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Volume Title: National Income and Its Composition, 1919-1938, Volume I

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Volume Publisher: NBER

Volume ISBN: 0-87014-039-6

Volume URL: <http://www.nber.org/books/kuzn41-1>

Publication Date: 1941

Chapter Title: Distribution by Type of Income

Chapter Author: Simon Kuznets, Lillian Epstein, Elizabeth Jenks

Chapter URL: <http://www.nber.org/chapters/c5542>

Chapter pages in book: (p. 215 - 265)

CHAPTER 6

Distribution by Type of Income

1 Annual Distribution of National Income

OUR CLASSIFICATION of income by type (Table 22) reflects several principles or bases of distinction. First, there is the separation of income flows that are actual payments to ultimate income recipients from items that are accruals, i.e., of income payments from savings of enterprises. There is the further differentiation among the factors of production whose compensation the various types of income represent—labor, capital, and enterprise. Employee compensation may thus be taken to represent compensation of labor; dividends and interest, of capital; net savings, of enterprise; and entrepreneurial withdrawals or income, of all three, with labor preponderant. Finally, there is a third aspect of the classification relevant to income payments alone: its significance in differentiating among groups of income recipients at different average income levels. Wages are, by and large, the major source of income to the lowest income groups, while salaries are the major return to groups with distinctly higher average incomes. Dividends and interest, especially the former, are a major source of income to the high income groups. Entrepreneurial withdrawals are between the extremes represented by wages and dividends. In some industries entrepreneurial income constitutes the major return to groups whose average income is not much higher than that of wage earners; in others, it is high enough to raise the per capita income of entrepreneurs well above the average for the salaried group.

T A B L E 2 2

National Income ¹ and its Percentage Distribution by Type of Income, 1919-1938

	WAGES & SALARIES (1)	OTHER PAY. TO EMPL. (2)	ENTREPRENEURIAL Withdft. (3)	Savings (4)	RENT (5)	DIVIDENDS ² (6)	INTEREST (7)	CORP. NET SAVINGS (8)	GOV. NET SAVINGS (9)	NATIONAL INCOME (10)
	A. TOTALS (billions of dollars)									
1919	36.7	0.43	11.8	5.5	4.0	2.9	3.2	1.0	-1.3	64.2
1920	43.3	0.57	13.5	1.6	4.3	3.2	3.7	2.2	1.9	74.2
1921	34.9	0.60	10.3	0.63	4.5	3.0	3.9	0.71	0.96	59.4
1922	36.4	0.60	10.8	-0.09	4.9	3.0	4.0	0.23	0.85	60.7
1923	42.7	0.62	11.3	1.2	5.2	3.8	4.2	0.97	1.6	71.6
1924	42.7	0.62	11.9	0.87	5.6	3.8	4.4	0.42	1.7	72.1
1925	44.4	0.61	12.5	1.6	5.5	4.4	4.6	0.83	1.6	76.0
1926	47.4	0.62	12.5	2.1	5.1	4.7	4.7	2.3	2.2	81.6
1927	47.8	0.65	12.6	1.1	5.1	5.1	4.9	0.56	2.3	80.1
1928	48.7	0.66	12.9	0.91	4.9	5.5	5.3	0.92	1.9	81.7
1929	51.5	0.69	13.4	1.1	4.9	6.3	5.6	1.5	2.2	87.2
1930	47.0	0.73	12.8	-0.64	4.3	6.0	5.7	-0.67	2.1	77.3
1931	39.6	0.88	11.2	-2.0	3.0	4.6	5.7	-3.1	0.34	60.3
1932	30.7	0.98	9.7	-3.5	2.1	3.0	5.5	-4.8	-0.91	42.9
1933	28.2	1.9	9.0	-2.4	2.1	2.5	5.0	-4.0	-0.11	42.2
1934	32.1	2.8	9.1	-0.35	1.9	3.0	4.8	-3.3	-0.58	49.5
1935	35.0	2.9	9.5	0.23	2.1	3.8	4.6	-2.1	-1.7	54.4
1936	38.9	3.9	10.1	1.2	2.2	4.8	4.6	-0.71	-2.2	62.9
1937	43.5	4.0	11.2	0.44	2.6	4.9	4.7	-1.4	0.50	70.5
1938	39.7	4.7	11.1	0.27	2.6	3.5	4.6	-0.70	-0.18	65.5

B PERCENTAGE SHARES OF COMPONENTS

1919	57.2	0.68	18.4	8.5	6.2	4.5	5.0	1.6	-2.0	100.0
1920	58.4	0.77	18.2	2.1	5.8	4.3	4.9	3.0	2.6	100.0
1921	58.8	1.0	17.3	1.1	7.5	5.0	6.5	1.2	1.6	100.0
1922	60.0	0.99	17.8	-0.15	8.1	5.0	6.6	0.38	1.4	100.0
1923	59.6	0.86	15.8	1.6	7.2	5.4	5.9	1.4	2.2	100.0
1924	59.2	0.86	16.6	1.2	7.8	5.3	6.1	0.58	2.4	100.0
1925	58.4	0.80	16.4	2.1	7.2	5.8	6.0	1.1	2.1	100.0
1926	58.1	0.76	15.3	2.5	6.3	5.8	5.8	2.8	2.6	100.0
1927	59.7	0.81	15.8	1.3	6.3	6.3	6.2	0.70	2.9	100.0
1928	59.6	0.81	15.8	1.1	6.0	6.7	6.5	1.1	2.3	100.0
1929	59.1	0.79	15.3	1.2	5.6	7.2	6.4	1.8	2.6	100.0
1930	60.8	0.94	16.5	-0.83	5.5	7.8	7.4	-0.86	2.7	100.0
1931	65.6	1.5	18.6	-3.4	5.0	7.7	9.5	-5.1	0.57	100.0
1932	71.6	2.3	22.7	-8.1	4.9	7.0	12.8	-11.1	-2.1	100.0
1933	66.8	4.4	21.4	-5.6	5.0	5.9	11.9	-9.5	-0.27	100.0
1934	64.8	5.6	18.4	-0.71	3.8	6.1	9.8	-6.6	-1.2	100.0
1935	64.3	5.4	17.5	0.43	3.9	6.9	8.5	-3.9	-3.2	100.0
1936	61.8	6.2	16.1	2.0	3.5	7.7	7.3	-1.1	-3.5	100.0
1937	61.7	5.7	15.9	0.62	3.7	7.0	6.7	-2.0	0.70	100.0
1938	60.6	7.1	16.9	0.41	3.9	5.3	7.0	-1.1	-0.27	100.0

¹ Includes Social Security contributions of employers and is adjusted for the effects on net savings of corporations and other business firms of gains and losses from sales of capital assets; of inventory revaluations; and of the use of cost rather than repro-

duction basis for depreciation charges. In all other tables in this chapter the unadjusted series excluding Social Security contributions of employers is used.

² Includes balance of international payments.

TABLE 22 (concl.)

C PERCENTAGE SHARES OF SUBTOTALS OF COMPONENTS											
	EMPL. COMP. (1)	ENTREP. INCOME (2)		SERVICE INCOME		PROP. INCOME		AGGREGATE PAYMENTS			
		Excl. entrep. savings (3)	Incl. entrep. savings (4)	Incl. rent (5)	Excl. rent (6)	Excl. entrep. savings (7)	Incl. entrep. savings (8)				
1919	57.8	26.9	76.2	84.7	15.7	9.5	91.9	100.4			
1920	59.1	30.3	77.3	79.4	15.0	9.3	92.3	94.4			
1921	59.8	18.4	77.1	78.2	19.0	11.5	96.1	97.2			
1922	61.0	17.6	78.7	78.6	19.6	11.6	98.4	98.2			
1923	60.5	17.4	76.3	78.0	18.4	11.2	94.8	96.4			
1924	60.1	17.8	76.7	77.9	19.2	11.4	95.8	97.0			
1925	59.2	18.6	75.6	77.8	19.0	11.8	94.7	96.8			
1926	58.9	17.8	74.2	76.7	17.9	11.6	92.0	94.6			
1927	60.5	17.1	76.3	77.6	18.8	12.5	95.1	96.4			
1928	60.4	16.9	76.2	77.3	19.2	13.2	95.4	96.5			
1929	59.9	16.6	75.2	76.4	19.3	13.6	94.5	95.7			
1930	61.8	15.7	78.3	77.5	20.7	15.1	99.0	98.1			
1931	67.1	15.2	85.7	82.3	22.2	17.2	107.9	104.5			
1932	73.8	14.6	96.5	88.4	24.7	19.9	121.3	113.2			
1933	71.2	15.8	92.6	87.1	22.7	17.7	115.4	109.8			
1934	70.4	17.7	88.8	88.1	19.7	15.9	108.5	107.8			
1935	69.7	17.9	87.2	87.6	19.4	15.5	106.6	107.1			
1936	68.1	18.1	84.2	86.1	18.5	15.0	102.7	104.6			
1937	67.4	16.5	83.3	84.0	17.3	13.7	100.7	101.3			
1938	67.8	17.3	84.6	85.1	16.3	12.3	100.9	101.3			

As explained in Chapter 2 (Sec. 3), our classification does not follow faithfully any of the principles mentioned. Even in separating actual payments from an accrual item such as net savings, there is considerable blurring, not only because it is difficult to separate entrepreneurial withdrawals from net savings, but also because the estimates of dividends and interest include portions that do not reach the ultimate income recipients directly but are credited to their accounts in insurance companies, savings banks, and similar 'associations of individuals'. In differentiating among payments to various production factors the classification also leaves much to be desired, if only because it includes entrepreneurial income, which necessarily includes compensation of more than one production factor, as a single category. Moreover, employee compensation includes some items, such as payments to principal corporation executives, that can hardly be considered reward for labor alone; and dividends are presumably a mixture of a 'pure' return on capital with some return to enterprise. Finally, the classification by type is obviously defective as a grouping of returns to recipients at significantly different average income levels. Employee compensation is paid to some people with high incomes; a substantial portion of interest goes to low income groups; while entrepreneurial incomes are scattered among people in income groups at diverse levels.

These defects can be partly overcome by a cross-classification of income types with the several industrial divisions, and by a segregation, whenever data are available, of principal corporation officers' salaries. Even with these refinements, the distribution by type still retains some weaknesses, stemming from the institutional lines our estimates perforce follow. Nevertheless, it does reflect, if sometimes obscurely, various bases: temporal differences in levels in the distribution within industries roughly approximate differences between payments and net savings, among compensation of various production factors, and among payments to groups of recipients at significantly different average income levels.

As in the distribution by industrial source, we discuss the distribution by type of income largely in percentage terms. Conversion to percentages eliminates the changes in the totals treated in Chapter 4, and reveals more clearly the relative importance of various production factors and of payments to groups receiving incomes of varying size and description. In Table 22 B and C the percentages are of national income alone, and are adequate for a preliminary study of the distribution by type. But subsequently we discuss the distribution of aggregate payments by type as well. The chief reason for basing a percentage distribution on aggregate payments is that in measuring the relative importance of payments to various groups it is the distribution of aggregate payments, not of national income, that is desired. Net savings of enterprises, especially of corporations and of other non-personal organizations, cannot be assigned to any one group of income recipients; and if they are considered, as perhaps they should be, of equal relative importance to the fortunes of all income recipients attached to an industry, their percentage distribution becomes identical with that of aggregate payments. Since we have two variants of aggregate payments, one including and the other excluding entrepreneurial savings, we have two variants of the percentage distribution. In both, net savings are taken into account and, like all types of payments, expressed as percentages of aggregate payments.

The distribution in Table 22 B reveals obvious shifts in the percentage shares in national income. The share of wages and salaries rises; that of other employee compensation rises even more, reflecting the marked increase in work and other relief payments in the 1930's and the inclusion of Social Security contributions of employers. The share of entrepreneurial withdrawals declines, as do the shares of entrepreneurial net savings and rent. The share of dividends rises, and that of interest, even more. The shares of corporate and government net savings decline.

These categories, the most detailed in the distribution of

national income by type, are combined into broader divisions in Table 22 C. The share of total employee compensation, a sum of wages, salaries, and other compensation, rises markedly. The share of entrepreneurial income, a sum of withdrawals and savings, declines markedly. Total service income, a sum of compensation of employees and of entrepreneurs, seems to rise in relative importance, although not markedly when entrepreneurial savings are included. The share of property income excluding rent rises markedly; but when rent is included, the rise becomes negligible. Aggregate payments, whether including or excluding entrepreneurial savings, are smaller than national income during the first decade and larger during the second—a direct reflection of the fact that net savings of enterprises were positive during the 1920's and negative during the 1930's.

The shares of these various components in aggregate payments may behave quite differently from their shares in national income. Furthermore, analysis of the percentage distribution of any income flow cannot be confined to the comprehensive totals. We now consider the distribution within each division of the nation's productive system and attempt to survey its aspects in a manner similar to that followed in the analysis by industrial source. First, the average distribution for the entire period is examined; next, changes over the period; finally, changes during business cycles.

2 Average for the Period

Table 23 presents distributions of net income originating for the country as a whole and for individual industries, based upon the arithmetic means of the totals for 1919–38. Similar distributions could be presented for total payments including or excluding entrepreneurial savings, but since for the period as a whole they would differ little from the distributions of net income, we omit them.

In Table 23 rent is included in property income under real estate largely because it cannot be allocated by industrial divi-

TABLE 23

Net Income Originating in Industrial Divisions, Percentage Distribution by Type,
Based on Average Values for 1919-1938

	EMPL. COMP. (1)	ENTREPRENEURIAL Withdr. Net income (2)	(3)	DIVI- DENDS (4)	INTEREST (5)	PROP. INCOME INCL. RENT (6)	AGG. PAY. TO INDIV. EXCL. ENTREP. NET SAVINGS (7)	NET SAVINGS OF Corp. & gov. (8)	All enter- prises (9)
Agriculture	16.4	80.6	76.9	0.27	6.4	6.6	103.7		-3.7
Mining	94.4	1.6	1.6	14.9	2.7	17.6	113.6	-13.6	-13.6
Manufacturing	83.0	2.4	2.7	12.9	1.1	14.0	99.4	0.24	0.56
Food & tobacco	72.3	6.5	6.6	17.5	2.0	19.6	98.4	1.5	1.6
Text & leather	90.7	3.4	3.9	7.0	0.22	7.2	101.3	-1.8	-1.3
Constr. mat. & furn.	89.4	2.3	2.8	8.9	0.81	9.7	101.4	-1.9	-1.4
Paper	82.1	0.88	1.2	11.8	2.8	14.5	97.5	2.1	2.5
Printing	85.7	3.6	4.4	7.4	0.74	8.2	97.4	1.8	2.6
Metal	83.5	0.52	0.74	13.1	0.95	14.0	98.0	1.8	2.0
Chemical	66.2	1.3	1.5	33.1	2.5	35.7	103.2	-3.4	-3.2
Misc. & rubber	84.4	1.6	1.8	11.5	1.7	13.2	99.1	0.64	0.86
Construction	84.7	12.9	13.8	1.4	0.30	1.7	99.4	-0.24	0.65
Transp. & other pub. util.	70.1	0.08	0.10	13.3	13.8	27.0	97.2	2.8	2.8
Elec. light & power	35.2	0.18	0.18	31.4	24.6	56.0	91.4	8.6	8.6
Mfd. gas	55.3			32.0	21.3	53.5	108.8	-8.8	-8.8
Steam rr., Pull., & exp.	77.3			6.7	19.3	20.0	97.3	2.7	2.7
Street rwy.	71.8			7.3	21.3	28.6	100.4	-0.44	-0.44
Water transp.	94.0	0.74	0.96	5.3	2.2	7.4	102.2	-2.4	-2.2
Pipe lines	29.2			63.0	1.0	64.0	93.2	6.8	6.8
Telephone	71.4			19.7	5.8	25.5	97.0	3.0	3.0
Telegraph	85.1			7.8	2.0	9.8	94.8	5.2	5.2

Trade	70.1	23.2	25.3	4.7	0.45	5.1	98.3	-0.42	1.7
Finance	26.1	2.5	2.5	5.7	19.2	73.4	102.0	-2.0	-2.0
Banking	61.6			33.2		33.2	94.8	5.2	5.2
Insurance	84.0	18.9	18.9	3.6	-2.2	1.4	104.4	-4.4	-4.4
Real estate	10.3			1.8	25.9	92.4	102.7	-2.7	-2.7
Service	61.9	34.0	37.5	0.93	6.79	1.7	97.6	-1.1	2.4
Government	73.8				17.6	17.6	91.5	8.5	8.5
Miscellaneous	74.6	15.8	16.8	8.1*	7.4	15.4	105.8	-6.8	-5.8
Total	63.1	17.1	17.6	6.2*	7.1	19.0	99.2	0.31	0.82

CLASSIFICATION A BY CHARACTER OF PRODUCTIVE FUNCTION

Commodity prod.	65.2	22.9	22.2	9.5	3.5	13.0	101.1	-0.40	-1.1
Commodity transp. & distr.	72.4	15.8	17.3	5.9	4.0	9.9	98.1	0.42	1.9
Services	56.7	12.4	13.6	3.3	11.8	28.8	98.0	0.90	2.0

CLASSIFICATION C BY TYPE OF BUSINESS ORGANIZATION

With large proportion of individual firms	49.5	31.0	31.9	2.5	6.5	20.0	100.5	-1.4	-0.52
Private corp.	84.1	2.3	2.6	13.1	1.3	14.4	100.8	-1.0	-0.76
Semi-public corp.	70.9	2.4	2.4	14.2	10.3	24.5	97.8	2.2	2.2
Public	73.8				17.6	17.6	91.5	8.5	8.5

In those instances in which employee compensation includes 'other' payments to employees, the percentage of wages and salaries is:

Transp. and other pub. util.	68.9
Steam rr., Pull., & exp.	75.4
Telephone	70.2
Telegraph	82.6
Government	57.3
Total	61.0

CLASSIFICATION A BY CHARACTER OF PRODUCTIVE FUNCTION

Commodity transp. & distr.	71.9
Services	52.1

CLASSIFICATION C BY TYPE OF BUSINESS ORGANIZATION

Semi-public corp.	70.0
Public	57.3

* Includes balance of international payments.

sions. Also, the subdivisions of mining were not retained: for these five subdivisions the estimates of income other than wages and salaries for the years before 1929 were derived by distributing the totals for the mining group in proportion to wages and salaries. Since the percentage distribution among types of income within each subdivision of mining is not significant for the early years in the period, Classification B, which is subject to the difficulties mentioned in Chapter 5, is also omitted.

Employee compensation accounts, on the average, for slightly less than two-thirds of national income. But in agriculture, electric light and power, manufactured gas, pipe lines, and real estate its share is well below this average. These industries obviously belong to two distinct categories. In the first, represented by agriculture and real estate, the prevailing type of business organization is the unincorporated enterprise of small average size or the individual property holder. Hence entrepreneurial income or rent bulks so large in net income originating that employee compensation must necessarily be a relatively limited fraction. In the second, to which electric light and power, manufactured gas, and pipe lines belong, the dominant form of organization is corporate, and capital used in production is so large relative to direct labor that a major portion of net income is a return on the capital invested and only a small portion is compensation for the direct services of employees. On the other hand, in mining, textiles and leather, construction materials and furniture, printing, water transportation, and telegraph the share of employee compensation exceeds 85 per cent. In these industries the entrepreneur either does not appear or plays a minor role; and the use of capital is small relative to that of direct labor.

In agriculture, service, and trade the proportion of entrepreneurial withdrawals is above the average for the country, 17.1 per cent; in government, the public utilities, finance, manufacturing, mining, and construction, below. We have already mentioned the industries with a large proportion of property income. In general, industries in which entrepre-

neers predominate, or in which the capital investment is small relative to direct labor, or in which entrepreneurs do not have to pay returns on past investment, or in which by definition there cannot be large property returns (such as insurance) have low ratios of property income to net income originating (agriculture, construction, trade, insurance, and service).

The average shares of dividends and of interest in national income are about the same, but within industries they differ markedly. In some industries, such as government and agriculture, dividends are absent or negligible, either because there are no private enterprises or because small private enterprises, for which credit without security and fixed interest obligation is impracticable, predominate. As industries approach either extreme—absence of a variable entrepreneurial revenue because of a controlled market or preponderance of small units—interest tends to constitute a relatively greater share than dividends. Public utilities, such as steam railroads, represent the first extreme; real estate, the second. On the other hand, in industries in which the private business enterprise is large and continuously active in a competitive market, the share of dividends tends to be relatively greater (mining, manufacturing).

The share of savings of enterprises for the country as a whole is, on the average, small, amounting to somewhat less than 1 per cent of national income. But the percentages vary strikingly among industries. In general, the industries that, as shown by our analysis in Chapter 5, rose in relative importance in the income structure, were the ones for which the ratio of net savings to net income was well above the average: food and tobacco, paper, printing, electric light and power, pipe lines, telephone, telegraph, service, and government. Most of the industries whose relative shares in the countrywide income totals declined were characterized by a lower than average ratio of net savings to net income originating: agriculture, mining, total manufacturing, and construction. Although not perfect, the correlation is nevertheless sufficient to suggest that the rela-

tive magnitude of net savings of enterprise is a fair index of the shift in an industry's share in national income and aggregate payments.

In Classification A the highest percentage of property income and the lowest percentage of employee compensation and entrepreneurial withdrawals are within the service industries; the commodity transporting and distributing industries are at the other extreme in these respects, except for entrepreneurial withdrawals; while the commodity producing group occupies an intermediate position. The share of dividends is highest in commodity producing industries and the share of interest lowest—the opposite being true of the service industries.

The greatest differences in the distribution by type are in Classification C. Industries in which entrepreneurs are still numerous are characterized by the largest share of entrepreneurial withdrawals, the smallest of employee compensation, and a share of property income close to that for the country as a whole. The largest share of employee compensation and the greatest dominance of dividends over interest are in industries in which private corporations predominate. In industries with a semi-public status, property income accounts for a larger proportion of income originating than elsewhere. The public category naturally does not have any entrepreneurial income or dividends.

3 *Changes over the Period*

A IN COMPREHENSIVE TOTALS

In studying changes in the distribution by type over the period we use averages of percentage shares free from the effects of the more transient cyclical fluctuations. As in the distribution by industrial source, we computed two sets of averages: one for the two decades, 1919–28 and 1929–38, the other for the terminal quinquennia, 1919–23 and 1934–38.

Again, as in the distribution by industrial source, our conclusions are summarized by differentiating broad classes by the sign and magnitude of the changes in the averages. A plus or

minus sign indicates that the share increases or decreases and that the change is in the same direction in both the decennial and quinquennial averages; if the two sets of averages disagree in this respect, no definite direction is assigned the movement over the period and the entry is 0. Changes are classified as minor if the estimates for both the decennial and the quinquennial averages rise or decline less than one-tenth of the average share for 1919-38 (denoted by 0 + or 0 —); as significant if either estimate changes more than one-tenth of the average share for the period but not more than two-fifths (denoted by + or —); and as large if either estimate changes more than two-fifths of the average share for the period (denoted by + * or — *). Table 24 demonstrates the procedure and reveals several significant shifts in the shares of various income types in each of the three comprehensive income totals.

Wages and salaries increase significantly as a share in national income, but not in aggregate payments including entrepreneurial savings, i.e., when net savings of corporations and government are omitted from the comprehensive total. When we exclude from the latter entrepreneurial savings also, the share of wages and salaries declines slightly but unmistakably. The increase in this share in any of the three comprehensive income totals is thus due largely to the increase in wages and salaries relative to that in net savings of business enterprises and government.

The share of other compensation of employees in all three comprehensive income totals, however, increases owing primarily to the introduction of relief payments and Social Security contributions in the latter part of the second decade and to the maintenance, if not increase, of other types of compensation (pensions and compensation for injury). The share of total compensation, the sum of wages and salaries and other compensation, increases as a percentage of all three comprehensive totals; but the increase from the first to the second decade in its share in aggregate payments excluding entrepreneurial savings is so small as to be insignificant.

TABLE 24: National Income and Aggregate Payments to Individuals
Change over the Period in the Percentage Distribution by Type, 1919-1938

	PERCENTAGE OF NATIONAL INCOME				PERCENTAGE OF AGGREGATE PAYMENTS TO INDIVIDUALS				EXCL. ENTPREP. SAVINGS				
	CHANGE FROM		DIRECTION & MAGNITUDE	OF CHANGE	CHANGE FROM		DIRECTION & MAGNITUDE	OF CHANGE	CHANGE FROM		DIRECTION & MAGNITUDE	OF CHANGE	
	1919-28	1919-23			1919-28	1919-23			1919-28	1919-23			
	to	to	(3)	(4)	to	to	(5)	(6)	to	to	(7)	(8)	(9)
	1929-38	1934-38		1929-38	1934-38		1929-38	1934-38	1929-38	1934-38		1929-38	1934-38
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Wages & salaries	+6.3	+3.2	+	+0.46	-0.38	0	+0.38	0	-1.7	-1.3	0	-1.3	0
Other comp. of empl.	+2.8	+4.4	+	+2.6	+4.2	+	+4.2	+	+2.6	+4.2	+	+4.2	+
Empl. comp.	+9.1	+7.6	+	+3.1	+3.8	+	+3.8	+	+0.89	+4.2	+	+4.2	+
Entrep. withdr.	+1.6	-0.71	0	-0.07	-1.7	0	-1.7	0	-0.72	-2.0	-	-2.0	-
Entrep. savings	-3.7	-1.4	*	-3.5	-1.5	*	-1.5	*	-3.5	-1.7	*	-1.7	*
Entrep. net income	-2.0	-2.1	-	-3.6	-3.2	-	-3.2	-	-4.2	-3.8	-	-3.8	-
Service inc. excl. entrep. savings	+10.7	+6.9	+	+3.0	+2.1	+	+2.1	+	+0.17	+0.85	+	+0.85	+
Service inc. incl. entrep. savings	+7.0	+5.5	+	-0.51	+0.60	0	+0.60	0	-3.3	-0.87	0	-0.87	0
Dividends	+1.6	+1.7	+	+1.0	+1.4	+	+1.4	+	+0.84	+1.3	+	+1.3	+
Interest	+3.0	+2.0	+	+2.2	+1.6	+	+1.6	+	+1.9	+1.5	+	+1.5	+
Dividends & interest	+4.6	+3.7	+	+3.2	+2.9	+	+2.9	+	+2.8	+2.8	+	+2.8	+
Rent	-2.2	-3.2	*	-2.7	-3.5	*	-3.5	*	-2.9	-3.7	*	-3.7	*
Prop. income incl. rent	+2.4	+0.44	+	+0.51	-0.60	0	-0.60	0	-0.17	-0.85	0	-0.85	0
Corp. net savings	-7.2	-3.3	*	-6.7	-3.4	*	-3.4	*	-6.6	-3.5	*	-3.5	*
Gov. net savings	-2.2	-2.7	*	-2.2	-2.6	*	-2.6	*	-2.2	-2.6	*	-2.6	*
Net savings of all enterprises	-13.1	-7.3	*	-12.4	-7.5	*	-7.5	*	-12.4	-7.9	*	-7.9	*
Agg. pay. excl. entrep. savings	+13.1	+7.3	+	+3.5	+1.5	+	+1.5	+	-3.5	-1.7	0	-1.7	0
Agg. pay. incl. entrep. savings	+9.4	+6.0	+	-8.9	-6.0	0	-6.0	0	-12.4	-7.9	-	-7.9	-
National income													

The symbols are based upon the direction and magnitude of change in the average percentages from 1919-28 to 1929-38 and from 1919-23 to 1934-38; 0 means that the signs of change in the two comparisons are different; 0 + or 0 -, that the change, in the same direction for both comparisons, is in both less than 10 per cent of the average percentage for 1919-38; + or -, that the change in one or both comparisons is more than 10 per cent but less than 40 per cent of the average percentage for the period; +* or -*, that the change in one or both comparisons is more than 40 per cent of the average percentage for the period.

The share of entrepreneurial withdrawals in national income shows no definite movement but in both aggregate payments totals it decreases. Entrepreneurial savings, however, decrease drastically and constitute a decreasing share of all three comprehensive income totals. Hence, total entrepreneurial income, the sum of entrepreneurial withdrawals and savings, also accounts for a decreasing share of each.

Since employee compensation is far bigger than either entrepreneurial withdrawals or income it largely determines total service income. The share of the latter, excluding entrepreneurial savings, in all three comprehensive income totals increases, significantly as a share in national income and much less so as a share in aggregate payments. When entrepreneurial savings are included in service income, its share in national income still increases; its share in aggregate payments including entrepreneurial savings shows no definite change; and its share in aggregate payments excluding entrepreneurial savings actually decreases.

Of the three types of property income, the share of interest increases most and consistently in all three comprehensive income totals; that of dividends, somewhat less; that of rent decreases markedly. Hence total property income including rent, while accounting for an increasing share in national income, constitutes a decreasing share in aggregate payments excluding entrepreneurial savings. However, the decrease is small and is perhaps no more worth noting than the increase in the share of employee compensation from 1919-28 to 1929-38.

Since the shares of corporate, government, and entrepreneurial net savings in all three comprehensive income totals decrease markedly, the share of the combined total of net savings of all enterprises decreases markedly; and since these items of savings constitute the differences among the three comprehensive income totals, the movements of the latter are determined by these declines. The total that excludes all or any of these savings items increases relatively to the total that includes them.

For the distribution of aggregate payments excluding entrepreneurial savings we extend the analysis to 1909 by using King's estimates (Table 25). The shares of employee compensation and of interest increase not only from 1919-28 to 1929-38 but also from 1909-18 to 1919-28, the former much more from the first to the second decade than from the second to the third. Likewise, the shares of entrepreneurial withdrawals and rent decline from the first to the second decade, as they do from the second to the third, indeed much more. The only type of payment for which such consistency of movement is not true is dividends (and, consequently, dividends and interest): its share declines from 1909-18 to 1919-28, probably owing to the unusually high levels it attained during the war years 1914-18.

In Table 25 there is some suggestion of secular tendencies in the shares of employee compensation, entrepreneurial withdrawals, interest, and rent. The rise in the share of employee compensation and the decline in that of entrepreneurial withdrawals could be expected over long periods in view of the decrease in unincorporated firms and the corresponding increase in corporate and other forms of organization that pay wages, salaries, etc. The rise in the share of interest may well be associated partly with the waxing importance of industries (government, public utilities) in which this type of property income predominates; partly, for this specific historical period, with a declining price level and the naturally greater resistance of interest to reduction. The reason for the decline in the share of rent is not so clear, unless it is because the main source, residential housing, is not among the rapidly developing industries.

B IN TYPE OF INCOME TOTALS WITHIN INDUSTRIES

To determine shifts in the distribution by type within the industrial divisions we measure shares of various components in both net income originating and total payments. When used as a base for this relative distribution the latter ordinarily ex-

TABLE 25

Aggregate Payments to Individuals excluding Entrepreneurial Savings

Change over the Period in the Percentage Distribution by Type

King's and Present NBER Estimates, 1909-1938

	PERCENTAGE DISTRIBUTION		CHANGES IN PERCENTAGES				DIRECTION AND MAGNITUDE OF CHANGE ¹			
	1919-23		1909-18		1909-18		1909-18		1909-18	
	King	Present	to	to	to	to	to	to	to	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Employee compensation	59.0	63.0	+8.4	+0.89	+9.3	+11.9	+	0 +	+	+
Entrep. withdrawals	21.8	18.5	-5.8	-0.72	-6.5	-7.7	-	0 -	-	-
Service income	80.9	81.5	+2.7	+0.17	+2.8	+4.2	0 +	0 +	0 +	0 +
Dividends	4.9	5.1	-0.66	+0.84	+0.17	+0.54	-	+	0 +	+
Interest	4.3	4.5	+0.23	+0.89	+1.1	+0.85	0 +	+	+	+
Dividends & interest	9.2	9.6	-0.44	+1.8	+1.4	+1.4	0 -	+	+	+
Rent ²	9.9	8.9	-2.2	-1.9	-4.1	-5.6	-	-	-*	-*
Property income incl. rent	19.1	18.5	-2.7	-0.17	-2.8	-4.2	-	0 -	-	-

¹ See note to Table 24.² Sum of rent received by individuals, imputed rent, and interest in the real estate industry.

clude entrepreneurial savings, but for the few industries in which unincorporated firms are numerous and the inclusion of entrepreneurial savings might affect the distribution, additional entries, with total payments including entrepreneurial savings as base, are given. The conclusions are summarized in Tables 26–29 by the symbols signifying positive and negative, and minor, significant, and large changes.

In mining, various subdivisions of manufacturing, construction, and steam railroads we can separate wages from salaries (Table 26). In other industries the combined total alone can be studied. In the former there are significant differences in the movement of the shares of wages and salaries in both net income originating and total payments. As shares in net income originating, wages rise in textiles and leather, construction materials and furniture, paper, and miscellaneous and rubber manufacturing; but as shares in total payments, they decline except in textile and leather manufacturing, in which they rise slightly. The share of salaries in both net income originating and total payments rises in most industries: in net income originating it declines in food and tobacco alone; and in total payments it declines only in food and tobacco and chemical manufacturing. Comparison of wages and salaries industry by industry indicates that the share of salaries in both net income originating and total payments either increases more or declines less in all industries except food and tobacco.

We can now test the showing of Table 24—that the share of wages and salaries in national income increased, whereas in aggregate payments excluding entrepreneurial savings it declined; and that the share of employee compensation in both totals rose—by observing whether similar movements occurred in each industry in Table 26.

The shares of wages and salaries and of employee compensation in net income originating do increase in total manufacturing, some of its subdivisions (textile and leather, construction materials and furniture, paper, printing, and miscellaneous and rubber), and in street railways, water transportation,

TABLE 26

Employee Compensation, Direction and Magnitude of Change *
over the Period in its Share in Net Income and Total
Payments, by Industrial Divisions, 1919-1938

	SHARE IN NET INCOME				SHARE IN TOTAL PAYMENTS EXCL. ENTREPRENEURIAL SAVINGS			
	Wages & Empl.				Wages & Empl.			
	Wages	Salaries	salaries	comp.	Wages	Salaries	salaries	comp.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Agriculture	a	a	—	—	a	a	—	—
Mining	o	+*	o	o	—	+	o—	o—
Manufacturing	o	+	+	+	o—	+	o—	o—
Food & tobacco	o—	—	—	—	o—	—	o—	o—
Text. & leather	+	+	+	+	o+	o+	o+	o+
Constr. mat. & furn.	+	+*	+	+	o—	+	o—	o—
Paper	o+	+	+	+	o—	+	o+	o+
Printing	o	+	o+	o+	—	+	o	o
Metal	o	+*	o	o	o—	+	o—	o—
Chemical	o	o	o	o	—	—	—	—
Misc. & rubber	+	+	+	+	o	+	o+	o+
Construction	o	+	o	o	—	+	—	—
Transp. & other pub. util.	a	a	—	—	a	a	—	—
Electric light & power	a	a	—	—	a	a	—	—
Mfd. gas	a	a	—	—	a	a	—	—
Steam rr., Pull., & exp.	—	+	o	o	—	+	o—	o—
Street rwy.	a	a	o+	o+	a	a	o—	o—
Water transp.	a	a	o+	o+	a	a	o—	o—
Pipe lines	a	a	—	—	a	a	—*	—*
Telephone	a	a	o—	o—	a	a	—	—
Telegraph	a	a	+	+	a	a	o+	o+
Trade	a	a	+	+	a	a	o	o
Finance	a	a	+*	+*	a	a	+*	+*
Banking	a	a	+*	+*	a	a	+	+
Insurance	a	a	o	o	a	a	o+	o+
Real estate	a	a	+*	+*	a	a	+	+
Service	a	a	o+	o+	a	a	o—	o—
Government	a	a	o	+	a	a	—	o+
Federal	a	a	a	a	a	a	—*	+
State	a	a	a	a	a	a	o+	—
County	a	a	a	a	a	a	o—	o—
City	a	a	a	a	a	a	o—	o—
Miscellaneous	a	a	+	+	a	a	o+	o+
Total	a	a	+	+	a	a	o—	o+
	CLASSIFICATION A BY CHARACTER OF PRODUCTIVE FUNCTION							
Commodity producing	a	a	o	o	a	a	o—	o—
Commodity transp. & distr.	a	a	o+	o+	a	a	o—	o—
Services	a	a	+	+	a	a	o+	+

TABLE 26 (concl.)

	SHARE IN NET INCOME				SHARE IN TOTAL PAYMENTS EXCL. ENTREPRENEURIAL SAVINGS			
	Wages		Wages & Empl. salaries comp.		Wages		Wages & Empl. salaries comp.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CLASSIFICATION C BY TYPE OF BUSINESS ORGANIZATION								
With large proportion of individual firms	a	a	+	+	a	a	o+	o+
Private corp.	a	a	+	+	a	a	o-	o-
Semi-public corp.	a	a	o-	o-	a	a	-	o-
Public	a	a	o	+	a	a	-	o+

Supplementary data for industries in which individual firms predominate:

	SHARE IN TOTAL PAYMENTS INCL. ENTREP. SAVINGS		SHARE IN TOTAL PAYMENTS INCL. ENTREP. SAVINGS	
	Employee Compensation		Employee Compensation	
Agriculture	-		Real estate	+
Construction	o		Service	o+
Trade	o+		Miscellaneous	+

* See note to Table 24. An entry of 'a' means that the corresponding type of income is either absent, has not been estimated, or is less than 0.1 per cent of net income or total payments.

telegraph, trade, finance, service, and miscellaneous; but in several important industries (agriculture, food and tobacco, the transportation and public utility total, electric light and power, manufactured gas, telephones, and pipe lines) they decline. As shares in total payments, wages and salaries and employee compensation decline in many more industrial divisions (mining, total manufacturing and several of its subdivisions, construction, almost all the public utility subdivisions, and service). The rise in the shares of wages and salaries and of employee compensation in national income is thus not uniformly true of the distribution of net income originating for all industries; nor is the increase in the share of employee compensation in aggregate payments true of the share in total payments in most industries; and the mild decline in the share of wages and salaries in aggregate payments becomes marked in the share in total payments in several industries.

In general the shares of both wages and salaries and employee compensation tend to increase less or decline more in the commodity producing industries and the public utilities than in the comprehensive totals; and in the service industries

they increase more or decline less than in the comprehensive totals. Thus in Classification A the shares in both net income originating and total payments for the service group rise more than the shares for the commodity producing and transporting and distributing groups (if the latter rise at all). In Classification C it is the semi-public group, primarily public utilities, that is characterized by declining shares of wages and salaries and of employee compensation. For the other groups in Classification C the changes in the shares in net income and total payments differ, and in the public industry group the change in the shares of wages and salaries in net income and total payments differs from that in the shares of employee compensation. The reasons for these divergences are obvious. The effect of negative business savings in the 1930's on the distribution of net income originating in the group in which private corporations predominate (i.e., mining and manufacturing) causes the share of employee compensation to rise; when we omit net savings the share in total payments declines. In the public category it is the addition of relief and other compensation that causes the share of total employee compensation to rise; the share of wages and salaries alone does not rise. Finally, if we omit net savings from income originating in the group in which unincorporated firms are still numerous, the rise in the share of employee compensation becomes smaller.

The shares of entrepreneurial withdrawals and net income in the comprehensive income totals decline; and when we examine their shares in net income originating and total payments industry by industry we find that the decline is fairly widespread (Table 27). Only in agriculture and finance do the shares of entrepreneurial income in net income originating and of withdrawals in total payments rise, and for agriculture even these rises are mild. In construction and service the share of withdrawals in total payments rises also, that in construction markedly. In all other industries in which entrepreneurial income and withdrawals exist, the component constitutes a declining share in net income originating and in total

TABLE 27

Entrepreneurial and Service Incomes, Direction and Magnitude of Change * over the Period in their Shares in Net Income and Total Payments, by Industrial Divisions, 1919-1938

	SHARE IN NET INCOME			SHARE IN TOTAL PAYMENTS EXCL. ENTREP. SAVINGS	
	Entrep. income	SERVICE INCOME		Entrep. withdr.	Service incl. savings
		Incl. savings	Excl. savings		
	(1)	(2)	(3)	(4)	(5)
Agriculture	0 +	0	0	0 +	0 -
Mining	-*	0	0	-	0 -
Manufacturing	-*	+	+	-*	0 -
Food & tobacco	-	-	-	-*	-
Textile & leather	-*	+	+	-*	0 +
Constr. mat. & furn.	-*	+	+	-*	0 -
Paper	-*	+	+	-*	0 +
Printing	-*	0 +	0 +	-*	0 -
Metal	-*	0	0	-*	0 -
Chemical	-	0	0	-*	-
Misc. & rubber	-*	+	+	-	0 +
Construction	0	0 +	+	+*	0 -
Transp. & other pub. util.	a	-	-	a	-
Elec. light & power	-*	-	-	-*	-
Manufactured gas	a	-	-	a	-
Steam rr., Pull., & exp.	a	0	0	a	0 -
Street rwy.	a	0 +	0 +	a	0 -
Water transp.	-	0	0	-*	0 -
Pipe lines	a	-	-	a	-*
Telephone	a	0 -	0 -	a	-
Telegraph	a	+	+	a	0 +
Trade	-	0	+	-	0 -
Finance	+*	+*	+*	+*	+*
Banking	a	+*	+*	a	+
Insurance	0 -	0	0	0 -	0 +
Real estate	a	+*	+*	a	+
Service	0 -	0 +	+	+	0 -
Government	a	+	+	a	0 +
Federal	a	a	a	a	+
State	a	a	a	a	-
County	a	a	a	a	0 -
City incl. pub. educ.	a	a	a	a	0 -
Miscellaneous	0	+	+	+	0 +
Total	-	0 +	+	-	0 +

CLASSIFICATION A	SHARE IN NET INCOME			SHARE IN TOTAL PAYMENTS EXCL. ENTREP. SAVINGS	
	Entrep. income	SERVICE INCOME		Entrep. withdr.	Service incl. savings
		Incl. savings	Excl. savings		
		(1)	(2)		
Commodity producing	o -	o	o	-	o -
Commodity transp. & distr.	-	o +	+	o	o -
Services	o -	+	+	+	+

CLASSIFICATION C	BY TYPE OF BUSINESS ORGANIZATION				
With large proportion of individual firms	o -	o +	+	o	o +
Private corp.	-*	o	o	-*	o -
Semi-public corp.	+	o	o	+	o -
Public	a	+	+	a	o +

Supplementary data for industries in which individual firms predominate:

	SHARE IN TOTAL PAYMENTS INCL. ENTREPRENEURIAL SAVINGS	
	Entrepreneurial net income	Service income incl. savings
Agriculture	o +	o
Construction	o	o -
Trade	-	o -
Real estate	a	+
Service	-	o -
Miscellaneous	-	o +

* See notes to Tables 24 and 26.

payments. This is reflected in Classifications A and C where the only increase is in entrepreneurial withdrawals as a share in total payments in the service industries and as a share in both income totals in the semi-public industries (entrepreneurs in the latter are so few that the entries for this group can be discounted).

The share of service income, including or excluding entrepreneurial savings, in net income originating rises in most industries but declines in food and tobacco and several public utilities. Its share in aggregate payments rises slightly, and in total payments, declines in the majority of industries. Indeed, the increase in its share in the comprehensive total is due largely to the increase in its share in the service category; in the commodity producing and transporting and distributing

categories its share declines. Thus the share of service income, like that of employee compensation and unlike that of entrepreneurial income or withdrawals, shows considerable diversity of movement, with a preponderance of declines in the several industries as a share in total payments, in contrast to its mild rise as a share in the comprehensive total.

The share of dividends in net income originating increases in most industries as well as for the country as a whole (Table 28). The few industries in which it does not—textiles and leather, paper, miscellaneous and rubber manufacturing, steam railroads, telegraph, finance and its subgroups—are, for the most part, industries that are losing weight in the industrial structure (see Ch. 5). As a share in total payments, dividends do not rise so consistently from industry to industry but the exceptions are not many more than for the share in net income originating. In all groups of Classifications A and C, except service (in which dividends are small) and public industries (in which they do not exist), the share of dividends in both net income originating and total payments rises.

The increase in the share of interest is as widespread among industries as that in the share of dividends. In the share in net income originating it does not occur in only nine industries: agriculture, food and tobacco, textiles and leather, miscellaneous and rubber manufacturing, construction, telephone, insurance, government, and miscellaneous; and in at least two, interest is a rather important item. In total payments the share of interest fails to rise in one or two more industries. But Table 28 conveys the definite impression that the pronounced rise in the share of interest in all three comprehensive totals is characteristic of most industries. In Classification C this increase in the share of interest in net income originating is absent in the public industries alone; and in its share in total payments, only in the commodity transporting and distributing group of Classification A and the public industry group of Classification C.

Since the shares of both dividends and interest in net income

TABLE 28

Property Income, Direction and Magnitude of Change * over the Period in its Share in Net Income and Total Payments, by Industrial Divisions, 1919-1938

	SHARE IN NET INCOME			SHARE IN TOTAL PAYMENTS EXCL. ENTREP. SAVINGS		
	Divi- dends (1)	Interest (2)	Dividends & interest (3)	Divi- dends (4)	Interest (5)	Dividends & interest (6)
Agriculture	+*	o	o	+*	o	+
Mining	+*	+*	+*	+*	+*	+*
Manufacturing	+	+*	+	+	+*	+
Food & tobacco	+*	o	+*	+*	-	+*
Text. & leather	-	-*	-	-	-*	-
Constr. mat. & furn.	+*	+*	+*	+	+*	+
Paper	o-	+*	+	-	+*	o-
Printing	+	+*	+	+	+*	+
Metal	+*	+*	+*	+	+*	+
Chemical	+*	+*	+*	+	+*	+
Misc. & rubber	o	o	o	-	o	-
Construction	+*	o	+*	+*	o	+*
Transp. & other pub. util.	+*	+	+*	+*	+	+*
Elec. light & power	+	+	+	+	o+	+
Mfd. gas	+*	+*	+*	+	+*	+
Steam rr., Pull., & exp.	o-	+	+	-	+	+
Street rwy.	+	+	+	+	+	+
Water transp.	+*	+*	+*	+*	+*	+*
Pipe lines	+*	+*	+*	+	+*	+
Telephone	+*	-	+*	+*	-	+*
Telegraph	-*	+*	o	-*	+*	-
Trade	+*	+*	+*	+	o	+
Finance	o	+*	+*	-	+*	+*
Banking	o	a	o	-	a	-
Insurance	-	o-	-*	-	-	-*
Real estate	o-	+*	+*	-	+*	+*
Service	+	+*	+*	o	+*	+*
Government	a	-	-	a	-	-
Federal	a	a	a	a	-*	-*
State	a	a	a	a	+	+
County	a	a	a	a	o+	o+
City incl. pub. educ.	a	a	a	a	+	+
Miscellaneous	+	o	o	-	-*	-
Total	+	+*	+	+	+	+

TABLE 28 (concl.)

	SHARE IN NET INCOME			SHARE IN TOTAL PAYMENTS EXCL. ENTREP. SAVINGS		
	Divi- dends (1)	Dividends & interest		Divi- dends (4)	Dividends & interest	
		Interest (2)	interest (3)		Interest (5)	interest (6)
CLASSIFICATION A BY CHARACTER OF PRODUCTIVE FUNCTION						
Commodity producing	+*	+*	+*	+*	+*	+*
Commodity transp. & distr.	+	+	+	+	o	+
Services	o	+	+	-	+	o +
CLASSIFICATION C BY TYPE OF BUSINESS ORGANIZATION						
With large proportion of individual firms	+	+*	+*	+	+	+
Private corp.	+	+*	+	+	+*	+
Semi-public corp.	+	+	+	+	+	+
Public	a	-	-	a	-	-

* See notes to Tables 24 and 26.

originating and total payments rise in most industries, the share of their combined total also rises in most industries. As all rent is assigned to real estate this sum of dividends and interest is the one total of property income that can be studied for the several industries. Thus the inclusion of rent under property income affects the distribution by type only for real estate and for groups of industries including it. The effect is of course great: whereas in real estate the share of interest and dividends together in net income originating and total payments rises markedly, total property income including rent rises slightly as a share in net income originating and declines slightly as a share in total payments.

Thus, while the share of property income including rent in aggregate payments tends to decline over the period, its share in national income and for most industries in both net income originating and total payments rises. This difference may be partly due to our inability to apportion rent among the various industries in which it may originate. Yet, compared with interest and dividends combined, rent is probably a small item in many industries, for most rent originates in connection with residential housing. It is therefore reasonable to assume that

even if we could distribute rent among the industries in which it originates the share of property income in total payments in most industries would still rise, while in aggregate payments it declines—obviously because the declining property income component (rent) is concentrated in one or two industries and the rising property income components (dividends and interest) are distributed widely among industries.

We conclude the survey of changes over the period in the distribution by type within industries by observing the share of net savings in net income originating and total payments (Table 29). To complement net savings we record the share of total payments (exclusive of all net savings) in net income originating.

As a share in net income originating and total payments net savings of corporations and government decline significantly in practically all industries, industrial divisions, and Classifications A and C. The two exceptions are food and tobacco and insurance, both growing industries not too sensitive to cyclical disturbances. This widespread decline is characteristic also of net savings of all enterprises (including entrepreneurial savings).

Since the share of net savings of all enterprises in net income originating declines in practically all industries and industrial groups, the share of total payments must rise.

C EFFECTS OF INTRA- AND INTER-INDUSTRY SHIFTS

The share of any component, such as wages and salaries or entrepreneurial income, in a comprehensive income total is the product of two factors: (1) the share of the component in net income or total payments originating in each industry; (2) the share of net income or total payments originating in each industry in national income or aggregate payments. Changes in the distribution of comprehensive totals by type may, therefore, be due to changes in the distribution by type of net income or total payments originating in each industry; or, with a constant distribution by type within each industry but dif-

TABLE 29

Savings and Total Payments, Direction and Magnitude of Change¹ over the Period in their Shares in Net Income and of Savings in Total Payments, by Industrial Divisions, 1919-1938

	SHARE IN NET INCOME			SHARE IN TOTAL PAYMENTS EXCL. ENTREP. SAVINGS	
	NET SAVINGS		Total payments excl. entrep. savings	NET SAVINGS	
	Corp. & gov.	All enter-prises	entrep. savings	Corp. & gov.	All enter-prises
	(1)	(2)	(3)	(4)	(5)
Agriculture	a	o	o	a	o
Mining	-*	-*	+	-*	-*
Manufacturing	-*	-*	+	-*	-*
Food & tobacco	o	o	o	-*	o
Textile & leather	-*	-*	+	-*	-*
Constr. mat. & furn.	-*	-*	+	-*	-*
Paper	-*	-*	+	-*	-*
Printing	-*	-*	+	-*	-*
Metal	-*	-*	+	-*	-*
Chemical	-*	-*	+	-*	-*
Misc. & rubber	-*	-*	+	-*	-*
Construction	-*	-*	+	-*	-*
Transp. & other pub. util.	-*	-*	o+	-*	-*
Electric light & power	-*	-*	o+	-*	-*
Mfd. gas	-*	-*	+	-*	-*
Steam rr., Pull., & exp.	-*	-*	o+	-*	-*
Street rwy.	-*	-*	+	-*	-*
Water transp.	-*	-*	o+	-*	-*
Pipe lines	-*	-*	+	-*	-*
Telephone	-*	-*	o+	-*	-*
Telegraph	-*	-*	+	-*	-*
Trade	-*	-*	+	-*	-*
Finance	-*	-*	o+	-*	-*
Banking	-*	-*	+	-*	-*
Insurance	o	o	+	o	o
Real estate	-*	-*	o+	-*	-*
Service	-*	-*	+	-*	-*
Government	-*	-*	+	-*	-*
Miscellaneous	-*	-*	+	-*	-*
Total	-*	-*	+	-*	-*

CLASSIFICATION A BY CHARACTER OF PRODUCTIVE FUNCTION

Commodity producing	-*	o	o	-*	-*
Commodity transp. & distr.	-*	-*	+	-*	-*
Services	-*	-*	+	-*	-*

CLASSIFICATION C BY TYPE OF BUSINESS ORGANIZATION

With large proportion of individual firms	-*	-*	+	-*	-*
Private corp.	-*	-*	+	-*	-*
Semi-public corp.	-*	-*	o+	-*	-*
Public	-*	-*	+	-*	-*

Supplementary data for industries in which individual firms predominate:

	SHARE IN NET INCOME
	Total payments incl. entrep. savings
Agriculture	. . ²
Construction	o +
Trade	o +
Real estate	o +
Service	o +
Miscellaneous	+

¹ See notes to Tables 24 and 26.

² Net income and total payments including entrepreneurial savings are identical.

ferent distributions from industry to industry, to changes in the relative importance of industries as measured by their shares in national income or aggregate payments; or to both.

As we have seen, changes in the distribution of income by type occurred over the period not only in national income and aggregate payments but also in net income and total payments originating in each industry. Yet it is not clear whether the intra-industry shifts account fully for the changes in the distribution by type of national income and aggregate payments or whether shifts in the relative importance of industries also contribute. This question is analogous to that raised in Chapter 5 (Sec. 3) where we indicate that changes in the industrial distribution could be due to changes in the industrial distribution of each component or to shifts in the relative importance of income types, or to both. We did not implement these alternatives by analysis, since it did not seem to us that the relation could be conceived as extending from the distribution of the comprehensive income total by type as a cause to the industrial distribution as an effect; nor that there were mechanisms by which efforts would be made to maintain or alter the relative distribution among income types with consequences to the distribution by industrial source. But the question concerning the effects of inter- and intra-industry shifts upon the distribution of comprehensive income totals by type does seem realistic enough to warrant further investigation.

The active units in economic life are attached to and operate within the framework of individual industries; there is inter-

industry competition, i.e., conscious or unconscious attempts on the part of one industry to gain at the expense of other industries; industries differ markedly in their responses to economic conditions; given inter-industry shifts as cause, changes in the distribution by type of comprehensive income totals may well be treated as effects. Moreover, attachment to industries does give rise to significant differences among groups of income recipients, and the distribution by type within individual industries is of considerable interest.

On the basis of the analysis already carried through in the preceding sections of this chapter and Chapter 5 the simplest way to explore more directly the effects of intra- and inter-industry shifts on changes over the period in the distribution of comprehensive income totals by type is the following. We measure the change from 1919-28 to 1929-38 in the average share in national income (or aggregate payments) of the various income components. This change can be viewed as the product of the changes in the shares of each within the several industries and the changes in the shares of the respective industries in national income (or aggregate payments). But instead of weighting the change in the share of a given income type in each industry by *changes* in the shares of the respective industries in national income (or aggregate payments), we can weight them by the *average share* for 1919-38 of the respective industries, and divide the sum of the products by 100, i.e., the sum total of the weights. By this method we approximate the change from 1919-28 to 1929-38 in the share of the given income type in national income (or aggregate payments), on the assumption that the relative importance of industries remained constant over the period, i.e., that there were no shifts in the industrial distribution. If this result is subtracted from the change in the share of this income type shown in Table 24, the residual approximates the change in the share of the given income type in national income (or aggregate payments) that is due exclusively to shifts in the relative importance of various industries.

TABLE 30

Effects of Inter- and Intra-Industry Shifts upon the Change over the Period in the Distribution of National Income by Type, 1919-1938

	CHANGE FROM 1919-28 TO 1929-38			CHANGE FROM 1919-23 TO 1934-38		
	TOTAL CHANGE	CHANGE DUE TO Inter- industry shifts		TOTAL CHANGE	CHANGE DUE TO Inter- industry shifts	
		(1)	(2)		(3)	(4)
Wages & salaries	+6.3	+7.7	-1.4	+3.2	+1.8	+1.4
Employee compensation	+9.1	+9.6	-0.5	+7.6	+5.0	+2.6
Entrep. withdrawals	+1.6	+2.6	-1.0	-0.71	+0.20	-0.91
Entrep. net income	-2.0	-1.4	-0.6	-2.1	-1.1	-1.0
Service income excl. entrep. savings	+10.7	+12.2	-1.5	+6.9	+5.2	+1.7
Service income incl. entrep. savings	+7.0	+8.2	-1.2	+5.5	+3.0	+1.6
Dividends	+1.6	+1.8	-0.2	+1.7	+1.5	+0.2
Interest	+3.0	+2.6	+0.4	+2.0	+1.8	+0.2
Prop. income incl. rent	+2.4	+2.9	-0.5	+0.44	+1.7	-1.3
Agg. pay. excl. entrep. savings	+13.1	+15.2	-2.1	+7.3	+6.9	+0.4
Total net savings	-13.1	-15.2	+2.1	-7.3	-6.9	-0.4
Corp. & gov. net savings	-9.4	-11.1	+1.7	-6.0	-5.5	-0.5

Columns 1 and 4 of Table 30 measure changes in shares shown by the direct distribution of national income and are identical with the entries in Table 24. Columns 2 and 5 were obtained by weighting the changes for each industry (using the most detailed industrial classification) by the average share of the industries in national income (from Table 13) and dividing the sum of the products by 100. The entries show what would have been the changes in the shares of wages and salaries, employee compensation, etc. in national income if its industrial distribution were held constant year in, year out at the 1919-38 average level, and if, therefore, changes in the shares of income types in it were caused by changes in the distribution of net income by type within each industry alone. Columns 2 and 5 thus measure the effects of *intra-industry* shifts on changes in the distribution of national income by type. Columns 3 and 6, obtained by subtracting columns 2 and 5 from 1 and 4, measure the effects of shifts in the industrial composition of national income, i.e., of *inter-industry* shifts.

For the income components and their subtotals in Table 30 the conclusions concerning changes from 1919-28 to 1929-38 are clear. For all types of income, except interest and the two net savings items, the total change is algebraically smaller than the change ascribable to intra-industry shifts. This means that the shifts in relative importance among industries caused the shares in national income of all income types, except interest and net savings, to decline. In other words, industries in which the average shares of such components as wages and salaries, employee compensation, entrepreneurial withdrawals or net income, and dividends were above the countrywide average shares lost relatively to industries in which they were below. But for interest and net savings, the reverse occurred: industries in which the average shares of these two components were above the countrywide average shares gained relatively to industries in which they were below.

This conclusion can be checked by comparing the industries in Tables 23 and 14. However, correlating industries by two of their characteristics: (1) the excess or shortage of the average share of an income type in the net income originating in the various industries compared with its average share in national income; (2) the sign and magnitude of the change in the share of the industry in national income from 1919-28 to 1929-38, would mean a needless multiplication of detail and would merely demonstrate what must arithmetically follow from the differences between columns 1 and 2, Table 30. Even without such a demonstration the reason for the relations between columns 1, 2, and 3 of Table 30 is obvious. For example, a relative decline in net savings from the first to the second decade in any industry in excess of the decline for the country would reduce the weight of that industry in national income. It would tend also to give that industry a small average share of net savings in net income originating. Hence there would be positive correlation between a small share of net savings in an industry and the decline in the weight of that industry in national income; or between a large share of net savings in an industry

and the increase in the weight of that industry in national income. Similarly, the industries in which the share of interest in national income is relatively large have increased in weight: government, electric light and power, manufactured gas. Obviously this increase was insufficiently offset by a decline in the shares in national income of other industries with relatively large shares of interest (steam railroads, street railways, real estate) and was reenforced by the decline in the shares of industries in which interest is negligible (manufacturing, mining, and construction).

Changes from the first to the last quinquennium differ. Here again the effect of inter-industry shifts was to increase the share of interest in national income and to reduce the shares of entrepreneurial withdrawals and of net income. But these effects of shifts in the industrial composition of national income upon changes in its distribution by type were more moderate between 1919-23 and 1934-38 than between 1919-28 and 1929-38. Furthermore, the shift in the industrial composition tended to *reduce* the share of net savings and to *increase* the shares of wages and salaries and of dividends from the first to the last quinquennium, whereas it tended to increase the share of net savings and to reduce those of wages and salaries and of dividends from the first to the second decade. The increase in the share of wages and salaries from the first to the last quinquennium is due largely to the remarkable recovery in the last quinquennium of commodity producing industries with their large shares of wages and salaries and of employee compensation (mining, manufacturing, and construction); the loss in their share in national income was therefore much less when measured from 1919-23 to 1934-38 than from 1919-28 to 1929-38. As some industries with high ratios of wages and salaries and employee compensation declined less in relative importance and other industries with high ratios (government, trade, telephone) increased, inter-industry shifts between 1919-23 and 1934-38 raised the shares of wages and salaries and of employee compensation in national income.

In one respect the analysis of changes between the two decades and the two quinquennia in Table 30 yields similar results: the removal of the effects of inter-industry shifts and the confining of changes in the shares of income types to those caused by intra-industry shifts does not materially influence the changes in the distribution of national income by type. When we compare columns 1 and 2 for the changes from 1919-28 to 1929-38, not one income component or subtotal alters its sign. Thus were we to consider only intra-industry shifts in shares of income types, disregarding the effects of inter-industry shifts, the shares in national income of wages and salaries, employee compensation, entrepreneurial withdrawals, both totals of service income, dividends, interest, property income including rent, and aggregate payments excluding entrepreneurial savings would still rise significantly; and those of entrepreneurial net income and the various savings totals would still decline significantly. In the comparison for 1919-23 and 1934-38 the sign is reversed in the share of entrepreneurial withdrawals alone; but the change in its share in national income is minor anyway, whether inter- and intra-industry shifts are combined or the effects of intra-industry shifts alone are considered. In short, while shifts in the industrial composition of national income had some effect on changes in the distribution by type, it was moderate.

When changes over the period in the distribution by type of aggregate payments excluding entrepreneurial savings are similarly analyzed, the results are significantly different (Table 31). The entries in Table 31 were derived by a procedure analogous to that used in Table 30, except that changes within each industry were measured for shares in total payments and the weights used were the average share for 1919-38 of each industry in aggregate payments.

Changes in the industrial composition of aggregate payments, both from 1919-28 to 1929-38 and from 1919-23 to 1934-38, were such as to raise the shares of wages and salaries, employee compensation, total service income excluding entre-

TABLE 31

Effects of Inter- and Intra-Industry Shifts upon the Change over the Period in the Distribution of Aggregate Payments, excluding Entrepreneurial Savings, by Type, 1919-1938

	CHANGE FROM 1919-28 TO 1929-38			CHANGE FROM 1919-23 TO 1934-38		
	TOTAL CHANGE	CHANGE DUE TO		TOTAL CHANGE	CHANGE DUE TO	
		Intra- industry shifts (1 - 2)	Inter- industry shifts (3)		Intra- industry shifts (4 - 5)	Inter- industry shifts (6)
(1)	(2)	(3)	(4)	(5)	(6)	
Wages & salaries	-1.7	-2.4	+0.7	-1.3	-3.0	+1.7
Employee compensation	+0.89	-1.1	+2.0	+2.9	-0.87	+3.8
Entrep. withdrawals	-0.72	+0.69	-1.4	-2.0	+0.43	-2.4
Service income excl. entrep. savings	+0.17	-0.43	+0.60	+0.85	-0.44	+1.3
Dividends	+0.84	+0.65	+0.19	+1.3	+1.2	+0.1
Interest	+1.9	+0.17	+1.7	+1.5	+1.3	+0.2
Prop. income incl. rent	-0.17	+0.43	-0.60	-0.85	+0.44	-1.3
Total net savings	-12.4	-13.3	+0.9	-7.9	-8.2	+0.3
Corp. & gov. net savings	-8.8	-9.5	+0.7	-6.2	-6.2	0.0

preneurial savings, dividends, and interest. In other words, industries characterized by larger than average shares of these income components gained compared with industries characterized by smaller than average shares. Shifts in the industrial composition tended to depress the shares of entrepreneurial withdrawals and of property income including rent. By and large, the effects of inter-industry shifts upon changes in the distribution of aggregate payments by type are greater than the effects of shifts within industries; and also than the total change in the distribution of aggregate payments by type.

Consequently, for several income type components in Table 31 the total change in the share in aggregate payments is in the opposite direction to that caused by the change in the distribution by type within industries (col. 1, 2, 4, and 5). Thus in the comparisons for both decades and quinquennia the total change in the share of employee compensation in aggregate payments is upward, while in the distribution by type within industries the share of employee compensation declines; and only shifts in industrial composition raise it in the comprehensive total. Likewise, the decline in the share of entrepre-

neurial withdrawals in aggregate payments is due exclusively to shifts in industrial composition in favor of industries characterized by small shares; intra-industry shifts alone would cause a small rise. There are similar reversals in the sign of the change characterizing the share of total service income excluding entrepreneurial savings. Finally, the total change in the share of property income including rent is negative, but only because of shifts in the industrial composition of aggregate payments. Within industries changes in the distribution by type cause a small rise in the share of property income including rent.

In the light of Table 31 the conclusions concerning shifts in the distribution of aggregate payments by type may be restated. In the countrywide distribution the rise in the shares of employee compensation and of service income excluding entrepreneurial savings and the decline in the shares of entrepreneurial withdrawals and of property income including rent are due exclusively to shifts in the industrial composition of aggregate payments. If these shifts were removed and only the change within industries taken into account, the shares of wages and salaries, employee compensation, and total service income would decline; and the shares of entrepreneurial withdrawals, dividends, interest, and total property income including rent, would rise.

4 Changes during Business Cycles

A IN COUNTRYWIDE TOTALS

As in the analysis of changes in national income and in its industrial distribution during business cycles we are concerned here with answering two questions. First, how do the various income type components, either in the country at large or within industries, change during expansions and contractions in the country's economic activity? Second, are there any significant differences among the components, either country-

wide or within industries, in the intensity with which they respond to changes associated with business cycles?

The cyclical behavior of income type components is analyzed by a procedure strictly analogous to that used in Chapters 4 and 5: the chronology of reference periods is the same, as is the method of scoring. We therefore introduce Table 32 without further explanation.

The totals were studied in Chapter 5 and require no comment. We merely note that by and large the countrywide type of income totals rise fairly consistently during expansions; decline somewhat less consistently during contractions; and that in most, the differential movement is consistently negative. Nevertheless, significant differences appear in the behavior of the totals themselves. For example, wages conform to business cycles more consistently than salaries; employee compensation, than entrepreneurial withdrawals. The most conspicuous lack

TABLE 32

Direction of Movement during Business Cycles in Types of Income and in their Percentage Shares of National Income and Aggregate Payments, 1919-1938

	TOTAL			% OF NATIONAL INCOME			% OF AGG. PAY. EXCL. ENTREP. SAVINGS		
	Expansion (1)	Con- traction (2)	Differ- ential (3)	Expansion (4)	Con- traction (5)	Differ- ential (6)	Expansion (7)	Con- traction (8)	Differ- ential (9)
Wages & salaries	+5	-3	-5	-1	+3	+3	+3	-5	-5
Wages *	+5	-5	-5	-3	+3	+3	+1	-5	-5
Salaries *	+5	-1	-3	-1	+5	+5	-3	+5	+5
Employee compen- sation	+5	-3	-5	-1	+3	+3	+3	-3	-5
Entrep. withdrawals	+5	-1	-3	-3	+5	+3	-5	+1	+3
Entrep. net income	+3	-3	-5	-1	-1	-1	+1	-1	-3
Service income excl. entrep. savings	+5	-1	-5	-3	+5	+3	+3	-1	-1
Service income incl. entrep. savings	+5	-3	-5	-5	+5	+5	+1	-3	-3
Dividends	+5	-3	-5	+1	+1	+1	+3	-1	-3
Interest	+3	+1	+1	-1	+5	+5	-3	+5	+5
Dividends & interest	+5	-1	-5	+1	+3	+5	-1	+3	+1
Rent	+1	-1	-1	-3	+1	+5	-5	+1	+3
Property income incl. rent	+5	+1	-3	-1	+3	+5	-3	+1	+1
Net savings	+3	-5	-5	+3	-5	-5	+3	-5	-5

* Based on data for mining, manufacturing, construction, and steam railroads, Pullman, and express, the only industries for which this breakdown is possible.

of conformity is in interest, an income type whose character and industrial source (government, agriculture, and real estate are the important sources) make it less responsive to short term fluctuations in economic conditions.

The movements of the shares in national income indicate which income type components respond to business cycles with a wider amplitude and which with a narrower. For reasons repeatedly indicated, the differential movement is the measure of behavior during business cycles least affected by longer term changes. Net savings, which fluctuate violently, so dominate the movements of the other components of national income that most have narrower amplitudes than national income (col. 6). In other words, net savings affect conforming fluctuations in national income during business cycles so much that, by comparison, conforming fluctuations of the other income components seem to have narrower amplitudes. The only exception is entrepreneurial net income, a component itself affected by entrepreneurial savings.

Only by excluding net savings and studying the movements in the percentage distribution of aggregate payments can we discover which type of payment components are most responsive to business cycles (col. 9). Wages and salaries, employee compensation, wages (but not salaries), and dividends have conforming fluctuations of wider amplitudes than aggregate payments. Salaries, entrepreneurial withdrawals, interest, and rent have consistently narrower amplitudes. The insignificant scores for the more inclusive totals, such as service income or property income including rent, indicate such inconsistency in the movement of their percentage shares that it is difficult to say whether on the whole their conforming fluctuations have wider or narrower amplitudes than aggregate payments. This is, of course, because the subtotals include components that behave in different ways during business cycles: service income includes the responsive and sensitive wages and the less responsive salaries and entrepreneurial withdrawals;

property income includes the responsive and sensitive dividends and the less responsive interest and rent.

The differences in amplitude of conforming fluctuations among the income type components are not unexpected. But we must test them by studying the behavior of income type components within industries as well. We consider first the totals, then the percentage distribution by type of net income originating in each industry, and finally the percentage distribution of total payments by type within industries.

B IN TYPE OF INCOME TOTALS WITHIN INDUSTRIES

The consistency of movement during business cycles of income type totals by industries and major industrial groups is analyzed in Chapter 5.¹ Tables 18 and 19 can be used here to establish the movements of the totals within industries.

Table 19 shows that, on the whole, similarities and differences observed for countrywide income type totals (in Table 32) persist within the groups of Classifications A and C. The differential movement indicates that net savings conform most consistently to business cycles; interest, least consistently; indeed, in most industrial groups the latter rises from expansion to contraction. Dividends, wages and salaries, and entrepreneurial withdrawals move in conformity with business cycles, but not as consistently as net savings.

The differences among the groups reflect essential differences in sensitivity to business cycles among industrial groups (e.g., commodity producing on the one hand and service industries on the other; private corporations and public industries, etc.) superimposed upon essential differences in such sensitivity among income type components. Measured again by the differential movement, wages and salaries reflect business cycles quite consistently in the commodity producing and com-

¹ Entrepreneurial net income and corporate and government savings, rather than entrepreneurial withdrawals and net savings of enterprises, are given in Tables 18 and 19, but the movements are similar. Presentation of similar tables here, which would duplicate much of the material, was considered superfluous.

modity transporting and distributing groups, but much less consistently in the service industries. Also, wages and salaries have scores of high positive conformity in the first three groups of Classification C but not in the group of public industries (for which the entry + 3 for the differential movement indicates inverse conformity). Entrepreneurial income conforms well in all the groups in which it exists, except the commodity transporting and distributing group in Classification A. Dividends also conform fairly consistently in all groups except the semi-public in Classification C. Interest, which conforms poorly or inversely in most groups, conforms fairly well and positively in the public industries group of Classification C. Finally, net savings conform closely in all groups.

The components of our more detailed industrial classification move on the whole in consistent conformity with business cycles. Table 18 lists the industries and components that *do not show* significant conformity to business cycles (i.e., are measured by differential scores other than — 5 or — 3). All components, with the sole exception of interest, in most industries conform significantly to business cycles. But interest in many does not: in agriculture, mining, manufacturing and most of its subdivisions, transportation and public utilities and most of its subdivisions, construction, trade, finance, service, and government. The widespread conformity of wages and salaries, entrepreneurial withdrawals, dividends, and net savings is thus confirmed, as well as the lack of definite conformity of interest in almost all industries.

C IN PERCENTAGE SHARES OF NET INCOME ORIGINATING

For most groups in Classifications A and C the shares of the various income types as percentages of net income originating decline during expansions, rise during contractions, and their differential movements are positive (Table 33). The outstanding exception is net savings of enterprises, whose share moves in consistent positive conformity to business cycles. Obviously the amplitude of their conforming fluctuations so influences

TABLE 33

Direction of Movement during Business Cycles in Percentage Shares of Types of Income in Net Income Originating Broad Industrial Divisions, 1919-1938

	CLASSIFICATION A			CLASSIFICATION C			
	Com- modity producing (1)	Com- modity transp. & distr. (2)	Services (3)	With large proportion of indiv. firms (4)	Private corp. (5)	Semi- public corp. (6)	Public (7)
EXPANSION							
Wages & salaries	-3	0	-1	+1	-3	-3	-3
Entrep. withdrawals	-3	-3	+1	-3	-5	+1	
Dividends	+1	+1	+3	+3	+1	+1	
Interest	-3	-3	-3	+1	-1	-5	-5
Net savings	+3	+1	+3	+1	+3	+3	+3
CONTRACTION							
Wages & salaries	+3	+5	+5	+3	+5	-1	+5
Entrep. withdrawals	+5	+5	+1	+3	+5	+5	
Dividends	+1	+1	-1	-1	+3	+5	
Interest	+5	+3	+3	+5	+5	+5	-1
Net savings	-5	-5	-5	-5	-5	-5	-1
DIFFERENTIAL MOVEMENT							
Wages & salaries	+5	+1	+5	+1	+5	+3	+5
Entrep. withdrawals	+5	+3	+3	+3	+5	+3	
Dividends	+3	+1	+1	-1	+3	+3	
Interest	+5	+5	+5	+5	+5	+5	+1
Net savings	-5	-3	-5	-3	-5	-3	-5

net income originating that the amplitudes of conforming movements in all other income components must be narrower. In this respect Table 33 corroborates Table 32.

But the responses of the various income type components within the industrial groups differ. Wages and salaries in the commodity transporting and distributing group of Classification A and in the first group of Classification C do not show consistently narrower conforming amplitudes than net income originating. The same is true of dividends in all except the commodity producing group of Classification A. Apparently therefore, at least in some groups, wages and salaries and dividends fluctuate in conformity with business cycles with sufficient amplitude even in comparison with net savings to cause, in at least some cycles, their percentage shares to show positive conformity.

Not many shares of income type components in net income originating in the individual industries conform consistently, positively or negatively (i.e., with a score of either + 5 or + 3 or - 5 or - 3). We therefore list in Table 34 the industries and components for which adequate positive or negative conformity in the differential movement is recorded. As might have been expected, all components except net savings have largely entries with positive scores, indicating that the amplitudes of their conforming movement during business cycles are narrower than in net income originating in the industry and still narrower than in net savings. The negative entries under net savings indicate that consistent positive conformity is established only because this component fluctuates in conformity with business cycles uniformly more violently than net income originating.

In almost every industry interest, if it responds to business cycles, has an amplitude narrower than net income originating; net savings just as consistently respond with wider amplitude than net income originating. For wages and salaries, entrepreneurial withdrawals, and dividends, industries with consistent scores are fewer, and the last-mentioned component in several industries responds to business cycles with wider amplitude than net income originating. Most of the industries with consistently negative scores are of the type that do not respond sensitively to business cycles (insurance, finance, textiles and leather, printing, water transportation, real estate, service). It is tempting to infer that among the industries with positive scores under wages and salaries, entrepreneurial withdrawals, and dividends, the preponderant majority would be of the type that is sensitive to business cycles: mining; manufacturing and such of its divisions as metals, chemicals, miscellaneous and rubber; steam railroads, etc. A positive score would indicate that conforming fluctuations in the three income type components are of narrower amplitude than in net income originating and it might well be expected that conforming fluctuations in wages and salaries, entrepreneurial withdrawals, and

TABLE 34

Industrial Divisions whose Shares of Types of Income in Net Income Originating Conform Adequately to Business Cycles (Based on the Differential Movement), 1919-1938

WAGES & SALARIES (1)	ENTREP. WITHDRAWALS (2)	DIVIDENDS (3)	INTEREST (4)	NET SAVINGS (5)
Mining (+)	Finance (-)	Text. & leather (-)	Agriculture (+)	Agriculture (-)
Mfg. (+)	Insurance (-)	Printing (-)	Mining (+)	Mining (-)
Food & tobacco (+)	Agr. (+)	Water transp. (-)	Mfg. (+)	Mfg. (-)
Constr. mat. & furn. (+)	Mining (+)	Finance (-)	Food & tobacco (+)	Food & tobacco (-)
Paper (+)	Mfg. (+)	Real estate (-)	Constr. mat. & furn. (+)	Constr. mat. & furn. (-)
Printing (+)	Food & tobacco (+)	Service (-)	Paper (+)	Paper (-)
Metal (+)	Constr. mat. & furn. (+)	Mfg. (+)	Printing (+)	Printing (-)
Chemical (+)	Paper (+)	Metal (+)	Metal (+)	Metal (-)
Misc. & rubber (+)	Printing (+)	Chemical (+)	Chemical (+)	Chemical (-)
Transp. & other pub. util. (+)	Metal (+)	Transp. & other pub. util. (+)	Misc. & rubber (+)	Misc. & rubber (-)
Steam rr., Pull., & exp. (+)	Chemical (+)	Pipe lines (+)	Construction (+)	Transp. & other pub. util. (-)
Water transp. (+)	Misc. & rubber (+)	Telephone (+)	Transp. & other pub. util. (+)	Elec. light & power (-)
Gov. (+)	Construction (+)	Banking (+)	Elec. light & power (+)	Mfd. gas (-)
Misc. (+)	Elec. light & power (+)	Misc. (+)	Mfd. gas (+)	Steam rr., Pull., & exp. (-)
	Trade (+)		Steam rr., Pull., & exp. (+)	Street rwy. (-)
	Service (+)		Street rwy. (+)	Water transp. (-)
	Misc. (+)		Water transp. (+)	Pipe lines (-)
			Telephone (+)	Telephone (-)
			Telegraph (+)	Telegraph (-)
			Trade (+)	Trade (-)
			Insurance (+)	Service (-)
			Service (+)	Gov. (-)
			Misc. (+)	Misc. (-)

(+) means that the amplitude of conforming fluctuations is narrower than in net income originating.

(-) means that the amplitude of conforming fluctuations is wider than in net income originating.

dividends would have narrower amplitudes than in net income originating chiefly in industries in which net income originating is itself highly sensitive to business cycles. But such a conclusion is barred since among the industries with components that have narrower amplitudes than net income originating not a few are none too sensitive (agriculture, service, etc.). Apparently, therefore, the responsiveness of income type totals cannot be interpreted solely in terms of differences among industries in sensitivity to business cycles.

D IN PERCENTAGE SHARES OF TOTAL PAYMENTS

Changes in the percentage distribution of total payments (excluding entrepreneurial savings) by type within broad industrial groups indicate that wages and salaries, dividends, and of course net savings have conforming fluctuations of wider amplitudes than total payments; entrepreneurial withdrawals and interest, on the contrary, have conforming fluctuations of narrower amplitudes (Table 35).

However, the amplitudes of conforming fluctuations in various income type components are different in different groups. For example, wages and salaries have wider amplitudes than total payments in the commodity producing and commodity transporting and distributing groups in Classification A; in the group of service industries the indication of wider amplitude is not significant. In the group with a large proportion of unincorporated firms and in the semi-public group, but not in the public industry group or in that in which private corporations predominate, in Classification C, wages and salaries have a wider amplitude than total payments. Entrepreneurial withdrawals usually have a narrower amplitude than total payments; but in the service industries group in Classification A, in which entrepreneurial withdrawals are substantial, their amplitude is wider. The amplitude of conforming fluctuations in the share of dividends is narrower than in total payments in the commodity transporting and distributing group in Classification A, the first group in Classification C

TABLE 35

Direction of Movement during Business Cycles in Percentage Shares of Types of Income in Total Payments
Broad Industrial Divisions, 1919-1938

	CLASSIFICATION A			CLASSIFICATION C			
	Com- modity producing	Com- modity transp. & distr.	Services	With large proportion of indiv. firms	Private corp.	Semi- public corp.	Public
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
EXPANSION							
Wages & salaries	+3	+5	+1	+5	-1	-1	-1
Entrep. withdrawals	-5	-3	+1	-5	-5	+3	
Dividends	+3	+3	+3	+5	+3	+1	
Interest	-1	-5	+1	-1	-1	-3	-1
Net savings	+3	+1	+3	+1	+3	+3	+3
CONTRACTION							
Wages & salaries	-5	-3	-1	-3	-1	-3	-1
Entrep. withdrawals	+3	+3	+1	+1	+3	+5	
Dividends	-1	+1	-1	-1	-1	+3	
Interest	+5	+3	+1	+5	+5	+3	-3
Net savings	-5	-5	-5	-5	-5	-5	-1
DIFFERENTIAL MOVEMENT							
Wages & salaries	-5	-5	-1	-5	+1	-5	+1
Entrep. withdrawals	+5	+5	-3	+3	+5	+1	
Dividends	-3	+1	-5	-1	-3	+1	
Interest	+5	+5	+1	+5	+5	+5	-3
Net savings	-3	-3	-5	-3	-5	-3	-5

(in which, however, such payments are negligible), and the semi-public group.

These differences can perhaps be explained in terms of the differing sensitivity of industrial groups and of their income type components to business cycles. In the commodity transporting and distributing group public utilities are important, and for various reasons their dividend disbursement policy is none too sensitive to shorter business cycles; hence the positive scores for differential movements in dividends in both the second group in Classification A and the semi-public group in Classification C. The third group in Classification A comprises governments and some public utilities that are not too sensitive to business cycles, as well as private service industries with many entrepreneurs whose incomes are more sensitive. As a result, wages and salaries in this group are not too respon-

sive, since they originate to a large extent in governments and the cyclically insensitive public utilities; and the scores are low for the differential movements of wages and salaries in both this and the public industries groups. Entrepreneurial withdrawals in the service group, coming from its private industry sector, are more sensitive than total payments. Finally, the peculiarly low score for wages and salaries in the second group in Classification C (mining and manufacturing) may be due to the extreme sensitivity of dividends originating in these two industries; but this explanation may be inadequate.

In observing the shares of income type components in total payments industry by industry we again list only industries for which the behavior of the given share is fairly consistently in one direction (Table 36). Table 36 confirms the indication of Table 34: in almost all industries conforming movements of interest are of an amplitude narrower than in total payments; those in net savings are just as consistently of a wider amplitude. But there is one negative entry under interest: in government, significantly enough, the conforming fluctuations in interest are of wider amplitude than in total payments.

Again as we might have expected, most of the entries under wages and salaries and dividends are negative, and those under entrepreneurial withdrawals, positive. However, in some industries wages and salaries and dividends conform with narrower amplitudes than total payments; and entrepreneurial withdrawals, with a wider amplitude. Most of the industries in which wages and salaries and dividends respond with narrower amplitudes and entrepreneurial withdrawals with wider are rather insensitive to business cycles (finance, insurance, water transportation, pipe lines). On the other hand, we cannot say with assurance that industries in which wages and salaries and dividends had conforming fluctuations with consistently wider amplitudes than total payments and in which the conforming fluctuations in entrepreneurial withdrawals were of narrower amplitudes than in total payments are necessarily characterized by sensitivity to business cycles; for agricul-

TABLE 36

Industrial Divisions whose Shares of Types of Income in Total Payments Conform Adequately to Business Cycles (Based on the Differential Movement), 1919-1938

WAGES & SALARIES (1)	ENTREP. WITHDRAWALS (2)	DIVIDENDS (3)	INTEREST (4)	NET SAVINGS (5)
Agriculture (-)	Transp. & other pub. util. (-)	Mfg. (-)	Government (-)	Agriculture (-)
Construction (-)	Finance (-)	Text. & leather (-)	Agriculture (+)	Mining (-)
Transp. & other pub. util. (-)	Insurance (-)	Constr. mat. & furn. (-)	Mining (+)	Mfg. (-)
Elec. light & power (-)	Agriculture (+)	Printing (-)	Mfg. (+)	Food & tobacco (-)
Steam rr., Pull, & exp. (-)	Mining (+)	Water transp. (-)	Food & tobacco (+)	Constr. mat. & furn. (-)
Pipe lines (-)	Mfg. (+)	Finance (-)	Constr. mat. & furn. (+)	Paper (-)
Telephone (-)	Food & tobacco (+)	Real estate (-)	Printing (+)	Printing (-)
State gov. (-)	Text. & leather (+)	Service (-)	Metal (+)	Metal (-)
Misc. (-)	Printing (+)	Pipe lines (+)	Chemical (+)	Chemical (-)
Constr. mat. & furn. (+)	Metal (+)	Telephone (+)	Misc. & rubber (+)	Misc. & rubber (-)
Water transp. (+)	Chemical (+)		Construction (+)	Transp. & other pub. util. (-)
Insurance (+)	Misc. & rubber (+)		Transp. & other pub. util. (+)	Elec. light & power (-)
	Construction (+)		Elec. light & power (+)	Steam rr., Pull, & exp. (-)
	Trade (+)		Mfd. gas (+)	Street rwy. (-)
	Misc. (+)		Steam rr., Pull, & exp. (+)	Water transp. (-)
			Street rwy. (+)	Pipe lines (-)
			Water transp. (+)	Telephone (-)
			Telephone (+)	Service (-)
			Telegraph (+)	Gov. (-)
			Trade (+)	Misc. (-)
			Finance (+)	
			Service (+)	
			Misc. (+)	

(+) means that the amplitude of conforming fluctuations is narrower than in total payments.

(-) means that the amplitude of conforming fluctuations is wider than in total payments.

ture, construction, and real estate are included as well as manufacturing and some of its sensitive subdivisions. Apparently then, there are differences in the responsiveness of wages and salaries and dividends on the one hand and of entrepreneurial withdrawals on the other, apart from the differences in the cyclical responsiveness of industries in which these types of payment are prominent.

5 *Summary*

a) During 1919-38 wages and salaries accounted on the average for 61 per cent of national income; employee compensation, for 63 per cent; entrepreneurial withdrawals, for 17 per cent; and entrepreneurial net income including savings, for 17.6 per cent. Thus total service income constituted on the average about 81 per cent of national income. Total property income including rent was slightly less than one-fifth of national income. Of the three types, dividends averaged 6 per cent of national income, interest, 7, and rent, 6. Net savings of corporations and government averaged (algebraically) less than one-half of one per cent of national income, and net savings of all enterprises, less than one per cent.

The average percentage distribution by type of aggregate payments, including or excluding entrepreneurial savings, was similar to the distribution of national income.

b) The average distribution of both net income originating and total payments by type varied among industries. Organizational characteristics affect the share of entrepreneurial income or of interest compared with dividends; technological characteristics of the production processes affect the share of compensation for direct labor (wages, salaries, etc.) compared with payments for capital (interest, dividends, rent); various other characteristics (accessibility to sources of capital supply, relative importance of different types of labor or capital, etc.) determine the relative importance of different types of income. Because of such differences in the type of income structure among industries, shifts in the industrial composition of the

countrywide income totals are bound to influence greatly changes in their distribution by type.

c) The shares of both wages and salaries and employee compensation in national income increased significantly over the period. In most industries, a similar increase occurred in their shares in net income originating although in several the shares declined. The effects of shifts in industrial composition upon changes in these shares were minor: wages and salaries and employee compensation would have increased relatively to national income even had there been no shifts in its industrial composition.

d) The share of employee compensation in aggregate payments, including or excluding entrepreneurial net savings, increased; but the share of wages and salaries decreased slightly. In the majority of industries the shares of both wages and salaries and employee compensation in total payments including or excluding entrepreneurial savings decreased. Shifts in the industrial composition of aggregate payments excluding entrepreneurial savings tended to raise the shares of wages and salaries and of employee compensation in aggregate payments; were the effects of these inter-industry shifts removed, the shares of both would decrease.

e) For the few industries for which wages and salaries could be separated the share of salaries in both net income originating and total payments increased significantly more or declined significantly less than the share of wages. Hence, in these industries, with the single exception of food and tobacco manufacturing, the distribution changed markedly in favor of salaries.

f) The share of entrepreneurial withdrawals in national income showed no definite movement over the period; its share in both totals of aggregate payments declined. The share of entrepreneurial income (i.e., withdrawals plus savings) in both national income and aggregate payments declined. Were the effects of inter-industry shifts removed, the conclusions concerning movements in the shares of both entrepreneurial withdrawals and income in national income would remain the

same. But were the shifts in the industrial distribution of aggregate payments excluding entrepreneurial savings removed, the share of entrepreneurial withdrawals in aggregate payments would rise instead of decline.

g) The share of interest and dividends in national income and both aggregate payments totals increased significantly over the period in the preponderant majority of industries. Even were we to correct for the effect of changes in industrial composition, the rise would still remain significant.

h) The share of rent in national income and both aggregate payments totals declined. When this component is added to interest and dividends to form total property income, the share of the latter in national income still increases; but in aggregate payments excluding entrepreneurial savings it decreases.

Since all rent is assigned to one industry, real estate, the share of total property income in both net income originating and total payments increased in the preponderant majority of industries. Were the effects of shifts in industrial composition removed, its share in both national income and aggregate payments would still rise.

i) Net savings constitute a strikingly declining share of national income and of both aggregate payments totals. It would not be much affected by allowance for the effects of shifts in industrial composition. In most industries a similar decline occurred in the share of net savings in both net income originating and total payments.

j) The countrywide totals of wages and salaries, entrepreneurial withdrawals, etc. show fairly consistent conformity to business cycles; i.e., they rise during expansions, decline during contractions, and their differential movement is negative. The one conspicuous exception is interest.

This generally conforming behavior of all income types except interest is true also of the components within industries. However, in some industries usually unresponsive to business cycles (e.g., government) even income types that ordinarily conform may not conform consistently.

k) The conforming fluctuations of net savings of enterprises are of especially wide amplitude. This type of income contributes so much to the variability during business cycles of net income originating that the amplitudes of conforming fluctuations in any and all other types are, for the country as a whole and in most industries, narrower than in net income originating.

l) When net savings are omitted and we compare the amplitudes of conforming fluctuations in the various types of payment, we find that wages and salaries and dividends display conforming movements of wider amplitude than total payments both for the country as a whole and in most industries; and that entrepreneurial withdrawals and interest have narrower amplitudes than aggregate payments.

m) Since there is naturally some tendency for these differences in the amplitude of conforming changes of income types to be merged with the differences in the amplitude of conforming changes of various industries, we cannot say that one income type will always show conforming changes of wider amplitude than another. But in industries usually sensitive to business cycles the various types of income differ markedly and on the whole persistently in their responsiveness: net savings are especially sensitive, and interest, insensitive; wages and salaries and dividends are more sensitive than entrepreneurial withdrawals.