CHANGES IN PHILIPPINE INCOME DISTRIBUTION IN THE 1970s

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Despite the more abundant supply of data in the Philippines, relative to other ASEAN countries, the study of income distribution in the Philippines is a most frustrating exercise. There were five surveys during the 1970s, compared to one or two for the other countries, but each of them has limitations which prevent its use for measuring and analyzing the trends in income distribution during the 1970s. But some assessment is needed, if only to get some handle on the problems that the lower income groups are likely to face in the difficult years ahead in the 1980s. The findings in this paper must be regarded as incomplete, tentative, and thus subject to revisions when better information becomes available.

Anyone dealing with income distribution has to begin with a discussion of the data set to be utilized. Family income data are sensitive information, and are of complex magnitudes, which are collected from families who do not normally keep books and must recall them at one interview sitting. The imperfections of the data are universal, and not confined to the Philippines.

The data available for the study of income distribution trends in the Philippines are the 1961, 1965 and 1971 family income and expenditure surveys (FIES). The 1957 survey is generally considered to have been experimental. It is reported that a small-scale 1979 FIES has been conducted and is in the process of being tabulated. Then, there is the huge half a million sample survey of the 1975 Integrated Census, Phase II. This survey is probably not comparable with the FIES largely because the samples selected were from all barangays, whereas the FIES were much smaller surveys, covering ten thousand or so sample households in a small number of barangays. The reason for the incomparability is that the FIES tends to exclude certain barangays (where interviews are difficult to conduct) such as Forbes Park and remote villages in the mountains. One can speculate that the large survey is a better indication of the level of inequality as it covers rich and poor barangays better than FIES. Various versions of the Ginis have been published at different stages of tape-cleaning, with the Ginis ranging all the way from 0.45 to 0.60, the latter being the latest. For changes over time, the large survey cannot be used.

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Pending the publication of the 1979 FIES, we have resorted to the use of data from the Integrated Survey of Households (ISH). This survey has collected income data from households of about 15,000 samples for four quarters of 1978 and 1979. The 1980, 1981 and 1982 surveys collected data for one or two quarters only and therefore cannot be used. There is considerable seasonality in incomes generated from one quarter to the next.

The problem in the use of the 1978 and 1979 surveys is that the NCSO tabulated each household income for each quarter and made a separate array of households for each quarter. But no distribution of *annual* income for each household has been tabulated. The quarterly array of households by their quarterly incomes cannot be simply summed up for each bracket to arrive at annual incomes because some households do not stay in the same income brackets from one quarter to the next. For example, farm households which may not have an income from paddy agriculture in the second or third quarter may be classified in the lowest income bracket. In the fourth quarter, these households may move to a higher bracket because of income from harvested paddy. Reyes of the National Economic and Development Authority (NEDA) has looked at this problem and found a considerable amount of "jumping around" of households from one quarter to the next, particularly in the lower income groups. For the higher income groups, there may be less "jumping around" because these households are in the cities where seasonality in income is much less. This is a difficult problem and I have put in a request to PIDS for financial assistance to tabulate each household's quarterly incomes into annual incomes. This will require work on the files to match quarterly incomes for each household. When the annual incomes are obtained, we can then work out the array for the distribution of annual income. But this may take some time as we want the new tabulation to come up with various classifications useful for analyzing the sources of inequality.

Pending better data, I have tried to do the following: in order to minimize the effect of households jumping from one income bracket to another, I have combined the lower deciles into larger groups and computed the income shares (See Table 1). The assumption here is that not many households will be jumping from the lowest to the highest deciles but to the adjacent or nearby deciles. That is to say, as you go up the income ladder, the extent of jumping will diminish mainly because the higher income groups receive incomes which are less affected by seasonality than the lower income groups. (In the 1971 FIES, the highest decile contains about 2/3 or more urban households.

Moreover, the combining of deciles as found in the table minimizes substantially the effect of differences in the family size and life-cycle position found in the different income groups. Kuznets, in a series

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Table 1—Income Shares of Various Quantiles of Philippine Families, 1961 to 1979
(Per Cent)

Family decile	1961	1965	1971	1978	1979
lowest	1.5	1.1	1.2	1.1	1.1
2nd	2.7	2.4	2.4	2.3	2.2
3rd	3.4	3.5	3.5	3.5	2.9
4th	4.5	4.6	4.6	3.5	4.2
5th	5.5	5.7	5.9	6.0	5.3
6th	6.6	7.1	7.4	6.5	6.8
7th	8.3	8.9	9.9	8.4	8.2
8th	11.0	11.2	11.1	11.4	11.5
9th	15.5	15.4	16.9	16.1	16.1
highest	41.0	40.1	37.1	41.2	41.9
TDM	71.6	71.2	70.0	74.2	75.2
Gini	0.50	0.51	0.49	0.52	0.53

Grouped bracket subtotals:

Bracket	1961	1965	1971	1978	1979
2nd–3rd	7.6	7.0	7.1	6.9	6.2
4th–5th	16.6	17.4	17.9	16.0	16.3
3rd–4th	24.2	24.4	25.0	22.9	22.5
8th	34.8	35.5	37.9	35.9	35.8
9th–highest	56.5	55.5	54.0	57.3	58.0
6th–highest	59.0	59.9	62.9	58.8	58.3

Sources: Data for 1961, 1965 and 1971 from The BCS Survey of Households, Bulletin Series No. 34, Family Income and Expenditures 1971; 1978 and 1979 data from Integrated Survey of Households Income Statistics: First to Fourth Quarters, Special Releases. NCSO. Manila:

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recent articles, has found that the overtime changes in the size distri
bution of family incomes as conventionally and usually published in
the official statistics, do not take into account differences in the siz
and life-cycle position of families, so that the sources of inequality for
given year or changes overtime may be affected not only by socio
economic factors but also by demographic factors.[1] Fortunately, th
life-cycle effects on income inequality are not so pronounced in th
LDCs as in the DCs where the skills of the labor force are substantiall
greater (so that with experience the earning power of skilled manpowe
rises). Data for Taiwan on incomes of persons in different occupation
by age show that three deciles in the lowest income groups in the rura
and urban areas can take into account the fluctuation in income of a
ages for farmers, for unskilled and skilled workers, although for th
professional and managerial group, more deciles are needed. Th
combining also minimizes the income fluctuation due to family siz
which is also related to age.

Table 1 presents the computed income shares for each of the decile
arranged from the lowest to the highest. Total disparity measure (TDM
is a measure of income inequality with statistical properties similar
the Gini but simpler to calculate. It is the sum of the differences (sign
ignored) between the share (per cent) of households in each deci
(which is 10 per cent of households for deciles) and the income share
each decile. The difference between 10 per cent and the share of incom
when computed for each decile and summed up gives the TDM. (Th
measure is often called the Kuznets measure.) Perfect equality wi
mean that each decile's share of income is 10 per cent and perfe
inequality will mean that the highest decile gets 100 per cent of incom
A TDM of 70 in the table is about a Gini of 0.50 and a TDM of 75 wi
correspond to a Gini of 0.53, roughly a 7 per cent increase in inequalit
over the decade. As noted above, because of "jumping" from one deci
to another from quarter to quarter, we have successively combined th
lower deciles and their shares. For example, in Table 1, the three lowe
deciles combined received 7.1 per cent of income in 1971 compared
6.2 per cent in 1979 and so on. If the six lowest deciles are combine
the income share is 25 per cent in 1971 compared to 22.5 per cent
1979, and if all the deciles except the highest are combined, 62.9 per ce
in 1971 and 58.3 in 1979. If we assume that "jumping" is minimal fo
the highest decile, its share rose from 37.1 per cent to 41.9 per cent, fo
the period 1971 to 1979. Thus, it could be concluded that however on
combines the deciles to minimize "jumping," income inequalit

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[1] See his paper in *Economic Development and Cultural Change*, October 19
(An earlier version of this paper is found in *Income Distribution, Employment a*
Economic Development in Southeast and East Asia, June 1975. See also his pape
Essays in Memory of Ta Chung Liu, 1980.)

increased in the 1970s, although there is some evidence that during the first half of the 1970s there might have been a decline.

Moreover, Table 1 shows that the lowest 60 per cent suffered greater loss in income shares than the next 30 per cent, with the former's share declining by 2.5 per cent and the latter by 2.1 per cent. These losses are even greater when taken as proportions of the shares in 1971: 10 per cent for the lowest 60 per cent and 8 per cent for the next 30 per cent.

There is evidence that incomes reported in the 1971 FIES were understated[2] since the total income from the FIES amounted to only 68 per cent of total personal income from the 1971 official national income accounts. But the ISH may be even more understated as its total income for 1979 was 49 per cent of total personal income from the 1979 national income accounts. (Of course, personal income from the national accounts includes income of nonprofit organizations besides household and other incomes but these do not comprise more than 10 per cent in the personal account.) And it is likely that the under-statement in the highest decile may be greater in a quarterly survey where recall problems are less serious for the lower incomes than in a one-round survey as in the 1971 FIES.

Until better data are reported, we conclude that income distribution worsened between 1971 to 1979, especially from the mid-1970s. We proceed to see whether there is other evidence to confirm or contradict this conclusion. This is also a frustrating task because the figures for the ISH survey are reported in just a couple of tables—without the voluminous information contained in numerous, detailed tables such as in the 1971 FIES—and so much of the time-series data we use below are comparable only in a rough way with so many changes in the definitions and survey designs.

Product (in current prices) per worker in industry relative to product per worker in agriculture rose from an average ratio of 2.6 in the 1960s to 2.8 in the 1970s. Similarly, product per worker in industry over services increased from 0.9 to 1.2. This widening gap in incomes between industry on the one hand and agriculture and services on the other, is a major factor in increasing "between" variances of major sectors. The data are from income-originating tables of the NEDA national income accounts. They do not include the off-farm nonagricultural incomes earned by farm family members but there is no evidence that such incomes have been rising in the Philippines. (In contrast, "between" sector variances in the first half of the 1970s improved.)

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[2] On this, see my note "Perspective on Trends in Asian Household Income Distribution," *Ekonomi Dan Keuangan Indonesia*, March 1982, pp. 108-109.

As to "within" variances in the distribution of family incomes within each of the three major sectors, the data at hand are limited and not much can be learned conclusively until the censuses of agriculture, population, industry, and additional tables from the 1979 ISH and FIES are published. One table each for the regions is published from the 1981 Census of Agriculture in the Special Release of NCSO. For the nation as a whole, the number of farms increased from 2.35 million to 3.44 million from 1971 to 1980 but the area of farms cultivated rose less, i.e., from 8.49 to 9.03 million hectares. Hence, size of farms declined from 3.61 hectares to 2.63 hectares or nearly one hectare. Data on the distribution of farms by size are not yet available but if the smaller farms increased proportionately more than the larger farms, as may be expected with increasing population pressures in the countryside, the chances are that "within" variances in agriculture may be rising, since product per worker in agriculture relative to industry is falling. Labor force surveys for the second quarter of 1971 and of 1978 (the latest available) show that wage workers in agriculture rose from 0.9 to 1.3 million. This may imply that the number of landless farm workers, the lowest-income workers in the economy, may be increasing but by how much cannot be seen until the Census of Agriculture is published. Note also that the major sources of employment for the landless, namely sugar and coconut growing, have not been doing well in the 1970s with very low growth in yields per hectare/tree.

Another major low-income group in the rural areas is the small fishermen. The 1981 Census of Fishery shows that there has been a doubling in the number of municipal (or household) fishing since 1971. The national accounts report that value added in constant prices in fisheries rose by only 4.3 per cent (compared to 7.2 per cent implied in the doubling of small fishermen). It is widely believed by fishery experts that capital-intensive trawlers are increasing their catch at the expense of municipal fishermen, under conditions of falling fishery resources. The 1981 Fishery Census shows also that the commercial fishing units (including the trawlers) more than doubled, from 1044 in 1970 to 2800 in 1980. Pending the publication of the detailed tables of the census, it may be plausibly assumed that much of the increase in fishery output may have gone to the commercial fisheries (National Census and Statistics Office, 1982).

The "within" sector variances in the industrial and service sectors are difficult to assess as appropriate statistical materials are not available. We use here data from the census of establishments taken in 1972 and 1978 and the labor force surveys. In terms of employment, large establishments (with 10 or more) grew much more rapidly than small ones (less than 10 workers) between 1972 to 1978 in manufacturing by 24 per cent for large and, -25 per cent for small establishments

Nominal wages per worker rose nearly twice as fast for the large firms than for the small firms, thus contributing to a greater gap. Similarly, employment in large firms grew more rapidly in the large establishments in wholesale and retail trade, although wages appear to be growing faster in the small firms.

There is some evidence from employment and wage surveys to indicate that the lowest income workers in nonagriculture fared badly when compared to the higher paid workers.[3] Tidalgo's figures based on official sources show that real cash earnings declined between 1971 and 1978 more for the blue-collar workers (those in farming and industry) than for white-collar workers (professional, technical, managers, administrators, etc.). Workers (clerical, office, service workers) in the service sector seem to fare best with the least decline; this may be due largely to the impact of the rapid increase in tourism and related industries. If so, those among the lowest-paid in the service sector, mainly in the large informal sector which is the depository of unwanted workers from farming and industry, may not have fared as well as the service sector as a whole. These declines in real wages when compared to increases in the national economy as a whole of 2 per cent of GNP per employed (1971-1978) may indicate widening "within" inequality, especially within the nonagricultural sector.

Jurado (1983) in his paper, "Recession, Employment and Income in the ASEAN Countries" (written for the Asian Regional Team for Employment Promotion, ILO, Bangkok) cites Philippine real daily wage indices for 1972-1980 (from ESCAP publication *Statistics Yearbook for Asia and the Pacific*, Bangkok, 1982) showing that real wages declined for the casual workers (usually the lowest-paid) by 42 per cent for unskilled workers and 32 per cent for skilled workers; and for the more regularly employed (monthly-paid) wage **earners**: 10 per cent for wage earners and 3.3 per cent for the salaried employees. These trends are indicative of the greater worsening of earnings among the lower-paid workers than the better-paid ones.

These unfavorable wage trends can be offset by increasing days, weeks, and months of work, adding up to larger *annual* family incomes. But Tidalgo's (1983) paper indicates that in the latter 1970s (1978-1983), the employment rate fell by 2.5 per cent and more important, underemployment rose three times from 10 per cent to 29 per cent. Although a breakdown in the incidence of joblessness among occupational groups is not available, it is likely that under conditions of a faster growth of labor supply over demand, the more plentiful, less skilled workers are

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[3] This section is based on data from Professor Linda Tidalgo's paper, "Employment," (December 14, 1983).

hurt more than the more skilled workers, as they are employed more irregularly and intermittently.

One puzzling feature of Philippine labor supply growth is the unusually large rise in its rate, 4.3 per cent in 1978-79 and 4.6 per cent in 1978-1983, with much of this increase being due to the accelerated growth in the female labor force participation rate. One explanation for such unprecedented rises may be found in the fall of real wages of heads of households to levels below the customary subsistence, compelling housewives to seek work to help bring family incomes up to subsistence level. If this is the response of low income families to falling real wages of household heads, the increased number of earners per family should mitigate the decline in total family incomes, thereby tending to reduce inequalities. But this may not fully offset the decline since not all families can succeed in finding employment for an additional earner.[4]

The employment rates reached their peak in 1979 (a combination of increasing female employment and sagging male employment) and since the recession, unemployment rates both for males and females have been rising (Key Indicators of Developing Member Countries of ADB, 1983). To get a perspective of what might have happened to inequality in these years, we have estimated the TDM for the combined third and fourth ISH data available for 1979, 1980, 1981 and 1982 (NCSO). (Data are not available for the first two quarters, 1980-1982.) There is no change between 1979 and 1980 but there is an increase from 78.6 to 80.5 in 1981 and then to 81.1 in 1982, an increase of 3 per cent, probably reflecting the fall in the unemployment rate in the lower income groups.

Despite the various problems in the data and the speculative interpretation in the analysis, the implications of the tentative findings are not to be dismissed lightly (until better data show otherwise). The overall rise in inequality is not so alarming but the fact that the source of its inequality was almost entirely due to the lower-income declines is serious.

Central Bank statistics (the only available) show that real wages, after a slight rise in the latter half of the 1950s from the earlier years, appear to be sagging during the 1960s (Lal, 1979). If we assume that lower-income families were close to subsistence levels in the 1950s, even small declines in the 1960s and 1970s can cause much hardship, particularly if their family size is rising. The decline in the early 1980s

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[4]The hypothesis can be checked by looking at the details of the labor force surveys— the changes in multi-earner families in lower and upper income groups; comparing the wages of heads of families and other family members working; and perhaps interviewing some of the families where housewives have gone into the labor market.

may be difficult to offset by increasing the number of earners since employment rates are not rising.

Therefore, policy measures pertaining to belt-tightening in 1984 must be carefully considered to cope with the expected, sharp rise in unemployment and underemployment. The lower-income groups (especially the 3 or 4 lowest deciles) have been tightening their belts for more than a decade and the impact of austerity can not be pushed off to them. And yet, all indications point to the incidence of unemployment, underemployment and diminishing real wages falling heavily on the lowest deciles, as appears to have been the case in Brazil. Interesting suggestions have been made, such as the proposal to make loans from social security funds to workers losing their jobs in the next half year, and the proposal to shift urban workers to the farm for food and agribusiness production. The extent to which the rural areas can absorb idle urban workers will depend on the amount of idle lands that can be made available. The burden of budget-cutting in the government should not be borne by the dismissal of untenured workers who are generally in the lower income groups. Some effort at sharing should be made, spreading the cut among middle and higher income groups which can better absorb the cuts. And as in Mexico, part of the budget cuts should be implemented by a temporary lowering of salaries, the cuts increasing progressively with larger salaries. There should be much larger cuts in nonessential expenditures than in others, such as defense, culture, and perquisites of top officials. Above all, there should be no more bailing out of enterprises on the grounds of preserving employment. It is better to let insolvent, inefficient enterprises go under, their assets sold to efficient competitors who can then employ the workers from the bankrupt enterprises and take on the business vacated by the latter. The overall decline in employment will be slight while the proceeds from the sale of the assets from the bankrupt firms can be applied to other projects or to the retirement of debt. Many of the foregoing measures should be applicable for private industries as well. Here, measures to sustain the lowest paid workers need to be adopted sector by sector, taking into account the characteristics of each industry. The problems that the Philippine economy faces in 1984 are so enormous that nothing short of draconian measures will suffice to keep the economy viable, and the above suggestions are not likely to be sufficient and must be supplemented with many others.

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