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## Chapter 5

### SOCIAL CHARACTERISTICS OF UPPER INCOME GROUPS

The sex, age, education, occupation, industrial affiliation, place of residence (region and size of community), and other such characteristics of recipients in upper income groups should at least furnish clues to the factors that, on the production side, explain why relatively small groups of persons at the top levels get such a large proportion of total income; and the conditions that, on the expenditure side, help to translate inequality in the distribution of money receipts into inequality in shares of real income.

Lack of data — the perennial bane of the empirically minded student — takes on, in the present case, two forms. First, while we define upper income groups in terms of single persons and families classified by per capita income, almost all published size distributions of income are of spending units classified by income per unit; and rarely can the latter be adjusted to show the characteristics of a distribution of persons classified by income per capita. When such an adjustment is possible, we make it; otherwise we have to assume that the characteristics of the top group of units classified by income per unit are roughly true of the top group of persons classified by per capita income.

The second difficulty is even more circumscribing. All the characteristics are interrelated. Age, which is significant largely as an approximation to years of experience in an occupation and perhaps also to the period of accumulation of savings, is closely related to occupation; occupation in turn is closely related to education on the one hand, and place of residence, on the other; and size of family is related to place of residence. Hence, to observe the effect of any single factor separately we need a multiple classification in which one base is income, appropriately measured (for our purposes, per capita) and the other bases are all the interrelated characteristics. Such a multiple classification is unavailable, and in view of the smallness of the samples underlying the recent size distributions of income, perhaps it could not be made because the cell totals would be for too few cases. Consequently, we have to deal with each characteristic in a gross rather than in a net way — in only a few cases can we isolate one characteristic from the related ones.

### 1 *Sex and Age*

Data on sex and age in relation to income level are available in the distribution of Minnesota earners for 1938-39 and in the Census distributions of income recipients for 1947, 1948, and 1949 (Table 33).<sup>1</sup> In both, the top group is heavily dominated by males, much more so than the total. Though the top group of earners or recipients is not identical with the top group in a distribution of single persons and families by income per capita, they are similar enough to justify the inference that even in the top group as defined by us most recipients (not sharers) are males. That females do not constitute a sizeable proportion of earners or recipients at upper income levels is to be expected, since our economy and society limit opportunities or inducements to women to try for important positions on the upper rungs of the income ladder.

An even more telling characteristic is age. In the top group of Minnesota earners and of income recipients in the Census samples there are many fewer young persons relatively than in the total. Minnesota earners under 25 years account for 13 percent of all earners but for less than 1 percent of the top group; those under 35, for 35 and 11 percent respectively. In the Census samples persons under 25 account, on the average, for over 18 percent of all income recipients but for only 1.3 percent of the top group. Perhaps more relevant to our analysis are columns 5 and 6 where the age of all family heads and single persons combined is compared with that of the top group (heads of families with incomes of \$10,000 and over and single persons with incomes of \$2,500 and over — a rough approximation to a classification by income per capita). Here the higher incomes of older persons tend to be reduced by the rough adjustment to a per capita basis since older persons (except the very old) usually have more dependents. Nevertheless, even in column 6 there is a comparative shortage of young persons in the top group: persons under 35 constitute only 19 percent of the latter but over 26 percent of all family heads and single persons.

A somewhat less conspicuous but equally interesting feature of Table 33 is the showing for persons 65 and over. In the Minnesota distribution, which covers earners and their aggregate earnings including income in kind (especially important because many are farmers), the percentage of this age bracket in the top group slightly exceeds that among all earners.

<sup>1</sup> The characteristics discussed below were studied for each year then available in the Census distributions. But since year-to-year variations were so minor as to be almost negligible, only arithmetic means of the annual percentages are presented in the tables.

Table 33

Percentage Distribution of Earners and Income Recipients by Sex and by Age Classes, Top Group and Total: Minnesota, 1938-1939, and Census Samples, 1947-1949

Sex, & Age Classes	Minnesota Earners 1938-1939		Census Samples, Averages for 1947-1949			
	Total (1)	Top 5.2 percent (2)	INCOME RECIPIENTS		HEADS OF FAMILIES & SINGLE PERSONS	
			Total (3)	Top 5.7 percent (4)	Total (5)	Top 5.6 percent (6)
<i>Sex</i>						
1 Male	79.3	97.3	67.8	95.6	n.a.	n.a.
2 Female	20.7	2.7	32.2	4.4	n.a.	n.a.
<i>Age</i>						
3 Under 20	3.0	0.0	6.8	0.0	6.2	3.2
4 20-24	10.1	0.6	11.6	1.3		
5 25-29	11.1	4.2	22.1	17.0	20.3	16.0
6 30-34	10.8	6.4				
7 35-39	11.7	14.0	20.0	31.2	21.9	22.8
8 40-44	11.9	17.2				
9 45-49	10.6	18.8	16.6	27.6	20.1	27.0
10 50-54	10.1	13.2				
11 55-59	7.6	10.5	12.3	16.5	16.6	20.6
12 60-64	5.6	7.6				
13 65 and older	7.3	7.5	10.6	6.3	14.8	10.4
14 All ages	100.0	100.0	100.0	100.0	100.0	100.0

n.a.: not available.

#### Column

- 1, 2 Calculated from *Minnesota Incomes*, III, Table 5, p. 13: column 2 is for levels of \$2,500 and over.
- 3, 4 Averages of annual percentages calculated from *Census Report*, 1947, Table 15, p. 23, 1948, Table 12, p. 23, 1949, Table 17, p. 30: column 4 is for levels of \$5,000 and over.
- 5, 6 Averages of annual percentages calculated from *ibid.*, 1947 and 1948, Table 5, p. 18, 1949, Table 5, p. 22: column 6 is for families at levels of \$10,000 and over and single persons at levels of \$2,500 and over.

In the Census distributions, covering all recipients but only their money income, the proportion of this age bracket in the top group is, on the contrary, distinctly smaller than among all recipients; and this is true also of the distribution of family heads and single persons. The Census data strongly suggest that the proportion of the young and of the very old is lower in the top income group than in the total.

Consequently, persons from 35 through 64, in the prime of experience and active life, predominate in the top income group — a fact often overlooked in discussions of the inequality of income. The incomes of those at the two age extremes, the young and the very old, are distinctly smaller than those they either expect to earn in their prime or did earn before passing it. In the case of the young, an important reason is that the early years

of active participation in the economy are years of apprenticeship and training — and recognized as such, with consequent effect on income. The very old may be physically incapable of fulltime work, lack incentive for full scale activity, and particularly may live on small service and property incomes, supplemented by savings.<sup>2</sup> In other words, higher incomes in the prime and experienced ages are, in a sense, compensation for low incomes in the young and apprenticeship ages, and preparation, through the accumulation of savings, for low incomes in the very old ages. The effect of this age factor on the relatively high income share of the top group is not fully demonstrated by Table 33, and it is impossible, within the scope of our discussion, to measure it. But its importance seems beyond doubt, and must be borne in mind in any interpretation of the social and economic significance of an unequal distribution of income.

Not only is age related to occupation, but differences in age may in fact reflect concealed occupational differences; for example, a relatively larger proportion of persons 35-44 may be in high income occupations than, say, persons 25-34 years old. Does age, together with training, growth, maturity, and retirement affect the top income group whatever the occupation? Only the Minnesota data provide even a tentative answer.

For each of eight occupational classes we can derive the age distribution of all earners as well as of the top 5 percent (Table 34). The occupational classes are rather broad, and some are heterogeneous. For example, the professional class includes a wide variety ranging from highly skilled independent practitioners to semiprofessional salaried workers such as chorus girls, chiropractors, and laboratory assistants; proprietors and officials range from high executives of large corporations to small retail shopkeepers. Nevertheless, since there are wide differences among these classes with respect to occupation, inter-class comparisons of the difference in age structure between the top 5 percent and all earners within a given class are significant.

<sup>2</sup> Of the 6.4 million men in the armed forces or not employed but receiving income in April 1948, the 1947 incomes of almost 60 percent were less than \$1,000; and of the 7.4 million women in the same category, about 75 percent. (*Census Report, 1947, Table 17*). Of the 7.2 million men in this category in April 1949, 54 percent received incomes under \$1,000 in 1948; and of the 8.8 million women, 76 percent (*ibid., 1948, Table 14*). In March 1950 there were 8.3 million men and 9.1 million women in this category; and of them 55 and 79 percent respectively received 1949 incomes under \$1,000 (*ibid., 1949, Table 19*). This combined group of some 14 to 17 million recipients must be dominated by the retired and semi-retired groups who draw on capital to supplement their incomes. Unfortunately, the Census publications do not provide a cross-classification of this group by age that would test its assumed overlapping with the very old.

Table 34

## Percentage Distribution of Earners in Each of Eight Occupational Classes by Age Brackets, Top Group and Total: Minnesota, 1938-1939

Occupational Class	Under 20 (1)	20-24 (2)	25-29 (3)	30-34 (4)	35-39 (5)	40-44 (6)	45-49 (7)	50-54 (8)	55-59 (9)	60-64 (10)	65 & Older (11)	All Ages (12)
<i>Professional Workers</i>												
Total	0.9	11.4	15.4	14.5	15.4	12.4	9.6	6.9	6.0	2.5	5.0	100.0
Top 5 percent	0.0	0.0	0.0	8.0	18.5	25.8	11.6	12.1	14.8	9.2	0.0	100.0
<i>Proprietors, Managers, &amp; Officials</i>												
Total	0.6	3.7	6.0	8.7	11.7	14.2	14.0	13.8	9.4	7.1	10.8	100.0
Top 5 percent	0.0	*	2.6	7.1	12.4	17.4	25.9	19.0	7.7	6.0	1.9	100.0
<i>Clerical Workers</i>												
Total	5.1	18.4	15.5	13.1	11.8	12.1	8.2	6.6	4.7	2.6	2.0	100.0
Top 5 percent	0.0	0.2	4.0	9.4	15.1	21.1	18.5	16.0	7.9	4.8	3.1	100.0
<i>Craftsmen</i>												
Total	0.5	5.1	8.8	9.6	11.3	15.6	16.2	12.3	9.3	5.8	5.4	100.0
Top 5 percent	0.0	0.0	1.0	8.9	8.7	17.9	26.7	14.4	8.7	5.5	8.3	100.0
<i>Operatives</i>												
Total	2.4	14.3	16.2	14.8	14.8	10.9	8.3	8.6	5.1	2.4	2.0	100.0
Top 5 percent	0.0	1.8	7.5	14.1	26.2	14.9	14.0	10.7	5.4	4.4	1.1	100.0
<i>Service Workers</i>												
Total	8.7	14.8	11.9	7.3	8.6	10.0	9.0	8.9	8.2	6.1	6.6	100.0
Top 5 percent	0.0	*	18.6	4.4	8.2	25.9	15.3	16.5	4.1	6.3	0.5	100.0
<i>Laborers</i>												
Total	7.3	17.3	14.8	11.5	9.7	7.1	7.1	7.9	7.3	5.5	4.4	100.0
Top 5 percent	0.4	2.4	9.2	19.2	14.8	12.0	16.7	7.4	8.9	5.8	3.2	100.0
<i>Farmers</i>												
Total	0.0	0.7	4.8	8.4	11.5	12.9	12.3	13.2	10.0	9.7	16.6	100.0
Top 5 percent	0.0	1.6	5.6	2.3	14.2	8.3	13.0	13.2	12.9	15.2	13.7	100.0

\*Less than 0.05.

Calculated from *Minnesota Incomes*, III, Table 7, pp. 25-8. Having determined the point in the cumulative distribution of the given occupational class at which the top 5 percent line lies, we draw the partition line in each age bracket distribution for that class.

The number above this line in each age bracket is added and the total distributed percentage. For the coverage of each occupational class, see *ibid.*, I, 186-9.

Naturally, the eight occupational classes differ with respect to the age distribution of all earners. Among proprietors, managers, and officials, both urban and rural (i.e., including farmers), older persons constitute a much larger proportion than among wage earners (operatives, service workers, laborers). But within each occupational class the top 5 percent group has either no young members or fewer relatively than the total body of earners. Even in the top 5 percent of clerical workers, operatives, service workers, and laborers — classes with the youngest age structure on the whole — persons under 25 are conspicuously absent or are represented by small percentages. The major difference among occupations in this underrepresentation of younger persons in the top earner group is in the age bracket at which it ceases: 35-39 in the case of professional, proprietor, clerical, and operative classes; 40-44 among craftsmen; but as early as 30-34 for laborers; and, while the pattern is irregular, perhaps as early as 25-29 for service workers, and even earlier, 20-24, for farmers.

In most occupations persons 65 and older constitute a smaller proportion of the top group than of all earners. But there are some significant exceptions: in the clerical class, which includes sales clerks, and in the craftsman class, which includes highly skilled workers and foremen, the proportion is higher than among all earners; and that in the top 5 percent of farmers, while somewhat smaller than among all farmers, is quite high. Obviously, several occupations can be actively pursued beyond the age of 65 without an appreciable loss in earnings.<sup>3</sup>

## 2 *Education, Occupation, and Industry*

The only recent countrywide sample that relates formal education to income is the Census Bureau's for 1946. The nonfarm population alone is covered, and income is shown for all earners (money income of all types) but not for persons who receive income solely from property or are in the armed forces. The distribution is therefore for a significantly smaller universe than the 1947, 1948, and 1949 Census samples cover.

Nevertheless, the comparison in Table 35 is revealing. As might be expected, persons who have an education well above the average are overrepresented among the top 5 percent of earners (civilians). The 'college' class (i.e., earners with 1 year or more of college) constitutes well over four-tenths of the top 5 percent of earners 25 and older, but only about a seventh of all such earners. A similar excess of the proportion of the col-

<sup>3</sup> This explains the results in Table 33: the higher proportion of persons 65 and older in the top group of earners than among all earners in Minnesota; and the opposite showing in the Census samples because they include nonearners, exclude income in kind, and possibly have a different occupational structure.

Table 35

Percentage Distribution of Civilian Earners by Years of School Completed, Top Group and Total: Census Sample (nonfarm), 1946

Civilian Earners by Age Classes	Elementary School		High School		College	Total (6)
	<i>Under 7 Years</i> (1)	<i>7 &amp; 8 Years</i> (2)	<i>1-3 Years</i> (3)	<i>4 Years</i> (4)	<i>1 Year or more</i> (5)	
<i>All, 25 &amp; older</i>						
Total	15.8	28.7	18.6	22.0	15.0	100.0
Top 5 percent	3.2	15.1	12.3	25.2	44.2	100.0
<i>Male, 25-44</i>						
Total	10.3	23.7	23.0	26.3	16.7	100.0
Top 5 percent	1.0	7.9	11.3	27.4	52.4	100.0
<i>Male, 45-64</i>						
Total	23.9	38.0	13.8	13.2	11.1	100.0
Top 5 percent	3.8	18.2	10.2	22.1	45.7	100.0
<i>Female, 25-44</i>						
Total	8.2	21.7	20.7	31.7	17.7	100.0
Top 5 percent	1.8	7.9	20.8	33.2	36.3	100.0
<i>Female, 45-64</i>						
Total	20.6	31.4	15.7	16.1	16.2	100.0
Top 5 percent	3.4	16.6	14.3	20.0	45.8	100.0

Calculated from *Income of the Nonfarm Population: 1946* (Bureau of the Census, Current Population Reports, Series P-60, No. 3), Table 13, p. 22. Having determined the point in the cumulative distribution of the total at which the top 5 percent line lies, we draw the partition line in the distribution for each years-of-schooling class. The number above this line in each class is added, and the total distributed percentage-wise.

lege class in the top group is true of both male and female earners, whether between 25 and 44 or between 45 and 64 years old. The proportion of earners with longer formal education rises as we pass from the 45-64 to the 25-44 age bracket, reflecting the spread of education in recent decades. The larger proportion with higher formal education among female than among male civilian earners when we compare all earners in the two broad age classes is due to a greater selectivity of participation in gainful employment among females, not a higher level of formal education among *all* females. When we compare the top earner groups, however, the relative importance of the college class appears distinctly greater for males than for females 25-44, but tends to be about the same for the 45-64 age bracket.

Education is obviously related and subordinate to occupation in the sense that it affects income largely by qualifying a person to engage in one occupation rather than another. This is particularly true of such broad educational classes as are distinguished in Table 35.

The data on occupation are somewhat more revealing (Table 36). The

Table 36  
Distribution of Families by Occupation, Upper Income Groups and Total: Consumer Purchases Study, 1935-1936

Occupational Class & Community	Number of Families (000) in Given Occupational Class			% of Families in Given Occupational Class			% Distribution of Families					
	WITH INCOME OF \$5,000 & over	WITH INCOME OF \$3,500 & over	TOTAL	WITH INCOME OF \$5,000 & over	WITH INCOME OF \$3,500 & over	TOTAL	WITH INCOME OF					
							\$5,000 & over	\$3,500 & over	TOTAL			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	A ALL OCCUPATIONAL CLASSES											
1 Wage earner	19.3	150.0	309.2	9,459.3	0.2	1.6	3.3	100.0	2.4	9.2	13.0	32.2
2 Farm	86.9	195.2	295.9	6,166.6	1.4	3.2	4.8	100.0	10.9	11.9	12.4	21.0
3 Clerical	66.2	241.7	422.3	3,626.2	1.8	6.7	11.7	100.0	8.3	14.8	17.8	12.3
4 Business salaried	181.5	317.4	419.4	1,112.6	16.3	28.5	37.7	100.0	22.9	19.4	17.6	3.8
5 Business indep.	185.0	312.4	402.2	2,372.6	7.8	13.2	17.0	100.0	23.3	19.1	16.9	8.1
6 Prof. salaried	84.2	182.9	252.4	989.2	8.5	18.5	25.5	100.0	10.6	11.2	10.6	3.4
7 Prof. indep.	127.0	172.0	199.5	340.9	37.4	50.5	58.6	100.0	16.0	10.5	8.4	1.2
8 All other nonrelief	43.7	63.2	77.5	845.7	5.2	7.5	9.2	100.0	5.5	3.9	3.3	2.9
9 Relief	0.0	0.0	0.0	4,487.1	0.0	0.0	0.0	100.0	0.0	0.0	0.0	15.3
10 All families	793.8	1,634.8	2,378.4	29,400.3	2.7	5.6	8.1	100.0	100.0	100.0	100.0	100.0
	B WAGE EARNER CLASS, AND ALL OTHER OCCUPATIONAL CLASSES COMBINED, BY SIZE OF COMMUNITY											
<i>Metropolises</i>												
11 Wage earner	7.4	47.6	95.3	1,368.4	0.5	3.5	7.0	100.0	3.8	13.6	19.7	41.5
12 Other, incl. relief	189.4	303.1	388.6	1,926.7	9.8	15.7	20.2	100.0	96.2	86.4	80.3	58.5
13 Total	196.8	350.7	483.9	3,295.1	6.0	10.6	14.7	100.0	100.0	100.0	100.0	100.0
<i>Large Cities</i>												
14 Wage earner	5.8	46.1	93.6	2,155.1	0.3	2.1	4.3	100.0	2.7	10.1	14.4	38.6
15 Other, incl. relief	206.6	409.3	558.4	3,424.2	6.0	12.0	16.3	100.0	97.3	89.9	85.6	61.4
16 Total	212.3	455.4	652.0	5,579.3	3.8	8.2	11.7	100.0	100.0	100.0	100.0	100.0

<i>Middle-size Cities</i>													
17	Wage earner	2.5	16.1	33.1	1,409.6	0.2	1.1	2.3	100.0	3.2	9.8	13.5	44.2
18	Other, incl. relief	74.6	148.2	212.8	1,780.9	4.2	8.3	11.9	100.0	96.8	90.2	86.5	55.8
19	Total	77.0	164.2	246.0	3,190.4	2.4	5.1	7.7	100.0	100.0	100.0	100.0	100.0
<i>Small Cities</i>													
20	Wage earner	3.6	32.6	70.9	2,305.8	0.2	1.4	3.1	100.0	4.0	15.1	20.7	47.2
21	Other, incl. relief	86.8	183.9	271.3	2,582.4	3.4	7.1	10.5	100.0	96.0	84.9	79.3	52.8
22	Total	90.4	215.5	342.2	4,888.2	1.8	4.4	7.0	100.0	100.0	100.0	100.0	100.0
<i>Rural Communities</i>													
23	Wage earner	0.0	7.7	16.3	2,220.3	0.0	0.3	0.7	100.0	0.0	1.7	2.5	17.8
24	Other, incl. relief	217.2	441.4	638.0	10,226.9	2.1	4.3	6.2	100.0	100.0	98.3	97.5	82.2
25	Total	217.2	449.1	654.3	12,447.2	1.7	3.6	5.3	100.0	100.0	100.0	100.0	100.0

*Line*

COLUMNS 1-3  
 1-7 Derived from *Consumer Incomes in the United States*, Table 10B, p. 97.

8 Line 10 minus lines 1-7 and line 9.

9 *Ibid.*, Table 13B, p. 98.

10 *Ibid.*, Table 8B, p. 97.

11, 14, 17, 20, & 23 Derived from *ibid.*, Table 11B, p. 97.

12, 15, 18, 21, & 24 Line 13 minus line 11, line 16 minus line 14, etc.

13, 16, 19, 22, & 25 *Ibid.*, Table 9B, p. 97, plus *ibid.*, Table 26B, p. 101.

COLUMNS 5-8  
 Calculated from respective lines in columns 1-4.  
 COLUMNS 9-12  
 Percentage distribution of columns 1-4 respectively.

first countrywide sample for the period that permits associating income with occupation is that of the Consumer Purchases Study. 'Nonrelief families', i.e., families receiving no direct or work relief whatever during 1935-36, are divided into eight classes; 'relief families' are treated *en bloc*. A family is classified by the occupation from which the largest amount of family earnings was derived. The income classification is per family, not per capita. Finally, there may be some lack of independence between the classification by occupation and by income: in many doubtful cases the level of earnings may have helped to decide whether a family was to be classified under the wage earner or the clerical group, under the clerical or the salaried business. Yet despite all these qualifications, the distinctive occupational composition of upper income groups emerges clearly.

Of the top 2.7 percent of families, almost three-quarters, 72.8 percent, receive their earnings chiefly from business or a profession (Table 36, column 9, lines 4-7). Adding those in the miscellaneous class (column 9, line 8), which includes a large group of families whose largest source of income is from pensions or solely from property, raises this percent to somewhat over 78, the wage earner, farm, and clerical families accounting for somewhat less than 22 percent. When we extend the top group to cover the top 8.1 percent of families, the percentage in business, professional, or miscellaneous occupations drops to 57, and the percentage in wage earner, farm, or clerical occupations rises to 43 (col. 11). But of all families, wage earner, farm, and clerical families plus those on relief (which should be included) constitute over 80 percent. The contrast between the very top income group and total population in occupational composition can, therefore, be expressed roughly by saying that of the former almost 80 percent are in business, professional, or miscellaneous occupations, of the latter more than 80 percent are in the wage earner, farm, clerical, or relief categories.

As shown below, size of community is closely related to income and is associated with at least some occupational differences. But comparison of upper groups with the total with respect to their relative proportion of wage earner families (data relating occupation to community size are available only for this, the numerically largest occupational class) and of all other families combined indicates that occupation is independent of size of community (Table 36, Part B). Consistently within each community size division wage earner families are a smaller proportion and 'other' families a much larger proportion of upper income groups than of all income groups (col. 9-12). The differential is least in metropolises and small cities, where the 'other' classes obviously include a large admixture of clerical and 'relief' families which are just as unlikely to be in upper

income groups as are wage earner families. The significance of occupation as a factor independent of community size differentials is thus amply confirmed, as indeed would be expected.

It is important, however, that the community size differential also turns out to be independent of occupation. The proportion of wage earner families among upper income families is higher in metropolises than in large cities; in large cities than in middle-size or small cities; and in small cities than in rural communities (Table 36, Part B, col. 5-8). This means that the composition of upper income wage earner families by community size divisions resembles that of all upper income families: a higher proportion live in metropolises and large cities and a lower proportion in small cities and rural communities than is true of all wage earner families. The same is true of the residual, 'other' class although its occupational heterogeneity renders the result less significant.

The occupational distribution of Minnesota earners can add little to the broad conclusions from the countrywide data for 1935-36 in Table 36. Indeed, the difference between the occupational structure of the top group and of the total in Table 37 is similar to that in Table 36, the professional and entrepreneurial (and managerial) classes combined constituting almost three-fifths of the top earner group but only one-fifth of all earners. The feature of Table 37 is rather that the occupational structure of the top and total earner groups is compared for each age bracket separately. In other words, occupational differences are analyzed separately from age structure.

The distinctive occupational structure of the top group persists even in the several age brackets. Professional workers constitute a much larger proportion of top earners than of all earners in each age bracket with the single and obvious exception of the very young (under 20); and the same holds, without the qualification for the very young, for the proprietor and manager class. The operative, craftsman, and clerical classes, which, on the whole, constitute a smaller proportion of the top group than of all earners, tend to do so also in the age brackets over 20, over 24, and over 29, respectively. But in the young age brackets, these occupational classes are more important among top earners than among all earners, and this is true also of the older age brackets of the clerical and craftsman classes, particularly the former. The service and laborer classes are the two which, like the professional and proprietor classes, exhibit their distinctive — this time, low — position at all age levels. Finally, farmers have a rather distinctive pattern: completely absent from the bracket under 20, they are disproportionately numerous among the top earners from 20-29 years old; disproportionately few among the top earners 30-34 and 40-49;

Table 37

## Percentage Distribution of Earners in Each Age Bracket by Occupation, Top Group and Total: Minnesota, 1938-1939

Age Bracket	Profes- sional Workers (1)	Prop., Migrs., & Officials (2)	Clerical Workers (3)	Crafts- men (4)	Opera- tives (5)	Service Workers (6)	Laborers (7)	Farmers (8)	All Occu- pations (9)
<i>All Ages</i>									
1 Total	5.6	14.8	16.3	9.7	12.3	8.9	13.1	19.4	100.0
2 Top 5.2 percent	16.9	41.2	12.6	6.8	1.0	0.1	0.0	21.5	100.0
<i>Under 20 Years</i>									
3 Total	1.7	3.0	27.1	1.7	9.8	25.4	31.3	0.0	100.0
4 Top 5 percent	0.0	3.6	37.7	3.5	22.8	20.4	12.0	0.0	100.0
<i>20-24 Years</i>									
5 Total	6.3	5.4	29.5	4.9	17.3	12.9	22.3	1.3	100.0
6 Top 5 percent	14.0	16.2	33.1	9.5	17.2	1.0	1.8	7.2	100.0
<i>25-29 Years</i>									
7 Total	7.8	8.0	22.8	7.8	18.0	9.5	17.5	8.4	100.0
8 Top 5 percent	11.2	28.6	25.0	6.0	7.3	4.1	0.0	17.7	100.0
<i>30-34 Years</i>									
9 Total	7.6	12.0	19.8	8.7	16.9	6.0	14.0	15.1	100.0
10 Top 5 percent	19.3	36.0	18.8	10.5	4.8	0.2	1.3	9.1	100.0
<i>35-39 Years</i>									
11 Total	7.4	14.8	16.4	9.4	15.6	6.5	10.9	19.0	100.0
12 Top 5 percent	20.1	42.4	11.7	2.1	1.5	0.0	0.0	22.3	100.0

<b>40-44 Years</b>										
13	Total	5.8	17.5	16.6	12.8	11.3	7.4	7.8	20.9	100.0
14	Top 5 percent	22.2	51.0	14.3	4.8	0.2	*	0.0	7.5	100.0
<b>45-49 Years</b>										
15	Total	5.1	19.4	12.5	14.8	9.6	7.5	8.8	22.3	100.0
16	Top 5 percent	15.9	55.3	12.7	3.3	0.7	0.0	0.0	12.1	100.0
<b>50-54 Years</b>										
17	Total	3.8	20.1	10.5	11.8	10.5	7.8	10.2	25.2	100.0
18	Top 5 percent	15.4	44.7	12.2	4.4	0.8	0.5	0.0	22.0	100.0
<b>55-59 Years</b>										
19	Total	4.4	18.1	10.1	11.8	8.3	9.5	12.5	25.4	100.0
20	Top 5 percent	27.0	33.8	9.6	5.4	0.9	0.0	0.0	23.3	100.0
<b>60-64 Years</b>										
21	Total	2.5	18.7	7.4	10.1	5.3	9.6	12.9	33.6	100.0
22	Top 5 percent	11.2	35.0	8.3	6.2	1.0	0.0	0.0	38.3	100.0
<b>65 &amp; Older</b>										
23	Total	3.8	21.6	4.4	7.2	3.3	8.0	7.8	43.9	100.0
24	Top 5 percent	15.4	32.4	5.4	8.9	0.0	0.0	0.0	38.0	100.0

\*Less than 0.05.

**Line**

1, 2 Calculated from *Minnesota Incomes*, III, Table 1, p. 1; line 2 is for levels of \$2,500 and over.

3-24 Calculated from *ibid.*, III, Tables 3 and 7, pp. 7 and 25-28. From Table 3 is determined the point in the cumulative dis-

tribution of the given age bracket at which the top 5 percent line lies. This line is then drawn through the distribution of the given age bracket for each occupational class in Table 7. The number above this line in each class is added, and the total distributed percentage-wise.

and in the older age brackets they are roughly in the same proportion to top earners as to all earners. However, all these details are in the nature of minor, though intriguing, deviations from the general predominance of professional and urban proprietor classes in upper income groups.

Professional and urban proprietor classes must go through a long training, possess a fair amount of risk-taking capital investment, or both. Consequently, at least part of the higher income of the professional and of some of the managerial classes is a return for extra costs incurred in longer and more expensive training;<sup>4</sup> and part of the higher incomes of entrepreneurs in any year, classified by current income, is in the way of compensation for and insurance against losses in other, less prosperous, years. In other words, the educational and occupational structure of upper income groups suggests that at least part of their current income excess above the average can be attributed to higher past costs or to the greater risk of losses in the future.

The Census samples show the classification of income recipients in 1947, 1948, and 1949, and of heads of families in 1948 and 1949 by their occupation as of April or March of the following year. Averages of these annual data are given in Table 38 for the top group, and for the total. They confirm the evidence of the earlier samples and provide more detail. The larger proportion of the professional and proprietor-manager classes in the top income group than in the total is true also of the subclasses of each — the self-employed and the salaried. The units dependent exclusively upon property incomes (or pay of those in the armed forces) form a much smaller proportion of the top income group than of all recipients, indicating that the majority receive small incomes. And whereas Table 36 showed a much smaller proportion of farm families in the upper income groups than among all families in 1935-36, and Table 37 showed the proportion of farmers in the top earner group in Minnesota in 1938-39 to be somewhat higher than its proportion in the total, the Census averages for 1947-49 show an even greater excess of the proportion of farmers in the top group of recipients over its proportion among all recipients. This reflects the better relative position of farmers in 1947-49 than in 1935-36 or 1938-39; moreover, the Census coverage is confined to money income, i.e., farmers' incomes are more substantially understated than incomes of other occupational classes. However, among family heads, as distinct from all income recipients, the proportion of farmers in the very top group is about the same as for the total, and is distinctly lower in the group just

<sup>4</sup> For a detailed analysis of the extent to which higher incomes of professional practitioners represent compensation for extra costs entailed in longer training, see *Income from Independent Professional Practice*, Ch. 4, pp. 95-173.

Table 38

Percentage Distribution of Income Recipients and Heads of Families by Occupation, Top Income Group and Total: Census Samples, 1947-1949

Occupational Class	Income Recipients Averages for 1947-49		Heads of Families Averages for 1948 and 1949			
	Total (1)	Top 5.8	Total (3)	Top 2.8	Next 9.8	Top 12.6
		Percent (2)		Percent (4)	Percent (5)	Percent (6)
Total employed civilians	77.7	94.4	82.2	92.4	90.4	90.8
Professional workers, total	4.7	16.2	4.5	16.8	10.1	11.6
Self-employed	0.8	6.5	n.a.	n.a.	n.a.	n.a.
Salaried	3.9	9.7	n.a.	n.a.	n.a.	n.a.
Semiprofessional workers	1.0	2.3	1.1	1.0	2.1	1.8
Farmers & farm managers	6.5	10.9	10.0	10.1	4.8	6.0
Proprietors, managers, & officials except farm, total	8.8	36.3	12.4	44.0	23.0	27.6
Self-employed	5.3	20.5	7.6	26.9	11.5	14.9
Salaried	3.5	15.8	4.8	17.2	11.4	12.7
Clerical & kindred workers	10.1	4.1	6.0	3.0	7.6	6.5
Salesmen & saleswomen	4.7	6.9	4.2	4.0	6.3	5.8
Craftsmen, foremen, & kindred workers	11.0	12.6	15.6	6.3	17.8	15.2
Operatives & kindred workers	16.4	3.9	16.4	5.0	12.6	11.0
Domestic service workers	2.2	*	5.6	1.4	3.8	3.3
Service workers except domestic	5.8	0.7				
Farm laborers & foremen	2.0	0.1				
Laborers except farm & mine	4.5	0.3	5.0	0.6	2.2	1.9
In armed forces or not employed	22.3	5.6	17.8	7.6	9.6	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

\*Less than 0.05.

n.a.: not available.

#### Column

- 1, 2 Averages of annual percentages calculated from *Census Report, 1947*, Table 17, p. 25, *1948*, Table 14, p. 25, and *1949*, Table 19, p. 32. Column 2 is for levels of \$5,000 and over. When the percentage distribution of females is not indicated, that for males is used.
- 3-6 Averages of annual percentages calculated from *Census Report, 1948*, Table 8, p. 20, and *1949*, Table 8, p. 24. Column 4 is for levels of \$10,000 and over; column 5, for levels of \$5,000 to \$10,000; column 6, for levels of \$5,000 and over.

below the top. One may conclude that the professional and urban business and managerial classes are always prominent among the upper income groups, but that the proportion of farmers fluctuates widely with the variations in their economic position relative to that of other broad classes.

In general, there is less divergence between upper groups and all income recipients with respect to industrial affiliation than to occupation (Table

Table 39

Percentage Distribution of Income Recipients and Heads of Families by Industry, Top Income Group and Total: Census Samples, 1947-1949

Industrial Class	Income Recipients Averages for 1947-49 Top 5.7		Heads of Families Averages for 1948 and 1949 Top 2.8 Next 9.8 Top 12.6			
	Total (1)	Percent (2)	Total (3)	Percent (4)	Percent (5)	Percent (6)
Total employed civilians*	77.5	94.2	82.0	92.2	90.0	90.6
Agriculture, forestry, & fishery	9.0	11.6	12.0	10.8	5.4	6.6
Mining	1.2	1.7	1.8	0.6	1.4	1.2
Construction	4.6	6.0	6.2	4.8	6.0	5.8
Manufacturing	21.6	21.8	22.5	18.7	28.6	26.4
Transportation, communication, & other public utilities	6.5	6.2	7.8	5.6	9.8	8.8
Wholesale trade	3.1	6.7	3.8	6.8	5.8	6.1
Retail trade	12.3	16.4	11.4	19.8	12.0	13.7
Finance, insurance, & real estate	2.7	5.8	2.4	6.6	4.2	4.8
Business & repair services	1.8	2.5	2.1	1.2	1.6	1.5
Personal & domestic services	5.2	1.7	3.0	2.2	2.0	2.0
Professional & related services	5.9	9.6	4.8	12.9	6.8	8.2
Government	3.8	4.3	4.4	2.4	6.4	5.5
In armed forces or not employed	22.4	5.9	18.0	7.8	9.9	9.4
Total*	100.0	100.0	100.0	100.0	100.0	100.0

\*Excluding those in amusement, recreation, and related services since their income distribution is not shown in the source.

#### Column

- 1, 2 Averages of annual percentages calculated from *Census Report, 1947*, Table 18, p. 26, *1948*, Table 15, p. 26, and *1949*, Table 20, p. 33. Column 2 is for levels of \$5,000 and over. When the percentage of females is not indicated, that for males is used.
- 3-6 Averages of annual percentages calculated from *Census Report, 1948*, Table 9, p. 20, and *1949*, Table 9, p. 24. Column 4 is for levels of \$10,000 and over; column 5, for levels of \$5,000 to \$10,000; column 6, for levels of \$5,000 and over.

39). In other words, occupation, with its emphasis on differences in educational and experience requirements and on the extent to which risk capital investment or variability of economic fortunes is involved, has more influence on income inequality. In the industrial distribution diverse occupations tend to be combined and the effects on income spread are thereby damped. When differences between the industrial composition of the top group and of all income recipients are marked, occupational differences are probably responsible. For example, agriculture, construction, whole-

sale trade, retail trade, finance, and professional and related services are industries with larger proportions of proprietor-managerial or other high income occupations. It is for this reason that the proportion of recipients in these industries is larger among the top group than among all recipients. The reverse is true of personal and domestic service workers and of the armed forces-nonemployed property income group because they are dominated by lower income occupations. One is inclined to conclude that industrial affiliation, in and of itself, is not a characteristic with respect to which the top income group and the rest of the population differ significantly.

### 3 *Size of Spending Unit*

The sample distributions of spending units can be converted to distributions of persons by means of the cross-classification of units by income and by number of persons per unit. Size of unit, unlike the other characteristics, can therefore be studied in an array of income per capita.

Since the composition of the top income group by units of different size is essentially the same in all the sample studies, we present the results for the earliest and for the latest only — the Consumer Purchases Study for 1935-36 and averages from the Census samples for 1947 and 1948<sup>5</sup> (Table 40). The underlying data for the 1935-36 estimates are the set published before the adjustment that reduced the proportion of single persons to economic families (see Ch. 7, note 7). And as already noted, the family as defined in the Census sample is somewhat wider than the spending unit as defined in other size distributions of income.

Taking these qualifications into consideration, one must conclude that the top 5 percent group is much more heavily dominated by small spending units than by large — certainly in comparison with the total population. Thus in 1935-36 single persons and 2-person families accounted for 63 percent of persons in the top 5 percent group, but for only 20 percent of the total population. In the averages for 1947 and 1948 they account for 64 percent of the top 5 percent group and 22 percent of total population. And in the Census data the complete absence from the top 5 percent group of persons from families of more than 4 is striking. One must remember, of course, that the classifications used are not based on a count of spending units but employ the cells in a cross-classification of units by income and by the number of persons per unit. Some families of 5 or more in 1947 and 1948 may have been in an income bracket sufficiently high to remain within the top 5 percent even in an array based on per capita income. But their number must have been quite small; and by and large, as we pass

<sup>5</sup> To include 1949 would require special additional calculations which did not seem worth while.

Table 40

Percentage Distribution of Persons and Spending Units in Top Income Group and in the Total, by Size of Spending Unit: Sample Data, 1935-36, 1947, and 1948

## A CONSUMER PURCHASES STUDY, 1935-1936

Persons & Spending Units by Per Capita Income per Spending Unit	F a m i l i e s					Total (6)
	Single Persons (1)	2 person (2)	3-4 person (3)	5-6 person (4)	7 & over person (5)	
<i>Persons</i>						
1 Total	8.0	12.2	33.8	26.6	19.4	100.0
2 Top 5 percent	45.2	18.0	24.5	8.5	3.8	100.0
<i>Spending Units</i>						
3 Total	25.5	19.5	31.7	15.7	7.6	100.0
4 Top 5 percent of persons	71.3	14.2	11.3	2.5	0.7	100.0

## B CENSUS SAMPLES, AVERAGES FOR 1947 AND 1948

	Families of Specified Number of Related Persons							Total (8)
	Single Persons (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 or more (7)	
T O T A L								
<i>Persons</i>								
5 Total	5.6	16.4	20.4	21.4	14.6	9.0	12.6	100.0
6 Top 5 percent	19.4	44.2	22.0	14.4	0.0	0.0	0.0	100.0
<i>Spending Units</i>								
7 Total	17.6	25.8	21.3	16.7	9.2	4.8	4.8	100.0
8 Top 5 percent of persons	37.1	42.0	14.1	6.8	0.0	0.0	0.0	100.0
U R B A N								
<i>Persons</i>								
9 Total	7.0	18.2	21.4	22.4	13.9	8.1	9.0	100.0
10 Top 5 percent	27.8	44.0	11.2	17.0	0.0	0.0	0.0	100.0
<i>Spending Units</i>								
11 Total	20.6	26.8	20.9	16.4	8.1	4.0	3.2	100.0
12 Top 5 percent of persons	48.1	38.1	6.4	7.4	0.0	0.0	0.0	100.0
R U R A L N O N F A R M								
<i>Persons</i>								
13 Total	3.9	15.1	21.1	21.6	15.8	8.7	13.8	100.0
14 Top 5 percent	11.6	43.4	29.8	11.8	3.4	0.0	0.0	100.0
<i>Spending Units</i>								
15 Total	13.0	25.0	23.2	17.8	10.4	4.8	5.6	100.0
16 Top 5 percent of persons	24.6	46.3	21.3	6.4	1.4	0.0	0.0	100.0
R U R A L F A R M								
<i>Persons</i>								
17 Total	3.3	12.6	16.6	17.8	15.2	12.4	22.0	100.0
18 Top 5 percent	7.2	31.6	23.4	19.4	14.6	3.8	0.0	100.0
<i>Spending Units</i>								
19 Total	12.1	23.0	20.1	16.3	11.1	7.6	10.0	100.0
20 Top 5 percent of persons	18.4	40.4	19.7	12.4	7.4	1.6	0.0	100.0

from smaller to larger units, income does not increase *pari passu* with the number of persons per unit; hence the larger spending units are distinctly underrepresented in the upper groups in any classification by per capita income, even though, as indicated in Chapter 4, they may loom large at upper levels in a distribution by total income per unit.

The distinctive size of unit structure of the top income group is true also of the top groups of the population subdivisions in 1947 and 1948. In each of the three major subdivisions — urban, rural nonfarm, and farm — single persons and 2-person families account for a larger proportion of persons in the top 5 percent group than of the total. The only noticeable difference between urban and rural (both farm and nonfarm) population is in the size unit at which the proportion in the top income group begins to fall short of the proportion in the total: for the urban sector the 3-person family is the first unit underrepresented; for the rural sector, it is the 4-person family.

#### 4 *Place of Residence*

The earliest and most detailed sample providing information on place of residence is that of the Consumer Purchases Study for 1935-36: all families are classified by income level and by size of community, ranging from metropolises, i.e., cities with 1.5 million population and over, to farms. We establish the number at a given income level in each community size group, drawing the income dividing lines to set off, for the country as a whole, the top 1.6, 5.6, and 8.1 percent of families (at family income levels of \$7,500 and over, \$3,500 and over, and \$3,000 and over, respectively).

#### *Notes to Table 40:*

##### *Line*

##### Part A

- 1 The number of single persons and of persons in families, nonrelief and relief, by size classes, is taken from Appendix 6, Section A, Parts b, e, and f, and added. The total is then distributed by size of unit classes percentage-wise.
- 2 Persons in the total underlying line 1 are ranked by their per capita income per spending unit from the highest to the lowest. Those in the top 5 percent of the array are then distributed by size of unit classes percentage-wise.
- 3 The number of single persons and of families, nonrelief and relief, by size of unit classes, is taken from Appendix 6, Section A, Parts b, d, and f, and added. The total is then distributed by size of unit classes percentage-wise.
- 4 The composition of the top 5 percent group underlying line 2 in terms of units is determined by dividing the number of persons in each size of unit class by the average size of the given class (see notes to Appendix 6, Section A, Parts b and e).

##### Parts B and C

Averages of annual percentages calculated by the procedure followed for Part A. For the underlying data, see Appendix 6, Section E.

Table 41

Distribution of Families in Upper Income Groups and in the Total, by Size of Community: Consumer Purchases Study, 1935-1936

	All Commu- nities (1)	Metrop- olises (2)	Large Cities (3)	Middle- size Cities (4)	Small Cities (5)	Rural Nonfarm Communi- ties (6)	Farms (7)
<b>A Number of Families (000) with Income per Family of</b>							
1 \$7,500 & over	470.9	136.5	129.2	42.3	47.3	68.4	47.1
2 \$3,500 & over	1,634.8	350.6	455.4	164.2	215.5	253.9	195.2
3 \$3,000 & over	2,378.4	484.0	652.0	246.0	342.2	358.4	295.9
4 All families	29,400.3	3,295.1	5,579.3	3,190.4	4,888.2	5,680.0	6,767.2
<b>B % Distribution of All Families in Given Size of Community by Income Group</b>							
5 \$7,500 & over	1.6	4.1	2.3	1.3	1.0	1.2	0.7
6 \$3,500 & over	5.6	10.6	8.2	5.1	4.4	4.5	2.9
7 \$3,000 & over	8.1	14.7	11.7	7.7	7.0	6.3	4.4
8 All families	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>C % Distribution of Families in Given Income Group by Size of Community</b>							
<i>All Regions</i>							
9 \$7,500 & over	100.0	29.0	27.4	9.0	10.0	14.5	10.0
10 \$3,500 & over	100.0	21.4	27.9	10.0	13.2	15.5	11.9
11 \$3,000 & over	100.0	20.3	27.4	10.3	14.4	15.1	12.4
12 All families	100.0	11.2	19.0	10.9	16.6	19.3	23.0
<i>New England</i>							
13 \$7,500 & over	100.0	0.0	47.3	12.6	31.0	6.7	2.4
14 \$3,500 & over	100.0	0.0	38.5	14.6	30.4	14.0	2.5
15 \$3,000 & over	100.0	0.0	36.8	16.7	28.1	15.7	2.8
16 All families	100.0	0.0	29.4	23.6	22.5	16.5	7.9
<i>North Central</i>							
17 \$7,500 & over	100.0	46.9	24.9	8.6	4.9	11.0	3.6
18 \$3,500 & over	100.0	39.8	25.0	9.3	9.3	8.8	7.7
19 \$3,000 & over	100.0	37.5	24.6	9.3	11.3	8.3	8.9
20 All families	100.0	22.6	17.4	11.6	17.2	16.3	15.0
<i>South</i>							
21 \$7,500 & over	100.0	0.0	12.8	11.9	16.2	29.0	30.1
22 \$3,500 & over	100.0	0.0	25.7	11.9	13.9	28.5	20.0
23 \$3,000 & over	100.0	0.0	26.3	12.3	14.1	27.9	19.4
24 All families	100.0	0.0	15.4	7.7	13.7	23.6	39.6
<i>Mountain and Plains</i>							
25 \$7,500 & over	100.0	0.0	26.1	7.8	18.3	37.3	10.5
26 \$3,500 & over	100.0	0.0	25.8	7.4	22.8	27.5	16.5
27 \$3,000 & over	100.0	0.0	22.9	7.7	25.7	25.3	18.5
28 All families	100.0	0.0	11.5	6.8	19.5	27.2	35.0
<i>Pacific</i>							
29 \$7,500 & over	100.0	0.0	48.7	5.0	6.2	15.3	24.7
30 \$3,500 & over	100.0	0.0	46.3	6.1	14.5	13.1	20.0
31 \$3,000 & over	100.0	0.0	45.4	7.3	17.1	12.2	18.0
32 All families	100.0	0.0	41.8	10.6	16.8	17.9	12.8

**Line**

- 1-3 Derived from *Consumer Incomes in the United States*, Table 9B, p. 97.  
 4 Nonrelief families as shown in *ibid.*, plus relief families shown in *ibid.*, Table 26B, p. 101. Among the latter none has an income above \$3,000.  
 5-12 Calculated from lines 1-4.

A larger proportion of families in upper income groups than of all families live in metropolises and large cities (Table 41, lines 9-12). Of the top 1.6 percent, 29 percent reside in metropolises; of all families only 11 percent. For large cities the corresponding percentages are 27 and 19. As a necessary corollary, smaller proportions of families in upper income groups than of all families live in small cities and rural areas, farm and nonfarm: of the top group the proportion is only 35 percent, of all families, almost 60. This association between size of income and of community expresses itself also through the differentials in per capita income, which are appreciably higher in metropolises and large cities than in small cities or rural areas.<sup>6</sup>

Community-size composition of upper income groups is associated in part with their family size composition. The average number per family (nonrelief) in metropolises and large cities is 3.5; in small cities and rural nonfarm communities, 3.7; and on farms, 4.5 (see source cited in note 6). But it must be remembered that in Table 41 families are classified by their total income without any adjustment for the number of persons. Hence, lines 9-12 are understatements, since the number of large family units among the upper income groups is undoubtedly disproportionate to that which would have been included in an array of families by income per person. We are thus justified in concluding that the distinctive community-size composition of upper income groups reflected in lines 9-12 is independent of family-size composition, and would, in fact, be more conspicuous if adjusted for the latter.

Is the community-size composition of upper income groups the same for the country and for the several regions? This question is answered in lines 13-32. The larger proportion of metropolitan families in upper income groups than in the nation cannot be tested for persistence among regions, since only the North Central states have cities of more than 1.5 million inhabitants. In each of the five regions large city families are a higher proportion of upper income groups than of all families — if we

<sup>6</sup> See, e.g., *Consumer Incomes in the United States*, Table 7, p. 23.

*Notes to Table 41 concluded:*

*Line*

- 13-5, 17-9, The absolute number of families in each income bracket in the given community size class is the product of the total for that class as shown in *ibid.*, Table 24B, p. 101, and the distributions in *ibid.*, Tables 14B-18B, pp. 98-99. The series for metropolises is given in *ibid.*, Table 9B. Application of the dividing lines yields the number of families in the selected income groups; the percentage distribution is then computed.
- 16, 20, 24, The absolute numbers are from *ibid.*, Table 10A, p. 75.
- 28, 32

confine the comparison to the top 5.6 or 8.1 percent. In three regions the proportion of small city and rural (both farm and nonfarm) families combined is lower in these broad upper groups than in all families. In New England and the Pacific states, their proportion is the same as for all families (the reason may inhere in the industrial and suburban character of many small cities in New England, and the commercial character of agriculture on the Pacific coast — both making for relatively high incomes in the small city-rural areas). On the whole, the distinctive community-size composition of upper income groups is roughly the same in the several regions.

Finally, inclusion of single persons would tend to sharpen the differences in Table 41. Single persons constitute a higher proportion of consumer units in metropolises and large cities than do families; and their high per capita income and large proportion in upper income groups would increase the excess of the proportion of metropolitan and large city units in upper income groups over their proportion in the total population. While this accentuation of the differences in community-size composition between upper income groups and total population would thus be due to the size of unit factor, some of it may well be due to other factors. Even the upper groups of single persons may have a much greater proportion living in metropolises and large cities (see Table 43).

The data in Table 41 suggest that purely regional differences, unlike other underlying differences, do not tend to make for a distinctive composition of upper income groups. From Table 42 it appears that whatever regional differences exist are due largely to differences in the proportions of communities of different size in each region.

When the regional composition of upper income groups is considered without allowance for the community-size factor, the proportion of North Central families is higher than their proportion in all families, and the proportion of families in the South, and Mountain and Plains regions, distinctly lower (lines 1-4). When we take account of community size, these regional differences fail to appear consistently, if at all (lines 5-24). In large cities, the proportion of North Central families in the more broadly defined upper groups (i.e., families with \$3,000 and over, or with \$3,500 and over) is only slightly higher than their proportion in all families; in middle-size cities their proportion is somewhat lower, and in small cities, distinctly lower. Except in farm regions, the proportion of Southern families in the broad upper groups is not lower than their proportion in all families; and similarly, in large and small cities the proportion of Mountain and Plains families in the upper groups is not lower. Furthermore, the pattern is rather erratic when we compare the regional composition of

Table 42

Percentage Distribution of Families in Upper Income Groups and in the Total by Region: Consumer Purchases Study, 1935-1936

		Percentage Distribution of Families in Given Income Group					
		<i>All</i>	<i>New</i>	<i>North</i>	<i>South</i>	<i>Mountain</i>	<i>Pacific</i>
		<i>Regions</i>	<i>England</i>	<i>Central</i>	<i>South</i>	<i>&amp; Plains</i>	<i>Pacific</i>
<b>A ALL COMMUNITY SIZE GROUPS</b>							
1	\$7,500 & over	100.0	10.5	62.0	15.4	3.3	8.9
2	\$3,500 & over	100.0	7.1	53.9	26.6	4.6	7.8
3	\$3,000 & over	100.0	6.6	54.3	26.3	5.1	7.8
4	All families	100.0	6.6	49.7	30.0	6.4	7.3
<b>B LARGE CITIES</b>							
5	\$7,500 & over	100.0	17.9	56.1	7.1	3.1	15.7
6	\$3,500 & over	100.0	9.8	48.4	24.5	4.3	13.0
7	\$3,000 & over	100.0	8.8	48.7	25.2	4.2	13.0
8	All families	100.0	10.3	45.4	24.3	3.9	16.1
<b>C MIDDLE-SIZE CITIES</b>							
9	\$7,500 & over	100.0	14.4	58.1	19.9	2.8	4.9
10	\$3,500 & over	100.0	10.3	50.2	31.4	3.4	4.8
11	\$3,000 & over	100.0	10.6	48.9	31.3	3.8	5.5
12	All families	100.0	14.5	53.1	21.2	4.0	7.2
<b>D SMALL CITIES</b>							
13	\$7,500 & over	100.0	32.5	30.8	25.1	6.0	5.6
14	\$3,500 & over	100.0	16.5	38.5	28.3	8.1	8.7
15	\$3,000 & over	100.0	12.9	42.8	25.9	9.1	9.3
16	All families	100.0	9.0	51.3	24.8	7.6	7.4
<b>E RURAL NONFARM COMMUNITIES</b>							
17	\$7,500 & over	100.0	4.8	46.9	30.6	8.3	9.4
18	\$3,500 & over	100.0	6.3	30.3	48.5	8.2	6.6
19	\$3,000 & over	100.0	6.8	29.9	48.5	8.5	6.3
20	All families	100.0	5.7	41.9	36.7	9.0	6.8
<b>F FARMS</b>							
21	\$7,500 & over	100.0	2.6	23.3	47.8	3.5	22.7
22	\$3,500 & over	100.0	1.5	34.8	44.3	6.4	13.1
23	\$3,000 & over	100.0	1.5	38.8	40.8	7.5	11.3
24	All families	100.0	2.3	32.4	51.5	9.8	4.0

Based on the number of families underlying the distributions in Table 41, lines 13-32.

families receiving incomes of \$7,500 and over with that of families receiving \$3,500 or \$3,000 and over. In short, in terms of the regions distinguished in the data for 1935-36, any substantial differences between the composition of upper group families and all families are due largely to regional differences in the proportions of communities of different size (rural vs. urban, large cities and metropolises vs. small cities); and region is apparently not a significant factor.

The generally much higher proportion of urban dwellers in upper income groups than in the total and the definite tendency for a higher

Table 43  
 Percentage Distribution of Spending Units in Upper Income Groups and in the Total by Size of Community  
 Census Samples, Averages for 1947 and 1948

SPENDING UNIT	TOTAL (1)	Total (2)	U R B A N				2,500- 49,999 (6)	RURAL NONFARM (7)	RURAL FARM (8)
			1,000,000 & over (3)	250,000- 999,999 (4)	50,000- 249,999 (5)				
<i>Families</i>									
1 Top 2.8 percent (\$10,000 & over)	100.0	69.0	17.1	11.0	13.0	27.8	14.6	16.6	
2 Top 12.2 percent (\$6,000 & over)	100.0	72.8	19.8	12.9	14.6	25.3	15.6	11.7	
3 Total	100.0	60.4	12.0	11.0	12.8	24.4	22.2	17.4	
<i>Single Persons</i>									
4 Top 3.0 percent (\$5,000 & over)	100.0	86.4	32.7	19.3	15.6	18.8	7.6	6.0	
5 Top 11.4 percent (\$3,000 & over)	100.0	83.0	23.9	21.6	16.4	21.2	10.8	6.2	
6 Total	100.0	73.3	16.4	16.0	15.8	25.2	15.5	11.2	
<i>Families &amp; Single Persons</i>									
7 Top 5.4 percent (fam. with \$10,000 & over; single persons with \$2,500 & over)	100.0	77.4	20.9	17.6	14.8	24.2	12.6	10.0	
8 Top 16.6 percent (fam. with \$6,000 & over; single persons with \$1,500 & over)	100.0	77.0	20.8	16.0	16.1	24.2	13.6	9.3	
9 Total	100.0	62.6	12.8	11.8	13.4	24.6	21.0	16.4	

Averages of annual percentages calculated from *Census Report, 1947*, and *1948*, Table 1, p. 15.

proportion of the upper groups to live in large communities is true also of a recent year such as 1947 or 1948 as is evident in Table 43.<sup>7</sup> Here we examine the place of residence factor for single persons as well as family units. The results, except for families in middle-size and small cities, confirm the observations for 1935-36. The relative dominance of urban dwellers among upper groups, especially in larger cities, is manifest; and one may infer that these residence features have been relatively stable, at least for the last two or three decades.

### 5 *Expenditure-Income Patterns*

Three of the characteristics discussed in the preceding sections — size of unit, place of residence, and occupation — have a distinct bearing upon the cost of living. Presumably it is cheaper to live in a family than alone, at least on a per capita basis; and presumably cheaper on a farm than in the city. In general, the cost of living is probably higher the larger the community in which one lives. Finally, occupations often involve living in certain neighborhoods, patronizing stores of different levels of costliness (sometimes masked by claims to render more services). It might be of interest to attempt an analysis that would at least suggest how the characteristics of the upper income groups with respect to size of unit, place of residence, and occupation affect their cost of living as compared with that of the population at large.

As the Consumer Purchases Study for 1935-36 is the only one that provides information on all three characteristics as well as on consumer expenditures, we use its data in the experimental calculations below. Since the analytical procedure in Table 44 is similar for all three characteristics, its description for one, the size of unit, will suffice for the others.

For all single persons and for all families, we can derive expenditures per capita by size of per capita income per unit. Expenditures, including gifts and all direct taxes not chargeable to business, and income per family in each size of family income class are reduced to a per capita basis by dividing by the average number per family in the given income class. This does not yield an exact distribution by per capita income, which could be calculated only by computing the per capita income for each family, then reclassifying all families by the size of the latter. But it does yield a working approximation to a distribution by income per capita.

We thus have two sets of series showing per capita expenditures at different levels of per capita income, one for single persons, the other for

<sup>7</sup> The data for 1949 employ a different community-size classification, and cannot be easily compared with those for 1947 and 1948. Hence, they have not been included in the averages in Table 43.

Table 44

Expenditures per Capita (Including Gifts and Taxes) by Single Persons and Nonrelief Families at Identical Levels of Income per Capita  
Consumer Purchases Study, 1935-1936

A SINGLE PERSONS AND FAMILIES				
Per Capita Income		Expenditures per Capita		% Excess of Col. 1 over Col. 2 (3)
		<i>Single Persons</i> (1)	<i>Families</i> (2)	
1	\$300	\$349	\$305	+14.4
2	600	620	543	+14.2
3	900	902	743	+21.4
4	1,200	1,165	918	+26.9
5	1,600	1,487	1,136	+30.9
6	2,500	2,409	1,774	+35.8
7	4,500	3,369	2,697	+24.9
8	10,000	6,350	5,009	+26.8

  

B FAMILIES, 2-PERSON AND ALL				
Per Capita Income		Expenditures per Capita		% Excess of Col. 1 over Col. 2 (3)
		<i>2-Person</i> (1)	<i>All</i> (2)	
9	\$400	\$419	\$388	+8.0
10	800	740	681	+8.7
11	1,400	1,166	1,029	+13.3
12	3,500	2,440	2,123	+14.9

*Line*

## COLUMN 1

- 1-8 Per capita income and the percentage of income expended for current consumption (including gifts and taxes), both by income level, are shown in *Consumer Expenditures in the United States* (National Resources Committee, Washington, D.C., 1939), Table 3, p. 32. The percentage of income expended at the selected income levels per capita (\$300, \$400, \$900, etc.) was computed on the assumption that the change in the logarithm of the percentage of income expended from the published to the selected level was proportionate to the corresponding change in the logarithm of per capita income. Per capita income at the selected level was then multiplied by the percentage of income expended to yield expenditures per capita at that level.
- 9-12 Income per 2-person family and the percentage of income expended for current consumption (including gifts and taxes) are shown in *Family Expenditures in the United States* (National Resources Planning Board, Washington, D.C., 1941), Table 61, p. 20. Income per capita was computed. Expenditures per capita at the selected income levels were then estimated by the procedure described for lines 1-8.

## COLUMN 2

Per capita income and the percentage of income expended for current consumption (including gifts and taxes), both by income level, are shown in *ibid.*, Table 18, p. 6, and Table 1, p. 1, respectively. Expenditures per capita at the selected income levels were then estimated by the procedure described for column 1.

families. Each is plotted as a regression of per capita expenditures upon per capita income. By selecting certain points on the per capita income scale at identical values for single persons and for families we can, by interpolation, estimate the corresponding per capita expenditures (Table 44, Part A, col. 1 and 2). The per capita income values are selected so as to minimize interpolation yet cover the fullest possible range. The corresponding analysis for 2-person families and for all families is presented in Part B.

Single persons spend more than families per capita at each level of per capita income in Part A. Likewise, 2-person families spend more than 3- or more person families per capita at each level of per capita income (Part B). These differences in per capita expenditures at identical levels of per capita income have various causes. A family may include children whose needs at the given income level are smaller than those of adults (and all single persons are adults). Moreover, the propensity to consume may be greater among single persons than families, among 2-person than larger families; that is, at the same level of income the former will demand a larger real volume of goods and services, contribute more in gifts and taxes, and tend to save a smaller proportion of their income.

Yet it is not only possible but likely that a large part of the differential is due to differences in the cost of one and the same bundle of goods. Food for a single person in the small quantities that can be used before spoiling may cost more than the food a family can buy in bulk; clothes and rent per capita may cost single persons more than families. There may be a similar difference between costs in small and large families. The differences in Table 44, while based upon a classification by family size, may reflect also cost differences between country and city or between cities of different size: single persons and small families tend to be more concentrated in metropolises, larger families on farms and in rural and small urban communities. The well known urban-rural cost differentials in consumer goods may, therefore, go far to explain why in Table 44 single persons and small families consistently spend more per capita than all families or large families — at identical levels of per capita income.

The analysis underlying Tables 45 and 46 parallels that in Table 44: in Table 45 we deal with per capita expenditures, at identical levels of per capita income, of nonrelief families in rural and urban areas (Part A) and of nonrelief urban families in communities of different size (Part B); in Table 46, with per capita expenditures of white, nonrelief, complete families (i.e., both parents live together) in different occupational groups in metropolitan Chicago. Throughout, the social groups whose proportions in the upper income brackets are significantly higher than in the popula-

Table 45

Expenditures per Capita (Including Gifts and Taxes) by Community Size Groups at Identical Levels of Income per Capita, Nonrelief Families Consumer Purchases Study, 1935-1936

		A RURAL-URBAN DIFFERENTIALS IN EXPENDITURES					
		Expenditures per Capita			% Excess of Col. 3 over Col. 1 (4)	% Excess of Col. 3 over Col. 2 (5)	
Per Capita Income		<i>Rural</i> <i>Farm</i> (1)	<i>Nonfarm</i> (2)	<i>Urban</i> (3)			
1	\$100	\$148	\$125	\$190	+28.4	+52.0	
2	200	212	216	239	+12.7	+10.6	
3	300	284	304	314	+10.6	+3.3	
4	400	341	390	401	+17.6	+2.8	
5	600	430	542	567	+31.9	+4.6	
6	900	522	751	783	+50.0	+4.3	
7	1,300	632	937	1,068	+69.0	+14.0	
8	1,700		1,066	1,350		+26.6	

  

		B CITY-SIZE DIFFERENTIALS IN EXPENDITURES					
		Expenditures per Capita			% Excess of Col. 3 over Col. 1 (4)	% Excess of Col. 2 over Col. 1 (5)	
Per Capita Income		<i>Small</i> <i>Cities</i> (1)	<i>Large</i> <i>Cities</i> (2)	<i>Metrop-</i> <i>olises</i> (3)			
9	\$100	\$142	\$190	\$265	+86.6	+33.8	
10	200	218	222	269	+23.4	+1.8	
11	300	307	313	332	+8.1	+2.0	
12	400	397	398	465	+4.5	+0.3	
13	500	477	488	506	+6.1	+2.3	
14	600	557	573	594	+6.6	+2.9	
15	700	641	647	681	+6.2	+0.9	
16	900	769	795	847	+10.1	+3.4	
17	1,000	832	871	926	+11.3	+4.7	
18	1,200	993	1,006	1,085	+9.3	+1.3	
19	1,300	1,057	1,074	1,167	+10.4	+1.6	
20	1,800	1,342	1,417	1,608	+19.8	+5.6	

Calculated by the procedure described in the notes to Table 44. For Part A the basic data are from *Family Expenditures in the United States*, Table 41, p. 13, and Table 21, p. 8; Part B, *ibid.*, Tables 195, 196, 199-202, pp. 66-68, income per capita being estimated by dividing income per family by the average number per family in the given size of community as shown in *Consumer Incomes in the United States*, Table 7, p. 23.

tion at large spend more per capita, at identical levels of per capita income.

It would be easy to exaggerate the significance of Tables 44-46. Even disregarding the fact that they are confined to one year, the relative differences in expenditure levels may be associated not with the social characteristics distinguished, i.e., the number in the family unit or their occupation, but with others whose effects cannot be isolated. A second limitation is that when the income classes are broad, intra-class variations may be significant. But the most serious limitation is raised by the question whether we are measuring differences in the cost of living or in the pro-

Table 46

Expenditures per Capita (Including Gifts and Taxes) by Occupational Groups at Identical Levels of Income per Capita, Nonrelief White Families, Chicago: Consumer Purchases Study, 1935-1936

PER CAPITA INCOME	EXPENDITURES PER CAPITA										EXCESS OF	
	Wage Earner (1)	Clerical (2)	Av. of Col. 1 & Col. 2 (3)	Independent Business (4)	Profes- sional (5)	Business (6)	Salari- ed Business (7)	Profes- sional (7)	Av. of Col. 4-Col. 7 (8)	COL. 8 Absolute (9)	PERCENTAGE (10)	
\$450	\$454	\$452	\$453	\$436	\$474	\$458	\$447	\$454	+\$1	+0.2		
550	523	538	530	553	576	549	537	554	+24	+4.5		
650	620	624	622	625	700	654	630	652	+30	+4.8		
750	662	674	668	678	735	725	696	708	+40	+6.0		
850	712	728	720	791	820	800	791	800	+80	+11.1		
950	810	810	810	864	884	868	856	868	+58	+7.2		

Income per family is shown for each occupational group by income level in Family Expenditures in Selected Cities, 1935-36 (BLS Bulletin 648, VIII), p. 48. Expenditure per family is estimated by deducting net surplus or deficit per family as shown in Family Expenditures in Chicago, 1935-36 (BLS Bulletin 642, II), Table I.

Per capita income and expenditure are calculated by dividing by the average number per family in *ibid.*, I, Table I.A. Expenditures per capita at the selected income levels are estimated by the procedure described in the notes to Table 44.

propensity to consume. If our main object is to ascertain whether an identical good costs the upper income groups more than the population at large, and how much more, such differences in costs of identical goods form only a part, and perhaps a minor part, of the expenditure differentials in Tables 44-46.

Yet one may claim that the analysis strongly suggests two conclusions. First, expenditures at identical levels of income per capita do differ significantly in clear association with the social characteristics noted — so that the distinctive characteristics of upper income groups mean higher expenditures per capita than for total population, at the same level of per capita income. Second, while this expenditure differential may be due to a greater propensity to consume, i.e., willingness, at a given income level, to purchase a larger volume of goods and to save proportionately less, it is highly unlikely that differences in the cost of living do not play a role. Unfortunately one cannot go further and estimate directly the cost of living differentials specifically defined and thus allow for differences in purchasing power between upper income groups and the total population.