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THE INCOME STRUCTURE OF THE
UNITED STATES

THE INCOME STRUCTURE
OF
THE UNITED STATES

BY
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DIRECTOR'S PREFACE

To the average individual who gets his living in the form of a pay envelope or salary check, supplemented perhaps by a few cash items derived from property ownership, "income" seems to be a word of plain and unmistakable meaning. This simple view, however, is not shared by the man of wealth who sits down to balance his books for the year and to make out his annual income tax return. Besides a greater number of cash receipts and disbursements which have to be computed, allocated, and offset against each other, there are a large number of other items which involve valuations to be placed on property rights, intangible burdens or benefits to be imputed, and nice questions to be decided as to the times and places at which particular values may be said to have accrued. But even when a figure acceptable to the accountant and to the income tax collector has been arrived at, it may not conform to the economist's concept of income or be adequate for expressing the whole of that concept.

When we pass from the complicated but still relatively manageable problem of *individual* income to the much more elusive but highly important task of analyzing *national* income, additional and even larger difficulties are encountered. And yet many questions of public policy, legislative action, business decision, or even individual conduct are settled upon or influenced by our knowledge or beliefs as to the total amount of national income, the sources from which it is derived, its distribution among geographical areas, sectors of business, claims of participation and beneficial right. Hence it becomes

increasingly important not only that we improve the character of the data on which such calculations are made but also that we use the utmost care to ascertain the full meaning and significance of these data. Definitions and distinctions are quite as important as the numerical magnitudes. The whole structure of incomes must be seen as an expression of the national economic life.

This brief volume not merely presents important information as to the distribution of the national income among the several groups but also analyzes the factors which determine or influence it. The period covered is from 1929 to 1936, with emphasis on the changes in income distribution which have taken place.

This study is an outgrowth of the series on Income and Economic Progress made possible by grants from the Maurice and Laura Falk Foundation of Pittsburgh. The committee which co-operated with the author in the preparation of the book included Harold G. Moulton and Spurgeon Bell.

EDWIN G. NOURSE
Director

Institute of Economics
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THE INCOME STRUCTURE OF THE
UNITED STATES

INTRODUCTION

The purpose of the present study is to contribute toward the clarification of thought in the important field of income and its distribution. No attempt will be made to say anything essentially new. Rather, the effort will be directed toward pointing out some simple—and what may appear obvious—truths relating to the income structure and to the statistics pertaining thereto.

The analysis might be undertaken from several viewpoints. It might run in terms of broad economic, social, or industrial groups, or it might refer to the simpler elements of the income structure such as the individual income recipient or the family. Our major concern in this study is the latter, although some attention will be given to the consideration of income groups—employees, entrepreneurs, and investors—and to the industrial composition of the national income. Since the majority of the income recipients¹ in the country, of whom there are more than 50 millions, gain most or all of their income as employees, a considerable portion of our analysis will be in terms of variations of wages and earnings.

The subject matter of this study falls into two parts. The first, extending through Chapter VII, deals with the wage and income structure in general, and the second with the changes which have occurred since 1929. The first seven chapters are devoted to the causes of the wide variation found in the incomes of the American people. Two groups of determinants are discussed: those related to the characteristics and environment of the income re-

¹ Income recipients include all those who are classified by the Census of Occupations as "gainful workers" (exclusive of unpaid family workers) and those who are not gainful workers but who receive income from investments, pensions, etc.

ipients, such as occupation, industry, age, sex, and color; and those related to the ebb and flow of business activity, which are superimposed on the more basic factors included in the first group.

In undertaking to set forth the reasons for the variations in income there is no intention to "explain away" the inequalities in income and the existence of poverty in the United States. The purpose is only to show that income inequality and poverty are traceable to different causes calling for different remedies. Some sources of inequality can be eliminated only by making the people concerned more productive, that is, by adding to the sum total of the national income rather than by dividing a given total more equally; others must be remedied by the more adequate recognition of the social responsibility of caring for the aged, the disabled, and the unfortunate who cannot be expected to make any great contribution towards the national income and who must be either fully supported or have their meager earnings properly supplemented.

The distinction may be emphasized by the fact that while in one case low earnings are indicative of the nation's failure to utilize its productive resources to the fullest extent, in the other case low earnings may be indicative of a salvaging process which makes use of productive human energy, which might otherwise not be used, by supplying employment to those who are below par in productive capacity. Inherently there would seem to be nothing to be disturbed about if an old or crippled person, whose maintenance in decency would cost \$1,000 per year, has an occupational income of only \$200, provided he is not forced to depend upon his earnings exclusively. If he were removed from economic activity and maintained entirely at social expense, as his condition might justify, society would be poorer by the loss of his

product, meager though it might be.

There is another type of low income which should cause no qualms to our social conscience and that is the incomes of those who from choice live on a more primitive economic plane than the nation as a whole. Living beyond the paths of economic life may have its compensations, but the income it brings cannot be evaluated in dollars and cents and hence should not be conceived as being on a comparable basis with the distribution of the money incomes of the rest of the population. On the other hand, society should make an effort to enable those who are strayed or stranded to join the main course of economic life if they so desire.

The discussion of the changes in the income structure in the second part of the study must remain tentative for two reasons. In the first place, the figures are still incomplete, and in the second place it is still early to determine which of the changes will endure and which will not. It is not even possible at this moment to determine with certainty the phase of the economic cycle through which we are now passing. Even under the best conditions economic life is in a state of flux and is at no time "normal." Today it appears particularly uncertain. However, there is value even in a tentative statement because of the perspective it lends to the discussion of the income structure in general.

An effort is made throughout this volume to present the facts in as brief and simple form as possible and to cast the discussion in familiar rather than technical terms. The nature of the subject, however, makes it difficult to avoid bordering on the technical at some points. Chapter I, which lays the conceptual groundwork so necessary to an understanding of the implications of income and the income structure, may be a case in hand, and some readers may prefer to read it last.

CHAPTER I
INCOME AND ITS DETERMINANTS

The process of producing and distributing income is frequently misunderstood if not entirely overlooked. To many the term "distribution of income" implies that income is first produced as a national total and then distributed among the people in accordance with easily defined and centrally controlled arrangements. It is not always realized that the division of income occurs more or less simultaneously with its production and is not far removed from its consumption—that income is not an *accumulation* but a *flow*. When we say that in a given year the national income amounted to 80 billion dollars, we do not mean that at any one time within that year there were 80 billion dollars to distribute. Income is produced in numerous small units from minute to minute and from day to day by millions of individuals participating in millions of jobs and millions of transactions; and broadly speaking, it is distributed as it is created.

THE MEANING OF INCOME AND INCOME DISTRIBUTION

"National income" is merely an accounting concept; it is the calculable sum of the numerous parts appearing during a particular period. Likewise, the word "distribution" is a statistical or accounting term employed largely in retrospect. It does not refer to the distribution of an accumulated volume of goods or money, but it refers in the main to the number of individuals or families who received specified totals during the year. In other words, the process underlying the generally used term "distribution of income" is a counting process concerning something that has already taken place rather than a process of division of something that is present in its entirety.

Income may be defined as the net earnings or receipts of individuals or groups within a period of time. It is expressed in terms of money, though part or all of it may be received in kind. When this is the case the non-monetary income is, for computing purposes, assigned a monetary value.

Income is very intimately connected with production. For the most part it is the counterpart and resultant of production. It may in fact be computed from the value of the product of economic activity, with proper allowance, of course, for the value of previously produced goods used in the process. In most cases income and production are simultaneous because the product is evaluated at the time the effort used in its creation is put forth. Wage income is a case in hand. When a worker receives \$5 for a day's work, it means that the market valuation of his service is \$5. This is true even though later it turns out that what he produced during the day is worth more or less than \$5. For the worker, therefore, income for the entire year is merely the addition of the wage income that he receives from day to day.

For those engaged independently in business the evaluation of income and product is not so direct. For them income and effort, or time spent, are not subject to immediate evaluation. Since market values change from day to day, it frequently happens that the value of the product on the day it is sold is quite different from its value on the day it is produced. The business man must often absorb the loss resulting from these differences in product valuation not only in connection with his own contribution but also with respect to the valuation of the product of his employees.¹ On the other hand, the busi-

¹In the case of a manufacturer, of course, increases in raw material values may also have to be absorbed.

ness man's income is likely to be affected favorably when future valuations are higher than the valuations prevailing at the time the product is created. The annual income of the business man is therefore not the addition of his day-to-day income, but is a differential between his business receipts and expenditures during the entire income period.

The distinction between wage income and profit income does not affect the national total. Since theoretically the national total is merely the sum of the individual incomes, it follows that, if the valuations suffer a progressive decline during a particular income period and if as a result business men suffer losses, these losses will be subtracted. Likewise in a period of progressively rising valuations the gains made by business men will figure properly in the aggregate.

The foregoing fact is particularly important in the understanding of the meaning of income in relation to its various parts. Because wages and salaries of workers (which, as previously stated, are subject to current valuation) constitute the business expenses of enterprisers, it sometimes happens that in the aggregate the incomes of employees turn out to be greater than the final valuation of the finished products to which they have contributed.²

In the determination of earnings and income the mar-

² This offers part of the explanation why, despite the tendency for the proportions received by employees and employers and investors to remain approximately the same over a period of years, the shares vary considerably in accordance with cyclical fluctuations. In times of prosperity, rising valuations give business men an advantage, while on the downward grade the relative advantage is likely to be with wage earners, although of course a relative advantage when total income is decreasing is indeed but little comfort to the employee groups. A larger share of a smaller total may be much worse in absolute terms than a smaller share of the same or a larger total.

ket valuation of the product in each case is subject to numerous influences, both physical and economic. It depends not only on the intrinsic quantity and quality of product but on the existing relationship of supply and demand for the particular commodity or service at the given time and place.

Dependence upon market conditions subjects the earnings and incomes of individuals to the influence of chance. Not only does chance play an important role in determining the magnitudes of business income where the speculative element is evident on the surface, but it is an important factor also in the earnings of employees. It is chance which determines the location of the individual; it is chance which determines his occupation; it is chance also which determines the various elements that establish the relative position of the particular occupation in the scale of demand and supply. The operation of chance, however, is limited by environment which is largely man-made and is subject to change.

Though income is usually expressed in terms of money, it is in the final analysis not the money but what it represents that is important. In essence, therefore, income is the command over economic goods and services flowing to income recipients.

In primitive society when each economic unit produced for itself, income was intimately connected with particular commodities. But with the intervention of exchange and money the connection between specific commodities and income has become indirect and in so far as the individual recipient is concerned it matters little whence the goods and services represented by his income derive or when they were produced. Technically his income need not be associated with his participation in the process of production. In fact, however, most individuals receiving

income must contribute to the sum total of goods and services which income represents. For the economy as a whole the command over goods and services, which is income, cannot be any greater than the volume of goods and services made available during the period. Thus income by definition and concept becomes an exact counterpart of production when both are valued in money. There can be no more income than net product.

However, it should be recognized that any transfer of existing wealth or any transfer of title thereto—irrespective of whether the wealth was produced within the income period or in the past—may constitute income to the recipient, though in the national total this transfer is canceled because it was no actual addition. In like manner, inflated values of existing wealth may constitute income to individuals when transformed into money by sale. The individuals profiting from the inflation receive a generalized title (money) to goods and services of any kind to the extent of their profit. Here again, however, the income is non-existent as far as the nation as a whole is concerned since it represents no increment of goods and services during the income period.

“GOODS AND SERVICES” VS. “WANT SATISFACTION”

The measurement of income may be approached from two angles:

1. The evaluation in money terms of goods and services made available by all economic activities of a nation and received by its population as individuals or groups within a given period of time.
2. The measurement of well-being or want satisfaction of the population or groups of the population.

The two concepts are inherently different. The first is concerned concretely with physical and economic values;

the other not only involves psychic values but when it refers to the physical and economic values, it does so in the abstract. A simple illustration will make the distinction clear. A bushel of potatoes of a given quality offers the same satisfaction of wants no matter where it is consumed, yet in the city it includes a larger service element than on the farm. In fact more income has actually been distributed by the time it has reached the consumer in the city than when it was still on the farm. The cost of transportation and handling represented not only additional cost but additional service and additional income. Let us compute the incomes of two hypothetical individuals, one on the farm and one in the city, in terms of potatoes. Suppose that each has an income of a hundred bushels. From the standpoint of want satisfaction their incomes are alike, but from the standpoint of the volume of goods and services the man in the city receives more. On the other hand, if both receive equal amounts of money the advantage is on the part of the man in the country, if both must have potatoes in order to satisfy their wants. The man in the city will presumably receive exactly the same volume of goods and services but fewer potatoes. This example may be extended to cover a wide range of goods and incomes.

So far most studies of income have been concerned with the "goods and services" rather than the "want satisfaction" interpretation of income. But the figures have been used indiscriminately and erroneous conclusions have often been reached. Such data as will be employed in the present discussion will be largely in terms of goods and services and hence will be subject to the limitations indicated. In fact, by the very nature of things, the limitations must apply whenever measurements are taken in terms of money.

FACTORS DETERMINING THE DISTRIBUTION OF INCOME

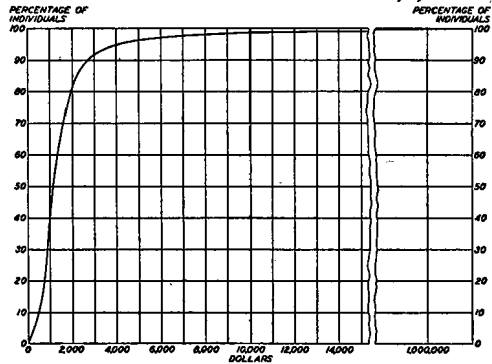
Those looking casually at data showing the number of persons within specified income classes are impressed by the great inequality of the incomes of the American people. The range extends from zero and below to more than a million dollars with a great preponderance of numbers in the lower incomes. (See cumulative distribution for 1929 on page 11.) The discovery that there are many whose incomes for a whole year are near to nothing is rightly alarming, but more mature consideration is necessary in order to comprehend the full import of the bare figures.

The distribution includes all individuals who normally receive income: those who in the given year suffered reverses in business or investments as well as those who prospered; those who worked full time as well as those who worked only intermittently or not at all; those who were lame or halt as well as those who were strong; those who were very old or very young as well as those who were in their prime. In 1929 it included 1.4 million persons under the age of 18, a large proportion of whom were without skill or experience and were available for gainful work only part of the year, and 1.0 million persons above 70 whose earning capacity had in large measure disappeared. It included the highly skilled workers of modern industry as well as the Appalachian mountaineer whose economic life is wholly apart from the system of production and distribution as we know it. Moreover, it included those working and living in large centers of population where living costs were high, as well as self-sufficient farmers whose income consisted of home produce valued at farm prices.

Income data, composed as they are of millions of parts which are in themselves aggregates of comparatively

small increments, reflect the combined influence of numerous forces playing upon people having diverse characteristics and aspirations. The very fact that the data represent income for an entire year rather than for a shorter

CUMULATIVE PERCENTAGE DISTRIBUTION OF INDIVIDUALS ACCORDING TO INCOME RECEIVED IN 1929^a



^a On the vertical scale the chart shows the percentage of income recipients who received less than the amounts specified on the horizontal scale. Thus 25 per cent received less than \$900, 50 per cent less than \$1,100, and 75 per cent less than \$1,800. Figures from Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, p. 207.

period amplifies the differences in amount of income received by various individuals. An identical rate of earnings of 50 cents an hour may within the space of a year yield incomes ranging from 50 cents to more than \$1,200, the distribution merely reflecting the number of hours worked. If the income period were only one day the inequalities might still be the same, but they would

appear much smaller because the maximum earnings would hover about \$5 instead of \$1,200. Likewise an income period greater than a year would widen the spread since the minimum would presumably remain the same while the maximum would be greatly expanded. The length of the income period thus plays a part in determining the extremes of an income distribution. The importance of the time factor in income is self-evident and need not be dwelt upon further. It permeates the whole income structure and introduces income differences among individuals whose services are valued at the market at exactly the same rate.

Aside from this time element, the most important of the factors determining the amount of income received by different individuals are associated with the type and quality of the effort or service rendered; the location of the individuals within the geographical and industrial range of the country; and the sex, age, and color of the individuals.

Another income determinant which is responsible for widening the range of incomes of certain groups of the population is the *conjunctural* element in trade. This is the chance combinations of circumstances which bestow windfall profits upon some and extensive losses upon others. The incomes of businessmen, for instance, are remainders, or residuals, after the payment of costs. Such residuals are subject to many variations dependent upon circumstances which are beyond the control of the individual. Investors are in many respects affected by the same conditions as individual businessmen. Their incomes are dependent not only upon the amount of their investments but on the fortunes of the enterprises in which they participate. The chance element is closely connected with the ebb and flow of business and indus-

trial activity, which affect the incomes of employees as well as of businessmen and investors. The influence upon the income structure of changes in industrial activity will be discussed in Chapter VI.

The discussion in the chapters immediately following is cast in terms of individual incomes but applies also to the variation in the incomes of families. Though the consumption or spending unit is the family, the acquisition unit in modern society is the individual. Only in certain farm communities (and to a minor degree among small tradespeople) does the family still operate as the unit of production and income acquisition, but even there for convenience in enumeration the total family product is associated with one individual—the head of the family. Family incomes are merely the composites of individual incomes and hence are subject to the same general limitations. However, they are affected by an additional variable in the number of individual incomes entering each family composition.

We have no data concerning the current status of the matter, but in 1929 the distribution of families of two or more persons, according to number of income recipients, was about as follows: 69 per cent of the families had only one income recipient each; 21 per cent had two; 7 per cent had three; 2 per cent had four; and 1 per cent had five or more income recipients each.⁹ The family groups included 82 per cent of all income recipients: the other 18 per cent were single independent units or members of non-family groups.

The depression may have changed the situation somewhat but on the whole the picture must be approximately the same. The important thing to observe in the figures

⁹ Leven, Moulton, and Warburton, *America's Capacity to Consume*, p. 238.

is that the majority of our families (69 per cent) are dependent upon only one income recipient each, and their incomes duplicate about 39 per cent of the units entering into the distribution of individual incomes. The families with more than one income (31 per cent) contain about 43 per cent of all the units included in the distribution of individual incomes: 17 per cent are principal incomes and 26 per cent are supplementary incomes. The supplementary incomes, associated chiefly with minors and females, are as a rule smaller than the principal incomes. Yet they undoubtedly give their families a distinct income advantage as compared with those having only one income recipient each. These multi-income families are responsible for the fact that the distribution of family incomes is of a higher order than that of individual incomes. The modification affects particularly the number of middle incomes, as is shown in the comparison for 1929 in Table 1, page 145.

CHAPTER II OCCUPATIONAL DIFFERENCES IN INCOME

In many respects occupation is the most important determinant of earnings and income. It combines within itself a number of the other factors which we shall discuss in connection with the variation of incomes. For instance, it reflects not only the characteristics and aptitudes of the individual, but the opportunities and handicaps which affect his placement in the economic structure of the country. The importance of the occupational determinant in introducing variations in income is also indicated by the extensive occupational stratification of modern society.

In connection with the decennial census of population the Bureau of the Census uses an index listing over 20,000 occupational designations. To a large extent these designations are duplications describing a smaller number of distinct occupations, but the number serves to convey an impression of the variety of occupational pursuits followed by the American people. Within each occupation there is a considerable range of skill, aptitude, and other characteristics which cause divergence of earnings among the members of the group; but by and large the income opportunities of each group fall within definite limits.

EARNINGS OF BROAD POPULATION GROUPS IN 1929

Before examining occupational differences in detail it is well to have a view of the pattern of earnings of broad population groups. The chart on page 17 shows rough estimates of the distribution of occupational earnings in 1929 among the following groups:

All gainfully employed except farmers
Farmers
Non-farm entrepreneurs outside the professions
Males in the professions
Male wage earners and salaried workers, exclusive
of professional and executive employees

The groups are comparable only in a general way. The employee and professional curves include only males, but the other three curves cover both males and females. Moreover, the categories are not all mutually exclusive; the curve marked "all gainfully employed except farmers" comprises the employees and the non-farm self-employed persons covered in the other curves. The curves are in terms of cumulative percentages showing on the vertical scale the proportion of persons who had occupational incomes during the year below or above specified amounts which are indicated on the horizontal scale.

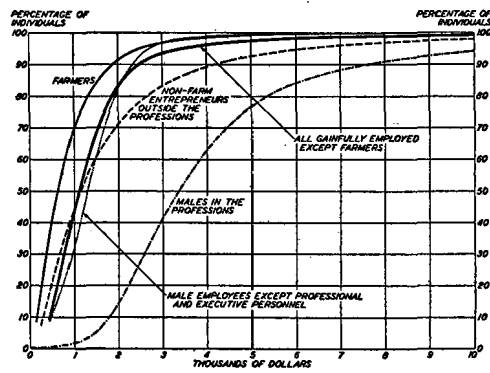
In considering the distributions one should keep in mind that the percentages represent entirely different numerical magnitudes in the several groups. More than 40 million individuals are covered by the curve marked "all gainfully employed except farmers"; farmers comprise about 6 million individuals; the non-farm entrepreneurs number less than 3 millions and the professional group about 2 millions.³ The entire professional group constitutes only a small fraction of the gainfully employed and practically all of it appears to be included in the upper part of the broad classification of all gainfully employed.

The farmers appear to have the lowest earnings. One-

³ In 1929 there were about half a million male professional practitioners and one million male professional employees. In addition there were about 800,000 executive and managerial employees whose earning capacity was commensurate with that of professional workers.

half show income of less than \$700, while an equal proportion of the non-farm workers, including the self-employed, show income up to \$1,100. However, the comparison between the incomes of farmers and of other groups is complicated by differences in the mode and cost

OCCUPATIONAL INCOMES IN 1929^a
Cumulative Percentage Distributions for Specified Groups



^a Figures from Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, pp. 210, 214, 216, and 219.

of living. On the one hand, allowance must be made for the greater purchasing power in food and shelter that the farm incomes have as compared with the non-farm incomes. On the other hand, we must also remember that some of the other items in the non-farm budgets, if computed at farm prices, would materially enhance the relative position of non-farm incomes. None the less,

it would seem that if a proper balance could be struck, we might find that by and large farm incomes were not so inferior to non-farm incomes as the curves show. If a further correction could be made for the qualitative differences in the personnel of the two groups, the tendency toward equality of *real* incomes would appear even stronger. It is to be remembered that farmers are themselves composed of a number of distinct groups with distinct occupational, geographic, and racial characteristics. There is no more occupational similarity between the operator of a large commercial dairy farm and a cotton cropper than between the manager of an industrial corporation and a newsboy or a street cleaner.

In both the farm and non-farm groups there are many subgroups of different qualifications, and there can be no doubt that under existing conditions the so-called farm group is weighted more heavily with the lower grades of personnel (lower with regard to productive capacity) than the non-farm group. Just to indicate a few of the differences, we observe that more than 51 per cent of the farmers are in the South and more than 14 per cent are negroes, while of the non-farm working force less than 23 per cent are in the South and only about 9 per cent are colored. As will be shown later, both geographic location and color express tendencies having important influence upon earnings. Moreover, included with farmers is a relatively large number of individuals whose work is highly seasonal—cotton and wheat farmers for instance—and who devote only a small part of the year to farm work. Many of the non-farm occupations are also influenced by season but it is doubtful if the proportion so affected is as high as in agriculture.

Although no blame can be attached to the individual because his location within the economic scheme prevents

him from working a reasonably full year, the fact that he habitually devotes little time to gainful work is at least an explanation of his low income. In his position he either receives other advantages which compensate for his lower money earnings and hence he prefers his lot to alternative positions, or he actually has not the opportunity to do as much as he would like. In the first case he should perhaps be allowed to live his own life without interference and without imposition of foreign standards, but his low monetary income should not cause excitement among those who know no other standards than those measured in money. In the second case our emphasis should be on the means of supplying him with more work and better opportunities for productive employment rather than upon the means of giving him more money income without making him more effective. Better opportunities for productive activity would automatically result in higher income. The point is that an understanding of the causes and significance of low incomes should contribute towards effectuating a positive attitude leading to rational action. Mere relief, for instance, is not a permanent solution for low incomes and artificial raising of rates of pay for those under-employed may not be as effective as the provision of more employment.

Self-employment or "entrepreneurial" status apparently is not a guaranty of high income. The figures upon which the curves in the chart are based are of course too rough to permit making definitive judgments, but it appears that 50 per cent of the employees at the bottom of the distribution were fully as well off as the corresponding 50 per cent of the self-employed in non-farm pursuits. In fact for various reasons the entrepreneurial group seemed to have a larger proportion of very low incomes than the employee group. Negative occupational

income is never the burden of employees but is often the affliction of the enterpriser. This is one reason why so many of the self-employed are at the bottom of the income scale, but another reason is the fact that the entrepreneurial group attracts misfits and the generally unsuccessful persons from other occupations. Many of the so-called entrepreneurs are self-employed because they find it difficult to hold positions as employees. To compensate for the low incomes of those at the bottom there is a larger proportion of high incomes among the self-employed than among any other occupational group except perhaps those in professional and executive positions.

We may stop at this point to consider the higher incomes in general. Usually they are attributable to four sources: (1) high occupational earnings in the form of fees, salaries, or bonuses which accrue to favorably situated or unusually able executives and professional people; (2) the conjunctural gains of business men and speculators;² (3) business profits due to monopoly, outstanding business or administrative genius, or special ability for taking pecuniary advantage of social and economic conditions in constructive or even destructive activities such as "rackets"; (4) returns from capital or property acquired through savings from high incomes in former years, through inheritance, or even through fraud, theft, and the like.

It is obvious, of course, that in the upper income groups the investors are likely to be largely the same individuals as the successful business and professional people and the executive personnel employed by corporations at high salaries. Moreover, the same individuals may in some years have speculative gains which

² It is of course impossible to draw a clear line of distinction between business men and investors on the one hand and speculators on the other.

further increase their incomes. Rough estimates indicate that in 1929 there were nearly a million individuals whose incomes from business or occupation alone would have placed them in the group of \$5,000 or more but the total number of incomes in this range was approximately 1.7 millions. It would seem, therefore, that some 700,000 individuals came within the upper brackets through income received in whole or in part from returns on investment⁸ and from inflationary and speculative gains.

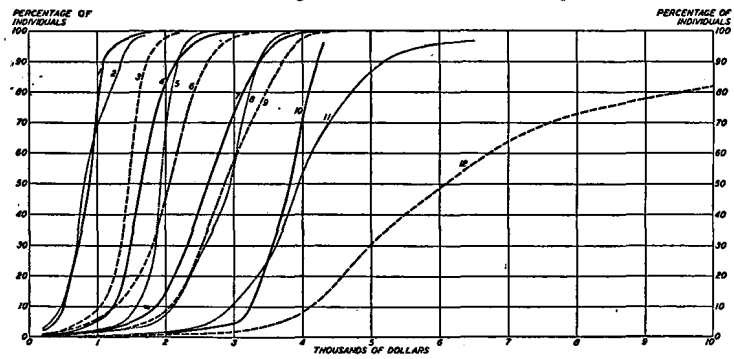
The importance of speculative income in 1929 may be gauged from the fact that the estimate of net gains from the sale of securities and real estate is placed at some 6 billion dollars. While a considerable portion of this sum was made up of small amounts supplementing the lower incomes, the bulk of it was received by those with otherwise large incomes and contributed towards increasing the number of million or near million-dollar incomes. To what extent these gains constituted real income is of no concern at this point. Our interest here is the fact that the upper portion of the distribution was affected to a large extent by such income in 1929.

ANNUAL EARNINGS IN SPECIFIC OCCUPATIONS

The variation of earnings among specific occupations and among individuals within the same occupations is illustrated in the chart on page 22 which gives frequency distributions of 1929 earnings for selected groups of railway employees. Because of the inclusion of employees who worked only part of the year the earnings for all groups tend to start near zero. However, the earnings pattern for the majority of employees with

⁸ Under income from investments in this computation is included imputed income from durable goods in the hands of consumers, such as homes.

OCCUPATIONAL INCOMES OF RAILROAD EMPLOYEES IN 1929^a
Cumulative Percentage Distributions for Selected Occupations



- | | |
|-------------------------------------|---|
| 1. Section men and extra gang men | 7. Road conductors |
| 2. Messengers and office boys | 8. Gang foremen and gang leaders |
| 3. Bridge and building carpenters | 9. Road engineers and motormen |
| 4. Clerks and clerical specialists | 10. Chief train dispatchers |
| 5. Signalmen and signal maintainers | 11. Division officers, assistants, and staff assistants |
| 6. Road brakemen and flagmen | 12. Executives, general officers, and assistants |

^a Figures from Federal Coordinator of Transportation, *Annual Earnings of Railroad Employees, 1924-1933*, pp. 137-70.

a normal year's work are distinctly defined by the several curves. The limitations imposed by occupation upon the amount of income an individual may produce and secure are striking. The highest amount earned by the group labeled section men and extra gang men is under \$2,000. Almost 80 per cent of the group earned less than \$1,000 in 1929 and only about 2 per cent earned more than \$1,500. The median earnings for this group—that is, the amount below which approximately 50 per cent of the workers were found—was about \$900.

The dispersion within each group depends to a large extent upon the homogeneity of the group. Some occupations are more concisely defined than others and hence show a narrower range of earnings for their members. But even among the best defined occupations there is bound to be variation because of differences in skill, opportunity, and various administrative arrangements governing the employees of different organizations, such as length of service and the like.

The bulk of the carpenters among the railway employees earned about \$1,500 but some received as much as \$2,300. "Clerks and clerical specialists" presents a more indefinite grouping and hence covers a wider range of earnings. The median for this group was about \$1,650 but the upper limit was above \$3,000.

The overlapping of the earnings of the several groups is worthy of note. Some members of the low paid groups usually have higher incomes than a portion of the membership of the better paid groups. Though on the average there is a difference of some \$500 between the earnings of bridge and building carpenters and those of signalmen, 5 per cent of the carpenters earned more than did about 30 per cent of the signalmen. Likewise, 15 per cent of the brakemen and flagmen earned more than did

40 per cent of the conductors and 28 per cent of the engineers, despite the fact that on the average the latter's earnings were about \$600 and \$825 higher than those of the former.

The group with highest earnings among railway employees is, of course, composed of executives and general officers. As may be seen from the curve on the chart, this group is less homogeneous than any of the others. It represents a wide variety of ability, training, and responsibility. Though numerically not as large as the other groups, it covers a very wide range on the scale of earnings, beginning with about \$3,000 and reaching beyond \$20,000. Over 50 per cent of this group had salaries above \$6,000 and some 18 per cent above \$10,000.

In considering the upper occupational groups it should be kept in mind that the distribution of salaries does not correspond to the distribution of income. Because of receipts from other sources and also because of losses in connection with investment and speculative activities the final incomes of the same individuals are likely to vary within a much wider range. Many of the lower paid employees, of course, also have supplementary receipts (in the form of interest on savings, rent on owned property, and earnings from work done outside of regular employment) which add substantially to their occupational income. But the modification of the frequency distribution resulting from such receipts is especially great in the upper incomes.

For obvious spatial limitations only a few of the employee groups could be represented in the foregoing chart. A more comprehensive view (in point of coverage at least) of the variation of earnings among the different occupations engaged in the railway industry is given in the chart on page 26. This chart, which is an

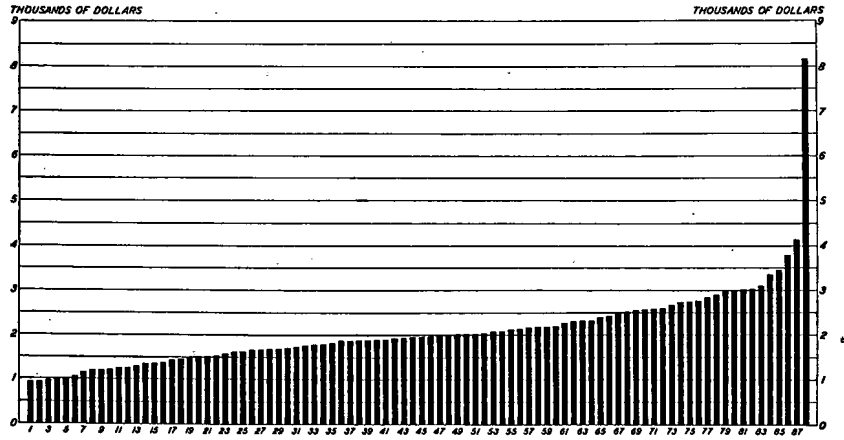
array of average annual earnings, indicates the inherent tendency with respect to earning power of each of 88 occupational groups used in the classifications of the Interstate Commerce Commission. The occupations corresponding to the key numbers are to be found in Table 2, pages 145-47.

The lowest earning power is that of messengers and office boys. This group earned on the average \$930 in 1929. In the same general earnings category—that is, somewhat under \$1,000—were section men, camp cooks, crossing flagmen, and janitors. Just a step higher—with earnings between \$1,000 and \$1,250—are found such workers as are generally designated as “laborers” and also train attendants, coach cleaners, and apprentices. The next \$250 interval (\$1,250 to \$1,500), too, contained common laborers and helpers and apprentices, with the addition of baggage agents, truckers, and the like.

It should be noted that although helpers and apprentices are in the same general earnings category as laborers, their status is somewhat different. Their current position is only transitory. As a group they will move up into a higher earnings status as soon as they have acquired training in their chosen occupation. For laborers the current status is more permanent. For although in the United States there is usually a movement of personnel from lower to higher paid occupations, for the most part even in this country workers tend to remain in their respective occupations for life, their earnings status changing only within the narrow range offered by their particular calling.

The alignment of occupations within railway transportation as we move up the earnings scale throws light upon the distribution of earnings and income in general. The occupations which tended to give their members

AVERAGE EARNINGS IN 1929 FOR 88 OCCUPATIONS IN THE RAILROAD INDUSTRY^a



^a For list of occupations represented by key numbers see Table 2, pp. 145-47.

an annual income of \$1,500 to \$1,750 included such skilled trades as carpenters, painters, and stationary firemen, as well as switch tenders, and gang and section foremen. It also included such salaried employees as clerks and stenographers.

The earnings for the wage groups mentioned in the last paragraph, the average of which was approximately representative of the average for all wage earners on steam railways, were considerably above the average for wage earners in all industries of the country. The 1929 average per wage earner in mining, manufacturing, construction, steam railroads, Pullman, railway express, and water transportation was about \$1,400.⁴

Surpassing in earnings this average group of railway employees are 57 categories which in varying degrees constituted the "aristocracy" of the railway personnel. A list of the occupations included in this upper stratum follows. The listing is by groups according to average earnings in the order shown in the chart.

	Gang foremen (extra gang and work-train laborers)
	Assistant general and gang foremen (freight stations, warehouses, grain elevators, and docks)
	Molders
	Clerk-telegraphers and clerk-telephoners
	Telegraphers, telephoners, and towermen
	Miscellaneous trades workers (other than plumbers)
	Station agents (telegraphers and telephoners)
\$1,750 to	Carmen
\$1,000	Blacksmiths
	Gang foremen (shops, engine-houses, and power plants)
	Patrolmen and watchmen
	Masons, bricklayers, plasterers, and plumbers
	Portable steam equipment operators
	Signalmen and signal maintainers
	Sheet-metal workers
	Outside and inside hostlers
	Machinists

⁴ Robert R. Nathan, *National Income, 1929-36*, U. S. Dept. of Commerce, p. 28.

INCOME STRUCTURE*

	Stationary engineers (steam)
	Boilermakers
	Bridge and building gang foremen
	Yard firemen and helpers
	Electrical workers
	Linesmen and groundmen
\$2,000 to	General foremen (freight stations, warehouses, grain
\$2,250	elevators, and docks)
	Ticket agents and assistant ticket agents
	Yard brakemen and yard helpers
	Stenographers and secretaries
	Road brakemen and flagmen
	Lieutenants and sergeants of police
	Station agents, non-telegraphers
	Chief clerks (minor departments)
\$2,250 to	Yard conductors and yard foremen
\$2,500	Road firemen and helpers
	Maintenance of way and scale inspectors
	Equipment, shop, electrical material, and supplies in-
	spectors
	Chief telegraphers and telephoners or wire chiefs
	Storekeepers, sales agents, and buyers
	Yard engineers and motormen
	Road passenger baggagemen
	Transportation and dining service inspectors
	Freight claim agents or investigators
\$2,500 to	Professional and sub-professional assistants
\$3,000	Traveling auditors or accountants
	Claim agents or investigators
	Road conductors
	General and assistant general foremen, and inspectors
	(signal, telegraph, and electrical transmission)
	Gang foremen and gang leaders
	Traffic and various other agents, inspectors and investi-
	gators
	Road engineers and motormen
	Roadmasters, general foremen, and assistants
\$3,000 to	Yardmasters and assistant yardmasters
\$4,000	Train dispatchers
	General, assistant general, and department foremen
	Supervisory or chief clerks
	Chief train dispatchers

\$4,000 and over Division officers, assistants, and staff assistants
Executives, general officers, and assistants

HOURLY EARNINGS IN THREE MAJOR INDUSTRIES

The foregoing illustrations have all been drawn from 1929 experience. The figures represented annual earnings and although in 1929 unemployment and underemployment were at a minimum the data reflected not only occupational variations, but also variations due to differences in employment and time given to work. In the table which appears on pages 30-31 we may observe the variation in occupational earnings for a more recent period and in sharper occupational contrast. The figures are average hourly earnings for occupational groupings in three major industries. The table attempts to give a general impression of the position of different occupations in the scale of earnings in post-depression days. Although since 1935-36 many shifts in wages have taken place,⁶ the general position of the several groups is still approximately the same.

The average hourly earnings for the occupational groupings in the three industries covered—iron and steel, railroads, and building construction—begin at 30 cents and go as high as \$2.26.⁶ The range of earnings among the individuals represented was, of course, greater since each average is merely a summary amount with lower and higher items on either side of it.⁷ It should be noted, moreover, that the three industries comprise the highest paid occupations. Within the scope

⁶ Average hourly earnings have as a whole risen considerably, those for manufacturing being 65.7 cents in July 1937, as compared with 57.2 cents in July 1936 and 56.9 cents in July 1935.

⁷ Some wage earners in the iron and steel industry were reported as having earnings of \$3.25-\$3.50 per hour.

⁸ For the building trades the actual range for individuals was between 15 cents and \$2.50 although the range of the reported occupational averages is between 52 cents and \$1.34.

AVERAGE HOURLY EARNINGS OF MALES IN REPRESENTATIVE OCCUPATIONS
IN THREE MAJOR INDUSTRIES IN 1935-36

Average Hourly Earnings (In cents)	Iron and Steel, 1935 ^a	Class I Steam Railways, 1935 ^b	Building Trades, 1936 ^c
30 to 39	Common labor, puddling mills	Section men Laborers Janitors and cleaners	
40 to 49	Common labor ^d Cindersmen, blast furnaces Molders' helpers, electric furnaces Stockers, blast furnaces Benchmen's helpers, cold drawing, seamless tube mills	Train attendants Truckers Chefs and cooks (restaurants or dining cars) Baggage, parcel room, and station attendants Teamsters and stablemen	
50 to 59	Miscellaneous labor ^d Helpers ^d Benchmen, cold drawing, seamless tube mills Molders, electric furnace Firemen ^d	Helpers and apprentices Motor vehicle and motor car operators Stationary firemen, oilers, coal passers, water tenders Signalmen and signal maintainer helpers Gang foremen (shops, engine houses, etc.)	Common laborers Truck drivers—under 1½ tons
60 to 69	Cranemen, miscellaneous; mechanical, transportation, and service work Locomotive firemen and switchmen; mechanical, transportation, and service work Shoemen, structural mills Inspectors, product, billet mills Pipefitters; mechanical, transportation, and service work Roll engineers, sheet bar mills Welders; mechanical, transportation, and service work Boilermakers; mechanical transportation, and service work	Gang or section foremen Switch tenders Bridge and building painters Road passenger brakemen and flagmen Inside hostlers	Electricians' helpers Plumbers' helpers Truck drivers—1½ to 5 tons Helpers, not elsewhere classified
70 to 79	Inspectors and repairmen, motors; mechanical, transportation, and service work Die resamers, wire mills Lademen, electric furnaces Machinists; mechanical transportation and service work Puddlers, puddling mills	Stationary engineers (steam) Electrical workers Bridge and building ironworkers Masons, bricklayers, plasterers, and plumbers Linemen and groundmen	Hod carriers Steam fitters' helpers Tile layers' helpers
80 to 89	Supervisory, plant ^d Catchers, bar mills Bricklayers; mechanical, transportation, and service work Roughers, rod mills	Machinists Blacksmiths Molders Foremen Yard conductors and yard foremen	Cement finishers' helpers Mixer operators Truck drivers—over 5 tons

OCCUPATION

31

AVERAGE HOURLY EARNINGS OF MALES IN REPRESENTATIVE OCCUPATIONS IN THREE MAJOR INDUSTRIES IN 1935-36—Continued

Average Hourly Earnings (in cents)	Iron and Steel, 1935 ^a	Class I Steam Railways, 1935 ^b	Building Trades, 1936 ^c
90 to 99	Rollers, level handed, tin plate mills Steel pourers, open hearth furnaces Roll setters, butt-weld mills Blowers, blast furnaces Heaters ^d	Train directors Road passenger conductors Yard engineers and motormen Road passenger firemen and helpers	Painters Roofers, composition
100 to 110	Guide setters, billet mills Gagers, strip mills Roughers, sheet mills Finishers, sheet bar mills	Road freight engineers and motormen (through freight)	Carpenters Lathers, wood Reinforcing steel workers (rodmen) Roofers, slate or tile Sheet-metal workers
110 to 120	Melters, electric furnaces Welders, lap-weld mills Steel pourers, Bessemer furnaces Rollers, billet mills Sheet heaters, sheet mills	Road freight engineers and motormen (local and way freight)	Cement finishers Structural-iron workers
120 to 130	Heaters, blooming mills Reheaters, rail mills Finishers, rod mills Welders, butt-weld mills	Train dispatchers Road passenger engineers and motormen	Plasterers Plumbers Steam fitters Stonemasons Tile layers
130 to 140	Melters' helpers, first, open hearth furnaces Rollers, sheared plate, plate mills		Bricklayers Electricians (inside wiremen) Hoisting engineers Lathers, metal
140 to 230	Rollers ^d		

^a Compiled from *Monthly Labor Review* for April, June, July, August, and September, 1936. Averages are for March 1935.

^b Computed from Interstate Commerce Commission, *Wage Statistics of Class I Steam Railways in the United States for the Twelve Months Ended with December 1935*.

^c Compiled from *Monthly Labor Review*, August 1937, pp. 384-85.

^d This occupation is found in this wage bracket in several departments of the iron and steel industry.

of the table there is, however, sufficient coverage to give a broad impression of the hourly earnings characterizing a wide range of familiar occupations.

"Common labor" is not an occupation, yet it represents a fairly definite designation. Though their duties and qualifications vary from industry to industry, common laborers are usually at the bottom of the ladder with respect to skill and responsibility. It is therefore

not surprising to find them also at the bottom of the scale of earnings. There is, however, considerable variation. If we may judge from the sample data for the three industries, it would seem that common labor commands a higher wage in building construction than in iron and steel and steam railways, the average for the building trades laborers lying between 50 and 60 cents, while the averages for the other groups are much lower. Even so, among the common laborers in building construction there were some whose earnings were as low as 15 cents per hour.

To some extent the range of averages for common laborers—more perhaps than in the skilled trades—reflects location as well as working conditions. On the whole, however, 40 to 50 cents per hour, or perhaps 40 to 55 cents, may be taken as the characteristic wage of common labor in industrial communities in 1935.⁸ Within this range are also to be found helpers and apprentices in many of the skilled trades, train attendants, truckers, teamsters, and the like. At the top of the scale are such trades as rollers in iron and steel, engineers and motormen on railways, and bricklayers, electricians, and hoisting engineers in building construction.

The relative position of different groups of wage earners with respect to earning capacity is illustrated graphically in the two accompanying distribution curves of hourly earnings for iron and steel and for building construction. The occupational designations marked along the curve representing the iron and steel industry (page 34) indicate the approximate location⁹ of dif-

⁸ See discussion of entrance rates, pp. 38-39.

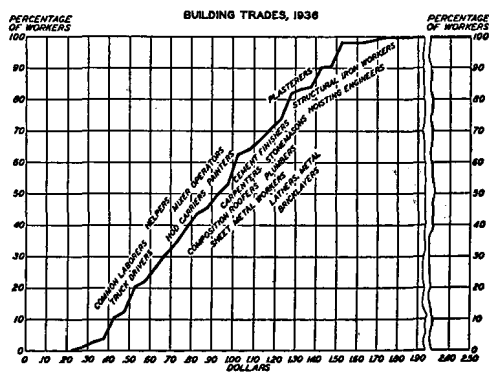
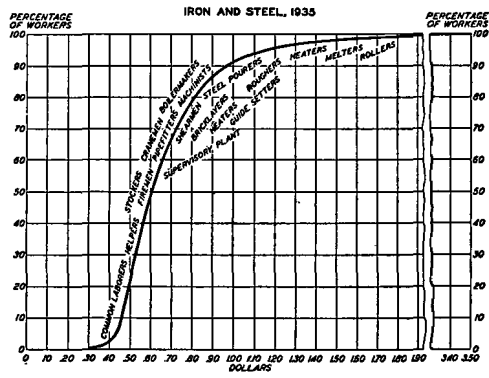
⁹ The location is determined by the average for the occupation. Since an average itself represents a range of earnings, there is considerable overlapping among adjoining groups.

ferent classes of workers in the array of some 90,000 wage earners according to their hourly earnings in 1935. Thus we see that the general group characterized by laborers, comprising about one-quarter of the total number, is limited to earnings below about 50 cents per hour. This group is followed by such workers as stockers and firemen, whose earnings are largely in the region between 50 and 60 cents an hour and who comprise approximately the next quarter of all the wage earners in the sample. The third quarter of the wage earners are between about 60 and 80 cents on the wage scale and include occupations such as cranemen, welders, pipefitters, boilermakers, machinists, and the like. The last quarter of the wage earners are scattered over a wide scale of earnings between about 80 cents and \$3.50 per hour. Five per cent of the force in 1935, including steel pourers and sheet heaters, rod mill finishers, and rollers, received more than \$1.15 per hour.¹⁰

The curve for building construction (page 34) is based on the hourly earnings of 186,000 workers in 1936. As in iron and steel, the first quarter of the array consists to a large extent of the class of workers characterized by the designation "common labor." In this case, however, the range of earnings for the first quarter is wider, extending from as low as 15 cents to about 60 cents per hour. The next 25 per cent of the building construction workers extended from about 60 to 90 cents per hour and included helpers in the different trades, hod carriers, and mixer operators. The third quarter—90 cents to \$1.25 an hour—included painters, carpenters, sheet-metal workers, and cement finishers; while in the

¹⁰ The hourly earnings in the iron and steel industry have undergone a considerable change since 1935. The average for 1937 is about 22 per cent higher.

**HOURLY WAGES IN IRON AND STEEL AND IN
BUILDING TRADES***
Percentages below Specified Amounts and Approximate Location
of Selected Occupations in the Earnings Range



* See Tables 3 and 4, pp. 148-49.

final 25 per cent were found most of the plumbers, plasterers, bricklayers, and the like. The limits of earnings for this upper group were between about \$1.25 and \$2.50. However, the number above \$1.70 was very small.

In contrast to the picture presented by the high wage industries discussed in the foregoing paragraphs, we present, on pages 150-51 of the appendix, a tabulation of the average hourly earnings in selected occupations in the textile industries. In order to make the data in the two tables comparable, the textile wages here used are for males only. The fact that the data for the textile industries are for 1934 does not alter the validity of the comparison since it happens that wages in textiles, which had been especially stimulated during the NRA, did not advance between 1934 and 1936. Some groups, in fact, suffered slight reductions.

It will be observed that the concentration of occupations in these industries is on a much lower wage level. The majority of the occupational group averages in the northern cotton mills are within the range of 35 to about 50 cents. In the South the majority fall between about 30 and 40 cents. Even in the silk and rayon dyeing and finishing industry, where wages seem to run higher than in cotton, the majority of the occupations are confined to the range of averages between 50 and 60 cents. It will be recalled that the range under 60 cents comprised less than half of the steel workers and only about 25 per cent of the wage earners in building construction.

CHAPTER III INDUSTRIAL AND GEOGRAPHIC VARIATIONS

The accident of location, whether it be within a given industry or a geographic region, is reflected in the incomes received by individuals. In either case opportunities for economic growth may be so restricted that a worker must accept low earnings unless he is in a position to move. The question of mobility, or rather lack of mobility, which is so important in connection with industrial and geographic variations of earnings and income, will be discussed in Chapter VI. In the present chapter we shall review merely the geographic and industrial differences as recorded by the available data.

INDUSTRIAL DIFFERENCES

Industrial affiliation can hardly be regarded as a true determinant of a person's income; age, sex, color, occupation, and skill are undoubtedly more important. Yet the variation of earnings according to industry is so striking that it deserves some space in this discussion. A brief consideration of the matter is especially desirable because in the available compilations of earnings it is customary to present averages by industries, and hence we are more or less led to attach significance to existing differences.

The following is an array of the average earnings for the year 1936 of employees in broad groupings of industrial activity:¹

¹ Robert R. Nathan, *National Income, 1929-36*, U. S. Dept. of Commerce, p. 27. The averages are based on employed workers only and include both wage earners and salaried workers.

INDUSTRY AND GEOGRAPHY 37

Agriculture	\$525
Service	933
Construction	1,234
Miscellaneous	1,245
Manufacturing	1,276
Trade	1,304
Mining	1,321
Electric light and power, and gas	1,380
Government, excluding work relief wages ..	1,419
Communication	1,451
Transportation	1,551
Finance	1,677

Agriculture has the lowest earnings and finance, including banking institutions, insurance companies, etc., the highest. The average of \$1,677 for finance is more than three times as great as the average for agriculture. The average for finance is also higher by more than \$100 than the average for transportation and by \$400 than that for manufacturing. Is it fair then to conclude that the level of pay in financial institutions is higher than in other industries? This is by no means the case when workers of similar qualifications are compared. The averages for the several industries are affected primarily by the composition of their personnel. In agriculture and in service the workers are predominantly unskilled, and their competitive position is very weak because of the large supply of such labor relative to demand. On the other hand in the industries with high average earnings, the personnel is weighted heavily with occupations commanding high rates of pay. In these industries workers of the same competitive standing receive no more than in the industries with lower general averages.

The differences in occupational composition and their effect upon the industrial averages may be seen graphically in the distribution curves for the iron and steel in-

dustry and the building construction industry discussed in connection with the variation of occupational earnings (pages 32-35). The wage patterns in the two industries are quite distinct. Though iron and steel has some occupations whose earnings are higher than those of the best paid occupations in building construction, the latter industry contains a larger proportion of workers in the higher brackets. In the building trades about 75 per cent of the workers received more than 60 cents per hour while in iron and steel only about 50 per cent received more than 60 cents. On the other hand 7 per cent of the employees in building construction had less than 40 cents per hour as against only about 2.5 per cent in iron and steel.

It is not possible to separate the purely industrial determinant of earnings and income from the other factors, such as occupation, skill, sex, and color, with which it is associated. To some extent, however, the foreign factors are eliminated when we compare the earnings of unskilled male labor. The following is an array from the lowest to the highest of the average hourly entrance rates, in cents, of adult male common labor in 20 industries in July 1937:³

Fertilizers	36.4
Lumber (sawmills)	43.7
Brick, tile, and terra cotta	45.7
Electric light and power	45.9
Manufactured and natural gas	47.3
Electric street railways and city motor bus operation and maintenance	47.5
Paper and pulp	47.7
Leather	47.7

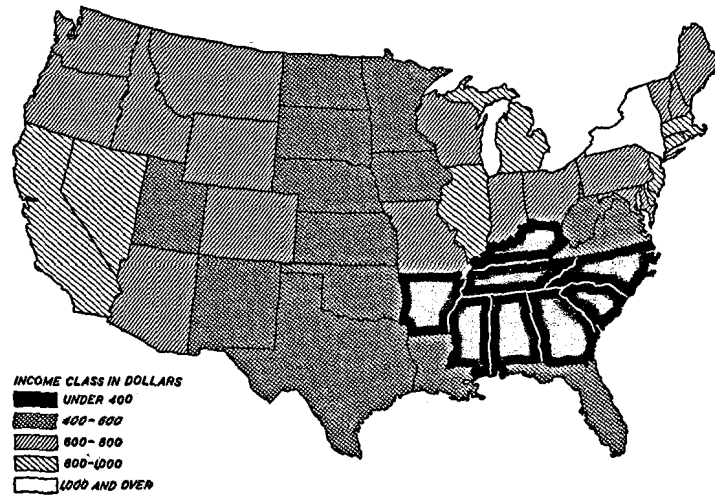
³ U. S. Bureau of Labor Statistics, "Hourly Entrance Rates of Common Unskilled Laborers in 20 Industries, July 1937," (mimeographed release, Nov. 26, 1937).

Rubber tires and inner tubes	48.1
Soap	48.9
Foundry and machine-shop products	49.6
Glass	50.4
Cement	51.4
Chemicals	52.4
Paints and varnishes	55.2
Building construction	55.3
Automobile parts	55.4
Slaughtering and meat packing	56.7
Iron and steel	58.5
Petroleum refining	61.1

These averages show a tremendous range of pay for presumably the same type of labor. Common labor in the petroleum refining industry received on the average 68 per cent more per hour than common labor in the fertilizer industry. Even more striking, however, is the difference between the high and low reported by individual firms. The Bureau of Labor Statistics has not published exact highs and lows for 1937, but in 1935 the lowest rate reported was 14.5 cents for sawmills and the highest was 95 cents for general contracting.⁸ The reported rate of 95 cents may of course be in error, but entrance rates as high as 65 and 75 cents were reported by petroleum refining and automobile firms. The wide variation of entrance rates paid to common labor may in part be explained by geographic differences and by temporary local maladjustments between supply and demand. But perhaps the main cause is the fact that even unskilled common laborers offer a wide range of characteristics which fit or unfit them for particular types of work. A different type of performance is undoubtedly required of the common labor in petroleum refining or the automobile industry from that of common labor in sawmills or brickyards.

⁸ For highs and lows as well as averages in 13 industries in 1935 see Table 6, p. 152.

PER CAPITA INCOME BY STATES IN 1929^a



^a Figures from Maurice Levy, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, p. 174. The income is exclusive of profits from the sale of property and also imputed income from durable goods (other than homes) in hands of consumers.

GEOGRAPHIC DIFFERENCES

Geographic differences of income and earnings have long been the subject of common observation. The map of the United States on page 40 shows distinctly the sectional character of income distribution. Although the underlying figures are for 1929 the general pattern is characteristic of today as well. The reduction of money income since 1929 has been more or less general, although, because of benefit payments and other features of the agricultural adjustment program of the federal government, the *relative* position of the farm states is now somewhat better than in 1929. But the change is probably not great enough to alter the general aspect of the broad classifications shown in the map.*

The significance of geographic differences can be understood only in terms of their causes. A fact which perhaps has not been sufficiently emphasized is that the differences are only partially and superficially due to physical location. They are determined rather by subsidiary geographic factors such as the quality of the population, its size in relation to resources, and its industrial and occupational make-up. In other words, income is dependent upon productivity and it is the factors governing differences in productivity which govern differences in income. By productivity, of course, we mean economic productivity which takes into account not only the volume of the product but also its marketability.

A very important factor in geographical differences of income is the presence of stranded populations engaging in industries which are no longer suited to the

* A distribution of income by states for 1935 exclusive of certain items covered by the 1929 figures shown here has recently been prepared by John A. Slaughter, for the National Industrial Conference Board (*Income Received in the Various States, 1929-1935*). These estimates are in line with this general statement.

resources of the area or which no longer enter into the general scheme of industrial activity. The inclusion of such industrially backward populations in the general average is bound to lower the computed income level. For instance, the low average income of the South is to no small degree due to the inclusion of the southern Appalachian hill farmers who by no means live under the order of current civilization as characterized by the money economy; it is also due to the inclusion of the large population of tenant farmers whose income is low largely because of poor utilization of working time, deficient resources, and lack of proper machinery.⁵ A poverty-stricken farm population is bound to exert a depressing influence on the earnings of other groups within the locality. The influence upon the wages of unskilled labor is direct because of direct competition. But the influence upon the earnings of other groups is indirect. The earnings of those engaged in trade and services are naturally affected by the limited opportunities which characterize poor communities. The more energetic and ambitious are likely to move to other communities of which they become economic parts.⁶

The process just described has, of course, another side to it. Because of lower wages the cost of services and hence the cost of living in general is also likely to be low. Thus, in addition to being less productive such communities or geographic units are also likely to be

⁵ Poor health and lack of education and training are consequences which complicate the situation.

⁶ In this connection it may be suggested that were the mobility of labor perfect, there would probably be no geographic differentials in incomes and earnings; there would simply be a different distribution of the population, the present high-income areas presumably having more people and the low-income areas fewer. Such differences as would be registered on a geographical basis would then be due merely to the underlying occupational and industrial composition of different sections.

geared to a lower monetary scale which tends to understate the real income of the people. Unfortunately it is difficult to make proper adjustments in the income estimates. But the need for such adjustment must always be kept in mind.

If it were possible to place different localities on a

AVERAGE HOURLY ENTRANCE RATES OF ADULT MALE COMMON LABORERS IN THREE INDUSTRIES, BY GEOGRAPHICAL DIVISIONS, JULY 1935^a

Geographical Division	Brick, Tile, and Terra Cotta		Public Utilities ^b		General Contracting ^c	
	In Cents	As Percent- age of United States Average	In Cents	As Percent- age of United States Average	In Cents	As Percent- age of United States Average
United States.....	38.2	100.0	42.0	100.0	48.1	100.0
New England.....	38.1	99.8	47.8	113.8	47.5	98.8
Middle Atlantic.....	40.9	107.0	46.9	111.6	50.0	104.0
East North Central.....	40.8	106.8	50.0	119.0	51.7	107.5
West North Central.....	37.8	99.0	38.4	91.4	46.5	96.7
South Atlantic.....	34.8	91.1	35.4	84.3	37.7	78.4
East South Central.....	32.5	85.1	31.7	75.5	36.8	76.5
West South Central.....	24.0	62.8	29.0	69.1	35.9	74.6
Mountain.....	39.0	102.1	44.4	105.7	54.3	112.9
Pacific.....	42.9	112.3	42.2	100.5	57.1	118.7

^a Paul H. Moncure, "Entrance Rates Paid to Common Labor, July 1935," *Monthly Labor Review*, March 1936, pp. 704-05.

^b Includes street railways, gas works, and electric light and power plants.

^c Includes building, highway, public works, and railroad construction.

common basis of comparison it might be found that incomes—particularly real incomes—are not as dissimilar as they appear; earnings representing the same type and volume of service would perhaps not be found to be much different from one section of the country to the other. But the existing statistics are not adequate for such an analysis. All available figures—even those purportedly for the same occupations—show considerable geographic variation. The table above, showing hourly

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entrance rates for common labor in three classes of industrial activity—general contracting; public utilities; and brick, tile, and terra cotta⁷—illustrate the situation. It is interesting to observe that, as in the case of general incomes shown in the map on page 40, the South stands out as a distinct region. However, for this restricted group of wage earners the difference between the South and the rest of the country is not as great as for the entire population.⁸

The reader is referred to Table 7, page 153 in the appendix for further comparison of rates of earnings by geographic divisions. The table shows averages of union and non-union wages for selected trades in the building industry. For the most part, the averages follow the same geographic pattern as that indicated by the entrance rates for common labor. However, the differentials between the South and the North for skilled trades appear to be much smaller than for non-skilled. This is true of union as well as non-union workers. The explanation, of course, lies in the fact that skilled workers have greater mobility and that the South has a superabundance of workers capable of performing only the lower types of work.

The geographical differences observed in the foregoing examples may be attributed in substantial measure

⁷These three industrial groups were selected from the 13 covered in the 1935 compilation of the Bureau of Labor Statistics because they offer substantial samples in each of the nine geographic divisions. Figures were not compiled by the Bureau for 1936 and its 1937 figures have not yet been published.

⁸An adjustment for cost of living would undoubtedly bring the entrance rates for common labor in different divisions much closer to one another. Unfortunately there is no adequate information concerning the sectional differences in the cost of living. Such data as are available cover only selected cities which are not necessarily representative of the geographic sections in which they are located.

to differences in the degree of urbanization which prevails in the several geographic divisions. It is a well-known fact that the pattern of life and work varies greatly with the size of community. This pattern finds expression not only in the diversity of activities and hence in the diversity of occupational skills and aptitudes but also in the purchasing power of money. The exchange of exactly the same goods and services is represented by fewer dollars in one community than in another. This is reflected in a difference in the money income and earnings without in any way affecting the real income. The diversity in skills and occupations is in itself sufficient to produce differences in income among communities, but the differences in value of money introduce further disparities.

A recent study of the incomes of employed workers in Michigan illustrates the great diversity which exists in the incomes of people living in communities of different size. The median income in 1934 for the 1.4 million persons included in the survey was \$840. But when the population was grouped according to size of city it was found that the median income of those living in cities above 40,000 amounted to \$980, which was more than twice the income of those living in rural townships. The variation according to size of community was apparent in the incomes of all the occupational groups for which separate tabulations were made. It is of interest to note that the variation was greater among professional and proprietor classes than among salaried workers and wage earners. This corresponds to the fact that the dispersion of income among professionals and self-employed is greater than among the other classes.

A summary of the data is presented in Table 8 on page 154 of the appendix. But the reader should be

warned that great significance cannot be attached to the absolute figures, first, because the survey represents depression conditions and, second, because the data are not for the entire working population but only for those employed.

The tendency disclosed by the Michigan study is corroborated by data for selected occupations over the entire United States, shown in Table 9 on page 155. It will be seen that almost invariably the earnings change with the size of community, the larger cities recording the higher earnings. An exception is offered by the data representing professional earnings of physicians. For this group the highest average is reached in cities between 25,000 and 50,000; but beyond 50,000 the trend is downward. No positive explanation of this phenomenon can be given. To some extent, however, the reason may be that the opportunities offered by urban centers to professional people is an attraction which increases competition among certain classes of practitioners and thus lowers the average.

CHAPTER IV
AGE, SEX, AND COLOR AS INFLUENCES
ON INCOME

The ability of a person to find a place in the economic system and his capacity for exchanging his goods or services advantageously are influenced in a degree by his age, sex, and color. Thus we find the range of economic opportunities and incomes to be distinctly narrower for women than for men; for negroes than for whites; for the very young and the very old than for those in their prime. Let us examine briefly the relationship between the age, sex, and color composition of the population and the income structure.

AGE

Age is a factor in income as well as in productivity. Just as an individual's productive capacity—which depends upon skill, experience, and physical and mental vigor—goes through a cycle from youth to old age, so does his earning capacity. The normal course of an individual's earnings is a gradual increase from a low beginning to a peak which is reached in middle or post-middle age, then a decline until retirement or death. As we shall see, the position of the peak and other details vary for different groups, but the general pattern is more or less universal. Hence, the presence in the working population of persons of different ages is in itself a cause for diversity of incomes.

The Census of Occupations for 1930 includes more than a million minors under the age of 18 among the gainfully employed, not counting those listed as unpaid family workers on farms. The earnings of these young workers are, of course, included in the wage and income

structure of the American people. Even in prosperous times new workers are subject to intermittent employment because of their trials and errors in search of proper connections. This fact, coupled with inexperience and lack of definite occupation, results in comparatively low earnings. Furthermore, the level of earnings of this group appears still lower when computed for a specific year. The entry of new workers is scattered throughout the year and consequently what is recorded as income for the year represents earnings of only a fraction of the year.

Figures for the state of Ohio indicate that average earnings of minors under 18 are only about 40 per cent of those for adult wage earners and clerical workers.¹ In passing we may note that girls under 18 come nearer having the earnings of adults than boys. This is explained by the type of occupations entered by women as distinguished from those entered by men. Girls ordinarily begin as domestic servants or stenographers and clerks, and to a large extent remain in those general occupations until they discontinue working. Boys, on the other hand, enter jobs which are more in the nature of apprenticeships and which presumably serve to prepare them for more skilled and remunerative positions later on. At any rate, in a distribution of individual incomes and earnings a significant proportion of the low incomes may be accounted for by the inclusion of minors.

Even a more important age factor in the distribution of individual incomes is the inclusion of elderly people who are long past the height of their productive capacity. The 1930 census listed more than 2 million persons above 65 and almost a million above 70 among the gain-

¹ Based on medians for 1927, 1928, and 1929. See Howard G. Brunsmann, *Employment and Payroll Fluctuations in Ohio, 1926-1932*, Bureau of Business Research of Ohio State University, p. 44.

ful workers. It is obvious that if by some arrangement these older individuals were not required to work, the distribution pattern would appear more favorable. There would be fewer low incomes, and proportionately more normal and higher incomes. But on the other hand the national income as a whole might be reduced because the withdrawal of older people from productive work would eliminate their contribution to the total.³

An age distribution of the working population as it was constituted in 1930, showing the proportion of individuals in different ages, follows:

Age in Years	Percentage of Gainful Workers ^a		
	Males	Females	Total
Under 18	2.3	5.3	3.0
18 and 19	3.7	8.7	4.8
20 to 29	25.0	36.7	27.5
30 to 39	24.4	20.5	23.5
40 to 49	20.6	14.7	19.3
50 to 59	14.2	9.0	13.1
60 and over	9.8	5.1	8.8
65 and over	5.2	2.6	4.7
70 and over	2.3	1.1	2.1
75 and over	0.8	0.4	0.7
Total	100.0	100.0	100.0

³ This of course is not an argument against a retirement system since it is conceivable that confining economic activity to a shorter span of the individual's natural life, with the assurance of economic independence in old age, might increase the total product. Moreover, by the arrangement of working hours in connection with an adequate retirement system, it is possible to have workers devote in the aggregate the same amount of time to economic activity in a shorter as in a longer number of years. With economic progress there has been a gradual reduction in the number of hours worked by individuals. This could have been accomplished equally well by leaving weekly hours the same but reducing the number of years of work as by reducing the number of hours per day, per week, and per year.

^a These distributions are for all gainful workers, exclusive of unpaid family workers on farms. Compiled from "General Report on Occupations," *Fifteenth Census of the United States: 1930, Population*, Vol. V, pp. 115, 118, 119.

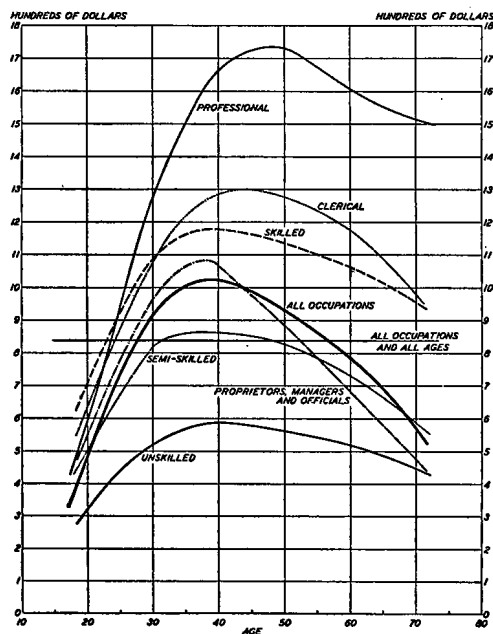
With the age distribution of the working population in mind, let us look at the age-income pattern for selected groups in the population. The chart on page 51 represents the 1.4 million individuals covered by the Michigan Census of Population and Unemployment taken in January 1935.⁴ The incomes are for 1934. Though the depression may have introduced some distortion in the magnitudes and distribution of income, the curves are in general fairly representative of the variations according to age.

It will be observed that for all groups combined, the age of highest income was somewhere between 38 and 40 years. Those between about 28 and 56 tended to have incomes above the average, while the younger and the older people tended towards lower than average incomes. The incomes of those of age 20 were less than half of the average received by those in the peak age with respect to earning power. Similarly those who had reached the age of 70 and were still gainfully employed, tended to have incomes which were little more than half of the average received by those of 40.

Except for the clerical and professional personnel, the peak age for all the groups was approximately the same as for the population at large. For the clerical personnel it appears to have been between 40 and 45, while for the professional personnel it was just below 50 years. Incidentally, the curve marked "proprietors, managers, and officials" is influenced greatly by the preponderance of farmers. This not only affects the level of income of this group, which appears to be even lower than that for skilled wage earners and clerical workers, but also shifts the peak somewhat to the left.

⁴ See State Emergency Welfare Commission, "Total Income during 1934 of Gainful Workers," *Michigan Census of Population and Unemployment*.

INCOME BY AGE AND OCCUPATION^a
Employed Workers in Michigan, 1934

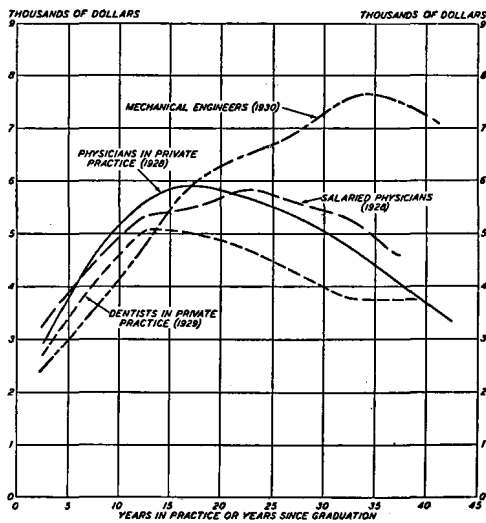


^a Based on medians. See Table 10, p. 156.

The fact that professional people have a longer period of growth and development than wage earners, and do not reach the peak of earning power till later in life is

corroborated by other data. A recent study⁵ of the United States Bureau of Labor Statistics indicates that

YEAR-BY-YEAR PROFESSIONAL NET EARNINGS OF PHYSICIANS, DENTISTS, AND MECHANICAL ENGINEERS⁶



⁶ Reproduced from Maurice Leven, *The Incomes of Physicians* (University of Chicago Press), p. 87. The curves are based on medians.

for engineers the turning point is at age 60. But there appears to be considerable variation among the different professional groups, as is indicated by the accompanying chart.

⁵ Andrew Fraser, Jr., "Annual Income in the Engineering Profession, 1929 to 1934," *Monthly Labor Review*, August 1937, p. 422.

Information regarding the relationship between age and earnings in a major industry is presented in the comprehensive study of earnings among railroad employees made by the Federal Coordinator of Transportation.^a Because of the manner in which the data are presented, only a rough impression may be gained regarding the course of earnings through the working life of railroad employees. The picture is further dimmed by the fact that the data are for 1933, a depression year when the incidence of layoffs and shorter hours in the different age groups may have introduced some distortions. None the less, it appears that age, which is of course tied up with length of service, is an important determinant in the earnings of railway workers.

The pattern is different for different occupations. For executive, technical, and clerical personnel the height of earning power is apparently not reached until the age of 54 or 55, while for laborers and those in mechanical trades it is reached much earlier—in the middle forties. The spread of earnings for different ages is also greater for white collar workers than for lower wage earners. This is of course explained by the fact that for the former the period of learning and preparation is longer and that the higher positions, which are occupied by older men, draw from the entire railroad personnel. Those of the wage earners who have been advanced to higher positions no longer appear among the wage earners, but are counted among the executive personnel.

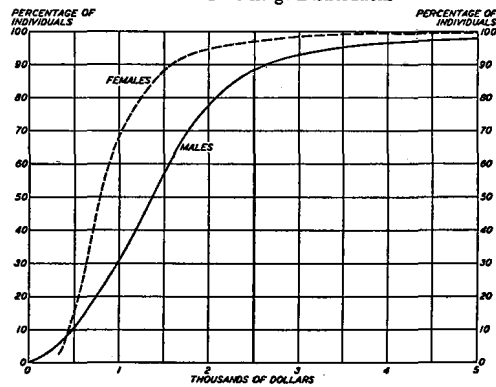
SEX

Roughly 22 per cent of the working population in the United States are females, and, to the extent that there are differences between the earnings of men and women, sex is a factor in the distribution of individual

^a *Annual Earnings of Railroad Employees, 1924-1933.*

incomes. A broad impression of how important this factor is may be gained from the following chart, which shows the percentages of the two sexes whose earnings in 1929 were more or less than specified amounts. It will be seen that the earnings of females are lower than

OCCUPATIONAL INCOMES OF MALES AND FEMALES IN 1929^a
Cumulative Percentage Distributions



^a Distributions are for employees and professional practitioners. Figures from Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, pp. 216-17.

those of males almost throughout the distribution. The middle 80 per cent of the incomes of females were found between about \$500 and \$1,600, while the incomes of the same section of the male workers extended from about \$500 to over \$2,600. On the average, the earnings of females amounted to less than 60 per cent of those of males.⁷

⁷ The ratio of the medians (\$825 for females and \$1,375 for males) was 60 per cent, but the appearance of the curves indicates that the rates

Why are the earnings of women lower than those of men? Sex discrimination and women's inferior bargaining power are sometimes given as explanations. Both are true, but in a somewhat different sense, and perhaps also in a lesser degree than is believed. Outright discrimination in the sense of paying men higher rates for the same kind and volume of work is not a common practice. Although it may survive in isolated cases because of the feeling that men are as a rule heads of families, and hence need more income than women, it is not a significant factor in differentiating the earnings of women from those of men.

A more important factor, and perhaps the most important one, is that males and females on the whole follow different occupations and do different types of work. The occupational and vocational differentiation of males and females is due largely to physiological differences and differences in attitude and aptitude. To some extent, it is due also to lingering prejudice and discrimination which makes it more difficult for women than for men to enter certain professions and occupations. It is this type of discrimination which limits opportunities, rather than that which holds down rates of pay, that is still a factor in the situation.

Because of the differentiation with respect to occupational pursuits the income averages for males and females appear different even in industries or organizations where men and women receive the same remuneration for the same type and quality of work.

When the earnings of males and females are compared for the same occupations it is found that the difference

would be smaller if computed on the basis of the means. A previous estimate indicated a ratio of male to female earnings of 1.9, which is the same as a ratio of about 53 per cent of female to male earnings. (See Maurice Leven, *Income in the Various States*, p. 80.)

between the sexes is not as great as is indicated by the overall figures. From the illustrative data shown in Table 11 on pages 157-61 the reader will observe that the ratios of average female to average male earnings vary widely among different occupations, but on the whole they are much higher than 60 per cent, the ratio suggested by the figures for all industries and occupations combined. As a matter of fact, occupations are listed where the averages for females are higher than those for males. For instance, in 1936 female machine bunch-makers in the cigar industries in the North earned some 12 and 18 per cent more per hour than males in the same occupational designations. Likewise, female machinery cleaners in cotton textiles averaged more per hour than males.

The differences between the earnings of males and females in the same occupations are sometimes more apparent than real; they are due to the arithmetic in computing averages rather than to actual differences in rates paid in the same plants for the same work. There is usually considerable variation in the wages paid for the same type of work (at least work bearing the same designation) in different establishments. In most occupations, however, firms paying high wages tend to have proportionately more males than those paying low wages. Hence, when all the firms are combined, proportionately greater weight is given to high wages among the males than to low wages among the females, with the result that, although in individual plants men and women may receive the same pay, the over-all average for the men is higher than for the women. There is, of course, the additional factor that the same occupational designation may cover somewhat different work—in quality, intensity, or volume—for men and for women. Spurious

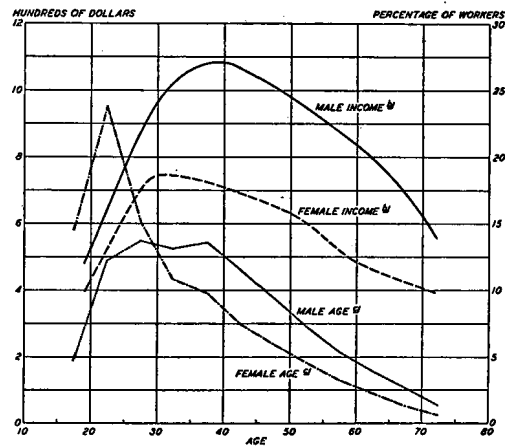
results are thus obtained, from inadequate classification.

The fact that women are for one reason or another confined to a limited number of occupations makes their bargaining position more vulnerable than that of men. Moreover, the entry of women into industry in large numbers is still a progressive phenomenon. The impact of an increasing number of competitors upon a restricted number of openings is bound to depress wages as the intrusion takes place. In some fields women have displaced men entirely; in others they are still in the process of displacing them. It is not surprising that while the process is in operation the newcomers' rates of pay are lower than those of the males whose positions are well established. The existence of differentials, however, cannot endure long: the male workers either are forced out of the occupation—as has actually happened in such fields as stenography, secretarial work, and so forth—or become adapted to specialized variants within the occupation which are more or less out of reach of female competition. Such specialization may be based on man's greater physical strength and endurance, his aggressiveness, or his greater ambition and interest in the job as a permanent connection. It is largely this factor of selectivity, ordinarily not covered by an occupational designation, that is responsible for differentials between males and females within the same occupations within the same plants.

A sidelight on the comparative income position of men and women, and its effect on the income structure in general, is offered by the chart on page 58, which shows incomes at different ages for the workers in the Michigan Survey for 1934.⁸ The age income curves for males and females may be compared with the age distributions

⁸ See footnote 4, p. 50.

RELATIONSHIP BETWEEN AGE AND INCOME FOR MALE
AND FEMALE WORKERS IN MICHIGAN, 1934^a



^a See Table 12, p. 161.

^b Median incomes, by age groups, of employed workers in 1934. The income scale is at the left.

^c Percentage distributions of gainful workers, exclusive of unpaid family workers, in 1930. The percentage scale is at the right.

of the two sexes in the state of Michigan,^d which are also shown in the chart.

The points which strike attention in the income curves are: (1) the difference in the level of incomes of males and females; and (2) the fact that on the average fe-

^d Allowance should perhaps be made for a slight distortion because of the fact that the age distribution is as of 1930 and by 1934 there may have been some shift through emigration of some workers from the state as a result of the depression.

males reach their peak in earning capacity about 10 years ahead of females. This merely means that for 10 years after the age of 28-30, when average female earnings are already on the decline, male earnings continue their upward trend. (It should be noted, of course, that although female earnings begin to decline after 30, the decline is gradual and the earnings of the older group for many years remain above the average for the entire group.) The widest spread in earnings between males and females is past 25 years of age.

The point of interest in the age curves is the concentration of female workers in the early ages. The majority of employed females are under 30, which means that most of them abandon gainful occupations relatively early in life. The age curve for males, on the other hand, instead of coming to a peak and then dropping off sharply, reaches a plateau and represents almost as many workers at 38 or 40 as in the early twenties. The age difference alone, therefore, goes a long way in explaining the differences between the earnings of males and females since the younger and less experienced workers usually earn less than those with more experience. Interwoven though it is with occupational factors, it directly points to productivity as an important determinant of income. Theoretically, at least, it may be said that if proportionately as many women as men stayed in remunerative occupations through their most productive age, the margin between the average earnings of males and females would be markedly narrowed. Coordinately, therefore, one of the reasons why there are so many relatively low incomes among women, and hence among the workers at large, is that the distributions are over-weighted with young persons of lower than average productivity.

The presence of low incomes of this type does not in itself denote a bad state of affairs. Without attention to possible complications, it may mean only the proper utilization of human energy for the good of the individuals concerned and society at large.

COLOR

The presence in the American population of a large element of negroes—10 per cent of the total—has an important bearing upon the income structure of the United States. Whatever the social and historical causes, it is a fact that the colored people in this country are located on a much lower economic scale, with respect to both productivity and income, than the rest of the population. Differences in opportunities and training, if not differences in general ability and aptitude, result in very important differentials between whites and negroes.

Illiteracy among negroes is much higher than among whites. For the negro population in 1930 it was 16 per cent of those 10 years of age or over, but in some of the southern states it ran as high as 26 per cent. Though not an index of inherent racial ability, the presence of illiteracy indicates that the group is less equipped than others to participate in the activities of modern economic life. Roughly 80 per cent of the colored population live and work in the South and nearly 40 per cent derive their living from agriculture. In agricultural as well as in other pursuits the negro parallels the lower strata of the economic life of the country.

Less than a quarter of the colored farmers own their land; most of the tenants are croppers without implements or stock. Farms operated by colored farmers average approximately 45 acres; those of white farmers about 180 acres. Likewise the value per farm for colored

farmers in 1930 was only 20 per cent as great as that for white farmers.

Only fragmentary information is available concerning the incomes of the colored population. The following table, however, will serve as an illustration of the com-

GROSS FARM INCOME PER WHITE AND COLORED FAMILY IN GREENE AND MACON COUNTIES, GEORGIA, 1934^a

Tenure	Greene County			Macon County		
	Ne-groes ^b	Whites ^b	Ratio of Negro to White Income	Ne-groes ^b	Whites	Ratio of Negro to White Income
Cash Income Only						
All families.....	\$151	\$301	.502	\$300	\$872	.344
Owners.....	237	396	.598	795	943	.843
Renters.....	172	293	.587	381	870	.438
Croppers.....	136	197	.690	339	714	.475
Wage hands, etc....	87	147	.592	151	581 ^c	.260
Total Income Including Home-Grown Provisions Consumed						
All families.....	321	523	.614	435	1,136	.383
Owners.....	502	648	.775	1,133	1,199	.945
Renters.....	417	551	.757	644	1,150	.560
Croppers.....	282	385	.732	520	1,007	.516
Wage hands, etc....	112	217	.516	184	760 ^c	.242

^a Arthur F. Raper, *Preface to Peasantry*, p. 55.

^b Includes relief.

^c Farm managers and overseers.

parative position of colored and white farmers in the deep South. The data are for two counties in Georgia which were selected by the Commission of Interracial Cooperation as typical of the so-called Black Belt.¹⁰

Neither whites nor negroes boast high incomes in

¹⁰ "The Black Belt includes approximately 200 counties in which over half the population is negro. These counties lie in a crescent from Virginia to Texas; they contain the big plantation area of today and coincide with the location of the slave plantations of a few decades ago." Raper, *Preface to Peasantry*, p. 3.

these two counties, but the averages for negroes are much the lower. In Greene County colored farm families had an average gross income of only \$321 in 1934, as compared with \$523 for the white families. Conditions in Macon County were somewhat better but here, also, negro families averaged only \$435, although the average for the white families was above \$1,100.

In non-agricultural pursuits, too, the opportunities of negroes are limited. Most of the colored female workers off the farm are in the domestic and allied services while the males are engaged largely as common laborers.

The average entrance rate for common labor in 20 industries throughout the United States in July 1936 was 43.2 cents per hour. The average for white laborers was 44.8 cents, for negroes 35.4 cents, and for members of other races 41.1 cents. (See Table 13, page 162.) On the face of these figures it might appear that there is considerable discrimination with respect to wages paid to white and colored labor. This superficial conclusion, however, is only partly true. Further examination of the facts discloses that direct discrimination with respect to wage rates paid for identical jobs is not so important as predispositions in the matter of job opportunities and job adaptability of colored workers as compared with white workers. The Bureau of Labor Statistics studies indicate that even in the South negro and white laborers in the majority of cases are paid the same rates when they do the same work.¹¹

The differentials due to indirect discrimination which

¹¹ See Edward K. Frazier, "Earnings of Negroes in the Iron and Steel Industry," *Monthly Labor Review*, March 1937, pp. 564 ff. See also Jacob Perlman and Edward K. Frazier, "Entrance Rates of Common Laborers in 20 Industries, July 1937," *Monthly Labor Review*, December 1937, p. 1498. Out of 534 southern plants covered, 370 reported the same entrance rates for both races, 151 reported higher rates for whites,

limits the opportunities of colored workers and to such mental and physical differences as there may be between negroes and whites are, however, very great. As a general rule negroes occupy only the less skilled and lower paid positions. While it may be true that in the majority of cases when colored and white workers are employed side by side in the same work they are paid the same wages, negroes are as a rule at a disadvantage when they compete with whites for the same jobs. If there is no difference in qualifications, the white workers are likely to be given preference. The result is that, for the same occupational designations, firms paying higher wages are likely to have a greater proportion of whites on their payrolls than firms paying low wages. In this respect the position of negro workers simulates that of women workers (see page 55). They, too, are subject to the anomaly of having a lower average income than the rival group, when all plants are combined, although within plants there may be no difference in pay.

The operation of this principle is perceptible on a geographic as well as a plant basis. Wage rates in general are higher in the North than in the South, but for obvious reasons the North has the larger proportion of white workers. Consequently, the averages for the country as a whole exaggerate the differential between the rates for white and colored workers. But the geographic factor may be eliminated to a large extent by using simple rather than weighted averages for comparison. For instance, we find that while the weighted averages of entrance rates in the 20 industries referred to were 44.8

and 13 higher rates for negroes. The fact that some reported higher rates for negroes than whites would indicate that the differentials may not be entirely due to discrimination.

and 35.4 cents for white and negro laborers respectively, the simple averages were 40 and 38.5 cents.¹² On the basis of the weighted averages we find that entrance rates for negro labor are 79 per cent of those for white labor; but on the basis of simple averages, the rates for negroes are 96 per cent of those for whites. Likewise by the simple average method, which presumably eliminates differences by states, the rates paid in the North to negro labor are practically the same as those paid to white labor, and in the South the rates for colored labor are 90 per cent of those for white labor.¹³

The differentiation between colored and white labor is particularly observable in some of the southern states. For example, in Louisiana, Florida, Kentucky, Georgia, South Carolina, and North Carolina the ratios of the average entrance rates of negro common labor to those of white common labor range between 75 and 80 per cent.

In the North, the differentiation is not so marked. In fact, in some of the northern states, average entrance rates were higher for negroes than for whites. Examples are Wisconsin, Kansas, California, and Pennsylvania, and also Missouri and the District of Columbia. This, of course, is due not to discrimination in favor of the colored workers, but to selection. It is not unlikely that in some of the heavier common tasks negroes are in competition largely with the poorest of the white workers.

Actual average earnings of colored and white workers in selected industries and occupations in recent years are shown in Table 14, pages 163-64. But a somewhat better insight into the matter of color differentials and their

¹² The figures are for July 1936 and the averages are for states. Simple averages applied to industries and plants as well would bring the final figures even closer together.

¹³ See Table 13, p. 162.

effect upon the income structure will be gained from the examination of the following comparison for 1935-36 of occupational groups of white and negro families in Atlanta, Georgia, covered by the Urban Study of Consumer Purchases.¹⁴

	Percentage of Total Families ¹⁵		Median Annual Income	
	White	Negro	White	Negro
All families	100.0	100.0	\$1,691	\$ 549
Relief	13.4	33.0	665	460
Non-relief	86.6	67.0	1,879	759
Salaried professional	4.5	1.8	2,489	} 1,639
Salaried business	10.1	0.4	3,011	
Independent professional	2.0	0.3	3,170	} 786
Independent business	8.7	4.6	1,706	
Clerical	27.7	2.6	2,033	1,598
Wage earner	32.0	56.8	1,475	736
Other	1.6	0.5	929	500

The figures presumably represent a cross-section of "native families having both husband and wife" in the city of Atlanta; hence the occupational distribution as well as the incomes are significant. The fact that 33 per cent of the colored families were on relief as compared with only about 13 per cent of the white families indicates that normally a larger proportion of the negroes are on the verge of poverty. The great majority of the negro families not on relief were headed by wage earners, which means common laborers. Less than 5 per cent of the colored group belonged to what is generally referred to as "salaried" occupations, including business, professional, and clerical employees. Among the white families these constituted more than 42 per cent of the total. About 5 per cent of the negro families were classed as

¹⁴ U. S. Bureau of Labor Statistics, "Family Income, Rent, and Family Size in Atlanta, Georgia," *Urban Study of Consumer Purchases* (mimeographed release, Oct. 24, 1937).

¹⁵ Native families having both husband and wife.

engaged in the professions and in business—less than half the proportion of white families.

In each occupational group the incomes for negroes were much lower than for whites. Fifty per cent of the negro families had incomes under \$550. The range of incomes for the lower 50 per cent of the white families extended up to nearly \$1,700. Thus on the average colored families had only about one-third the income of white families. Though the figures undoubtedly vary from place to place, Atlanta appears to be representative of other southern cities. In Columbia, South Carolina, the median incomes of white and colored families covered in the same survey were \$1,859 and \$548 respectively; in Mobile, Alabama, \$1,402 and \$445; and in Albany, Georgia, \$1,653 and \$392.

CHAPTER V GROUP ACTION

The variations of earnings and incomes discussed in the foregoing chapters are fundamentally the results of chance combinations of many factors over which individuals or groups have no control. They are inherently connected with the independent actions of differently endowed and differently situated individuals or firms whose separate efforts to sell their goods or services most advantageously result in a more or less "natural" adjustment between demand and supply. For employees and professional people the adjustment is dependent upon the existing distribution of individuals with particular abilities and aptitudes; for business men it is dependent also upon the contingencies of trade.

The "natural" adjustment flowing from the independent action of separate economic units (individuals or firms) is frequently modified by the joint action of groups which endeavor in one way or another to bend conditions in favor of their members. Among the common devices employed by groups in their struggle for economic advantages are collective bargaining and the restriction of the supply of goods and services through various controls and through concerted pressure on their own members, the public, and government.

The present chapter is concerned with group action in a restricted sense. It does not refer to the income advantages enjoyed by some classes because of existing institutional arrangements, nor does it refer to the power exercised by large business units which in a sense are groups in themselves. It refers only to the conscious efforts of organized groups exemplified by trade associa-

tions, trade unions (and some professional organizations), farmer groups, and various business lobbies.

There is no way of measuring the extent to which various organizations have modified the income structure of the United States by raising the income of their members. But that such organizations have been effective is a matter of common knowledge. In recent years, particularly, group pressure has been obvious in its effects.

There are three major economic classes in the American population whose interests are frequently at variance with one another—business or “industry,” agriculture, and labor. These classes bear different relationships to the productive and distributive process and, correspondingly, differ with respect to the type of group action adapted to their purposes and the degree to which it may be effective. Generally speaking, however, they have resorted to two types of concerted effort—political pressure for special legislation and independent measures involving propaganda, mutual agreements, or coercion.

BUSINESS GROUPS

We think of the business class first because its position in our industrial order gives it opportunities for leadership and the exercise of considerable political power. Its strength is drawn not only from its own members but from individuals in other groups whose fortunes or careers are connected with industry. In fact, by the very nature of our system it is the philosophy of this class which has dominated the legal and political structure of the nation. This position of leadership may in itself be an important factor in determining the incomes of the class, although it can hardly be attributed to group action in the strict sense. It is rather in the general nature of the situation.

The influence of concerted action of business groups upon the income structure is difficult to evaluate. A major portion of the activities of organizations representing the interests of business groups is defensive. Through lobbies and propaganda such organizations endeavor to counteract the attacks, by other groups and the "public," against the advantages which the industrial order and our existing institutions have enabled them to secure. To the extent that they are successful in warding off influences and legislation detrimental to their economic position, their group action is a factor in influencing their incomes. But it is rather an indeterminate factor which need not be considered in the present discussion.

In addition to defensive activities business groups have, of course, successfully engaged in aggressive action directed towards securing additional advantages for their members which have resulted in the expansion of their incomes. However, in this case, too, it is difficult to trace the net effect of such action upon the income structure. The influence is intimately tied up with the industrial process and the institutional forces which are not directly traceable to group action. The pressure of business groups usually takes effect in an extension of the field of business activity, as in the development of "infant" industries through tariffs, or in a change of conditions underlying the competitive process, as in mutual agreement relative to prices and trade policies. The effect upon profits is usually indirect.

The terms "group" and "group action" have a somewhat different significance in business than among other classes. So much of business and industry is already organized in large units with tremendous power that individual action in business is frequently in itself the action of large combinations whose influence in many cases

overshadows that of further combination. These large units often control the field to such an extent that their policies are forced upon competitors even when the whole industry is organized into a group.

The influence of organization upon the income structure is indeterminable also because in business it is difficult to ascertain just where group action begins and where it ends. The possibilities for growth and expansion usually open to individual business men and firms prevent them from being satisfied with the status quo as to division of business and the size of their own concerns. There is always the ambition and desire to absorb the other fellow. Such attempts as have been made in some industries to pool the interests of independent units have often ended in combination through absorption rather than cooperation, and action for economic advantage has found expression through enlarged units rather than groups in the restricted sense.

Furthermore, the effect of group action in business is lessened by the fact that business groups are not in a good position to enforce restriction. An advantage gained through joint action soon becomes the property of all comers who by their very freedom to compete are likely to dissipate the advantage.

Tariff legislation, for instance, usually comes to mind as an outstanding example of advantages obtained by business groups, but upon second thought it will appear that tariffs, although they may benefit certain individuals at the time of their enactment, do not necessarily benefit the group to the extent of raising its income level. It is true enough that after a tariff had caused new industries to develop, its abolition would modify or destroy the incomes of those in the field. Also, if a commodity that is already being produced were suddenly put on the restricted list, existing concerns would be able to expand

their business and perhaps increase their income. But soon there would be an equalization of the advantage because of the entry of new enterprises into the field. It is true, however, that as a result of tariff legislation we have an entirely different industrial set-up in the United States than would otherwise obtain, which undoubtedly influences the income structure.¹

The effect of trade associations upon the income structure is also indirect rather than direct. By their very nature these organizations cannot be exclusive with respect to the advantages they may gain through group action. That is, if as a result of a trade association lobby or price agreement there is a wider spread in profits than the conditions surrounding the particular industry justify, competition from non-members may become disastrous to the business of the members, and of course there is no way for the trade association to keep new enterprises from entering that field. An attempt to overcome this handicap by enforcing codes of "fair competition" was made under the National Recovery Administration, but it is not likely that the codes could have been enforced even if they had not been declared unconstitutional.²

FARM GROUPS

The position of farmers is different from that of other entrepreneurs. The farm population in itself is of course made up of many individual groups, but each is com-

¹The industrial development of the country might have followed a different course without tariffs. Some of our existing industries might never have developed and it is possible that our industrial class, both entrepreneurs and workers, would have been numerically smaller than it is now and that agriculture would perhaps have been in a *relatively* stronger position. An additional factor which is too complex to evaluate here is the influence of tariffs upon prices and thereby upon the purchasing power of incomes.

²Leverett S. Lyon and others, *The National Recovery Administration*, p. 883.

posed of a great number of small units which operate independently without being conscious of their direct competition with one another. The farm business is such that the individual cannot hope to absorb the plant and trade of others in his field. True, we have some large-scale farming, but the competition among farm units is not so conscious as among industrial units. Moreover, what is called large-scale in farming is small-scale in industry. Perhaps an important factor in the situation is that for the most part the farmer is more helpless in establishing the price of his products than are business men. Unlike business men, who for the most part handle unstandardized commodities, and who are in a position to vary their goods in form, content, and name in order to maintain the power to establish their own prices, farmers deal with more or less standardized commodities many of which are priced in a world market. It is because of this helplessness that farmers, though inherently and traditionally individualists, have developed group consciousness and have found group action an effective means of raising their incomes.

The "granger movement" demonstrated the effectiveness of concerted action among farmers. This movement assumed national importance in the seventies and eighties when it succeeded through political pressure in raising farm incomes by forcing a reduction in transportation costs and contributed to the movement toward curbing the power of monopolies. It also succeeded to some extent in increasing the returns to farmers by reducing the profits of middlemen through group marketing.

In the last two decades group action among farmers has been developed to a high degree. The development has taken three distinct forms: (1) cooperation, with

increase in farm incomes by raising efficiency and reducing costs in marketing its objective; (2) action—cooperative and governmental—directed toward raising the prices of agricultural commodities; and (3) direct government aid in the form of low interest rates, non-recoverable loans, and “benefit” payments. At first, the effort to raise prices of farm commodities was concerned principally with marketing, the idea being that significantly higher prices could be obtained for an agricultural commodity provided its entire market could be centrally controlled. This however involved no restriction of production. The inefficacy of this method soon became apparent, and more and more attention has been given to the control of production. This new approach has in principle been taken over by the government in its current agricultural program.

At the present time there are in existence a number of successful cooperatives which through efficient distribution and the force of integrated bargaining have been able to raise substantially the incomes of their members. Their success, however, is dependent upon the strategic positions occupied by the commodities they market. This is the case of citrus fruits and similar agricultural products, whose culture is naturally confined to comparatively small areas, and the sale of whole milk in certain metropolitan areas where competition can be restricted by the imposition of sanitary codes and other controls.

Such conditions are of course absent for the bulk of agricultural products and hence the farmers have definitely turned to government action as a means of attaining their economic aims. In recent years this has proved a very effective method and has given the farm groups measurable advantages. Not only has the Agricultural Adjustment Administration been concerned with the

regulation and restriction of production, which it is claimed has given the farmer higher prices, but it has increased the income of certain groups of the farm population by direct payments. Such payments in recent years have exceeded 500 million dollars annually, and have constituted additions of 10 to 15 per cent to the agricultural net income.³

The implications of government payments to farmers cannot be fully determined. Like many of the other emergency measures, the agricultural adjustment program is aimed at a rectification of the economic system which presumably is to benefit all groups. It is in fact claimed that the stabilization of agriculture attained through the benefit payments is a direct factor in increasing the production and income of the nation—that is, that the national product would actually be smaller without the adjustment program. On the other hand it is asserted that to the extent that the program restricts agricultural production there is a double loss to non-farm groups, first through the payments themselves and second through the rise in agricultural prices. But whatever the ultimate incidence of the cost incurred by the government, it is plain that benefit payments and enhanced prices raise the income of certain groups of the population and thus affect the income structure. Since under existing conditions the funds are derived from borrowings, there is no immediate corresponding loss of income to the other groups of the population (except as the agricultural program raised prices). Eventually, however, when the public debt is paid, the non-farm groups will undoubtedly bear the greater part of the burden.⁴

³ See *Chap. VII* for a discussion of such secondary income.

⁴ There may, of course, be repercussions which will be detrimental to farmers even more than to other groups.

LABOR GROUPS

As individuals, employees are in as weak a position as farmers—if not a weaker one—to affect the price of their services or to raise their income by increasing the scope of their money-making activities. All they have to sell is a fixed amount of time and skill. The labor organization is largely an attempt to overcome the handicaps encountered by the rank and file of workers in selling their services. The union seeks to furnish its members what every individual unconsciously aspires to and endeavors to attain, namely, the most favorable position possible in the exchange of his own services for those of others. For the weakness of the individual worker they substitute the strength of the group, acting through collective bargaining and, in some cases, restrictions on supply.

To the extent that unions are successful they introduce income variations which are distinct from those caused by purely occupational and industrial factors. Though it is not easy to measure exactly the effect of union organization upon the income structure, such statistics as are available make it evident that the level of earnings (on an hourly basis at least) of union members is higher than that for non-union members in the same occupations and industries.

Recent statistics for the building trades⁸ will serve as an illustration. The chart on page 77, which gives an array of 31 occupations in building construction according to average hourly earnings at the end of 1936, shows that invariably the rates for union members were higher. For all the 31 occupations combined⁹ the hourly earnings for non-union men were 31 per cent lower than for union

⁸ Edward P. Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, pp. 281-300.

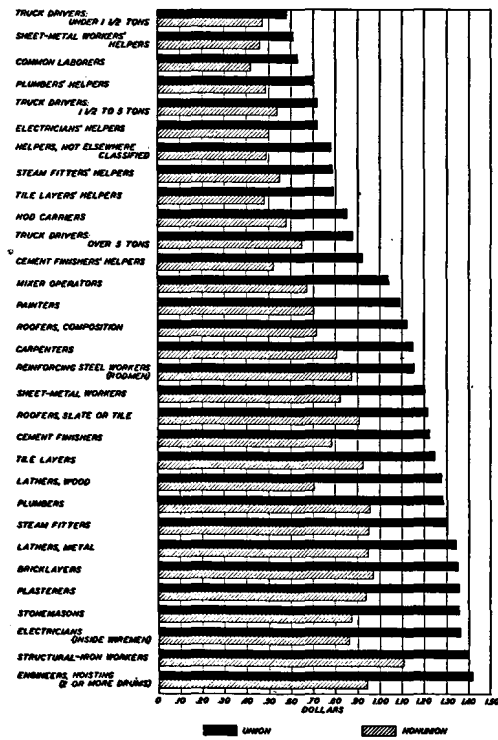
⁹ Unweighted average.

members. The largest differential, 70 cents an hour as compared with \$1.28, was for wood lathers—a small trade with a representation of only 589 workers in the total sample of more than 186,000. The smallest differential was for truck drivers. Reference to Table 15 in the appendix (page 165) will show that even when the geographic and size-of-city influences are eliminated by confining comparisons to individual cities, union wages appear to be much higher than non-union wages. To some extent degrees of skill may be reflected in these comparisons—union men perhaps being the better workmen in each trade—but on the whole the differences can be ascribed principally to union affiliation.

Until recently labor organization in the United States was confined to craft unions, which at best comprised only a small proportion of the workers. Under such a set-up the bargaining, though carried on between employees and employers, was essentially between special groups and the people at large. In so far as raising the wages of these groups resulted in higher costs and higher prices the gain was “at the expense” of the rest of the population. To some extent the rise in prices also affected the beneficiaries so that part of their gains were cancelled by higher living costs; but on the whole enough of the differentials were left to constitute gains in real income.

With the advent of industrial unionism and its promise of complete unionization of all workers, including salaried employees, the situation is changing. What will it mean to the income structure when all respond and all succeed in raising their money incomes through collective bargaining? It was comparatively easy for some of the craft unions to achieve success in raising the earnings of their members beyond the level which would

UNION AND NON-UNION WAGES
Average Hourly Earnings in Selected Occupations in
Building Construction, 1936*



* Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, p. 284.

have existed without organization. Since the gains of the small group were derived from the expenditures of practically the entire population, a substantial increase could be obtained at relatively small per capita increase in costs and prices. However, the leverage would be different if all employees were organized. Union members would then represent some 75 to 80 per cent of the gainfully employed and increased pay for all—to the extent that it was forced beyond the growth in general productivity—would mean a rise in the cost of practically all commodities and services. The advantages gained would therefore be largely nullified by the increases in the cost of living.

Of course there will be merchants, farmers, and other entrepreneurs who will remain outside of unions and who will perhaps not be in a position to raise the prices of their own services. But they are not numerous enough to afford through their consumption a very significant rise in the wages of the masses of the workers. The expectation that substantial wage increases might be gained at the expense of profits is not to be relied upon. Profits are never evenly distributed among different enterprises and union pressure cannot be applied exclusively to the successful plants. If the pressure is so great as to absorb the surplus income of the most profitable concerns, it will of necessity drive to the wall the moderately successful ones, not to speak of those at the margin. Such pressure may defeat the workers' own purpose by inducing unemployment.¹

The principal source of expansion in income for labor as well as other classes is technological progress and growth in productivity. Aside from that, the possibility of raising real wages through union pressure becomes

¹ See The Brookings Institution, *The Recovery Problem in the United States*, p. 251.

progressively weaker as the number of organized workers increases.⁸ Hence, if industrial unionism is to embrace the whole working class, its philosophy, tactics, and policies must be entirely different from those based upon restriction which have heretofore been found adequate in trade unions. Unlike the attainment of advantages for special groups, the betterment of the incomes of the masses must come mainly from production rather than from bargaining, from increased output rather than restriction. Under a constructive program for the whole labor class, including the elimination of unemployment and other wastes, the income level will rise but the spread among individual workers may decrease; that is, the income structure will tend to be more compact with a smaller degree of variation among individual incomes.

⁸ The very merit of embracing the whole working class is a handicap. By being all-inclusive it loses leverage. Under craft unionism, as it existed until recently, increases for approximately 10 per cent of the population (the membership of trade unions never exceeded about 5 millions) were exacted from the expenditures of more than 90 per cent. Under industrial unionism collective bargaining will presumably be called upon to secure increases for about 75 per cent of the people by taxing the consumption of the other 25 per cent—a much more difficult task.

CHAPTER VI
VARIATIONS DUE TO EBB AND FLOW OF
BUSINESS ACTIVITY

Up to this point in our consideration of the wage and income structure we have tried to account for the wide dispersion of earnings by reference to basic factors which are in constant operation. There are other factors which do not operate constantly, but which enter the picture intermittently at various stages of industrial progress. These are the elements connected with the ebb and flow of business activity and seemingly haphazard phenomena such as war and weather. Among them may be included the factors associated with the so-called business cycle, seasonal and climatic influences, industrial disputes, technological changes, and the like. They are more or less superimposed upon the regular influences and merely modify the structure of income and earnings otherwise determined. Their influence is felt principally through changes in employment and changes in time devoted to the income-producing or income-earning process by different groups of the population. These factors also modify the income structure through their effect upon rates of pay. But the latter is of much less importance than the time or work-duration factor.¹

In some industries seasonal and climatic influences are very important. For instance, in building construction the fact that some work can be done only under certain weather conditions greatly modifies the earnings of the people connected with the industry. Likewise,

¹ Sudden changes in wage rates, if widespread, are usually accompanied by similar changes in the price level which tend to offset such advantages as may accrue to wage earners. Changed rates affect the income structure only when the changes are much greater for some classes than for others.

changes in weather modify the incomes of those engaged in agriculture. Because these changes affect different occupations and industries in different ways—aiding some and hurting others—their influence upon the dispersion of income is magnified. The recent years of drought ruined a great number of farmers with the effect that during these years a considerable proportion of the farm population was reduced to a lower position on the income curve than it would otherwise have occupied. In other years, conditions to a large extent induced by weather may push the farm groups into a higher than usual range of the income distribution curve. Moreover, it not infrequently happens that the same physical disturbance affects different individuals of ostensibly the same farm group in opposite ways, sending some to ruin and others to prosperity. Unseasonable weather may also affect the demand for certain merchandise and thereby affect not only the income of merchants but, through the reaction upon the manufacturing process, the incomes of manufacturers and wage earners. The effect may of course be traced further to the producers of raw materials—the farmers and the miners—and to those engaged in transportation.

THE BUSINESS CYCLE

Among the temporal factors the business cycle, with its periodic waves of “prosperity” and “depression,” is by far the most important. In prosperity it modifies the income structure by piling up large profits and by expanding employment and increasing rates of pay. The expansion does not affect all income recipients in the same way; some profit much more extensively than others with the result that the range of incomes is extended out of proportion to the average. In depression

the process is reversed: workers not only lose the advantages gained during the preceding period of prosperity but are driven by unemployment to fractions of their former incomes or to complete loss of earnings; and business men and investors, in addition to being deprived of their customary income, sustain losses of capital. Here, too, the incidence of the calamity varies greatly. Some individuals hold their own or even make gains while others are reduced to bankruptcy.

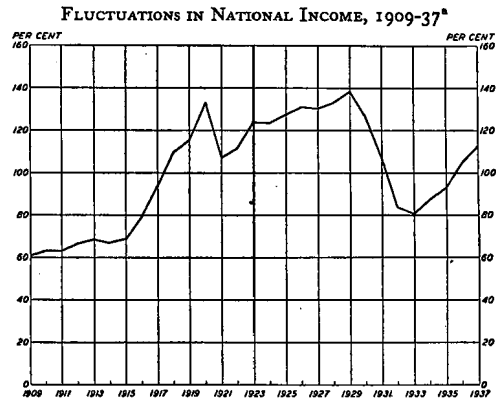
The chart on page 83 shows an approximation of the course of national income since 1909. The figures are annual income on a per capita basis, and the population factor is therefore eliminated. Since no correction has been made for price changes, however, the curve does not reflect the volume of goods and services represented by the income. Two major movements are covered by the data: the war boom followed by the depression of 1921 and the boom of the late twenties followed by the recent depression and recovery.

The violence of income fluctuations is revealed by the fact that between 1929 and 1933 per capita income dropped over 40 per cent, while between 1933 and 1937 it increased approximately 40 per cent.³ To grasp the full significance of the fluctuations it is necessary to depart from these *average* figures and think of the widely dispersed individual incomes which underlie the averages. The drop between 1929 and 1933 was not a proportional decrease for all income recipients but was accompanied by the appearance of millions of unemployed whose income (apart from relief) was reduced not 40 per cent but close to 100 per cent.

Some notion of how the business cycle affects the

³ This, of course, did not restore it to the 1929 level, since the percentages have been computed from different bases.

upper part of the income structure may be conveyed by the fluctuations in the number of extremely high incomes reported in the income tax returns. In 1917 there were 141 returns of a million dollars and over. In 1920 there were only 33 and by 1921 the number



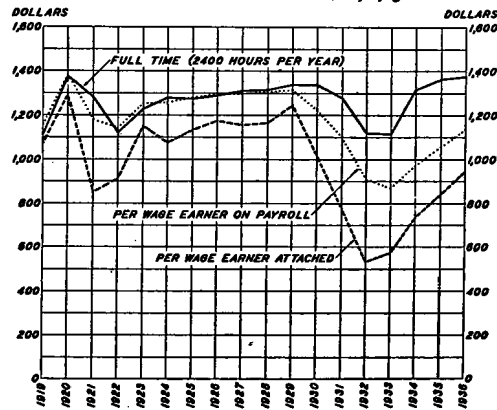
^a Per capita income "paid out"; the percentages are relative to the average for the period.

had dropped to 21. From then on the number of million-dollar returns increased annually until it reached a total of more than 500 in 1929. The decline from that point continued through 1934, when the number was 32. In 1935, the last year for which data are available, it was 41.

A glance at the chart on page 84 will show the effect of the changes in business activity upon the wage earners

in manufacturing industries. The curve marked "full time" merely represents the movement of average *hourly earnings*. (The average hourly rates have been multiplied by a constant of 2,400 hours per year.) The

AVERAGE ANNUAL EARNINGS OF WAGE EARNERS IN
MANUFACTURING INDUSTRIES, 1919-36^a



^a Reproduced from The Brookings Institution, *The Recovery Problem in the United States*, p. 246. The revised figures for 1936 are slightly higher than those shown in the chart. See Table 19, p. 168.

curve marked "per wage earner attached" represents average *annual income* for all wage earners depending upon manufacturing industries for a living. This curve reflects the changes in the volume of work done and paid for as well as changes in the rates of pay. It will be seen that the periodic loss of income among wage earners,

in the last depression as well as in 1921-22, was due much more to decreased employment than to decreased rates. In 1932-33 the hourly earnings of those employed dropped only about 16 per cent from their peak in 1929, but the average annual earnings per wage earner attached to the industry were reduced about 57 per cent. The effect upon individual earnings was of course much greater than upon the averages; many of the workers remained fully employed and suffered little or no loss of income, but a very large number had only partial employment or none at all and so earned little or nothing. This accentuated the change in the income structure between 1929 and 1932-33.

The recovery since 1933 has caused a large number of people to be drawn back into manufacturing, which has again affected the distribution of income, shifting many individuals from lower to higher income groups even beyond any material increase in rates.

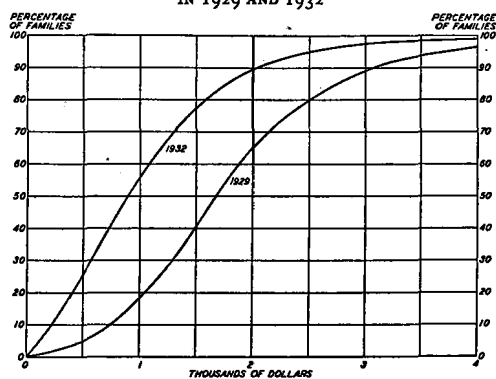
As an example of how depression modifies the income structure by reshuffling the fortunes of individual families we may cite the results of a survey made by the United States Public Health Service in 1933. The distribution of 7,436 families in eight cities according to their incomes in 1929 and in 1932 is shown in the chart on page 86.⁸ The shift to lower incomes is remarkable. In 1929 one-half of these families had incomes in excess of \$1,650 but in 1932 only about 18 per cent were

⁸The definition of income used in this survey is somewhat different from that usually employed: it "includes all receipts from any source," from "savings, borrowed funds, gifts, and public and private relief" as well as from "salary, royalties, interest, pension." (*Public Health Reports*, Vol. 48, No. 41, p. 1255). For this reason the lowering of incomes from 1929 to 1932 is understated by the survey. The sample, too, is not a cross-section of the population. Nevertheless the data dramatize what actually happened to families throughout the income range.

in the upper group and 50 per cent had incomes below \$870.

The survey also discloses the interesting fact that even during the depression some families forged ahead. This is shown in the chart on page 87. The shadings in each

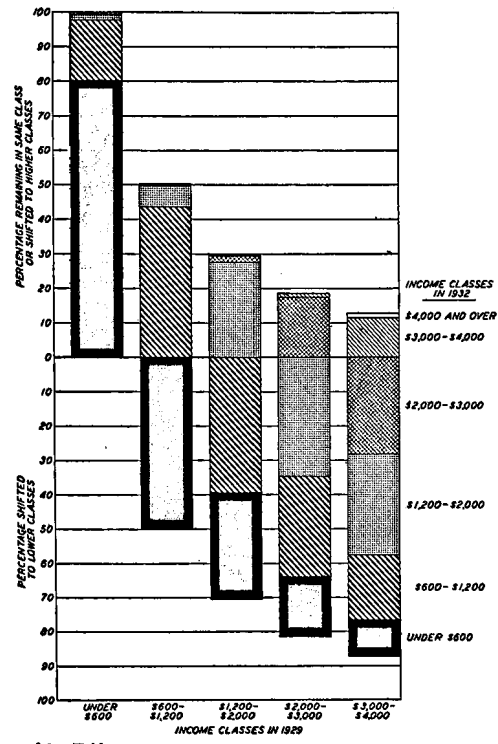
CUMULATIVE PERCENTAGE DISTRIBUTIONS OF 7,436 FAMILIES ACCORDING TO THEIR INCOMES IN 1929 AND 1932^a



^a See Table 16, p. 166.

bar represent the new income classes into which each 1929 grouping shifted in 1932. Of the families whose incomes in 1929 were below \$600, 20 per cent advanced to higher income classes. Similarly about 7 per cent of those who in 1929 had incomes between \$600 and \$1,200 and 2 per cent of those with incomes of \$1,200-\$2,000 moved up to higher classes by 1932. The majority of the families, however, moved down. Only 44 per cent of the families with incomes of \$600-\$1,200 in 1929 remained

SHIFTS OF FAMILIES TO HIGHER OR LOWER INCOME CLASSES
 BETWEEN 1929 AND 1932^a
 7,436 Identical Families



^a See Table 17, p. 166.

in the same class in 1932; 50 per cent moved down to the class below \$600. Only 30 per cent of the \$1,200-\$2,000 class remained in this class or bettered themselves; 70 per cent were reduced to lower classes. Similarly in the \$2,000-\$3,000 class there remained only about 18 per cent and in the \$3,000-\$4,000 class, 13 per cent.⁴

Similar disturbances in the income structure are observable in other samples of the population. Among railway employees⁵ the shift is indicated by the following cumulative percentages in 1929 and 1933 at specified annual earnings:

Income Class	Percentage of Employees	
	1929	1933
Under \$600	6.0	14.5
" 1,200	30.2	48.0
" 1,800	62.3	78.2
" 2,400	86.0	92.2
" 3,000	94.2	97.3
" 3,600	97.8	99.0

INDUSTRIAL DISPUTES

Like depressions, industrial disputes affect the general income distribution by reducing the earnings of certain groups through unemployment. To some extent industrial disputes are a function of the business cycle and are said to fluctuate with certain phases of it. To the degree that this is true strikes and lockouts merely modify the outline of the business cycle.

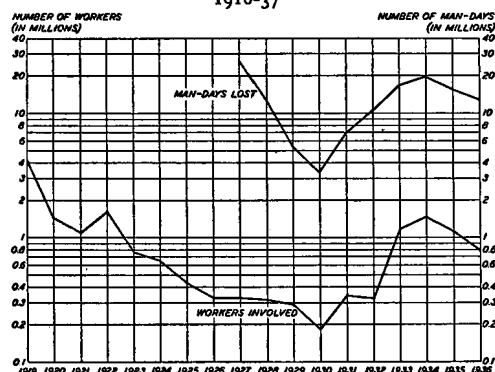
The importance of strikes as a factor in modifying the income structure of the country may be seen from the chart on page 89 which shows the number of work-

⁴ Because of the drop in the cost of living between 1929 and 1932 the shift in *real* income was not so severe as is indicated by the figures.

⁵ Federal Coordinator of Transportation, *Annual Earnings of Railroad Employees, 1924-1933*, p. 67.

ers involved and the number of days lost in the period just prior to the depression and since. The Bureau of Labor Statistics reports that in 1927 over 26 million man-days were lost. In 1930 the number was at a low point, but even then there was a loss of over 3 million

WORKERS INVOLVED AND MAN-DAYS LOST IN STRIKES, 1916-37^a



^a See Table 18, p. 167.

days. Since then the number has increased, reaching another high point of nearly 20 million man-days during 1934. In 1936 it stood at about 14 millions. Preliminary figures indicate that, on account of the major strikes in the automobile and steel industries, this number will be more than doubled in 1937.

Because industrial disputes are usually concentrated in particular groups of workers the displacement in the income distribution resulting from strikes is greater than

may appear from the aggregate amount involved. A comparatively small aggregate may be the cause of a considerable shift for the number involved. Moreover there are also indirect effects—not covered in the statistics—which extend the losses of income to workers who are not party to the dispute. A strike in the automobile industry may cause stoppage of work in all contributing industries such as steel, rubber, transportation, and the like.

TECHNOLOGICAL PROGRESS

Another factor of major influence upon the distribution of income is economic progress and technological change. While technological progress cannot be held responsible for *general* unemployment and consequent decreases in the national income, there can be no doubt that such progress accentuates the dispersion of income. It does so in two ways. In the first place when a change comes, it uproots the workers from industrial activity and occupational pursuits in which they are proficient and throws them upon a competitive labor market to find new and usually less remunerative employment.⁶ In the second place the benefits of technological progress are in general scattered unevenly, carrying portions of the population far in advance and leaving others stranded at a much lower—though in absolute terms not always lowered—level of living. The process which leaves such great disparity in its wake is due principally to imperfect mobility of the population. Before con-

⁶ The adverse effect may be felt by individual proprietors of industrial enterprises—and their creditors for that matter—as well as by employees. Change means obsolescence and destruction of capital, and those firms which are not in a position to adapt themselves to the change fall by the wayside with attendant shifts of their owners and creditors from higher to lower incomes. In the case of entrepreneurs, however, there is the further factor that technological change may give temporary advantage and increased profits to some of those who remain and to those who enter the field unencumbered with obsolete capital.

sidering the question of mobility, let us trace briefly the effect of technological progress upon the displaced workers.

When through a change in technology a new productive process reduces the amount of work or does away with the demand for certain skills, the workers are for the most part thrown out of their accustomed employment. Usually it is the middle-aged and older workers who are affected, because the new process ordinarily absorbs the younger generation of workers who are less grounded in a particular occupation and are more adaptable. The older workers obviously lose a vested interest in an occupation or skill to which they have devoted a great portion of their lives. Because of age and lack of adaptability they are at a disadvantage in seeking employment and for the most part are compelled to shift to lower grades of work than they have been accustomed to do. But before the shift is made there usually is an intervening period of unemployment which is complicated by the fact that for a long time the displaced worker is reluctant to accept a reduced status and a decrease in pay.⁷ He spends a considerable amount of time in unremunerative and futile search for a job which is coordinate with his previous position.

In fact the influence of technological progress is ordinarily so indirect that the individual victim is

⁷ The results of such few investigations as have been made regarding the re-employment of displaced workers are of interest. As might be expected, the skilled workers find it more difficult to adjust than the unskilled, and, perhaps for the same reason, women are placed more quickly than men. The findings with respect to age are mixed—because the influences are mixed. For those with families, the reluctance to accept lowered occupational or pay status may be overcome by pressure of economic need of which younger men may be comparatively free. See Isador Lubin, *The Absorption of the Unemployed by American Industry*; Ewan Clague and Walter J. Couper, *After the Shutdown*, Part I, "The Readjustment of Industrial Workers by Two Plant Shutdowns"; and Katharine DuPré Lumpkin, *Shutdowns in the Connecticut Valley*.

seldom aware of the cause of his hardships. This very lack of knowledge complicates his problem by prolonging the period of readjustment. The combination of circumstances—long idleness, and lower pay when work is finally accepted—induces a drastic reduction in the annual income of the workers affected by technological change. The national income may be as great or greater after the change, but its structure is different: the incomes of some individuals are lowered while the incomes of others are raised.

IMMOBILITY AND STRANDED POPULATIONS

If there were free movement of population from place to place and from job to job, some of the inequalities in incomes and earnings would be removed or mitigated. What the resultant of complete mobility would be is of course difficult to determine. Theoretically, it may be presumed that free mobility would bring better utilization of the resources of the nation and would thus tend to increase the total national income and at the same time equalize the distribution.⁸ However, it is obvious that there would still be a considerable dis-

⁸ Among the deterrents of geographical mobility are home ownership, reluctance to leave friends and relatives and familiar surroundings, lack of knowledge of opportunities elsewhere, uncertainty connected with giving up the bird in the hand for birds in the bush, and expense incurred in moving. Some of these are perhaps founded in human nature; others, however, are induced by economic conditions and fostered by attitudes and encouraged by special groups as well as by government agencies. For instance, erroneous emphasis has often been placed upon the advantages and desirability of home ownership among working people. The desirability of home ownership is usually seen from particular angles of social welfare without in any way connecting the problem with the economics of the welfare of the individual and family. The attachment of workers to homes has done a great deal to restrict the mobility of workers. Whatever may be said of the social values connected with home ownership, it has placed many families at a disadvantage by preventing them from availing themselves of opportunities elsewhere. Home ownership has aided in creating stranded populations with all the attendant problems.

persion of income owing to inequalities in ability and aptitude of different individuals and inequalities with respect to education, training, position, etc.

It is not the intent in this brief statement to measure the possible changes that would be introduced into the distribution of income through greater mobility. To change the mobility status of the population is not an easy task at best. It is our concern here merely to indicate in a general way the extent to which the mobility factors have influenced and are influencing the distribution of income.

Although as a nation the United States has been carried further than any other in the scale of productivity and income, within its limits it contains areas and communities which technological progress has almost passed by and whose populations have been left stranded on much lower levels of economic activity than the rest of the nation. A recent study of population distribution directed by Dr. Carter Goodrich* indicates four major regions with what may be called stranded populations. But in one way or another every section of the country has its stranded communities which live more or less apart from the main stream of economic life, whose lack of opportunity to participate in the productivity of our industrial system makes their production and income in money terms very low.

The regions considered in the study cited are the "southern Appalachian coal plateaus," the "old cotton belt," the "cutover regions of the Great Lakes states," and the "great plains." In each of these regions poverty was rampant because the resources were not sufficient to support the population; employment was absent or scarce because the area was out of line of industrial

* Carter Goodrich and others, *Migration and Economic Opportunity*.

traffic; and productivity was low not only because of deficient resources but because the tools and methods were inefficient.

Historically, the plight of each region had a different background. The cotton belt is not only overpopulated, but its principal means of livelihood is gradually slipping away: to the ravages of the boll weevil and loss of soil fertility through erosion have been added the loss of markets to the cheaper producing southwestern cotton fields,¹⁰ and to the new foreign competition. Because of the low economic status of the old cotton belt, which is complicated by social and racial problems, the per capita income of the population in 1929, even including such centers as New Orleans, Atlanta, and Birmingham, was about one-half that for the country as a whole. The rural population of the six states composing this belt was close to 10 millions in 1930, the farm population alone numbering 7 millions. Of the 27 million units included in the 1929 family income distribution, more than 2 millions, or 8 per cent, were from this population. Likewise, this population was represented by nearly 3 million persons in the distribution of individual incomes.

The southern Appalachian coal plateaus have for many years been settled by small self-sufficing farmers who have little traffic with the outside world. Their productivity and income are probably as great as they were fifty or a hundred years ago, and were it not for the fact that the standard of living for the rest of the country has in the meantime progressed, it might per-

¹⁰ The estimated cost of producing cotton in the depression period in western Texas and the Piedmont section of the Atlantic coastal states was 8.5 cents and 12.2 cents per pound lint respectively. Estimated by the U. S. Dept. of Agriculture and reproduced in *Migration and Economic Opportunity*, p. 149.

haps be said that they are comparatively well off. The average gross income per farm inhabitant in most of the counties in this region was less than \$150 in 1929. This is paralleled by the fact that for a large portion of the region the average value of implements and machines, which is a rough index of the type of farming, was less than \$60 per farm.¹¹

The situation in this region has been complicated by the development of coal mining—coal being the main non-agricultural resource of the region—and the collapse of the industry since the war. Not only was the local population drawn into the industry but miners have been brought in from the outside. The industry is operating part-time but the miners are still there. Frederick G. Tryon and Bushrod W. Allin¹² estimate a surplus population in the 84 counties of more than 600,000 persons or some 27 per cent of the total. The significance of this region in the general income distribution is indicated by the fact that it contained about 700,000 "income recipients,"¹³ and some 500,000 families.

The problem of the cutover region of the Great Lakes states goes back to the exploitation of the forests and mines which attracted a considerable population. But lumbering and mining are declining industries in the region and the land and climate are too poor for prosperous agriculture. Moreover, the communities are too far apart to make government, education, health, and other civic enterprises economical. The gross cash agricultural income in 1929 was less than \$200 per rural farm inhabitant while in southern Minnesota and Wis-

¹¹ The corresponding figure for Iowa farms was \$1,200.

¹² *Migration and Economic Opportunity*, p. 122.

¹³ Those who were probably included in the estimate of 49 million recipients for 1929.

consin the averages were in excess of \$500. In 1930 the 76 counties constituting this area had a population of about 1,400,000 and were represented in the 1929 income distribution estimates by about 485,000 income recipients and some 340,000 families.

The great plains, as defined in the study, "are co-extensive with the area of semi-arid climate which lies to the east of the Rocky Mountains." To quote from C. Warren Thornthwaite: "The history of the plains has been marked by exploitation of the land and its vegetation, by the hope of sudden wealth, and often by violence. The government land policy attempted to superimpose upon the great plains an agricultural system adapted to the more humid eastern section of the country. . . . It is an area where climatic conditions unfavorable to a permanent agricultural economy recur with irregular persistency."⁴ The population of the region exceeds 2 millions. Under a more stable pastoral economy this region could support not more than two-thirds its present number. In the income distribution for 1929 this area is represented by about 690,000 income recipients and nearly 475,000 families.

As has already been suggested, examples of stranded populations, though on a smaller scale than in the regions mentioned, might be multiplied from practically all sections of the country. Within short distances of our large industrial cities may be found population pockets which, because of poor roads and lack of communication, have remained "self-sufficing" and to a large extent outside the money economy of their neighbors.

The question of such stranded populations is a very important one in the study of the distribution of in-

⁴ The same, p. 202.

come and earnings. As has been said before, in modern society income is dependent upon rendering services in accordance with market demand. Income is not necessarily contingent upon hard work although in most cases hard work is an essential concomitant. Income accrues rather from the satisfying of the wants of others, irrespective of the amount of work or effort involved. Consequently if a person is living in a place where his services are not in demand or if he is working hard but producing things he is not in a position to sell to others, his contribution to the nation's income and hence his own reward cannot be great. The mountaineer who leads a primitive existence may enjoy his life and to that extent may have a great deal of psychic income—perhaps much greater than that enjoyed by the industrial worker or even the rich industrialist in the city with a considerable money income. But it should be realized that his opportunities for producing for exchange are very limited. Hence in terms of the only measures which are generally used in gauging income, his receipts are very small.

The inclusion of such individuals among the gainful workers when we measure money income and its distribution is likely to lead to serious misconceptions with respect to the underlying factors in the matter. It is obvious that the inclusion of such incomes in the distribution not only lowers the average, but loads the lower part of the distribution curve with elements outside the province to which the measurements can be properly applied. The result is that we are likely to draw conclusions and recommend actions that are not pertinent to the situation and to the problems involved. From the standpoint of income as a technical measure the all-inclusive distribution curve may be correct and

useful, but its implications should be scrutinized with considerable care. Just as we must put an interpretation upon the fact that minors are included in the income distribution on a par with adults, and those who work only one day a year with those who work each day in the year, so must we take care to attach proper significance to the position of stranded populations.

CHAPTER VII SECONDARY INCOME

The determinants discussed in the foregoing chapters all contrive to give an ever-changing yet definite pattern to the income structure in the United States. We have seen that the distribution of income is affected not only by the composition and distribution of the population, but by the multiplicity of forces controlling and disturbing our entire industrial life. In these chapters we have tried to convey the idea that the income structure is not stationary and fixed, but is as dynamic as life itself, and we hope that the discussion has added realism and significance to the static picture represented by the distribution curve of any given year.

Further clarification, however, is needed in connection with the interpretation and implications of the data. Properly speaking, consumption is not part of this analysis, but in the minds of many people income, consumption, and economic welfare are almost interchangeable terms. There is in fact a tendency to displace the idea of money *received* by that of money *used*. The displacement is quite natural. For many purposes the use point of view is more important than the receipts point of view. But since, unfortunately, the technical problems involved make it impossible to develop adequate statistical measures to fit the use idea, resort is frequently made to the statistics which approximate but do not quite coincide with it. In the present chapter we shall attempt to indicate something of the extent to which the use and the receipts content of income may vary.

From the standpoint of final use the incomes of in-

dividuals may be regarded as resulting from a double process composed of a primary and a secondary distribution. The primary distribution is associated with production and arises directly from the production process, the income being allocated to individuals in payment for services contributing to the sum total of the national product. The secondary distributions are allocations of income which are not determined by the services rendered by the recipients but by circumstances arising primarily in social organization. (Additions to the incomes of some are partially paralleled by subtractions from the incomes of others.) This income category is composed largely of services rendered free by governments and non-profit private organizations including education, recreation, protection, medical and institutional care, etc., and also direct governmental and private charity and relief. This category also includes what is sometimes referred to as non-social income derived from fraud, theft, and the like.

In fact it is partly a redistribution of the income accounted for in the primary distribution which it modifies:¹ part of the primary income may be taken from the original recipients and distributed in accordance with principles which are entirely different from those underlying the primary distribution. Thus a primary income of \$100,000 may be reduced to \$50,000 or less through income taxes, charities, etc. The benefit from governmental services supplied from taxes may accrue to non-taxpayers in a greater degree than to the taxpayers, and hence small incomes are augmented by the operation of secondary distributions while large primary incomes are likely to be reduced.

¹The major portion of secondary distributions is of course derived from funds which never enter the primary distribution; for instance, indirect taxes and contributions which are charged to business expenses.

In considering the secondary distribution of income we must also think of investments and savings as having an important bearing upon the distributive process. When a person saves or invests part of his income, he merely exchanges cash for title in specific or general terms to part of the national wealth. The value of this claim, however, depends upon the economic conditions of the country over which the saver and investor have no control. Experience shows that in many cases investors never get any benefit from their savings. In some cases the savings are lost completely; in others they accrue to entirely different individuals. In either circumstance the income distribution as of a given income period is in reality radically modified by the process of saving.

The significance of savings in the distribution of income is that although nominally they are part of a person's income, it is necessary ultimately to realize them in consumption in order to make them prove to be *use* income; but the realization is never certain. In this respect the lower incomes which are spent almost in their entirety are usually much closer to the higher incomes, a large portion of which are saved, than the income curve would indicate. In 1929, for instance, of the aggregate of *individual incomes* of roughly 93 billion dollars¹ only some 74 billion dollars² represented direct consumption. The remainder was either "saved"

¹ This estimate is more inclusive than the income produced or paid out within the year. It includes imputed income from the use of existing durable goods and gains from the sale of capital and also duplications where the same amount featured in the incomes of more than one individual.

² See Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, pp. 88, 96, 163. About 69 billion dollars represented the income produced within the year and about 5 billion dollars was imputed income from the use of durable consumption goods in the hands of consumers. The amount paid in income taxes is not included.

or redistributed through direct taxes, gifts, fraud, theft, etc. The savings, nominally about 18 billion dollars, were represented by titles to existing or new property and debts, both of which later lost most of their value with a consequence that many of the original savers realized very little on the portion of their income they did not consume in 1929. In retrospect, therefore, and from the standpoint of final use, their incomes as computed were greatly exaggerated. This dissipation affected those who saved out of income earned in production as well as those who saved out of gains in the stock market.

Another factor which enters into the distribution of income in a secondary manner is the income received and the losses sustained by individuals from trading in existing wealth such as real estate and securities. Such gains or losses may modify individual incomes greatly although they do not directly affect the national income as a whole as represented by the goods and services produced. Though they arise merely out of a shift in property ownership, they constitute actual income to the individuals affected, for property rights may be as effectively used as claims to current production as money wages or salaries. This fact tends to obscure the significance of curves depicting the distribution of income. In some years, the inclusion of capital gains and losses swells the aggregate received by individuals to larger sums than the total income produced; in other years it puts the aggregate below the national income.*

In some respects realized capital gains act as a medium for redistributing income. The product of a given in-

*As the statistics now stand, it is impracticable to eliminate capital gains from the estimates of income distribution; but even if such elimination were possible it is doubtful if the figures would give a truer picture of the income structure.

come period may through this means be transferred from the hands of the original claimants—the recipients of wages, salaries, interest, dividends, rents, and business profits—to a second group whose profit was derived merely from the change in the valuation of existing goods. The transfer applies not only to the portion of the national income saved but to the income represented by consumer goods and services. While it may be said that capital gains are largely reinvested, a considerable proportion is usually used for current consumption.

From the standpoint of distribution in the real sense a more important question than how the income was originally distributed is how consumption was divided. A rough estimate of the distribution of consumption as compared with the formal distribution of income is given in the table below which shows for different in-

INCOME RECEIVED AND CONSUMED BY AMERICAN FAMILIES IN 1929^a

Income Class	Number of Families (in thousands)	Total (in millions)		Average per Family	
		Income Originally Received	Approximate Income Consumed ^b	Income Originally Received	Approximate Income Consumed ^b
Under \$1,000	5,899	\$2,900	\$5,038 ^b	\$492	\$854
\$1,000 to \$2,000	10,455	15,364	14,562	1,470	1,393
\$2,000 to \$3,000	5,192	12,586	11,095	2,424	2,137
\$3,000 to \$4,000	2,440	8,388	11,547	3,438	3,145
\$4,000 to \$5,000	1,232	5,478	8,261	6,658	5,084
\$5,000 to \$10,000	1,625	10,820	4,266	14,503	9,057
\$10,000 to \$25,000	471	6,831	1,896	34,474	19,546
\$25,000 to \$50,000	97	3,344	1,326	68,000	34,000
\$50,000 to \$100,000	39	2,652	2,984	364,708	124,333
\$100,000 and over	24	8,753			
All classes	27,474	77,116	60,975	2,807	2,219

^a Families of two or more persons. Based on Leven, Moulton, and Warburton, *America's Capacity to Consume*, pp. 54 and 93. The figures are only rough approximations.

^b Income received, less savings and federal income tax.

come classes amounts of income exclusive of savings and federal income taxes. The figures of consumption here given still understate the income consumed by those in the lower income classes because no account is taken of the secondary distribution of income in the form of free public and private services such as education, medical care, etc., which are enjoyed to a greater degree by the lower than the upper income groups. But the mere correction for saving and income taxes makes a striking difference. The group under \$1,000 with a total income of about 3 billion dollars had a direct consumption of more than 5 billions, while the families in the class \$100,000 and over, with an aggregate computed income of nearly 9 billion dollars, consumed less than 3 billions. The other 6 billion dollars (except for the portion paid in direct taxes and contributions) was invested and reinvested. To the extent that new useful production capital resulted from these investments the general public perhaps profited more from the savings than the savers themselves for, as stated before, subsequent experience showed that most of the 1929 investors never realized on their "saving." If proper correction could be made for the secondary distribution such as free services, a still greater equalization would be obtained.

The foregoing is in no way meant to be an apology for or justification of the obvious inequality of incomes. A good case could be made showing that the conditions permitting such uneven distribution in the first place are highly undesirable and detrimental to our economic system and, further, it could perhaps be shown that "maldistribution" is in itself a cause of dissipation of income. But it is essential to clear understanding that the facts be laid bare. Without detracting from the

value of the original estimates it must be emphasized that their application is limited and that modifications and qualifications must be introduced to fit their use. In approximating a distribution of primary income they fail to measure distribution of what may be called use income. The significance of the distinction is indicated by the fact that although the families with stated incomes under \$5,000 accounted for only 58 per cent of the total income as originally computed, they actually consumed at least 69 per cent of the product available for consumption. In 1929 the discrepancy between the two concepts was particularly great because of the incursion into the income stream of a large volume of capital gains which were received principally by the rich and chiefly reinvested. But the tendency for savings at the top to equalize the real incomes is always present.

During the depression some equalization of income was also accomplished by the draft on past accumulations. Many enterprises, in disbursing more than they received, provided income for consumptive purposes to many who otherwise would have had none. The greatest factor in the equalization of income during the depression and since has been, of course, the increased distribution of relief.

From the foregoing it should be clear that the "use income" as distinguished from the "receipts income" has not undergone as much change either in amount or distribution as the usual measures of income would indicate. When we deduct savings and capital gains or losses on the one hand and make allowance for the increase in secondary distribution on the other hand, we find that the differences between 1929 and subsequent years are to a considerable extent smoothed out.

CHAPTER VIII
WAGE CHANGES SINCE 1929

By far the greatest portion of the American people derive their income as employees of business organizations and governments. The majority of these are wage earners and receive their pay on the basis of work actually done or time actually spent at the job. In order to understand the income position of these individuals we must examine it from two angles: from the standpoint of rates of pay and from the standpoint of actual income over a period of time.

To most individuals their own time is, within limits, a highly prized consumption good. They are willing to use it in remunerative occupation only to the extent that it is exchanged for other consumption goods which they prize more. Hence, in the consideration of changes in the income structure some weight should be given to changes in working hours. Unfortunately, it is difficult, if not impossible, to evaluate working hours and changes therein in terms of income. If individuals had their choice in the matter, the time spent in remunerative occupations would be determined by the balance between their desires for other goods and for the use of their own time. Ordinarily, however, their choice is limited by economic conditions and artificial restrictions imposed by government, industry, labor organizations, and custom.

While there is no way of determining an ideal standard for working hours at any given time, we may set down a simple principle which will serve as a background for the consideration of changes in wages, income, and hours of work. At any point of economic progress, a reduction of working hours—provided it is not accom-

panied by a reduction in purchasing power—is the equivalent of an increase in income. However, a reduction in hours which is attended by a reduction in earnings or by a rise in the cost of living may be regarded as a loss to labor, even though the reduction in purchasing power is proportionately no greater than the reduction in hours. This is because comparatively few workers feel that they have too much income and that they would willingly forego part of it for additional leisure.

EARNINGS OF EMPLOYEES IN 1936

In considering the changes in earnings of employees during the course of the depression and recovery we must for the most part stop with 1936. Much of the data for 1937 is still unavailable. Moreover, 1937 has been a year of sharp changes—with an expansion of wage rates, prices, and production in the first half, followed by a recession which has gained cumulative force in the late months of the year.

Hourly earnings in 1936 were above the level of 1929. Reference to Table 19, page 168, shows that while hourly earnings in manufacturing industry as a whole suffered a considerable decline during the depression, they have since recovered and passed the pre-depression level. In 1929 the average was less than 56 cents, while that for 1936 appeared to be above 57 cents. (For the first ten months of 1937 the average was about 64 cents.) The same is true of mining, steam railways, and production and distribution of electricity. For mining the 1936 average was about 112 per cent of 1929, for steam railways about 106 per cent, and for production and distribution of electricity about 117 per cent. (See Table 20, page 169.) The only rates that seemed to lag appreciably behind 1929 were agricultural wages, but they too appeared to be on the way up.

In conjunction with the fact that hourly earnings have increased since 1929, it is of interest to note that the price level, particularly the cost of living, is still considerably lower than in 1929. The two circumstances combine to make *real* hourly earnings of industrial wage earners in 1936 (that is, goods and services that may be purchased with the earnings) on the average some 20 to 25 per cent above those of 1929.

Total annual wages in 1936 were, however, below the pre-depression level. Economic welfare is of course not measured by hourly earnings but by total income over a period of time. On account of the reduction in the number of hours worked and in the amount of employment available, the income of wage earners in 1936 was still considerably below their annual income in the late twenties. The average earnings per wage earner on payrolls of manufacturing industries in 1936 was only about 84 per cent of the 1929 average. The discrepancy appears still greater when total wages are divided by the total number of wage earners normally dependent upon manufacturing for a living. On this basis the average for 1936 was only \$963 as compared with about \$1,250 in 1929. Even when allowance is made for the lowering of the cost of living the two averages fail to come together by a margin of some 6 per cent.

The situation in industries other than manufacturing was more or less the same. According to the Department of Commerce the total compensation of employees paid by industry and government in 1929 was 51.2 billion dollars. This was divided among an estimated total of 37.5 million employees. In 1936 the total wages and salaries estimated by the Department of Commerce was 41.2 billions, or considerably less than the total for 1929. In the meantime the number of workers dependent upon

wages and salaries had increased by about 4.1 millions. The result was that the 1936 average was under \$1,000, as compared with \$1,365 for 1929. The correction for the change in cost of living brings the comparison to \$1,120 and \$1,365 for 1936 and 1929 respectively.

From the indexes of hourly earnings already cited (see page 107), it appeared that the change in wage rates was not uniform among the different industries. In 1936 the hourly wage index (1929=100) for manufacturing stood at about 103, for steam railways at about 106, for building construction at 93, and for production and distribution of electricity at 117. Preliminary figures for 1937 indicate further dispersion among the indexes for the several industrial groups.

WAGE SHIFTS IN MANUFACTURING INDUSTRIES

The movement of hours and earnings in 21 selected groups of manufacturing industries since 1929 may be observed in the data assembled by the National Industrial Conference Board. The chart on page 111, based on these figures, compares the changes which have taken place in the 21 industries between 1929 and May 1937¹ in weekly earnings, hourly earnings, and actual average hours worked per week. The 21 industries are arranged in accordance with the magnitude of the change in weekly earnings. It will be noted that for the group as a whole (labeled "all industries") hourly earnings in May 1937 were 17 per cent higher than in 1929 and actual hours of work 15.7 per cent lower. This was translated into a reduction of 1.4 per cent in weekly earnings. Individually, 13 of the 21 industries showed a reduction in the income of their employees as represented by weekly earnings. The greatest drop was in silk, hosiery and knit

¹ May was the last month for which data were available at the time of the analysis.

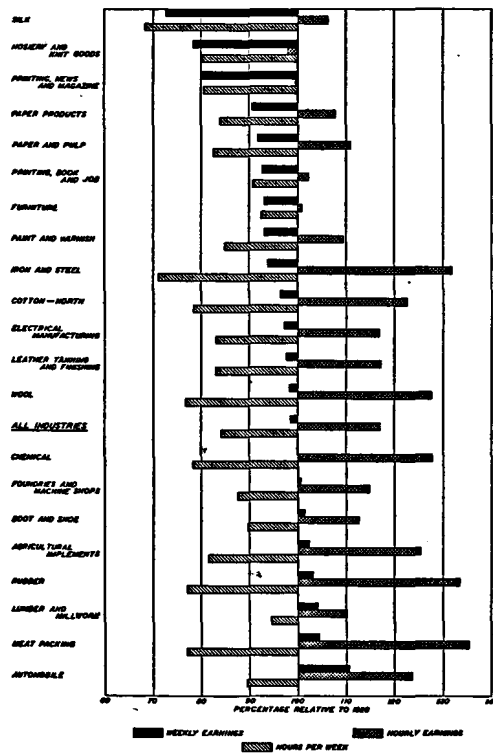
goods, and newsprinting. Weekly earnings in the chemical industry showed no change. Among the 7 industries in which weekly earnings showed an increase the automobile industry heads the list with a rise of about 10 per cent.

Practically all of the 21 industries showed an increase in average hourly earnings. (The exceptions are hosiery and knit goods and newsprinting.) But increases were not uniform and showed only a slight relationship to the change in weekly earnings. The greatest increase in hourly earnings was in meat packing, where the rise was more than 35 per cent. This increase was accompanied by an increase in weekly earnings of about 4.3 per cent. In rubber, hourly earnings rose about 33.5 per cent, while weekly earnings rose only about 3 per cent, and in iron and steel the rise in hourly earnings of about 32 per cent was accompanied by a decline in weekly earnings of about 6 per cent.

The discrepancies between the change in hourly and weekly earnings are, of course, traceable to the changes in the number of hours per week. In iron and steel, for example, the average hours actually worked per week in May 1937 were about 29 per cent lower than in 1929. The reduction in hours was also a dominant factor in most of the other industries. It is only where there was a substantial increase in productivity or where the position of the industry enabled it to absorb or pass on to consumers increased costs of production that the economic position of the worker was maintained or improved. As indicated before, this took place only in the case of 8 of the 21 industries.

The reduction of hours is interesting enough to deserve an additional observation. The actual working time in the 21 industries in 1929 was 49 hours per week.

WAGES AND HOURS IN 1937 RELATIVE TO 1929^a
21 Manufacturing Industries Arrayed According to
Weekly Earnings



^a Based on averages for male wage earners only. The 1937 figures are for May. See Table 21, p. 170.

By May 1937 this had been reduced by nearly 16 per cent to about 41 hours. In the silk industry the hours had been reduced from 50.6 to 34.6—over 30 per cent—with almost a corresponding drop in weekly earnings. In iron and steel the reduction from 54.9 hours to 39.1 hours was accompanied by a reduction in earnings of only 6 per cent. In meat packing the reduction from 51 hours to about 39 hours, combined with an increase of hourly earnings of 35 per cent, resulted in an increase in weekly earnings of about 4.3 per cent.

The payroll statistics of the Bureau of Labor Statistics afford a comprehensive record of weekly earnings in 89 manufacturing industries which may be examined briefly with a view to discovering whether or not the changes since 1929 among different industries have followed some regular pattern. To abbreviate the discussion three periods have been chosen for comparison: the year 1929, the depression "low,"³ and June 1937.

For the 89 industries as a whole the index of weekly earnings at the three points stood at 100.0, 63.9, and 97.4, indicating that the 1929 average had practically been reached in June 1937 despite the decrease in working hours and the lowering of the cost of living. The recovery shown for the industries producing "durable goods" was even greater: in June 1937 their index of weekly earnings was 100.5 while at the depression low it had gone down to 54.2, as compared with 100.0 in 1929. Weekly earnings in the non-durable goods group of manufacturing industries followed a steadier course than in the durable goods group. The lowest the index

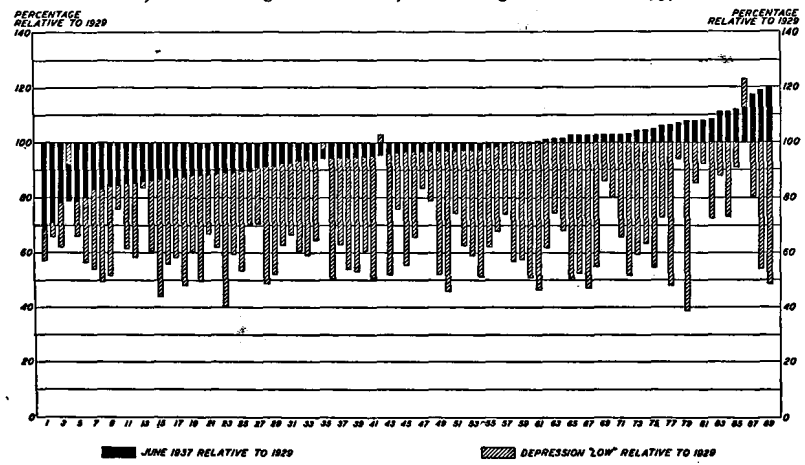
³ The month of lowest employment in the thirties (as shown by indexes adjusted for seasonal change) is taken to represent the depression "low." The low month varied among the different industries, but, with a single exception, it was between May 1932 and August 1933.

has reached was about 71 while in June 1937 it still stood at 93 per cent of 1929.

In part, the better showing made by durable goods industries may be explained by the greater recovery in working hours which has taken place in this group of industries. (In June 1937 the average hours worked per week in the durable goods industries was 40.7 while in the non-durable goods industries it was only 37.6.) In part it may also be due to the better bargaining position of workers in these industries which are heavily weighted with steel, automobiles, tools, and other equipment. The scattering of skilled workers and the diminution of their number during the depression also may have contributed to the more rapid rise in wage rates as recovery got under way. For the most part, however, the explanation lies in a combination of circumstances which cannot be accurately evaluated.

In fact, there appears to be no coherent pattern in the movement of weekly earnings in the different manufacturing industries. The 89 industries in the Bureau of Labor Statistics sample are arrayed in the chart on page 114 according to their change in earnings from 1929 to June 1937. It will be seen that in 31 of the 89 industries, weekly earnings were higher in June 1937 than in 1929. These 31 industries included such widely different branches of manufacturing as blast furnaces and chewing tobacco. Fourteen of these 31 fall in the durable goods group and 17 in the non-durable goods group. The non-durable goods industries with higher earnings in 1937 than in 1929 were for the most part in foods and chemicals. At the two extremes of the array were shops producing steam and electric railroad cars, where earnings in June 1937 were 20 per cent above the aver-

WEEKLY EARNINGS IN JUNE 1937 AND AT THE DEPRESSION "LOW" RELATIVE TO 1929^a
 89 Manufacturing Industries Arrayed According to Relatives for 1937



^a For key numbers see Table 22, p. 171-73.

age for 1929, and the women's clothing industry in which weekly earnings in 1937 were still 32 per cent below the 1929 average. Six of the 12 industries at the bottom, with average earnings in 1937 between 15 and 32 per cent under the 1929 average, are in the apparel group, including textiles, shoes, millinery, etc.

Offhand we might expect that improvement in average earnings of wage earners would correspond to the degree earnings had been reduced during the depression. This, however, is not disclosed by the figures. Among the industries showing earnings higher than in 1929 are found those which suffered both great and small reduction at the bottom of the depression. The same is true of the industries which are still behind in recovery. In the chart we may see that the blast furnace and electric car industries which show depression "lows" of 39 and 49 stand, in terms of relative earnings in 1937, not far from the fertilizer industry, where weekly wages never during the depression went below 90 per cent of the 1929 average.

There is also no apparent relationship on an industrial basis between the increase in weekly earnings and the recovery in employment. Fifteen of the 31 industries which had higher weekly earnings in June 1937 than in 1929 showed an increase in employment and the remainder a decrease. The same mixed condition is found among the industries with decreased earnings.

RECENT INFLUENCES IN THE WAGE SITUATION

Before we leave the question of earnings it is well to consider briefly some of the factors which have affected the situation during the depression and since. During the past few years government action has been a very influential factor in determining wage rates. The NRA

through its codes approached the problem directly by specifying minimum wages and maximum hours of work. This action undoubtedly stimulated an increase in rates during 1934 and its influence has to a great extent been retained either voluntarily or through various pressures.

Even a greater influence upon wages during the depression was exerted by the government's relief policy. By offering direct relief to many prospective workers the relief administration undoubtedly upheld the wage level and prevented wages from going lower than they actually did. The work relief program of the WPA and its forerunner the CWA also tended to maintain or even raise wage rates by draining the market of potential competitors for jobs. The policy of the CWA, WPA, and PWA of paying rates which were usually higher than an unsupported market would have established for the same type of work operated in the same direction.

In 1936 and in the early part of 1937 the tendency toward higher wage rates was strengthened by certain economic factors which sprang from the depression; namely, the deterioration and scattering of the labor force which resulted in a shortage of certain skills. The change in the demand and supply relationship, in certain industries at least, has undoubtedly been reflected in the average rates of pay. Labor organization, which has found encouragement in the New Deal, has also exerted an important influence on the maintenance and advance of wage rates—both by direct action and by the ever-present threat of unionization. Many concerns have attempted to avert the advent of unionism in their plants by voluntarily raising rates of pay.

Among the indirect forces generated by the depression which have affected wage rates in the United States, perhaps the most important is the shortening of hours. Prior to the depression the average working week for wage earners was about 48 or 49 hours. As a result of the various ideas and principles—some good and some bad—which have dominated business, industry, and government during the struggles and vicissitudes of economic distress, the working week has now established itself at approximately 40 hours—a reduction of some 16 to 20 per cent. The lower hours current at the present time are not altogether contingent on the amount of available work. It has become part of the thinking of the people, and a certain resistance to longer hours has been established which is bound to be reflected in rates of pay if not necessarily in improved economic welfare. It is, of course, still early to evaluate the present situation with respect to its degree of permanency, but the indications are very strong that we have settled down to a new basis in so far as working hours are concerned.

The test of the fitness of the established working hours with respect to the maintenance of the standard of living of the people will have to work itself out gradually. If the increase in productivity should keep pace with the trend established in the years prior to the depression, living standards would not suffer on account of reduced hours. The reduction of hours would merely absorb the increase in productivity without reducing the per capita output of the people. However, if productivity should not keep pace, living standards would deteriorate long before there was a general reversal of the trend in hours of work. Under favorable conditions it is, of course, pos-

sible that much of the abrupt decrease in the working week will be only nominal; the volume of business activity may be so expanded as to offer rewards for longer hours of work in paying extra rates for overtime. The result under such conditions would be an increase in the income of the workers.

CHAPTER IX
CHANGES IN DISTRIBUTION BY INCOME
CLASSES SINCE 1929

No estimates of the distribution of income since 1929 have as yet become available. A study now in progress under the auspices of five federal agencies will shed light on conditions in 1935-36.¹ But even when the final results of this study become available, it may not be easy to draw conclusions regarding the changes which have occurred since the beginning of the depression. The difference in methods and orientation and the difference in underlying data between this study and the Brookings survey for 1929 may in themselves account for a good deal of the difference that will be found between the curves for 1929 and for 1935-36. In the absence of any way of evaluating the differences due to methodology, it will be impossible to determine the extent of real change. At any rate we must rely at present on fragmentary data for piecing together some kind of picture of existing conditions as well as of the change.

PROFESSIONAL INCOMES OF PHYSICIANS AND LAWYERS

On the basis of sample data collected by the United States Department of Commerce in connection with its studies of national income,² we can observe the change in

¹ Study of Consumer Purchases conducted by the Department of Labor and the Department of Agriculture with the cooperation of the National Resources Committee, the Works Progress Administration, and the Central Statistical Board. The study is for twelve months overlapping in 1935 and 1936.

² The unpublished material for this analysis was made available through the courtesy of Dr. Robert R. Nathan of the U. S. Dept. of Commerce.

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the distribution of earnings between 1929 and 1936 for two important professional groups. The following approximations are taken from cumulative percentage distribution curves of the professional incomes of physicians and lawyers covered by the sample data.

1929 Income Classes	1936 Income Classes Including the Same Percentages of the Total Number	
	Physicians	Lawyers
Under \$1,000	Under \$700	Under \$625
" 2,000	" 1,500	" 1,400
" 3,000	" 2,225	" 2,300
" 4,000	" 2,900	" 3,150
" 5,000	" 3,550	" 3,800
" 6,000	" 4,300	" 4,400
" 7,000	" 5,100	" 5,300
" 8,000	" 6,000	" 6,300
" 9,000	" 7,000	" 7,400
" 10,000	" 8,050	" 8,200
" 15,000	" 12,300	" 11,400
" 20,000	" 15,000	" 13,600

The amounts listed represent the income classes within which the same proportions of each profession were included in 1929 and 1936. Thus, the same percentage of physicians was included in the income classes up to \$700 in 1936 as in income classes up to \$1,000 in 1929. Likewise the same percentage had incomes under \$1,500 in 1936 as had less than \$2,000 in 1929. Another way of interpreting the figures is that if the professional incomes of physicians were arrayed in order of size in 1929 and 1936, we would find that the same relative position as was occupied by a \$1,000 income in the 1929 array was occupied by a \$700 income in the 1936 array. In the arrays of the professional incomes of lawyers the 1929 position of a \$1,000 income appears to have been occupied in 1936 by a \$625 income. Similarly, the figures indicate that a \$5,000 income in 1929 was replaced by a

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\$3,550 income in the 1936 array of physicians and by \$3,800 in the array of lawyers; and a \$10,000 income was replaced by incomes of \$8,050 and \$8,200 respectively for physicians and lawyers.

It should be noted that the figures characterize the groups as such rather than specific individuals within the groups. It cannot be implied, for example, that the physician who in 1929 had an income of \$5,000 was necessarily the same individual who in 1936 had an income of \$3,550. The relative position occupied by his income in the array for 1929 may have been occupied by the income of another physician in 1936.

The figures show distinctly that for both physicians and lawyers incomes were of a lower order in 1936 than in 1929. In general, it appears that—depending upon the size of income—the professional incomes of physicians in the 1936 array were between 18 and 30 per cent lower than in the 1929 array; lawyers' incomes were between 18 and 38 per cent lower in the array for 1936 than in that for 1929.

EARNINGS OF STEEL WORKERS

Through the courtesy of the United States Bureau of Labor Statistics it has been possible to compare the distributions of hourly and weekly earnings for selected occupations in seven departments of the steel industry for 1929 and 1935. The results of the analysis are summarized in the table on page 122. Before we examine the structural changes in the earnings of the steel workers, let us note that the average hourly earnings for the group in question were 68.5 cents in 1929 and 72.4 cents in 1935 while the average weekly earnings were between \$33 and \$34^a in 1929 and \$24.20 in 1935. This illustrates again the inadequacy of wage increases unless

^a See footnote b of table on p. 122.

EARNINGS OF WAGE EARNERS IN SELECTED OCCUPATIONS IN SEVEN DEPARTMENTS OF THE IRON AND STEEL INDUSTRY IN 1929 AND 1935^a
(Readings at identical points on the percentage scales of cumulative frequency curves)

Hourly Earnings			Weekly Earnings		
1929 Amount	1935		1929 Amount ^b	1935	
	Amount	Ratio to 1929		Amount	Ratio to 1929
\$0.30.....	\$0.400	1.33	\$5.00.....	\$5.00	1.00
.35.....	0.420	1.20	10.00.....	7.75	.78
.40.....	0.437	1.09	15.00.....	12.00	.80
.45.....	0.460	1.02	20.00.....	14.25	.71
.50.....	0.495	.99	25.00.....	17.00	.68
.55.....	0.565	1.03	30.00.....	20.50	.68
.60.....	0.630	1.05	35.00.....	24.25	.69
.65.....	0.695	1.07	40.00.....	28.50	.71
.70.....	0.765	1.09	45.00.....	33.00	.73
.80.....	0.850	1.06	50.00.....	37.50	.75
.90.....	0.955	1.06	55.00.....	41.75	.76
1.00.....	1.045	1.04	60.00.....	47.00	.78
1.10.....	1.150	1.04	65.00.....	51.75	.80
1.20.....	1.250	1.04	70.00.....	56.50	.81
1.30.....	1.340	1.03	80.00.....	65.00	.81
1.40.....	1.420	1.01	90.00.....	70.00	.78

^a Compiled from surveys of the Bureau of Labor Statistics of the U.S. Dept. of Labor. The seven departments are: open hearth furnaces, rail mills, bar mills, plate mills, blast furnaces, Bessemer converters, and blooming mills. Only selected occupations in each department have been included in the comparison.

^b The 1929 figures, which were recorded for a pay period rather than a week, were reduced by the fraction 6/13 in order to make them approximately comparable with the weekly earnings in 1935. The fraction 6/13 is of course only a rough approximation of the ratio of the number of working days in a week to the number in a pay period. As a matter of fact, many of the steel workers in 1929 seem to have had a straight 7-day week. For instance, a "customary turn per week" of 7 days was shown for 54 per cent of the workers in blast furnaces; 66 per cent in open hearth furnaces; 31 per cent in blooming mills; and 10 per cent in plate mills. (See U. S. Bureau of Labor Statistics "Wages and Hours of Labor in the Iron and Steel Industry, 1929," *Bulletin No. 573*, p. 8.)

they are accompanied by reasonably full employment. For the workers in the seven departments of the steel industry the rise of more than 5 per cent in hourly earnings was accompanied by a drop of 28 per cent in weekly earnings.

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Neither the increase in hourly rates nor the decrease in weekly earnings was spread proportionately over the entire group. In so far as the change in hourly earnings is concerned, the workers in the selected occupations seem to have been divided into four classes:⁴ (1) those who in 1929 earned less than 45 cents an hour; (2) those who earned between 45 and 55 cents; (3) those who earned from about 55 cents to \$1.40; and (4) those who earned more than \$1.40 per hour. The lowest paid group gained most. For the same percentage of workers, an hourly rate of 20 cents in 1929 was converted into 30 cents per hour in 1935 and a rate of 30 cents became nearly 40 cents. The increase grows smaller as we approach the region of the second group. Under 45 cents an hour there were about the same proportion of workers in 1935 as there were in 1929. In 1929 about one-half of the workers had hourly earnings between about 55 cents and \$1.40. Although the same percentage was included in this range in 1935, the differences within these limits were all in favor of 1935. Thus an 85 cent rate in 1935 corresponded to an 80 cent rate in 1929. The distributions for the two years come together at about \$1.40 and coincide for the entire 5 per cent of the workers whose rates were above this amount in both years.

The changes in weekly earnings appear more regular than the changes in hourly earnings. All classes of the wage earners had reduced weekly earnings in 1935.⁵ But the greatest change is found in the middle portion of

⁴ The lines of demarcation of the four classes are distinctly apparent on the distribution curves from which the table has been constructed.

⁵ Even at the lower portion of the distribution the coincidence of 1929 and 1935 earnings (such a coincidence is recorded in this table at \$5) may be due more to a shift of workers from the top than to an advance from the bottom.

the distribution comprising from 50 to 60 per cent of the workers and including incomes between about \$20 and \$45 per week. In this portion of the distribution the reduction in weekly earnings between 1929 and 1935 ranged between 27 and 32 per cent. For the group as a whole the average reduction was about 28 per cent. At \$50 on the 1929 scale it was 25 per cent; at \$65, 20 per cent; and at \$70, 19 per cent. Beyond that (that is, for the upper 5 per cent of the workers) the relative reduction in earnings between 1929 and 1935 increased again.

INCOMES REPORTED ON TAX RETURNS

Another illustration of the shift in the income structure may be drawn from the statistics compiled from the federal income tax returns and published annually by the United States Bureau of Internal Revenue. The latest year for which the statistics are available is 1935. Income returns are not a reliable index of income distribution in general. Under the existing law less than 10 per cent of the income recipients submit returns. Even in 1929 little more than 4 million returns were received by the Bureau of Internal Revenue from the total of some 49 million income recipients. In 1935 the number increased to nearly 4.5 millions, but this was still less than 9 per cent of the total. Because of exemptions and other technicalities in the requirements and administration of the income tax law the statistics are useful only for incomes of \$5,000 and over.

Of the 49 million income recipients in the country in 1929, 1,032,000, or 2.1 per cent reported incomes of \$5,000 or more. By 1935 the number of income recipients (that is, those normally receiving an income) had increased to about 53 millions, but owing to the

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general reduction in business activity less than 500,000 income returns carried net incomes of \$5,000 or more. Proportionately the reduction was from more than 2 per cent of the total in 1929 to less than 1 per cent in 1935. The income reported on the returns \$5,000 and over was reduced even more. In 1935 the amount was 6 billion dollars, as compared with nearly 17 billions in 1929. In terms of the national income "produced"⁶ the income reported on returns \$5,000 and over constituted about 21 per cent of the total in 1929 and less than 11 per cent in 1935. Thus it is evident that in dollars and cents those in the higher incomes lost ground more than those in the lower brackets. Not only had many with high incomes in 1929 dropped to the bottom of the income scale by 1935, but a large number of those who remained in the class \$5,000 and over had their incomes drastically reduced, with the result that the average income reported in the class in 1935 was only 76 per cent of the 1929 average (about \$12,350 as compared with about \$16,200).

The figures on the following page are rough approximations read from curves representing the returns for 1929 and 1935 at the same percentage points relative to the total number of income recipients in the two years, and will give an impression of the magnitudes of the shift downward in the upper brackets.

The individual readings are only approximations, but the fact that the drop in income from 1929 to 1935 increased relatively as well as absolutely with the size of income is unmistakable. The decrease in income between 1929 and 1935 for all classes was about 35 per cent,

⁶ This is different from the aggregate of individual incomes which includes items not included in the national income. An estimate of the aggregate of individual incomes is not available for 1935.

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Income Classes in 1929	Income Classes Including the Same Percentages of Income Recipients in 1935	Percentage Ratio of 1935 to 1929
Under \$5,000	Under \$3,300	66.0
" 10,000	" 5,800	58.0
" 15,000	" 8,000	53.3
" 20,000	" 10,000	50.0
" 25,000	" 12,200	48.8
" 30,000	" 14,200	47.3
" 35,000	" 16,000	45.7
" 40,000	" 18,000	45.0
" 50,000	" 21,500	43.0
" 100,000	" 38,500	38.5

but for incomes of \$10,000 the decrease was approximately 42 per cent, for incomes of \$25,000, 51 per cent, for incomes of \$35,000, 54 per cent, and for incomes of \$100,000, 62 per cent.

INCOMES OF URBAN FAMILIES

Two comprehensive surveys of family incomes have been made by governmental agencies since 1929. The Financial Survey of Urban Housing has collected data concerning family incomes in 61 cities during 1929, 1932, and 1933. But since the survey was conducted in 1934, the reliability of the information regarding family income in 1929 may be affected by the element of human memory perhaps more than for 1933 or 1932. A more recent survey is the Urban Study of Consumer Purchases, conducted by the Bureau of Labor Statistics, which has obtained information on family incomes in various cities for the year 1935-36.

The samples used in the two studies have not as yet been subjected to sufficient checking to indicate the extent to which they are representative of the distribution of income in the United States. However, it is possible in a

limited way to use their figures in conjunction in order to observe roughly the shift in the distribution of income which has occurred between 1929 and 1935-36. Only five cities have been duplicated in the tabulations of the two surveys and such conclusions as may be reached must be based on the conditions in these communities. The cities are Portland, Oregon; Providence, Rhode Island; Butte, Montana; Atlanta, Georgia; and Springfield, Missouri.⁷

The figures on page 128 are the result of comparisons of the adjusted data for the five cities from the two samples. The transformation of incomes from 1929 to 1933⁸ and 1935-36 was made on the basis of cumulative percentage distribution curves in the same manner as in preceding comparisons.

Bearing in mind the limitations of the data, let us note a few of the changes in the arrays for the three years. It will be observed from the table that for the population typified by the five cities an income of \$1,000 in the distribution for 1929 was represented by approximately \$530 in the distribution for 1933 and \$725 in the distribution for 1935-36. An income of \$3,000 in 1929 was replaced by \$2,225 and \$2,500 for 1933 and 1935-36 respectively, and an income of \$4,000, by \$2,950 and

⁷ The data for 1929 were made available in advance of their publication through the courtesy of Dr. David L. Wickens and the National Bureau of Economic Research. Though originally collected in connection with the Financial Survey, which was a CWA project sponsored by the Department of Commerce, the 1929 tabulations of the income data were made specially for the National Bureau at its expense. The data used here are from preliminary tabulations still subject to checking and inspection by the Bureau. The figures for 1935-36 were made available to us prior to publication through the courtesy of Dr. A. D. H. Kaplan of the U. S. Bureau of Labor Statistics. Neither the National Bureau of Economic Research nor the Bureau of Labor Statistics is responsible for the application made of their data in this study.

⁸ The 1933 curve for the five cities is based on the figures appearing in David L. Wickens, *Financial Survey of Urban Housing*.

\$3,200. It is believed that beyond \$5,000 the reliability of the data in these samples diminishes as the size of income increases.

Family Income Classes in 1929	Family Income Classes Including the Same Percentages of the Number of Families in:	
	1933	1935-36
Under \$500	Under \$200	Under \$325
" 750	" 350	" 525
" 1,000	" 530	" 725
" 1,500	" 935	" 1,200
" 2,000	" 1,375	" 1,675
" 2,500	" 1,800	" 2,100
" 3,000	" 2,225	" 2,500
" 3,500	" 2,625	" 2,875
" 4,000	" 2,950	" 3,200
" 4,500	" 3,300	" 3,475
" 5,000	" 3,615	" 3,750

The foregoing examples are suggestive of the way in which the reduction in the total national income which occurred between 1929 and 1936 has affected individuals and families in different income classes. The effect upon economic groups will be indicated in the following chapter.

CHAPTER X
CHANGES IN GROUP INCOME SINCE 1929

The total sum of money which flowed into the hands of the American people within the prosperous year of 1929 as compensation for services, as interest, rent, and profits, was about 81 billion dollars.¹ It represented the day-to-day product of the millions of workers—different as to sex, age, color, efficiency, intelligence, and training—engaged in multifarious economic activities in different sections of the country under different conditions of climate and weather, and under varying types of technology. In addition, the people of the country enjoyed in varying degrees, depending upon their possessions, the use of owned homes and other property in direct consumption to the value of some 4 or 5 billion dollars. To this may also be added some 6 billion dollars² in realized profits resulting from changes in the valuation of existing property and securities which, although not income from the standpoint of the nation, were at the disposal of the recipients to command services, to save, or to trade on the security and other markets.

Of the 81 billion dollars arising from current production, about 63.5 per cent was in the form of wages and salaries (including pensions and compensation); 16.6 per cent was net occupational receipts of the self-employed in professions, business, and agriculture; and 19.9 per cent was investment income—interest, dividends,

¹ This amount included returns on foreign investments.

² Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, p. 163.

rent, and corporate savings.³ While the first two divisions of income correspond to more or less distinct groups in the population, the employees and the self-employed,⁴ the third overlaps all classes. Persons who do nothing but "live off their investments" receive only part of the investment income of the nation—how much it is difficult to estimate—and the remainder is received by workers within both the employee and the self-employed classes.

The income of the people decreased materially during the depression and is still below the total reached in 1929. This applies to both production income and the subsidiary income received by individuals. For 1936 the estimated total arising from current production was 64 billion dollars and the preliminary estimate for 1937 made in October was from 68 to 70 billions. The reduction from 1929 indicated by these totals does not entirely represent a loss because along with the lowering of income there has been a lowering of prices. With adjustments for changes in the price level, the estimated total for 1936 is 73 billions and that for 1937 about 76 billions, as compared with 81 billions in 1929.

The foregoing comparison, however, does not take into consideration the growth in available man-power of the nation which accompanied the growth in popula-

³ These percentages are based on the revised figures of the U. S. Dept. of Commerce appearing in Robert R. Nathan, *National Income, 1929-36*, pp. 15-16. Receipts of the self-employed include business savings.

⁴ There is of course considerable shifting between the employee and the self-employed classes; hence within the span of a year many individuals fall within both, and their incomes are included partly in wages and salaries and partly in business profits. Moreover, wages and salaries include disbursements which are on the borderline between salaries and business profits. The high salaries and bonuses received by some corporation officials are in this category; also, the managerial salaries in closely held corporations and "salaries" of partners in certain types of firms are not different from the income classified as the profits of the self-employed.

tion; nor does it allow for technological advances which took place between 1929 and 1937. Since the labor force of the country increased by more than 10 per cent, the income per gainful worker in 1937 was still about 15 per cent lower than in 1929. This means that with the increased labor force and the same productive efficiency that obtained in 1929, the product income in 1937 should have been 89 billion dollars instead of 76 billions. If allowance were also made for technological progress, the hypothetical product income for 1937 would be still higher and the deficiency much greater. But the technological gain has been offset by the rather abrupt reduction in working hours—far exceeding that indicated by the pre-depression trend—which has taken place during the depression and which has apparently been incorporated into the regular industrial set-up. It is therefore reasonable to assume for the purpose in hand that the increased productivity due to technological advance has been wholly absorbed in reduced hours and that the potential income must be gauged only by the numerical strength of the labor force.

In the following pages we shall attempt to indicate some of the changes which have taken place in the income structure since 1929, by groups of industries and income recipients. Because of the absence of data it will not be possible to make any definitive statements with regard to the situation in 1937.

SOURCES OF INCOME

The relative contribution to the national income of various industrial and service activities in 1929 and 1936 may be observed in the table on page 132. The percentages for 1936 are of course related to a smaller total than those for 1929.

INCOME STRUCTURE

DERIVATION OF INCOME IN 1929 AND 1936

Industry or Service and Population Factor	Percentage of Total National Income Pro- duced ^a		Percentage Change in Absolute Amounts from 1929 to 1936 ^c
	1929	1936 ^b	
Agriculture.....	9.1	9.0 ^e	-22 ^e
Mining.....	2.3	1.8	-38
Electric light and power, and gas	1.6	1.8	-14
Manufacturing.....	23.9	23.1	-24
Construction.....	4.0	1.7	-67
Transportation.....	8.8	7.7	-31
Communication.....	1.3	1.2	-23
Trade.....	13.6	12.9	-25
Finance.....	10.8	9.8	-28
Government:			
Including work-relief wages..	8.0	14.6	+43
Excluding work-relief wages..	8.0	11.3	+41
Service.....	11.6	12.3	-17
Miscellaneous.....	5.0	4.1	-35
Total.....	100.0	100.0	-21
Population ^d			+ 5.4
Gainful workers ^d			+ 9.2

^a Based on Nathan, *National Income, 1929-36*, U.S. Dept. of Commerce, p. 11.

^b Does not include rental and benefit payments to farmers or direct relief.

^c Exclusive of benefit payments by the federal government amounting to 287 million dollars.

^d Based on The Brookings Institution, *The Recovery Problem in the United States*, p. 604.

The first two columns of the table show that with the drop in national income there was a shift in the importance of the several industrial divisions as sources of income. Electric light and power, service, and government contributed larger proportions in 1936 than in 1929. But while the relative gains of the first two divisions were inconsequential, that of government was very great indeed—from 8.0 per cent of the total to 14.6 per cent. Among the divisions which lost ground with respect to proportional contribution, construction is out-

standing with a loss from 4.0 per cent of the total to 1.7 per cent. Construction is followed by the miscellaneous group with a loss from 5.0 per cent to 4.1 per cent; finance with a reduction from 10.8 per cent to 9.8 per cent; and transportation and communication, from 10.1 to 8.9 per cent. Manufacturing, mining, trade, and agriculture remained close to their 1929 percentages, which means that their absolute reduction was approximately in proportion to the drop in the national total for all industries.

The significance of the changes in the relative positions of the various industrial divisions in the composition of the national income is obscured not only by the fact that the figures for each year are related to different totals but also by the fact that the two years are not comparable in regard to population, technology, and available labor force. It will be seen from the third column that the total income from all productive activities was 21 per cent lower in 1936 than in 1929. The drop in income from agriculture was about 22 per cent; in manufacturing, trade, and finance between 24 and 28 per cent; in transportation 31 per cent; and in construction 67 per cent. The expansion in government was 43 per cent, most of the increase being due to emergency activities.

The margin of decrease in the national income between 1929 and 1936 is of course widened by the fact that the total population and the available labor force increased during the period by more than 5 per cent and 9 per cent respectively. It is impossible to relate the population factor to the decrease in each of the several industrial divisions, however, without making complicating assumptions.

CLAIMANT GROUPS

Considerable interest is evoked by the question of how the depression and recovery have affected income from wages and salaries as compared with income from business and investments. A general view of this matter may be gained from the estimates prepared by the United States Department of Commerce and shown in the table on page 135. It will be observed that in terms of current dollars (without correction for changes in the price level) the total income received by individuals from private and public enterprise in 1933, the year marking the bottom of the depression, was only about 57 per cent of that in 1929. The recovery since then brought it back to about 79 per cent in 1936. Wages and salaries as well as "entrepreneurial withdrawals"³ followed more or less the same course as total income, though by 1936 wages and salaries had forged ahead a little further than entrepreneurial withdrawals and reached 80.6 per cent of their 1929 total. However, in 1936 wages and salaries included work-relief wages to the amount of more than 2 billion dollars. Exclusive of this item, the compensation of employees in 1936 amounted to about 76.5 per cent of its total in 1929 as compared with about 79 per cent for entrepreneurial withdrawals.

Dividends and rents suffered the greatest decline of any form of payment during the depression, in 1933 being only 37 and 39 per cent respectively of their 1929 totals. In 1936 income from rents was still depressed to a much greater degree than other payments, being only 62 per cent of its 1929 total; dividends, however, participated in the recovery after 1933 almost to the same extent as the others. Interest payments, being largely determined by contract, yielded least to the in-

³The money taken from business by the self-employed merchants, professional practitioners, farmers, etc.

**INCOME RECEIVED BY INDIVIDUALS FROM PRIVATE AND
PUBLIC ENTERPRISE,^a 1929-36**

Year	Amount (In billions of dollars)						Percentages of 1929					
	Total ^b	Wages, Salaries, etc. ^c	Entre- pre- neurial With- drawals	Divi- dends	Inter- est	Net Rents and Royal- ties	Total ^b	Wages, Salaries, etc. ^c	Entre- pre- neurial With- drawals	Divi- dends	Inter- est	Net Rents and Royal- ties
1929....	78.2	51.2	12.3	6.0	5.1	3.4	100.0	100.0	100.0	100.0	100.0	100.0
1930....	72.9	47.2	11.6	5.8	5.3	2.8	93.2	92.2	94.1	97.4	103.5	80.8
1931....	61.6	39.7	10.0	4.3	5.1	2.1	78.7	77.5	81.2	72.6	101.1	61.1
1932....	48.5	31.0	8.1	2.7	4.9	1.5	62.0	60.6	65.5	46.1	96.9	42.8
1933....	44.9	29.3	7.3	2.2	4.6	1.3	57.4	57.2	58.8	37.1	91.1	39.1
1934....	51.0	33.8	8.2	2.7	4.6	1.6	65.2	66.1	66.1	45.0	90.3	47.6
1935....	54.6	36.3	8.9	3.1	4.5	1.8	69.9	70.9	72.0	51.5	87.8	54.1
1936....	62.1	41.2	9.8	4.6	4.4	2.1	79.4	80.6	79.3	76.6	86.0	62.3

^a As estimated by the U. S. Department of Commerce, *Survey of Current Business*, June 1937, p. 15.

^b Includes also net balance of international flow of property incomes.

^c Includes pensions and workmen's compensation and also (in 1933-36) work relief.

roads of depression. The total received by individuals in 1933 was as much as 91 per cent of that in 1929. But interestingly enough, on account of the opportunities to refund at lower rates which have been open to private corporations as well as to the government, the total interest payments continued to decline after 1933 and in 1936 were only 86 per cent as high as in 1929.

Interest, dividends, and rents are all forms of investment income and are usually associated with a special class of income recipients.⁶ It is therefore of interest to combine the three items in order to observe the incidence of the depression and the recovery upon the total. In 1929 the combined income from these sources was 14.5 billion dollars. In 1933, it was only 56 per cent of this amount and in 1936 it was still only 77 per cent.⁷ It will be recalled that in 1936 the income received by individuals from all sources amounted to more than 79 per cent of the 1929 total.

THE SITUATION IN 1937

In the foregoing evaluation of the changes since 1929 we found it necessary to stop with 1936. The figures for 1937 are still incomplete and judgments based on the data for the first part of the year may prove to be far

⁶This, of course, is only partly based on fact. Investment income flows into the hands of all groups—employees and business and professional men, as well as “capitalists.” As already stated, it is impossible to allocate the return from investments to the several groups of the population. Such data as are available, however, point to the fact that the bulk of investment income is received by those in the higher income groups. To this extent investment income does correspond in a general way with a particular population class.

⁷Corporate savings, which may be regarded as income accrued to investors, are not included in these figures. When corporate savings are added, the fluctuation in “investment income” in the past decade appears much more violent. During the depression, the annual aggregates of corporate savings were negative so that their inclusion would further reduce the total investment income during the period.

afield when the final information becomes available. Yet a consideration of 1937, tentative though it must be, should help to emphasize further the dynamic nature of the income structure.

Estimates concerning the income situation made on the basis of the first six to nine months, with no knowledge of the reverses which became prominent in the later months, were comparatively cheerful. We have already seen that on the basis of preliminary and incomplete data the national income for 1937 registered an advance of some 3 billion dollars over 1936 in terms of 1929 prices. In fact, the adjusted estimate for the year was within about 5 billion dollars of the 1929 record. True, an allowance for the increase in population would somewhat widen this margin.

Although it is too early to evaluate the changes which occurred in the latter part of the year, we can indicate roughly the extent to which some of the broad classes of the population participated in the recovery which was registered by the middle of 1937. First let us see what happened to the income of farmers. According to Department of Agriculture estimates published in September, the cash income of farmers for the entire year 1937, including 425 million dollars in government payments, would amount to about 9 billion dollars¹—the highest amount since 1929, when it reached a total of nearly 10.5 billions. Since, however, the prices of goods purchased by farmers were much lower in 1937 than in 1929, the purchasing power of the cash income of farmers appeared to have reached at least as high a point

¹ C. M. Purves, "Buying Power of Farm Income Near Pre-depression Years," *The Agricultural Situation* (Sept. 1, 1937), pp. 17-18. The estimate has since been revised downward to about 8.5 billion dollars, including 380 million dollars in government payments.

as in 1929. What was true of the cash income seems to have been even more true of the net income of farmers. The data for the first eight months of the year indicate a net agricultural income of farmers in 1937 of 5.5 to 6.0 billion dollars. Adjusted for the prices of goods bought by farmers for consumption, the purchasing power of even the lower estimate seemed to approximate 6.7 billion dollars or about 17 per cent above the amount in 1929.

The first part of 1937 showed improvement in the non-farm income as well as in the farm income, but not to the same extent. The extended estimates for the first eight months indicate a non-farm income of about 63 billion dollars for the year, or a purchasing power of about 69 to 70 billions as compared with 75 billions in 1929. By this calculation the purchasing power of the non-farm income would still have been 7 per cent lower than in 1929.

When allowance is made for population changes, however, the difference between the relative purchasing power of farmers and non-farmers is greater than the foregoing estimates reveal. Whereas the farm population has increased about 5 per cent since 1929, the non-farm population has increased 8 per cent. In general, therefore, it would seem that while the per capita purchasing power of the agricultural income of farmers and their families appears to have risen about 11 per cent above that of 1929, the projected per capita purchasing power of the non-farm population is still about 14 per cent below 1929.

Interesting though the foregoing comparison is, we must be careful not to attach too much significance to it.

* This is a rough estimate based on preliminary information of the Department of Agriculture.

Though it is customary to contrast farmers with non-farmers, it should be remembered that the incomes of the two groups are not of an equal order. The loss in income during the depression and the failure to recover since then by the non-farm group is due largely to the decrease in high incomes, none of which are found among farmers.

The various groups within the non-farm population of course fared differently. Wage rates in 1937 were on the whole higher than in 1929. In manufacturing, total payrolls for 1937, if computed on the basis of the first eight months, would approximate 10.5 billion dollars, or \$1,230 per wage earner employed. This would still be 6.5 per cent lower than in 1929, but the cost-of-living index for 1937 was only about 84 per cent of what it was in 1929. Hence the real income in terms of 1929 dollars promised to be some 12.5 billion dollars, which is higher than the total for 1929. This represents an average of \$1,450 per wage earner on payrolls as compared with \$1,315 in 1929. The increase in real income, accompanied as it was by a considerable decrease in working hours, would indicate that wage earners in manufacturing were in a much better position than they were in 1929.

Except for electric light and power and a few other industries, wages apparently rose more in manufacturing than in other industries, but, as stated before, most of the *employed* industrial wage earners seem to have forged ahead of their pre-depression position by the middle of 1937. This gratifying condition, however, was marred by the fact that in 1937, even before the recession in the latter part of the year, there were still some 8 to 9 million people unemployed in the United States,¹⁰ a large

¹⁰ See *American Federationist*, December 1937, p. 1358.

number of whom were dependent on work relief and direct public support.

There is no satisfactory information about profits in 1937. However, corporate earnings for the first three quarters of the year appear to have been about 70 per cent of 1929.¹¹ If the position of individual business men is reflected in this figure, it would seem that entrepreneurs outside of agriculture, and investors, constitute a group which failed to regain lost ground in the matter of income to the same extent as farmers and some wage groups. Even if true, this does not necessarily show that returns to business in 1937 were low. The comparison is with 1929 and the situation in that year need not be accepted as a proper criterion for gauging the relative position of different economic groups. Profits in 1929 may have been "too high."

The foregoing indicates roughly the situation as seen from the figures representing the first part of 1937. In the latter part of the year the recovery movement in all sectors of the income structure suffered a set-back. The magnitude of the reversal and its effect upon the incomes of the different classes of the population are still unknown, but there can be no doubt that the relative positions of the different groups in the income structure have shifted again since the middle of 1937.

The discussion in the preceding pages brings to the foreground the importance of prices in the consideration of the income structure. The number of dollars and cents in which incomes are expressed tells only part of the story. As soon as we attempt to make comparisons among groups of people or periods of time the important ques-

¹¹ Based on composite index of quarterly earnings for 161 industrials, rails, and utilities computed by Standard Statistics Co., Inc. (See *Current Statistics, December, 1937*, p. 7.) For the first half of the year the ratio was 72 per cent.

tion becomes what and how much could or did the dollars and cents purchase. It is generally known that the purchasing power of the dollar varies with time and place. It varies also among different population groups because the pattern of consumption is not the same for all groups and because prices of individual commodities do not all move together. Our statistical knowledge and techniques are still imperfect and it is impossible to make accurate adjustments for prices and cost of living. This puts a strong limitation upon the significance and meaning of figures dealing with the distribution of income.

As stated in the introduction, the object of this study was to contribute toward the clarification of thought with respect to income and its distribution. The purpose of analyzing the determinants of income was to place in proper perspective the dependence of income upon productive activities and to show its relationship to the circumstances and conditions under which different individuals conduct their economic operations. In addition, the purpose of the discussion was to impart vitality to statistics of the distribution of income, which at best present only a static and colorless picture of the essentially dynamic processes by which income is created and diffused.

In the final analysis the income structure is a composite of many parts, each of which is influenced by a different set of factors. Inequalities of income are only partly due to causes applying to the nation as a unit. In large measure they represent inequalities of separate sections of the population, each of which must be accorded separate treatment. Accordingly, remedies aimed at the eradication of poverty and the improvement of general economic welfare—though they must all be coordinated with respect to the people at large—must to a

great extent be applied at particular points and to particular causes. While some must be directed toward improving the conditions under which the productive efforts of the nation as a whole are carried on, others must be concerned with broadening the productive opportunities of certain sections of the population, and still others with perfecting ways and means for the extension of secondary distributions in the form of free services, social insurance, and the like.

APPENDIX

STATISTICAL TABLES

1. PERCENTAGE DISTRIBUTION OF INDIVIDUALS AND FAMILIES BY INCOME CLASSES IN 1929^a

Income Class	Percentage of Individuals	Percentage of Families of Two or More Persons
Under \$1,000.....	39.8	21.5
\$1,000-\$2,000.....	41.0	38.0
\$2,000-\$3,000.....	10.9	18.9
\$3,000-\$4,000.....	3.2	8.9
\$4,000-\$5,000.....	1.5	4.5
\$5,000-\$10,000.....	2.3	5.9
\$10,000 and over.....	1.3	2.3
Total.....	100.0	100.0

^a Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume*, pp. 54, 207.

2. ARRAY OF AVERAGE ANNUAL EARNINGS OF RAILROAD EMPLOYEES IN 1929 BY OCCUPATIONS^a Males in Regular Service

Key Number	Occupation	Average Annual Earnings in 1929
1	Messenger and office boys.....	\$930
2	Extra gang men and section men.....	937
3	Waiters, camp cooks, kitchen helpers, etc.....	972
4	Crossing and bridge flagmen and gatemen.....	995
5	Janitors and cleaners.....	999
6	Maintenance of way laborers (other than track and roadway), gardeners, and farmers.....	1,061
7	Train attendants.....	1,153
8	General laborers (stores and ice, reclamation, and timber-treating plants).....	1,200
9	Classified and general laborers (shops, engine-houses, and power plants).....	1,206
10	Coach cleaners.....	1,223
11	Regular and helper apprentices.....	1,246
12	Common laborers (stations, warehouses, platforms, and grain elevators).....	1,257

^a Federal Coordinator of Transportation, *Annual Earnings of Railroad Employees, 1924-1933*, pp. 174-88.

INCOME STRUCTURE

ARRAY OF AVERAGE ANNUAL EARNINGS OF RAILROAD EMPLOYEES IN 1929
BY OCCUPATIONS*—Continued

Key Number	Occupation	Average Annual Earnings in 1929
13	Callers, loaders, scalers, sealers, perishable-freight inspectors, and truckers	1,295
14	Maintenance of way and structures helpers and apprentices	1,349
15	Pumping equipment operators	1,360
16	Motor vehicle and motor car operators	1,376
17	Baggage agents and assistants, and parcel room and station attendants	1,432
18	Chefs and cooks (restaurants or dining cars)	1,454
19	Skilled trades helpers	1,493
20	Bridge and building painters	1,506
21	Mechanical device operators (office)	1,511
22	Bridge and building carpenters	1,523
23	Outside hostler helpers	1,564
24	Gang or section foremen	1,611
25	Assistant signalmen, assistant signal maintainers, and helpers	1,613
26	Switch tenders	1,661
27	Stationary firemen, oilers, coal passers, and water tenders	1,663
28	Stenographers and typists	1,674
29	Bridge and building ironworkers	1,682
30	Gang foremen (stores and ice, reclamation and timber-treating plants)	1,705
31	Clerks and clerical specialists	1,724
32	Gang foremen (extra gang and work-train laborers)	1,755
33	Assistant general and gang foremen (freight stations, warehouses, grain elevators, and docks)	1,779
34	Molders	1,784
35	Clerk-telegraphers and clerk-telephoners	1,814
36	Telegraphers, telephoners, and towermen	1,869
37	Miscellaneous trades workers (other than plumbers)	1,872
38	Station agents (telegraphers and telephoners)	1,878
39	Carmen	1,882
40	Blacksmiths	1,891
41	Gang foremen (shops, engine-houses, and power plants)	1,892
42	Patrolmen and watchmen	1,915
43	Masons, bricklayers, plasterers, and plumbers	1,934
44	Portable steam equipment operators	1,955
45	Signalmen and signal maintainers	1,958
46	Sheet-metal workers	1,963
47	Outside and inside hostlers	1,988
48	Machinists	1,993
49	Stationary engineers (steam)	2,011
50	Boilermakers	2,017

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ARRAY OF AVERAGE ANNUAL EARNINGS OF RAILROAD EMPLOYEES IN 1929
BY OCCUPATIONS^a—Continued

Key Number	Occupation	Average Annual Earnings in 1929
51	Bridge and building gang foremen	2,018
52	Yard firemen and helpers	2,029
53	Electrical workers	2,073
54	Linemen and groundmen	2,084
55	General foremen (freight stations, warehouses, grain elevators, and docks)	2,120
56	Ticket agents and assistant ticket agents	2,134
57	Yard brakemen and yard helpers	2,159
58	Stenographers and secretaries	2,175
59	Road brakemen and flagmen	2,179
60	Lieutenants and sergeants of police	2,190
61	Station agents, non-telegraphers	2,263
62	Chief clerks (minor departments)	2,300
63	Yard conductors and yard foremen	2,317
64	Road firemen and helpers	2,318
65	Maintenance of way and scale inspectors	2,396
66	Equipment, shop, electrical material, and supplies inspectors	2,424
67	Chief telegraphers and telephoners or wire chiefs	2,504
68	Storekeepers, sales agents, and buyers	2,514
69	Yard engineers and motormen	2,545
70	Road passenger baggagemen	2,565
71	Transportation and dining service inspectors	2,582
72	Freight claim agents or investigators	2,590
73	Professional and sub-professional assistants	2,659
74	Traveling auditors or accountants	2,732
75	Claim agents or investigators	2,739
76	Road conductors	2,765
77	General and assistant general foremen, and inspectors (signal, telegraph, and electrical transmission)	2,834
78	Gang foremen and gang leaders	2,896
79	Traffic and various other agents, inspectors and investigators	2,981
80	Road engineers and motormen	3,004
81	Roadmasters, general foremen, and assistants	3,008
82	Yardmasters and assistant yardmasters	3,027
83	Train dispatchers	3,098
84	General, assistant general, and department foremen	3,355
85	Supervisory or chief clerks	3,449
86	Chief train dispatchers	3,786
87	Division officers, assistants, and staff assistants	4,132
88	Executives, general officers, and assistants	8,144

3. DISTRIBUTION OF WAGE EARNERS IN THE IRON AND STEEL INDUSTRY
ACCORDING TO AVERAGE HOURLY EARNINGS IN MARCH 1935^a

Average Hourly Earnings (In dollars)	Number of Wage Earners	Simple Percentage	Cumulative Percentage
Under 0.250.....	14	b	b
0.250 and under 0.275.....	38	b	b
0.275 and under 0.300.....	262	0.3	0.3
0.300 and under 0.325.....	301	0.3	0.6
0.325 and under 0.350.....	324	0.4	1.0
0.350 and under 0.375.....	555	0.6	1.6
0.375 and under 0.400.....	851	0.9	2.5
0.400 and under 0.425.....	2,076	2.3	4.8
0.425 and under 0.450.....	2,937	3.2	8.0
0.450 and under 0.475.....	4,977	5.5	13.5
0.475 and under 0.500.....	7,652	8.5	22.0
0.50 and under 0.55.....	11,840	13.0	35.0
0.55 and under 0.60.....	11,808	13.0	48.0
0.60 and under 0.65.....	8,884	9.8	57.8
0.65 and under 0.70.....	7,574	8.4	66.2
0.70 and under 0.75.....	6,131	6.8	73.0
0.75 and under 0.80.....	5,025	5.6	78.6
0.80 and under 0.85.....	3,916	4.3	82.9
0.85 and under 0.90.....	3,131	3.5	86.4
0.90 and under 0.95.....	2,343	2.6	89.0
0.95 and under 1.00.....	1,947	2.2	91.2
1.00 and under 1.10.....	2,683	3.0	94.2
1.10 and under 1.20.....	1,408	1.6	95.8
1.20 and under 1.30.....	1,041	1.2	97.0
1.30 and under 1.40.....	732	0.8	97.8
1.40 and under 1.50.....	524	0.6	98.4
1.50 and under 1.60.....	400	0.4	98.8
1.60 and under 1.70.....	341	0.4	99.2
1.70 and under 1.80.....	217	0.2	99.4
1.80 and under 1.90.....	167	0.2	99.6
1.90 and under 2.00.....	116	0.1	99.7
2.00 and over.....	269	0.3	100.0
Total.....	90,484	100.0	

^a Covers male plant wage earners in 21 departments of the industry. Figures from Edward K. Frazier, "Earnings in the Iron and Steel Industry, 1933 and 1935," *Monthly Labor Review*, September 1936, p. 659.

^b Less than 1/10 of 1 per cent.

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4. DISTRIBUTION OF BUILDING-TRADES EMPLOYEES ACCORDING TO CLASSIFIED RATES PER HOUR IN 1936^a

Classified Rate per Hour (in dollars)	Number of Employees	Simple Percentage	Cumulative Percentage
Under 0.225.....	288	0.2	0.2
0.225 and under 0.275.....	1,703	0.9	1.1
0.275 and under 0.325.....	3,252	1.7	2.8
0.325 and under 0.375.....	2,080	1.1	3.9
0.375 and under 0.425.....	11,871	6.4	10.3
0.425 and under 0.475.....	3,748	2.0	12.3
0.475 and under 0.525.....	14,734	7.9	20.2
0.525 and under 0.575.....	3,632	2.0	22.2
0.575 and under 0.625.....	7,878	4.2	26.4
0.625 and under 0.675.....	8,382	4.5	30.9
0.675 and under 0.725.....	6,513	3.5	34.4
0.725 and under 0.775.....	9,355	5.0	39.4
0.775 and under 0.825.....	7,753	4.2	43.6
0.825 and under 0.875.....	3,537	1.9	45.5
0.875 and under 0.925.....	8,240	4.4	49.9
0.925 and under 0.975.....	5,666	3.0	52.9
0.975 and under 1.025.....	17,541	9.5	62.4
1.025 and under 1.075.....	2,920	1.6	64.0
1.075 and under 1.125.....	5,616	3.0	67.0
1.125 and under 1.175.....	6,518	3.5	70.5
1.175 and under 1.225.....	5,863	3.2	73.7
1.225 and under 1.275.....	15,378	8.3	82.0
1.275 and under 1.325.....	2,860	1.5	83.5
1.325 and under 1.375.....	892	0.5	84.0
1.375 and under 1.425.....	11,251	6.0	90.0
1.425 and under 1.475.....	1,147	0.6	90.6
1.475 and under 1.525.....	14,104	7.6	98.2
1.525 and under 1.575.....	85	b	98.2
1.575 and under 1.625.....	27	b	98.2
1.625 and under 1.675.....	1,469	0.8	99.0
1.675 and under 1.725.....	1,295	0.7	99.7
1.725 and under 1.775.....	478	0.3	100.0
1.775 and over.....	69	b	100.0
Total.....	186,145	100.0	

^a Covers principal occupations in the building trades, excluding apprentices and foremen, in September, October, and November. Figures from Edward P. Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, p. 290.

^b Less than 1/10 of 1 per cent.

5. AVERAGE HOURLY EARNINGS OF MALES IN SELECTED OCCUPATIONS OF THE TEXTILE INDUSTRIES IN AUGUST 1934

Average Hourly Earnings (in cents)	Cotton Goods ^a		Silk and Rayon ^b	Woolen and Worsted ^c	Textile Dyeing and Finishing ^d	
	North	South			Cotton	Silk and Rayon
25 to 29	Laborers and apprentices	Learners and apprentices Laborers Cleaners, machinery				
30 to 34	Filling hands Cleaners, machinery	Filling hands Truckers Roving men Creelers Picker tenders Oilers Helpers, general factory Watchmen Spooler tenders Drawing frame tenders Carders and strippers Doffers Spinners, frame	Bobbin boys			
35 to 39	Roving men Oilers Laborers, white Truckers, hand Drawing frame tenders Helpers, general factory	Slubber tenders Spooler tenders Smash hands Warper tenders		Gill-box tenders	Laborers	
40 to 49	Spinners, frame Picker tenders Card tenders, and strippers Weavers Smash hands Watchmen Doffers	Weavers Fixers, machinery Warp tying machine tenders Card grinders		Picker tenders Truckers	Helpers Dyeing-machine tenders, yarn Washer tenders Truckers, hand Laborers, dye-house Drier tenders, cloth Calendar tenders	

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Average Hourly Earnings (in cents)	Cotton Goods ^a		Silk and Rayon ^b	Woolen and Worsted ^c	Textile Dyeing and Finishing ^d	
	North	South			Cotton	Silk and Rayon
45 to 49	Speeder tenders Slubber tenders Section hands Warp tying machine tenders Card grinders	Section hands	Spinners Weavers		Dyeing-machine tenders, cloth	
50 to 59	Fixers, machinery	Loom fixers Second hands		Perchers	Clerks, factory Maintenance and power	Laborers, dyehouse Drier tenders, cloth Dyeing-machine tenders, yarn Helpers Washer tenders Truckers Tenter-frame tenders Laborers Calendar tenders Dyeing-machine tenders, cloth
60 to 69	Second hands Loom fixers Working foremen	Working foremen	Warpers			Clerks, factory
70 to 84			Loom fixers		Foremen, working	Foremen, working

^a U. S. Bureau of Labor Statistics, *Textile Report, Part I*, "Wage Rates and Weekly Earnings in the Cotton Goods Industry from July 1933 to August 1934," (Feb. 4, 1935), pp. 38-39.
^b The same, *Part II*, "Wage Rates and Weekly Earnings in the Silk and Rayon Goods Industry from April 1933 to August 1934," (March 25, 1935), p. 23.
^c The same, *Part III*, "Wage Rates and Weekly Earnings in the Woolen and Worsted Goods Industry from January 1933 to August 1934," (April 17, 1935), p. 45.
^d "Hourly and Weekly Earnings in Textile Dyeing and Finishing: Cotton, Silk and Rayon, 1933 and 1934," *Monthly Labor Review*, May 1936, pp. 1343 and 1355.

6. HOURLY ENTRANCE RATES OF ADULT MALE COMMON LABORERS IN 13 INDUSTRIES, JULY 1935^a

Industry	Hourly Entrance Rates		
	Average	High	Low
Lumber (sawmills)	\$0.356	\$0.500	\$0.145
Brick, tile, and terra cotta . . . . .	.382	.800	.150
Foundry and machine shop products . . . . .	.400	.625	.180
Paper and pulp . . . . .	.411	.550	.230
Leather . . . . .	.419	.575	.260
Public utilities ^b . . . . .	.420	.680	.150
Electrical machinery, apparatus, and supplies . . . . .	.429	.600	.340
Iron and steel . . . . .	.441	.500	.250
Cement . . . . .	.443	.600	.300
Slaughtering and meat packing . . . . .	.457	.500	.300
General contracting ^c . . . . .	.481	.950 ^d	.250
Petroleum refining . . . . .	.522	.650	.369
Automobile . . . . .	.612	.750	.350

^a Paul H. Moncur, "Entrance Rates Paid to Common Labor, July 1935," *Monthly Labor Review*, March 1936, p. 703.

^b Includes street railways, gas works, and electric power and light plants.

^c Includes building, highway, public works, and railroad construction.

^d It is difficult to tell to what extent the unusually high rates are due to misinterpretation by the reporting firms of the term common labor.

7. UNION AND NON-UNION WAGES IN SELECTED OCCUPATIONS IN THE BUILDING TRADES BY GEOGRAPHIC DIVISION, 1936*

I. AVERAGE HOURLY WAGES

Geographic Division	Total					Non-Union					Union				
	Brick-layers	Car-penters	Hod Carriers	Plaster-ers	Com-mon Labor-ers	Brick-layers	Car-penters	Hod Carriers	Plaster-ers	Com-mon Labor-ers	Brick-layers	Car-penters	Hod Carriers	Plaster-ers	Com-mon Labor-ers
United States.....	\$1.304	\$1.048	\$0.781	\$1.292	\$0.516	\$0.972	\$0.805	\$0.577	\$0.938	\$0.420	\$1.351	\$1.150	\$0.850	\$1.354	\$0.629
New England.....	1.210	.980	.676	1.271	.601	1.034	.803	.561	1.011	.485	1.348	1.066	.759	1.303	.671
Middle Atlantic....	1.399	1.165	.850	1.415	.538	.939	.845	.602	.953	.483	1.447	1.241	.897	1.467	.572
East North Central.	1.314	1.132	.750	1.324	.613	1.030	.802	.653	.961	.494	1.335	1.224	.801	1.372	.704
West North Central.	1.273	.992	.806	1.227	.393	1.022	.765	.557	.960	.435	1.328	1.103	.859	1.255	.735
South Atlantic.....	1.109	.937	.571	1.158	.431	.950	.756	.463	.897	.374	1.287	1.149	.604	1.248	.560
East South Central.	1.197	.847	.571	1.085	.338	1.005	.708	.425	1.010	.337	1.211	.896	.575	1.108	.352
West South Central.	1.138	.883	.455	1.057	.359	.894	.753	.401	.857	.359	1.208	.983	.551	1.161	.363
Mountain.....	1.278	1.036	.818	1.195	.497	.915	.801	.606	.838	.444	1.320	1.187	.859	1.347	.512
Pacific.....	1.348	1.043	1.004	1.336	.627	.928	.924	.606	1.141	.570	1.410	1.088	1.042	1.351	.650

II. PERCENTAGE OF AVERAGES FOR UNITED STATES

United States.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
New England.....	92.8	93.5	86.6	98.4	116.5	106.4	99.7	97.2	107.7	115.5	92.3	92.7	89.3	96.2	106.7
Middle Atlantic....	107.3	111.2	108.9	109.5	104.3	95.4	104.9	104.3	101.6	115.0	107.1	107.9	105.5	108.4	90.9
East North Central.	100.7	108.0	96.0	102.5	118.8	106.0	99.6	113.2	102.4	117.6	98.8	106.4	94.2	101.4	111.9
West North Central.	97.6	94.9	103.2	95.0	114.9	105.1	95.0	96.5	102.3	103.5	98.3	95.9	101.1	92.7	116.8
South Atlantic.....	82.0	89.4	66.7	89.6	83.5	97.7	93.9	80.2	95.6	89.0	95.3	99.9	71.1	82.2	89.0
East South Central.	91.8	80.8	73.1	84.0	65.5	103.4	87.9	73.7	107.7	80.2	89.6	77.9	67.6	81.9	56.0
West South Central.	87.3	84.3	58.3	81.8	69.6	92.0	93.5	69.5	91.4	85.5	89.4	83.5	84.8	85.8	37.7
Mountain.....	98.0	101.6	104.8	92.5	95.3	94.1	99.5	105.0	89.3	105.7	97.7	103.2	101.0	99.5	81.4
Pacific.....	103.4	99.6	128.5	103.4	121.5	93.5	114.8	105.0	121.6	135.6	104.4	94.6	122.5	99.8	103.3

* Edward P. Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, pp. 284-87.

INCOME STRUCTURE

✓ 8. MEDIAN INCOME IN 1934 OF EMPLOYED WORKERS IN MICHIGAN
BY CLASS OF CITY^a

Present Occupation	State Total	First-Class Cities	Second-Class Cities	Metropolitan Townships	Towns and Villages	Rural Townships
Total.....	\$840	\$980	\$873	\$834	\$707	\$473
Professional.....	1,326	1,501	1,307	1,279	911	698
Proprietors ^b	835	1,566	1,514	903	1,093	500
Clerical.....	1,004	1,075	922	936	740	708
Skilled.....	1,096	1,163	1,037	1,032	769	803
Semi-skilled.....	764	809	721	777	540	521
Unskilled.....	461	596	509	486	402	334

^a State Emergency Welfare Relief Commission, "Total Income during 1934 of Gainful Workers," *Michigan Census of Population and Unemployment*, p. 3. The population groups are as follows: (1) first-class cities—over 40,000 inhabitants; (2) second-class cities—3,000 to 40,000 inhabitants; (3) towns and villages—under 3,000 inhabitants; (4) metropolitan townships—townships immediately adjacent to first-class cities, characterized by relatively dense population, a high proportion of rural non-farm population, and rapid population growth; (5) rural townships—of predominantly open country type.

^b Includes managers and officials. A considerable number of the proprietor group are farmers; if proprietors in agriculture were excluded the group average would compare more favorably with the other occupational averages.

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9. EARNINGS OF SELECTED GROUPS BY SIZE OF CITY

Population Group	Average Hourly Earnings					Median Annual Salary of Staff Nurses in Health Departments 1937 ^c	Median Annual Net Incomes, 1929	
	Common Laborers Employed by Cities, 1935 ^a		Building Trades, 1936 ^b				Physicians ^d	Dentists ^e
	North	South	Car-penters	Brick-layers	Common Laborers			
Rural.....	...	...	...	...	...	\$1,512	...	...
Under 5,000.....	...	...	...	...	...	1,380	\$2,500	\$3,142
5,000-9,999.....	...	...	...	...	...	1,380	4,500	3,718
10,000-24,999.....	\$0.452	\$0.261	...	...	...	1,548	5,150	4,180
25,000-49,999.....	.458	.276	...	...	...	1,548	5,500	4,244
50,000-99,999.....	.520	.310	\$0.878	\$1.136	\$0.422	1,476	5,500	4,244
100,000-249,999.....	.518	.373	.912	1.193	.424	1,464	5,400	4,036
250,000-499,999.....	.518	.373	1.001	1.237	.476	1,548	5,200	4,036
500,000-999,999.....	.637	...	1.118	1.347	.609	1,548	4,700	4,927
1,000,000 and over..	.637	...	1.167	1.404	.609	1,752	4,700	4,927
All communities.....	\$0.532	\$0.320	\$1.048	\$0.972	\$0.516	\$1,620	\$4,100	\$3,989

^a U. S. Bureau of Labor Statistics, "Entrance Rates and Full-Time Hours of Common Laborers Employed by Cities, September 1935," *Bulletin No. 637*, p. 7.
^b Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, pp. 204-95.
^c Salaries of Public Health Nurses, 1937," *Monthly Labor Review*, August 1937, p. 447. (Monthly salaries were converted to annual basis.)
^d Professional incomes of physicians in private practice only. See Maurice Leven, *The Incomes of Physicians* (University of Chicago Press), p. 35.
^e Professional incomes of dentists in general practice only. See Maurice Leven, *The Practice of Dentistry and the Incomes of Dentists in Twenty States: 1929*, p. 100.

INCOME STRUCTURE

10. MEDIAN INCOME IN 1934 OF EMPLOYED WORKERS IN MICHIGAN BY AGE AND OCCUPATION^a

Age Group	All Occu- pations	Profes- sional	Proprie- tors, Managers, and Officials ^b	Clerical	Skilled	Semi- skilled	Un- skilled
Total	\$840	\$1,326	\$835	\$1,004	\$1,096	\$764	\$461
15-24	480	585	553	631	705	505	321
25-34	916	1,273	962	1,077	1,087	819	521
35-44	1,023	1,666	1,067	1,285	1,178	861	588
45-54	930	1,731	887	1,271	1,137	829	560
55-64	789	1,606	687	1,178	1,065	732	519
65 and over	576	1,519	482	980	955	590	448

^a Medians computed from frequency distributions shown in State Emergency Welfare Relief Commission, "Total Income during 1934 of Gainful Workers," *Michigan Census of Population and Unemployment*, p. 6.

^b A considerable number of the proprietor group are farmers; if proprietors in agriculture were excluded the group average would compare more favorably with the other occupational averages.

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11. COMPARISON OF AVERAGE HOURLY EARNINGS OF MALES AND FEMALES IN SELECTED INDUSTRIES AND OCCUPATIONS, 1934-36

Industry and Occupation	Average Hourly Earnings		Ratio of Female to Male Earnings
	Male	Female	
1936			
Cigar ^a	\$0.463	\$0.338	0.730
North.....	.477	.343	.719
Helpers, stocking.....	.348	.298	.856
Conditioners helpers, leaf.....	.346	.298	.861
Cigar makers, hand, whole work.....	.421	.369	.877
Bunchmakers, hand.....	.395	.361	.914
Rollers, hand.....	.333	.322	.967
Bunchmakers, hand manipulated machine.....	.291	.343	1.179
Bunchmakers, shredded filler machine.....	.340	.380	1.117
Examiners, final, cigar, and box.....	.494	.377	.763
Packers.....	.448	.370	.826
Supervisory employees, office and plant.....	.809	.458	.566
Clerical employees, office and plant.....	.500	.454	.908
Miscellaneous direct unskilled workers.....	.353	.288	.815
Miscellaneous service workers.....	.368	.380	1.032
South.....	.445	.321	.721
Helpers, stocking.....	.356	.300	.843
Selectors, wrappers.....	.734	.408	.556
Cigar makers, hand, whole work.....	.365	.354	.970
Bunchmakers, hand.....	.453	.339	.748
Rollers, hand.....	.333	.320	.961
Bunchmakers, shredded filler machine.....	.364	.342	.939
Packers.....	.615	.422	.686
Clerical employees, office and plant.....	.569	.451	.793
1935			
Folding paper box ^b.....	.577	.389	.674
North.....	.586	.395	.674
Press feeders.....	.506	.384	.759
Strippers.....	.483	.376	.778
Automatic gluing- and folding-machine feeders.....	.442	.386	.873
Machine helpers.....	.453	.369	.815
Bundlers and packers.....	.492	.381	.774
Machine feeders.....	.466	.385	.826
Clerical employees, office and plant.....	.590	.503	.852

INCOME STRUCTURE

COMPARISON OF AVERAGE HOURLY EARNINGS OF MALES AND FEMALES IN
SELECTED INDUSTRIES AND OCCUPATIONS—Continued

Industry and Occupation	Average Hourly Earnings		Ratio of Female to Male Earnings
	Male	Female	
<i>1935—continued</i>			
Set-up paper box ^a	\$0.545	\$0.378	0.694
North.....	.556	.382	.687
Corner-cutter feeders.....	.425	.367	.864
Single-stayer operators.....	.477	.395	.828
Quadruple-stayer feeders.....	.452	.364	.805
Box makers, hand.....	.519	.379	.730
Miscellaneous bench workers, unskilled.....	.418	.348	.832
Machine helpers and floormen.....	.397	.339	.854
Bundlers and packers.....	.415	.345	.832
Office and plant supervisory employees.....	.795	.531	.668
Office and plant clerical employees.....	.558	.471	.844
Cigarette, snuff, chewing- and smoking-tobacco ^b.....	.485	.373	.769
Corrugated and solid fiber shipping-container ^c.....	.536	.396	.739
<i>1934</i>			
Folding paper box ^b.....	.576	.386	.670
North.....	.584	.389	.666
Press feeders.....	.504	.382	.758
Strippers.....	.482	.382	.793
Automatic gluing- and folding-machine feeders.....	.445	.370	.832
Machine helpers.....	.448	.367	.819
Bundlers and packers.....	.491	.382	.778
Machine feeders.....	.461	.376	.816
Clerical employees, office and plant.....	.586	.491	.838
Set-up paper box ^a.....	.557	.387	.695
North.....	.569	.391	.687
Corner-cutter feeders.....	.429	.359	.837
Single-stayer operators.....	.493	.397	.805
Quadruple-stayer feeders.....	.440	.363	.825
Box makers, hand.....	.577	.387	.671
Miscellaneous bench workers, unskilled.....	.421	.366	.869
Machine helpers and floormen.....	.402	.347	.863
Bundlers and packers.....	.438	.360	.822
Office and plant supervisory employees.....	.808	.526	.651
Office and plant clerical employees.....	.571	.476	.833

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COMPARISON OF AVERAGE HOURLY EARNINGS OF MALES AND FEMALES IN
SELECTED INDUSTRIES AND OCCUPATIONS—Continued

Industry and Occupation	Average Hourly Earnings		Ratio of Female to Male Earnings
	Male	Female	
1934—continued			
Cotton goods ¹			
North.....	\$0.421	\$0.373	0.886
Weavers.....	.442	.435	.984
Smash hands.....	.435	.389	.894
Speeder tenders.....	.454	.402	.885
Doffers.....	.432	.359	.831
Spinners, frame.....	.445	.378	.850
Drawing frame tenders.....	.389	.352	.905
Cleaners, machinery.....	.325	.335	1.031
Filling hands.....	.343	.335	.977
Laborers, white.....	.355	.333	.938
South.....	.339	.321	.947
Weavers.....	.401	.382	.952
Smash hands.....	.362	.334	.923
Speeder tenders.....	.368	.353	.959
Spinners, frame.....	.338	.321	.949
Drawing frame tenders.....	.338	.309	.914
Cleaners, machinery.....	.274	.278	1.014
Filling hands.....	.311	.307	.987
Laborers, white.....	.280	.297	1.061
Silk and rayon*			
United States			
Warpers.....	.620	.499	.805
Weavers.....	.482	.433	.898
Spinners.....	.456	.356	.781
South			
Warpers.....	.455	.427	.938
Weavers.....	.460	.396	.861
Spinners.....	.383	.349	.911
Middle Atlantic			
Warpers.....	.611	.483	.790
Weavers.....	.479	.425	.887
Spinners.....	.455	.354	.778
Paterson			
Warpers.....	.825	.517	.627
Weavers.....	.519	.499	.961
Spinners.....	.444	.318	.716
New England			
Warpers.....	.641	.501	.781
Weavers.....	.484	.443	.915
Spinners.....	.523	.435	.831

INCOME STRUCTURE

COMPARISON OF AVERAGE HOURLY EARNINGS OF MALES AND FEMALES IN
SELECTED INDUSTRIES AND OCCUPATIONS—Continued

Industry and Occupation	Average Hourly Earnings		Ratio of Female to Male Earnings
	Male	Female	
1934—continued			
Woolen and worsted ^b			
Northern New England			
Gill-box tenders.....	\$0.401	\$0.399	0.995
Weavers.....	.496	.504	1.016
Drawing frame tenders.....	.441	.385	.873
Southern New England			
Gill-box tenders.....	.389	.362	.930
Weavers.....	.624	.572	.917
Drawing frame tenders.....	.374	.377	1.008
Mid-Atlantic and Mid-West			
Gill-box tenders.....	.382	.384	1.005
Weavers.....	.529	.502	.949
Drawing frame tenders.....	.388	.378	.974
South			
Gill-box tenders.....	.....	.....	—
Weavers.....	.452	.367	.812
Drawing frame tenders.....	.....	.....	—
Cotton textile finishing ^c	.495	.401	.810
Clerks, factory.....	.510	.402	.788
Silk and rayon finishing ^d	.617	.438	.710
Productive workers.....	.586	.437	.746
Miscellaneous.....	.701	.438	.625
Clerks, factory.....	.623	.442	.709
Bread-baking ^e	.570	.379	.665
North.....	.590	.392	.665
Direct labor: unskilled.....	.473	.359	.759
Indirect labor: other.....	.596	.413	.693
South.....	.462	.325	.704
Direct labor: unskilled.....	.373	.304	.815
Indirect labor: other.....	.473	.337	.712
Corrugated and solid fiber shipping-container ^f	.507	.383	.755

^a Henry A. Bates and Donald L. Helm, "Earnings and Hours in Cigar Industry, March 1936," *Monthly Labor Review*, April 1937, pp. 954 and 957.

^b U.S. Bureau of Labor Statistics, "Wages, Hours, and Working Conditions in the Folding-Paper-Box Industry, 1933, 1934, 1935," *Bulletin No. 620*, p. 15. Averages are for August.

^c Victor S. Baril, "Earnings and Hours in the Set-Up Paper-Box Industry, 1933 to 1935," *Monthly Labor Review*, August 1936, pp. 420-21. Averages are for August.

^d Mortier W. La Fever, "Earnings in Cigarette, Snuff, and Chewing and

(Footnotes continued on page 161)

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12. DIFFERENCES IN AGE AND INCOME OF MALE AND FEMALE
WORKERS IN MICHIGAN

Age Group	Per Cent of Workers in Age Group ^a (1930)		Median Income for Age Group ^b (1934)	
	Male	Female	Male	Female
Under 15.....	0.1	0.1	...	...
15-19.....	4.7	14.5	\$ 528	\$432
20-24.....	12.2	23.8		
25-29.....	13.7	15.1	969	746
30-34.....	13.1	10.8		
35-39.....	13.6	9.8	1,084	710
40-44.....	11.6	7.5		
45-49.....	9.5	6.0	979	632
50-54.....	7.3	4.6		
55-59.....	5.4	3.3	836	485
60-64.....	4.0	2.3		
65-69.....	2.7	1.3	624	405
70-74.....	1.4	0.6		
75 and over.....	0.7	0.3		
Total.....	100.0	100.0	\$912	\$583

^a Distributions based on all gainful workers except unpaid family workers on farms. Compiled from "Occupations, by States," *Fifteenth Census of the United States: 1930, Population*, Vol. IV, pp. 798, 800, 802, 819, 962.

^b Median incomes of employed workers, State Emergency Welfare Relief Commission, "Total Income during 1934 of Gainful Workers," *Michigan Census of Population and Unemployment*, p. 2.

Smoking Tobacco Plants, 1933-35," *Monthly Labor Review*, May 1936, p. 1346. Averages are for March.

^c "Employment, Wages, and Hours in Corrugated and Solid Fiber Shipping-Container Industry," *Monthly Labor Review*, September 1936, pp. 687-88. Averages are for March.

^d U. S. Bureau of Labor Statistics, *Textile Report, Part I*, "Wage Rates and Weekly Earnings in the Cotton Goods Industry," pp. 38-39, 43. Averages are for August.

^e The same, *Part II*, "Wage Rates and Weekly Earnings in the Silk and Rayon Goods Industry," pp. 23 and 34. Averages are for August.

^f The same, *Part III*, "Wage Rates and Weekly Earnings in the Woolen and Worsted Goods Industry," p. 45. Averages are for August.

^g "Hourly and Weekly Earnings in Textile Dyeing and Finishing: Cotton, Silk, and Rayon, 1933 and 1934," *Monthly Labor Review*, May 1936, pp. 1343 and 1355. Averages are for August.

^h U. S. Bureau of Labor Statistics, "Wages, Hours, and Working Conditions in the Bread-Baking Industry, 1934," *Bulletin No. 623*, pp. 22, 26, 32, 40, 41. Averages are for December.

13. AVERAGE HOURLY ENTRANCE RATES OF ADULT MALE COMMON LABORERS
IN 20 INDUSTRIES BY RACE AND STATE, JULY 1936^a

Geographic Division and State	Average Hourly Entrance Rates		Ratio of Negro to White Earnings
	White	Negro	
United States			
Weighted average ^b	\$0.448	\$0.354	.79
Simple average ^c.....	.401	.385	.96
North			
Weighted average ^b.....	.462	.460	.99
Simple average ^c.....	.457	.460	1.01
South			
Weighted average ^b.....	.368	.297	.81
Simple average ^c.....	.345	.309	.90
States arranged according to ratios of rates for negroes to those for whites:			
Wisconsin.....	.428	.509	1.19
Kansas.....	.437	.471	1.08
Pennsylvania.....	.447	.477	1.07
Nebraska.....	.452	.472	1.04
California.....	.487	.497	1.02
District of Columbia.....	.459	.468	1.02
Missouri.....	.436	.445	1.02
Minnesota.....	.466	.472	1.01
Michigan.....	.434	.437	1.01
Ohio.....	.461	.460	1.00
New Jersey.....	.452	.449	.99
West Virginia.....	.422	.420	.99
Connecticut.....	.427	.418	.98
New York.....	.456	.448	.98
Maryland.....	.374	.365	.98
Alabama.....	.298	.289	.97
Indiana.....	.435	.438	.96
Illinois.....	.493	.474	.96
Virginia.....	.321	.307	.96
Tennessee.....	.315	.298	.95
Delaware.....	.401	.368	.92
Arkansas.....	.269	.243	.90
Mississippi.....	.301	.267	.89
Oklahoma.....	.384	.339	.88
Texas.....	.409	.338	.83
North Carolina.....	.302	.240	.79
South Carolina.....	.291	.231	.79
Georgia.....	.319	.251	.79
Kentucky.....	.388	.380	.78
Florida.....	.306	.237	.77
Louisiana.....	.349	.264	.76

^a Robert S. Billups, "Hourly Entrance Rates of Common Laborers in 20 Industries, July, 1936," *Monthly Labor Review*, April 1937, pp. 940-41.

^b As reported by the Bureau of Labor Statistics.

^c Includes only those states for which earnings of both negroes and whites were shown. In order to minimize the influence of sectional differences in rates and proportions of white and negro workers, simple averages of the state averages have been used.

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14. COMPARATIVE HOURLY EARNINGS OF MALE NEGRO AND WHITE WORKERS IN SELECTED INDUSTRIES

Industry and Occupation	Date	Average Hourly Earnings		Ratio of Negro to White Earnings	
		White	Negro		
Cigarettes, snuff, and chewing and smoking tobacco.....	March 1935	\$.584	\$.377	.69	
	March 1933	.429	.282	.66	
Common labor, iron and steel ^b	March 1935	.419	.409	.98	
		Pittsburgh district.....	.472	.477	1.01
		Great Lakes and Middle West district.....	.467	.460	.98
		Southern district.....	.393	.357	.91
Laborers, cotton textiles, Southern mills ^c	August 1934	.280	.240	.86	
	August 1933	.264	.204	.77	
	July 1933	.156	.143	.92	
Virginia quarries ^d	1931				
Stone quarries:					
Crusher plant men.....		.33	.31	.94	
Drillers.....		.36	.28	.78	
Drivers.....		.29	.32	1.10	
Engineers, firemen, brakemen, motor-men, cranimen, shovel operators.....		.44	.34	.77	
Foremen.....		.58	.45	.78	
Laborers.....		.29	.29	1.00	
Powder men.....		.40	.34	.85	
Other occupations.....		.33	.33	1.00	
Slate quarries:					
Crusher plant men.....		.35	.30	.86	
Drillers.....		.35	.28	.80	
Engineers, firemen, brakemen, motor-men, cranimen, shovel operators.....		.45	.25	.56	
Laborers.....		.25	.23	.92	
Powder men.....		.35	.25	.71	
Rope men and signal boys.....		.20	.23	1.15	
Other occupations.....		.20	.30	.67	

INCOME STRUCTURE

COMPARATIVE HOURLY EARNINGS OF MALE NEGRO AND WHITE WORKERS
IN SELECTED INDUSTRIES—Continued

Industry and Occupation	Date	Average Hourly Earnings		Ratio of Negro to White Earnings
		White	Negro	
Sand and gravel.....	1931			
Blacksmiths.....		\$0.37	\$0.40	1.08
Crusher plant men...		.29	.35	1.21
Drillers.....		.26	.39	.67
Engineers, firemen, brakemen, motor- men, cranimen, shovel operators...		.53	.35	.66
Laborers.....		.30	.31	1.03
Machinists and me- chanics.....		.47	.60	1.28
Other occupations...		.29	.30	1.03

* La Fever, "Earnings in Cigarette, Snuff, and Chewing and Smoking Tobacco Plants, 1933-35," *Monthly Labor Review*, May 1936, pp. 1326-27.

^b Edward K. Frazier, "Earnings of Negroes in the Iron and Steel Industry," *Monthly Labor Review*, March 1937, p. 577.

^c U.S. Bureau of Labor Statistics, *Textile Report, Part I*, "Wage Rates and Weekly Earnings in the Cotton Goods Industry from July 1933 to August 1934," p. 39.

^d "Wages of Quarry Workers in Virginia, 1931," *Monthly Labor Review*, August 1933, p. 379.

15. AVERAGE HOURLY UNION AND NON-UNION WAGES IN SAMPLE BUILDING-TRADES OCCUPATIONS IN TYPICAL CITIES, 1936*

City	Bricklayers				Carpenters			
	Union	Non-Union	Difference	Ratio of Non-union to Union	Union	Non-Union	Difference	Ratio of Non-union to Union
Atlanta, Ga.	\$1.126	\$0.775	\$0.351	.688	\$1.004	\$0.673	\$0.331	.670
Chicago, Ill.	1.487	b	—	—	1.495	1.000	.495	.669
Cleveland, Ohio	1.375	b	—	—	1.252	.703	.549	.562
Denver, Colo.	1.234	.851	.403	.674	1.217	.761	.456	.625
New Orleans, La.	e	.981	—	—	.750	.672	.078	.896
New York, N.Y.	1.501	.926	.575	.617	1.390	.907	.483	.652
St. Louis, Mo.	1.464	.971	.493	.663	1.235	.730	.505	.591
San Francisco, Calif.	1.491	b	—	—	1.108	1.053	.055	.950
	Electricians				Plumbers			
Atlanta, Ga.	1.042	0.875	0.167	.840	1.125	0.971	0.154	.864
Chicago, Ill.	1.465	b	—	—	1.495	b	—	—
Cleveland, Ohio	1.503	b	—	—	1.375	b	—	—
Denver, Colo.	1.250	1.000	.250	.800	1.294	1.010	.275	.788
New Orleans, La.	1.250	—	—	—	1.050	1.025	.025	.976
New York, N.Y.	1.700	.883	.817	.519	1.494	1.060	.434	.710
St. Louis, Mo.	1.478	.786	.692	.532	1.439	.853	.586	.593
San Francisco, Calif.	1.251	1.161	.070	.944	1.201	1.171	.030	.975
	Sheet-Metal Workers				Structural-Iron Workers			
Atlanta, Ga.	1.031	0.768	0.263	.745	1.250	b	—	—
Chicago, Ill.	1.496	1.158	.338	.778	1.481	1.124	0.357	.759
Cleveland, Ohio	1.245	.995	.250	.799	1.375	b	—	—
Denver, Colo.	1.245	.580	.665	.465	1.247	b	—	—
New Orleans, La.	1.050	.808	.242	.770	c	1.175	—	—
New York, N.Y.	1.399	1.369	.030	.978	1.609	1.562	.047	.971
St. Louis, Mo.	1.732	.789	.943	.455	1.476	b	—	—
San Francisco, Calif.	1.040	1.025	.015	.986	1.387	b	—	—

* Sanford, "Wage Rates and Hours of Labor in the Building Trades," *Monthly Labor Review*, August 1937, p. 202.
 b No non-union workers reported.
 c No union workers reported.

INCOME STRUCTURE

16. PERCENTAGE DISTRIBUTIONS OF 7,436 FAMILIES IN EIGHT CITIES
ACCORDING TO THEIR TOTAL INCOME IN 1929 AND 1932^a

Total Family Income ^b	Percentage of Total	
	1929	1932
Under \$600.....	6.9	32.4
\$600 but under \$1,200.....	19.5	33.7
\$1,200 but under \$2,000.....	38.5	23.4
\$2,000 but under \$3,000.....	24.2	8.0
\$3,000 but under \$4,000.....	7.3	1.7
\$4,000 and over.....	3.6	0.8
Total.....	100.0	100.0
Median income.....	\$1,650	\$ 870
Mean income.....	1,830	1,050

^a G. St. J. Perrott and Selwyn D. Collins, "Relation of Sickness to Income and Income Change in 20 Surveyed Communities," *Public Health Reports*, Vol. 50, No. 18, p. 603. The eight cities included are: Baltimore, Birmingham, Brooklyn, Cleveland, Detroit, New York, Pittsburgh, and Syracuse.

^b Income as computed in this study includes all receipts from any source—wages, rents, interest, and profits, and also the amount of savings or borrowed funds used and the value of a food ticket or other receipts from public or private relief agencies.

17. INCOME DISTRIBUTION IN 1932 OF FAMILIES IN EIGHT CITIES CLASSIFIED
IN SIX GROUPS ACCORDING TO 1929 INCOME^a

Total Family Income ^b in 1929	Number of Families	Percentage of Families in Each Income ^b Group in 1929 Which Was in the Specified Group in 1932						All Incomes in 1932
		Under \$600	\$600 but under \$1,200	\$1,200 but under \$2,000	\$2,000 but under \$3,000	\$3,000 but under \$4,000	\$4,000 and over	
Under \$600.....	514	80.2	17.5	1.9	0.4	—	—	100.0
\$600 but under \$1,200.....	1,450	49.6	43.6	6.3	0.5	—	—	100.0
\$1,200 but under \$2,000.....	2,869	21.0	39.3	27.6	1.9	0.2	—	100.0
\$2,000 but under \$3,000.....	1,801	17.5	29.3	34.6	17.5	1.0	0.1	100.0
\$3,000 but under \$4,000.....	548	10.7	18.9	29.4	28.2	11.5	1.3	100.0
\$4,000 and over.....	271	6.6	12.5	24.0	24.6	14.4	18.1	100.0
All incomes in 1929.....	7,436	32.4	33.7	23.4	8.0	1.7	0.8	100.0

^a Perrott and Collins, "Relation of Sickness to Income and Income Change in 20 Surveyed Communities," *Public Health Reports*, Vol. 50, No. 18, p. 603. The eight cities included are: Baltimore, Birmingham, Brooklyn, Cleveland, Detroit, New York, Pittsburgh, and Syracuse.

^b Income as computed in this study includes all receipts from any source—wages, rents, interest, and profits, and also the amount of savings or borrowed funds used and the value of a food ticket or other receipts from public or private relief agencies.

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18. TREND OF STRIKES, 1916-37^a

Year	Number of:		
	Strikes	Workers Involved ^b (In thousands)	Man-Days Idle (In thousands)
1916.....	3,789	1,600	•
1917.....	4,450	1,227	•
1918.....	3,353	1,240	•
1919.....	3,630	4,160	•
1920.....	3,411	1,463	•
1921.....	2,385	1,099	•
1922.....	1,112	1,613	•
1923.....	1,553	757	•
1924.....	1,249	655	•
1925.....	1,301	428	•
1926.....	1,035	330	•
1927.....	707	330	26,219
1928.....	604	314	12,632
1929.....	921	289	5,352
1930.....	637	183	3,317
1931.....	810	342	6,893
1932.....	841	324	10,502
1933.....	1,695	1,168	16,872
1934.....	1,856	1,467	19,592
1935.....	2,014	1,117	15,456
1936.....	2,172	789	13,902
1937 (9 months).....	3,757 ^d	1,720 ^d	25,381 ^d

^a Don Q. Crowther, "Review of Strikes in 1936," *Monthly Labor Review*, May 1937, p. 1222.

^b The number of workers involved in strikes from 1916 to 1926 is not known for the entire number of strikes. The missing information is for the smaller disputes, however, and it is believed that the totals given here are fairly accurate." The same.

^c No information available.

^d Preliminary figures for first nine months of year. *Monthly Labor Review*, November 1937, p. 1169.

19. EARNINGS OF WAGE EARNERS IN MANUFACTURING INDUSTRIES, 1919-37^a

Year	Annual Payrolls (in millions of dollars) ^b	Average Hourly Earnings (in cents) ^c	Average Yearly Earnings					
			Per Equivalent Full-Time Wage Earner		Per Wage Earner on Payroll		Per Wage Earner Attached	
			In Dollars ^d	As Percentage of 1929 ^e	In Dollars ^d	As Percentage of 1929 ^e	In Dollars ^f	As Percentage of 1929 ^e
1919.....	10,414	46.4	1,114	83.3	1,157	88.0	1,073	86.1
1920.....	12,518	57.3	1,375	102.8	1,377	104.7	1,294	103.9
1921.....	8,202	53.4	1,282	95.9	1,181	89.8	852	68.3
1922.....	8,702	46.6	1,120	83.8	1,140	86.7	907	72.8
1923.....	11,009	51.2	1,229	91.9	1,254	95.4	1,152	92.5
1924.....	10,227	53.2	1,276	95.4	1,258	95.7	1,075	86.3
1925.....	10,740	53.1	1,274	95.3	1,279	97.3	1,133	90.9
1926.....	11,062	53.7	1,289	96.4	1,295	98.5	1,172	94.1
1927.....	10,856	54.5	1,308	97.9	1,299	98.6	1,155	92.6
1928.....	10,932	54.8	1,315	98.4	1,311	99.7	1,167	93.6
1929.....	11,621	55.7	1,337	100.0	1,315	100.0	1,246	100.0
1930.....	9,425	55.7	1,337	100.0	1,223	93.0	1,015	81.5
1931.....	7,486	53.3	1,279	95.7	1,102	83.9	777	62.4
1932.....	4,944	46.6	1,118	83.6	895	68.1	537	43.1
1933.....	5,271	46.4	1,114	83.3	868	66.0	574	46.1
1934.....	6,710	54.8	1,315	98.4	964	73.3	734	58.9
1935.....	7,557	56.8	1,363	101.9	1,022	77.7	830	66.6
1936 ^g	8,736	57.5	1,380	103.2	1,105	84.0	963	77.3
1937 ^h	10,650 ⁱ	63.5 ^j	1,534 ^k	114.7 ^l	1,227 ^m	93.3 ⁿ	1,179 ^o	94.6 ^p

^a Industries covered by the Census of Manufactures.^b Data for census years are from the Census of Manufactures with minor adjustments to make the series comparable throughout the entire period; data for intercensal years have been interpolated by means of the Bureau of Labor Statistics index of payrolls in manufacturing.^c Beginning in 1933 the annual averages are weighted averages (number on payrolls used as weights) of the monthly figures published by the Bureau of Labor Statistics; prior to 1933 the basic data are the National Industrial Conference Board averages which have been adjusted to correspond with those of the Bureau of Labor Statistics.^d On basis of 2,000 hours per year.^e Annual payrolls divided by the average of the number of wage earners at the middle of each month as reported in the Census of Manufactures.^f Annual payrolls divided by the estimated number of workers attached to manufacturing industries. For method of estimating number of workers attached, see *The Recovery Problem in the United States* (The Brookings Institution), p. 625.^g Subject to revision when the Bureau of Labor Statistics indexes of employment and payrolls have been adjusted to the Census of Manufactures for 1935.^h This is a rough estimate based on data for the first ten months of the year. It is probable that the final figures for the entire year will be somewhat lower than these preliminary estimates.

20. INDEXES OF HOURLY OR "FULL-TIME" WAGES IN SELECTED INDUSTRIES,^a 1929-37

Industry	1929	1930	1931	1932	1933	1934	1935	1936	1937 ^b
Manufacturing ^c	100.0	100.0	95.7	83.6	83.3	98.4	101.9	103.2	113.8
Mining ^d	100.0	97.0	92.9	85.4	84.5	103.7	108.9	112.3	119.9
Steam railways ^e	100.0	101.7	103.2	95.2	95.2	96.4	104.3	105.7	108.4
Production and distribution of electricity ^f	100.0	103.2	103.8	102.7	103.5	114.4	117.8	117.2	118.5
Building construction ^g	100.0	103.9	104.7	93.3	88.8	89.1	91.6	92.6	101.1
Road building: common labor ^h	100.0	100.0	92.3	82.0	89.7	105.1	105.1	102.6	96.2
Average, exclusive of farm wages ⁱ	100.0	99.8	96.9	83.7	83.1	95.3	99.5	100.5	108.7
Farm wages ^j	100.0	90.8	71.4	54.1	49.9	55.4	60.0	63.4	70.4
Average, including farm wages ^k	100.0	98.6	92.9	78.7	77.6	89.2	94.2	95.4	103.4

^a The series are for the most part average earnings. Exceptions are the figures for building construction (for 1929-33), road building, and agriculture, for which only rates are available. The movement of actual earnings is, of course, somewhat different from the movement of rates, but it is impossible to evaluate the difference. The discrepancy is perhaps less serious in road building and farm wages than in building construction.

^b Rough estimates based on data for first part of year.

^c See table 22, p. 632, *The Recovery Problem in the United States* (The Brookings Institution).

^d Based on U. S. Bureau of Labor Statistics (see *Employment and Payrolls*) average hourly earnings for anthracite and bituminous coal mining, metalliferous mining, quarrying and non-metallic mining, and crude-petroleum producing.

^e Based on average hourly earnings compiled by the National Industrial Conference Board (see *Wages, Hours, and Employment in the United States, 1914-1936*) from data collected by the Interstate Commerce Commission from Class I railroads.

^f Based on average hourly earnings compiled by the National Industrial Conference Board (see *Wages, Hours, and Employment in the United States, 1914-1936*).

^g Based on National Industrial Conference Board hourly rates for 1929-34 and on Bureau of Labor Statistics hourly earnings from 1934 to date.

^h Based on rates compiled by the Bureau of Public Roads, U. S. Dept. of Agriculture (see *Survey of Current Business*).

ⁱ Weighted average of above, including indexes of hourly earnings for laundries and cleaning and dyeing. Weights based on estimated number of man hours worked each year.

^j Based on rates compiled by the Bureau of Agricultural Economics, U. S. Dept. of Agriculture (see *Survey of Current Business*).

^k Weighted average. Estimated full-time equivalent number of wage earners employed used as weights.

INCOME STRUCTURE

21. EARNINGS AND HOURS IN 21 MANUFACTURING INDUSTRIES IN MAY
1937 RELATIVE TO 1929^a
Male Wage Earners Only

Key Number	Industry ^a	Percentage Ratios of May 1937 to Average for 1929 ^b		
		Weekly Earnings	Hourly Earnings	Hours per Week
1	Silk.....	72.7	106.2	68.4
2	Hosiery and knit goods.....	78.4	97.9	80.2
3	Printing, news and magazine.....	80.3	99.5	80.6
4	Paper products.....	90.6	107.8	84.1
5	Paper and pulp.....	91.6	110.8	82.6
6	Printing, book and job.....	92.6	102.2	90.8
7	Furniture.....	93.1	100.8	92.4
8	Paint and varnish.....	93.2	109.4	85.0
9	Iron and steel.....	93.9	131.8	71.2
10	Cotton—North.....	96.4	122.6	78.5
11	Electrical manufacturing.....	97.2	116.8	83.2
12	Leather tanning and finishing.....	97.7	117.2	83.1
13	Wool.....	98.3	127.8	76.9
14	Chemical.....	100.0	127.9	78.3
15	Foundries and machine shops.....	100.6	114.8	87.7
16	Boot and shoe.....	101.4	112.6	89.8
17	Agricultural implements.....	102.3	125.5	81.6
18	Rubber.....	103.1	133.5	77.3
19	Lumber and millwork.....	104.2	110.2	94.5
20	Meat packing.....	104.3	135.3	77.1
21	Automobile.....	110.6	123.7	89.6
	All industries.....	98.6	117.0	84.3

^a Based on averages compiled by the National Industrial Conference Board, Inc., and published in *Conference Board Service Letter*.

^b Average for 1929.

^c The industries are arrayed according to ratios for weekly earnings.

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22. CHANGES IN WEEKLY EARNINGS OF WAGE EARNERS IN 89 MANUFACTURING INDUSTRIES SINCE 1929*

Key Number	Industry ^b	Percentage Relative to 1929 ^c	
		June 1937	Depression Low ^d
1	Women's clothing.....	68.4	57.2
2	Millinery.....	70.7	65.9
3	Jewelry.....	78.3	62.2
4	Butter.....	78.8	92.3
5	Boots and shoes.....	78.9	66.1
6	Marble, granite, slate, and other products.....	80.0	56.8
7	Cottonseed-oil, cake, and meal.....	83.0	54.1
8	Hats, fur-felt.....	83.0	49.5
9	Locomotives.....	84.2	51.9
10	Ice cream.....	84.8	76.1
11	Dyeing and finishing textiles.....	85.1	61.8
12	Silk and rayon goods.....	85.2	58.8
13	Radios and phonographs.....	86.3	83.8
14	Shirts and collars.....	86.5	60.8
15	Furniture.....	86.7	44.1
16	Cast-iron pipe.....	87.2	56.0
17	Knit goods.....	87.4	58.7
18	Plumbers' supplies.....	87.5	48.0
19	Smelting and refining—copper, lead, and zinc.....	88.2	60.4
20	Men's clothing.....	88.3	49.9
21	Corsets and allied garments.....	88.5	67.2
22	Silverware and plated ware.....	88.9	62.0
23	Forgings, iron and steel.....	89.2	40.4
24	Men's furnishings.....	89.3	59.6
25	Stoves.....	89.7	53.6
26	Cotton small wares.....	89.8	70.4
27	Printing and publishing, book and job.....	91.2	70.9
28	Typewriters and parts.....	91.4	48.8
29	Pottery.....	91.4	52.3
30	Cigars and cigarettes.....	92.4	62.9
31	Lighting equipment.....	92.6	66.8
32	Engines, turbines, tractors, and water wheels.....	93.6	60.5

* Computed from Bureau of Labor Statistics indexes of employment and payroll.

^b The industries are arrayed according to the ratios for June 1937.

^c Average for 1929.

^d The month of lowest employment in the thirties (as shown by indexes adjusted for seasonal change) is taken to represent the depression "low." The low month varied among the different industries, but, with a single exception, it was between May 1932 and August 1933.

INCOME STRUCTURE

CHANGES IN WEEKLY EARNINGS OF WAGE EARNERS IN 89 MANUFACTURING INDUSTRIES SINCE 1929*—Continued

Key Number	Industry ^b	Percentage Relative to 1929 ^a	
		June 1937	Depression Low ^d
33	Clocks and watches and time-recording devices	93.7	39.3
34	Rubber boots and shoes	93.7	64.8
35	Sugar refining, cane	94.3	97.9
36	Flour	94.4	50.3
37	Woolen and worsted goods	94.5	63.3
38	Hardware	94.6	54.0
39	Steam and hot-water heating apparatus and steam fittings	94.7	53.5
40	Cash registers, adding machines, and calculating machines	95.2	60.8
41	Automobiles	95.5	50.9
42	Aircraft	95.5	103.1 ^e
43	Machine tools	96.0	52.4
44	Boxes, paper	96.3	75.8
45	Aluminum manufactures	96.6	55.2
46	Paints and varnishes	96.8	66.1
47	Baking	96.8	83.7
48	Electric railroad repair shops	96.8	79.0
49	Brass, bronze, and copper products	97.0	52.4
50	Brick, tile, and terra cotta	97.1	46.1
51	Confectionery	97.1	74.6
52	Paper and pulp	97.4	62.8
53	Rubber goods, other than boots, shoes, tires, and inner tubes	97.5	39.2
54	Textile machinery and parts	97.6	51.5
55	Stamped enamelware	98.4	62.4
56	Steam railroad repair shops	98.8	68.0
57	Tin cans and other tinware	99.2	74.1
58	Electrical machinery, apparatus and supplies	100.0	57.0
59	Lumber, sawmills	100.1	37.8
60	Foundry and machine-shop products	100.1	51.1
61	Wirework	100.6	46.8
62	Explosives	101.2	62.0
63	Chemicals	101.5	74.4
64	Glass	101.6	68.2

* In this industry employment decreased more than payrolls at the bottom of the depression and hence the amount per wage earner remaining on the payroll shows an increase over 1929. It is doubtful, of course, if there was any actual wage increase. The same condition prevailed to some degree in the other industries, although it does not show up in the figures; that is, the average earnings per wage earner were in each case affected to some extent by the tendency of industry to retain key workers during depression.

STATISTICAL TABLES

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CHANGES IN WEEKLY EARNINGS OF WAGE EARNERS IN 89 MANUFACTURING INDUSTRIES SINCE 1929—Continued

Key Number	Industry ^b	Percentage Relative to 1929 ^a	
		June 1937	Depression Low ^d
65	Structural and ornamental metal work	102.7	50.1
66	Cutlery (not including silver and plated cutlery) and edge tools.....	102.7	52.8
67	Lumber, millwork.....	102.7	47.4
68	Rubber tires and inner tubes.....	102.7	55.0
69	Druggists' preparations.....	102.9	86.1
70	Soap.....	102.9	80.1
71	Shipbuilding.....	102.9	66.9
72	Tools (not including edge tools, machine tools, files, and saws).....	103.2	51.9
73	Cotton goods.....	104.7	59.6
74	Cement.....	104.9	63.6
75	Carpets and rugs.....	105.2	54.6
76	Slaughtering and meat packing.....	106.1	73.0
77	Bolts, nuts, washers, and rivets.....	106.4	48.2
78	Canning and preserving.....	107.2	94.1
79	Blast furnaces, steel works, and rolling mills.....	107.9	39.0
80	Petroleum refining.....	107.9	85.5
81	Newspapers and periodicals.....	108.0	92.2
82	Leather.....	108.6	72.6
83	Beverages.....	111.2	87.8
84	Rayon and allied products.....	111.2	73.4
85	Fertilizers.....	112.0	91.0
86	Sugar beet.....	112.8	123.1*
87	Chewing and smoking tobacco and snuff.....	117.6	80.5
88	Agricultural implements.....	119.1	54.4
89	Cars, electric- and steam-railroad.....	119.8	48.8
	All industries.....	97.4	63.9
	Durable goods.....	100.5	54.2
	Non-durable goods.....	93.2	70.7

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