

# Personal Income Distribution and Personal Savings in Pakistan: 1963/64

by

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## SCOPE AND LIMITATIONS

One of the objectives of Pakistan's Third Five Year Plan is "to make substantial progress towards achieving certain specific social objectives such as diminishing inequalities in the distribution of income....." [4, p.39]. The main purpose of the present study is to measure these inequalities. As the basic source we have used provides data on private consumption as well as on personal income, some rough calculations on personal savings (as residuals) have been included in this paper.

Income distribution and savings in Pakistan have been studied by others in the past. A few papers have appeared in this *Review* and elsewhere [3; 6 and 10]. However, due to the limitations of data, all of them have been confined to the coverage of particular geographical areas, population groups or industrial sectors, whereas the present paper, in principle, deals with all personal income and savings in the country.

The data for this study were mainly obtained from the "Quarterly Surveys of Current Economic Conditions" conducted by the Central Statistical Office (CSO) during the fiscal year 1963/64. Since similar information was not available for other years, the scope of the present study had to be limited to the one year, 1963/64. This severe limitation must be fully kept in mind when conclusions are drawn on the basis of our findings. While the results may be valid for 1963/64, their generalization over time would depend on the degree of stability of the various functional and structural relationships involved. E.g., aggregate personal savings rates are probably very unstable, particularly in the rural areas of Pakistan and hence in the country as

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a whole. As pointed out by Lewis and Khan: "there are not likely to be any stable aggregate relations between saving and income in a developing country..... a variable (saving) so strongly affected by world markets and by agricultural output" [10, p. 23]. Savings rates by income groups (by size of income) should, however, be less affected by year-to-year fluctuations in prices and physical output. Similarly, the relative income distribution by size might be fairly stable over a number of years, even if the aggregate income is subject to substantial fluctuations. The functional distribution of personal income (wages, self-employment, *etc.*, as relative shares of the total) may be somewhat, but perhaps not significantly, affected by short-term fluctuations in total income. Again, this effect, if any, relates more to the rural than to the urban areas. Finally, the East-West and even more the rural-urban relative shares of total personal income are influenced by changes in agricultural factor income.

The degree of instability in the various relations which the present paper deals with, will remain uncertain until basic data become available for a number of years. In spite of these uncertainties, estimates based on actual observations for one year may be useful supplements to mere guesses based on subjective considerations only.

Apart from the instability problem, the reliability of some of the findings for the year 1963/64 can, of course, also be questioned. Some of the deficiencies of the Quarterly Survey data and their effect on our results are discussed in Section II.

Income data from the income tax returns have, to a minor extent, been used as supplementary material. The CSO's national income estimates, the government budgets, and a few other sources have provided the basis for an attempt to check the estimated aggregate personal income.

The income distribution results might be a little more reliable than the savings figures, because the latter are extremely sensitive to even relatively small errors in the observations of income and household expenditures. The main emphasis should, therefore, be put on the income distribution aspect of the study.

## **II. THE QUARTERLY SURVEYS OF CURRENT ECONOMIC CONDITIONS, 1963/64**

At the time this paper was being written, the CSO had not yet published the results of the 1963/64 Quarterly Surveys (QS), but we have had access to the main tables in the forthcoming CSO publication and also to the individual 8-9000 household schedules. The QS is a continuation of the previous National Sample Surveys (NSS), first, second and third round, which contained data on personal income and expenditures. The NSS pertained to the rural areas only,

whereas the coverage of QS has been extended to both the rural and the urban areas. Furthermore, the QS provides more information about the personal (household) income, by size and by source. It consists of separate surveys carried out in each of four areas, namely urban and rural areas in East and West Pakistan. They are supposed to be mutually consistent so they can be aggregated by applying proper weights. Cities and towns with five thousand people or more form the urban areas, and the rest of the country is defined as rural. A two/three stage stratified sampling technique was used, the last stage unit being the household. Information was collected from the households by interviews during the period July 1963-June 1964. One-fourth of the households in the sample were supposed to be contacted in the first quarter, another one-fourth in the second quarter, and so forth, selected in such a way that seasonal fluctuations in income and expenditures were to be levelled out<sup>1</sup>. A selection of 10,710 households was made for the sample, but only 8,096 of them were incorporated in CSO's actual sample. Non-contacted households and rejected schedules made up the difference.

TABLE I  
DISTRIBUTION OF SAMPLED HOUSEHOLDS

	Selected for the sample	CSO's actual sample	Number of households in the actual sample for one thousand house- holds in the area
East Pakistan (rural)	3986	2952	0.3
East Pakistan (urban)	1735	1347	2.5
West Pakistan (rural)	2782	2106	0.3
West Pakistan (urban)	2207	1691	0.8
<b>Total</b>	<b>10710</b>	<b>8096</b>	<b>0.9</b>

*Source :* [1] and the CSO.

Table I above reveals two weaknesses of the survey. First, the sample is relatively small for measuring the income distribution. Sampling errors may become significant, especially for the characteristics of the thinly populated income groups. Second, the difference between the size of the planned and that of the actual sample is relatively large, on the average amounting to 24 per cent or 2,614 households. For 702 of these households the income data had been

<sup>1</sup>A detailed description of the sample design and the method of conducting the surveys may appear in the CSO publication.

collected and the schedules were sent in to the headquarter, but they were, for various reasons, not incorporated in the CSO's final tables. These rejected returns, however, were made available for the present study.

The reason for rejection had in most cases been incomplete or inconsistent information about the household expenditures. In other cases there were some apparent inconsistencies between income and expenditures. The income data in the rejected returns seem to be as good as the corresponding data in the accepted returns. On the average, the rejected returns showed higher income than the accepted ones, notably for the urban areas, we have incorporated all of them in our estimates of income distribution. As far as income is concerned, our actual sample is thus 19 per cent below the planned sample (15, 16, 16, and 22 per cent respectively for the four areas).

The missing 19 per cent consists mostly of households which had not been contacted or had refused to respond. The major reasons for non-contact were communication difficulties, deficiencies in the lists of households, movements, *etc.* To some extent lack of cooperation by respondents is experienced in all surveys of this kind, in all countries, because some people are reluctant to reveal information about their income and expenditures.

A crucial question is whether these cases of non-contact and non-response have caused any significant bias in the sample with regard to income distribution or savings rates. The possibility cannot be excluded that the incomes of non-responding households were by and large above the average. Income data contained in the income tax returns provide some evidence that the QS has missed relatively more of the high than of the medium and lower income groups in the urban areas. In addition, there is also a possibility that relatively more has been missed out in the extreme low than in the medium income brackets, especially in urban areas. Our results may thus understate income inequality.

### III. THE CONCEPT OF PERSONAL (HOUSEHOLD) INCOME

Household income as defined in the Quarterly Survey consists of the 13 items listed in the left column of the Table III. The five items under sub-heading "A" refer to the last one month before the month of the enumeration, whereas the eight items under sub-heading "B" refer to the last year (last 12 months). Not all of these 13 items show up separately in the final tables in the forthcoming CSO publication as they have been consolidated into four main categories, *viz.*, salaries and wages, self-employment and property, gifts and assistance and all others<sup>2</sup>. The composition of these categories of income has been shown by the X's in Table II.

<sup>2</sup>All the B-items are converted to a monthly basis.

TABLE II

## COMPOSITION OF VARIOUS ITEMS OF INCOME

<div style="display: flex; align-items: center;"> <div style="text-align: right; padding-right: 10px;">→ Income by source in the QS tables</div> <div style="border-left: 1px solid black; width: 10px; height: 10px; margin: 0 10px;"></div> <div style="text-align: left; padding-left: 10px;">Income by source in the QS questionnaire ↓</div> </div>		(a) Salaries & wages	(b) Self- employment & property	(c) Gifts & assistance	(d) All others
A	1. Salaries & wages	X			
	2. Self-employment		X		
	3. Rent		X		
	4. Professional fees		X		
	5. Other sources				X
B.	1. Interest		X		
	2. Dividends				X
	3. Borrowings				X
	4. Agricultural farm		X		
	5. Sale of property				X
	6. Gifts & charities			X	
	7. Savings withdrawals				X
	8. Other sources				X

The ideal income concepts for measuring personal income distribution and personal savings would be:

- 1) Personal (household) income defined either as
  - a) net factor income accrued to the household, or as
  - b) net factor income plus current, direct transfers to the household from outside, and
- 2) Personal (household) *disposable* income, defined as net factor income plus current, direct transfers less direct taxes paid by the household.

As Table II shows, there is quite a distance from the QS income concept to any of these ideals. However, by deducting some of the items included in the QS income we get a modified income concept which comes not too far from 1.b above and thus can serve our purpose.

First, the QS income includes three main items which are obviously not income, but dissavings, namely: "borrowings" (B-3), "sale of property" (B-5) and "savings withdrawals" (B-7). Also item B-6, which is supposed to cover "gifts and charities *occasionally* from friends, relatives, religious and charitable institutions", in cash and in kind, should be deducted. If occasional gifts and charities were to be regarded as "proper" transfers, they should be deducted from the supporter's rather than the recipient's income, when transfers are to be included in the income concept. It was not possible to do so because this item showed up separately in the recipient's and not in the supporter's income

account. Furthermore, we are inclined to regard occasional gifts and charities to be household expenditures on the donor's account rather than proper transfers. In fact, they are treated both as transfers and household expenditures in the surveys, where they appear in the donor's as well as in the recipient's income and in the household expenditures of the former. The item is small on the average (0.6 per cent of the total personal income of the country as a whole), but relatively substantial in the lowest income group. It would have reduced the estimated income inequality slightly if it were included in the recipient's income<sup>3</sup>. "Other sources" (A-5 and B-8) include pensions, bonus, house rent allowances, and "regular contributions from sons and daughters staying elsewhere". In case the contributing son or daughter belongs to another household or is counted as a separate household in the universe from which the sample has been drawn, the contributions imply double counting and should have been deducted from the contributors' incomes. It was not possible to make such corrections for the various income groups. Preliminary results from the survey of the first quarter of 1965, where transfers between households were recorded separately on the contributors' expenditure account, indicate that these transfers are insignificant. Contributions from close relatives who do *not* count as separate households or as members of other households will apparently amount to much more, and *their* contributions have not been double counted.

A problem which has relevance to the three components, *i.e.*, "self-employment" (other than agriculture) (A-2), "rent" (A-3) and "agricultural farm" (B-4), is whether these items are net or gross of current inputs and depreciation. They are presumably net of current inputs, but it is doubtful to what extent depreciation allowances have been deducted. For property actually leased out, the enumerators were instructed to record "the income derived from such leases" as rental income. For owner-occupied or rent-free houses, imputed house rent was included both in income and expenditure. Most likely, the recorded rent is "more" gross than net of depreciation<sup>4</sup>. The same is probably true in respect of agricultural income where depreciation appears to have been deducted only for smaller implements and spare parts. Apparently no depreciation allowance has been deducted for farm buildings, machinery or transport equipment. Finally, income from self-employment (other than agriculture), which extends to all private, non-corporate industrial and business activities, is a mix of gross and net. Our guess would be that it is closer to net than to gross

<sup>3</sup>In the calculations of savings we have added this item again, because all the household expenditures have been deducted, also those which were met by gifts and charities. Also food received as gifts was included in the recipient's household expenditures if consumed during the reference period (whereas other gifts in kind apparently have been treated differently).

<sup>4</sup>In fact, the formulations used in the instructions may leave some doubts about current inputs too, *e.g.*, interest and maintenance.

A number of objections can be raised against this rough calculation, against the method and the source. The 70 crores is most likely a conservative estimate, for many reasons. Still, this amount had a substantial impact on the urban income distribution, but not on the distribution of the total personal income in Pakistan.

#### IV. RECONCILIATION OF PERSONAL INCOME AND NATIONAL INCOME ESTIMATES

Our estimates of gross personal income 1963/64 and its distribution appear in Appendix Tables A-1 to A-9. For the country as a whole gross personal income is estimated at Rs. 3912 crores on a yearly basis. Before a discussion of the distribution of this total is undertaken, it would be appropriate to get a rough measure of consistency between this aggregate and the CSO's estimate of gross national product.

Within a standard national accounting framework, the gross personal (household) income as defined in the foregoing section can, for the household sector as a whole, be expressed in the following terms: Gross personal (household) income = Gross national product at factor cost (*i.e.*, gross factor income) *less* Gross government factor income *less* Direct taxes on corporations and on non-corporate firms<sup>8</sup> *less* Gross corporate savings *plus* Interest on internal, national debt *plus* Net direct transfers on current account from government and from abroad to the private sector (including corporations).

This equation is not valid without qualifications, of which two need to be examined. First, the reference period must be the same for all items on both sides. Second, the prices implicit in the personal income must be consistent with those in the GNP.

The official estimate of GNP for 1963/64 at current factor cost, Rs. 4151.5 crore [2], refers to the fiscal year, which is also the reference period for which the other items on the right-hand side of the equation above can be estimated. For parts of the personal income estimates however, the reference period is different. Wages and salaries, rent, professional fees and a part of "other sources" (all the A-items) refer roughly to the fiscal year 1963/64<sup>9</sup>, whereas "agricultural farm" income, interest, dividends and a part of "other sources" (the B-items) should be simple averages of 1962/63 and 1963/64<sup>9</sup>. Assuming that income from "agricultural farm" has increased from 1962/63 to 1963/64 in the same proportion as gross value added in agriculture (the latter contains more than what is supposed to be covered by the former), and assuming that the other

<sup>8</sup>Non-corporate firms' income after taxes is presumably included in the personal income estimate.

<sup>9</sup>To be exact, they should rather refer to June-May, but we disregard the one-month time lag.

three items in the two-year average category have increased at the same rate as the non-agricultural part of GNP, the personal income estimate should have been around 16 crores higher if adjusted to the year 1963/64.

With regard to the second qualification there is a discrepancy between the prices for home produced and home consumed food applied in our personal income estimation and those implicit in the GNP. The former are supposed to be local "prevailing retail market prices" in the month of consumption (*i.e.*, the month before the enumeration month), whereas the latter are wholesale prices at time of harvest. A similar price discrepancy relates to quantities which the farmers may have sold on retail markets, because wholesale prices were applied to the total production in the GNP estimates, whereas the actually realized money income was supposed to be registered in the Quarterly Survey. Now, as far as the imputed farm income is concerned, the enumerators were, in a lot of villages, faced with the difficulty that local markets were non-existent, so they could not get any local market prices. In such cases the imputed income may have been based on prices which the farmer (or other farmers in the area) had realized for quantities actually sold, *e.g.*, wholesale prices at the time of harvest. Anyway, we had no means to calculate the difference between GNP and personal income caused by price discrepancies.

For the savings estimates the prices of home produced and home consumed goods do not raise any problem, because one and the same set of prices was supposed to be used on the income and the expenditure side. But for the interpretation of the income figures, notably in respect of the income distribution, the principles used for the imputations are of some importance. The issue has, therefore, been subject to a closer examination in the appendix on imputed farm income<sup>10</sup>, where we conclude that the principles laid down in the Quarterly Surveys for imputing farm income are adequate for the purpose of measuring personal income distribution.

Government factor income, interest on rupee debt, and direct transfers from the government to the private sector can be derived from the central and provincial government budgets. There was no firm basis for estimating gross corporate savings and direct taxes paid by corporations, but some, presumably rather conservative, estimates were made on the basis of the central government budget and available balance sheets for a number of public joint stock companies.

The outcome of the reconciliation exercise is shown in the account below. It is likely that gross corporate savings have been understated, and so also the

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<sup>10</sup>See, page 189.



provincial products at current prices have been released so far, but a breakdown of the 1963/64 GNP at 1959/60 prices has been made [8], and a comparison on that basis shows:

**TABLE IV**  
**PROVINCIAL SHARES OF PERSONAL INCOME AND GNP**

	Shares of	
	1963/64 gross personal income	1963/64 GNP at 1959/60 factor cost
East Pakistan	48.3 %	49.0 %
West Pakistan	51.7 %	51.0 %

East Pakistan's share of GNP would be slightly lower at current compared to constant 1959/60 prices. On the other side, corporate taxes and savings entries which are included in the GNP but not in the personal income, amount to relatively more in West than in East Pakistan. As far as the distribution by provinces is concerned, the almost perfect consistency should increase the confidence in the personal income as well as in the GNP estimates.

#### V. REGIONAL DISTRIBUTION OF PERSONAL INCOME

Aggregate personal income for each of the four areas and their relative shares of the national total are shown in Table V. The distribution of this total by province appears in the bottom row, and that between rural and urban areas in the last column.

**TABLE V**  
**TOTAL PERSONAL INCOME 1963/64**

	<i>(rupees crores)</i>		
	East Pakistan	West Pakistan	All Pakistan
Rural areas	1730 (44.3%)	1456 (37.2%)	3186 (81.4%)
Urban areas	158 (4.0%)	568 (14.5%)	726 (18.6%)
Combined (rural and urban)	1888 (48.3%)	2024 (51.7%)	3912 (100.0%)

These figures are obtained by blowing up each of the four samples, on the basis of the population figures used for the per capita GNP estimates by province in 1963/64 [8, pp. 200-202], the rural-urban population ratios of each province according to the 1961 Census of population [9] and the average number of persons per household in the respective areas as estimated in the survey.

Urban personal income counts for less than one-fifth of the national total. In East Pakistan, the urban share comes to one-twelfth only, compared to one-third in West Pakistan.

In terms of per household and per capita income the urban areas are far ahead of the rural. East Pakistan lags substantially behind West, except in the urban areas.

TABLE VI

AVERAGE PERSONAL INCOME PER CAPITA 1963/64<sup>1</sup>

(Rs. per year)

	East Pakistan	West Pakistan	All Pakistan
Rural	305	373	333
Urban	509	515	513
Combined	316	406	357

<sup>1</sup>Differences between the areas with regard to persons per household are taken care of in the computations. On the average a household stands for 5.5 persons in the rural areas of both provinces, and for 5.7 in East urban and 5.9 in West urban.

The relative East-West disparity in per capita personal income turns out to be as follows:

	Rural areas	Urban areas	Combined rural & urban	GNP per capita 1963/64 <sup>1</sup>
East Pakistan in percentage of West Pakistan	82%	99%	78%	78%

<sup>1</sup>At 1959/60 factor cost.

It may be noticed that the *overall* disparity between the provincial per capita income is much higher than any of the *partial* disparities shown in our figures. There is almost no disparity between urban East and urban West, and for the rural areas separately the per capita income in East is 18 per cent below that of West, but when we combine the rural and the urban areas the overall disparity rises to 22 per cent. The higher overall disparity is a result of the rural areas' much larger share of the provincial income in East than in West Pakistan and the much higher per capita income in the urban than in the rural areas in both provinces.

The rural-urban disparity in personal income per capita, according to the estimates, works out as below :

	East Pakistan	West Pakistan	All Pakistan
Rural per capita income as % of urban	60%	72%	65%

The rural-urban disparity in *factor* income per capita would be higher, because gross profit of corporations, which is included in GNP but not in the personal income except for dividends, accrues primarily to the urban areas. Interest on national debt, which is included in private income (personal and corporate), but not in GNP, may have some offsetting effect.

Keith B. Griffin has in his article in this *Review* [5, pp. 606-608 and p. 628] related gross value added in agriculture to the total rural population and called it rural income per capita, which then came to only 16 per cent of urban per capita income. He thus assumes that either no income accrues to rural population for their activities in non-agricultural sectors or that the rural population does not take any part in those activities<sup>11</sup>. This is incorrect. In fact, non-agricultural sectors, e.g., transport, trade, small scale industry and others, contribute substantially to the income of rural population.

## VI. PERSONAL INCOME DISTRIBUTION BY SIZE OF INCOME

Ranking the households according to the size of their monthly income and cumulating from the bottom the household frequencies of each income group, we get a relative distribution of households as shown in Table VII<sup>12</sup>.

An area-to-area comparison of the frequency distribution columns should be subject to a few qualifications. In terms of welfare (however defined), a given household income does not mean exactly the same in each of the four areas, because of the differences in family size, regional prices and consumption patterns. Disregarding all these considerations for the moment; if we assume that a household income of Rs. 100 a month represents the lower limit for subsistence, the figures tell that more than one-third of all households lie below the subsistence level. The ratio is two-fifth in East and one-fourth in West Pakistan. It is substantially lower in the urban areas than in the rural, but the number of urban households is so small compared to the rural, particularly in East Pakistan, that the ratios for combined rural-urban come close to those for the rural areas.

If we raise the limit to Rs. 150 per household per month, almost two-thirds of all the households living in East Pakistan and one-half of those in West

<sup>11</sup>Griffin has mentioned cottage industry as the only sector that has been omitted.

<sup>12</sup>This is an extract from Appendix Tables A-1 to A-9.

TABLE VII

## DISTRIBUTION OF HOUSEHOLDS BY INCOME GROUP

[illegible]

Pakistan, adding up to almost 60 per cent of the households in the country, lie below the limit. At the top income brackets we find only 0.6 per cent of the households above Rs. 900 a month—0.4 per cent in East and 0.9 in West Pakistan. We must go down to Rs. 400 (or even slightly below that) in order to cover 5 per cent of all the households, (3.4 per cent only in East and 6.4 per cent in West) and down to Rs. 300 to get 10 per cent.

Table VIII shows how much of the total personal income goes to the lowest 5 per cent of the households (lowest in terms of income per household), how much to the lowest 10 per cent, 20 per cent and so forth. The figures are derived from the Appendix Tables A-1 to A-9, by interpolations.

The last column in the table shows that the lower half of the households in the country get about one-fourth of the total personal income. In other words, on the average their income per household is only one-third of the average income of the other half of the households. The top 5 per cent of the households get 20 per cent of the income, which means that they on the average are about five times as well off as the rest of the population.

The table also shows that a much higher degree of inequality exists in the urban areas than in the combined rural and urban areas. The inequality is higher in urban East than in urban West Pakistan. Out of the total urban personal income in the country only one-fifth goes to the lowest half of the households, whereas the top 5 per cent get more than one-fourth.

When making comparisons of this kind between urban and rural areas, or between the two provinces, one should keep in mind the regional differences in average income per household. Thus, even though the bottom half of the urban households get only 21 per cent of the urban personal income, whereas the bottom half of the rural households get 26 per cent of the rural income, the former are on the average better off than the latter. Similarly, with the same relative share of the provincial total the bottom half is on a lower level in East than in West Pakistan.

One implication of regional differentials in average income is that when combining two (or all the four) areas, the income distribution in the combined area may be more unequal or less unequal than the distribution within any of the two (or four) areas.

Figures 1, 2 and 3 are graphical illustrations, in terms of Lorenz curves, of the income distribution shown in Table VIII. The cumulated household frequencies are measured along the X-axis and the corresponding cumulated income shares along the Y-axis.

**TABLE VIII**  
**INCOME SHARES OF ORDINAL GROUP**

[illegible]

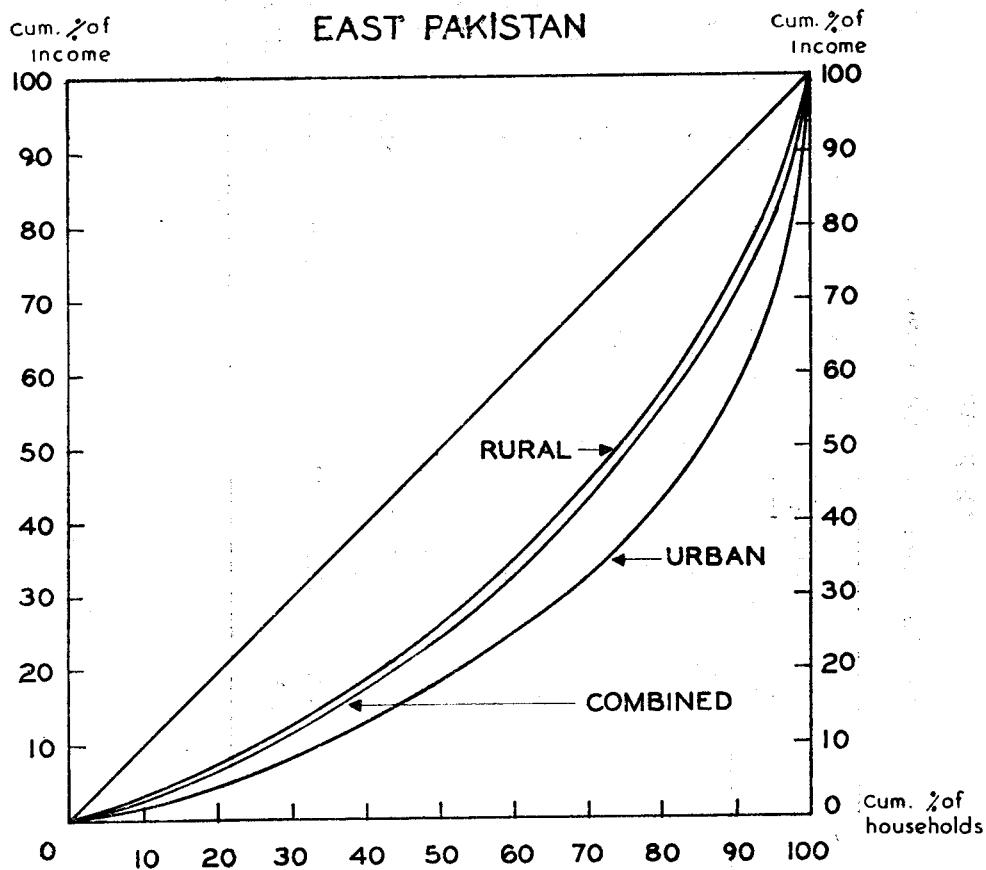


Figure 1. Personal Income Distribution

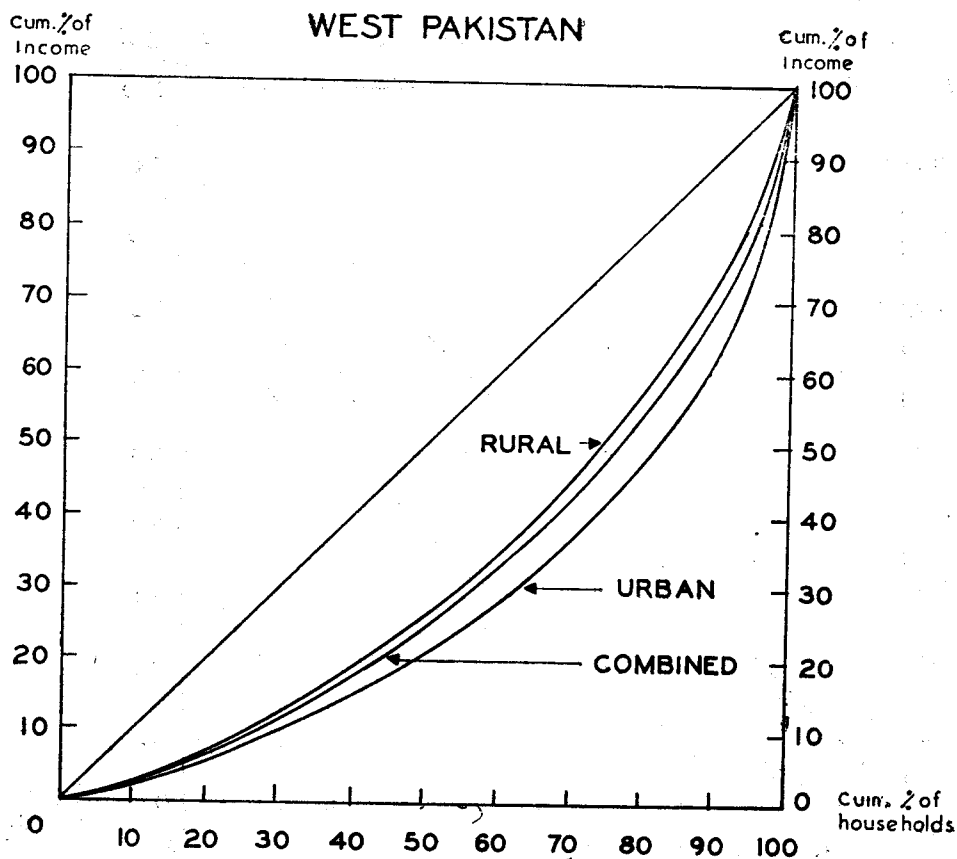


Figure 2. Personal Income Distribution



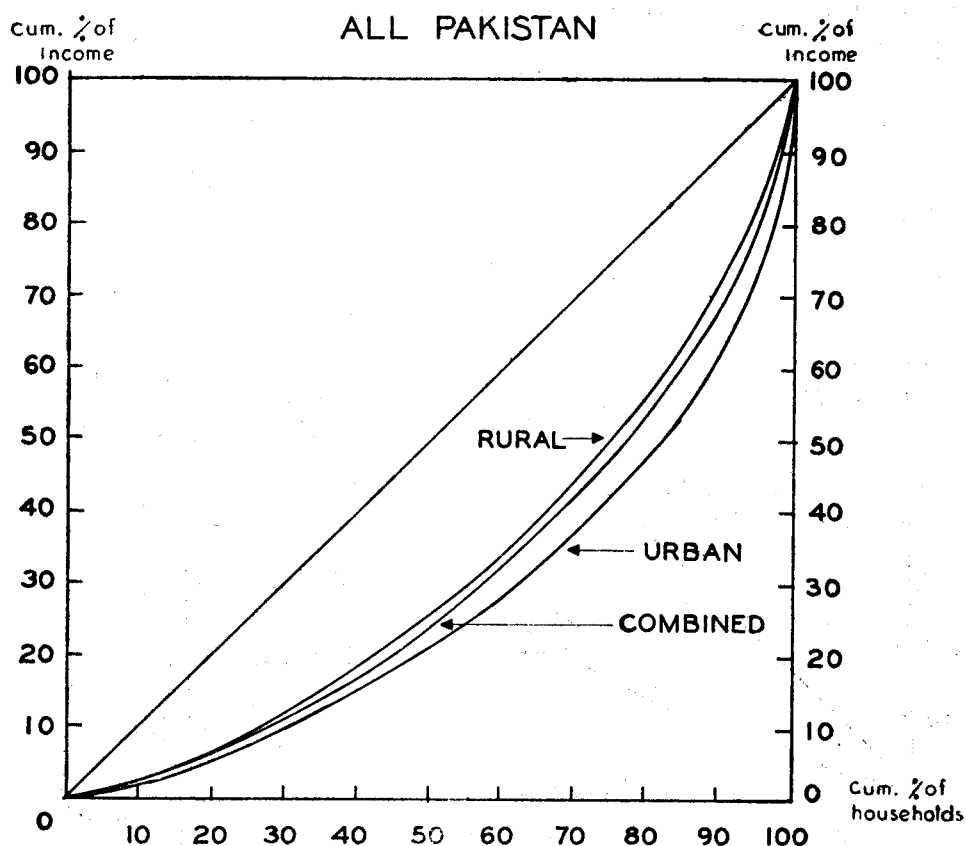


Figure 3. Personal Income Distribution

By definition we have got perfect equality if every income receiving unit gets the same income. In this extreme case, the Lorenz curve will be a straight line coinciding with the diagonal. If there is any inequality, then the curve must, at least from a certain point, lie below the diagonal. Parts of the curve may still be straight lines, which would illustrate equal distribution within the corresponding ranges.

Our notion of inequality can be rationalized in a simple way by defining the degree of inequality as the area between the curve and the diagonal divided by the whole area below the diagonal, the so-called concentration ratio or Gini coefficient. This ratio is to be regarded as an index of inequality shown in the curve and in the relevant columns of Table VIII.

The concentration ratios corresponding to Table VIII and Figures 1, 2 and 3 are shown in Table IX below:

**TABLE IX**  
**CONCENTRATION RATIO, 1963/64**

East Pakistan, rural areas	0.346
East Pakistan, urban areas	0.491
East Pakistan, combined	0.368
West Pakistan, rural areas	0.357
West Pakistan, urban areas	0.430
West Pakistan, combined	0.381
All Pakistan, rural areas	0.356
All Pakistan, urban areas	0.445
All Pakistan, combined	0.381

For the interpretation of the income distribution figures (and curves) it must be noticed that the equality concept is automatically linked with the definition of the income receiving unit, which in this case is the household. Had the receiving unit been an individual, an income earner, a person in the labour force, a taxpayer or something else, then the income distribution would have been different. Any comparison of income distribution between countries or regions might be misleading unless the distribution figures refer to the same income receiving unit, *e.g.*, household. In case the base units are different, a comparison must at least be duly qualified.

The Quarterly Survey schedules which form the basic source of information for the present study, also contains information on the number of persons and number of earners in each household. There is a high correlation between these two characteristics and even more so between the household size and income. For the country as a whole the average size of the household was 5.5 persons

but it ranged from 2.4 in the very low to around 10 in the high income groups. The average number of earners per household came to 1.5, ranging from 1.1 to 2.3.

It is a matter of discussion which base unit might be the most relevant for measuring income inequality. Any of the units readily available for studies of this kind is open to criticism. In our case the *household* was the unit used in the basic material. The Quarterly Survey contains, however, additional information which would make it possible to analyse the income distribution in terms of household income per capita or per earner. Because of the correlations pointed out in the preceding paragraph the income distribution would appear to be less unequal if income per household in the front column of Table VII were replaced by household income per capita or per earner. Because of the limited time and resources for the present study we did analyse the income distribution on these bases. It may be doubtful whether it would have been worthwhile to do it either. Considering the lack of social security in the country, the relatively large households in the high income groups may to a considerable extent include poor relatives who normally should have constituted separate households. The more favourable income distribution picture we would have got, might, therefore, have been somewhat misleading, unless the distribution were interpreted in a very special way.

In Section IV the per capita income was used for measuring the East-West Pakistan and the rural-urban disparities, because per capita income has been more commonly used for this purpose. The East-West disparity would come to almost the same if measured by income per household, because there is no mentionable difference with regard to average size of household between the two provinces.

Gross personal income figures in the present paper include direct taxes paid by the households. If direct taxes are deducted, we get (gross) *disposable* personal income. We have no basis for measuring the distribution of the disposable income in Pakistan. In general, a system of progressive direct taxes makes the income distribution more equal. Government transfers to households (negative direct taxes) add to the equalization. The income tax in Pakistan, which pertains to non-agricultural income only, is progressive—the tax rate itself is, and the provisions about tax exemptions and deductible allowances are supposed to work in the same direction. Therefore, the *disposable* personal income in the urban areas of Pakistan, and hence in the country as a whole, would be a little more equally distributed than the personal income before taxes<sup>13</sup>.

<sup>13</sup>Mrs. K. Haq [6, p. 626] seems to have drawn the opposite conclusions.

## VII. PERSONAL INCOME IN PAKISTAN COMPARED TO OTHER COUNTRIES

We do not know of any estimates of income distribution in Pakistan that can be directly compared with the findings in the present paper. Mrs. Haq's article [6] is based on a study of a very small fraction of the population, accounting for not more than 0.5 per cent of the households in the country, or 5 per cent of the urban households<sup>14</sup> belonging to the highest income groups. The main concern of her study has been to show how the income of these people has been distributed among them. This is a minor detail in the context of the present study, which deals with the whole population and the distribution of their personal income. To phrase it differently, her study is concerned with the shape of those parts of the *urban* curves in Figures 1, 2 and 3 which, measured horizontally, run from 95 to 100, and her concentration ratios *etc.*, relate only to those parts. Relating her coverage to the *combined* rural-urban, the range she is concerned with, goes from 99 to 100 only. Any conceivable distribution within the range 95 to 100 (cum 99 to 100) would be compatible with any conceivable distribution within the range 0-95 (0-99). Therefore, a comparison of her findings with those of the present study, which is concerned with the range 0-100, would be meaningless and misleading. So also is any comparison between her results and income distribution in other countries if the latter cover much more than the upper 5 per cent of the urban population, whatever reservations one makes.

G. M. Farooq's monograph [3] contains figures on distribution of families in Karachi city by family income in 1959. Assuming that the income receiving unit "family" roughly corresponds to the household unit as defined in the Quarterly Survey, the income distribution pattern in Karachi, according to Farooq's findings, is not in conflict with the results of the present study. But that is all we can say about it. As he has pointed out in his paper, high income families have probably been missed out, so that the results with regard to inequality as well as to the median income per family are most likely too low.

Considerably more attention should be drawn to a comparison of the present study with studies of the same kind in other countries, preferably countries with similar economic and social structures.

A study undertaken by Ojha and Bhatt on the personal income distribution in India for the years 1953-57 was based on a household survey similar to the Quarterly Survey, but supplemented by a variety of other sources [13 and 14]. The personal income concept in the Ojha-Bhatt study was supposedly almost identical with that used in the present study, except that it may be net

<sup>14</sup>"It covers only 0.1 per cent of the total population and about 1 per cent of the urban population" [6, p. 640], but we assume that one taxpayer by and large stands for one household.

of depreciation. The Ojha-Bhatt study ended up with a much more equal income distribution for the rural as well as for the urban households in India compared to our findings for Pakistan. In terms of concentration ratios their results were 0.31, 0.40 and 0.34 for rural, urban and All India respectively, compared to our 0.36, 0.45 and 0.38 for Pakistan.

The method used by Ojha and Bhatt for estimation of income has, however, been subject to criticism [11]. Contrary to the surveys used in the present study, the Indian household survey did not provide income figures explicitly. Ojha and Bhatt have assumed that the household expenditures are equal to the disposable income, as far as households up to Rs. 3,000 a year are concerned. In other words, they assume zero savings in income groups below that limit. As pointed out by Mueller and Sarma [11], a household sample survey of urban income and savings, conducted by the National Council of Applied Economic Research of New Delhi (NCAER) [12] in 1960 showed substantial negative savings in the lower income groups, e. g., a savings rate of (—) 20.6 per cent in the disposable household incomes below Rs. 1,000 a year. The concentration ratio obtained by the NCAER for urban India 1959/60 was as high as 0.51 as compared to the Ojha-Bhatt ratio of 0.40 for 1953-57 for urban India and our 0.45 for urban Pakistan (1963/64). The ratio for urban East Pakistan, 0.49, comes close to the NCAER's findings for All India urban.

The Quarterly Survey data for Pakistan seem to support the contention that Ojha-Bhatt assumption is unrealistic. There *is* dissaving in the lowest income groups. In addition, the marginal rate of savings in these low income brackets is not zero either, which the Ojha-Bhatt assumption for India implies, but far above zero.

There is, though, a striking agreement between Ojha-Bhatt findings for India and our findings for Pakistan with regard to rural vs. urban income inequality. The alleged underestimation in Ojha-Bhatt study has probably not had any considerable impact on the rural-urban "disparity" in concentration ratios. Since these disparities are substantial in India as well as in Pakistan, and since economic development as conceived in both countries involves urbanization, one should expect that the inequality of the income distribution for All India and for All Pakistan will increase over time if the partial (rural and urban) inequalities remain unchanged. Measures to decrease the inequality in the urban areas would thus be required to avoid an *increase* in the overall income distribution inequality. If one aims at an overall *decrease* in the inequality, the measures must of course be much stronger.

Comparisons with a number of other countries are shown in Table X below.

**TABLE X**  
**CONCENTRATION RATIOS FOR PERSONAL INCOME**

	Overall	Urban
Pakistan 1963/64	0.38	0.45
India 1953/54—1956/57	(0.34)	(0.40) <sup>1</sup> 0.51 <sup>2</sup>
Ceylon 1952/53	0.42	
Average of Ceylon 1952/53, 1950 and 1957	Above 0.47	
Mexico/Barbados 1951/52 and Puerto Rico 1953		
United Kingdom 1951/52	0.33	
West Germany 1950	0.45	
United States 1950	0.35	
Italy 1948	0.40	

<sup>1</sup>Ojha-Bhatt estimate

*Source* : regarding figures for other countries than Pakistan and India: Ojha and Bhatt [14].

<sup>2</sup>NCAER estimate

Comparisons of income distribution, in terms of concentration ratios between countries like Pakistan, India and Ceylon on the one side and the United Kingdom, the United States and others on the other side are, in fact, not very meaningful. Income distribution in a poor country is a subject different from the income distribution in a rich country, except for the methods and formulae used for measuring inequality.

### VIII. PERSONAL INCOME BY SOURCE (FUNCTIONAL DISTRIBUTION)

The Quarterly Survey contained information about sources of income, which in Table XI have been consolidated into five categories. The table shows how much each of these five sources has contributed to the personal income<sup>15</sup>.

**TABLE XI**  
**DISTRIBUTION OF PERSONAL INCOME BY SOURCE, 1963/64**

	Wages and salaries	Self-employment in		Rent, Interest, dividends	Other sources	Total
		Agri-culture	Non-Agri-culture			
East Pakistan (rural)	18.2	43.3	9.0	5.9	23.6	100
East Pakistan (urban)	44.2	5.8	30.1	7.5	12.4	100
East Pakistan (combined)	20.4	40.2	10.8	6.0	22.6	100
West Pakistan (rural)	15.1	49.2	6.9	4.9	23.9	100
West Pakistan (urban)	55.6	4.1	24.9	5.8	9.6	100
West Pakistan (combined)	26.5	36.5	12.0	5.1	19.9	100
All Pakistan (rural)	16.8	46.0	8.0	5.5	23.7	100
All Pakistan (urban)	53.1	4.5	26.0	6.2	10.2	100
All Pakistan (combined)	23.5	38.3	11.4	5.6	21.2	100

<sup>15</sup>The specification differs from the one used in tables in the CSO's forthcoming publication. The most important difference is that "other sources" in Table X do not include borrowings, sale of property and savings withdrawals.

A substantial part of the unspecified "other sources", which count for more than one-fifth of the total income for the country as a whole, should most likely have been allocated to the other four sources. Recalling the discussion in Section II about the various income components, we suppose that, e.g., "regular contributions from sons and daughters staying elsewhere" to a large extent consist of wages and salaries which did not show up as such in the survey. These regular contributions may partly explain the high figures for "other sources" in the rural areas compared to the urban. In addition, we suppose that in case there has been some doubt whether an income should be regarded as wages or self-employment income or something else, it has wrongly been put into "other sources". Transfers from the government should probably have been the main item left under "other sources", if the allocation were done correctly.

The wage component as shown in Table X may, for these reasons, have been grossly understated. But even with a proper adjustment, the wage component would still have been low compared to the wage component in more industrialized countries, and perhaps still almost three times as high in the urban as in the rural areas. A comparison of the wage components in Pakistan with those in a number of other countries appears in Appendix Table A-17.

Appendix Tables A-10 to A-16 show the personal income by source for each income group, separately for each area. As should be expected, the wage component is relatively much larger in the lowest income groups than in the middle and high groups, particularly in the rural areas.

#### IX. SAVINGS

*Personal saving* is by definition disposable (i.e., post-tax) personal income less consumption expenditures. The gross personal income figure in the present paper is not disposable income, but personal income before taxes. The household expenditures as they appear in the Quarterly Surveys schedules include direct taxes (they are included in miscellaneous expenditures). So, if we deduct from our personal income estimates the household expenditures, and add "gifts and assistance" which were excluded from the income (see Section VI), we should get *gross personal savings*<sup>16</sup>.

Expressed in savings rates the amount of savings should be related to disposable income and not to personal pre-tax income. Since the information available does not allow that, the savings rates we have worked out relate to income before taxes<sup>17</sup>. If related to disposable income, the rates would have been a little higher.

<sup>16</sup>Net of taxes, but gross of depreciation, if any.

<sup>17</sup>Including gifts and assistance.

As pointed out in Section I of this paper, the savings estimates that can be calculated on the basis of the survey income and expenditure data, are very sensitive to relatively small errors in the income and/or the expenditure figures. In the survey data there might be substantial errors on both sides. For these reasons, the aggregate personal savings rates, which are presented in Table XII below, are very doubtful.

TABLE XII  
GROSS PERSONAL SAVINGS, 1963/64

	Gross personal savings	
	Per year ( <i>crore rupees</i> )	% of gross personal income (before taxes)
East Pakistan, rural areas	207.6	12.0%
East Pakistan, urban areas	15.6	9.9%
East Pakistan, combined	223.2	11.8%
West Pakistan, rural areas	139.5	9.2%
West Pakistan, urban areas	38.1	6.7%
West Pakistan, combined	177.8	8.8%
All Pakistan, rural areas	347.1	10.9%
All Pakistan, urban areas	53.7	7.4%
All Pakistan, combined	400.8	10.2%

For that part of the urban personal income in the highest income group which was based on the income tax data, there was no information available about savings. We have applied an average savings rate of 35 per cent for these incomes which may be an underestimation. The savings rate for the survey incomes above Rs. 900 a month was around 30 per cent in both of the urban areas, and these incomes were on the average much lower than the incomes incorporated on the basis of the tax data.

Personal saving is not the same as *private* saving, which also includes private corporate saving. If we assume that all the corporations are located in the urban areas and that private corporate saving amounted to Rs. 52 crores according to the estimate used in the reconciliation account in Section IV, the *gross private* saving in the All Pakistan urban areas would come to Rs. 105.7 crores. This private saving amount, related to gross private income (personal income plus corporate retained earnings and direct corporate taxes), gives a rate of private urban saving of 12.8 per cent.



The picture we get of private saving would then be as follows:

**TABLE XIII**  
**GROSS PRIVATE SAVINGS, 1963/64**

	Gross private savings	
	per year ( <i>crore rupees</i> )	% of gross private income
Pakistan, rural areas	347.1	10.9%
Pakistan, urban areas	105.7	12.8%
Pakistan, combined	452.8	11.3%

The major part of the corporate profit accrues to West Pakistan. On the assumption that corporate retained earnings are divided between East and West in about the same ratio as the urban population of the country, we would get the following results.

**TABLE XIV**  
**GROSS PRIVATE SAVINGS, 1963/64**

	Gross private savings	
	per year ( <i>crore rupees</i> )	% of gross private income
East Pakistan, rural areas	207.6	12.0%
East Pakistan, urban areas	24.4	13.9%
East Pakistan, combined	232.0	12.2%
West Pakistan, rural areas	139.5	9.2
West Pakistan, urban areas	81.3	12.5
West Pakistan, combined	220.8	10.5
All Pakistan, rural areas	347.1	10.9
All Pakistan, urban areas	105.7	12.8
All Pakistan, combined	452.8	11.3

To repeat it once more, we think that the corporate gross profit figures are on the low side and also that the personal income and savings figures for West Pakistan urban areas in the high income groups are too low. If that is true, our urban savings figures for West Pakistan, and hence the West combined and the All Pakistan urban and combined are too low.

However, even if urban savings have been grossly understated in our calculations, the rural areas would still appear to have contributed at least three-fourth of the total private savings in the country. East Pakistan with its much

lower total income has, according to these figures, saved at least as much as West Pakistan in absolute amount and more than West in terms of savings rates.

The most striking feature, which calls for further examination, is the high savings rate in the poorest of all the four areas, namely rural East Pakistan. One possible explanation is that 1962/63 was a bad crop-year and also a year of natural disaster, whereas 1963/64 was a very good crop-year, which enabled the farmers to build up again inventories, livestock, wells, implements, *etc*<sup>18</sup>. In other words, their savings may have been extraordinary high in 1963/64 in order to meet reinvestments which were badly needed for their future subsistence. This possible explanation underlines the warning that the results for one year cannot be applied to other years.

A proper study on private savings should, of course, include an analysis of savings rate by income groups, and other important details. The Quarterly Surveys data could have been arranged in such a way that savings could be estimated separately for each income group, but it would have required time and resources beyond the limit we had to set for the present study.

By adding government savings to gross private savings in the country we get *total gross domestic savings*. This total related to the GNP at market price (GNP at factor cost plus indirect taxes net of subsidies) would show the overall gross domestic savings rate for the country. Because of the unexplained balance in the reconciliation account shown in Section IV, the personal income estimate must be raised by 2.7 per cent and the personal savings figures be increased correspondingly before we add up the total savings and relate it to GNP. An examination of government savings and thus also of total savings is beyond the scope of the present paper<sup>19</sup>. If we, for illustration, adopt the Planning Commission's estimate of government savings for 1964/65, 1.7 per cent of GNP at market price, and also the ratio of GNP at market price to GNP at factor cost for 1964/65 implicit in the Planning Commission's figures [4, pp. 62 and 64], and apply these ratios to 1963/64, our estimate of the overall gross domestic savings rate would be 12.5 per cent of GNP at market price, compared to the Planning Commission's estimate of 10.3 per cent.

Perhaps the main conclusion to be drawn from this paper is that the present basis for studies of income distribution and savings in Pakistan is too weak. Considering the economic planners' need for better information in these fields

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<sup>18</sup>This point was made by Dr. T.M. Khan.

<sup>19</sup>Government saving in Pakistan is not an unambiguous concept, because the definition depends on the distinction between current (non-investment) and investment development expenditures.

# Appendix

## A NOTE ON IMPUTED FARM INCOME

1. The problem of evaluating income in kind in money terms arises in various sectors of the economy, but particularly in agriculture. Usually the farmer keeps for own consumption some quantities of the goods he has produced. As pointed out in Section IV, the farmer's home produced and home consumed food has in the official GNP estimation been evaluated at wholesale price at the time of harvest, whereas the Quarterly Survey in principle has used the local "prevailing retail market prices", on the income as well as on the consumption expenditure side. That means that in the GNP estimates the imputed farm income is the money income the farmers have forgone by retaining these quantities for own consumption instead of selling them at wholesale prices at the time of harvest, whereas in the Quarterly Survey the imputed farm income should be equal to the expenditures that would have been incurred if the goods were to be purchased at retail market prices at the time of consumption. There is no objective basis for saying that the one principle is wrong and the other is right, but maybe the one is more relevant than the other one for this or that purpose, *e.g.*, for measuring personal income distribution, which is the main subject of the present study. From that point of view the issue will be discussed below.

2. In the following analysis the quantity of the farmer's production is  $X_T$ . The wholesale price at the time of harvest is  $p_w$ , the prevailing local retail market price  $p_r$ , and the price the farmer has to pay for other goods and services which he consumes, is  $q_r$ . His consumption of farmer's goods (the kind of goods he produces himself) is  $x$ , and his consumption of other goods and services is  $y$ . Quantities and prices should here be conceived of as indexes, comprising all the relevant goods and services.

The farmer is supposed to spend all his income on  $x$  and  $y$ . Savings are thus disregarded, but this simplification has no impact on the results of the analysis.

3. The farmer's budget equation depends on how he disposes the quantity  $X_T$ . There are three distinct alternatives which are of particular interest for the income evaluation problem:

4. *Alternative I:* The farmer sells the total quantity  $X_T$  at wholesale price  $p_w$  and purchases the same kind of goods for own consumption at retail price

$p_r$ , like a non-farmer. His budget equation is in this case  $X_T \cdot p_w = x \cdot p_r + y \cdot q_r$ . The slope of his budget line is in other words represented by the coefficient  $(-)\frac{p_r}{q_r}$ . The budget line is illustrated in Figure 4 as AB. According to the farmer's consumption preference chart, which is indicated in the figure, his consumption will in this case be  $(x_1, y_1)$ . This alternative may be realistic for poor farmers who, for liquidity or other reasons, are compelled to market their total crops at the time of harvest instead of withholding quantities which they will need for own consumption till the next harvest. (This is, incidentally, a realistic alternative also in developed countries with highly mechanized and specialized agriculture, but for completely different reasons).

5. *Alternative II:* The farmer retains the quantity required for own consumption and sells the rest of the crop at the wholesale price  $p_w$ . His budget equation is now  $(X_T - x) \cdot p_w = y \cdot q_r$ ,

or

$$X_T \cdot p_w = x \cdot p_w + y \cdot q_r.$$

In this case the budget line is characterised by the coefficient  $(-)\frac{p_w}{p_r}$  and illustrated in the figure as TB. We are inclined to regard this alternative as the "normal". With the indifference curves indicated in the figure, his consumption will now be  $(x_2, y_2)$ .

6. *Alternative III:* The farmer does not sell anything at wholesale price. He undertakes the storing and the retail trade business himself. What he does not consume, he sells at retail prices during the period of time up to the next harvest. We are then faced with this budget equation:

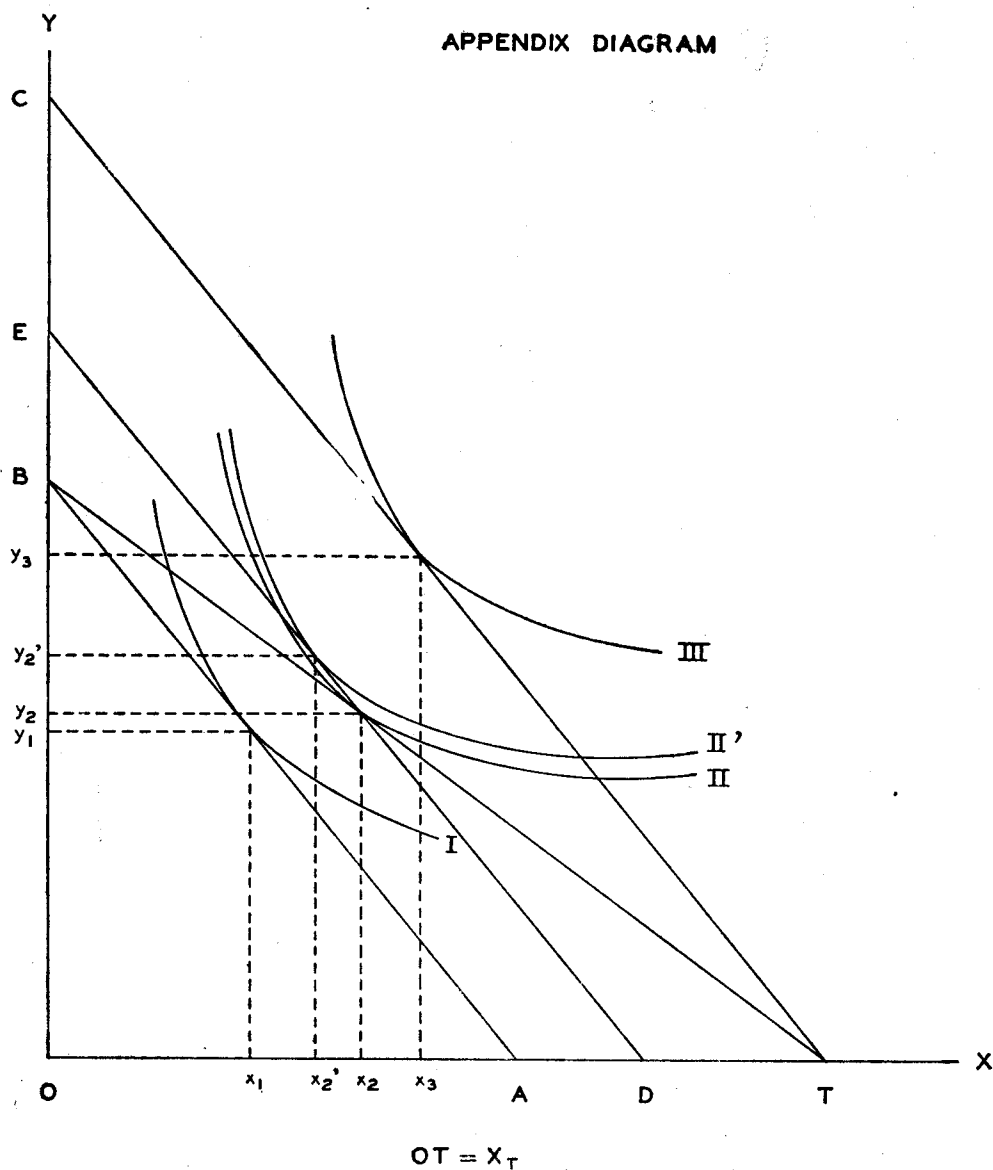
$$(X_T - x) \cdot p_r = y \cdot q_r$$

or

$$X_T \cdot p_r = x \cdot p_r + y \cdot q_r.$$

His budget line is characterised by the same coefficient as under Alternative I, namely  $(-)\frac{p_r}{q_r}$ , and illustrated in the figure by TC. But this budget line is located more to the "North-East" in the figure than the Alternative I budget line. The farmer's consumption under Alternative III is indicated by  $(x_3, y_3)$ .

7. It should be noticed that the budget line III is superior to II, in terms of welfare to the farmer, and II is again better than I. This is so regardless of how we might evaluate in money terms that part of the farmer's production which he consumes himself. So far we have not even introduced any such evaluation. The various assumptions on which the three alternatives rest, refer to the farmer's total production, his consumption preferences and sales policy and to the prices actually realized in the market, but not to any imported income.



8. We now turn to the specific evaluation problem, which can be phrased as follows: Which price (or prices) should be used for measuring the value of  $X_T$  in such a way that this value represents the "true" income of the farmer? Or it could be formulated like this: Which prices should be used for measuring the values of the possible  $(x, y)$  combinations along the three budget lines? There is no unambiguous interpretation of "true" income in money terms when a part of the income is in kind. But for the purpose of measuring the income distribution, the following criterion seems reasonable:

The money income that would give the farmer the same welfare as he gets out of his actual mixed income—in other words the money income which would enable him to reach the same consumption indifference curve, should be the farmer's "true" income in money terms.

On this background we will now examine further each of the three alternatives.

9. *Alternative I:* In this case the farmer does not retain anything of his production for own consumption. The money income he actually gets is in the Quarterly Survey supposed to show up as his total income. The problem of imputed income does not exist under this alternative. The farmer's total production  $X_T$  is automatically evaluated at the price  $p_w$  on the income side. His consumption expenditure account shows, on the other side, the actual cost of the consumer's goods and services he has purchased. The farmer's consumption of agricultural goods under Alternative I is thus evaluated at  $p_r$ . The farmer's budget line coincides with the budget line of a non-farmer who has the same money income and pays the same prices for the goods and services he purchases for consumption.

10. *Alternative II:* Under this alternative the farmer retains  $x_2$  for own consumption. As we have already pointed out, this will be independent of how we evaluate his income in money terms. If we now use the retail price  $p_r$  for imputation his total income will be  $(X_T - x_2) \cdot p_w + x_2 \cdot p_r$ . It will be seen that this income depends on the choice he already has made with regard to his consumption, according to his budget line and preference chart. With a different preference chart he would have chosen another point on his budget line, either to the right of  $(x_2, y_2)$ , which would have resulted in a higher imputed income, or to the left of  $(x_2, y_2)$ , which would have reduced the imputed income. This is to say that the farmer's income in money terms varies along one and the same budget line TB when the income in kind, namely  $x$ , is evaluated at the retail price. The budget line AB under alternative I stands for a constant income, but the budget line TB under alternative II does not. A non-farmer with a money in-

come equivalent to  $(X_T - x_2) \cdot p_w + x_2 \cdot p_r$  is faced with another budget line, namely DE, which intersects the farmers line TB at the point  $(x_2, y_2)$  and is parallel to AB and TC. The slope of DE is represented by  $(-)\frac{p_r}{q_r}$ , because the right side of the non-farmer's budget equation is  $x \cdot p_r + y \cdot q_r$  whereas the slope of TB is  $(-)\frac{p_w}{q_r}$ . If the non-farmer has the same preference structure as the farmer, he will be able to reach a higher indifference curve, as shown in the figure. The non-farmer's consumption is indicated by  $(x'_2, y'_2)$ . The farmer could have reached this indifference curve if he were able to sell the quantity  $(x_2 - x'_2)$  at retail price  $p_r$ , but that contradicts our assumptions under this alternative.

On the other side, if we apply the wholesale price  $p_w$  for the imputed part of the farmer's income, then his total income in money terms will be  $X_T \cdot p_w$ , which means that we put in on the same income level as a non-farmer with a budget line AB. But AB is tangent to a lower indifferent curve than TC is. AB is inferior to the farmer's actual budget line TC. In fact, by using the wholesale price for the imputed income, we disregard the value which the farmer adds by storing that part of his production which he will need for later consumption.

Recalling the welfare criterion as laid down in paragraph 8 above, we reach the following conclusion as far as Alternative II, which we have assumed to be the "normal" alternative, is concerned: The farmer's income is somewhat overevaluated when the retail price is being used for evaluating the part of the income which consists of own-produced and own-consumed goods. In the example indicated in the figure the overevaluation can be measured as  $(x_2 - x'_2) \cdot (p_r - p_w)$ . This will be the additional money income required to replace the consumption  $(x_2, y_2)$  by  $(x'_2, y'_2)$ , i.e., to move from the indifference curve II to II'. On the other side, when the wholesale price is being used for the imputed income, there is some underevaluation, which in the example in the figure can be measured as  $(x_2 - x_1) \cdot p_r + (y_2 - y_1) \cdot q_r - (x_2, x'_2) \cdot (p_r - p_w)$ . This will be the additional money needed for replacing  $(x_1, y_1)$  by  $(x_2, y_2)$ , i.e., for moving from the indifference curve I to II.

As the curves are drawn in our figure, the underevaluation of income in money terms by measuring the imputed part of the income at wholesale price exceeds the overevaluation by applying the retail price. This will also be the normal case. No similar statement can, however, be made with regard to the differences in welfare, because we have no way to get a quantitative measure of welfare. The indifference chart indicates only the farmer's preferences with regard to the location of  $(x, y)$  in the figure. The chart tells us that II' represents "more" welfare than II, which again gives more welfare than I, but it does not tell *how much* more. With these reservations we would still say that the

results of the analysis support the view that it seems more reasonable to evaluate the income that stems from own-produced and own-consumed goods at retail rather than at wholesale price.

11. *Alternative III*: Under Alternative III, where the farmer sells his product at retail prices, the money income he forgoes by retaining some quantities for own consumption, is exactly those quantities multiplied by the retail prices. That is to say that if we apply retail prices for the home produced and home consumed goods, we put the farmer on the same income level as a non-farmer who is faced with an equivalent money income and the purchasing prices  $p_r$  and  $q_r$  for his consumption. If we here evaluate the farmer's own consumption at wholesale prices, which seems to be a very artificial procedure in this case, we put him at an income level which for a non-farmer would be represented by the budget equation:

$$(X_T - x) \cdot p_r + x \cdot p_w = x \cdot q_r + y \cdot q_r.$$

This budget line would be characterized by the coefficient  $(-)\frac{2p_r - p_w}{q_r}$ . The line would be steeper than any of the three actual budget lines of the farmer. We have not drawn it in the figure, but it would go from C at the Y-axis to somewhere between A and T on the X-axis.

12. In our simple models we have not introduced any cost of production explicitly. The value of the total production has been taken as synonymous with value added by the farmer. We have disregarded the fact that the farmer has used inputs like fertilizers, seed, hired labour, etc., which he has to pay for. Production cost can, however, easily be incorporated in our models, but the content of our conclusions would remain unchanged.

13. Also storing and trade undertaken by the farmer may have required inputs which the farmer has had to pay for, whereas we in our analysis have regarded all the value of his storing and trade as value added by him, and consequently as income to him. How much additional income he gets by storing and trading, depends, as has been shown in the foregoing paragraphs, on the discrepancy between retail and wholesale prices and the farmer's disposal of the  $X_T$ . Here, again the introduction of storing and trade cost would not have altered our conclusions.

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# Appendix A

TABLE A-1

## EAST PAKISTAN RURAL AREAS

### PERSONAL INCOME DISTRIBUTION, 1963/64

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulated percentage	Percentage	Cumulated percentage	Households	Income
Below 50	9.0	9.0	2.3	2.3	Bottom 5% get	1.5%
50 upto 100	33.2	42.2	17.9	20.2	Bottom 10% get	3.5%
100—150	24.5	66.7	21.3	41.5	Bottom 20% get	8.0%
150—200	15.5	82.2	19.0	60.5	Bottom 30% get	13.0%
200—250	7.8	90.0	12.4	73.0	Bottom 40% get	18.5%
250—300	4.2	94.2	8.3	81.3	Bottom 50% get	26.0%
300—400	3.0	97.2	7.2	88.5	Bottom 60% get	35.0%
400—500	1.4	98.6	4.5	93.0	Bottom 70% get	45.0%
500—700	0.9	99.5	3.7	96.7	Bottom 80% get	57.0%
700—900	0.3	99.8	1.5	98.2	Bottom 90% get	73.0%
900 and above	0.2	100.0	1.8	100.0	Bottom 95% get	82.5%
					100% get	100.0%
Total	100.0		100.0			

Concentration ratio=0.346

Total personal income per month	Rs. 144.2 crore
Total personal income per year	Rs. 1730 crore
Total number of households in thousands	10,306
Average income per household per month	Rs. 140
Average income per household per year	Rs. 1678
Average number of persons per household	5.5 persons
Average income per capita per month	Rs. 25.43
Average income per capita per year	Rs. 305

TABLE A-2

**EAST PAKISTAN URBAN AREAS**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups		
	Percentage	Cumulative percentage	Percentage	Cumulative percentage	Households	Income	
Below 50	5.0	5.0	0.7	0.7	Bottom 5% get	0.7%	
50 upto 100	23.3	28.3	7.4	8.1	Bottom 10% get	1.5%	
100—150	24.3	52.6	12.1	20.2	Bottom 20% get	5.0%	
150—200	12.7	65.3	8.8	29.0	Bottom 30% get	9.0%	
200—250	8.4	73.7	7.6	36.6	Bottom 40% get	13.5%	
250—300	7.1	80.8	7.5	44.1	Bottom 50% get	19.0%	
300—400	4.9	85.7	7.8	51.9	Bottom 60% get	25.5%	
400—500	4.5	90.2	7.9	59.8	Bottom 70% get	33.0%	
500—700	4.5	94.7	10.3	70.1	Bottom 80% get	43.0%	
700—900	2.0	96.7	6.8	76.9	Bottom 90% get	59.5%	
900 and above	3.3 <sup>1</sup>	100.0	23.1 <sup>2</sup>	100.0	Bottom 95% get	70.5%	
					100% get	100.0%	
Total	100.0		100.0				

**Concentration ratio = 0.491**

Total personal income per month	Rs. 13.2 crore
Total personal income per year	Rs. 158 crore
Total number of households in thousands	Rs. 544
Average income per household per month	Rs. 251.78
Average income per household per year	Rs. 2901
Average number of persons per household	5.7 persons
Average income per capita per month	Rs. 42.42
Average income per capita per year	Rs. 509

<sup>1</sup> 0.5 of which has been added on the basis of income tax data.

<sup>2</sup> 7.5 of which has been added on the basis of income tax data.

TABLE A-3

**EAST PAKISTAN RURAL AND URBAN AREAS COMBINED**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulative percentage	Percentage	Cumulative percentage	Households	Income
Below 50	8.8	8.8	2.2	2.2	Bottom 5% get	1.2%
50 upto 100	32.7	41.5	17.0	19.2	Bottom 10% get	2.7%
100—150	24.5	66.0	20.5	39.7	Bottom 20% get	7.0%
150—200	15.3	81.3	18.2	57.9	Bottom 30% get	12.0%
200—250	7.8	89.1	12.0	69.9	Bottom 40% get	18.0%
250—300	4.4	93.5	8.2	78.1	Bottom 50% get	24.5%
300—400	3.1	96.6	7.3	85.4	Bottom 60% get	33.5%
400—500	1.6	98.2	4.8	90.2	Bottom 70% get	43.5%
500—700	1.0	99.2	4.2	94.4	Bottom 80% get	55.5%
700—900	0.4	99.6	2.0	96.4	Bottom 90% get	71.5%
900 and above	0.4	100.0	3.6 <sup>1</sup>	100.0	Bottom 95% get	81.5%
					100% get	100.0%
Total	100.0		100.0			

Concentration ratio = 0.368

Total personal income per month	Rs. 157.3 crore
Total personal income per year	Rs. 1888 crore
Total number of households in thousands	1,08,50
Average income per household per month	Rs. 145
Average income per household per year	Rs. 1,740
Average number of persons per household	5.5 persons
Average income per capita per month	Rs. 26.26
Average income per capita per year	Rs. 316

<sup>1</sup> 0.6 of which has been added on the basis of income tax data.

TABLE A-4  
WEST PAKISTAN RURAL AREAS  
PERSONAL INCOME DISTRIBUTION, 1963/64

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumula- ted per- centage	Percentage	Cumula- ted per- centage	Households	Income
Below 50	5.4	5.4	1.0	1.0	Bottom 5% get	0.8%
50 upto 100	23.1	28.5	10.0	11.0	Bottom 10% get	2.3%
100—150	25.5	54.0	18.1	29.1	Bottom 20% get	6.8%
150—200	17.8	71.8	17.6	46.7	Bottom 30% get	12.0%
200—250	10.5	82.3	13.5	60.2	Bottom 40% get	18.0%
250—300	7.0	89.3	10.7	70.9	Bottom 50% get	26.0%
300—400	5.9	95.2	12.6	83.5	Bottom 60% get	34.5%
400—500	1.9	97.1	4.8	88.3	Bottom 70% get	44.5%
500—700	2.0	99.1	7.1	95.4	Bottom 80% get	57.0%
700—900	0.5	99.6	2.1	97.5	Bottom 90% get	72.0%
900 and above	0.4	100.0	2.5	100.0	Bottom 95% get	83.0%
					Bottom 100% get	100.0%
Total	100.0		100.0			

Concentration ratio=0.357

Total personal income per month	Rs. 121.3 crore
Total personal income per year	Rs. 1456 crore
Total number of households in thousands	70,99
Average income per household per month	Rs. 170.92
Average income per household per year	Rs. 2051
Average number of persons per household	5.5 persons
Average income per capita per month	Rs. 31.08
Average income per capita per year	Rs. 373

TABLE A-5

**WEST PAKISTAN URBAN AREA**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulative percentage	Percentage	Cumulative percentage	Households	Income
Below 50	1.7	1.7	0.3	0.3	Bottom 5% get	1.0%
50 upto 100	14.0	15.7	4.3	4.6	Bottom 10% get	2.5%
100—150	22.7	38.4	11.0	15.6	Bottom 20% get	6.0%
150—200	19.0	57.4	11.3	26.9	Bottom 30% get	11.0%
200—250	12.3	69.7	11.0	37.9	Bottom 40% get	16.0%
250—300	8.7	78.4	8.9	46.8	Bottom 50% get	21.5%
300—400	8.6	87.0	12.6	59.4	Bottom 60% get	29.0%
400—500	4.7	91.7	7.9	67.3	Bottom 70% get	38.5%
500—700	3.8	95.5	8.4	75.7	Bottom 80% get	49.0%
700—900	1.8	97.3	5.4	81.1	Bottom 90% get	63.5%
900 and above	2.7 <sup>1</sup>	100.0	18.9 <sup>2</sup>	100.0	Bottom 95% get	74.0%
					Bottom 100% get	100.0%
Total	100.0		100.0			

Concentration ratio=0.430

Total personal income per month	Rs. 47.3 crore
Total personal income per year	Rs. 568 crore
Total number of households in thousands	18,71
Average income per household per month	Rs. 252.95
Average income per household per year	Rs. 3,035
Average number of persons per household	5.9 persons
Average income per capita per month	Rs. 42.87
Average income per capita per year	Rs. 515

<sup>1</sup>0.9 of which has been added on the basis of income tax data.

<sup>2</sup>10.0 of which has been added on the basis of income tax data.

TABLE A-6

## WEST PAKISTAN: RURAL AND URBAN AREAS COMBINED

## PERSONAL INCOME DISTRIBUTION, 1963/64

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulative percentage	Percentage	Cumulative percentage	Households	Income
Below 50	4.6	4.6	0.7	0.7	Bottom 5% get	0.8%
50 upto 100	21.1	25.7	8.4	9.1	Bottom 10% get	2.3%
100—150	24.8	50.5	16.0	25.1	Bottom 20% get	6.5%
150—200	18.0	68.5	16.1	41.2	Bottom 30% get	11.5%
200—250	10.9	79.4	12.7	53.9	Bottom 40% get	17.5%
250—300g	7.1	86.5	10.0	63.9	Bottom 50% get	24.5%
300—400	7.1	93.6	12.6	76.5	Bottom 60% get	33.0%
400—500	2.4	96.0	5.7	82.2	Bottom 70% get	43.0%
500—700	2.4	98.4	7.5	89.7	Bottom 80% get	54.5%
700—900	0.7	99.1	3.0	92.7	Bottom 90% get	69.5%
900 and above	0.9 <sup>1</sup>	100.0	7.3 <sup>2</sup>	100.0	Bottom 95% get	80.0%
Total	100.0				Bottom 100% get	100.0%

Concentration ratio=0.381

Total personal income per month	Rs. 168.7 crore
Total personal income per year	Rs. 2024 crore
Total number of households in thousands	89,10
Average income per household per month	Rs. 188.67
Average income per household per year	Rs. 2264
Average number of persons per household	5.6 persons
Average income per capita per month	Rs. 33.69
Average income per capita per year	Rs. 404

<sup>1</sup> 0.2 of which has been added on the basis of income tax data.<sup>2</sup> 2.9 of which has been added on the basis of income tax data.

TABLE A-7

**ALL PAKISTAN RURAL AREA**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulated percentage	Percentage	Cumulated percentage	Households	Income
Below 50	7.2	7.2	1.6	1.6	Bottom 5% get	1.1%
50 upto 100	28.4	35.6	13.7	15.3	Bottom 10% get	2.5%
100—150	25.0	60.6	19.6	34.9	Bottom 20% get	6.5%
150—200	16.5	77.1	18.3	53.2	Bottom 30% get	12.0%
200—250	9.1	86.2	13.0	66.2	Bottom 40% get	18.5%
250—300	5.6	91.8	9.6	75.8	Bottom 50% get	26.0%
300—400	4.4	96.2	10.1	85.9	Bottom 60% get	34.0%
400—500	1.7	97.9	4.6	90.5	Bottom 70% get	44.5%
500—700	1.4	99.3	5.5	96.0	Bottom 80% get	57.5%
700—900	0.4	99.7	1.9	97.9	Bottom 90% get	72.5%
900 and above	0.3	100.0	2.1	100.0	Bottom 95% get	82.0%
					Bottom 100% get	100.0%
Total	100.0		100.0			

**Concentration ratio = 0.356**

Total personal income per month	Rs. 265.5 crores
Total personal income per year	Rs. 3186 crores
Total number of households in thousands	1,74,05
Average income per household per month	Rs. 152.58
Average income per household per year	Rs. 1831
Average number of persons per household	5.5 persons
Average income per capita per month	Rs. 27.74
Average income per capita per year	Rs. 333



TABLE A-8

**ALL PAKISTAN URBAN AREAS**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Monthly income per household (rupees)	Number of households by income size		Share of income		Shares of ordinal groups	
	Percentage	Cumulative percentage	Percentage	Cumulative percentage	Households	Income
Below 50	2.5	2.5	0.4	0.4	Bottom 5% get	0.9%
50 upto 100	16.1	18.6	5.0	5.4	Bottom 10% get	2.2%
100—150	23.1	41.7	11.2	16.6	Bottom 20% get	6.0%
150—200	17.5	59.2	10.8	27.4	Bottom 30% get	10.5%
200—250	11.4	70.6	10.2	37.6	Bottom 40% get	15.5%
250—300	8.3	78.9	8.6	46.2	Bottom 50% get	21.0%
300—400	7.7	86.6	11.5	57.7	Bottom 60% get	28.0%
400—500	4.7	91.3	7.9	65.6	Bottom 70% get	37.0%
500—700	4.0	95.3	8.8	74.4	Bottom 80% get	48.0%
700—900	1.9	97.2	5.7	80.1	Bottom 90% get	63.0%
900 and above	2.8 <sup>1</sup>	100.0	19.92	100.0	Bottom 95% get	74.0%
					Bottom 100% get	100.0%
Total	100.0		100.0			

Concentration ratio = 0.445

Total personal income per month	Rs. 60.4 crore
Total personal income per year	Rs. 726 crore
Total number of households in thousands	5,24,15
Average income per household per month	Rs. 250
Average income per household per year	Rs. 3000
Average number of persons per household	5.85 persons
Average income per capita per year	Rs. 513

<sup>1</sup> 0.8 of which has been added on the basis of income tax data.

<sup>2</sup> 9.4 of which has been added on the basis of income tax data.

**TABLE A-9**  
**RURAL AND URBAN AREAS COMBINED**  
**PERSONAL INCOME DISTRIBUTION, 1963/64**

Below 50	6.9	6.9	1.4	1.4	Bottom 5% get	1.0%
50 upto 100	27.5	34.4	12.6	14.0	Bottom 10% get	2.5%
100—150	24.6	59.0	18.2	32.2	Bottom 20% get	6.5%
150—200	16.5	75.5	17.1	49.3	Bottom 30% get	11.5%
200—250	9.2	84a7	12.4	61.7	Bottom 40% get	17.5%
250—300	5.6	90.3	9.1	70.8	Bottom 50% get	24.5%
300—400	4.9	95.3	10.0	80.8	Bottom 60% get	33.0%
400—500	1.9	97.2	5.3	86.1	Bottom 70% get	42.5%
500—700	1.7	98.9	5.9	92.0	Bottom 80% get	55.0%
700—900	0.5	99.4	2.5	94.5	Bottom 90% get	70.0%
900 and above	0.6 <sup>1</sup>	100.0	5.5 <sup>2</sup>	100.0	Bottom 95% get	80.0%
					Bottom 100% get	100.0%
Total	100.0		100.0			

Concentration ratio = 0.3813

Total personal income per month	Rs. 326 crore
Total personal income per year	Rs. 3912 crore
Total number of households in thousands	2,06,60
Average income per household per month	Rs. 165
Average income per household per year	Rs. 1980
Average number of persons per household	5.5 persons
Average income per capita per month	Rs. 42.85
Average income per capita per year	Rs. 357

10.1 of which has been added on the basis of income tax data.

21.8 of which has been added on the basis of income tax data.

TABLE A-11

**EAST PAKISTAN URBAN AREAS 1963/64**  
**DISTRIBUTION OF PERSONAL INCOME BY SOURCE**

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	55.3	3.3	11.7	10.3	19.4	100
50—100	61.9	5.9	16.9	5.5	9.8	100
100—150	57.5	6.5	19.9	5.5	10.6	100
150—200	56.3	5.2	22.3	6.0	10.2	100
200—250	40.7	6.9	33.9	5.1	13.4	100
250—300	44.1	6.8	30.7	6.2	12.2	100
300—400	49.0	7.2	28.3	6.3	9.2	100
400—500	37.2	5.1	35.5	5.7	16.5	100
500—700	34.1	7.3	34.9	8.7	15.0	100
700—900	33.6	4.9	44.1	10.6	6.8	100
Above 900	25.1	3.2	40.4	14.2	17.1	100
All groups	44.2	5.8	30.1	7.5	12.4	100

TABLE A-12

## WEST PAKISTAN RURAL AREAS, 1963/64

## DISTRIBUTION OF PERSONAL INCOME BY SOURCE

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	Other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	36.7	18.1	13.6	7.7	23.9	100
50—100	35.3	25.4	13.0	5.1	21.2	100
100—150	24.5	38.6	10.5	3.5	22.9	100
150—200	17.7	48.8	7.8	4.5	21.2	100
200—250	11.0	54.5	5.2	4.2	25.1	100
250—300	11.4	56.9	3.9	3.2	24.6	100
300—400	8.3	57.8	6.0	3.1	24.8	100
400—500	4.3	58.7	6.4	4.9	25.7	100
500—700	8.6	56.1	4.8	5.2	25.3	100
700—900	10.0	43.7	5.1	13.0	28.2	100
Above 900	4.2	53.1	0.0	22.6	20.1	100
All groups	15.1	49.2	6.9	4.9	23.9	100

TABLE A-13

**WEST PAKISTAN URBAN AREAS 1963/64**  
**DISTRIBUTION OF PERSONAL INCOME BY SOURCE**

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	Other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	44.2	0.0	21.7	19.3	14.8	100
50—100	69.7	0.4	16.5	5.8	7.6	100
100—150	62.1	1.3	24.6	4.4	7.6	100
150—200	62.0	1.3	22.2	6.5	8.0	100
200—250	57.4	2.4	28.0	5.2	7.0	100
250—300	55.3	4.0	25.4	5.3	10.0	100
300—400	55.9	5.5	23.3	6.3	9.0	100
400—500	52.2	5.5	25.2	6.2	10.9	100
500—700	41.1	9.2	25.6	10.9	13.2	100
700—900	46.3	5.0	30.0	3.3	15.4	100
Above 900	50.2	7.9	26.7	2.3	12.9	100
All groups	55.6	4.1	24.9	5.8	9.6	100

TABLE A-14

## EAST PAKISTAN RURAL AND URBAN AREAS COMBINED 1963/64

## DISTRIBUTION OF PERSONAL INCOME BY SOURCE

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	Other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	43.2	14.5	11.6	7.5	23.2	100
50—100	43.4	25.2	8.9	7.3	15.2	100
100—150	24.8	38.1	11.9	6.1	19.1	100
150—200	18.2	42.6	9.6	5.9	23.7	100
200—250	9.1	47.3	10.5	5.4	27.7	100
250—300	7.9	48.9	10.8	5.7	26.7	100
300—400	10.6	49.1	8.5	5.6	26.2	100
400—500	10.0	45.2	13.9	4.3	26.6	100
500—700	12.0	45.4	11.5	5.9	25.2	100
700—900	19.1	46.3	15.2	3.1	16.3	100
Above 900	16.6	26.4	23.8	8.6	24.6	100
All groups	20.4	40.2	10.7	6.0	22.7	100

TABLE A-15

## WEST PAKISTAN RURAL AND URBAN AREAS COMBINED 1963/64

## DISTRIBUTION OF PERSONAL INCOME BY SOURCE

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	Other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	37.5	16.2	14.4	8.9	23.0	100
50—100	40.2	21.8	13.5	5.2	19.3	100
100—150	31.70	31.45	13.20	3.67	19.97	100
150—200	26.6	39.3	10.7	4.9	18.5	100
200—250	22.2	41.9	10.7	4.5	20.7	100
250—300	22.2	43.9	9.2	3.7	21.0	100
300—400	21.6	43.1	10.9	4.0	20.4	100
400—500	19.6	41.7	12.4	5.3	21.0	100
500—700	18.9	41.3	11.3	7.0	21.5	100
700—900	28.2	24.3	17.6	8.1	21.8	100
Above 900	38.6	19.4	19.9	7.4	14.7	100
All groups	26.5	36.5	12.0	5.1	19.9	100

TABLE A-16

## ALL PAKISTAN RURAL AND URBAN AREAS COMBINED 1963/64

## DISTRIBUTION OF PERSONAL INCOME BY SOURCE

Monthly income per household (rupees)	Wages and salaries	Self-employment in		Rent, interest, dividends	Other sources	Total
		Agri- culture	Non- agri- culture			
(.....per cent.....)						
Below 50	41.6	15.0	12.4	7.9	23.1	100
50—100	42.3	24.0	10.5	6.6	16.6	100
100—150	28.0	35.1	12.5	4.99	19.5	100
150—200	22.0	41.1	10.1	5.5	21.3	100
200—250	16.1	44.5	16.6	4.9	23.9	100
250—300	16.0	46.0	9.9	4.6	23.5	100
300—400	17.8	45.2	10.0	4.6	22.4	100
400—500	15.1	43.3	13.2	4.8	23.6	100
500—700	16.5	42.7	11.4	6.6	22.8	100
700—900	24.8	32.5	16.7	6.3	19.7	100
Above 900	31.5	21.6	21.2	7.8	17.9	100
All groups	23.5	38.3	11.4	5.6	21.2	100



TABLE A-17

## WAGE COMPONENTS OF INCOME

Country	Year	Wages as % of GDP	Wages as % of national income	Wages as % of personal income
Pakistan				23.5 (urban 53.1)
Australia	1962	58.0 (for 1961)	63.9	65.1
Austria	1961	54.0	61.0	58.0
Barbados	1959	57.4	58.8	62.5
Belgium	1962	55.8	58.52	52.2
Brazil	1960	—	47.1	—
Canada	1962	58.3	68.7	66.1
Ceylon	1962	46.1	48.9	—
China (Taiwan)	1962	45.9	50.0	51.1
Columbia	1961	38.0	42.9	46.5
Costa Rica	1962	59.5	64.0	64.1
Cyprus	1960	30.7	35.4	—
Denmark	1961	48.8	60.0	55.7
Ecuador	1962	45.4	50.0	55.5
Finland	1962	59.3	65.2	—
France	1962	—	60.6	53.2
West Germany	—	—	63.7	58.4
Greece	1962	40.0	40.9 (excludes wages paid to agricultural workers)	—
Honduras	1962	46.8	50.3	52.0
Ireland	1962	54.6	56.3	53.7
Israel	1962	60.0	61.5	—
Jamaica	1961	50.2	56.5	60.2
Japan	1962	52.7	53.0	57.8
Korea Republic	1962	38.3	40.0	39.5
Malta	1962	56.1	52.2	52.9
Mauritius	1962	56.7	57.0	64.2
Netherlands	1962	55.5	61.4	59.1
New Zealand	1962	—	60.0	60.2
Norway	1962	57.3	68.1	—
Panama	1961	63.4	69.1	74.8
Philippines	1962	—	41.9	43.2
Puerto Rico	1962	61.1	68.5	—
Rhodesia and Nyasaland	1962	48.3	52.8	60.9
Spain	1960	45.7	49.5	55.7
Sweden	1962	—	70.5	71.5
Switzerland	1962	—	61.5	62.1
Trinidad and Tobago	1962	—	50.2	55.9
Uganda	1962	24.9	—	—
U.K.	1962	69.5	75.4	74.0
U.S.A.	1962	—	72.1	70.7

Source : U.N. Yearbook of National Accounts Statistics 1963