile	800	540	9.97
b. Lowest Quartile	1,599	1,348	24.91
Urban/Non-wage			
a. Lowest Decile	300	252	9.43
b. Lowest Quartile	600	660	24.70
Rural/Wage			
a. Lowest Decile	360	456	9.94
b. Lowest Quartile	599	1,140	24.87
Rural/Non-wage			
a. Lowest Decile	160	1,860	9.91
b. Lowest Quartile	349	4,740	25.26

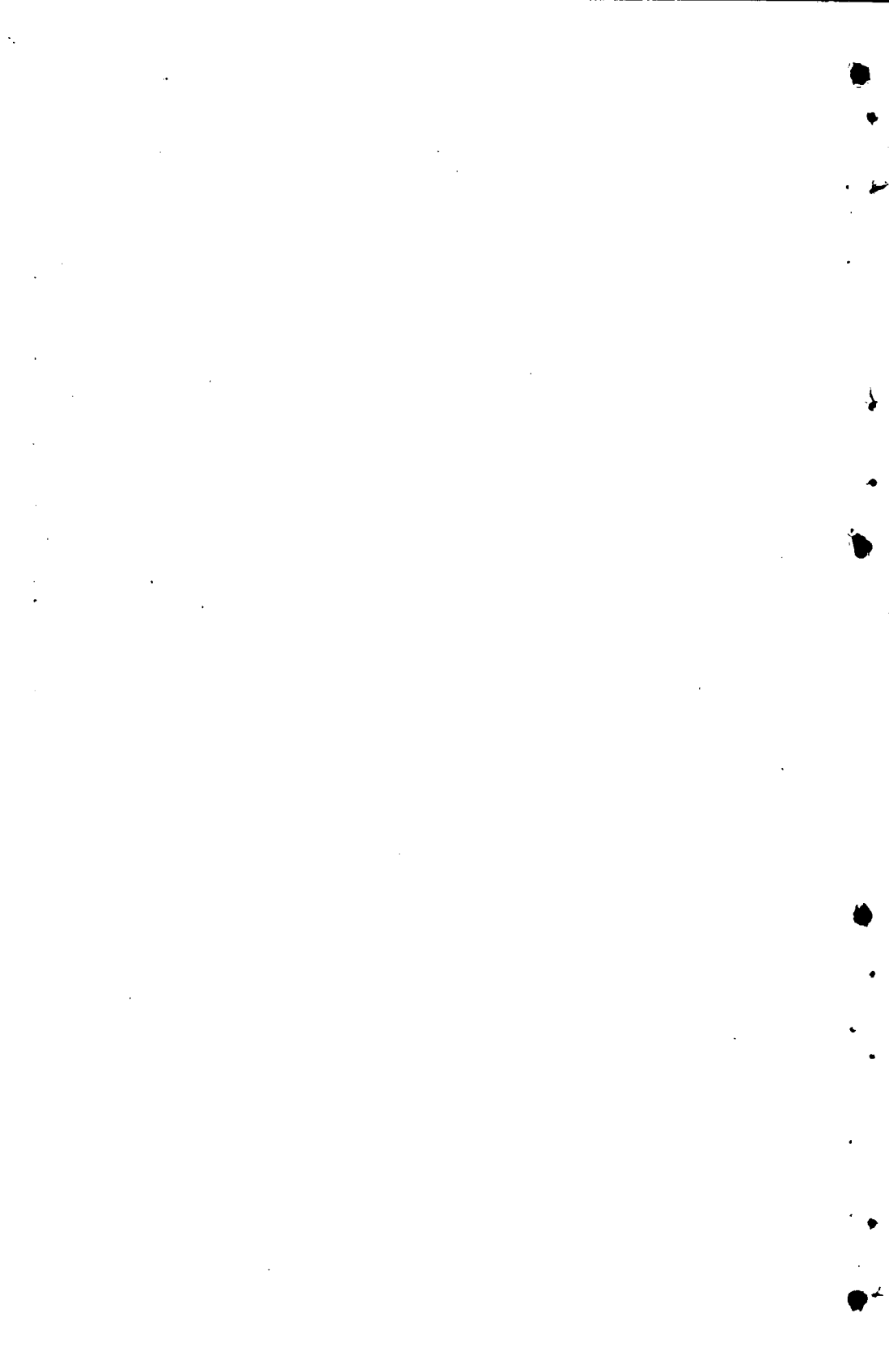


TABLE 2  
 MALE HOUSEHOLD HEADS UTILIZED BY LABOR INPUT  
 AND INCOME CLASSIFIED BY OCCUPATION AND  
 EDUCATIONAL ATTAINMENT (URBAN)

OCCUPATION	EDUCATION	No. Sch.	Elementary				Acad. High School				Voc. H.S.	College				College Degree	TOTAL		
			1	2	3	4	5	6	1	2		3	4	1	2			3	4
1. Medical Workers																	48	48	
2. Professors and School Officials																	8	8	
3. Social Scientists															16		52	68	
4. Engineers																	80	80	
5. Lawyers, Judges																	72	72	
6. Gov't. Officials										4		4				8	20	36	
7. Natural Scientists																	12	12	
8. Instructors, Teachers											4			8	4	64	92	172	
9. Bookkeepers					4			4				4	8	4	12	24	12	24	96
10. Other Natural Scientists											4			8	4	8	8		32
11. General Clerks		4			4	4	32	8	8	4	80			12	36	40	56	56	344
12. Stenographers, Office Mach.											4				24		8	20	72
13. Protective Service			4		12		36	20	12	16	128		20	28	32	36	36	36	380
14. Other Professionals							16				12			4	8	8			48
15. Proprietors, Managers		12		4	16	32	12	112	28	8	20	104	4	4	20	20	36	100	532
16. Wholesale and Other Salesmen				4		4		8			4	28			4	12	16	12	92
17. Clerical in Trans. & Comm.					4		12			8	20	20		4	20		8	4	100
18. Skilled Craftsmen							8				8	32	4				4	4	56
19. Craftsmen in Const. & Maint.				4	12	12	4	72	8	16	36	64	8	16	12	8	4		276
20. Cutters, Sewers			4			8	12	56	4		12	32			4		4		136
21. Spinners, Weavers			4				4	4				4		8					24
22. Retail Salesmen		28		16	20	24	16	44	24	12	8	44	4	8	8	4	16		276



TABLE 2  
 MALE HOUSEHOLD HEADS UTILIZED BY LABOR INPUT  
 AND INCOME CLASSIFIED BY OCCUPATIONS AND  
 EDUCATIONAL ATTAINMENT-Cont'd.  
 (URBAN)

OCCUPATION	EDUCATION No. Sch.	Elementary					Acad. High School				Voc. H.S.	College				College Degree	TOTAL	
		1	2	3	4	5	6	1	2	3		4	1	2	3			4
23. Locomotive, shipworkers	4				4		12				8			4		8	16	56
24. Workers in non- prod. mech.		4			8	4	16	12	4	4	12	4						68
25. Service workers- waiters	16		8	4	8	12	68	12	20	4	24		4		4		4	188
26. Drivers	4	4	8	20	64	36	172	64	60	44	112	4	8	4	8	12		624
27. Collectors, Transp. Conductors						8	8		4		32				4	4	4	64
28. Service in Private HH							8		4									12
29. Carpenters	8	8	4		64	32	96	16	8	8	48		4					300
30. Mechanics and Metal Workers	4		4		12	8	48	20	44	16	80	8	4	16	8	12		284
31. Other Craftsmen		4	8	4	20	8	44	8	12	20	48		4	12		4		196
32. Food & Copra Workers	4			4	8	20	8				12							56
33. Loggers	4					4	8				8							24
34. Barbers, Beauticians		4		4	12	4	8		12		28				4			76
35. Manual Workers			4	16	16	8	64	4	20	12	48			4				196
36. Miners, Quarrymen				4	4		4		4		8							24
37. Farm Owners	20	4	12	36	52	36	76	8	16	24	24		8	12				328
38. Farm Managers			4								4							8
39. Farm Part-owners		4	4	4	8	8	4		4		4							40
40. Fishermen, Hunters	12	8	32	20	36	12	72			20	4							216
41. Farm Tenants	32	12	20	40	64	32	60	16	12	8	12			4			4	316
42. Laborers	4		4	4	12						4							28
TOTAL	156	60	144	208	496	284	1184	252	292	304	1088	36	120	244	188	340	668	6064

TABLE 3  
HALE HOUSEHOLD HEADS UTILIZED BY LABOR INPUT  
AND INCOME CLASSIFIED BY OCCUPATION AND  
EDUCATIONAL ATTAINMENT (URBAN)

OCCUPATION	EDUCATION	No. Sch.	Elementary				Acad. High School				Voc. H.S.	College				College Degree	TOTAL		
			1	2	3	4	5	6	1	2		3	4	1	2			3	4
1. Medical workers																	36	36	
2. Professors and School Officials																		0	
3. Social Scientists																	12	12	
4. Engineers																	12	12	
5. Lawyers, Judges																	24	24	
6. Gov't. Officials								12			36		12					60	
7. Natural Scientists																	24	24	
8. Instructors, Teachers																24	24	48	
9. Bookkeepers																12	12	36	
10. Other Natural Scientist																	24	24	
11. General Clerks						12				12							36	120	
12. Stenographers, Office Mach. Operators																	12	12	
13. Protective Service					24	12	24		12	12	12	60	12	12			12	192	
14. Other Professionals																	12	12	
15. Proprietors, Managers		24		12	24	36				84		12	12	48			12	12	276
16. Wholesale and Other Salesmen						12	12							12			12		48
17. Clerical in Transp. & Comm.														12					12
18. Skilled Craftsmen					12					12									24
19. Craftsmen in Const. & Maint.					12		12	12			12		12		12				72
20. Cutters, Sewers							12	24			12		12	12					72
21. Spinners, Weavers		24						12	24				12				12		84
22. Retail Salesmen		48	12		24	72	36	24			12	24	24						276

TABLE 3  
 MALE HOUSEHOLD HEADS UTILIZED BY LABOR INPUT  
 AND INCOME CLASSIFIED BY OCCUPATION AND  
 EDUCATIONAL ATTAINMENT-Cont'd.  
 (RURAL)

OCCUPATION	EDUCATION	No. Sch.	Elementary						Acad. High School				Voc. H.S.	College				TOTAL		
			1	2	3	4	5	6	1	2	3	4		1	2	3	4		College Degree	
23. Locomotive, shipworkers		12						12	12											36
24. Workers in non-prod. mech.						24			12											36
25. Service workers-waiters						12			24		24		12	12						84
26. Drivers				36	12	72		24	132		12		36	12	60					396
27. Collectors, Transp. Conductors			12				24						24	12						72
28. Service in Private HH						12														12
29. Carpenters		24		12	24	84		60	96		24			24	12			12		360
30. Mechanics and Metal Workers		24						12	48		12		12	24	12				12	168
31. Other Craftsmen		12				24		12	36					24						108
32. Food & Copra Workers							12				12									36
33. Loggers		48		12				36	48				12	12						168
34. Barbers, Beauticians		12					12							12						36
35. Manual Workers		48					72	12	48		24		12		36					252
36. Miners, Quarrymen					36	12	12	12	36											96
37. Farm Owners		936	192	552	528	876	384	912	96	108	84	120		24		12	12	12		4848
38. Farm Managers		12		12			12		12					12						72
39. Farm Part-owners		156	24	48	48	180	108	156	12	24	12	48				12				828
40. Fishermen, Hunters		204	36	96	132	228	108	204	48	24	12	48		12	12					1164
41. Farm Tenants		972	252	600	732	1236	672	1248	120	108	48	96		24	24					6132
42. Laborers		156	12	108	60	192	108	336	24		24	12								1032
TOTAL		2712	540	1500	1644	3228	1668	3576	384	432	312	816	72	108	96	24	120	180		17412

## STRUCTURE OF EMPLOYMENT

### TOTAL

(7.6%)  
7,384  
97,296

### A. URBAN

(12.8%)  
3,172  
24,792

Male					Female				
(12.3%)					(13.7%)				
1,884					1,288				
15,364					9,428				
Age					Age				
/	/	/	/	/	/	/	/	/	/
10	15	25	45	65	10	15	25	45	65
(21.2%)	(30.4%)	(5.0%)	(3.2%)	(4.6%)	(16.2%)	(22.6%)	(7.9%)	(7.1%)	(0.0%)
<u>156</u>	<u>1,268</u>	<u>332</u>	<u>112</u>	<u>16</u>	<u>76</u>	<u>804</u>	<u>300</u>	<u>108</u>	<u>0</u>
736	4,164	6,640	3,476	348	468	3,560	3,784	1,528	88

### B. RURAL

(5.8%)  
4,212  
72,505

					Female				
					(8.7%)				
					2,220				
					25,608				
Age					Age				
/	/	/	/	/	/	/	/	/	/
10	15	25	45	65	10	15	25	45	65
(6.6%)	(9.0%)	(1.4%)	(1.8%)	(2.6%)	(11.5%)	(14.1%)	(5.7%)	(4.1%)	(9.5%)
<u>324</u>	<u>1,152</u>	<u>264</u>	<u>156</u>	<u>36</u>	<u>336</u>	<u>1,092</u>	<u>588</u>	<u>180</u>	<u>24</u>
5,844	12,816	18,276	8,556	1,404	2,916	7,728	10,284	4,428	252



TABLE 5  
 RATES OF UNEMPLOYMENT OF SINGLE AND RELATED  
 TO HOUSEHOLD HEAD WORKERS CLASSIFIED  
 BY FAMILY INCOME, AGE AND SEX

Unemployed	Family Income					
	₱100	₱100- 499	₱500- 999	₱1000- 1999	₱2000- 4999	₱5000 and over
Single Age						
10	30.43	7.73	7.73	10.12	15.24	15.21
15	20.75	11.48	15.35	12.41	27.20	27.57
25+	25.00	5.08	6.94	9.96	8.94	6.32
Total	24.07	9.43	11.94	11.56	21.68	21.43
(N)	(104)	(704)	(1108)	(1252)	(1708)	(596)
Related to Household Heads Sex						
M	23.07	9.39	10.40	10.20	20.52	19.09
F	16.66	9.88	15.73	14.72	24.21	23.89
Total	21.29	9.56	12.25	11.82	21.93	21.13
(N)	(92)	(676)	(1008)	(1252)	(1684)	(584)

**TABLE 6**  
**PERCENTAGE DISTRIBUTION OF EMPLOYED BY HOURS**  
**WORKED BY DESIRE FOR MORE WORK, BY THOSE**  
**LOOKING FOR MORE WORK BY CLASS OF WORKER,**

Class of Worker	-40 Hours			TOTAL	
	Want More Hours	Not Want More Hours	40+ Hours		
Male					
Wage, Priv. Bus.	9.7	8.9	82.2	100.0	(15,328)
Wage, Government	2.8	9.9	87.3	100.0	( 2,912)
Own Business	8.9	10.4	80.7	100.0	(26,300)
Employer	5.8	7.5	86.7	100.0	( 480)
Unpaid Family Worker	19.6	34.6	45.8	100.0	(13,248)
All	11.2	15.3	73.5	100.0	(58,268)
Female					
Wage, Priv. Bus.	18.4	17.8	63.8	100.0	( 7,996)
Wage, Government	1.0	62.6	36.4	100.0	( 1,604)
Own Business	19.8	31.6	48.6	100.0	( 7,848)
Employer	17.7	37.2	45.1	100.0	( 204)
Unpaid Family Worker	21.6	43.8	34.6	100.0	(13,776)
All	19.2	35.1	45.7	100.0	(31,428)
Total					
Wage, Priv. Bus.	12.7	11.4	75.9	100.0	(23,324)
Wage, Government	2.1	28.6	69.3	100.0	( 4,516)
Own Business	11.4	15.3	73.3	100.0	(34,148)
Employer	9.3	16.4	74.3	100.0	( 684)
Unpaid Family Worker	20.6	39.3	40.1	100.0	(27,024)
All	14.0	22.2	63.8	100.0	(89,696)

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TABLE 7  
 MALE HOUSEHOLD HEADS  
 LABOR FORCE STATUS, BY LOCALE BY CLASS  
 OF WORKER

Labor Force Status	CLASS OF WORKER					
	Wage worker		Non-wage worker		Total*	
	Urban	Rural	Urban	Rural	Urban	Rural
Unemployed	(2.91)	(2.69)	(2.96)	(.82)	(2.93)	(1.19)
Employed						
—40 hrs. want	(3.82)	(5.83)	(9.59)	(7.72)	(5.86)	(7.34)
—40 hrs. not want	(5.44)	(5.38)	(8.28)	(10.31)	(6.45)	(9.34)
40+ hrs.	(87.82)	(86.10)	(79.17)	(81.15)	(84.76)	(82.12)
Total in LF	(99.99)	(100.00)	(100.00)	(100.00)	(100.00)	(99.99)
N	6,176	5,352	3,380	21,768	9,556	27,120

\*Less NR = .16%



TABLE 8  
 MALE HOUSEHOLD HEADS  
 LABOR FORCE STATUS BY LOCALE BY CLASS  
 OF WORKER BY OCCUPATION

Occupation LF Status	CLASS OF WORKER					
	Wage worker		Non-wage worker		Total*	
	Urban	Rural	Urban	Rural	Urban	Rural
White Collar						
Unemployed	(2.54)	(4.22)	(1.26)	( —)	(2.38)	(3.37)
Employed						
—40 want	(2.18)	(2.82)	(6.33)	(11.11)	(2.70)	(4.49)
—40 not want	(8.18)	(11.27)	(6.33)	—	(7.95)	(8.99)
40+ hours	(87.09)	(81.69)	(86.08)	(88.89)	(86.89)	(83.15)
All	(99.99)	(100.00)	(100.00)	(100.00)	(99.99)	(100.00)
N	2,200	852	316	216	2,516	1,068
Blue Collar						
Unemployed	(2.71)	(2.73)	(3.00)	( .99)	(2.79)	(2.11)
Employed						
—40 want	(4.18)	(6.56)	(9.61)	(10.89)	(5.66)	(8.10)
—40 not want	(3.73)	(2.19)	(3.60)	(8.91)	(3.69)	(4.88)
40+ hours	(89.38)	(88.52)	(83.78)	(79.24)	(87.85)	(85.21)
All	(100.00)	(100.00)	(99.99)	(100.00)	(99.99)	(100.00)
N	3,540	2,196	1,332	1,212	4,872	3,408
Agricultural						
Unemployed	(6.48)	(2.08)	(3.23)	( .83)	(3.88)	( .95)
Employed						
—40 want	(9.26)	(6.25)	(10.16)	(7.49)	(9.98)	(7.37)
—40 not want	(5.56)	(6.25)	(12.24)	(10.50)	(10.91)	(10.07)
40+ hours	(78.70)	(85.42)	(74.36)	(81.18)	(75.23)	(81.61)
All	(100.00)	(100.00)	(99.99)	(100.00)	(100.00)	(100.00)
N	432	2,304	1,732	20,340	2,164	22,644

TABLE 9  
 MALE HOUSEHOLD HEADS  
 LABOR FORCE STATUS BY LOCALE BY CLASS  
 OF WORKER BY INDUSTRY

LF Status Industry LF Status	CLASS OF WORKER					
	Wage worker		Non-wage worker		Total*	
	Urban	Rural	Urban	Rural	Urban	Rural
Agriculture						
Unemployed	(7.30)	(1.93)	(3.20)	(.83)	(4.18)	(.00)
Employed						
—40 want more	(9.49)	(5.80)	(10.07)	(7.49)	(9.93)	(7.31)
—40 not want	(5.11)	(5.80)	(12.13)	(10.50)	(10.45)	(9.99)
40+ hours	(78.10)	(86.47)	(74.60)	(81.18)	(75.44)	(81.76)
Total in LF	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)
N	548	2,484	1,748	20,340	2,296	22,824
Non-Agricultural						
Unemployed	(2.49)	(3.35)	(2.69)	(.84)	(2.53)	(2.51)
Employed						
—40 want more	(3.27)	(5.86)	(9.07)	(10.72)	(4.57)	(7.54)
—40 not want	(5.47)	(5.02)	(4.17)	(7.56)	(5.18)	(5.87)
40+ hours	(88.77)	(85.77)	(84.07)	(80.67)	(87.71)	(84.08)
Total in LF	(100.00)	(100.00)	(100.00)	(99.99)	(99.99)	(100.00)
N	5,628	2,868	1,632	1,428	7,260	4,296

\*Less NR = .16%

INADEQUATE LABOR UTILIZATION

TABLE 10  
 PERCENTAGE OF MALE HH HEAD UTILIZED BY INPUT,  
 UNDERUTILIZED BY INCOME LOCALE/CLASS WORKER  
 BY OCCUPATION

Locale/Class Worker		OCCUPATION							
		White Collar		Blue Collar		Agriculture		Total	
		N	(%)	N	(%)	N	(%)	N	(%)
1. Lowest Decile									
Urban	Wage	44	( 2.28)	344	(10.97)	152	(44.19)	540	( 9.98)
	Non-Wage	4	( 1.61)	52	( 4.91)	196	(14.41)	252	( 9.44)
	All	48	( 2.21)	396	( 9.44)	348	(20.42)	792	( 9.80)
Rural	Wage	36	( 4.69)	156	( 8.50)	264	(13.33)	456	( 9.95)
	Non-Wage	0	—	72	( 7.06)	1788	(10.22)	1860	( 9.94)
	All	36	( 3.75)	228	( 7.98)	2052	(10.54)	2316	( 9.94)
U+R	Wage	80	( 2.97)	500	(10.06)	416	(17.90)	996	( 9.96)
	Non-Wage	4	( .91)	124	( 5.96)	1984	(10.52)	2112	( 9.88)
	All	84	( 2.68)	624	( 8.85)	2400	(11.33)	3108	( 9.91)
2. Lowest Quartile									
Urban	Wage	164	( 8.51)	904	(28.80)	280	(81.40)	1348	(24.91)
	Non-Wage	8	( 3.23)	188	(17.74)	464	(34.12)	660	(24.74)
	All	172	( 7.90)	1092	(26.02)	744	(43.66)	2008	(24.85)
Rural	Wage	60	( 7.81)	396	(21.57)	684	(34.54)	1140	(24.87)
	Non-Wage	12	( 6.25)	156	(15.29)	4548	(25.99)	4716	(25.21)
	All	72	( 7.50)	552	(19.33)	5232	(26.86)	5856	(25.14)
U+R	Wage	224	( 8.31)	1300	(26.15)	964	(41.48)	2488	(24.89)
	Non-Wage	20	( 4.54)	344	(16.54)	5012	(26.58)	5376	(25.15)
	All	244	( 7.78)	1644	(23.31)	5976	(28.22)	7864	(25.07)

TABLE 11  
 PROPORTION OF MALE HH HEADS UTILIZED BY INPUT  
 UNDERUTILIZATION BY INCOME LOCALE/CLASS  
 WORKER, BY INDUSTRY

		INDUSTRY					
		Agriculture		Non-Agriculture		Total	
		N	(%)	N	(%)	N	(%)
1.	Lowest Decile						
	Urban						
	Wage	156	(36.45)	380	( 7.71)	540	( 9.98)
	Non-wage	196	(14.24)	56	( 4.33)	252	( 9.44)
	All	352	(19.51)	436	( 7.01)	792	( 9.80)
	Rural						
	Wage	276	(12.78)	180	( 7.43)	456	( 9.95)
	Non-wage	1,788	(10.22)	72	( 5.94)	1,860	( 9.94)
	All	2,064	(10.50)	252	( 6.93)	2,316	( 9.94)
	U+R						
	Wage	432	(16.69)	560	( 7.62)	996	( 9.96)
	Non-wage	1,984	(10.51)	128	( 5.11)	2,112	( 9.88)
	All	2,416	(11.26)	688	( 6.98)	3,108	( 9.91)
2.	Lowest Quartile						
	Urban						
	Wage	300	(70.09)	1,012	(20.54)	1,348	(24.91)
	Non-wage	464	(33.72)	196	(15.17)	660	(24.74)
	All	764	(42.35)	1,208	(19.42)	2,008	(24.85)
	Rural						
	Wage	696	(32.22)	444	(18.32)	1,140	(24.87)
	Non-wage	4,548	(25.99)	168	(13.86)	4,716	(25.21)
	All	5,244	(26.68)	612	(16.83)	5,856	(25.14)
	U+R						
	Wage	996	(38.48)	1,456	(19.80)	2,488	(24.89)
	Non-wage	5,012	(26.56)	364	(14.54)	5,376	(25.15)
	All	6,008	(28.00)	1,820	(18.47)	7,864	(25.07)

TABLE 12  
 PROPORTION OF MALE HH HEADS UTILIZED BY INPUT.  
 UNDERUTILIZED BY INCOME LOCALE/CLASS  
 OF WORKER, BY HOUSEHOLD TYPE

Locale/Class of Worker	HOUSEHOLD TYPE				Total	
	Farm		Non-Farm		N	(%)
	N	(%)	N	(%)	N	(%)
1. Lowest Decile						
Urban Wage	20	(18.52)	520	( 9.80)	540	( 9.98)
Urban Non-wage	172	(16.60)	80	( 4.90)	252	( 9.44)
Urban All	192	(16.78)	600	( 8.65)	792	( 9.80)
Rural Wage	132	(16.42)	324	( 8.57)	456	( 9.95)
Rural Non-wage	1,644	(10.33)	216	( 7.73)	1,860	( 9.94)
Rural All	1,776	(10.62)	540	( 8.21)	2,316	( 9.94)
U+R Wage	152	(16.67)	844	( 9.29)	996	( 9.96)
U+R Non-wage	1,816	(10.72)	296	( 6.68)	2,112	( 9.88)
U+R All	1,968	(11.02)	1,140	( 8.44)	3,108	( 9.91)
2. Lowest Quartile						
Urban Wage	36	(33.33)	1,312	(24.74)	1,348	(24.91)
Urban Non-wage	388	(37.45)	272	(16.69)	660	(24.74)
Urban All	424	(37.06)	1,584	(22.84)	2,008	(24.85)
Rural Wage	336	(41.79)	804	(21.27)	1,140	(24.87)
Rural Non-wage	4,200	(26.73)	516	(18.45)	4,716	(25.21)
Rural All	4,536	(27.14)	1,320	(20.07)	5,856	(25.14)
U+R Wage	372	(40.79)	2,116	(23.29)	2,488	(24.89)
U+R Non-wage	4,588	(27.07)	758	(17.80)	5,376	(25.15)
U+R All	4,960	(27.77)	2,904	(21.49)	7,864	(25.07)

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TABLE 13  
 CLASSIFICATION OF MALE HOUSEHOLD HEADS  
 BY EDUCATION AND UTILIZATION  
 USING EDUCATION-OCCUPATION COMPATIBILITY  
 (Urban Areas)

EDUCATION	UTILIZATION						Total	
	Utilized		U		Underutilized -U		N	(%)
	N	U+ (%)	N	U (%)	N	-U (%)	156	(100.00)
No Schooling	156	(100.00)						
Elementary								
1	60	(100.00)	0	—	0	—	60	(100.00)
2	144	(100.00)	0	—	0	—	144	(100.00)
3	208	(100.00)	0	—	0	—	208	(100.00)
4	496	(100.00)	0	—	0	—	496	(100.00)
5	220	( 77.46)	64	( 22.54)	0	—	284	(100.00)
6	792	( 66.90)	252	( 21.28)	140	( 11.82)	1184	(100.00)
All	1920	( 80.81)	316	( 13.30)	140	( 5.89)	2376	(100.00)
High School								
1	92	( 36.51)	108	( 42.86)	52	( 20.63)	252	(100.00)
2	44	( 15.07)	72	( 24.66)	176	( 60.27)	292	(100.00)
3	36	( 11.84)	40	( 13.16)	228	( 75.00)	304	(100.00)
4	140	( 12.87)	212	( 19.48)	736	( 67.65)	1088	(100.00)
All	312	( 16.12)	432	( 22.31)	1192	( 61.57)	1936	(100.00)
Vocational HS	0	—	24	( 66.67)	12	( 33.33)	36	(100.00)
All High School	312	( 15.82)	456	( 23.13)	1204	( 61.05)	1972	(100.00)
College								
1	16	( 13.33)	12	( 10.00)	92	( 76.67)	120	(100.00)
2	20	( 8.19)	28	( 11.48)	196	( 80.33)	244	(100.00)
3	28	( 14.89)	0	—	160	( 85.11)	188	(100.00)
4	16	( 4.71)	84	( 24.70)	240	( 70.59)	340	(100.00)
All	80	( 9.87)	124	( 13.00)	688	( 77.13)	892	(100.00)
College Degree	0	—	436	( 65.27)	232	( 34.73)	668	(100.00)
TOTAL	2468	( 40.70)	1332	( 21.97)	2264	( 37.33)	6064	(100.00)

INADEQUATE LABOR UTILIZATION

TABLE 14  
 CLASSIFICATION OF MALE HOUSEHOLD HEADS BY  
 EDUCATION AND UTILIZATION USING  
 EDUCATION-OCCUPATION COMPATIBILITY TEST  
 (Rural Areas)

EDUCATION	UTILIZATION							
	Utilized				Underutilized			
	U+		U		-U		Total	
	N	(%)	N	(%)	N	(%)	N	(%)
No Schooling	2712	(100.00)					2712	(100.00)
Elementary								
1	540	(100.00)	0	—	0	—	540	(100.00)
2	1500	(100.00)	0	—	0	—	1500	(100.00)
3	1632	( 99.27)	12	( 0.73)	0	—	1644	(100.00)
4	432	( 13.38)	2796	( 86.62)	0	—	3228	(100.00)
5	120	( 7.19)	72	( 4.32)	1476	( 88.49)	1668	(100.00)
6	156	( 4.36)	264	( 7.38)	3156	( 88.26)	3576	(100.00)
All	4380	( 36.13)	3144	( 25.87)	4632	( 38.10)	12156	(100.00)
Academic High School								
1	24	( 6.25)	12	( 3.13)	348	( 90.62)	384	(100.00)
2	0	—	12	( 2.78)	420	( 97.22)	432	(100.00)
3	12	( 3.85)	0	—	300	( 96.15)	312	(100.00)
4	0	—	48	( 5.88)	768	( 94.12)	816	(100.00)
All Academic HS	36	( 1.85)	72	( 3.70)	1836	( 94.45)	1944	(100.00)
Vocational HS	0	—	36	( 50.00)	36	( 50.00)	72	(100.00)
All High School	36	( 1.79)	108	( 5.38)	1872	( 92.86)	2016	(100.00)
College								
1	0	—	12	( 11.11)	96	( 88.89)	108	(100.00)
2	0	—	12	( 12.50)	84	( 87.50)	96	(100.00)
3	0	—	0	—	24	(100.00)	24	(100.00)
4	0	—	60	( 50.00)	60	( 50.00)	120	(100.00)
All	0	—	84	( 24.14)	264	( 75.86)	348	(100.00)
College Degree	0	—	144	( 80.00)	36	( 20.00)	180	(100.00)
TOTAL	7128	( 40.94)	3480	( 19.98)	6804	( 39.08)	17412	(100.00)

TABLE 15  
CLASSIFICATION OF MALE HOUSEHOLD HEADS  
BY EDUCATION AND UTILIZATION

OCCUPATIONAL GROUPS	UTILIZATION							
	Utilized				Underutilized			
	U+		U		-U		Total	
	N	(%)	N	(%)	N	(%)	N	(%)
<b>URBAN</b>								
Professionals	60	( 11.11)	444	( 82.22)	36	( 6.67)	540	(100.00)
Government Off. & Admin.	88	( 22.22)	28	( 77.78)	0	—	36	(100.00)
Proprietors, Managers	224	( 42.11)	72	( 13.53)	236	( 44.36)	532	(100.00)
Clerical Workers	268	( 39.65)	100	( 14.79)	308	( 45.56)	676	(100.00)
Salesmen	196	( 53.26)	24	( 6.52)	148	( 40.22)	368	(100.00)
Transport Workers	328	( 48.23)	72	( 10.59)	280	( 41.18)	680	(100.00)
Craftsmen	576	( 41.26)	260	( 18.63)	560	( 40.11)	1396	(100.00)
Manual Workers	108	( 55.10)	4	( 2.04)	84	( 42.86)	196	(100.00)
Service Workers	188	( 28.66)	196	( 29.88)	272	( 41.46)	656	(100.00)
Miners & Quarrymen	12	( 50.00)	0	—	12	( 50.00)	24	(100.00)
Farmers	500	( 52.08)	132	( 13.75)	328	( 34.17)	960	(100.00)
Total	2468	( 40.70)	1332	( 21.97)	2264	( 37.33)	6064	(100.00)
<b>RURAL</b>								
Professionals	0	—	192	(100.00)	0	—	192	(100.00)
Government Off. & Admin.	12	( 20.00)	48	( 80.00)	0	—	60	(100.00)
Proprietors, Managers	96	( 34.78)	84	( 30.44)	96	( 34.78)	276	(100.00)
Clerical Workers	72	( 28.57)	36	( 14.29)	144	( 57.14)	252	(100.00)
Salesmen	108	( 33.33)	72	( 22.22)	144	( 44.45)	324	(100.00)
Transport Workers	156	( 36.11)	132	( 30.56)	144	( 33.33)	432	(100.00)
Craftsmen	456	( 47.50)	156	( 16.25)	348	( 36.25)	960	(100.00)
Manual Workers	120	( 47.62)	12	( 4.76)	120	( 47.62)	252	(100.00)
Service Workers	132	( 40.74)	24	( 7.41)	168	( 51.85)	324	(100.00)
Miners & Quarrymen	36	( 37.50)	12	( 12.50)	48	( 50.00)	96	(100.00)
Farmers	5940	( 41.70)	2712	( 19.04)	5592	( 39.26)	14244	(100.00)
Total	7128	( 40.94)	3480	( 19.88)	6804	( 39.08)	17412	(100.00)

INADEQUATE LABOR UTILIZATION



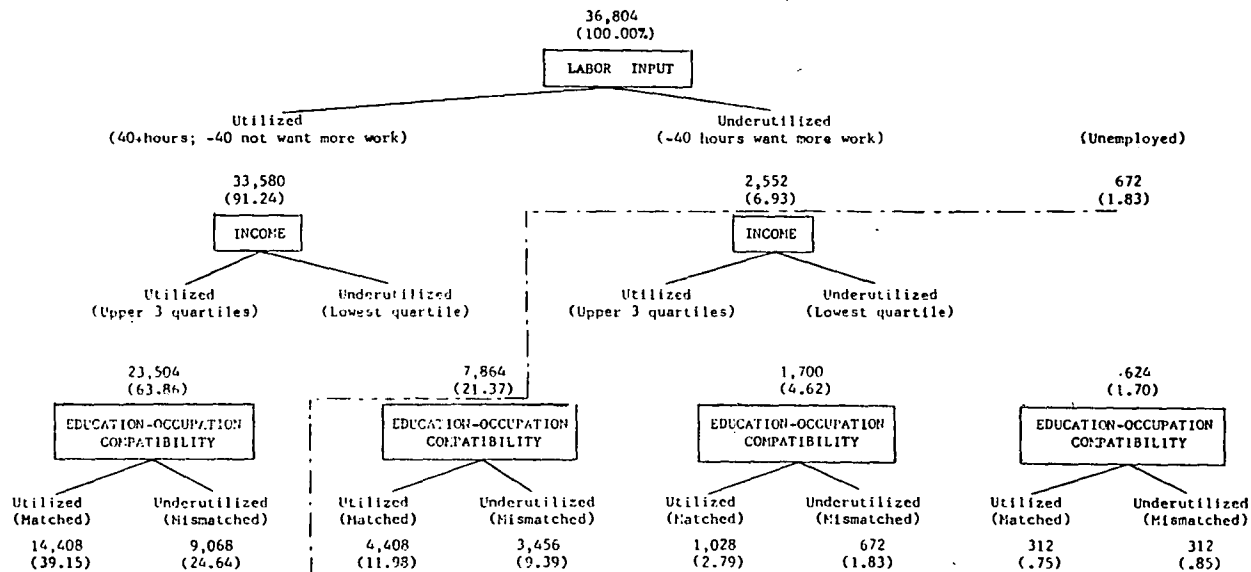
Philippines, 1968  
MALE HOUSEHOLD HEADS

	<i>Number</i>	<i>Percent</i>
A. Total Labor Force	36,804	100.00
Utilized Adequately	17,644	47.94
Utilized Inadequately	16,932	46.60
By unemployment	672	1.83
By input	2,552	6.93
By productivity*	3,108	8.44
By mismatch occupation	10,600	28.80
*Lowest Decile		
B. Total Labor Force	36,804	100.00
Utilized Adequately	14,408	39.15
Utilized Inadequately	20,156	54.77
By unemployment	672	1.83
By input	2,552	6.93
By productivity**	7,864	21.37
By mismatch occupation	9,068	24.64

\*\*Lowest quartile

No Response = 6.06%

TOTAL MALE HOUSEHOLD HEADS  
IN THE LABOR FORCE



Legend:

Type of Test

INADEQUATE LABOR UTILIZATION

## APPENDIX I

OCCUPATIONAL TITLES RANKED BY  
SOCIO-ECONOMIC SCORE

Rank	Occupational Title	SES
1	Physicians	5.390
2	Directors	3.707
3	Professors	2.958
4	Social Scientists	2.873
5	Engineers, Pilots	2.728
6	Lawyers	2.551
7	Government Officials	2.422
8	Chemists	2.119
9	Teachers	1.673
10	Clergy	1.446
11	Bookkeepers	1.274
12	Nurses, Technicians	1.025
13	Clerical, NEC	1.025
14	Steno, Office Machines, Telecom	.906
15	Insurance, Commercial Travelers	.744
16	Inspectors	.538
17	Policemen	.409
18	Artists	.035
19	Proprietors	.003
20	Electricians, Compositors	-.018
21	Mail Carriers	-.018
22	Precision Instrument Machinist	-.209
23	Bricklayers	-.491
24	Tailors	-.542
25	Salesmen	-.549
26	Service Station, Waiters, Service, NEC	-.736
27	Painters	-.785
28	Spinners, Footwear Makers	-.876
29	Lift Equipment, Firemen, Ship Crew	-.922
30	Drivers, Conductors	-.968
31	Janitors	-.999
32	Housekeepers, Launderers	-1.143
33	Market vendors	-1.218
34	Carpenters	-1.305
35	Furnacener	-1.311
36	Craftsmen	-1.369

## INADEQUATE LABOR UTILIZATION

39

Rank	Occupational Title	SES
37	Millers	-1.446
38	Potters	-1.487
39	Loggers	-1.575
40	Barbers	-1.594
41	Laborers	-1.711
42	Packers	-1.858
43	Farm owners	-1.948
44	Farm owner-Tenants	-2.088
45	Fishermen	-2.160
46	Farm Tenants	-2.237
47	Farm Laborers	-2.266

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- <sup>5</sup>The computed mean number of hours worked by those employed in agricultural and non-agricultural industries was 41.2 hours for the former and 45.4 for the latter giving an overall mean of 42.7 hours. Therefore, the standard of 40 hours seemed reasonable for both sectors.
- <sup>6</sup>Thomas Pullum, "The Development of an Ordinal Ranking of Occupation," (Unpublished Technical Note, NDS-4, Population Institute, University of the Philippines, March 3, 1971) Note: See Appendix I.
- <sup>7</sup>**Four Year Development Plan FY 1974-77**, Condensed Report, National Economic Development Authority, Republic of the Philippines, Manila, 1973.
- <sup>8</sup>Cristina Crisostomo, William H. Meyers, Tirso B. Parris, Jr., Bait Duff and Randolph Barker, "The New Rice Technology and Labor Absorption in Philippine Agriculture," *The Malayan Economic Review*, (Vol. XVI, No. 2 October 1971).
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- <sup>10</sup>Arthur Gibb, Jr., "A Note: Defining the Non-Farm Employment Question", (Discussion Paper No.: 71-14, Institute of Economic Development and Research, School of Economics, University of the Philippines, August 6, 1971).
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- <sup>12</sup>Onofre D. Corpuz, "Education in the Seventies", **Philippine Population in the Seventies**, (Proceedings of the Second Conference on Population, 27-29 November, 1967).
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