multiplied by the current price of rice. However, the formula has been in disuse for many years, and the Philippine government has no official poverty line, though it does have special-purpose lines. For instance, the DSW, for a time, used \$100 per month as the welfare line defining the 'needy population' which the agency was obliged to serve. Another case is the Wage Commission, which has set 'minimum earning requirements' for employees 'to maintain their health and efficiency'; in 1975 these were set at \$542 per month for urban areas and \$508 per month in rural areas.

In recent years, researchers have developed a fairly broad variety of critical-minimum lines, ranging from the very stingy to the very generous. Although all such lines are necessarily normative this is not the same as saying that they are 'subjective' or personalistic or based on the researchers' peculiar value-judgments. The important consideration is that the normative assumptions behind any particular poverty line should be consistent 33 with the norms society wishes to apply to the issue at hand. There may be different societal norms for different issues.

All the critical-minimum lines are heavily food-oriented.

At the very bottom is the Center for Research and Communications'

As judged by the citizenry, or by the social and political leaders and policy-makers who make decisions on their behalf.

'starvation line', which imagines a purely rice-and-salt diet for the total caloric requirement. 34 The standard practice is to define the minimum in real terms, for a reference family size, usually 6. The sex-age structure may also be specified. Then the real food requirements are converted to money values on the basis of market prices; since prices vary over time and space, so will poverty lines.

Even for a given family size, say of 6 members, caloric requirements can vary significantly from family to family due to differences in age and sex structure and in the occupation of the household head. Many of the occupations open to the poor have high physical energy requirements. Caloric needs are generally lower for females than for males due to the body weight factor. Among the agegroups, it is teenagers who require the most calories, followed by adults, young children and infants in that order.

See Philippine Chamber of Commerce and CRC (no date).

The value of the 'starvation line' is not given. Since there are close to 3700 calories - about what a laborer needs per day - in a kilo of rice, the implicit starvation line would be close to the current retail price of a kilo of rice, or \$2.10 per day.

The CRC is also the source of the highest suggested norm, the 'decant living income' which makes specific provision for such middle-class needs as household help, recreation, and dental care. 'Decent income' for a family of 5 in Metro Manila in 1973 was set at about \$763 per month, or obviously far above the poverty boundary line.

Using data from a small (N = 365) survey of Rizal province,
Valenzona (1976) has estimated the caloric requirements for a
family of size 6 as ranging from 7,380 cal/day to 12,790 cal/day
(using the mean †2 standard deviations). Each family size has its
respective caloric requirement range. She then translated such
ranges into money values, using data from a price survey of Rizal
province, and suggested that the upper end of the range would be
preferable to the lower end as a poverty line, given the family size,
since it guarantees a sufficient food budget even under unfavorable
sex-age-occupation circumstances. (Strangely, however, her required
food budget is incredibly low, due apparently to flaws in her price
data.)³⁵

In general, poverty lines generated by linear-programming (LP) models turn out to be extremely low (Tan and Tecson, 1974; Tan and Holazo, 1978). For instance, Tan and Holazo have recently used LP to solve for the basket of foods which minimizes the cost of acquiring at least the recommended daily allowance (RDA) of nutrients, as set

For a family of size 6, her maximum daily food budget, at 1976 prices, is only \$8.65, which she compares to the \$6.85 in 1973 prices of Tan and Tecson (1974) and the \$14.00 of the FNRI, also in 1973 prices, which Abrera (1976) used in the DAP Social Indicators Project. The Tan and Tecson estimates are based on a linear programming model, and are understandably low. A close look at Valenzona's prices reveals a cereal price of only \$0.87 per kg., at a time when the rice price was \$2.00 or more, and a meat-fish-poultry price of an incredible \$3.36 per kilo (Valenzona, 1976, Table 5, in which the prices are per 100 grams, not per gram, an obvious typographical error).

by the Food and Nutrition Research Center (FNRC). As indicated in Table 5.1, the cost of this basket in Metro Manila, for example, is found to be \$\mathbb{P}2,460\$ per year at 1975 prices, which works out to \$\mathbb{P}6.74\$ per day, for a family of six. Such LP solutions characteristically show peculiar diets, in particular, eschewing rice in favor of noodles or corn, which are cheaper substitutes on a peso-percalorie basis. If nutritionally sound, the obvious policy implication would be to try to change Filipino dietary habits away from rice; yet the LP studies are silent on this.

The approach of the Social Indicators Project (SIP) of the Development Academy of the Philippines was more straightforward. The FNRC had already designed, not only the RDA, but also a recommended simple menu, 37 and had estimated its cost of preparation for the

Breakfast: Rice/Boiled dilis/Tomato-egg salad/ Coffee with milk/Milk for the children

Lunch: Fish pinangat/Munggo guisado/Rice/Papaya

Snack: Boiled camote with margarine/Milk for the

children

Dinner: Fish sinigang with tomato, fish, sitaw, kangkong, tamarind, talong/Rice/Glazed

camote.

³⁶A father of 40-42, a mother of 37-40, a son of 16-19, a daughter 13-15, a son 7-9, and a daughter 1-3 years of age.

The menu, which presumably incorporates the sum total of FNRC judgments regarding relative food prices, total costs of preparing food, Filipino eating habits, etc. is as follows (Abrera, 1976, p. 238).

Table 5.1. Comparative Poverty Lines for a Family of Size 6 (Pesos per year)

		1965	1971	1975
			Metro Manila	
Food				
	Indicators Project Programming Model	2476 636	4284 1094	7123 24 60
Food and	Other Needs			
	Indicators Project Programming Model	4497 1615	7203 2634	11872 49 84
in my		Range	Outside Metro	Manila
Food				
	Indicators Project Programming Model	1732-1981 582-720	3000-3428 1000-1308	5201-5943 2059-2817
Food and	Other Needs			
	Indicators Project Programming Model	3148-3597 1166-1631		8668-9905 · 3680-4337

Sources: (a) SIP. For 1965 and 1971, Mangahas (1976), pp. 265-266; for 1975, Mangahas (1977a), p. 26n.

⁽b) LP Model: Tan-Holazo, (1978), Table 9a.

reference family of 6 to be \$14 per day in December 1973 in Metro Manila. The SIP simply accepted the FNRC budget, and adjusted for price differences across space and time, with the best available price indexes. In Metro Manila, the SIP 'food threshold' for 1975 became \$7,123 per year (Table 5.1), or \$19.52 per day. The latest available up-date of the SIP food threshold is:

1978
Food threshold per day 38
₽ 23.75
20.60
18.83

Obviously, a family with a daily food budget of \$19.52 (SIP) is not as badly off as one with only \$6.74, i.e., there can be degrees of poverty. But where is the boundary between poverty and non-poverty? Is it closer to \$7\$ than to \$20\$? And who is to be the judge? The Social Indicators Project argued that, in the final analysis, the social consensus is the arbiter of the validity of desktop calculations. It made pionesring experiments in determining public perceptions regarding poverty through survey techniques. Its pilot survey in Batangas (N=1000) in mid-1974 had the following

³⁸ Towards Equitable Sharing of Income in the Year 2000, Chapter 7 of a forthcoming PREPF publication.

(average) replies: 39

Poverty border level	Rural	Urban
Income per month	P 465	P613
Food budget per day	10.06	12.10
Rent per month	41	68
Clothing budget per year	356	456
Medical care budget per year	230	296

It may be noted that the urban Batangas poverty border food budget of 1974 is nearly double the LP budget for Manila in 1975. In general, these results support the view that Filipinos conceive of the boundary of poverty at a level substantially higher than mere subsistence. The perceived minimum clothing, rent and medical care budgets were in close agreement with the SIP assumption that the food threshold should be 60% of the total threshold (survey results were urban - 59%, rural - 65%).

The perceptions experiments also included:

(a) Self-rating as to poverty. About half of the respondents rated themselves as poor, and onethird rated themselves, without prompting, as

In perception indicators, the form of the interview question is critical. A sample:

[&]quot;Sa palagay ninyo, magkano ang gagastusin sa pagkain ng pamilya araw-araw, na kung bababa pa rito ay ipalalagay ninyong kayo ay mahirap?" (How much would you spend for food daily for your family such that, without this amount, you would consider yourself poor?)

on the poverty border line, thus further suggesting the relevance of at least two degrees of poverty.

- (b) Self-rating as to adequacy of food and housing.
- (c) Perceptions of home amenities required in order not to consider selves as poor, i.e., self-assessment of 'basic needs'. The survey found that about half required piped water, an enclosed bathroom and covered drainage; only one-fourth required an automatic flush toilet; two-thirds required home electricity.
- (d) Perceptions of minimum clothing needs. Results were very tightly clustered: six sets of clothing ('tops', 'bottoms', underwear) and one pair of shoes. 40

A number of international organizations have favoured the SIP estimates in drawing their own operational poverty lines. 41

The case for thresholds higher than bare subsistence has been carried

Perception-type indicators, in general, are very promising means of monitoring economic conditions at the household level on a rapid feed-back basis, since they are quite economical in terms of both interview time and data processing. They are only a bit more sophisticated than opinion polls, and can produce results in a few month's time without difficulty. In contrast, interviewing for and processing of income information usually takes 1-2 years. Perception variables are more difficult to standardize and to scale than objective-type variables. They do not seem to be any more susceptible, compared to objective-type variables, to deliberate deception by respondents.

⁴¹ See for example World Bank (1978), Asian Development Bank (1977) and Hickey and Flammang (1977). The last study recommends the SIP procedure for USAID evaluative studies.

by the Economic and Social Council for Asia and the Pacific (ESCAP, 1976): firstly, the poorer classes are typically engaged in heavier physical work and hence require greater caloric intake than other classes; and secondly, one requires more than a minimum amount of nutrients for a considerable period in order to recover from a sustained insufficiency in diet.

Table 5.2 shows that the Philippine poverty lines done by the Social Indicators Project and PREPS are comparable to the official poverty line of Malaysia, in the neighborhood of US \$240 per capita per year. World Bank studies have assigned the lowest poverty line to Indonesia (less than US \$90), one that is a bit higher for Thailand (about US \$105), and more for Korea (about US \$145).

5.2. Poverty: Size and Trend

Table 5.3 compares recent estimates of the incidence of poverty in the Philippines in 1965, 1971 and 1975, using both the SIP thresholds and the LP lines of Tan and Holazo (1978).

All estimates use the FIES income-expenditure series, and show that poverty has been worsening. 42 The poverty incidence rate

⁴²This was first publicized in DAP (1975).

Table 5.2. Comparative Poverty Lines in Five Countries (Values Per Capita Per Year)

Country		Year	Poverty Line in Local Currency	Exchange Rate to US\$	Poverty Line in US\$
Philippines	Metro Manila Other Urban Rural	1974 1974 1974	P 1,842 1,474 1,290	7.3 7.3 7.3	252 202 177
	National	1975	1,724	7.3	236
Indonesia	National	1976	RP36,000	415	87
Thailand	Rural Urban	1975/76 1975/76	B1,800 B2,400	20 20	90 120
Korea	Rural Urban	1974 1974	W55,824 W61,000	400	140 152
Malaysia (official)	National	1977	M\$ 579	2.4	241

Sc	ources:	Philippines:	1974-Abrera (1976), 1975-Mangahas (1977a)
		Indonesia:	World Bank, Employment and Income Distribution in Indonesia, Studies in Employment and Rural Development No. 51, Development Policy Staff, Washington, D.C., October 1978.
	X .	Thailand:	World Bank, Thailand: Toward a Development Strategy of Full Participation, Report No. 2059-TH, East Asia and Pacific Regional Office, September 1, 1978 (RESTRICTED)
		Korea:	S. Gupta, Alternative Development Strategies of Korea (1976-1990) in an Input-Output Dynamic Simulation Model. World Bank Staff Working Paper No. 250, March 1977.
		Malaysia:	Socio-economic Research and General Planning Unit (Malaysia), Malaysian Social Indicators: Report of the 1977/78 SERGPU/UNICEF Social Indicators Project, Prime Minister's Department Kuala Lumpur, October 1978.*

The food component of the Malaysian poverty line is based on the diet given in government hospitals: not bare subsistence but adequate for the normal average adult and enough for normal growth and maintenance of good nutritional health in children (Anand, 1977).

or the proportion of households who are below the threshold has been growing. Since the total number of households is constantly growing, due to population growth, the absolute number of poor households is growing all the more. The poverty incidence estimate is lower when the FIES expenditure data, rather than income data, are used, because the FIES figures indicate an unrealistically large degree or dissaving, especially among the lower income classes, viz., the income figures appear to be grossly understated. Even when the expenditure distribution is used, the size of the incidence rate is large: for 1971 about 70% of all households are below the Total Threshold, and about 40% are below the Food Threshold.

when the 1975 FIES summary material became available, in early 1977, the SIP procedure was again applied by the PREPF project, with the result that poverty seemed to have worsened drastically. Using the Food Threshold alone, the table shows that Philippine poverty would appear as having risen from 57% in 1971 to 68% in 1975; in Metro Manila in particular the growth would be from 34% in 1971 to 58% in 1975. This is simply incredible. If one were to apply the Total Threshold then, obviously, the computed incidence rates would have been unrealistically huge.

The problem was obviously due to the FIES data. In the first place, after adjusting for inflation, the FIES data of 1971 and 1975 would assert that average real incomes of households had fallen, contrary to the growth trend in the National Income Accounts.

Secondly, the FIES average income per household in 1975 is

less than P6,000; but aggregate Personal Income (from the National

Accounts) divided by the number of households yields an average of

over P13,000 for the same year. 43

Faced with this situation, the PREPF Project decided to use a new baseline distribution formed by splicing together income data from the PREPF national survey, and a PREPF Metro Manila, upper-income-classes-oriented survey, adjusted so as to meet the required income average of \$13,100 per household. (The reference year for these surveys was also 1975). The PREPF total poverty line, meant to allow for all basic needs, was set at the round figure of \$10,000 as an overall Philippine average. Together with the baseline distribution, it implied a more plausible poverty incidence level of 61%.

The more recent LP estimates also show an increasing incidence of poverty, simply because they use the FIES distributional data. Since the method differs only in construction of the poverty line, it is not an independent confirmation of the poverty trend; the FIES series would display the same trend for almost any poverty line. Since the LP subsistence-line is very low, the derived poverty incidence rates are likewise very low; in fact, they are less than two-fifths of the SIP incidence rates.

⁴³ See Section 4.1 above.

Table 5.3. Comparative Estimates of Poverty Incidence in the Philippines (% of Households)

Typ	Type of Poverty Line; Base Data	Ph.	Philippines 5 1971 19	nes 1975	Met 1965	Metro Manila 65 1971 19	111a 1975	Range Outside Metro Manila 1965 1971 1975	side Metro	Manila 1975
Food T	Food Threshold Only									
(1)	(1) SIP - Using FIES income data	84	57	89	24	34	28	41-49	39-6t	58-62
(2)	SIP - Using FIES expenditure data	317	14		17	25		27-39	25-48	
Food a	Food and Other Needs									
(3)	PREPF - Using PREPF income estimates			61						
(#)	SIP - Using FIES income data	76	78	80-90	64	29	70-80	69-81	64-83	80-90
(5)	SIP - Using FIES expenditure data	70	70		47	52		61-76	52-76	
(9)	Tan-Holazo - Using FIES income data	41	71	52	11	16	41	32-68	31-66	38-66
(7)	<pre>Tan-Holazo - Using FIES expenditure data</pre>	25	26		ဖ	Ø		15-71	12-51	

For 1965 and 1971, Mangahas, (1976), pp. 245-246; for 1975, Mangahas, Quizon and Lim (1977), Table 12. Sources: (a) SIP.

⁽b) PREPF. Mangahas (1977), p. 26.

⁽c) Tan-Holazo (1978), Tables 10 and 14.

A poverty line is similar to the red warning line on a thermometer: it is not much use being precise about the position of the red line if there is a basic malfunction, e.g., if the mercury has leaked out. All poverty lines need to be applied to some reliable baseline distribution of purchasing power. Unfortunately, the FIES surveys of the NCSO have grown less and less reliable, and the last one in particular (1975) can no longer be used for computations of poverty incidence.

6. Property Income, Wealth and Inheritance

There have been very few studies on the higher income groups. In the first place, the wealthy are much more reluctant than the poor to reveal their economic condition. Secondly, this reticence is reinforced by public institutions. The earlier section on distributional data called attention to the failure of household surveys to penetrate the residential enclaves of the rich. Certain offices, such as the tax collecting agencies, are repositories of presumably reliable information, but, by tradition as well as of legal necessity, have kept their records confidential and have rarely made them available to researchers.

One exception to this rule is the provision of tax records to Samson (1967); see below.

Sta. Romana's (1975) inquiry into property and entrepreneurial incomes in the Philippines was an exhaustive study of available secondary data sources. Strictly speaking, entrepreneurial income represents returns to labour rather than to land, equipment and other assets. It often accrues to such self-employed individuals as farmers, who are ordinarily quite far from the upper income strata. However, official statistics did not permit a separation of property income from self-employed earnings. Forced to lump both sources into one, Sta. Romana concentrated on trends in the share of wages and salaries in total income as compared to the share of non-wage income. His findings were:

- 1) Household survey data from the Bureau of Census and Statistics indicate a roughly constant wage share for the entire period 1956-71.
 - 2) Survey data from the Central Bank/Board of Investments on firms in the modern sector show two trends: a wage share rising during 1955 -1960 but declining over 1960-1970.
 - 3) The Annual Survey of Manufactures shows that in the manufacturing sector the non-wage share of income in value-added has steadily increased over time.

- 4) Over 1967-1970 returns on investors' equity appear to be rising among 300 client firms of the Sycip-Gorres-Velayo accounting company; however the opposite trend is found for Business Day's top 1,000 firms.

 (Sta. Romana felt that allegedly low returns on equity capital may be the result of underreporting and/or extravagant expenditures for upper management, especially in family-owned firms where large salaries are allocated to relatives).
- 5) There is a trend of rising interest rates, which is another indication of rising returns to capital.

In another paper, Sta. Romana (1976) also shows that there has been a long-term decline in real wages of skilled and unskilled workers, from a peak in the mid-1950's, which is consistent with a rising share of non-wage income. Hence, the weight of the evidence indicates that the income share of the propertied class has been increasing. Sta. Romana concludes that the growth pattern has been redistributing income away from labour and towards capital and that the Philippine development pattern exhibits the desired increase in output without the accompanying goal of greater equality.

This is in marked contrast to the long-term decline in developed countries in the income share from assets, which now ranges from 16 to 25% in Germany, France, U.K., the Netherlands and the U.S., leading Tinbergen (1977) to argue that reduction in incomes of the labor elites is the bigger social issue in such countries.

The first effort at measuring the overall distribution of personal wealth in the Philippines was that of Gamboa (1977) (see Table 6.1), who utilized data from the three PREPF surveys (section 4.3 above), which included questions on the amount of wealth (including durables) owned jointly by the household head and spouse. Although a substantial portion of respondents failed to report their net worth (i.e. assets less liabilities), Gamboa attempted to draw conclusions about the non-respondents on the basis of information given by those who did answer the surveys' wealth questions. "Wealth correlates", including education, statusrating of the house, furnishings, residential neighborhood, and incidence of ownership of property and durables were used to make estimates of the wealth of non-respondents. Gamboa felt that a significant line could be drawn at a net worth level of \$20,000. For the nation as a whole, most families (94 per cent) fall below this line. In contrast, families with children in elite Metro Manila schools were discovered to have a mean annual income of \$51,000 and a mean net worth of \$328,000.

Palanca (1977) also used the exclusive schools survey to look into wealth and into inheritances as an important means of intergenerational transfer of wealth. About 40 per cent of such elite families had received some inheritance, compared to only 25 per cent among Filipino households as a whole. The average transfer among those who received any inheritance was F137,000; but the range

Table 6.1. Results of Three Surveys of the Distribution of Wealth, 1975.

	No. of Re	aspondents
Net Worth	National Socio-Economic Survey	Survey of Parents of Students in Exclusive Hetro
N11	2,492	Manila Schools
Less than B20,000	374)) 382
P20,000 - 25,000	24	, 332
P25,000 - 50,000	16	278
P50,000 and over	14	668
Net Worth	Mail Survey Top Taxpayer Exclusive Gr	
Wil	46	
Less than P100,000	248	
P101,000 - 200,000	103	
P201,000 - 400,000	67	
P401,000 - 600,000	39	
	40	
≱601,000 - 1,000,000		

Source: Gamboa, 1977.

of the size of inheritances received was very wide, with the bulk being highly concentrated among the wealthiest. Net worth and income were highly correlated with inheritance. The relative importance of property income rose with the absolute size of wealth, especially inherited wealth (for the very wealthy, it often made up 1/3 of total income). Those who had received inheritances were socially immobile within the elite group; the self-made wealthy were relatively rare. Furthermore, a very high correlation existed between a husband's inheritance and that of his wife.

Assortative mating was common: the rich typically married to the rich, and the poor also married among themselves.

Inheritances came almost entirely from parents, without generation-skipping, i.e., without direct transfer from grandparents to grandchildren. Whereas, in the past, most inherited property was obtained after the donor's death, there appears to be a new tendency for elite families to distribute their wealth as gifts to their children inter vivos, suggesting that the rate of turnover of wealth may not slow down, despite increases in the life expectancy of Filipinos.

Finally, Samson's (1967) unpublished study of stock ownership, though somewhat dated by now, is a landmark in primary-data-based research on the wealthy. She succeeded in obtaining the cooperation

of (a) the Bureau of Internal Revenue for a sampling of individual income tax returns of 1964: a random sample of 8000 returns was checked for those containing some dividend income, yielding 543 returns which were then analyzed; 46 and (b) the Securities and Exchange Commission and the Manila Stock Exchange for a random sampling of 49 corporations (half of them traded), to obtain lists of shareholders of record in 1965. The SEC data were used to estimate the total number of resident corporate shareholders 47 in 1965 at between 39 and 52 thousand individuals, or about 1 in 300 adults (compared to 1 in 8 adults in the U.S. in 1960). The BIR data, which are indeed rare, revealed that dividend recipients are a wealthy class, with average gross income (1964 values) of F42,000, average dividend income of F16,000, and average acquisition value of stockholdings of F241,600. The Manila group had an average gross income of F96,700, or the equivalent of F360,800 in today's prices. 48

⁴⁶ Since the first-round sampling fraction varied as to regional origin of tax return, the estimated proportion of all returns containing dividend income is, not 543/8000 = 6.8%, but 8.8% (an average resulting from proper regional weighting).

In about 17,000 small firms of about 5 stockholders each, 124 large untraded firms of about 13 stockholders each, and 136 large traded firms of over 500 stockholders each, on the average. The number of individual shareholders is estimated after allowing for multiple-holdings.

To convert from 1964 to January 1979 values, one might use a factor of 3.7, from the Manila - where the majority of the dividend recipients live - Consumer Price Index.

Table 5.2. Distribution of Dividend Income and Acquisition Value of Stockholdings, By Gross Income, from a Sample of Individual Tax Returns, 1964

Cross	Samy	le	Average Dividend	Samp	le	Average Value of
Annual Income	Number		Income	Number		Stockholding
Below P5,000	27	5.0	9 1,200	R_q^2	3.2	P 21,600
\$5,000-10,000	50	9.2	1,600	10	8.1	13,500
P10,000-15,000	62	11.4	2,200	24	11.3	12,600
\$15,000-20,000	46	8.5	2,000	8	6.5	24,100
P20,000-40,000	115	21.2	6,500	25	20.2	25,700
P40,000-100,000	136	25.0	13,800	30	24.2	146,100
100,000-200,000	64	11.8	20,000	15	12.1	283,000
200,000-500,000	31	5.7	75,400	12	9.7	876,000
500,000-1,000,000	9	1.7	343,700	3	2.4	1,716,400
ver \$1,000,000	3	0.6	150,000	3	2.4	2,621,000
Total	543	100.0	16,050	124	100.0	241,600

Notes: From Samson (1967), pp. 48 and 52. Only 124 of the 543 returns in the sample had accompanying balance sheet data on stockholdings. The inflation factor between 1964 and January 1979, using the Manila Consumer Frice Index, is 3.7.

The data-gathering procedure discovered three gross-incomemillionaires and eighteen asset-millionaires (1964 values) and no skilled or semi-skilled workers at all. Gross income, dividend income, stockholdings, and total assets were, of course, very highly correlated. Among the dividend recipients, both dividend incomes and stockholdings were highly concentrated, with the Gini ratio at roughly .65 for the former and .75 for the latter. But many of those with "low" incomes or assets were young, single females with hardly any outside income, who obviously came by their stocks merely through gifts or inheritances. Additional details are reproduced in Table 6.2.

7. Government Fiscal Activity

The study of government tax, expenditure and budget incidence can be regarded as one extension of the accounting approach, as contrasted to the deterministic approach, of understanding the distribution of income. The starting point is a so-called 'pre-fiscal' income distribution, to which distributions of taxes (losses) and of expenditures (gains) are to be applied, resulting in a so-called 'post-fiscal' income distribution. Pre-and post-fiscal distributions can then be compared. However, it would be a serious error to suppose that the pre-fiscal distribution came to be the way it is without the assistance (or through no fault)

of the government. 49 It merely happens that, as yet, there are no studies which measure the influence of government policies, deterministically speaking, on the pre-fiscal distribution. This needs to be borne in mind when reviewing fiscal incidence research.

7.1. Tax Incidence

The studies of tax incidence in the Philippines (Joint Legislative-Executive Tax Commission (JLETC), 1964; National Tax Research Center (NTRC), 1974a; Tan, 1975) have concentrated on the quantitative allocation of taxes to various income classes, using judgmental assumptions of incidence shifting. Although these assumptions have not been tested, they have remained roughly fixed over time. For instance, two-thirds of the corporate income tax is supposed to be borne by those with incomes of \$10,000 and up (the assumed class of corporate stock holders), and one-third is supposed to be shifted forward. Excise and business taxes are assumed to be shifted forward, on the ground that pertinent demand curves are inelastic, except for a small proportion falling on the business owner.

In his survey article on fiscal incidence studies in developing countries, de Wulf (1975) emphasizes (p. 97): "The basic assumption is thus that the existing income distribution is the same as that which would exist under an alternative tax/expenditure system or in the absence of a revenue or expenditure system. In the light of the many studies of individual taxes that have amply illustrated that no tax is really neutral and that each tax/expenditure system affects resource allocation in various ways, this fundamental assumption is invalid."

who are invariably assumed to come from the top income brackets. Since the indirect, or forward-shifted, taxes constitute about two-thirds of tax revenue (1971), they dominate the incidence pattern, making it regressive (effective tax rates falling as income rises) for the lower 95% of families. (The NTRC study suggests that tax incidence turned regressive in 1971 from being slightly progressive in 1961; see Table 7.1). At the same time, however, there is a clustering of assumptions of non-shifting which imputes a portion of certain taxes onto the top few income classes and causes the end of the effective tax rate curve to curl upwards, indicating progressivity (effective tax rates rising with income) only among the uppermost 5% of families. Thus the implied tax incidence pattern is basically regressive, since the slight curl for this 5% does not quite warrant the description of "U-shaped."

In his survey of 44 studies covering 22 developing countries other than India, de Wulf (1975) finds that only in two countries, namely the Philippines and Greece, could taxes be characterized as regressive. More than half of the other studies found some progressivity, and one-fifth found a rough proportionality; the rest were inconclusive. Nevertheless, the conventional wisdom that developing countries' tax structures are regressive is accurate in the Philippine case. It also holds in Thailand, according to Krongkaew (1979). In Malaysia, the tax-incidence pattern is allegedly U-shaped, viz., as income increases, it is first regressive and later progressive (Ishak Shari, 1979).

Table 7.1. Tax Incidence Patterns, 1951 and 1971.

Lower 50 After taxes on thouseholds Before all taxes After taxes on the production 6 sales Lower 50 4.2 4.2 4.6 3.2 4.9 4.1 3.9 3.1 Lower 50 57.8 63.1 59.7 64.8 60.2 65.8 75.2 ,61.7 Upper 10 42.2 36.9 40.3 35.2 39.8 34.2 42.8 38.3				Cuma	ative P	Cumilative Percentage of Income	INCORE	edatema ratio e demo-citi ci oc-sangue dipodino	CONTRACTOR
4.2 4.2 4.6 3.2 4.9 4.1 3.9 4.2 4.2 4.6 3.2 4.9 4.1 3.9 17.3 17.8 17.9 17.1 18.2 18.7 16.7 57.8 63.1 59.7 64.8 60.2 65.8 75.2 42.2 36.9 40.3 35.2 39.8 34.2 42.8	Cumulative Percentage of Households	Bafore al		After all	150 150 150 150 150 150 150 150 150 150	After tax property &	income	After ter production	S sales
4.2 4.5 3.2 4.9 4.1 3.9 17.3 17.8 17.9 17.1 18.2 18.7 16.7 57.8 63.1 59.7 64.8 60.2 65.8 75.2 42.2 36.9 40.3 35.2 39.8 34.2 42.8		1967	1971	1951	1971	1961	1973	1961	1971
17.3 17.8 17.9 17.1 18.2 18.7 16.7 57.8 63.1 59.7 64.8 60.2 65.8 75.2 42.2 36.9 40.3 35.2 39.8 34.2 42.8	Lower 20	40.2	4,2	9°	3.2	ි 	रून यो	ტ რ	e2
57.8 63.1 59.7 64.8 60.2 65.8 75.2 , 42.8 42.2 35.2 39.8 34.2 42.8	Lower 50	44 0.00	17.8	17.9	40	188.2	19.7	16.7	(?) (Q)
42.2 36.9 40.3 35.2 39.8 34.2 42.8	Lower 90	57.8	e 23	59.7	8. 8.	60.2	65.	75.2	, 61.7
	Upper 10	42.2	36.9	E. 04	35.2	8000	34.2	# C = C = C = C = C = C = C = C = C = C	38.

Source: JLETC (1964) and NTRC (1974a).

Although the tax incidence studies pertain to only two reference years (1961 and 1971), there can be little doubt that the same pattern would be found for all other years, as long as the same incidence-shifting assumptions are maintained, and the tax mix, which is annually recorded, stays roughly the same. In particular, no conceivable changes in the mix of consumption expenditures, and its distribution according to income classes, could significantly change the result. It is a bit incongruous, therefore, that tax incidence studies should have to "wait" for the availability of a household expenditure survey, since it is the tax structure itself, as well as the economic environment in which it operates, that makes for possible changes in the incidence pattern, rather than the pattern of consumer expenditures. In other words, the more interesting subjects for tax incidence research are the incidence-shifting assumptions themselves, which were first set down nearly two decades ago. For example, how did the rent control decree of 1972 affect the incidence of the real property tax; and what is the expected effect of the rent control amendment of 1979? How did the tax amnesties of 1973 and 1974 affect the tax incidence patterns in those years?

7.2. Expenditure Incidence and Net Budget Incidence

As in the case of tax incidence, studies on government expenditure incidence make extensive use of allocation formulae

drawn from judgment as to how various income classes are probably affected. Jayme (1974) used twelve categories of expenditures. ⁵¹
For the years covered by her study, 1961, 1965 and 1971 (FIES years), she concluded that government expenditures were redistributive:

	Gini Concentre	After government
COREZÁR A CHON-CONTROCRONARIO CONTROCAS ENCACAMINA	expenditures	expenditures
1961	.504	.471
1965	.505	.472
1971	.486	.451

Public elementary school and welfare expenditures were by far the most effective in redistributing income. Agriculture, health, highway, agrarian reform expenditures also contributed to narrowing income differentials, while labour, veterans, debt service, trade, and tourism and natural resource expenditures worked against a redistribution favourable to the lower income groups. It bears

Education, agriculture, agrarian reform, health, highways, labour, welfare, debt service, veterans, general economic development general social development, general services and administration.

stressing, however, that these conclusions only reflect the relative sizes of the expenditure categories. The issue of whether or not a category was actually redistribution was not resolved empirically.

The National Tax Research Center (1974b), on the other hand, used five alternative sets of assumptions in its study of the incidence of government expenditures:

- (a) All government expenditures were treated as shared equally by all families.
- (b) Half of all expenditures were distributed on an equal per capita basis and the other half is proportion to income.
- (c) Government expenditures were first classified into personal services, rents, interests, loan repayments, etc. Then survey data were utilized to determine the proportion of family income derived from government; ⁵² other expenditures such as rent, interest and others were allocated on <u>a priori</u> grounds.

 $^{$^{52}\}mathrm{Personal}$ services amounted to about fifty per cent of total government expenditures in 1971.

- (d) Specific types of expenditures were assumed to accrue to specific occupational classes.

 Agricultural expenditures were treated as going to farmers, farm laborers, fishermen, hunters, loggers and related workers in proportion to their income. Similarly, transport and communication expenditures were allocated to workers in that sector. Social development expenditures (education, health, labour and welfare) were distributed in proportion to income; while general expenditures (except for the public debt) were allocated on a per capita basis.
- (e) Same as (d) except that general expenditures were allocated on an income-proportionate basis.

Almost all these assumptions lead to estimates of expenditure-incidence which are relatively favorable to the lower income groups. The NTRC assumptions are more generous than Jayme in assigning government outlays to the lower income groups, and thus result in smaller estimates of post-expenditure inequality.

Tan (1975), using a special household survey conducted between April-September 1974, also attempted to allocate government expenditures across income classes. Her survey had information of household access to some government services, including certain