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discussed. While Part D may seem out of place in a summary, we venture to include it for two reasons: it qualifies our results and, in revealing the ignorance that appears to prevail in so vital a field of economic intelligence, may serve to stimulate more work.

A Average Income Shares of Upper Income Groups

1 *Average Levels*

The averages are for the two interwar decades, 1919-38. We exclude information for years before 1919 and since 1938 in order to eliminate the marked effect of the wars on the distribution of income by size.

Shares of upper income groups are based upon comparisons between federal tax data and countrywide aggregates of income receipts by individuals. The definition of individuals' incomes corresponds to that of national income: receipts for the participation of individuals or of their property in the productive process. This means, unless otherwise noted, including employee compensation, entrepreneurial income, dividends, interest, and rent; excluding capital gains and other transfers, and not allowing any deductions except of business expenses.

Tax data are available for return units, classified by net income, as defined for tax purposes. We reduce classes of returns to classes of persons represented on the returns (income recipients and dependents); record the total income (as defined above) for each class; calculate per capita income for each class; array the classes downward by size of per capita income, then interpolate for the top 1, 3, 5, etc. percent of the total population. At each partition line we estimate the total income reported above that line; the proportion this income constitutes of the countrywide aggregate is the share of the income group above the partition line. This procedure yields the shares we call the 'basic' variant because it is the variant for which we can exploit most fully the detailed data in the annual tabulations of federal income tax returns (Table 1, col. 1, lines 1-5).

During 1919-38 these tax returns covered almost exclusively nonfarm residents, and countrywide aggregates of individuals' income receipts for the nonfarm population are available. Therefore, we can compare the income and population represented on federal tax returns not only with total income and population but also with

Table 1

Average Annual Income Shares, Upper Income Groups
Total and Nonfarm Population, 1919-1938

	Percentage Bands of Total and Nonfarm Population	*% of Countrywide Income Received* Basic variant (1)	Economic income variant (2)	Disposable income variant (3)
			TOTAL POPULATION	
1	Top 1 percent	13.1	15.0	14.3
2	2nd & 3rd percentage band	6.6	8.3	8.4
3	4th & 5th percentage band	4.9	6.5	6.4
4	Top 5 percent	24.7	29.8	29.1
5	Lower 95 percent	75.3	70.2	70.9
			NONFARM POPULATION	
6	Top 1 percent	13.3	15.1	14.3
7	2nd & 3rd percentage band	6.6	8.1	8.2
8	4th & 5th percentage band	4.5	6.0	6.0
9	Top 5 percent	24.4	29.2	28.5
10	Lower 95 percent	75.6	70.8	71.5

Because of rounding, details in this and the following tables do not necessarily add to the totals.

the income and number of the nonfarm population. For the basic variant we draw new partition lines, at percentages of nonfarm instead of total population, and divide the new totals by total nonfarm income (col. 1, lines 6-10).

The basic variant is merely a first approximation to the comparison desired. We made several adjustments in the totals taken from the tax data: to include some omitted income items (compensation of nonfederal government employees and imputed rent on owner-occupied houses); to allow for a finer division of return classes by distinguishing within each net income class between head of family and nonhead returns; and to make some allowance for the effect of using as a basis of classification net income as defined for tax purposes instead of economic income. These several adjustments give a better approximation to the shares of upper groups in a distribution of economic income by size of income per capita; but they make it impossible to use the full detail in the tabulations of tax returns on the composition of income by type. Adding these adjustments to the shares as estimated in the basic variant yields the 'economic income' variant (col. 2).

Both basic and economic income variants measure income shares as they flow from the productive process, not shares as they are finally received by individuals after various transfers and deductions (payment of taxes, gains and losses from sales of assets, gifts,

etc.). From income tax data we can calculate only two of these transfer items: payments of federal income taxes by individuals and realized gains and losses on sales of assets. Modifying the shares in the economic income variant to allow for these two items yields the 'disposable income' variant (col. 3) which of course does not cover all the gaps between economic and disposable income.

If income were distributed equally, each percentage group in the population would receive a corresponding percentage of total income. That is, the top 1 percent, representing 1 percent of the population, would receive just 1 percent of income, not the 13-15 percent shown in Table 1; the 2nd and 3rd percentage band would receive 2 percent of total income, not 6½-8½ percent; and so on. The amount by which the shares in Table 1 exceed levels equal to the percentages the recipients constitute of the population thus measures the inequality in the distribution of income, as far as it is reflected in the shares of upper income groups.

More realism can be lent to the evidence in Table 1 by considering the underlying absolute figures. Per capita income averaged about $550 (current prices) in 1919-38. Taking the economic income variant for total population as the most relevant, we find that the top 5 percent group received 29.8 percent of total income. Its average per capita income was, therefore, $3,300, i.e., ($550 × 29.8 ÷ 5), or over $13,000 for a family of four. For the top 1 percent the average ratio of the actual income share to the 'equality' share was 15:1; hence its average per capita income was somewhat over $8,000, i.e., ($550 × 15), or $33,000 for a family of four. Average income levels for any year and any percentage band covered in Table 1 can be similarly calculated (see App. Table 1).

The income of the various groups can be described also in terms of partition values. The average income (economic income variant, total population) at the lower end of the top 1 percent band was about $3,200; i.e., the top 1 percent included returns which, on the average, had per capita incomes of $3,200 or more; or, for a family of four, $12,800 or more. The lower partition value for the 2nd and 3rd percentage band averaged $2,000 per capita; i.e., this band included returns whose per capita incomes averaged $2,000-$3,200. The lower partition value for the 4th and 5th percentage band, and hence for the top 5 percent group, averaged $1,670 per capita; i.e., this band included returns whose per capita incomes averaged

$1,670-$2,000; the top 5 percent group as a whole included returns whose per capita incomes averaged $1,670 or more.

The contrast between the income shares of the upper and lower income groups shifts with the percentage partition line: the contrast between the incomes of the top 1 and the lower 99 percent is greater than that between the incomes of the top 5 and the lower 95 percent; that between incomes of the top 5 and the lower 95 percent is greater than that between the incomes of the top 10 and the lower 90 percent. Any reference to inequality of incomes between the 'rich' and 'poor' should specify at which percentage of population in the array the partition line is drawn.

Table 1 reveals three other relations. First, shares of upper income groups are invariably higher in the economic income than in the basic variant. The distribution represented by the former reflects more clearly differences in economic income per capita; hence the inequality in the distribution is sharper, undiluted by defects in the unit and basis of classification employed in the basic variant.[3] As between the economic and disposable income variants there is a slight drop in the share of the top 1 percent, and a partly compensating rise in the share of the 2nd and 3rd percentage band—effects largely of the impact of federal income taxes during the period under observation.[4] For the top 5 percent group the difference in level of shares between these two variants is relatively slight.

Second, the shares diminish rapidly as we descend to lower percentage bands in all three variants. For example, in the economic income variant the drop is from 15 percent for the top 1 percent to slightly over 4 per percentile for the 2nd and 3rd percentage band, to slightly over 3 per percentile for the 4th and 5th percentage band. Presumably the decline in per percentile shares in the lower bands, not shown in Table 1, would be progressively milder unless it accelerates sharply in the lower tail of the distribution, which covers persons with net losses.

[3] Only a very minor part of the difference is due to the inclusion in the numerator for the economic income variant of nonfederal employee compensation—omitted from the numerator for the basic variant.

[4] That the deduction of federal income taxes reduces the share of the top 1 percent group so little, and those of the 2nd and 3rd, and 4th and 5th percentage bands not at all, is due partly to the low tax rates during most of the interwar period; but largely to the inclusion in the top 5, and even in the top 1 percent group, of units well down the scale of total income (and still lower down the scale of net taxable income).

Third, for the top 5 percent, although not for the top 1 percent, the shares in the variants for the nonfarm population are slightly lower than those for the total population. In general, the smaller the population group for which the income distribution is studied, the less the inequality, i.e., the narrower the dispersion. This is plausible because the larger the population group, the more heterogeneous its components are likely to be, and the more room for wider dispersion between low and high income groups. This association between the size of a population and the relative amplitude of income dispersion in it does not always hold: differences in economic structure unassociated with the size of the population may introduce disturbing effects. But it should be kept in mind in comparing income inequality among population groups differing materially in size.

For the upper income groups in Table 1 we can observe shares in countrywide aggregates of various types of income for both the total and the nonfarm population, but only for the basic variant (Table 2). The results for the nonfarm population differ relatively little from those for the total, and it would unduly complicate this summary to present and discuss those for both. Consequently, we postpone their presentation and discussion to the report itself.

The shares of upper income groups in countrywide aggregates of various types of income differ widely. While the top 1 percent

Table 2

Average Annual Percentage Shares of Upper Income Groups in Countrywide Aggregates of Various Types of Income
Basic Variant, Total Population, 1919-1938

	Type of income	Top 1 Percent (1)	2nd & 3rd Percentage Band (2)	4th & 5th Percentage Band (3)	Top 5 Percent (4)	Lower 95 Percent (5)
1	Total income	13.1	6.6	4.9	24.7	75.3
2	Employee compensation	6.5	5.6	4.8	16.9	83.1
3	Entrep. income	13.7	8.1	5.2	26.9	73.1
4	Rent	17.9	11.4	8.9	38.3	61.7
5	Interest	27.5	8.5	5.5	41.5	58.5
6	Dividends	64.7	8.2	3.6	76.6	23.4
7	Entrep. income & rent	14.2	8.5	5.6	28.3	71.7
8	Dividends & interest	46.1	8.4	4.5	58.9	41.1
9	Service incomes	8.1	6.2	4.9	19.1	80.9
10	Property incomes	40.1	8.8	5.3	54.2	45.8

received on the average about 13 percent of total income it received only 6.5 percent of employee compensation but about 65 percent of total dividends paid to individuals. The spread in the shares of various types of income received by the 2nd and 3rd, and 4th and 5th percentage bands is much narrower. The top 5 percent group received about 25 percent of total income, 17 percent of employee compensation, and about 77 percent of all dividends paid to individuals.

Despite these wide differences, the shares of upper income groups in the various types of income are significantly higher than the equality share. For example, though the 6.5 percent the top 1 percent group received of employee compensation is much smaller than its share of any other income type, it is still 6.5 times the equality share. Indeed, the smallest excess over the equality share is in the share of the 4th and 5th percentage band in dividends, and even here the share is 1.8 times the equality level. In other words, the upper income groups in Table 2 receive on the average much more than 'equal' shares of *any* type of income distinguished. Naturally, this conclusion holds for the groups as wholes, not for units within them: there must be numerous units at the top that receive only one type of income.

The shares of each income type in Table 2 suggest the *minimum* inequality in their distribution by size. Since the top 1 percent, selected on the basis of an array of *total* income per capita, receives on the average 6.5 percent of employee compensation, it would be getting *at least* 6.5 percent of total employee compensation, and probably appreciably more, if the distribution were confined to this type. As we pass to the lower percentage bands, shares of each income type decline consistently, suggesting that the minimum inequality shown in Table 2 is perhaps not far from the actual inequality that would be established in the distribution of each income type separately. In the light of this observation it is of interest that the inequality in the distribution of income, as revealed by the shares of the top 1 and 5 percent groups, becomes progressively greater as we pass from employee compensation to entrepreneurial income, to rent, to interest, and finally to dividends.

The upper income groups receive very large shares of property incomes. If we assume that the capital, i.e., dividend-, interest-, and rent-yielding capital separately, held by the upper and lower

income groups have similar yields, the top 5 percent group must own very large shares of the income-yielding capital held by individuals: over three-quarters of dividend-yielding capital, over four-tenths of interest-yielding capital, and almost four-tenths of rent-yielding capital. And if we combine all income-yielding capital, implying that the yields of the three categories are not too different, the top 5 percent holds over half of all income-yielding capital held by individuals. Hence the inequality in the ownership of income-yielding capital is much greater than the inequality in the distribution of total current income. The major qualification to be borne in mind is that the shares are of capital held by individuals, excluding holdings by corporations and other associations from which individuals may benefit, e.g., via insurance policies, though the amounts may not show up in any accountable flow of income receipts.

Since shares of upper income groups in countrywide aggregates of income of various types and in total income differ widely, the income structure of the upper income groups, the total population, and the lower income groups must differ significantly (Table 3). For all population groups (col. 1) employee compensation is the largest source of incomes, about two-thirds; entrepreneurial income less than a fifth; and all property incomes combined (rent, dividends, and interest) slightly less than a sixth. The income structure of the top 1 percent is significantly different: only about

Table 3

Average Annual Percentage Proportions of Various Types of Income in Total Income, Upper Income Groups and Total Population
Basic Variant, Total Population, 1919-1938

	Type of income	Total Population (1)	Top 1 Percent (2)	2nd & 3rd Percentage Band (3)	4th & 5th Percentage Band (4)	Top 5 Percent (5)	Lower 95 Percent (6)
1	Employee compensation	66.0	33.0	56.3	63.8	45.4	72.8
2	Entrep. income	18.2	19.0	22.5	19.1	19.9	17.6
3	Rent	3.0	3.9	5.2	5.3	4.5	2.5
4	Interest	6.5	13.2	8.2	7.1	10.6	5.1
5	Dividends	6.3	30.9	7.8	4.6	19.5	2.0
6	Entrep. income & rent	21.2	22.9	27.7	24.4	24.5	20.1
7	Dividends & interest	12.8	44.1	16.0	11.8	30.1	7.1
8	Service incomes	84.2	51.9	78.8	83.0	65.3	90.4
9	Property incomes	15.8	48.1	21.2	17.0	34.7	9.6

a third of its income comes from employee compensation, and almost a half from property. As we descend the income scale the proportion of employee compensation increases and that of property incomes diminishes. Presumably, if we could study the percentage bands below the top 5 percent we would find the proportion of employee compensation continuously increasing, that of entrepreneurial income declining after a while, and that of property incomes continuously decreasing, except in the incomes of semi-retired and retired persons at the lower end of the income scale who might be deriving a large part of their total income from savings.

The income structure of the top 1 percent group is unique in two ways. First, as already mentioned, this group receives an unusually large share of property incomes, particularly dividends, and a relatively small share of employee compensation. Second, for this group alone is the allocation of total income among the five types of income unusually equal: each of four types accounts for more than a tenth of total income, whereas for all the lower income groups only two income types contribute more than a tenth. This characteristic, obviously true of the top 1 percent group as a whole but not necessarily true even of the majority of units within it, means that if there are any compensating movements in the size of various types of income, the total income of the top 1 percent is likely to reflect them. The total income of lower income groups or of the entire population, in contrast, is likely to be dominated by the movement of just one income type, employee compensation; the effects of the next large type, entrepreneurial income, run a weak second. In the 2nd and 3rd percentage band the income structure begins to resemble that for the total population; and in the 4th and 5th percentage band the similarity becomes quite close.

From Tables 2 and 3 we can calculate the arithmetic effects of either omitting or redistributing property incomes, that is, see what happens to the shares of upper income groups if, *with everything else held the same,* property holdings by individuals are eliminated or the proceeds distributed equally among the population (Table 4).

If property incomes, defined as dividends, interest, and rent, are removed completely from the income distribution, the shares of the upper income groups, assuming that the ones originally at

Table 4

Average Annual Percentage Shares of Income Assuming Removal or Equal Distribution of Property Incomes
Basic Variant, Total Population, 1919-1938

	Income Shares	Top 1 Percent (1)	2nd & 3rd Percentage Band (2)	4th & 5th Percentage Band (3)	Top 5 Percent (4)	Lower 95 Percent (5)
1	In total income as given	13.1	6.6	4.9	24.7	75.3
	PROPERTY INCOMES DEFINED AS DIVIDENDS, INTEREST, & RENT					
2	Assuming removal	8.1	6.2	4.9	19.2	80.8
3	Assuming equal distribution	7.0	5.5	4.4	16.9	83.1
	PROPERTY INCOMES DEFINED AS ABOVE PLUS PART OF ENTREPRENEURIAL INCOME					
4	Assuming removal	6.7	5.7	4.9	17.3	82.7
5	Assuming equal distribution	5.7	5.1	4.4	15.1	84.9

the top remain there, are reduced (line 2). The major reduction, for obvious reasons, is in the share of the top 1 percent—from 13.1 to 8.1 percent; the reduction in the shares of the other upper percentage bands is quite minor. If we keep property incomes but redistribute them equally among all population groups, the reduction in the shares of the upper income groups becomes larger (line 3). Even here, however, the reduction in the shares of the percentage bands below the top is minor, and the share of the top 5 percent group is reduced from about 25 to 17 percent, or less than a third.

If we widen property incomes to include some part of entrepreneurial income,[5] then either eliminate this larger property income total or redistribute it equally among the entire population, the reduction in the shares of the upper income groups becomes more appreciable (lines 4 and 5). On this most extreme assumption, the share of the top 5 percent group is reduced from 25 to 15 percent, or about four-tenths.

The reductions in Table 4 are overestimated throughout, for various reasons. First, including all net rent with property incomes may be unwarranted because this item covers some compensation for entrepreneurial activity. Second, the allowance we made for including and distributing the property part of entrepreneurial income is much too large, overestimating both the part and the

[5] We assumed, for the purpose, that the share of entrepreneurial income received by the upper income groups *in excess of* the share they received of employee compensation represented the property part of entrepreneurial income. For the amounts, see Table 2, lines 2 and 3.

inequality in its distribution. Third, if we omit or redistribute a given income item, we should re-array the income classes, since an income unit or group that was high in the array before the omission or redistribution may have moved down. In other words, in keeping our upper groups the same 'before' and 'after', we underestimated the true shares after property incomes had been omitted or redistributed. The underestimate may be as large as 2 or 3 percentage points in the income share for the top 5 percent group.

Nevertheless, the reduction in the shares of the upper income groups is relatively moderate and a large proportion of the inequality between the top 5 and lower 95 percent groups remains even after we omit or redistribute property incomes. The relative addition to the share of the lower 95 percent is quite moderate, from a fourteenth to an eighth of its income before the omission or redistribution. Only if property incomes are transferred to a small proportion of the lower income groups can they constitute a sizeable addition.

These conclusions obviously follow from two characteristics of the income structure: the small weight property incomes have in the total and the unequal distribution of service incomes (employee compensation and entrepreneurial income). Had property incomes constituted a much larger proportion of total income, while remaining as unequally distributed as they are in Table 2, the effects of omission or redistribution on the shares of upper income groups would have been much greater. Were service incomes distributed more equally, the distribution of income *after* property incomes were omitted or redistributed would have been less unequal. Needless to say, Table 4 shows the purely arithmetical effects of omission and redistribution, telling nothing about the far-reaching repercussions on the productivity of either men or capital, or on any possible associated shifts in the distribution of service incomes proper.

2 *Effects of Statistical Characteristics*

The estimates discussed so far are derived by arraying return units (which are close to, but not identical with, family units) by economic income per capita for a given year. They manifestly depend upon the unit, the definition of income, the inclusion of various income sources in the total, and the use of a given year's rather

than a given biennium's or triennium's income. This section explores, in an illustrative rather than definitive way, the effects of these four choices.

a) *Recipient unit*

Income may be distributed among the individuals who receive it or among families, however defined, each family taken as a unit and its income pooled for that unit; or among consuming units, however defined, with income pooled for each unit; or among any other units larger than a single individual. In dealing with units larger than a single individual we can convert their income to a per capita, per equivalent consumer, or some other basis, then group the families and similar units as so many bundles of persons or equivalent consumers, etc., by the size of income per capita or per consumer.

Table 5 presents two illustrative comparisons. In the first, the identical population and pool of income are distributed in two ways: among all recipients by size of income per recipient and

Table 5

Effect of Income Unit on Percentage Share of Top Income Group

		Share of Top 5 Percent in Distribution of		*Av. Number per*	
		All units (1)	Family units (2)	Unit (3)	Family (4)
	I From Recipient to Spending Unit				
	Census Sample, Average for 1947 and 1948				
1	Recipients, by money income per recipient	19.2	18.8	1.50	1.64
2	Consuming units, by money income per unit	16.3	15.1		
	II From Spending Unit to Person				
	A *Minnesota, 1938-39*				
3	Economic units, by total income per unit	17.8	17.3	3.12	3.66
4	Persons, by per capita income per economic unit	19.4	19.5		
	B *Consumer Purchases Study, 1935-36*				
5	Consuming units, by total income per unit	26.7	26.7	3.19	3.94
6	Persons, by per capita income per consuming unit	30.1	28.6		
	C *Census Sample, Average for 1944, 1945, 1947, and 1948*				
7	Consuming units, by money income per unit	16.8	15.5	3.14	3.59
8	Persons, by per capita income per consuming unit	18.0	17.3		

among all consuming units by size of income per unit.[6] The share of the top 5 percent group is distinctly larger in the former (lines 1 and 2). This comparison covers only two years and is based upon a relatively small sample. But it stands to reason that a distribution of income among recipients is likely to be less equal than that among larger consuming units: many recipients, e.g., retired persons, have small property incomes and many others are subsidiary earners, and both groups may include dependent members of larger family or consuming groups. This category of extremely low income units would be proportionately smaller among consuming units than among recipients. For this reason alone, the shares of upper groups of recipients (compared with the average per recipient) would tend to be larger than the shares of upper groups among families and similar consuming units.

The second comparison is between a distribution of income among families or consuming units by total income per family or consuming unit and among persons by size of per capita income per family or consuming unit. The three illlustrations of this comparison in Table 5 all point to the same conclusion: the share of the top 5 percent group in a distribution of persons by per capita income per unit is larger than in a distribution of units by total income per unit. This implies that as we convert the distribution of consuming units or families to a per capita income basis, many of the units that had a large total income and consisted of several persons are shifted downward; and the extremes of the distribution are exaggerated in that a correspondingly large number of units, presumably with a few persons each, shift into the top brackets, at a level significantly above the average than was the case with the large income families.[7]

The size of the differences in Table 5 is not firmly established. But the relatively small spread, between a fourteenth and an eighth (col. 1), may well be typical, and two inferences can be drawn.

[6] In this case, consuming units include families defined as groups of 2 or more persons related by blood, marriage, or adoption, and residing together; and individuals not belonging to families.

[7] For one recent sample, the Survey of Consumer Finances, the share of the top 5 percent in a distribution of persons by per capita income per consuming unit is somewhat smaller than in a distribution of consuming units by total income per unit. However, for the top *10 percent* group, the share in the distribution of persons is larger than in the distribution of consuming units.

First, if the unit of the distribution is changed, the shares assigned to the upper groups are altered significantly; and, most probably, also the shares of the groups at the extreme lower end of the distribution. Any comparisons must, therefore, be carefully scrutinized for the unit of the income size distribution. Second, changing units may mean substantial shifts in the members of the groups at the upper and lower levels. In a distribution of units by total income per unit the upper groups will contain a fair proportion of large units with small per capita incomes; and in a distribution of persons by size of per capita income per unit these large units will tend to move out of the upper groups and be replaced by others. This difference in the composition of the upper and lower income groups is relevant in any study of their social characteristics since they will differ with the unit of the distribution—recipient, family, etc.

Perhaps the most important point brought out by Table 5 is the difficulty of selecting the proper unit in a size distribution of income. A recipient unit leaves much to be desired, for recipients combine in different numbers and proportions into larger groups that pool their incomes and that make decisions concerning the allocation of income among various types of expenditure or between expenditures and savings. Yet it is hard to identify these pooled units, since income may be pooled for one type of expenditure and not for others. Furthermore, these pooling units differ with respect to the number of producers and consumers in each. Dividing by the number of persons to get per capita income is a crude adjustment: differences among families or consuming units in the number of *persons* may well be greater than differences in the number of equivalent *consumers* or *producers*. Hence, our calculations, based upon a distribution of income per capita, may exaggerate the inequality as compared, say, with that in a distribution of income per consumer-equivalent. Though the exaggeration cannot be substantial, we must still search for the proper unit to use in such size distributions as will be helpful in explaining the behavior of individuals as producers and as consumers.

b) *Effects of scope of income*

The effects of excluding and including various income items have been indicated both in the distinction between the economic and disposable income variants and in the illustrative calculations of the

Table 6

Effect of Scope of Income on Percentage Shares of Upper Income Groups

	Income Shares	Top 1 Percent (1)	2nd-5th Percentage Band (2)	Top 5 Percent (3)	Ratio: Total to Other Income (4)
	I Total and Money Income, Economic Units Classified by Size of Total Income, Minnesota, 1938-39				
	Urban Units				
1	In total income			17.8	1.06
2	In money income			18.4	
	Rural Nonfarm Units				
3	In total income			16.0	1.11
4	In money income			17.3	
	II Total and Economic Income, Economic Units Classified by Size of Total Income, Minnesota, 1938-39				
5	In total income	7.0	10.8	17.8	1.06
6	In economic income	6.6	11.4	18.0	
	III Total and Net Income, Tax Definition, State Income Tax Returns, Delaware, Average for 1936-38				
7	In total income, returns by total income	31.4	12.6	44.0	1.16
8	In net income, returns by net income	25.8	13.3	39.1	

consequences of omitting or redistributing property incomes. Table 6 therefore merely reenforces what is perhaps an obvious and already established point.

The first set of comparisons is between the distribution of total income and of money income, excluding all receipts in kind. In general, the shares of upper income groups in a distribution of money income are larger than those in a distribution of total income, the size of the difference being associated with the relative contribution of money and nonmoney income to the total. Income in kind is received more commonly at the lower total income levels and tends to be proportionately larger at low than at high income levels. Hence its inclusion tends to raise the income position of the lower brackets relative to that of the upper brackets and reduces correspondingly the shares of upper income groups. This observation is important in recent years when most sample distributions of income by size are confined to money income. The difference in Table 6 between the shares in total and in money income is an underestimate because the distribution of both is by size of total income, thus reducing the shares of upper income groups in money income below what they would be in a distribution by size of money income alone.

The second comparison is for total and economic income, the former including various transfer items (inheritances, relief payments, and the like). Unfortunately, the size and variety of noneconomic receipts for Minnesota are quite small. Yet the effect of excluding them (again underestimated because both total and economic income are classified by size of total income) on the share of the top 1 percent and of the 2nd through 5th percentage band is different. The former is reduced and the latter increased because noneconomic receipts are of two distinct types: large items which lift the recipient into a high income category in one year (inheritances, large capital gains, and the like) and the items that tend to be small, chiefly gifts, relief payments, etc. The first, because they are large, are associated with the current year's top group of total income recipients; the second go to the groups at lower income levels. These characteristics of various noneconomic receipts may well be typical for other years and for wider areas than those covered in Table 6.

The third comparison is between a distribution of total income and of net income, as defined for tax purposes, both being distributions of one and the same population total. (It is this requirement that limits possible comparisons, the only one readily available being that for Delaware for 1936-38.) The top 1 percent receives a significantly smaller share of net income, tax definition, than of total income. Obviously, the differential benefit of permissible deductions from total income is much greater for the topmost income group than for the groups below. The share of the 2nd through 5th percentage band, in contrast, is appreciably larger in the distribution of net income, tax definition. Delaware has a peculiar size distribution of income in that the upper groups have very large shares (the shares in Table 6 are in total income reported on tax returns but in view of the wide coverage of the income tax, they are not far from those in total income for the state). It is, therefore, difficult to say whether the same relation would hold for similar comparisons over wider areas.

The differences in Table 6 are merely illustrative. But in combination with the other evidence already considered, they suggest two conclusions. First, the effects on shares of upper income groups of including or excluding given income items depend upon: (a) the size of the item relative to the income total before inclusion or

exclusion: all other conditions being equal, the larger the item the greater the effect; (b) the inequality or dispersion in the distribution of the item that is included or excluded: all other conditions being equal, the greater the dispersion, the greater the positive effect of inclusion (negative effect of exclusion); and (c) the association between the inequality in the distribution of the item and of the income total before inclusion or exclusion: positive association raises the positive effect of inclusion (negative effect of exclusion), and negative association raises the negative effect of inclusion (positive effect of exclusion). Knowledge of or plausible hypotheses about these several factors would permit a reasonable judgment concerning the probable effects of including or excluding any given item.

The second conclusion applies more specifically to our estimates. While numerous transfers, exchanges, etc. intervene between economic and disposable income, the major ones are realized gains and losses from sales of assets and tax payments. After these two are accounted for, the percentage shares of upper income groups in the distribution of either economic or disposable income are not likely to be much affected by the minor items that should be considered. Provided we realize that the flow of current income is merely one factor influencing the behavior of producers and consumers, the estimates of shares of upper income groups of the type presented here are not likely to be modified much by questions concerning income scope, at least of the kind that can be and have been raised in studies in this field.

c) *Effect of combining income types*

As we have observed, the total income of upper groups, particularly the top 1 percent, is less dominated by one or two types than the income of the total population. However, as also noted, this does not necessarily imply that the units at the top levels typically receive their incomes from several sources. Though each unit receive income of one type only, the income structure of the top 1 or 5 percent might still be exactly as it is in Table 3.

Units in the upper income groups, at least in the top 1 percent, do receive income from several sources (Table 7, lines 1-4). The upper levels of the tax population are set to correspond roughly with the top 1 or 2 percent of the total population of the given area. The proportion of multi-type returns is much larger at the top levels of the

Table 7

Extent of Combining Types of Income and Its Effect on Percentage Share of Top Income Group

		Federal Tax Data 1936 (1)	Wisconsin State Tax Data Av. for 1929, 1935, & 1936 (2)	Delaware State Tax Data Av. for 1936-38 (3)
	I Extent of Combination			
1	% of returns, top group	6.5	4.8	2.4
2a)	% of single type returns, top group	15.0	18.5	8.9
b)	% of single type returns, all returns	57.0	60.8	74.3
3a)	% of two type returns, top group	28.5	24.5	30.7
b)	% of two type returns, all returns	24.2	23.5	16.2
4a)	% of three or more type returns, top group	56.5	57.0	60.4
b)	% of three or more type returns, all returns	18.8	15.8	9.5
	II Effect of Combination			
5	Share of top group in total income on all tax returns (%)			
	a) Actual		23.5	39.0
	b) Assuming no combination of types at top		20.8	35.7
	c) Assuming full combination of types at top		36.7	47.7

tax population than for the tax population as a whole; and this contrast would be even greater between the top 1 or 5 percent band and the total population of the country.

Does this prevalence of multi-type returns—the combination of income of various types and presumably from different sources—contribute greatly to the high incomes at the upper levels? When one and the same unit at the upper levels receives different types of income, is its total income share much larger than when from a single source?

According to experimental calculations based on Wisconsin and Delaware state tax data, income shares at upper levels are not appreciably larger because income is derived from several sources. Allowing the combination of types to raise total income as much as possible, i.e., combining the largest payments of income of various types with the largest number of types, we raise the share of the top income group in Wisconsin from about 21 (assuming no combination at all) to 37 percent, and that in Delaware from about 36 to about 48 percent. The actual shares are 23.5 and 39.0 percent, respectively. Thus, of the maximum possible contribution of combination to raising income at the top levels, only about a sixth was realized in Wisconsin and somewhat over a fourth in Delaware.

While Table 7 contains groups corresponding to the top 1 percent group alone, the findings would obviously apply even more forcefully to the top 5 percent group.

This suggests that even at upper income levels, where receipts from several sources are common, one source usually dominates, accounting for the preponderant proportion of the given unit's total income, and receipts from any other source are secondary at best. Consequently, the large income recipients in, say, the top 1 percent band, must comprise several groups: those dependent chiefly upon employee compensation, entrepreneurial income, and rent, interest, or dividends. It also follows that the *proportion of units* dependent upon each of the several types of property income is appreciably higher in the top group. Furthermore, the degree of concentration or inequality in the holdings of income-yielding property is even higher than is suggested by Table 2. For if a large proportion of all dividends received by the top 1 percent is received by a small component of that group—the component for whom dividends are the dominant source of total income—a large share of the countrywide total of dividends must be received by a group that forms only a small fraction of 1 percent of the country's total population. This conclusion is naturally qualified by the prevalence of multi-source receipts at the upper income levels which has some effect on the high incomes at these levels. But it seems valid enough as an hypothesis meriting exploration.

To the degree that the total income of a large majority of all units is heavily dominated by just one type the distribution suggests the existence of distinct groups characterized by the kind of income they depend upon for their livelihood: property income groups, on the one hand, and service income groups, on the other; groups that rely largely on venture, equity capital of the kind that yields dividends, and those that rely largely on fixed return, bond type of capital that yields most of the interest received by individuals. However, it must be remembered that our data are for income for a current year rather than for a longer period and are not a safe ground for assuming economic classes characterized by long term dependence upon a given income type.

d) *Effect of period of income cumulation*

Since the upper income groups are selected each year by the size of

their current income, they will always include units that would not be there except for transient circumstances. If we lengthened the period during which income used for classification by size is cumulated, the lifting of shares of upper income groups by the inclusion of temporarily favored units would be reduced. Hence we would expect that shares of upper income groups in a size distribution for, say, a quinquennium or decade would be significantly smaller than the shares in a distribution of the kind used here.

This conclusion is patent from the customary drop of income levels whenever we trace to a later or earlier year the average income of a top income group of a given year (Table 8, lines 1-4). For purposes of summary we selected the fourth year following the year that is the basis of the size of income classification (initial year). Diverse as the samples are, the three sizeable samples (lines 2-4) show roughly the same decline in the level of the mean—from 20 to 40 percent in four years. Whenever the sample covers a longer period, the regression ends in about the fourth or fifth year, reflecting the effects of shorter term changes associated with business cycles.

Table 8
Effect of Length of Period of Income Cumulation on Share of Top Income Group

	Sample	*% of Units in Top Group* (1)	*Ratio: Per Unit Income of Top Group to Av. Per Unit Income* — Initial year of classification (2)	4th year following (3)	Average of (2) & (3) (4)	*Ratio: (4) to (2)* (5)
1	Federal sample, 1,240 returns, 1914-19, initial year base	4.6	8.3	4.4	6.35	0.76
2	Federal sample, 4,063 returns, 1916-24, initial year base	3.0	8.6	5.9	7.25	0.84
3	Financial Survey of Urban Housing, av. for 33 cities, 1929-33, initial year base	5.0	4.07	3.28	3.68	0.90
4	Wisconsin sample, 13,184 returns, 1929-35, initial year base	4.9	4.62	2.81	3.72	0.80
5	Wisconsin sample, 13,183 families, 1929-31, ratio: per unit income of top 5 percent to av. per unit income					
	a) 1 year distribution, 1929		4.66*			
	b) 2 year distribution, 1929-30		4.20*			
	c) 3 year distribution, 1929-31		4.00*			

* Relates to period for which income is cumulated.

The decline in the income means does not, however, tell us what the shares of upper income groups would be if we based the distribution on the average income for four years instead of on the income for a single year. We know that these shares would be appreciably smaller, but not how much.

The amount is suggested by the average level of the share of a given top percentage band, based on a given year's income, for the full period over which regression occurs. This would mean, to use lines 2-4 of Table 8, that the income level of the initial year would be reduced in the fourth year to about 70 percent, or an *average* share for the four years of about 85 percent. In other words, the share of the top 5 percent group would shrink about a seventh as we pass from a single to a four year income base. Line 5 is confirmatory evidence. The decline in the share of the top 5 percent in the shift from a one to a three year income base is about 14 percent of the level on the one year base (from 4.66 to 4.00).

Here again the comparisons are merely illustrative. But two conclusions are warranted. First, as we shift from an income base of a single year to one of a longer period, from what might be called income incidence to income status, the shares of upper income groups decline significantly; and so does inequality in the distribution by size, as far as it is reflected in the shares of upper income groups (and no doubt the shares of the groups at the lower tail of the distribution would increase, for the same reason). Second, if we think of income periods long enough to cancel out short term changes associated with business cycles but short enough to avoid averaging out genuine secular movements in the income levels of the various units, i.e., of about four to five years, the change in the share of the 5 percent group is about that shown in Table 8, a reduction of a sixth to a seventh of the share based on a single year's income.

3 *Social Characteristics of Upper Income Groups*

a) *Sex, age, and education*

In interpreting income inequality as reflected by shares of upper income groups, we should note that these groups are selective—contain a much larger proportion than the total population of persons in their prime productive ages (from about 35 through about 64) and equipped with the qualities more intensive formal education can provide (Table 9).

Table 9
Sex, Age, and Educational Level Composition
Top Income Group and Total Income Population (percentages)

		Minnesota, 1938-39 EARNERS		*Census Sample, Av. for 1947 & 1948 (lines 1-9), & 1946 Nonfarm (lines 10-14)* INCOME RECIPIENTS	
	Sex, Age, and Education Classes	Top 5.2 percent	Total	Top 5-6 percent	Total
		I Sex			
1	Male	97.3	79.3	95.4	68.0
2	Female	2.7	20.7	4.6	32.0
		II Age			
3	Under 20 years	0.0	3.1	0.0	6.8
4	20-24	0.6	10.1	1.2	11.8
5	25-34	10.6	21.8	16.9	22.0
6	35-44	31.2	23.6	31.5	20.1
7	45-54	32.0	20.8	27.6	16.6
8	55-64	18.1	13.2	16.3	12.3
9	65 & older	7.5	7.3	6.4	10.4
		III Education Classes, All Earners 25 & Older			
10	Under 7 years elementary school			3.2	15.8
11	7 & 8 years elementary school			15.1	28.7
12	1 to 3 years high school			12.3	18.6
13	4 years high school			25.2	22.0
14	1 year or more college			44.2	15.0

Whatever may be said about the relative potential productive power of women and men, in our society the training and obligations of the former prevent them from acquiring experience and skills comparable with those attainable by the latter. Hence, the larger proportion of men in the top 5 percent of income earners or recipients than in the total population (lines 1 and 2) means that the upper income groups contain a relatively larger share of the working and earning population of the more skilled and experienced type.

The same may be said of the age structure of the top income group compared with that of all income recipients (lines 3-9). The former has a much larger proportion of persons at the prime of life. Perhaps the sole qualification is that the 25-34 age class accounts for a smaller proportion of the top income group than of the total income receiving or earning population. Yet age should be viewed as an index of the accumulation of skill and experience as well as a matter of sheer physical strength. One may, therefore, argue that the 25-34 year class still includes a large proportion of persons who, however formally trained, may be in the early, learning years of their lifetime jobs. And the three decades from 35 to 64 do represent

the periods within which the peaks of skill and experience are attained and within which, particularly in the later years of that span, the decline in productive power due to purely physical handicaps is still moderate and savings begin to accumulate.

Persons with longer formal training form a much larger proportion among the top income group (lines 10-14). For example, college trained persons are almost a half of the top income group and only about a seventh of the total income receiving population.

Table 9, in terms of income recipients or earners rather than consuming units or returns on a per capita basis, reflects different income distributions from the ones discussed above. Nor are the various characteristics—sex, age, and education—properly cross-classified to reveal the effect of each separately. Finally, these illustrative examples are from small samples for just one to three years. But all these qualifications, however they may affect the specific magnitudes, do not impair the main conclusion: the upper income groups are highly selective in that they are dominated by the sex, age (representing accumulated experience and skill), and education classes that are among the most productive in the total income earning and receiving population. In other words, a significant part of the high incomes at the upper levels is to be attributed to the fact that individuals at the height of their productive power constitute such a large proportion of the group.

This obvious conclusion is often overlooked in interpreting inequalities in distributions of income by size. One implication is plain. Were we to consider an income distribution not for all recipients but confined to those who might justifiably be described as full-time, able-bodied, maturely experienced income earners; eliminate from it the young who are still learning and the old and semi-retired who are designedly or otherwise limiting their efforts; exclude such female and male, chiefly the former, income earners who are only temporarily and secondarily in the labor market; and finally, adjust for the differential cost of education and delay in initiating earning activities, the distribution would display much less inequality than the distributions with which we deal here; and the shares of upper income groups would be materially smaller than the shares shown here. How much we cannot tell, though Table 9 makes it evident that the reduction would be substantial.

b) *Occupational characteristics*

The occupational distribution of the top income group, as compared with that of the total population, reveals the dominance of two broad groups: business and professional persons (Table 10). All three comparisons demonstrate similar tendencies except that for 1947 and 1948 the much better economic position of farmers puts a higher proportion of them among the top income group than among the total population—the opposite of the situation in 1935-36.

Table 10

Occupational Distribution of Top Income Group and of Total Population (percentages)

		Consumer Purchases Study, 1935-36 FAMILIES		*Census Sample* *Av. for 1947 & 1948** INCOME RECIPIENTS		*1948** HEADS OF FAMILIES	
	Occupational Group	Top 2.7 percent (1)	Total (2)	Top 5-6 percent (3)	Total (4)	Top 2.9 percent (5)	Total (6)
1	Wage earning	2.4	32.2	4.8	29.2	9.4	27.2
2	Farming	10.9	21.0	13.3	8.8	13.3	12.0
3	Clerical	8.3	12.3	3.9	10.1	3.1	5.8
4	Business, salaried	22.9	3.8	15.2	3.4	16.0	4.8
5	Business, independent	23.3	8.1	20.8	5.4	24.1	7.5
6	Professional, salaried	10.6	3.4	11.1	4.8	7.8	4.5
7	Professional, independent	16.0	1.1	6.4	0.8	9.7	1.1
8	All other nonrelief	5.5	2.9	19.2	16.0	10.3	20.0
9	Relief	0.0	15.3	.....	.....	.....	.....
10	In armed forces or not employed	.....	.....	5.2	21.4	6.4	17.2

* Recorded as of April of the following year.

Notes on the Classification of the Detailed Census Occupations for Comparison with 1935-36

Wage earning: operatives and kindred workers, domestic service workers, service workers except domestic, and laborers except farm and mine.
Farming: farmers and farm managers, and farm laborers and foremen.
Clerical: clerical and kindred workers.
Business salaried and independent, and professional independent: as specified in the Census data.
Professional salaried: salaried and semiprofessional workers.
All other nonrelief: salesmen and saleswomen, craftsmen, foremen and kindred workers.

This distinctive occupational distribution of upper income groups not only confirms what was observed in connection with educational characteristics but also brings to light some new factors that must be considered in interpreting the inequality of a size distribution of income. The large proportion of persons in professional occupations in the top income group is to be associated chiefly with

the high cost of preparation and training and in this sense substantiates the comparisons of educational status in Table 9.[8] The larger proportion of persons in business occupations, whether independent or salaried, in the top income group may reflect the greater age and experience required for relatively high positions in the salaried business hierarchy or for the attainment of an independent position at the head of a firm; and partly the compensation for risks inherent in entrepreneurial activity. Current year income, in the case of entrepreneurial groups, must compensate for any losses that may be incurred at other times. The size distribution of a single year's income in business occupations may characteristically be one in which large losses at the small lower tail are compensated by risk allowances for the majority of the units that enjoy a positive income. In contrast to a distribution in which no such risk is involved, it would tend to put a higher proportion of units among the upper groups.

c) *Size of family and location*

These characteristics are relevant when we view income recipients as consumers, not as producers. For the size of family or consuming unit in which an individual participates has a definite effect upon per capita expenditures; and so does location, as is evident in costs and living patterns in the country vs. the city, or in a small city vs. a metropolis. Illustrations, confined to only three years and rather narrow samples, are provided in Table 11.

In the first comparison (lines 1-5) it must be recognized that the distribution is of the number of *persons* in categories classified by the size of the family or consuming unit. Thus, column 1 shows that in 1935-36 of all persons classified as constituting the top 5 percent of the income distribution, as many as 45 percent were single individuals, i.e., over five times as many proportionately as there were in the total population. While this overstates the proportion of single individuals owing to defects in the 1935-36 estimates, their marked concentration among the top 5 percent is confirmed by the data for 1947 and 1948.

In general, the smaller the family or consuming unit the greater

[8] For a detailed analysis of the extent to which incomes of professional practitioners represent compensation for extra costs entailed in longer training, see Milton Friedman and Simon Kuznets, *Income from Independent Professional Practice* (NBER, 1945), Ch. 4, pp. 95-173; and more recently, G. J. Stigler, Employment and Compensation in Education, *Occasional Paper 33* (NBER, 1950).

Table 11: Size of Family and of Community Residence Composition Top Income Group and Total Population

		Consumer Purchases Study, 1935-36		*Census Sample, Av. for 1947 & 1948*	
		(1)	(2)	(3)	(4)
	I % Distribution of Persons by Size of Unit				
		(Top 5 percent)	Total	(Top 5 percent)	Total
1	Single individuals	45.2	8.0	19.4	5.6
2	2 person families	18.0	12.2	44.2	16.4
3	3-4 person families	24.5	33.8	36.4	41.8
4	5-6 person families	8.5	26.6	0.0	23.6
5	7 & over person families	3.8	19.4	0.0	12.6
	II % Distribution of Families by Size of Community				
		(Top 7.2 percent)	Total	(Top 11.6 to 12.7 percent)	Total
6	Metropolises	23.1	11.2	19.8	12.0
7	Large cities	27.8	19.0	12.9	11.0
8	Middle size cities	9.8	10.9	14.6	12.8
9	Small cities	12.5	16.6	25.3	24.5
10	Rural nonfarm communities	15.3	19.3	15.6	22.2
11	Farms	11.5	23.0	11.7	17.5

Line 6 includes cities of 1.5 million and over (1935-36) and 1 million and over (1947-48); line 7, cities of 100,000-1,500,000 (1935-36) and 250,000-1,000,000 (1947-48); line 8, cities of 25,000-100,000 (1935-36) and 50,000-250,000 (1947-48); line 9, all other cities down to 2,500.

the excess of the proportion of persons belonging to it among the upper income groups over that in the total; and the larger the family or consuming unit the greater the deficiency in the proportion of persons belonging to it among the upper income groups over that in the total. In other words, the association between the number of persons in a family or consuming unit and income per capita is negative. But this does not imply a direct causal connection: the connection may be through related factors of the type already discussed (education, occupation, etc.) or through location.

Two aspects of the location factor in its association with income differentials can be studied: differences due to living on farms, in the country, and in cities of different size; and regional differences. In general, regional proportions in the distribution among all units and among the top income group do not differ much, *provided* we adjust for inter-regional differences in the relative weight of large and small communities. Differentials associated with the size of community factor, in contrast, are substantial and significant, even within regions.

In Table 11 distributions of families alone, excluding single individuals, are compared: that is, the proportions in the top income

group and in the total population in communities of different size are studied net of the difference between families and individuals, but not of differences in size among families themselves. We find as we expected that a much larger proportion of top income families than of all families live in metropolises. There is a similar but less pronounced concentration of large city residents in the top income group. By contrast and in compensation, the proportion of rural dwellers is much lower than in the total population.

d) *Expenditure differentials*

The structure of upper income groups in their distribution among family units of different size, among residents of various types of community, and among occupational strata affects our interpretation of the inequality of income as revealed by their large income shares. The conditions under which these groups receive their large incomes impose upon them expenditures that are necessarily much larger than those of the lower income groups, either for exactly the same bundle of goods or for about the same level of satisfaction and different bundles of goods. For example, because a much larger proportion of upper income groups are single individuals or members of two person families, they may pay higher prices for the same supply of goods *per capita* than larger family units; and there may be an adverse price differential for identical goods because a much larger proportion of upper income groups live in big cities. Likewise, even when the various income groups purchase different goods, some part of the bigger bundle purchased by upper income groups may be due to their residing in big cities or in small family units and are in the nature of expenses of a mode of life—a business expense rather than a final consumer good. For example, expenditures on carfare, high rent, and many other appurtenances of metropolitan life are for goods that are completely dispensable to a rural dweller and merely compensate for some disadvantages of urban life.

To measure expenditure differentials due to each of these three possible elements of higher expenditure levels for upper income groups—higher prices of identical goods, additional costs of goods that are in the nature of 'business expenses', and differences in supply of additional *final* goods—is impossible with the present data or at least within the scope of this report. The expenditure differ-

entials summarized in Table 12 are for a single year, 1935-36, and take account of only one, though a significant, adjustment. The expenditures are calculated at identical levels of per capita income for each binary comparison. To illustrate: at an income level of $300 per capita, families spent $305 per capita, including gifts and taxes; individuals, $349 per capita, 14 percent more (col. 1); expenditures per person in families were $314 in urban communities as against $284 on farms, or 11 percent more (col. 2), and $332 in metropolises as against $307 in small cities, or 8 percent more (col. 3). Hence, within each comparison, differences in per capita expenditures cannot be associated with differences in per capita income; they must be due to one of the three factors mentioned—different prices, 'costs', or propensities to consume (differences in the real volume of final goods purchased at a given income level).

At the same level of per capita income, individuals spent 14-36

Table 12

Percentage Differential in Expenditures per Capita at Same Levels of per Capita Income, Different Size of Family, Size of Community, and Occupational Groups, 1935-1936

	Percentage Excess in per Capita Expenditures			
Per Capita Income Level	Individuals over families (1)	Families in urban communities over farm (2)	Families in metropolises over small cities (3)	Families in higher income type occupations over lower (Chicago) (4)
$100		28	87	
200		13	23	
300	14	11	8	
400		18	4	
450				0
500			6	
550				4
600	14	32	7	
650				5
700			6	
750				6
850				11
900	21	50	10	
950				7
1,000			11	
1,200	27		9	
1,300		69	10	
1,600	31			
1,800			20	
2,500	36			
4,500	25			
10,000	27			

percent more per capita than families; families in urban communities 11-69 percent more than families in farm communities; and families in large cities 4-87 percent more than families in small cities. Finally, in Chicago, per capita expenditures at identical income levels by families in business and professional occupations were 4-11 percent more than those in 'lower income' type occupations. All these figures are of illustrative rather than descriptive value. Yet, the general differences they suggest are real and lasting: at identical levels of per capita income, individuals tend to spend more per capita than families; small more than large families (according to our report, though Table 12 does not show it); urban more than rural families; large city more than small city families; higher income occupation more than lower income occupation families. Some part of these differentials may be due to differences in prices of identical goods and to the higher 'cost' of identical levels of living. These parts of the expenditure differentials reduce the purchasing power of upper as compared with lower income groups; and our measures of inequality in the distribution of income should be adjusted accordingly, if they are to reflect differences in spending units' command over consumer goods. Unfortunately, we cannot tell how large this interclass difference in purchasing power of money is, and how large is the consequent reduction in income inequality viewed as inequality in command over consumer goods.

B Changes in Income Shares of Upper Income Groups

The chart portrays annual movements in income shares of upper income groups for all three variants. The most conspicuous movement is the decline after 1939. During the two decades between the wars the shares of the various top percentage bands shifted somewhat from the first to the second decade. There were also shorter term changes which can be studied most effectively within a reference frame of cycles in general economic activity. The changes in income shares of upper income groups are, therefore, described for recent years, the two interwar decades, and business cycles.

1 *Movement after 1939*

Measures of the movement since 1939 in shares of upper income groups, summarized in Table 13, end with 1945 because detailed data from federal income tax returns needed for calculating all three