

**THE ECONOMIC STATUS OF THE
WAGE EARNER IN NEW YORK
AND OTHER STATES**

**STUDIES IN INDUSTRIAL
RELATIONS**

**PUBLISHED BY THE
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FOREWORD

IN 1926, the Legislature of New York State created by joint resolution an Industrial Survey Commission to investigate existing conditions under which the manufacturing and mercantile business of the state was carried on.

In its desire to be helpful to the Survey Commission, as well as to itself, by a full disclosure of the facts, Associated Industries of New York State, Inc., requested the National Industrial Conference Board to conduct a series of investigations for the purpose of assembling and presenting to the Commission pertinent material which would be of assistance in its work. This report on "The Economic Status of the Wage Earner in New York and Other States" is one of a series of six studies prepared by the Conference Board for the Survey Commission at the request of Associated Industries of New York State.

The endeavor has been made in this report to assemble data upon the measurable factors which affect the wage earner in his capacity as a social and economic unit and to compare the economic status of the wage earner in New York State with that of his counterpart in Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Illinois and Michigan, with which states New York State is in active industrial competition.

This volume is the result of an investigation conducted by Mr. H. F. Browne and assistants of the Conference Board's Research Staff, under the supervision of the Staff Economic Council.

In the preparation of its studies the National Industrial Conference Board avails itself of the experience and judgment of the business executives who compose its membership, and of recognized authorities in special fields, in addition to the scientific knowledge and equipment of its Research Staff. The publications of the Board thus finally represent the result of scientific investigation and broad business experience, and the conclusions expressed therein are those of the Conference Board as a body.

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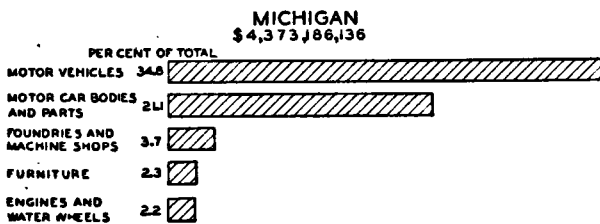
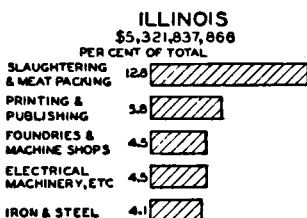
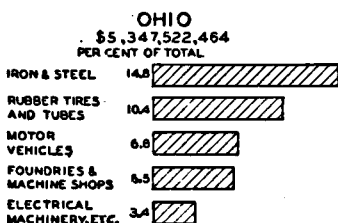
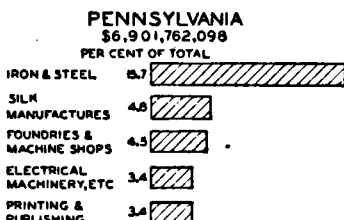
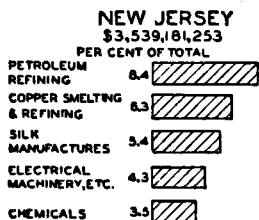
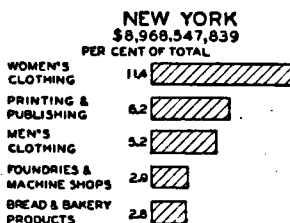
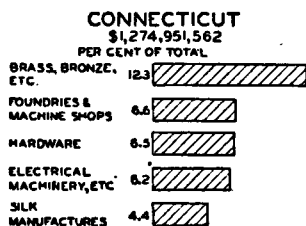
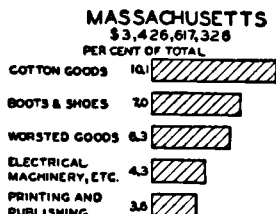
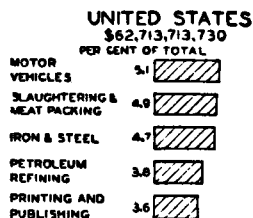
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(National Industrial Conference Board)



THE ECONOMIC STATUS OF THE WAGE EARNER

INTRODUCTION

MUCH of the state legislation in recent years has had to do with the welfare of the wage earner. Social legislation has been increasing in quantity and in definiteness as public opinion regarding the propriety or desirability of such legislation has changed, and as constitutional barriers have been surmounted either by revised interpretation or by enabling enactments. Since this legislation is designed to protect the worker against conditions in which certain general standards are not met, there is a possibility that isolated instances of such conditions may be magnified into the appearance of prevailing practice, and that the majority of employers may be hedged about by restrictions which are intended only for the recalcitrant few. In any event, regulatory legislation presupposes the need for it, and it is only the part of wisdom to ascertain as far as possible what conditions surround the average wage earner in the performance of his work, and what is his economic status as a social unit in the state's population.

The purpose of this study has been to contribute what information is obtainable on the subject of the economic status of the wage earner and the various influences which intimately affect this status in a number of industrial states. The intention has been to assemble available data bearing on this subject, to evaluate these data and show their relation to the problem in hand, and finally to combine the various factors, giving to each the weight which it appears to deserve. The primary objective has been to determine the economic position of the wage earner in New York State. Such a picture in itself, however, would be incomplete, since

welfare is, after all, relative, and information for New York State alone would provide no means of comparison. To see the picture in its true proportions the study of conditions in New York must be paralleled by similar studies in the states which surround and compete with New York. Consequently, to make an adequate comparison possible, this study, in addition to New York State, includes seven other states which are New York's strongest industrial competitors: Massachusetts, Connecticut, New Jersey, Pennsylvania, Ohio, Michigan, and Illinois.

STATEMENT OF THE PROBLEM

Stripped of all technical nomenclature, the question of the economic status of the wage earner resolves itself into the basic question of the relations between the wage earner's financial income and outgo, together with the circumstances which surround his working and living conditions. Until comparatively recently a report of this character would be adequate if it presented comprehensive data covering wages and the cost of living. But a new factor has made itself felt which complicates the situation by introducing a new and uncertain element. A growing tendency has become apparent, first confined mainly to the very large companies, but later spreading to moderate-sized and even small plants, to carry on activities within the company-family which are intended to foster and maintain better understanding and a harmonious working relationship between management and workers. Some of these industrial relations activities may have no traceable effect upon the worker's income, while others may make a very definite contribution to it, or may achieve the same result by removing the necessity of making certain expenditures or reducing their amount. It has, therefore, been felt that to ignore industrial relations activities as factors in the worker's economic status might be to overlook an element of growing importance with a direct bearing on the problem.

In the preparation of this report, available material has been utilized, so far as possible, but this has been supplemented and gaps have been filled by original research. Data covering wages have been drawn from federal and state labor

department publications and from direct inquiries to employers. The material covering industrial relations is the result of a comprehensive investigation conducted by the Conference Board. The cost of living levels in the various cities covered were determined by direct field studies by the Conference Board.

The plan of the study has been to present, first, condensed statistical material showing certain characteristics of New York State industry and the forces which have strongly influenced its development in certain directions, in so far as these influences have affected the wage earner. This material has been intended to serve as a background against which the problem may be placed in its proper setting and which will help to account for certain conditions or tendencies which otherwise would be not only difficult to explain, but might appear confusing and paradoxical. Chapter II is devoted to a discussion of relative wage levels in the various states, both in the form of hourly rates and of average earnings. This material covering direct income is supplemented in Chapter III by a consideration of the indirect income factor which may be contributed by industrial relations activities. In this chapter the attempt has been made to determine whether the activities which might affect the worker's income are carried on extensively enough to merit their acceptance as a serious factor in the worker's economic status. Chapter IV gives the results of the cost of living studies conducted in four states, New York, Massachusetts, Pennsylvania, and Ohio, together with a discussion of the legitimate uses and limitations of these figures. Finally, the results of the various related investigations are brought together and shown as an integrated whole, and conclusions which may be reasonably drawn from the evidence are presented.

Any attempt on the part of this report to state categorically that the average wage earner in one state is better off than his counterpart in another is disclaimed. Too many conflicting and statistically unmeasurable influences are at work to make such a statement anything but presumption. However, the fact that an absolutely conclusive finding cannot be reached is no reason for abandoning the attempt to assemble and present data which will throw light upon the

worker's economic status and permit a more rational understanding of this question which has tremendous significance from the broad point of view of social welfare, from the more restricted viewpoint of legislative expediency, and from the practical angle of industrial administrative policy.

The question of the American wage earner's stake in industry, his contribution to American industrial supremacy, and the fairness of the return which he receives has been much discussed. Its prominence has invited its exploitation to serve various ends. Unrelated statistical evidence is used to support widely divergent views. Broad generalizations unsupported by factual evidence are freely made. Therefore all accurate information bearing on the question is a contribution toward a better understanding of the problem and provides a closer approach to a more scientific and at the same time more human evaluation of the relative importance and significance of the many factors involved. It is in this spirit that the present investigation has been undertaken and conducted.

CHAPTER I

SOME CHARACTERISTICS OF NEW YORK STATE INDUSTRY

THE wage earner's economic status is influenced by the conditions under which he lives and works and by the social and economic factors which affect the industrial life and complexion of the state in which he resides. The composition of the state's population, the nature of the state's industrial organization and the existence and influence of large cities are some of the factors which must be taken into consideration in discussing the economic position of the wage earner.

POPULATION CONTENT

In 1920, New York State had 10,385,227 inhabitants, and of these, 4,503,204, or 43.4%, were gainfully occupied. The latter group includes persons in all walks of life who derive an income from their efforts: executives, professional people, and office workers, as well as wage earners in the narrower sense of the term. In 1925, New York State had 1,066,202 industrial wage earners. If the 1920 population figure is adjusted to a 1925 basis, according to the Census Bureau's estimate of population increase, it appears that approximately one person in ten in New York State is a factory wage earner.

It might be expected that the proportion of industrial wage earners to total population would be relatively high in New York State because of its prominence as an industrial state, but such is not the case. Of the eight leading industrial states considered in this study, only one state, Illinois, with one industrial wage earner to eleven inhabitants, has a lower proportion than New York. At the other extreme, the ratio in Connecticut is one to six, and in Massachusetts it is one to seven.

It is important to consider the sex composition of the wage earning population in different states because of its effect upon the general wage level. In 1921, there was an average ratio for the country as a whole of twenty-five female workers to one hundred male workers, as compared with the high ratio of forty women wage earners to one hundred men in New York State. Only Massachusetts, with forty-five women workers to every one hundred male workers, had a higher ratio than New York. Michigan had the lowest ratio, with only thirteen women wage earners to one hundred men.

Percentage of Foreign-Born Population

According to the United States Census, 27.2% of New York State's population in 1920 was foreign born, as compared with 28.3% in Massachusetts, 27.4% in Connecticut, and 23.4% in New Jersey. These eastern seaboard states are easily accessible from the leading port of immigrant entry at New York City as well as from the lesser port of Boston and consequently would be expected to show a large percentage of foreign-born population. And yet Pennsylvania, with its own port of Philadelphia and easily accessible from the ports of New York and Baltimore, and with its huge iron and steel works and coal mines, which are reported to draw largely on immigrant labor, showed a foreign-born population of only 16% in 1920, as against 19.9% for the inland state of Michigan, 18.7% for Illinois, and 11.8% for Ohio. The high foreign-born content of New York State was due largely to the concentration of immigrants in the metropolitan area. Exclusive of New York City, the foreign-born population of the state in 1920 amounted to only 7.7% of the total.

However, the ethnic composition of the foreign-born population may be a more important influence on the economic status of the wage earner than the proportion of foreign born in the total. Certain races have characteristics which make them more or less rapidly assimilable and certain ethnic groups may be particularly desirable because of their special availability for certain types of labor. It is therefore pertinent to analyze the racial character of the foreign content in the states under consideration to see what similarities or

differences appear, and what their probable effect is upon the industrial life of the states.

Racial Character of the Foreign Born

In three of the eight states, five nationalities contribute at least 2% each of the population from their foreign born. These states are New York, New Jersey and Massachusetts. In New York and New Jersey the 2% or more quotas are furnished by Italy, Germany, Ireland, Poland and Russia-Lithuania.¹ In Massachusetts, the Italian, Russian and Irish peoples are in the 2%-or-over category, but the other 2% groups are furnished by English and Canadians. In Connecticut, four countries provide the 2%-or-greater quota of foreign born—Italy, Russia, Ireland and Poland; in Illinois, three—Russia, Germany and Poland; in Pennsylvania, three—Italy, Russia and Poland; and in Michigan, three—Canada, Germany and Poland. In Ohio, no foreign-born national group contributes as much as 2% of the state's population, although Germany comes close with 1.9%. In only four of the states do the nationals of any foreign country constitute as much as 5% of the state's population. In New York State this is true of Italians and Hebrews; in New Jersey and Connecticut, of Italians, and in Massachusetts, of Canadians.

It appears to be quite generally agreed by social economists that circumstances have had a greater influence in immigrant vocational determination than natural aptitude or former experience. The outstanding exception is the Hebrew race whose instinctive leaning toward commerce, small-shop trades or highly skilled manufacture, developed through centuries of European experience, has defied any attempts to divert it into other channels. But in this case, immigrants have come into the country with well-defined aptitudes which found ample opportunity for their natural expression. In general, races which are concentrated in various manufacturing industries have had little or no experience which would lead them naturally into these industries. They have reached this country in immediate need of employment and either have taken the first work which was offered them or,

¹ Russian-Lithuanian group is largely of Hebrew extraction.

through the influence of friends, have gone to swell already established colonies of their countrymen in industrial centers. Certain races have undoubtedly become associated with particular industries, either because of this natural inclination of the immigrant to seek the society of his countrymen, or as a result of the efforts of labor recruiting agents who have found certain races particularly adapted to the work of their industries.

The fact that immigrant labor has tended to drift into the first available employment, irrespective of racial aptitude or former experience, has had an important bearing on the wage earner's economic status. Coming to his employment with no acquired skill or experience and further handicapped by a lack of knowledge of English, the average immigrant worker has been forced to join the ranks of common labor and has been slow to rise above that level. The lack of particular skill, combined with the adequacy of common labor wages to maintain the standard of living to which this class of workers was accustomed, or which it was willing to accept, and the unlimited supply of this labor prior to the restriction of immigration, tended to depress the entire wage scale. In some industries, the gradual displacement of one race by another has taken place after the second or third generation of one race had qualified for a better type of work. In some cases this succession of races has occurred three or four times and has assured the maintenance of low wages and low standards of living.

However, immigration restriction has automatically brought this to an end and has made it necessary for employers to seek in mechanization of industrial processes and more efficient operation, the low costs which can no longer be continued indefinitely through an unlimited supply of cheap labor. For these reasons the factor of immigrant labor in the position of the worker in any state has been of diminishing importance.

NATURE OF INDUSTRIAL ORGANIZATION

In 1925, New York State had 33,393 industrial establishments which is more than double the number in any other

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state except Pennsylvania, which had 17,298 establishments, as may be seen from Table 1. In the same year the number of wage earners in New York State was 1,066,202 as compared with 999,460 wage earners in Pennsylvania.

TABLE 1: NUMBER, EMPLOYMENT AND AVERAGE SIZE OF MANUFACTURING ESTABLISHMENTS IN NEW YORK AND SEVEN LEADING INDUSTRIAL STATES

(Sources: Fourteenth Census of the United States, 1920; United States Census of Manufactures, 1925)

State	All Manufacturing Establishments, 1925			Establishments Employing over 50 Wage Earners—1919 ¹		
	Number of Establishments	Number of Wage Earners (Average)	Wage Earners per Establishment	Number of Establishments	Number of Wage Earners	Wage Earners per Establishment
New York	33,393	1,066,202	32	4,160	874,399	210
Connecticut	3,062	242,362	79	729	264,457	363
Illinois	14,117	622,368	44	2,089	534,543	256
Massachusetts	10,027	591,438	59	2,060	625,372	304
Michigan	5,600	515,494	92	1,170	420,871	360
New Jersey	8,204	425,377	52	1,513	432,208	286
Ohio	11,137	676,742	61	2,294	626,009	273
Pennsylvania	17,298	999,460	58	3,489	959,354	275

¹ Figures for establishments employing over fifty wage earners are given for 1919, since the 1925 Census of Manufactures did not classify data on this basis.

The average number of wage earners per establishment was not only lowest in New York State of the eight states considered, but the next state to it, Illinois, had nearly half again as many wage earners per establishment as New York; and Michigan, which showed the largest average employment per establishment, had about three times the number reported for New York. This low average for New York State is undoubtedly strongly affected by the preponderance of small-scale establishments in New York City. But if a similar comparison is made on the basis of establishments employing fifty or more wage earners,¹ thus eliminating from consideration the small shops, New York again shows the lowest number of wage earners per establishment, although figures for other states are not relatively so much higher as was the case for all manufacturing establishments.

¹ These figures must be shown for 1919 since the 1925 Census of Manufactures did not make this segregation.

Number of Wage Earners per Establishment by Industries

In order to determine whether this relatively small-scale type of establishment prevails in all of New York's leading industries or whether one or a few outstanding industries in the state unduly affect the general average, the number of wage earners per establishment has been computed for the twelve leading industries in New York State together with similar data for the seven other states, and the results are shown in Table 2. From this table it appears that the New York average is undoubtedly strongly influenced by its two

TABLE 2: AVERAGE NUMBER OF WAGE EARNERS PER ESTABLISHMENT, BY STATES¹

(Source: United States Census of Manufactures, 1925)

State	Clothing, Women's n.e.c. ²	Clothing, Men's n.e.c. ²	Printing and Publishing	Foundry and Machine Shop Products n.e.c. ²	Electrical Machinery, Apparatus and Supplies	Boots and Shoes other than Rubber	Knit Goods	Car and General Construction and Repairs	Millinery and Lace Goods n.e.c. ²	Bread and Other Bakery Products	Furniture	Paper and Wood Pulp
New York	18	29	15	50	121	117	56	180	20	12	44	108
Connecticut . . .	42	38	15	92	218	...	79	...	99	7	25	63
Illinois	23	68	17	50	150	232	79	218	32	8	54	121
Massachusetts . .	19	30	15	39	216	107	120	152	16	8	41	154
Michigan	31	81	10	73	70	100	108	122	49	12	119	298
New Jersey	30	41	13	56	168	91	59	230	15	7	37	98
Ohio	35	76	15	67	116	224	110	178	26	9	55	161
Pennsylvania . . .	30	37	15	61	269	105	91	281	18	10	45	162

¹ Industries listed in order of size by number of wage earners in New York State, 1925.

² Abbreviation "n.e.c." means "not elsewhere classified."

outstanding industries, men's and women's clothing, which show lower average employment per establishment than the average for all industries in the state, and also lower than that in any of the other states covered in which these industries appear. But the clothing industries are not alone in keeping the New York average low. If an unweighted average of size of establishment is computed for each of the twelve industries it appears that the New York average is lower than the combined average for all eight states in nine of the twelve industries. This is conclusive evidence that New

York is a state of small establishments and that, while this is undoubtedly due in some measure to the preponderance in the state of the clothing industries, in which the small shop is the rule, a number of other leading industries contribute to the result. An illusion, common to many, that New York is a state of large industries is likely to be shattered by these figures. The reason for this impression is probably the existence in New York State of a number of nationally known manufacturing companies, outstanding in their particular fields, which have been accepted as typical plants, while in reality they are exceptions to the general rule.

The prevalence of small manufacturing establishments in New York State may be variously explained, but any explanation is necessarily suggestive rather than conclusive. In the case of the clothing industries, millinery and lace goods, bread and bakery products, and other industries of similar type, the small shop still prevails, probably because these trades have never completely outgrown their traditional character. Only within comparatively recent years has consolidation and large scale operation been applied to these industries, and such a policy is still not the general practice.

There appears to be a relationship between the prevailing size of establishments in a given industry and the period in which the industry made its start. Many of the oldest industries have tended to retain a small-scale type of operation, characteristic of the earliest days of manufacturing. The development of individual industries appears to have been influenced by the prevailing practice of the period which witnessed their greatest growth. With the introduction and perfecting of machinery, and even before the need of industrial consolidation and simplification and standardization of product had made itself felt, the tendency has been toward a larger establishment. While the older industries have undoubtedly felt the effect of developments in industrial technique and procedure, they have been both more conservative and less free to avail themselves of new practices than industries just becoming established. Natural inertia against change, combined with reluctance to adopt seemingly revolutionary methods involving a considerable outlay of capital,

has delayed the development of the older industries along modern lines.

This influence has naturally affected the industrial complexion of the several states, since these states have received their greatest industrial development at different periods. The oldest industrial area in the United States is New England. As population spread westward, it was followed by industrial development. This westward migration, combined with the discovery of vast quantities of raw materials and with the development of transportation facilities linking these sections with the large eastern markets and export points, has permitted a scale of industrial operation in the Middle West which was seldom seen in the north-eastern part of the United States. New York State's industrial development has closely followed that of New England, and New York possesses the same heritage of long-established companies tending toward small-scale operation and a hesitancy to depart from technique and practice which have always been associated with the industry and section.

It would seem, therefore, that the small-scale type of operation which prevails in New York State is due to the characteristics of certain industries which predominate in the state, and to the effect upon the state's industrial development of its historical position as one of the pioneer industrial states. New York State industry has tended to retain the pattern of organization which prevailed at the period of its greatest development.

Forms of Industrial Ownership

From this evidence the presumption would be that there is a greater degree of individual relationship between industrial employer and employee in New York State than in some of the other competing states, on the ground that the smaller the establishment the greater the opportunity for individual dealings. This is further suggested in Table 3, which gives an analysis of the forms of ownership of manufacturing establishments in New York and in its leading competitor states. It shows the proportion of establishments owned by individuals, corporations and "all others," and the proportion of wage earners employed under each of these forms of ownership.

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The substantially similar proportion of plants in the several states under the various forms of ownership is rather striking. Apparently the proportion of individually owned establishments is quite universally between 40% and 50% of the total, New York with 46.8% being close to the average. A greater diversity is noted in the proportion of establishments operated under corporate and other forms of ownership, the latter classification including chiefly partnerships. With the single exception of Pennsylvania, New York has the smallest proportion of corporations and has considerably the largest proportion of establishments under the "all others" classification. Table 4 shows the forms of ownership for sixteen of the leading industries in New York State in 1919. Men's and women's clothing, two outstanding industries in the state, each shows more than 40% of the establishments with a form of ownership other than individual or corporate, undoubtedly because of the prevalence of partnerships in these industries. This in itself is sufficient to account for the large proportion of New York establishments owned by this miscellaneous group.

TABLE 3: PREVAILING FORMS OF OWNERSHIP OF MANUFACTURING ESTABLISHMENTS IN EIGHT INDUSTRIAL STATES, 1919¹

(Source: Fourteenth Census of the United States, 1920)

State	Percentage of Establishments Owned by			Percentage of Wage Earners Employed in Establishments Owned by		
	Individuals	Corporations	All Others	Individuals	Corporations	All Others
New York.....	46.8	29.2	24.0	10.9	76.0	13.1
Connecticut.....	46.8	38.2	15.0	3.2	94.2	2.6
Illinois.....	47.2	37.1	15.7	5.5	90.3	4.1
Massachusetts.....	44.6	39.4	15.9	5.8	87.1	7.1
Michigan.....	43.0	39.1	17.9	3.1	94.3	2.5
New Jersey.....	48.6	35.7	15.7	5.4	89.4	5.2
Ohio.....	40.2	42.0	17.8	3.9	92.9	3.2
Pennsylvania.....	50.9	28.2	20.9	6.8	86.4	6.7

¹ 1919 is the latest year for which this segregation was made by the Census of Manufactures.

Although corporations seem few in number in comparison with the total number of establishments in all states covered, and particularly in New York, Table 3 shows that they em-

ploy a great proportion of the total wage earners. In Connecticut and Michigan, this proportion is over 94% of the total; and New York State, with 76%, is the only one among the eight states with less than 85% of its factory wage earners employed by corporations. It seems, therefore, that New York not only has relatively fewer establishments under corporate ownership than are found in the other states considered, but that its incorporated companies average smaller in size.

TABLE 4: PERCENTAGE OF WAGE EARNERS IN ESTABLISHMENTS UNDER VARIOUS FORMS OF OWNERSHIP IN NEW YORK STATE, BY INDUSTRIES, 1919

(Source: Fourteenth Census of the United States, 1920)

Industries	Corporations	Individuals	All Others
Electrical machinery apparatus and supplies	98.9	.8	.3
Slaughtering and meat packing	91.0	4.1	4.9
Cotton goods	97.3	.7	2.0
Paper and wood pulp	97.0	1.1	1.8
Automobile bodies and parts	93.8	4.2	2.1
Foundry and machine shop products	91.6	4.5	3.9
Printing and publishing—newspapers and periodicals	89.1	7.3	3.6
Knit goods	81.8	6.6	11.6
Furniture	81.0	7.9	11.1
Silk goods	78.6	4.2	17.2
Confectionery and ice cream	75.8	10.5	13.7
Printing and publishing—book and job	75.0	17.0	8.0
Tobacco, cigars, and cigarettes	72.4	19.2	8.4
Bread and other bakery products	60.3	33.1	6.6
Clothing—men's	37.2	22.7	40.1
Clothing—women's	30.6	26.0	43.4

INFLUENCE OF NEW YORK CITY

A situation exists in New York State which is without parallel in any other state in the country and which undoubtedly presents peculiar economic and social problems. More than half of the population in New York State, 53.8%, in 1920 was domiciled in the five boroughs of New York City. In other words, instead of being merely an important unit in the state, as is the case with other large cities in the country, New York City holds the majority of the state's population. Illinois provides the nearest approach to this situation, but in 1920 Chicago held only 41.4% of the popu-

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lation of Illinois, while Cleveland had only 38.9% of the population of Ohio.

New York City might be called the capital city of commerce, and in a way belongs more to the nation than to the state. It is not only the largest city in the United States in the matter of population but is the financial center of the nation, and at present of the world, as well as the leading port of import and export for the United States. In addition, many of the largest manufacturing and commercial companies in the country have their executive offices in New York City, while others maintain their sales headquarters there. A considerable portion of the administrative and clerical personnel in the city has been drawn from other sections of the country, and this is also true of other population groups, since New York City is also a center of education and of the special arts. Consequently, the voting population is not essentially New-York born, and this detached and cosmopolitan background is likely to be reflected in the attitude of the voters towards state problems and issues.

This dominance of New York City in state affairs, due both to its numerical superiority in population and to its prestige as national center for business and the arts, introduces an element into New York State conditions which is not found in other states. In effect, the state is divided into two parts—New York City and the up-state section—which are wider apart in economic and social needs and in interests than is usually the case between separate states. In the city there are the problems of population congestion, fire hazard due to connected buildings and concentration of working forces in limited areas, the absorption of considerable quantities of foreign born, local transportation, and the like. In other cities and communities of the state these problems are relatively insignificant or do not exist.

The wage earner in New York City must either live in closely populated districts of the city, in apartments or tenements of very few rooms and often with few conveniences, or he must travel considerable distances to and from work, with transit facilities inadequate to provide comfortable transportation. He expects, and usually receives, a higher

wage than is paid to the up-state worker upon the assumption that living costs are higher in New York City.

The prevailing types of workers in New York City and up state differ because of the essential difference between the requirements of industry in the two sections of the state. In New York City land values are very high and, consequently, only those industries can prosper which can conduct their operations in a limited space and can add considerably to the value of the product by manufacture. As a rule, therefore, highly skilled craftsmen predominate in New York City in such fields as the clothing trades, fur goods, millinery and lace goods, jewelry manufacture, the printing trades, specialty manufactures and the like, while industries which require space for their operations and volume of product for their profits are found in the up-state sections where land values are relatively of little consequence.

Further evidence of the difference in character of industry in New York City and up state was found in the 1925 Census of Manufactures, which shows that with a barely perceptible difference in the number of wage earners in the two sections—538,845 in New York City and 527,357 in the remainder of the state—there were more than twice as many manufacturing establishments in New York City, 23,714, as in the rest of the state, 9,679, which resulted in an average employment per establishment of twenty-three in New York City and fifty-four in the remainder of the state. To carry the analysis further, Table 5 has been prepared to show the number of establishments and the average number of employees per establishment for twenty-three leading industries in each section of the state.

In thirteen of the twenty-one industries represented in both sections of the state, the average size of establishment is smaller in New York City than in the remainder of the state. The reason for greater average size of establishments in New York City in manufactured gas and confectionery and ice cream industries is obvious. The product is manufactured mostly for local consumption, and because of the large local demand, the plants in New York City tend to be larger than in the less thickly populated sections of the state.

These aspects of the industrial situation in New York

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TABLE 5: NUMBER OF ESTABLISHMENTS AND AVERAGE NUMBER OF WAGE EARNERS PER ESTABLISHMENT BY INDUSTRIES, NEW YORK CITY AND REMAINDER OF STATE, 1925

(Source: United States Census of Manufactures, 1925)

Industry	Number of Establishments		Average Number of Wage Earners per Establishment	
	New York City	Up State	New York City	Up State
Boots and shoes, other than rubber.....	266	68	63	330
Boxes, paper and other.....	232	93	35	52
Brass, bronze, and other non-ferrous alloys.....	116	59	41	104
Bread and other bakery products.....	1,484	1,044	14	8
Car and general construction and repair.....	24	157	376	150
Chemicals.....	43	58	33	206
Clothing—men's.....	1,526	188	20	106
Clothing—women's.....	4,237	128	17	38
Collars—men's.....	21	21	...	332
Confectionery and ice cream.....	329	222	32	13
Electric machinery, apparatus and supplies.....	242	92	52	303
Foundry and machine shop products.....	393	500	35	62
Fur goods.....	1,302	51	8	7
Furniture.....	384	212	27	75
Gas—manufactured, illuminating and heating.....	13	65	671	41
Iron and steel: steel works and rolling mills.....	...	29	...	540
Knit goods.....	442	197	24	129
Millinery and lace goods.....	1,434	39	20	12
Motor vehicle bodies and parts.....	93	79	18	185
Printing and publishing.....	2,122	941	16	13
Shirts.....	202	81	22	104
Silk manufactures.....	150	66	40	108
Tobacco, cigars and cigarettes.....	349	135	28	21

State have been briefly discussed to provide something of a background for a study of the economic status of the wage earner. It was shown that the percentage of foreign-born population in New York is not particularly high as compared with some other industrial states, and that its ethnic composition does not indicate the existence of a peculiar condition in the state. The proportion of wage earners to total population in New York State, contrary to popular opinion, is lower than in any of the seven industrial states, except Illinois, while the proportion of women wage earners is comparatively very high. The average number of wage earners per establishment is lowest in New York State, owing largely to the preponderance of small-scale establishments in New York City.

The general wage level is influenced by the industries which predominate in a state and by the kind of labor which is employed. The relative concentration of similar industries in a state is likely to increase wage levels by stimulating the demand for the particular kind of labor required. The concentration of clothing trades, fur goods, millinery and lace goods, printing trades, specialty manufactures and similar industries in the metropolitan area will tend to increase the general wage level in New York State. On the other hand, the high proportion of women wage earners, whose earning power is below that of men, will exert an influence in the opposite direction. The susceptibility of industries to general business fluctuations is also an important consideration, since on it depends the average tenure of employment. The adequacy of a wage cannot be argued unless it is regularly received. The seasonality of industries is therefore significant, since those which exhibit marked variations in activity at different periods of the year cannot provide steady employment for a stable working force. These general characteristics of industry should be kept in mind in studying and weighing the tangible factors which determine the economic status of the wage earner.

CHAPTER II

WAGE LEVELS IN NEW YORK AND OTHER STATES

ALTHOUGH various efforts are being made to multiply the sources of the worker's income and to add to his economic security, wages are still the leading factor in determining the wage earner's economic status. To probably the majority of workers the wage constitutes the sole index of their economic well-being. The fact that a comparatively low wage in certain communities may possess a greater purchasing power than a higher wage in other communities, because of differences in living costs, is not appreciated by wage earners and is not usually convincing when demonstrated. The employee feels a personal satisfaction in a high money wage which is not shaken either by rising prices or by economic argument.

The wage earner's desire for a high wage conflicts with the necessity of the employer to keep his production costs as low as possible, since wages usually constitute the largest single item in the cost of production. This factor is especially significant in a period of declining profit margins, such as American industry has experienced in recent years, when all expense factors must be scrutinized with particular care. High wages, however, are not inconsistent with low production costs, provided that wage cost per unit of product is low. The earner of the highest wages may be the most economical producer through his correspondingly greater output. This fact, combined with a growing appreciation of the value of high wages in sustaining consumer purchasing power, has been largely responsible for the gradual change in the attitude of management toward the wage question. Wages are no longer regarded solely as a payment for necessary labor, but also as a fundamental factor in the immense purchasing power of the general public.

The consuming public also has a direct interest in wage determination through the influence of wages upon the prices

of commodities and services, and probably no section of this purchasing public is more vitally affected than labor itself. The increase of wages on a large scale must affect prices, and a rise in prices must inevitably be felt most keenly by those who earn small incomes. Thus, if building wages are out of line with the general wage level, making construction costs excessively high, it is the wage earner in other fields who pays the heaviest penalty in the form of high rentals or the prohibitive cost of purchasing or building a home.

The factors which determine wage levels and trends offer a most fertile field for speculation and analysis. The most uncritical observer is faced with wage anomalies which are difficult to explain. Instances are common of substantially similar skill and effort requirements' calling for vastly different amounts of remuneration. The wage theories of the past, successively discarded by economists, shed little light upon a subject which is so bound up with the complexities of modern industrial organization and administration. The general principle of labor supply and demand appears to the average plant executive to be the most reasonable explanation of wage movements, and yet the free operation of this principle is found to be constantly interfered with by artificial means. Again, taking the construction industry for illustration, the high building wages in large cities have undoubtedly resulted from the unprecedented activity in the construction field during the past few years, creating a large demand for building mechanics, but the equalization of supply with demand has been hampered by labor organization which has interposed artificial obstacles to the free operation of demand and supply by creating virtual labor monopolies in the leading construction centers.

From as far back as data are available the trend of wages in the United States has been upward. From 1840 to 1914, with the exception of the Civil War period, a generally uniform rate of increase was maintained, broken only occasionally by reactions due to business depressions. The tremendous rise in wages during the World War was followed by a partial reaction in 1921, but in 1922 the upward trend was resumed and has continued to date. This rising tendency is often unobservable at the time, and only becomes apparent in retro-

spection. It is the cumulative result of thousands of wage adjustments, unimportant in themselves, but sufficient, when combined, to push the general wage level gradually upward.

The arguments of propagandists for higher wages have changed as conditions changed. From the demand for a wage which would permit barest existence, requirements have successively been increased. The slogans of a "living wage," a "saving wage," and finally a "cultural wage" represent the evolution of opinion as to the employer's obligation in the purchasing value of the wage which he pays. For a number of years, particularly during and immediately following the World War, the cost of living played a prominent part as an important factor in discussions of wage levels and trends, and the principle that wages must advance at least in proportion to increases in living costs was frequently invoked by organized labor. But the relative stabilization of retail prices and other living costs in recent years has robbed this argument of its value for demanding wage increases, and as a result the emphasis has been placed on the wageearner's share in increased production and in the savings due to large-scale and efficient operation. The practical application of this principle to individual cases is exceedingly difficult, and it is doubtful if more than a broad statement of the principle will be ventured for some years to come. If the per capita increase in productivity were taken as the basis of wage determination, and if it were applied to industries in various geographical sections, wages of certain groups of industrial wage earners would soar, while in other cases they would be depressed. A comparison of wages between states on this basis would reveal startling differences, while at present, the differences in wage levels for comparable industrial units in different states are not important.

In comparing wages in different states it must be recognized at the outset that geographical boundaries have little, if any, effect upon whatever differences may be found to exist. The general level of wages in one state may be appreciably above the level in another state, but this will be due to the presence in the first state of conditions and factors which cause inequalities in wage levels. For one reason or another

wages in certain industries, as a rule, exceed those in certain other industries. This may be due to peculiar hazards in the industry, a shortage of qualified labor, agreements with organized labor or other causes. Again, in one state there may be a greater number of large industrial cities, and since, generally speaking, wages in cities tend to exceed those in the more rural sections, because of the cost of living or other considerations, the average wage level will be influenced accordingly. Therefore, while average wages in one state may differ considerably from those in another state, the difference will be due to the industrial and population characteristics of the states, and not to geographical boundaries.

Wage comparisons may be made on three bases: wage rates, which indicate the presumptive rate of income; average hourly or weekly earnings, which show the average actual earnings over a limited period; and annual earnings, if obtainable, which measure the true earning power of the wage earner over a period of sufficient length to show his ability to meet the cost of living.

WAGE RATES.

A comparison of average wage rates between different industries is unsatisfactory for the reason that relative degrees of skill, as well as the required proportions of highly and little skilled employees, vary between industries. The only wage rate comparison of any actual value is that of similar occupations within an industry. Even here an accurate comparison is difficult for the reason that within an occupational classification the type of work required may vary considerably between establishments and consequently the rate of pay will differ. Individual merit or length of service may account for further differentials between the wage rates for apparently similar occupations.

Comparison of Wage Rates by States and Industries

In the endeavor to ascertain whether any appreciable difference in wage rates for similar occupations exists between the eight states selected for comparison, certain standard occupations in leading industries were selected and in a

CHART 2A: PERCENTAGE DISTRIBUTION OF HOURLY WAGE RATES
(National Industrial Conference Board)

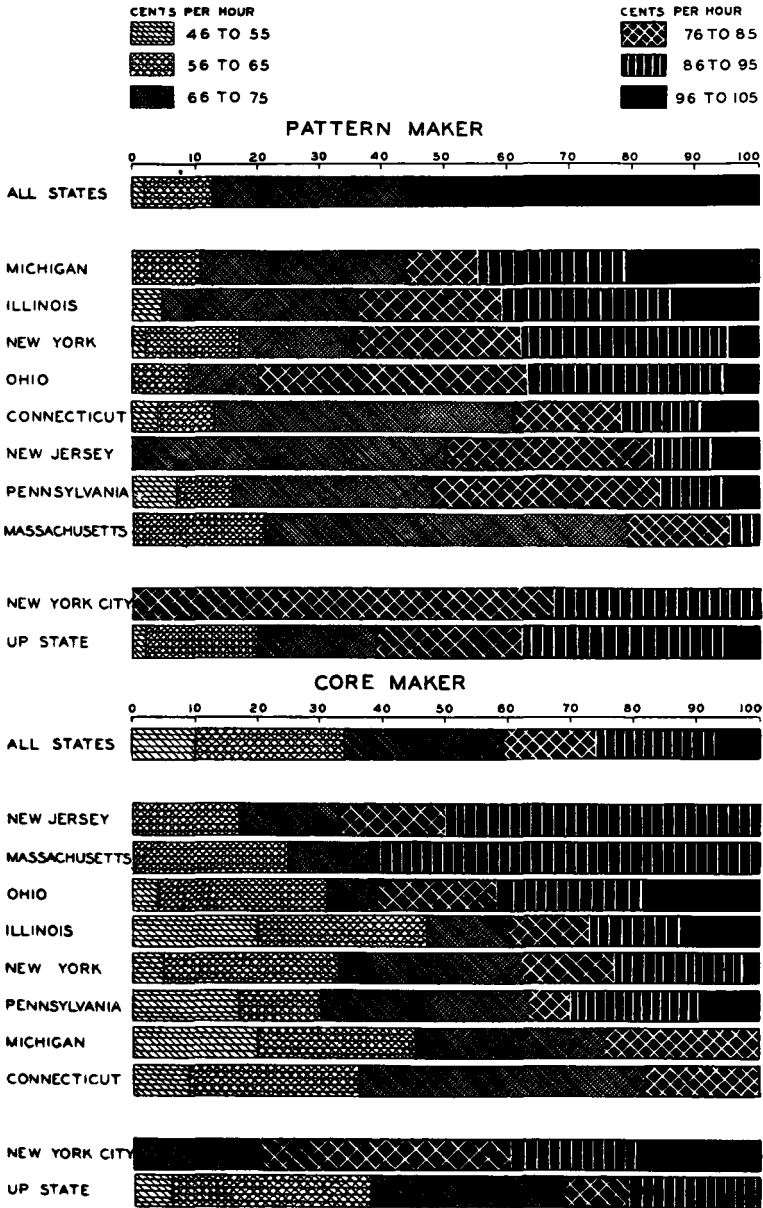


CHART 2B: PERCENTAGE DISTRIBUTION OF HOURLY WAGE RATES
(National Industrial Conference Board)

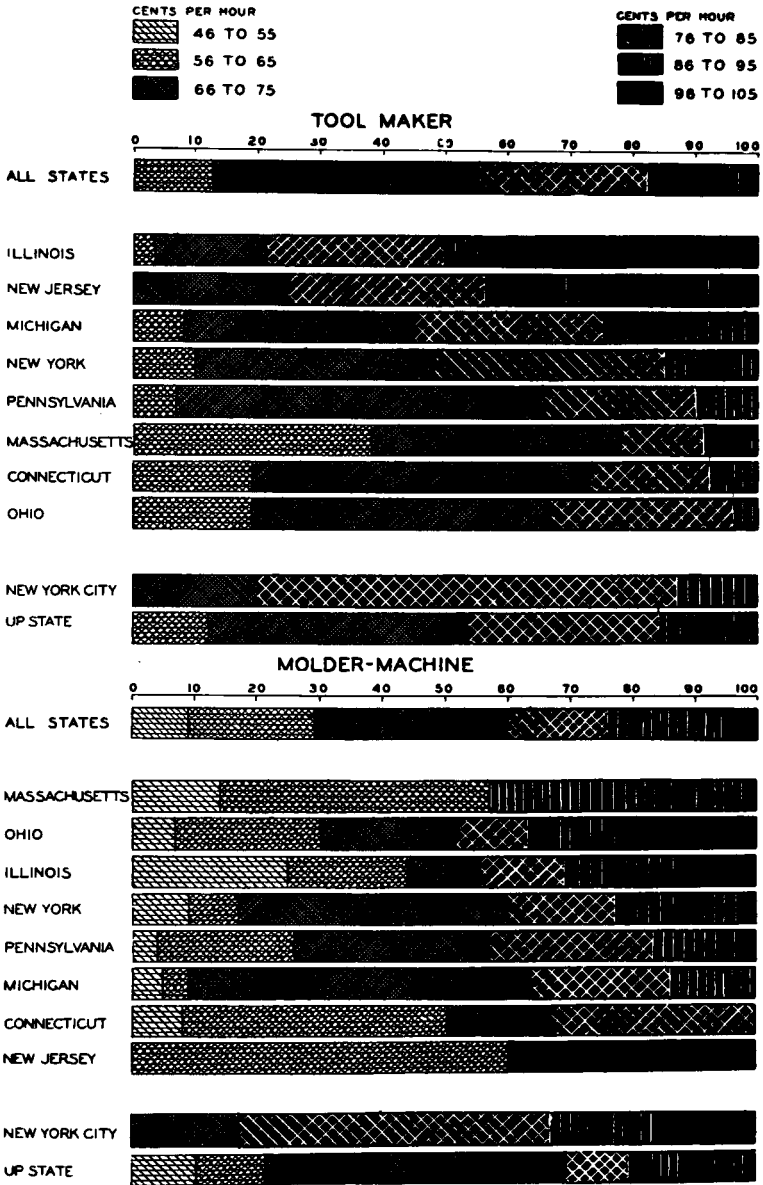
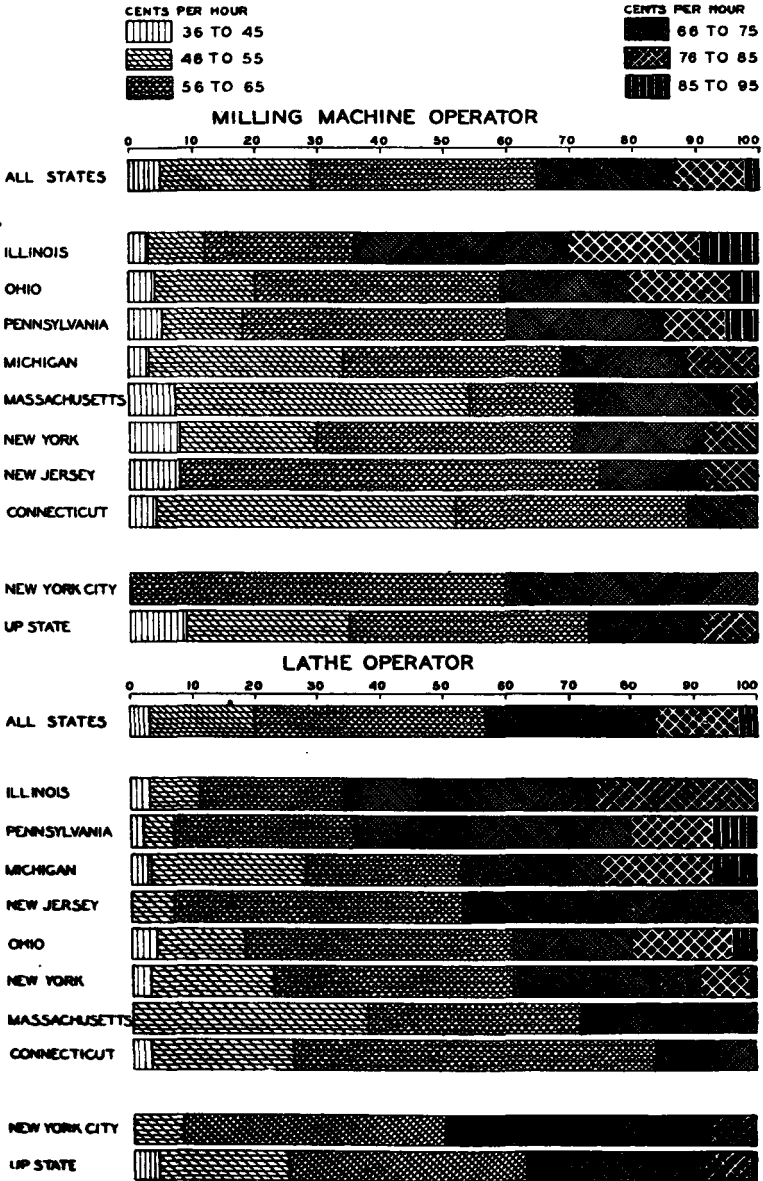


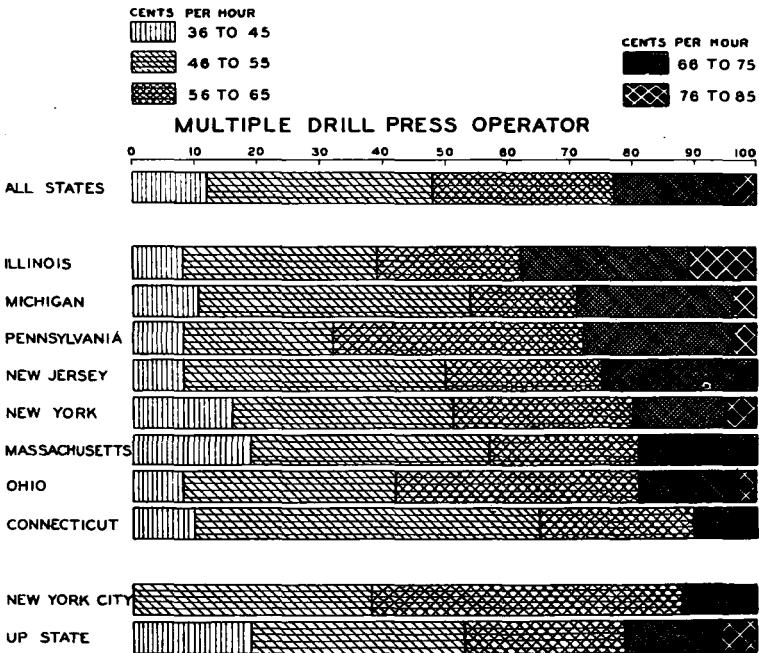
CHART 2C: PERCENTAGE DISTRIBUTION OF HOURLY
WAGE RATES
(National Industrial Conference Board)



questionnaire sent out by the Conference Board employers were asked to provide the rate "paid for a thoroughly qualified and experienced but in no way unusual operator. If there are a number of rates which would fall under this description, please give the one which is paid to the largest number of operators." Data received were inadequate for a

CHART 2D: PERCENTAGE DISTRIBUTION OF HOURLY WAGE RATES

(National Industrial Conference Board)

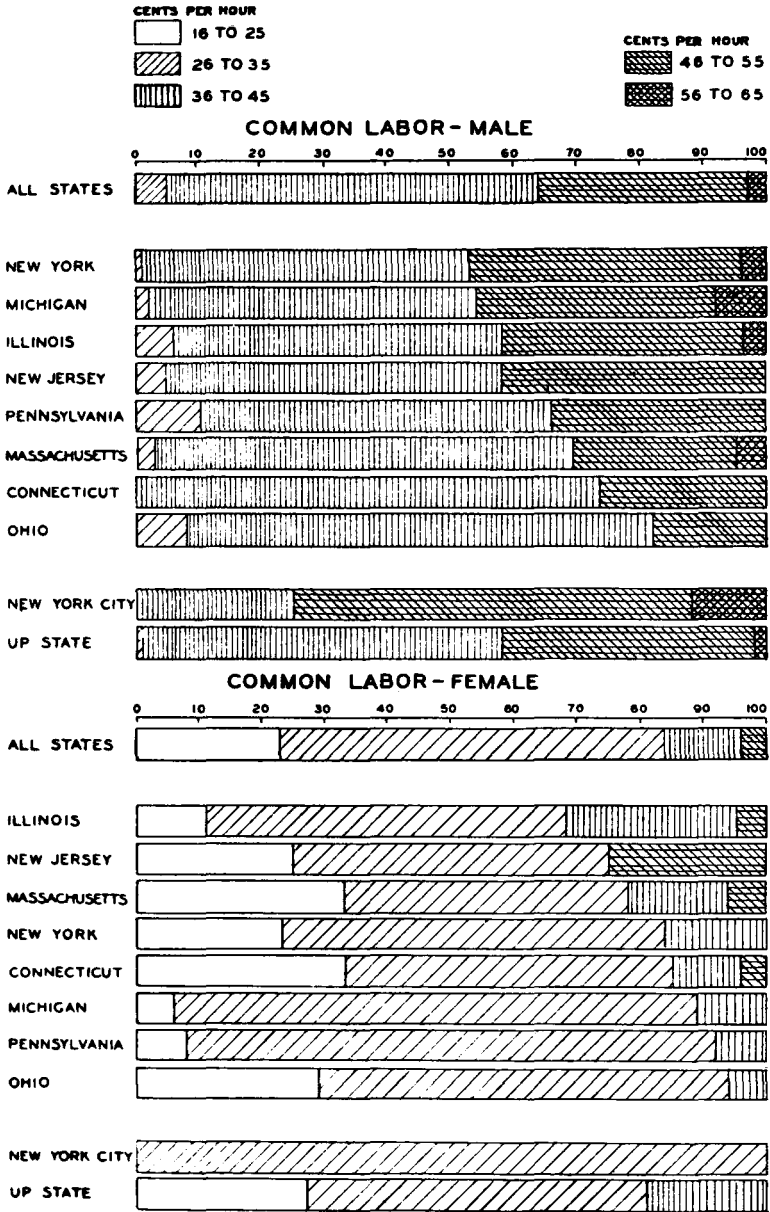


fair comparison, except in the case of the metal working industries. Data furnished by these industries were fairly comprehensive and, as a matter of fact, offer the best criterion of wage levels in the several states, since these industries are the most general throughout the industrial sections of the country.

In order to facilitate a comparison of wage levels be-

CHART 2E: PERCENTAGE DISTRIBUTION OF HOURLY WAGE RATES

(National Industrial Conference Board)



tween states, actual wage rates reported have been combined in groups, divisions being made at ten-cent intervals. In Charts 2A, 2B, 2C, 2D, and 2E, an arbitrary point in the wage scale has been selected for comparison and the order in which states are shown from top to bottom has been determined by the proportion of reporting companies in the state which gave rates in excess of this figure.¹ For example, in the case of pattern makers, 85 cents has been the point emphasized, and on this basis New York stands third among the eight states in the proportion of reported rates for pattern makers in excess of this figure.

Comparison of the nine occupations illustrated—pattern maker, core maker, machine molder, tool maker, milling machine operator, lathe operator, multiple drill press operator, common labor—male, and common labor—female, as representative, shows that there is considerable difference between states in the matter of wage rates. A state, however, may stand high in wage rates for one occupation and low in the matter of rates for another. In general, Illinois most consistently reported high rates. In no case does this state rank lower than fourth and it leads in five of the nine occupations. New York State appears to occupy a middle position. It shows the largest proportion of high rates paid to male common labor but stands from third to sixth in the other occupations. But wage rates are of only academic interest in a study of the wage earner's economic status. A high rate is of little value unless fairly steady employment is obtainable. The wage earner's earnings, which will be examined next, give a better indication of his ability to cope with the cost of living.

HOURLY AND WEEKLY EARNINGS

Hourly earnings have an advantage over wage rates as a criterion of average earning capacity, since they take into account any bonuses which may be part of the wage system and also include earnings from piece work, and are therefore much more representative of the rate of income per hour

¹ Tables on which these charts are based are given in the Appendix, pp. 107-116 of this volume.

than wage rates. The average earnings of workers are most commonly computed on an hourly or weekly basis. Average hourly earnings are obtained by dividing the payroll for a given period by the man hours worked during the same period. Average weekly earnings are found by dividing the payroll for a week by the average number employed during the week.

The United States Bureau of Labor Statistics has, from time to time, made exhaustive studies covering hourly and weekly earnings in various industries. Some of these studies have been made sufficiently recently to afford a fair comparison of present conditions in various states. Tables giving the comparative earnings in nine industries are shown in detail in the Appendix.¹ The industries covered are boots and shoes, cotton, foundries and machine shops, motor vehicles, paper box board, hosiery, underwear, woolen and worsted and men's clothing. Earnings are not shown for all eight states in all industries, since some of the industries are too unimportant in certain of the states to warrant the compilation of data. In the case of the men's clothing industry compilations of data were made on the basis of cities in which the industry is prominent rather than by states. New York State is represented by New York City, Buffalo and Rochester.

As in the case of wage rates, the figures of the Bureau of Labor Statistics for average hourly earnings do not show New York State in a leading position. New York shows the highest hourly earnings in only twenty-one of the 143 occupations covered, but it stands first, second or third in 60% of the occupations. The significance which can be attached to this point is limited by the fact that in two industries figures for only four states are given. But, as in the case of wage rates, New York State seems to occupy a generally middle position, not being conspicuous for high earnings per hour, but, on the other hand, not being heavily represented in the lower positions.

An exception is to be noted in the case of the men's clothing industry, which is the second most important industry in New York State. Eight of the cities covered in this study

¹ See pp. 117-125 of this volume.

are in the states which are included in the present survey and have consequently been selected for comparison. Throughout the various occupations, in the summaries by sex and in the consolidation of figures for all wage earners, a fairly well-defined ranking of cities on the basis of earnings is apparent. Chicago quite consistently shows the highest earnings, with New York City generally second and Rochester third, although in certain instances Cleveland surpasses one or both of the New York State cities. Thus, with two of its three clothing centers among the first three cities in point of high wage levels, New York State makes a strong showing in the men's clothing industry. This situation is further emphasized by the figures for average weekly earnings which give a better indication of the actual receipts of wage earners in this industry. Earnings in New York City lead in eight of the twenty-three occupations covered, while Chicago leads in five and Rochester in three. In sixteen occupations Chicago shows the highest or next to highest earnings, as against fifteen for New York City and eight for Rochester.

A further source of data covering average hourly and weekly earnings is provided by the nation-wide survey of wages, hours and employment in twenty-five manufacturing industries conducted by the Conference Board. In thirteen industries, sufficiently representative data were found to be available for New York State and several of the other states selected, to permit a fair comparison. On the basis of data for June, 1927, selected as a representative month, New York State led in both hourly and weekly earnings in three industries—boots and shoes, cotton goods, and electrical apparatus and supplies, and stood second or third in five other industries.

In this, as in other comparisons between states of average earnings for an industry, a word of caution against the drawing of too definite conclusions from the figures is in order. Many industries have two or more branches or processes which call for quite different requirements of skill and in which wage scales may differ widely. Because of certain geographic or labor advantages, or through coincidence, one branch of the industry may predominate in certain states and other branches in other states. The cotton manufac-

turing industry is a case in point: the spinning is being more and more concentrated in the South, while the North specializes in the weaving of the fabric. Consequently average earnings for apparently the same industry may vary between states without necessarily reflecting a difference in wage scales for the same kind of work. With this possible source of error in mind, a general comparison between states of earnings in similar industries may be made.

TABLE 6: AVERAGE WEEKLY EARNINGS, BY STATES,
DECEMBER, 1927

(Figures reported by the various states' Departments of Labor)

Industries	New York	Illinois	Massachusetts	New Jersey	Pennsylvania
All Industries.....	29.57	28.15	24.41	28.49	25.71
Automobiles, bodies and parts.....	32.09	28.06	30.41	32.70	32.90
Bakery products.....	25.73	29.45	23.77	32.34	29.26
Boots and shoes.....	24.75	19.21	18.98	23.72	17.16
Car construction and repair.....	34.46	29.37	31.06	..	27.25
Cotton goods.....	20.34 ¹	20.77	19.62	20.25	23.79
Electrical machinery, apparatus and supplies.....	31.63	28.61	29.30	27.28	25.13
Furniture and cabinet work.....	30.45	27.31	27.57	31.54	23.79
Glass.....	29.34	24.28	..	22.58	23.49
Iron and steel.....	33.63	29.38	..	29.56	30.51
Knit goods, except silk.....	18.78	15.99	20.41 ²	27.04	19.27
Paints and colors.....	28.96	29.60	..	30.06	27.98
Paper and pulp.....	29.93	..	26.60	27.95	29.24
Paper products.....	26.29	25.78	22.14	21.32	15.37
Silk goods.....	21.75	..	22.77	25.95	20.61
Tobacco.....	23.20	22.25	23.82	19.20	15.46

¹ Includes woolen manufacture.

² Includes hosiery.

Perhaps the best state comparison of average weekly earnings is afforded by the studies conducted by the Departments of Labor of various states. Five of the eight states covered in this study—New York, Illinois, Massachusetts, New Jersey and Pennsylvania—conduct such studies, and fifteen leading industries were found quite generally in these five states. The comparison of earnings for December, 1927, figures for which are given in Table 6, shows New York leading in seven industries, as well as in all industries combined, second in two, and third in the remaining six industries. To determine whether the high level of earnings in New York State

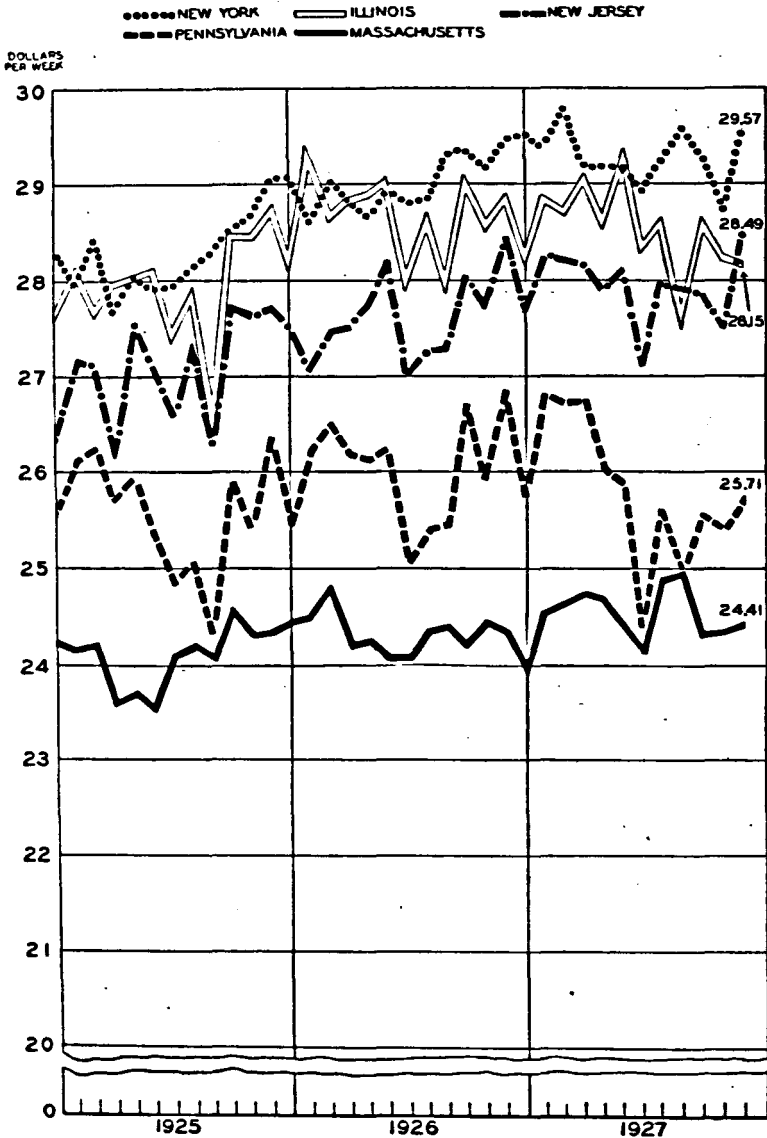
was consistently maintained over a period of time or was merely a coincidence in the month selected, a comparison of earnings for all industries combined in the five states for the three-year period 1925 through 1927 was made. This comparison is shown graphically in Chart 3, and brings out the fact that in all except eight of the thirty-six months covered earnings in New York State were higher than in any other state. Illinois was the only state which challenged New York's leadership and showed higher figures in the eight months mentioned.

This comparison of average weekly earnings provides probably the best estimate of the average employed wage earner's income in the respective states. As already indicated, the composite average wage level in a state is strongly influenced by the character of the state's industry and by the distribution of the wage earning population in urban and rural sections. The sampling process employed in assembling data for these state studies, either consciously or unconsciously, is likely to give effect to these factors so that the resulting average is influenced by the proportion of working population in higher or lower paid industries or in large or small centers of population. Consequently, the earnings of the hypothetical average wage earner is a fairly accurate reflection of the general wage level of the state.

In addition to indicating the respective wage levels of the several states, Chart 3 brings out strikingly the generally rising trend of wages. In even as short a period as three years, and in spite of rather marked fluctuations at times, the trend of earnings in all five states has been unmistakably upward. It is very noticeably so in New York and New Jersey, but this tendency in the other three states is less clear because of the decline in earnings during the latter part of 1927 on account of the rather severe curtailment of industrial activity.

Wage rates per hour and average hourly earnings indicate the general rate of pay in the respective states, and average weekly earnings show how much the average employed wage earner received per week at a particular period, thus taking into account the prevailing working hours per week. But neither of these criteria of earnings takes into account a

CHART 3: AVERAGE WEEKLY EARNINGS—ALL INDUSTRIES,
BY STATES, 1925-1927
(National Industrial Conference Board)



sufficiently extended period, to demonstrate the actual income of the wage earner. Stability of employment is not reflected, and unemployment for several weeks in the year will more than offset any ordinary advantage in weekly earnings during the period of employment. The adequacy or liberality of wages can not be argued without some indication of their continuity.

ANNUAL WAGE COST PER WAGE EARNER

If it were possible to obtain figures showing average annual earnings, the actual income of the wage earner could be portrayed with considerable accuracy. Such figures, however, are not available since the compilation of the necessary data would entail more work than most employers are willing to devote to it. Furthermore, many wage earners work for more than one employer during a year, and the computation of their annual earnings would require a knowledge of their movements and the assembling of their earnings from the payrolls of various employers. In the absence of data giving actual annual earnings per wage earner, an approximate measure of annual income is found in the average annual wage cost per wage earner obtained by dividing the payroll for a year by the average number employed. This, in effect, divides the year's wage payments equally between the normal working force. A certain element of error enters in this computation, particularly in cases of excessive labor turnover, since the computed average employment may be quite different from the actual normal working force. However, this element of error tends to be more or less constant between states and the effect of extreme variations is likely to be nullified by the volume of data. Consequently, the average annual wage cost per wage earner affords a general measure of income per worker in various industries and states.

A comparison between states of average annual wage cost per wage earner on the scale of census coverage is provided by the Census of Manufactures. In 1925, the latest year for which such data are available, the annual wage cost per industrial wage earner for the United States as a whole was

\$1,280. For New York State it was \$1,439, a figure which was exceeded slightly by Illinois and Ohio and more substantially by Michigan, as may be seen from Table 7. The New York figure is, however, more than 12% higher than the national average. New York leads in the increase in wage cost per wage earner between 1914 and 1925. In this period the New York average rose from \$597 to \$1,439, an advance of 141.2%, as compared with an increase of 120.8% for the entire United States. The increase of 139.7% in New Jersey most closely approached that of New York.

TABLE 7: AVERAGE ANNUAL WAGE COST PER WAGE EARNER IN 1914 AND 1925

(Source: United States Census of Manufactures, 1925)

	Average Annual Wage Cost per Wage Earner		Per Cent of Increase
	1914	1925	
United States.....	\$579.61	\$1,279.78	120.8
New York.....	596.53	1,438.65	141.2
Connecticut.....	553.42	1,242.77	124.6
Illinois.....	672.48	1,442.83	114.6
Massachusetts.....	562.57	1,210.87	115.2
Michigan.....	672.29	1,536.83	128.6
New Jersey.....	565.13	1,354.65	139.7
Ohio.....	622.85	1,441.93	131.5
Pennsylvania.....	571.08	1,325.20	132.1

In the endeavor to obtain more recent data of the same character, a large number of employers in different industries were asked by the Conference Board to submit their total payrolls and average employment for 1926. A sufficient number of reports were received from eight industrial groups to permit the calculation of fairly representative averages, although in some industries one or two of the states were inadequately represented and, consequently, figures for these states were omitted. The largest return was received from the metal industries, with data from eight states covering 223,733 wage earners. Ohio showed the highest annual wage cost per wage earner in these industries, with \$1,615; New York State was second with \$1,566, figures for other states ranging down to \$1,357 in New Jersey, as shown in Table 8. For the eight industries New York State ranked

WAGE EARNER'S ECONOMIC STATUS

CHART 4: AVERAGE ANNUAL WAGE COST PER WAGE EARNER, 1926
(National Industrial Conference Board)

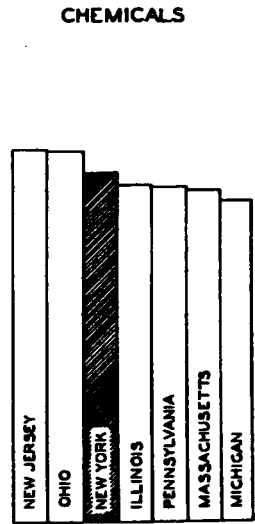
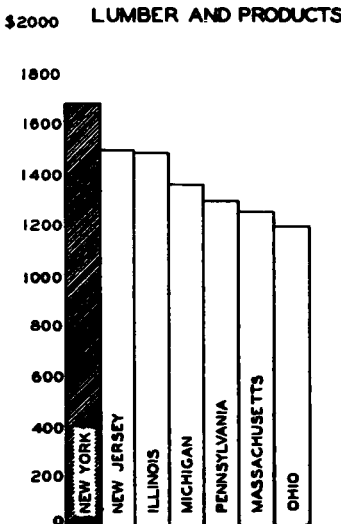
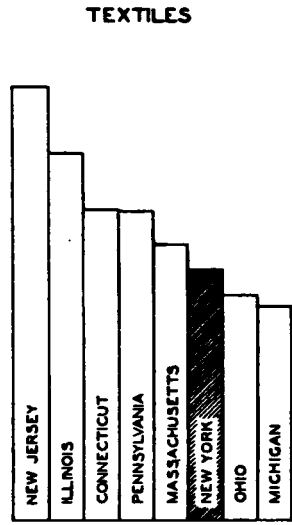
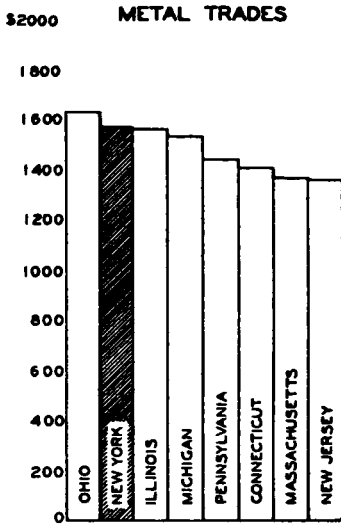
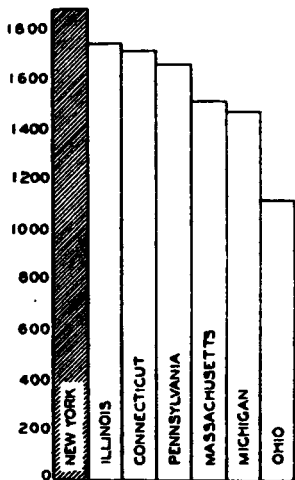
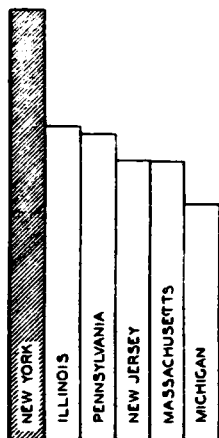


CHART 4: AVERAGE ANNUAL WAGE COST PER WAGE EARNER, 1926 (Continued)
(National Industrial Conference Board)

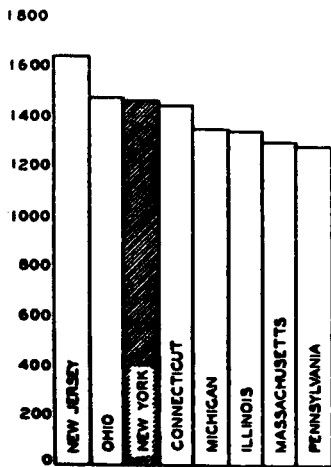
\$2000 PRINTING AND PUBLISHING



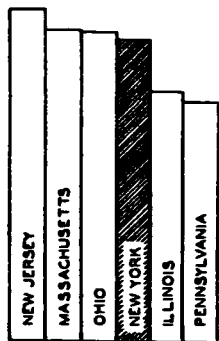
FOOD PRODUCTS



\$2000 PAPER AND PULP



LEATHER PRODUCTS



highest in three, stood second in one, third in two, fourth in one and sixth in one, as may be seen from Chart 4. Taking into account New York's rankings and the relative importance of the various industries, New York appears to have a clear claim upon first place.

TABLE 8: AVERAGE ANNUAL WAGE COST PER WAGE EARNER BY STATES AND INDUSTRIES, 1926

(Source: National Industrial Conference Board)

	Metal Industries	Textiles	Leather and Products	Lumber and Products	Chemicals	Paper and Pulp	Printing and Publishing	Food Products
New York.....	\$1,566	\$1,013	\$1,203	\$1,630	\$1,392	\$1,460	\$1,873	\$1,700
Connecticut....	1,402	1,236	..	..	..	1,438	1,702	..
Illinois.....	1,552	1,459	1,014	1,481	1,344	1,334	1,732	1,237
Massachusetts..	1,358	1,102	1,236	1,241	1,323	1,293	1,508	1,100
Michigan.....	1,521	856	..	1,357	1,280	1,339	1,457	933
New Jersey.....	1,357	1,722	1,326	1,483	1,482	1,639	..	1,108
Ohio.....	1,615	896	1,232	1,184	1,184	1,479	1,115	..
Pennsylvania...	1,425	1,226	963	1,287	1,342	1,272	1,643	1,213

It was shown earlier that in the matter of wage rates and average hourly earning New York State occupied only about a middle position among the eight states compared, and yet, as nearly as can be estimated, the annual income of the New York wage earner compares very favorably with that in any of the other states. The explanation of this apparently paradoxical situation appears to lie in greater stability of employment in New York State, which insures a larger average earning period per year. Consequently, employment figures will be analyzed to ascertain, so far as possible, the relative stability of employment in the different states.

STABILITY OF EMPLOYMENT

The effect of seasonality of various industries and other factors affecting business activity upon continuity of employment is the most difficult phase of the wage question upon which to obtain dependable information, and yet it is one of the utmost importance. Irregular employment, from whatever cause, threatens the economic security of the worker, and the earning capacity attributed to him on the basis of his wage rate may not accurately indicate his income

because of his inability to get the full advantage from it. The social and economic effect of considerable, even if only periodic, unemployment has given concern to students of the subject, and some companies have endeavored in a practical way to reduce employment fluctuations through the reduction or elimination of production inequalities over the year. Considerable progress can be and has been made in this direction, but this is a comparatively simple problem only in those industries in which there is a more or less constant demand for the product.

Certain industries are necessarily seasonal. Probably the most outstanding example of this type is the canning and preserving industry. Depending as it does upon fruit and produce, no amount of planning can lengthen the growing season and, consequently, this industry will always be seasonal. Employment in plants which manufacture for building construction is necessarily affected by the activity in the building industry, which is strongly influenced, if not controlled, by weather conditions. Other industries are seasonal because of the purchasing habits of the customers. Clothing is purchased in the greatest volume in the spring and fall, and production schedules are planned to meet this demand. It is customary, when purchasing a new automobile, to do so in the late winter or spring with the result that during the rest of the year the activity in the industry is comparatively quiet.

These reasons for seasonal fluctuation in the volume of production occur annually and are independent of changes in the business cycle, except in so far as business activity or depression emphasize or temper them in degree. Whether the reason for irregular employment be seasonal demand for the product or general business depression, the wage earner affected is the victim of economic conditions which seriously threaten his ability to maintain himself and his family. Income may be seasonal but expenses are constant.

An attempt has been made in Table 9 to indicate the relative seasonality of New York State's leading industries as reflected in employment fluctuations. The United States Census of Manufactures for 1925 gives the average employment for the various industries in each month of the year

TABLE 9: VARIATIONS FROM AVERAGE OF HIGHEST AND LOWEST EMPLOYMENT IN LEADING NEW YORK STATE INDUSTRIES, 1925

(Sources: United States Census of Manufactures, 1925)

Industries	Highest Month	Per Cent above Average	Lowest Month	Per Cent below Average
Clothing, women's	March	12.9	July	15.9
Clothing, men's	September	5.0	May	8.6
Electrical machinery, apparatus, and supplies	December	20.4	June	12.5
Boots and shoes	October	3.4	January	4.9
Printing and publishing, book and job	December	2.7	July	4.0
Printing and publishing, newspaper and periodical	December	4.1	July	2.5
Motor vehicles, bodies and parts	May	11.2	January	18.3
Iron and steel, steel works and rolling mills	December	10.8	August	13.9
Chemicals	December	2.5	February	4.1
Silk manufactures	October	3.4	June	3.8
Gas, manufactured	January	2.6	August	1.3
Confectionery	November	18.2	July	12.2
Motor vehicles	May	15.7	January	17.3
Ship and boat building	April	13.6	November	12.7
Lumber, planing mills	September	3.6	February	4.0
Canning and preserving	July	94.7	February	57.6
Ice cream	July	19.7	January	19.7
Furniture	December	7.7	July	6.3
Steam railroad repair shops	February	3.9	September	4.1
Knit goods	October	5.7	January	5.0
Paper and wood pulp	March	2.6	August	2.6

and the average for the year. The months in which employment is highest and lowest have been taken and the percentage of variation from the average has been computed. A study of this table suggests that the periods of highest and lowest employment in the various industries are well distributed throughout the year and that there is no one time of the year when industry as a whole tends to speed up production and enlarge working forces or, on the other hand, to reduce them. All except two months in the year, June and August, are found to be the peak employment periods of one or more of the twenty-one industries, but December, as the peak month for six industries, is considerably in the lead, followed by October, which shows the highest employment for three industries. March, April, October and December are the months in which none of the industries reach their lowest employment, August is the low month for six industries, and January for five.

The percentages of increase and decrease in employment over the average vary considerably between industries and, of course, the effect of these fluctuations upon the wage-earning population of the state differs according to the importance of the industry. Thus, the fact that at the lowest point of employment in the women's clothing industry, with its approximately 80,000 wage earners, was 15.9% below the average is considerably more significant than that employment in the confectionery industry, with an average employment around 11,000, declined nearly as much, since for every wage earner affected by the employment reduction in the confectionery industry, seven clothing workers lost their jobs. An approximate agreement between the percentages of increase and decrease in employment in an industry suggests a generally gradual change, while a considerable disparity between the two percentages suggests sharp fluctuations which deviate markedly from the average.

TABLE 10: PER CENT OF EMPLOYMENT IN HIGHEST MONTH OVER AVERAGE EMPLOYMENT FOR YEAR, BY STATES, 1925

(Source: United States Census of Manufactures, 1925)

	New York	Connecticut	Illinois	Massachusetts	Michigan	New Jersey	Ohio	Pennsylvania
Clothing, women's.....	12.9	7.5	10.2	6.5	5.7	7.0	12.5	10.4
Clothing, men's.....	5.0	5.5	4.2	5.6	8.4	7.5	5.4	2.7
Electrical machinery, apparatus and supplies..	20.4	10.1	11.3	13.0	14.9	14.6	19.3	8.7
Boots and shoes.....	3.4	..	6.1	9.4	8.1	6.1	8.0	6.1
Printing and publishing, book and job.....	2.7	3.8	5.5	6.2	4.0	7.9	2.2	1.3
Printing and publishing, newspaper, periodical..	4.1	2.6	1.3	6.3	2.8	4.1	3.2	5.7
Motor vehicles, bodies and parts.....	11.2	13.6	10.6	15.2	14.2	18.1	5.7	14.0
Iron and steel, steel works and rolling mills.	10.8	..	11.8	..	3.5	3.8	2.8	4.5
Chemicals.....	2.5	..	3.1	7.8	4.5	2.8	3.9	4.0
Silk manufactures.....	3.4	3.9	..	4.1	..	1.6	..	7.2
Gas, manufactured.....	2.6	5.3	5.2	5.5	5.6	2.6	9.1	10.6
Confectionery.....	18.2	19.1	29.5	27.4	41.5	17.8	30.1	16.2
Motor vehicles.....	15.7	..	19.4	12.1	9.2	18.8	15.2	13.4
Ship and boat building..	13.6	13.8	34.5	10.3	44.2	6.3	45.2	31.7
Lumber and planing mills	3.6	5.0	2.9	3.3	4.7	3.5	3.5	4.4
Canning and preserving..	94.7	131.5	192.5	8.4	159.9	94.0	225.8	63.2
Ice cream.....	19.7	44.1	23.4	31.9	39.2	33.2	25.4	26.2
Furniture.....	7.7	11.7	7.2	8.0	6.7	9.7	10.3	5.9
Steam r.r. repair shops..	3.9	..	4.9	6.9	2.8	5.4	5.5	5.3
Knit goods.....	5.7	1.4	5.5	4.2	4.5	4.0	11.4	3.5
Paper and wood pulp....	2.6	6.6	6.1	6.0	2.0	3.2	1.5	3.7

The degree of seasonality exhibited by the various industries differs considerably. As might be expected, the canning and preserving industry shows the most extreme fluctuations, with a peak employment double the average and a low point 57.6% below the average employment. Other industries showing a high seasonality are ice cream, confectionery, electrical apparatus, women's clothing, motor vehicles and shipbuilding. On the other hand, it is evident that in a number of prominent industries, such as boots and shoes, printing and publishing, chemicals, silk goods, and manufactured gas, the variation during the year from the average employment is confined to small proportions.

TABLE 11: PER CENT OF EMPLOYMENT IN LOWEST MONTH BELOW AVERAGE EMPLOYMENT FOR YEAR, BY STATES, 1925

(Source: United States Census of Manufactures, 1925)

	New York	Connecticut	Illinois	Massachusetts	Michigan	New Jersey	Ohio	Pennsylvania
Clothing, women's.....	15.9	14.0	9.4	12.1	8.3	11.1	18.2	8.7
Clothing, men's.....	8.6	5.2	11.2	5.7	9.2	6.3	7.1	2.9
Electrical machinery, apparatus and supplies...	12.5	6.2	8.1	5.8	8.3	10.1	9.9	6.6
Boots and shoes.....	4.9	..	6.0	14.3	7.9	4.9	7.6	4.7
Printing and publishing, book and job.....	4.0	2.0	5.3	4.8	2.8	4.2	1.7	2.0
Printing and publishing, newspaper and periodical.....	2.5	1.5	1.7	7.8	1.4	2.8	2.0	2.9
Motor vehicle, bodies and parts.....	18.3	6.9	11.6	16.1	16.9	27.5	14.7	12.6
Iron and steel, steel works and rolling mills.	13.9	..	10.2	..	5.5	2.2	2.9	5.0
Chemicals.....	4.1	..	4.1	8.6	5.6	4.5	4.7	2.0
Silk manufactures.....	3.8	3.5	..	5.2	..	3.4	..	10.2
Gas, manufactured.....	1.3	5.9	5.5	9.5	4.1	2.6	11.3	6.3
Confectionery.....	12.2	16.1	17.8	34.0	18.1	13.9	23.1	16.8
Motor vehicles.....	17.3	..	14.2	26.6	14.9	17.3	15.0	16.9
Ship and boat building...	12.7	7.6	26.1	14.7	34.7	9.1	58.3	23.2
Lumber, planing mills...	4.0	5.4	6.1	5.3	6.5	3.2	4.6	3.1
Canning and preserving..	57.6	62.9	44.8	10.1	74.7	26.2	50.9	21.8
Ice cream.....	19.7	24.9	19.9	21.2	25.9	24.9	20.0	19.1
Furniture.....	6.3	7.4	4.9	7.8	6.5	7.1	5.8	6.3
Steam railroad repair shops.....	4.1	..	7.5	3.3	2.5	4.1	3.5	4.3
Knit goods.....	5.0	2.1	8.8	5.2	6.8	5.7	11.5	6.2
Paper and wood pulp....	2.6	5.3	5.9	3.1	2.2	2.9	1.7	3.7

Similar percentages, computed for the seven other states and shown in Tables 10 and 11, make possible a comparison

of conditions in New York and elsewhere. Taken as a whole, seasonality in employment appears to be below the average in New York State, since in twelve of the twenty-one industries New York State is lowest or second or third from lowest in variation above average employment during the peak month, and in eleven industries it is first, second or third from lowest in variation below the average during the month of lowest employment.

The more than average stability of employment in New York State is confirmed from another source. Earlier in this chapter figures for average weekly earnings compiled for their respective states by the departments of labor of New York, New Jersey, Massachusetts, Pennsylvania and Illinois were quoted.¹ Series of employment index numbers for these states are also available.² Index numbers of employment for the years 1925, 1926 and 1927 have been plotted by states on Chart 5, the three curves for each state being superimposed to permit the comparison of conditions at the same period in each of the three years. The close similarity of employment movements in New York State for the three years is striking, as is the narrow field to which the fluctuations are confined. In each year, approximately the same course is run, with the curve of employment occupying a higher or lower level depending upon the general condition of business. The New York employment curve for 1927 is particularly significant. During a period in which unemployment became so pronounced as to attract wide-spread attention, New York showed the smallest relative decline in employment of any of the five states. This may have been due to the character of New York's industries, their diversification, or to other causes, but it is a significant indication of the relative stability of employment in New York State.

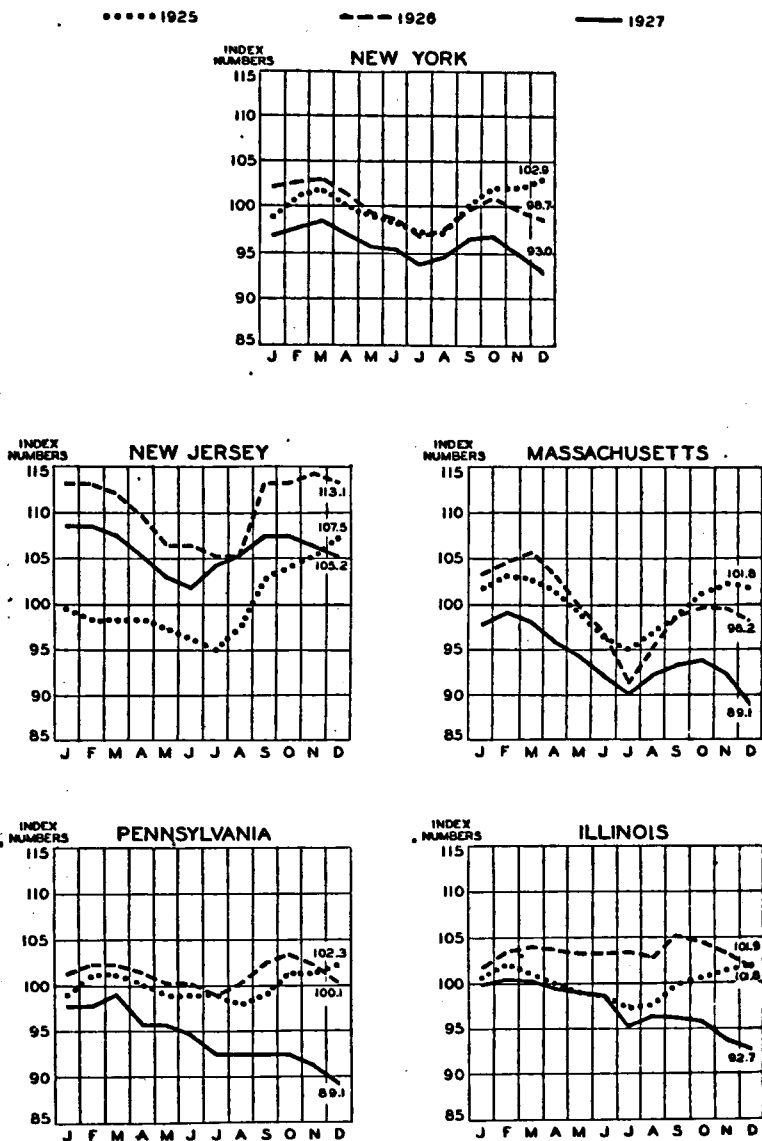
WORKMEN'S COMPENSATION BENEFITS

Another cause of loss of income to the wage earner is his disablement, either temporary or permanent, through acci-

¹ See p. 31 of this volume.

² The employment series for New Jersey is compiled by the Federal Reserve Bank of Philadelphia.

CHART 5: INDEX NUMBERS OF EMPLOYMENT IN NEW YORK AND OTHER STATES, 1925 TO 1927
(National Industrial Conference Board)



dent or injury in the course of his employment. All except five states have enacted workmen's compensation laws to protect the worker against total loss of income during disability, but these laws differ widely in the extent of their coverage and liberality of benefits and administration. It has been shown in an earlier report by the Conference Board¹ that all factors considered, New York State has the most liberal workmen's compensation law in the United States. This conclusion was reached after a thorough and intensive analysis of workmen's compensation laws and their administration in the various states. Due weight was given to such considerations as employments covered, benefit schedules, length of waiting period, medical provisions, occupational disease provisions, maximum wages and percentage of regular wages to be paid. Workmen's compensation may be liberal in legislative provisions, or in the interpretation and administration of the law, or in both. In New York State it is liberal in both respects, and the wage earner in New York State possesses a clear advantage in the matter of compensation payments over the wage earner in any other state.

SYSTEMS OF WAGE PAYMENT

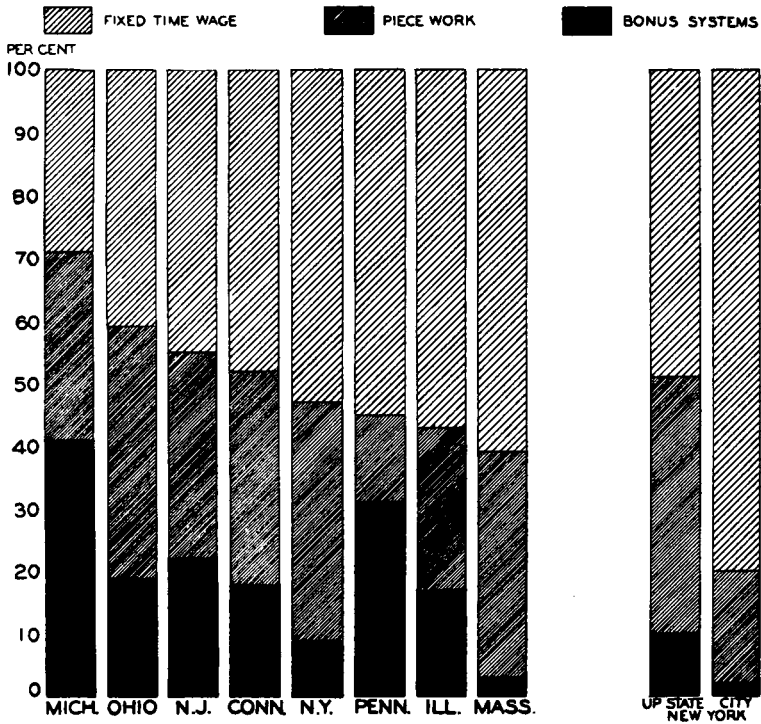
Various methods have been devised to make a man's wage bear a more direct relation to his output and his value to the employer. Piece work is the best known and most widely used incentive wage system, but it has been supplemented in recent years by many forms of premium and bonus systems, each endeavoring to correct certain defects of earlier systems. The cumulative effect of these various systems has been to release an increasing number of wage earners from the limitations of a fixed hourly wage rate and to give them some measure of control over their earnings. Augmented earnings have benefited the wage earner and the resulting increased per capita output has reduced production costs to the employer.

The extent to which incentive wage systems are in operation in the various states has a bearing upon the wage earner's

¹ National Industrial Conference Board, "The Workmen's Compensation Problem in New York State," New York, 1927.

economic status, since it is reasonable to assume that his financial position is improved if he has some measure of control over his earnings. The mere proportion of companies in which some form of incentive wage payment system is in force would mean little, since in probably no establishment

CHART 6: PERCENTAGE OF WAGE EARNERS AFFECTED BY DIFFERENT METHODS OF WAGE PAYMENT IN NEW YORK AND OTHER STATES
(National Industrial Conference Board)



can all forms of work be brought under these systems, and the proportion of workers under the incentive payment plan will vary widely between plants. Consequently, in its questionnaire to employers, the Conference Board asked them to state what proportion of their working forces operated

under these systems, and in combining returns from the different states the proportion of workers reported as under piece work, bonus systems or straight hourly rates to the total employment of reporting plants was found. The relative use of these systems in reporting plants may be seen from Chart 6.

Michigan leads in the proportion of workers on an incentive basis with the surprising total of nearly 71% of the wage earners operating either under piece work or a bonus system. This is probably due to the extensive use of these systems in the automobile industry. New York stands fifth among the eight states in this respect. In the matter of piece work alone, however, New York is second, with 38.2% and was surpassed only by Ohio, with 40.2%. When returns from New York City and up state are tabulated separately, it is found that incentive wage systems are far more prevalent up state than in New York City, the proportion of workers affected being 51.2% up state and only 19.9% in New York City.

HOURS OF WORK

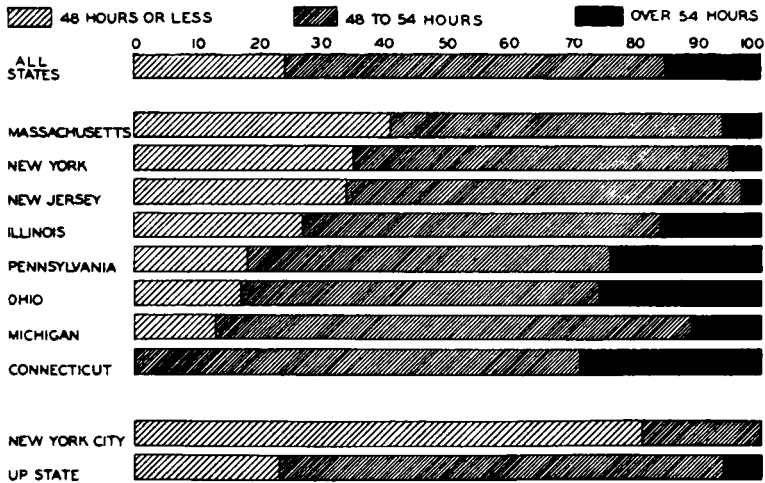
Hours of work may be considered from two opposite angles in connection with the wage earner's economic status. A low average of working time per week may be regarded as an advantage in that it allows a greater proportion of the week for recreation and leisure. But, on the other hand, when wages are figured on a unit of time or unit of output basis, the weekly return is limited by the time available for work. Of course in the case of two equal incomes the worker who obtained his income with the fewest hours of work has the advantage, but the mere fact that prevailing hours of work average less in one state or industry than in another may not be an unmixed blessing.

The metal working industries have again been taken for the comparison of prevailing hours of work in the eight states, and information on this subject, furnished by more than five hundred establishments, is classified and presented in Chart 7. Three divisions of working hours have been made: (1) 48 hours per week or less, (2) over 48 hours and not exceeding 54 hours, and (3) over 54 hours. Massachusetts shows the

largest proportion of establishments with a standard work week of 48 hours or less. This might be thought to be due to the 48-hour law for women which has been in effect in that state for a number of years, but it is doubtful whether this law is an important factor since women are as yet a very small proportion of the working force in the metal industries. New York stands second to Massachusetts in the proportion of establishments working 48 hours or less, with 35% of

CHART 7: PREVAILING HOURS OF WORK PER WEEK IN METAL WORKING INDUSTRIES, NEW YORK AND OTHER STATES, 1927

(National Industrial Conference Board)



the companies falling into this classification, and these data were gathered before the New York 48-hour law went into effect. There is a surprising similarity in the proportion of plants in the eight states which have a nominal work week of over 48 hours but not exceeding 54 hours. This is, of course, the group containing the largest number of companies and in six of the eight states the proportion runs from 53% to 63% of the total, in Connecticut it is 71% and in Michigan, 76%. Thus, between one-half and three-quarters

of the metal working establishments are found to have a nominal work week between 48 and 54 hours.

Another rather astonishing fact brought out by Chart 7 is the relatively small proportion of companies which operate over 54 hours per week. New Jersey has the smallest proportion of 3%, and New York is second with 5%, the highest being Connecticut with 29%. The average for the eight states combined is only 15%. These figures indicate that in New York State the work week is relatively short, since the state ranks second in the proportion of plants working 48 hours or less and also is next to lowest in the proportion working over 54 hours.

This review of the factors affecting the direct income of the wage earner in New York State and seven other leading industrial states covers only one aspect of the wage earner's economic status. Data have been assembled from various sources to show as accurately as is possible the relative earning capacity of the industrial working forces in the several states and the extent to which this earning capacity can be capitalized and taken full advantage of. It may be that wages no longer constitute the sole source of income to the wage earner, and consequently possible supplementary sources of income or indirect economic advantages will next be considered.

CHAPTER III

THE CONTRIBUTION OF INDUSTRIAL RELATIONS ACTIVITIES

THE growth of industrial relations activities in recent years has been so steady and so wide-spread that they have become a definite factor in the industrial life of the country. Since certain of the activities may materially affect the financial position of the workers who participate in them, and since they reflect the newer relationship between management and wage earners which finds its expression in many of the contacts between them, it was felt that these activities should be taken into account in a study of the economic status of the wage earner.

DEVELOPMENT OF INDUSTRIAL RELATIONS ACTIVITIES

When all manufacturing operations were conducted in relatively small units, a personal relationship existed between the employer and his employees which was possible only when one man was able to direct practically every branch of the business. But the same evolution, which in a comparatively few years has carried centralized production control, with its planning and dispatching of orders, from the experimental stage to established practice, and developed synchronized assembly lines and highly specialized inspection and technical research departments, has also brought about a new employment relationship. Management has found it necessary to do in an organized way what formerly was accomplished through individual dealings, and the conduct of industrial relations activities has developed a new field of administrative policy.

The growth of industrial relations activities was greatly stimulated by conditions engendered by the war. Unprecedented demands for production, combined with an increas-

ing labor shortage and rapidly mounting wage scales in the industries most closely related to war work, brought on a labor instability which caused grave concern to the managements of many companies. At this time attention was strongly focused upon the widening gap between employer and employee, which had been an inevitable accompaniment of the application of principles of mass production, and means were sought for the de-mechanization of the employment relation where it had drifted into that condition.

With good intentions, but often groping without adequate knowledge and understanding, management attacked the pressing problem of recreating a satisfactory relationship with the employees and of providing inducements for efficiency and enlarged productivity and for materially reduced labor turnover. Too often, hastily considered plans, involving a cost disproportionate to the advantages gained, were put into practice. The high mortality rate of these plans during the depression period of 1920-1921 testified to the unsound basis upon which they had been founded, since they had not demonstrated their worth sufficiently to survive critical analysis in a period of financial stringency. The purging process of the deflation period paved the way for a clearer conception of relative values and a sounder and more permanent basis for industrial relations activities. The early experiments had given evidence of potential value, and in the years which followed the post-war depression, increasing attention was devoted to the development of industrial relations programs which would be effective in accomplishing the purposes for which they were established and be conducive to a satisfactory employer-employee relationship.

A fundamental difference between the development of industrial relations activities in Europe and in the United States is worthy of emphasis. In Europe the prevailing practice has been to make activities aimed at safe-guarding the wage earner's economic security subjects of legislation by the state, imposing upon employers compliance with a rigid law which might or might not be applicable to particular cases. In the United States the practice has been to leave this field to the employer, and consequently the development of these activities in the United States has, for the most

part, been a natural response to a need and has been due to the initiative of employers.

Trends of Industrial Relations Activities

Two distinct trends have become apparent which augur well for the permanency and future growth of these activities. In the first place, there has been an extension of industrial relations organization to smaller establishments. The experience of the larger companies in this field has aroused the interest of the managements of smaller enterprises whose problems, while less in degree, are basically similar. These activities, therefore, can no longer be regarded as a by-product of large-scale production. Already some small companies have organized and are maintaining well-conceived and inclusive programs of industrial relations activities. Others are inaugurating limited programs which bid fair to expand along sound lines. In consequence, organized industrial relations are rapidly becoming an integral part of an American industrial management.

In the second place, there is a growing tendency on the part of management to share with its wage earners the cost of activities intended to improve the economic status of the employee. This is sound economics and sound psychology. While the contributory feature somewhat lightens the financial burden of the employer, the wage earner is given definite assistance in strengthening his financial position, and the fact that he is contributing to the fund, which will ultimately revert to him, gives him an appreciation of its value and an assurance of greater financial stability in it.

CLASSIFICATION OF INDUSTRIAL RELATIONS ACTIVITIES

The contribution of industrial relations activities to the wage earner's economic status is contingent upon two considerations: the extent to which they are maintained by industrial organizations and the financial assistance which they render. The extent to which companies have inaugurated programs of these activities is ascertainable with some degree of accuracy. But it is impossible to determine the financial assistance which is contributed to the average

wage earner, and, even if such an average figure could be computed, it would be meaningless. Companies differ in the number and character of activities which they maintain and in the extent to which they share with their employees the cost of activities which have a definite financial value, so that there can be no such thing as an average contribution. The best that can be done in determining their financial value to the wage earner is to endeavor to find if there is a generally standard benefit accruing from certain specific activities and on the basis of the relative universality of these activities argue that at least some tangible assistance is derived by the wage-earning group as a whole.

For the purposes of this study, industrial relations activities may be divided into two general classifications: those which possess a definite, traceable, direct or indirect financial value, and those which have no immediate financial value but which, none the less, may in the long run contribute to a better economic position for the wage earner through the preservation of his health and safety, or by fitting him, through training and education, for more advanced and better-paid work. To provide a clearer understanding of the broad field covered by industrial relations activities some of the leading and more representative activities will be briefly described. This list is not intended as a complete enumeration of activities, but merely as illustrative of the wide range of this field.

Activities Having a Direct Monetary Value to the Wage Earner

Certain activities possess a direct monetary value. For example, the supplemental bonus is an award in cash, or its equivalent in stock or saving certificates, for meeting certain standards of accomplishment, the fulfilment of which is implied in the wage agreement, but which the employer specifically rewards through financial incentives. Such a bonus may be granted to those who have completed a certain period of service or to those who have maintained an established standard of punctuality or attendance, or to those whose output has met certain requirements as to quality. Profit sharing is the distribution to employees of a fixed percentage of the actual net balance of profit secured by the financial

operations of a company. Payments may be in cash or stock to those persons in the organization who have complied with the eligibility requirements. Under stock subscription plans the employee may purchase the securities of his company, usually on more advantageous terms than in the open market. Assistance by management generally takes the form of offerings of corporate stock below the market price and permits the employee to pay for the stock through regular deductions from wages. Mutual benefit associations, as the name implies, are associations formed by the employees of a company, with or without financial assistance from the management, for the purpose, among other things, of protecting the members against sudden financial strain caused by accident or death. From funds accumulated through small regular payments by members, sometimes augmented by contributions from the company, benefits for death, sickness and accident are paid. Social and recreational activities are also frequently conducted by the mutual benefit associations. Group insurance, whether non-contributory (premiums paid entirely by the employer) or contributory (premium cost shared between employer and employees), provides insurance coverage for participating employees which assures to them or their heirs fixed benefits in case of sickness, accident or death according to what is provided in the policy. Pension plans make provision for financial assistance to superannuated employees either by the non-contributory award of the employer or, as is less common, out of a fund which is built up from contributions of management and employees. The payment of pensions may be entirely optional with the management, there may be a quasi-contractual obligation or there may be the rarely encountered situation where the plan is on a contractual basis providing automatic grants when eligibility requirements have been satisfied. Leading insurance companies are devoting considerable study to the development of pension policies whereby in return for the payment of stipulated premiums paid by the employer, or jointly by employer and employees, they undertake to make pension payments to eligible employees for the remainder of their lives. Vacations with either full or part pay may be granted by companies to wage earners who have satisfied

certain requirements. Frequently the length of vacation is determined by length of service with the company.

Activities Indirectly Affecting the Wage Earner's Economic Status

In addition to such activities which provide a direct financial benefit, there are many which indirectly contribute toward an improved economic status by reducing the cost to the wage earner of necessary commodities or services, or in various ways giving to his wage a greater purchasing power. Company stores may be established to permit employees to purchase necessary commodities at or near cost. The economy of quantity purchasing may be made available to employees through the co-operation of the company's purchasing department, or discount privileges for employees may be arranged with other companies. Lunches and sometimes other meals are provided in company operated lunch rooms or through other food serving facilities, enabling employees to obtain wholesome food at prices which are usually well below those charged in commercial eating places. Housing activities may provide free or low-cost lodging, or houses may be built and maintained by the company and rented to employees at a cost considerably below commercial rentals. In addition, employees may be encouraged to purchase or build homes with assistance from the company in financing and in building at low cost. Where the plant is at some distance from the town or transportation facilities are inadequate, the company may provide transportation for its employees free or at reduced rates. Thrift and provision for the future and for emergencies may be encouraged by savings plans. In some cases, the company acts only as the collecting agency and deposits funds in a savings bank, while some companies invest the accumulated funds themselves in the endeavor to obtain for their employees a greater return than is provided by bank interest. Some companies swell the savings funds of employees by contributing a specified proportion of the amount saved. Loans to employees to meet emergency needs are made available by some companies. Repayment of loans is usually arranged through small, regular wage deductions.

Company-directed health and safety work was undoubtedly stimulated by the wide-spread enactment of workmen's compensation laws, but many companies have gone far beyond the requirements of these laws, or what might be considered necessary to reduce the cost of accidents. Organized first-aid work, the company dispensary, company hospital, plant physician and nurse and the safety committee bear a direct relation to cost reduction through reduced accidents and prevention of serious complications, but these and such activities as dental and optical clinics, home nursing and physical examinations go far beyond the minimum requirements, envisaging, as they do, the greater all-around value to the company and to the employee whose efficiency is stimulated and maintained by the protection of his health. A wage earner whose earning capacity is threatened by poor health or because he is crippled by accidents is at a serious disadvantage, and activities aimed at protecting his bodily soundness certainly affect his economic status.

Organized training and education have become a well-recognized field for industrial relations activities. Probably the oldest form of instruction is apprenticeship training by which the young man agrees to work for a company for a specified number of years at a nominal wage in return for which he shall be given systematic instruction and the opportunity to acquire a thorough knowledge of his trade. Training of the unskilled or semi-skilled, the disabled or physically handicapped improves the financial prospects of such employees by fitting them for better-paid work than they would otherwise be able to perform. Educational opportunities may be provided through classes held at the plant or in co-operation with educational institutions. In some cases, part or all of the employee's tuition is paid by the management if he satisfactorily completes the course of study which he undertakes. Further forms of education are provided by courses in foremen training, intended to develop a more competent and broader-visioned supervisory force, and by Americanization classes for employees of foreign birth. Since education and training tend to make effective latent ability and to qualify the worker for more desirable and remunerative work, these activities also must be considered as affecting his economic status.

Activities which have no traceable effect upon financial welfare but which contribute to a more harmonious working relationship include employee representation plans or works councils which provide a meeting-ground for management and employees or their representatives for the discussion of problems affecting both, centralized employment and personnel administration, and rating, promotion and transfer systems. Rest and recreation facilities fall under this heading, including rest rooms for men and women, rest periods, athletic activities, and social activities, such as dances, outings, clubs and musical and dramatic organizations.

THE SCOPE OF CERTAIN ACTIVITIES

Some idea of the financial value which has been contributed by industrial relations activities may be obtained from data which are available. These figures are conservative rather than otherwise, since they are based upon known instances and can not be expected to include all plans in existence.

In the field of insurance protection for wage earners, for example, it is found that at the close of 1926, 4,700,000 employees were covered by group insurance for \$5,500 millions, or an average of about \$1,200 for each. A total insurance exceeding \$1,250 millions, which the Conference Board analyzed,¹ showed that the employer alone paid for the premium costs on almost 50% of the insurance, while on almost another 50% he shared the premium costs with the employees by contributing at least 25% of the expense involved. The employees themselves paid for 6.6% of the insurance coverage.

There are no figures available which show the exact number of persons covered by group health and accident protection, but several hundred thousand employees are included in these benefits. The average benefit paid varies between \$10 and \$25 per week during disability. In a separate investigation² of the Conference Board, which analyzed eighty-one plans covering more than 117,000 insured wage earners,

¹ National Industrial Conference Board, "Industrial Group Insurance" (*Second Printing Revised*), 1927, p. 16.

² *Idem*.

it was found that in thirteen plans the premiums were paid by the employees; in fifty-one by employees and employers, and in seventeen plans by the employers alone.

Four hundred companies giving employment to four million persons are paying pensions to 90,000 aged people who receive an average award of about \$500 per year.¹

An inquiry of the Conference Board revealed that 447 establishments employing over a million workers paid more than five million dollars for their medical service in 1924 or an average of \$5.15 per person.² What the actual cost of this service would be to the employee if he were to obtain similar treatment elsewhere, it is impossible to estimate, but it seems certain that the value to him is greater than the sum indicated.

In an intensive study of vacations with pay,³ it was shown that, in manufacturing industries as a whole, approximately four per cent of the wage earners participated in these plans. The average cost to the employer was 1.5% of the annual payroll. Generally, a vacation of one week with pay was offered after the employee had met certain eligibility requirements. In approximate terms, this would represent an award of \$25 to \$30 per wage earner.

With reference to profit sharing, information gathered by the Conference Board, covering approximately 20,000 wage earners and supervisors, showed an average award of \$50 per employee in 1926.

Each of 30,722 wage earners who were eligible for a supplemental bonus for attendance, long service or quality of work, received an average award of \$120 during 1926 according to data compiled by the Conference Board.

METHOD AND SCOPE OF THIS INVESTIGATION

Expansion in the field of industrial relations activities has been rapid. Activities which a comparatively few years ago

¹ Address, "Social Implication of Industrial Relations Work," Arthur H. Young at the Eleventh Annual Meeting of the National Industrial Conference Board, New York, 1927.

² National Industrial Conference Board, "Medical Care of Industrial Workers," New York, 1926, p. 81.

³ C. M. Mills, "Vacations for Industrial Workers," Industrial Relations Councilors, New York, 1927.

were scarcely known are now found extensively and their introduction into more companies is proceeding steadily. No data were available to indicate how general these activities are in the eight states covered by this study and, consequently, a very extensive investigation had to be undertaken by the Conference Board. Simple forms, listing the better-known activities, were sent by the Conference Board to companies which normally employ fifty or more wage earners with the request that a check mark be placed opposite the activities carried on by the company. Smaller companies were disregarded because of their great number and because the employment relationship in a company employing less than fifty wage earners was not believed to be sufficiently complicated to require much in the way of organized activities. Replies were received from 4,655 companies, with a total employment of over two and one half million wage earners. While a large proportion of the replies came from manufacturing concerns, reports were also received from public utilities, mercantile companies and a few mining concerns. The number of establishments which submitted information to the Conference Board and the number of wage earners in these establishments by states are given below.

State	Number of Establishments	Wage Earners Employed
New York.....	1,301	554,416
Connecticut.....	341	149,340
Illinois.....	599	354,037
Massachusetts.....	537	147,764
Michigan.....	407	338,709
New Jersey.....	330	179,387
Ohio.....	524	350,748
Pennsylvania.....	616	431,414
Total.....	4,655	2,505,815

The breadth of coverage of this study is indicated by the fact that in 1925 the total number of manufacturing wage earners in the eight states covered was 5,139,442, according to the Census of Manufactures, while if concerns employing less than fifty wage earners are excluded, the total number of wage earners was 4,178,368. Consequently, the two and a half million wage earners covered by this study, even includ-

ing, as it does, some who are not engaged in manufacturing, constitute a thoroughly representative cross-section of the wage-earning population of these states.

As already indicated, the purpose of this survey was to determine, as far as possible, how extensively the various activities were being carried on in the eight states covered, in order to determine in a general way whether these activities are a factor in the economic status of the wage earner. Since an intensive analysis of eighty or more activities, or branches of activities, which fall within the scope of industrial relations programs, was impracticable, fifteen representative activities were selected for more detailed examination in this investigation. These are: supplemental bonuses for length of service, attendance or punctuality and quality of product; profit sharing; corporate stock purchase plans; mutual benefit association death benefits, and sickness and accident benefits; group insurance for life and health and accident; pensions; vacations with pay; savings plans; industrial lunch rooms; apprenticeship training, and works councils.

PREVALENCE OF VARIOUS ACTIVITIES

Table 12 shows for the eight states, combined and individually, the number of establishments which reported having the various selected activities and the employment of these companies, or in other words, the number of employees affected by the activities. In every one of the eight states group life insurance is the most generally conducted activity, more than one out of every three companies in the eight states combined reporting some form of group insurance. This is not true of other activities. For all states combined, vacations with pay, apprenticeship training, plant lunch rooms, and mutual benefit association sickness and accident benefits followed group insurance in the order given. Supplemental bonus for quality of product and profit sharing were the activities least frequently reported.

To be satisfied with a simple tabulation showing the frequency of occurrence of the activities would be to overlook the opportunity to discover what collateral factors may influence companies in introducing certain activities. It may

TABLE 12: NUMBER AND EMPLOYMENT OF ESTABLISHMENTS REPORTING SELECTED INDUSTRIAL RELATIONS ACTIVITIES, NEW YORK AND OTHER STATES

(Source: National Industrial Conference Board)

Activity	New York		Connecticut		Illinois		Massachusetts		Michigan		New Jersey		Ohio		Pennsylvania		Total Eight States		
	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	Number of Plants	Employment	
Supplemental bonus																			
Length of service.....	141	63,759	24	22,418	74	50,627	36	12,297	41	30,151	40	19,718	39	43,527	69	36,572	464	279,069	
Attendance.....	84	38,485	17	11,954	27	9,385	10	2,753	22	11,766	21	12,027	31	15,579	45	26,222	257	128,171	
Quality of product.....	53	22,551	2	9,410	22	15,325	19	9,223	11	11,971	24	11,182	14	21,332	34	30,609	179	131,603	
Profit sharing.....	49	56,063	13	9,746	30	27,752	31	13,034	14	14,673	9	3,482	13	10,261	38	42,434	197	177,445	
Stock purchase.....	113	183,510	27	29,318	56	108,770	30	21,216	50	70,029	38	61,271	43	64,799	75	84,940	432	623,853	
Mutual Benefit Association																			
Death benefits.....	173	238,268	40	53,304	69	133,471	88	59,440	71	77,562	50	77,912	95	144,659	111	228,106	697	1,012,722	
Sickness and accident benefits.....	188	268,084	44	59,953	94	160,662	120	77,560	84	83,126	58	80,562	103	138,848	129	229,595	820	1,098,390	
Group insurance																			
Life.....	427	210,381	150	61,523	235	183,200	180	59,437	172	141,866	169	119,682	226	176,658	321	177,470	1,880	1,130,217	
Health and accident.....	164	73,312	61	22,759	67	30,881	79	18,802	71	38,479	57	45,069	67	90,172	96	44,816	662	364,290	
Pensions.....	167	165,688	79	116,585	59	154,325	88	65,223	37	56,056	56	88,543	66	112,384	108	231,179	660	989,983	
Vacations with pay.....	378	226,508	47	65,050	148	142,780	96	52,803	77	61,445	83	55,846	83	62,309	146	119,705	1,058	786,446	
Savings plan.....	108	173,766	32	24,725	64	111,679	55	40,639	36	59,980	61	55,232	59	59,102	79	102,041	494	627,164	
Lunch room.....	231	296,890	54	108,103	123	225,048	83	67,106	73	123,746	86	91,260	148	210,164	123	249,620	921	1,371,937	
Apprenticeship training....	291	253,667	91	132,938	139	166,799	91	79,080	77	123,275	75	88,554	110	142,396	147	199,988	1,021	1,186,697	
Works council.....	61	126,352	12	19,119	25	70,547	31	40,533	12	18,581	23	38,187	26	56,263	41	158,142	231	527,724	

TABLE 13: PERCENTAGE OF PLANTS PARTICIPATING IN SELECTED
(Source: National Industrial

Activity	By Size of Community Population								100 or under	
	25,000 and under		25,001-100,000		100,001-500,000		500,001- and over			
	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹
Supplemental bonus										
Length of service.....	6.3%	8.4%	9.3%	8.6%	6.3%	9.7%	10.9%	11.3%	9.4%	7.9%
Attendance.....	4.9	5.1	9.3	4.0	4.4	6.5	5.2	4.8	4.2	3.3
Quality of product.....	2.9	5.1	6.8	5.1	3.8	2.6	4.1	3.4	3.0	2.4
Profit sharing.....	4.9	3.4	3.1	4.2	3.8	3.2	3.6	6.3	2.6	3.6
Stock purchase.....	4.9	8.2	6.8	11.6	15.1	8.5	8.8	9.7	3.4	4.1
Mutual Benefit Association										
Death benefits.....	12.1	13.0	17.3	18.5	18.2	16.4	14.5	15.9	3.4	5.4
Sickness and accident benefits.....	10.7	17.0	17.3	20.5	22.6	19.5	15.0	18.8	3.6	6.9
Group insurance										
Life.....	35.9	42.7	31.5	45.1	32.7	45.4	35.8	40.4	25.4	37.1
Health and accident....	14.1	16.5	14.8	17.8	17.0	14.8	12.4	11.7	9.4	14.3
Pensions.....	12.1	12.4	13.0	15.8	17.0	15.5	11.9	15.6	5.0	5.1
Vacations with pay.....	15.0	13.2	21.6	20.5	15.7	21.3	27.5	26.9	27.6	18.9
Savings plan.....	6.8	6.9	9.3	11.8	14.5	11.4	5.2	15.2	1.8	4.8
Lunch room.....	12.6	12.3	15.4	21.9	30.0	25.9	23.3	25.3	4.8	3.6
Apprenticeship training...	13.1	15.6	26.5	28.6	28.3	24.4	18.1	22.9	17.0	14.6
Works council.....	4.4	4.8	7.4	6.1	1.9	4.6	3.6	4.9	3.0	1.8

¹ Connecticut, Illinois, Massachusetts, Michigan, New Jersey, Ohio and Pennsylvania.

be that certain combinations of conditions create a need for particular kinds of industrial relations work, and that apparently surprising situations may have a very simple explanation if the underlying conditions are analyzed and classified. Therefore, the mass of data gathered in this survey has been tabulated on four different bases: by size of plant, by size of city in which the plant is situated, by industry, and by labor policy with respect to unionization. In each case, the situation in New York State has been contrasted with the combined average of Connecticut, Illinois, Massachusetts, Michigan, New Jersey, Ohio and Pennsylvania.

INDUSTRIAL RELATIONS ACTIVITIES

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INDUSTRIAL RELATIONS ACTIVITIES, NEW YORK AND OTHER STATES (Conference Board)

By Size of Establishment Number of Employees						By Labor Policy Number of Plants							
101-500		501-1000		1001 and over		Open Shop		Closed Shop		Combined		Non-Union	
New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹
11.8%	9.4%	11.0%	10.7%	12.4%	14.3%	11.8%	9.7%	5.8%	6.5%	5.4%	6.3%	11.4%	10.2%
7.5	5.7	11.0	6.3	6.7	6.3	7.2	5.2	2.9	.6	8.1	1.3	6.5	5.6
4.5	4.0	4.6	5.5	6.7	8.0	3.4	3.5	2.9	2.9	10.8	2.5	6.1	6.5
3.3	4.4	7.3	5.2	9.0	5.8	3.0	4.7	3.6	2.4	2.7	6.3	5.3	4.0
6.0	7.5	24.8	19.6	37.1	23.1	9.2	10.2	5.1	4.1	2.7	13.9	7.7	7.4
12.8	12.4	37.6	30.0	42.7	44.5	14.8	17.7	8.0	10.6	10.8	7.6	12.6	11.9
14.3	15.8	38.5	34.9	47.2	48.4	16.3	20.7	13.1	14.1	13.5	16.5	9.3	16.5
34.6	44.2	45.9	46.7	47.2	50.0	36.0	44.0	19.0	29.4	24.3	53.2	30.5	42.0
12.5	15.2	23.9	16.1	18.0	13.2	14.5	15.0	10.2	14.7	5.4	12.7	9.8	12.9
12.0	11.8	34.9	25.1	36.0	43.4	13.3	16.2	8.8	5.9	5.4	8.9	13.4	12.9
28.6	18.9	30.3	21.9	39.3	28.3	25.6	20.6	24.1	11.8	32.4	26.6	35.4	18.9
7.5	10.1	20.2	19.9	36.0	27.5	8.8	12.1	4.4	5.9	10.8	11.4	7.7	11.3
18.0	16.3	45.0	42.7	56.2	63.7	20.6	22.6	5.8	11.8	16.2	17.7	15.0	18.3
21.3	19.7	35.8	28.2	43.8	43.7	20.6	22.5	44.5	32.4	48.6	31.6	15.9	17.3
4.8	4.0	6.4	6.3	11.2	17.3	5.3	6.0	5.1	1.2	2.7	6.3	3.3	3.4

DISTRIBUTION OF INDUSTRIAL RELATIONS ACTIVITIES BY SIZE OF PLANT

Since industrial relations activities have had their greatest growth in large establishments, for the obvious reason that the greatest need for some organized agency for holding together a large group of wage earners will be where the group is the largest, size of establishment would quite generally be conceded to be a definite factor in the extent to which organized activities would be found. For the purpose of endeavoring to trace how close a relationship exists between the size of establishment and the activities carried on, four classifications by size were made and establishments were divided according to whether they employed 50 to 100 wage earners, 101 to 500, 501 to 1,000 and over 1,000.

From Table 13 it will be seen that the correlation between

size of establishment and occurrence of activities is maintained with remarkable faithfulness. In both New York and the other states, there is an obviously mounting ratio as size of establishment increases. In some instances the increase is gradual, while in others the participation of the larger plants is much more pronounced, but in every case the prevalence of certain activities in large plants is explained by the nature of the activity. As is reasonable, corporate stock purchase plans are rarely found in small establishments, but are fairly general in plants employing 500 to 1,000 wage earners, and even more so in those employing more than 1,000 wage earners. The same is true of mutual benefit associations, pensions, savings plans and plant lunch rooms. Group insurance, on the other hand, is found quite extensively even in the comparatively small establishments, but the proportion of companies providing this benefit is considerably greater in the larger plants. This is also true of vacations with pay and apprenticeship training. Supplemental bonuses, profit sharing and works councils are rather uniformly distributed among plants of different size, but even in the case of these activities there is a noticeable tendency toward greater frequency in the larger plants.

Within a given size of plant group, there is substantial agreement in the proportion of companies maintaining a particular activity. This is shown in Table 13 on the basis of New York State contrasted with the average for the seven other states, and it is more convincingly shown by a comparison of the results for the eight states individually. This similarity is not maintained without rather marked fluctuations in some cases, but it is sufficiently general to lend strength to the belief that size of plant is a very definite factor in establishing the extent of use and the character of industrial relations activities.

DISTRIBUTION OF INDUSTRIAL RELATIONS ACTIVITIES BY SIZE OF CITY

Industrial relations activities are often introduced to meet some particular situation or to fill some gap in existing facilities. It may be that the need for certain activities is em-

phasized by the size of community in which the plant is situated. For example, an establishment located in a small town may find it advantageous, if not necessary, to provide housing for a considerable proportion of its employees, while in a city the blocks of apartment houses and the suburbs with their detached houses may provide ample housing facilities. To discover whether there appeared to be any marked relationship between size of community and extent and character of activities, all communities covered in the survey were divided into four groups: those with a population of 25,000 or less, those between 25,000 and 100,000, those from 100,000 to 500,000 and those with over 500,000 inhabitants.

In the tabulation on the basis of size of plant there was observable a definite tendency toward a greater use of industrial relations activities in the larger plants. No such definite upward tendency is apparent when the size of city is the basis of tabulation. While it appears from Table 13 that industrial relations activities are not so general in plants located in communities of 25,000 inhabitants or less, as in larger cities, there is no uniform tendency for these activities to increase as the size of the community increases. In the case of some activities the upward tendency was maintained through the other two population groups, in some cases the increase continued through the third group which included cities between 100,000 and 500,000 and declined in the large city group, while in some the peak was reached in the second or 25,000 to 100,000 group.

The explanation for the prevalence of certain activities in cities of different size undoubtedly lies in the character of the activity and the service which it performs. Some may be very helpful and almost necessary in a small community but unnecessary in a large city, or vice versa. Thus, plant lunch rooms are comparatively infrequent in plants located in small communities where many wage earners go home for lunch or bring a lunch from home; but in certain sections of large cities, which are not adequately served by commercial eating places, a plant cafeteria may be necessary. This is indicated by the fact that approximately one in four of the reporting plants in cities over 100,000 maintains some form

of food serving facility for its workers. Apprenticeship training is much more common in the cities with populations of 25,000 to 100,000 than in those which have less than 25,000 inhabitants, but falls off again in the very large cities, probably because of the greater availability of skilled labor. Vacations with pay increase in popularity as the size of community increases, being most common in the largest cities. This may be due to greater competition or the prevalence of this practice in the mercantile and other establishments which are likely to be close to manufacturing plants in large cities. In the case of supplemental bonuses, pensions, stock purchase, mutual benefit associations, works councils and group insurance, size of city apparently has little effect upon the extent to which these activities are carried on.

DISTRIBUTION OF INDUSTRIAL RELATIONS ACTIVITIES BY INDUSTRY

The tabulation of industrial relations activities by industries showing the extent to which they engage in industrial relations work yields in some instances somewhat surprising results, but on the whole tends to confirm what might be expected. To make this comparison possible, rather broad industrial groupings have been made, since it is impossible to treat individually each group which considers itself a separate industry, and also in order that each classification treated might be represented by a large and varied number of establishments. The percentages shown in Table 14 refer to the proportion of companies within each of the industries which reported the various activities in operation to the total number of companies in the industry which furnished information for the study. To obtain a rough measure of the extent to which the various industries occupy leading positions in the operation of the various activities a check was made of those industries which occupied first, second and third places in each activity. This gives a better picture of the general participation in these activities than would be presented by considering only actual leadership, since an industry may be active in this field and yet yield first place in the several activities to other industries.

It was found that the public utility group had a clear claim to leadership in industrial relations work, particularly in the activities involving direct financial benefit. This group occupied first place in corporate stock purchasing, mutual benefit association benefits for death and sickness and accident, group life insurance, pensions and works councils; it was second in profit sharing plans, vacations with pay and savings plans, and it occupied third place in apprenticeship training. In nine of the fifteen activities, public utilities were first or second.

It is perhaps unexpected to find that second position in general participation in industrial relations is occupied by the chemical industry. This industry leads only in savings plans, but is second or third in supplemental bonuses for long service and quality of product, profit sharing, stock purchase, group sickness and accident insurance, pensions, and works councils. The chemical industry is closely followed by the rubber industry which leads in group sickness and accident insurance and plant lunch rooms, and is second or third in supplemental bonuses for quality of product, mutual benefit association benefits for death and for sickness and accident, pensions, and works councils.

These three industrial groups stand out well in advance of the other industries in the extent of industrial relations work. The metal manufacturing, textile and clothing, paper, printing and publishing, food products and mercantile groups are on approximately the same level in this respect, scoring a first, second or third place in two, three, or four activities. The mercantile group stands out prominently, however, since it occupies first place in four activities; supplemental bonuses for long service and attendance, profit sharing, and vacations with pay. Only the leather and leather products industry and the lumber and lumber products industry failed to rank as high as third in any of the fifteen activities analyzed in Table 14.

DISTRIBUTION OF INDUSTRIAL RELATIONS ACTIVITIES BY LABOR POLICY

The fourth basis upon which data were tabulated is that of labor policy. In indicating which activities were carried

TABLE 14: PERCENTAGE OF PLANTS PARTICIPATING IN SELECTED
YORK AND
(Source: National Indus-

Industry	Supplemental Bonus						Profit Sharing		Stock Purchase		Mutual Benefit Association			
	Length of Service		Attendance		Quality of Product						Death Benefits		Sickness and Accident Benefits	
	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹
Metals, metal working, machines....	10.3%	8.9%	5.7%	4.6%	3.9%	2.9%	2.6%	3.6%	10.5%	9.3%	15.2%	19.9%	15.2%	22.5%
Textiles and clothing.....	6.3	7.6	4.2	7.9	3.3	10.8	3.8	3.7	3.3	3.4	7.1	9.4	9.2	11.1
Leather and leather products.....	8.3	8.8	2.1	2.6	12.5	2.6	4.2	4.4	4.2	6.1	10.4	14.0	8.3	14.0
Lumber and lumber products.....	6.3	5.9	5.4	3.7	2.7	2.7	2.7	4.6	3.6	4.1	9.9	11.0	9.9	17.4
Chemicals.....	29.6	17.5	15.5	5.1	5.6	4.0	5.6	7.3	14.1	20.3	9.9	16.9	15.5	19.2
Paper and pulp products.....	12.1	12.8	10.3	8.0	1.7	.8	1.7	3.2	8.6	8.8	10.3	16.8	10.3	19.2
Printing and publishing.....	11.0	10.8	6.0	3.8	6.0	3.1	6.0	6.9	6.0	10.0	13.0	15.4	18.0	20.0
Food.....	12.9	11.8	9.4	2.9	1.2	2.9	..	5.9	11.8	12.5	12.9	10.3	12.9	16.2
Rubber.....	18.2	7.4	..	7.4	..	9.3	..	1.9	..	5.6	18.2	20.4	18.2	22.2
Public utilities.....	..	10.9	..	3.1	..	..	4.8	9.4	52.4	43.8	33.3	29.7	47.6	39.1
Mercantile establishments.....	17.1	23.8	2.4	17.5	..	1.6	7.3	12.7	4.9	6.3	39.0	17.5	29.3	17.5

¹ "Others" includes Connecticut, Illinois, Massachusetts, Michigan, New Jersey, Ohio, and Pennsylvania.

on in their organizations, companies were asked by the Conference Board to specify whether their labor policy was: open shop, in which no distinction is made as to whether employees are, or are not, members of a labor union, but in which the union is not recognized; non-union, in which union members are definitely excluded; part union, in which one or more departments may be unionized, while the remainder of the plant is on an open-shop basis; and finally, closed union, in which the union is definitely recognized and all wage earners must be union members. A classification of industrial relations work on this basis should hold considerable significance, because the company's labor policy and its industrial relations work are necessarily closely interrelated.

Labor unions exist, in theory, to protect the interests of their members. Organized labor naturally wishes to offer such advantages to its membership in the way of higher wage scales secured from employers, better working conditions and the provisions of death, sickness, and accident benefits as will attract a constantly greater proportion of the

INDUSTRIAL RELATIONS ACTIVITIES, BY INDUSTRIAL GROUPS, NEW
OTHER STATES

(Industrial Conference Board)

Group Insurance				Pensions, Individual		Vacations with Pay		Savings Plan		Lunch Room		Apprentice- ship Training		Works Council	
Life		Health and Accident													
New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹	New York	Others ¹
37.0%	45.9%	15.2%	14.9%	12.3%	13.5%	17.2%	17.1%	9.3%	12.8%	18.0%	23.1%	27.8%	30.1%	4.9%	4.8%
15.8	32.3	10.8	14.0	7.5	14.0	30.4	15.5	5.4	14.8	15.0	26.8	11.7	14.8	4.6	6.9
14.6	32.5	8.3	12.3	10.4	7.9	14.6	6.1	12.5	7.9	10.4	14.0	16.7	8.8	4.2	3.5
36.0	31.1	12.6	12.3	13.5	7.8	17.1	9.6	3.6	5.9	6.3	7.8	24.3	15.5	1.8	2.7
38.0	54.8	4.2	17.5	25.4	36.2	50.7	41.8	5.6	16.9	31.0	27.7	2.8	8.5	2.8	7.3
32.8	56.8	12.1	24.0	10.3	16.8	15.5	17.6	1.7	12.0	19.0	18.4	8.6	8.0	..	7.2
42.0	55.4	17.0	14.6	13.0	10.0	38.0	26.9	7.0	13.8	13.0	11.5	62.0	50.8	8.0	5.4
51.8	49.3	14.1	13.2	23.5	19.9	37.6	52.2	10.6	12.5	30.6	26.5	15.3	5.1	5.9	5.9
18.2	66.7	18.2	25.9	27.3	27.8	..	16.7	..	9.3	36.4	35.2	..	16.7	..	7.4
76.2	64.1	9.5	17.2	33.3	43.8	85.7	57.8	38.1	15.6	28.6	20.3	28.6	26.6	9.5	12.5
19.5	41.3	..	6.3	19.5	17.5	73.2	60.3	19.5	14.3	31.7	23.8	14.6	9.5	2.4	3.2

wage earners of the country to its standard. Since its appeal rests upon the argument that the labor union is the most sincere and dependable agency for bettering the lot of the working man, it must necessarily view with alarm the growth of industrial relations activities, particularly since in many instances the employer displays a willingness to finance activities which the union cannot provide, or which it can finance only by assessing its membership.

Since labor unions view with disfavor any efforts on the part of employers to provide advantages for their employees which are not brought about through labor union compulsion, it is to be expected that plants with a closed union policy will show the least development in industrial relations programs. A further reason for this condition is that management in these establishments, in accepting and recognizing the labor union, may well feel that it is released from further responsibility for providing advantages for its employees not stipulated in the agreement with the union, which under other conditions it might undertake. An analogous case is

that of the employer who, prior to the passage of workmen's compensation laws, paid full wages to injured employees but, with legal compulsion to pay a fraction of the wage, came disinclination to do more than comply with the strict letter of the law.

Whatever the reason, it is obvious from Table 13 that plants with a closed union policy have the fewest industrial relations activities. In only one of the activities selected for special analysis, apprenticeship training, were the closed shops in the lead, but they had only a slight advantage over the plants which were part union and part open shop. This appears to indicate that there is a greater number of apprenticeship plans in union shops than in those under other forms of labor policy, but does not, of course, disclose the relative number of skilled craftsmen which the apprenticeship courses in the plants under the various labor policies actually make available to industry.

With the exception of apprenticeship training, the closed union establishments show the lowest proportion of plants conducting industrial relations activities. In some cases there is no marked difference between the groups under the different labor policies; in other cases there is a very noticeable drop in the proportion when the closed shop group is considered. As a rule the largest proportion of activities is found in plants which operate on an open-shop basis, but in some cases they are surpassed in this respect by one or both of the non-union and part union groups. In vacations with pay the open-shop plants are lowest, but in no other case. They have the highest proportion of plant lunch rooms, mutual benefit association benefits, pensions, group health and accident insurance, and savings plans. If a generalization were to be made it might be said that the open-shop group leads in those activities which are primarily intended to guard the financial and personal well-being of the wage-earners, but that in activities particularly calculated to stimulate efficiency of plant operation it either holds no particular advantage or is surpassed by one or more of the other groups.

FINANCIAL VALUE OF CERTAIN ACTIVITIES

The extent to which fifteen selected industrial relations activities are found in the eight leading industrial states has been shown. It is evident from this analysis that industrial relations work on the part of American employers is a definite fact and is conducted on a far greater scale than is commonly supposed. If it were possible to show data for all the many activities the picture would be even more convincing.

These analyses have shown, of course, only the extent to which the activities are carried on. Nothing of the relative value to employees of the various activities has been indicated. Companies which reported to the Conference Board the activities which they maintained were asked for additional financial data which would indicate the cost of conducting the activities and also their financial benefit to employees where such a benefit was a part of the plan. The data received were averaged and the results are shown on the following pages. Special studies by the Conference Board and others dealing with these subjects have a broader coverage but the comparisons made here are limited to the plants whose activities were analyzed in this investigation and consequently the results are comparable throughout.

The activity found to exist most universally was group insurance. Detailed data on group life insurance were furnished by 450 companies and on group health and accident insurance by 129 companies. Number of companies covered, number of employees insured, total amount of insurance, average insurance per employee, and average weekly benefit, by type of plan, are as follows:

Group Insurance (1926)

Life

Non-contributory (premiums paid entirely by employer)	
Number of companies covered.....	263
Number of employees insured.....	190,753
Total amount of insurance.....	\$244,019,508
Average insurance per employee.....	\$1,279.24
Non-contributory (premiums paid entirely by employees)	
Number of companies covered.....	20
Number of employees insured.....	37,369
Total amount of insurance.....	\$47,793,692
Average insurance per employee.....	\$1,278.97

Contributory (premium cost shared between employer and employees)	
Number of companies covered.....	167
Number of employees insured.....	138,539
Total amount of insurance.....	\$215,226,994
Average insurance per employee.....	\$1,553.55

Health and Accident

Non-contributory (premiums paid entirely by employer)	
Number of companies covered.....	21
Number of employees insured.....	7,120
Total amount of insurance.....	\$108,544
Average weekly benefit.....	\$15.24
Non-contributory (premiums paid entirely by employees)	
Number of companies covered.....	49
Number of employees insured.....	31,696
Total amount of insurance.....	\$437,462
Average weekly benefit.....	\$13.80
Contributory (premium cost shared between employer and employees)	
Number of companies covered.....	59
Number of employees insured.....	31,403
Total amount of insurance.....	\$373,189
Average weekly benefit.....	\$11.88

It is interesting to note that the average life insurance coverage shown varies from \$1,279 to \$1,553. Both forms of non-contributory insurance conform closely to the average coverage of \$1,300 estimated on the basis of the total group insurance in force and the number of employees covered. The greater coverage under the contributory form suggests the advantage of sharing the cost between employer and employees. The weekly benefits shown under group health and accident insurance are paid for a number of weeks specified in the policy, the most general practice found in a detailed study of group insurance¹ was to continue the payments, if necessary, for 26 weeks.

The extent of other industrial relations activities and financial benefits accruing to employees are as follows:

Mutual Benefit Associations (1926)

Membership in 217 companies.....	221,377
Amount contributed by members.....	\$3,347,132
Amount contributed by management.....	\$518,147
Revenue from other sources.....	\$197,799
Average amount contributed by members.....	\$15.12

¹ National Industrial Conference Board, "Industrial Group Insurance," p. 20.

INDUSTRIAL RELATIONS ACTIVITIES

73

Average amount per member contributed by management	\$2.34
Number receiving death benefits	727
Amount of death benefits	\$273,124
Average death benefit	\$375.69
Number receiving sick benefits	24,438
Amount of sick benefits	\$1,001,140
Average sick benefit	\$40.97
Number receiving accident benefits	4,872
Amount of accident benefits	\$206,120
Average accident benefit	\$42.31
Number receiving other benefits	205
Amount of other benefits	\$7,709
Average of these benefits	\$37.60
Health and Safety (1926)	
Number of companies covered	238
Total number of employees	322,436
Total cost of medical service	\$1,652,083
Average cost per employee	\$5.12
Thrift and Savings Plans (1926)	
Number of companies covered	107
Number of employees contributing	38,250
Amount contributed by employees	\$5,189,699
Average saving per employee	\$135.68
Amount contributed by management	\$48,257
Average contribution per company	\$451
Food Serving Facilities (1926)	
Number of companies covered	151
Number of employees served per day	47,621
Total profit (to companies showing a profit)	\$34,311
Total loss (to companies showing a loss)	\$348,179
Total net loss	\$313,868
Yearly loss per employee served	\$6.59
Profit Sharing (1926)	
Number of companies covered	16
Number of employees participating in profits	23,463
Total share of profits available for distribution	\$1,546,119
Share per employee	\$65.90
Stock Purchase (1926)	
Number of companies covered	37
Number of employees purchasing securities	34,393
Value of stock held by employees July 1, 1927	\$23,548,019
Average holding per employee	\$684.67
Pensions (1926)	
Number of companies covered	81
Number of employees receiving pensions	4,020
Annual cost of pensions	\$2,032,896
Average amount of pension per year	\$505.70

The following table gives the amount of supplemental bonuses granted to employees of seventy-three companies:

	Number of Companies Covered	Number of Employees Receiving Awards	Total Amount of Payments	Average Annual Award
Length of service.....	43	18,803	\$1,255,316	\$66.76
Attendance and punctuality.....	15	6,907	399,349	57.82
Quality of product.....	8	1,741	204,657	117.55
Other reasons.....	7	1,969	188,686	95.83

Company housing facilities are difficult to classify, since there are so many combinations of conditions. Fifty-seven companies which submitted information on this subject had built 5,749 houses for employees at a total cost of \$13,700,811 and an average cost per house of \$2,383.16. In maintaining their company houses during 1926, 29.6% of the companies which furnished data showed some return on their investment and 70.4% covered their expenses or showed a loss. In seventy-four companies, 18,431 employees, or 26.2% of the total, rented their homes from the company, and in sixty-five companies 16,133 employees, or 29.1% of the total, owned their own homes.

POSITION OF NEW YORK STATE IN INDUSTRIAL RELATIONS WORK

No attempt has been made in the foregoing analyses of industrial relations activities to emphasize the difference between conditions in New York State and in the seven other states considered in this investigation. There is no reason to believe that geographical boundaries have any particular effect upon the development of these activities except in so far as conditions which tend to stimulate or retard their growth may prevail to a greater or smaller extent in certain states. Population congestion, predominance of large establishments or concentration of industries which are particularly active in this field may materially effect the extent to which these activities are carried on within a state, but these are coincidences which are not traceable to any state policy and are not likely to be affected by legislation, unless legislative restrictions are carried to the point of forcing large industries from the state.

The general situation in New York State is shown in Table 15 which indicates, both on the basis of proportion of companies and proportion of employees affected, how New York compares with the composite average of the seven other states. Conditions in New York are found not to differ greatly from those in other states, but, while in the proportion of companies participating in the activities the figure for New York exceeds that for the other states combined in only five activities, it takes the lead in nine activities in the proportion of wage earners affected. In other words, the extent of participation of the larger companies more than compensates for any deficiency on the part of small establishments.

TABLE 15: PROPORTION OF COMPANIES CONDUCTING SELECTED ACTIVITIES TO TOTAL NUMBER OF COMPANIES COVERED, AND PROPORTION OF WAGE EARNERS AFFECTED TO TOTAL NUMBER OF WAGE EARNERS COVERED, NEW YORK AND SELECTED STATES

(Source: National Industrial Conference Board)

Activity	Proportion of Companies Participating in Activities to Total Covered in Survey		Proportion of Employees in Plants Which Participate in Activity to Total Covered in Survey	
	New York	Seven States ¹	New York	Seven States ¹
Supplemental bonus				
Length of service.....	10.8	9.6	11.5	11.0
Attendance or punctuality.....	6.5	5.2	6.9	4.6
Quality of product.....	4.1	3.8	4.1	5.6
Profit sharing.....	3.8	4.4	10.1	6.2
Stock purchase plan.....	8.7	9.5	33.1	22.6
Mutual Benefit Association				
Death benefits.....	13.3	15.6	43.0	39.7
Sickness and accident benefits..	14.5	18.8	48.4	42.6
Group insurance				
Life.....	32.8	43.3	38.0	47.1
Health and accident.....	12.6	14.9	13.2	14.9
Pensions.....	12.8	14.7	29.9	42.2
Vacations with pay.....	29.1	20.3	40.9	28.7
Savings plan.....	8.3	11.5	31.3	23.2
Lunch room.....	17.8	20.6	53.6	55.1
Apprenticeship training.....	22.4	21.8	45.8	47.8
Works council.....	4.7	5.1	22.8	20.6

¹ Massachusetts, New Jersey, Illinois, Pennsylvania, Ohio, Michigan, and Connecticut.

The fact that New York State compares so favorably with

the other states is the more creditable in the light of certain characteristics of the state's industry which have been brought out in Chapter I. It was shown that New York is a state of small establishments, the average employment per establishment being considerably less than in any of the seven other states. It was also shown that industrial relations work was carried on more extensively in large plants than in the smaller establishments. Therefore New York State has made a good showing in spite of a distinct handicap. No particular effect was noted in the influence of size of community upon the general participation in industrial relations activities except that they were least likely to be found in very small communities. New York probably has no more than an average proportion of plants in small communities.

Three industrial groups were found to be particularly active in industrial relations work: public utilities, chemicals, and rubber. While New York has its full share of public utilities, neither chemicals nor rubber is among its leading industries, so that it has received no particular assistance from these industries toward its strong showing. And finally, it was found that industrial relations activities were least extensively carried on in plants with a closed-union labor policy. Reports from companies in New York State showed a somewhat higher proportion of unionized plants than in the other states, so that in this respect, again, New York overcame a handicapping influence in making so good a showing in industrial relations work.

CONCLUSION

The development of industrial relations activities has resulted partly from an economic situation and partly from a changing conception of industrial relationships and responsibilities. Their growth has been largely due to the realization on the part of management that dissatisfaction, financial worry and poor health are subtle but persistent enemies of efficiency. If comparable figures for 1917 were available, the progress which some activities have made during the last decade would probably be significant.

Whether they have grown faster than is consistent with safety and permanence is an open question. There are some who believe that their rapid expansion has been induced by the remarkable prosperity which industry has enjoyed since 1921, and that a severe depression or the necessity of a widespread reduction of wages would be the signal for a contraction in industrial relations programs, similar to that which occurred in 1920-1921. Others are convinced that in their present form, industrial relations activities no longer represent a philanthropic gesture on the part of the employer but are regarded as a practical and integral branch of company administration, and that they would be discontinued only as a final resort in the event of extreme financial distress.

The effect of industrial relations activities upon the wage earner's economic status is not susceptible of exact demonstration. They are not yet sufficiently universal to be accepted as general practice, but neither are they so rare as to be considered exceptional. It can not be assumed that certain definite financial benefits supplement the wage income of the average wage earner, but if, as has been shown, these activities, particularly those with an actual monetary value, are conducted on a considerable scale, it is a safe assumption that the cumulative effect is to strengthen the economic status of the wage earner who participates in these activities. Through some activities he is receiving a supplemented income and others relieve him of expenses which he would otherwise have to meet, but in either case the same effect, of increasing the purchasing value of his income, is accomplished. Consequently, while a definite part in adding to the financial status of the average wage earner can not be ascribed to industrial relations activities, they must be taken into account in any discussion of the subject as an undeniable, if not definitely measurable, factor in contributing to the economic well-being of a considerable part of the wage-earning population of the leading industrial states.

Employers in New York State are not behind in their provision for the welfare of their employees beyond the payment of wages and the requirements of the law. It has been shown in earlier reports that workmen's compensation costs are higher in New York than in any other state, and that

employers are subject to greater than average legislative restriction in the conduct of their business.¹ The compulsory character of these measures whose purpose is to improve the lot of the wage earner might well be expected to prejudice employers against voluntarily making further provision for the welfare of their working forces. But that they have nevertheless continued to assume this responsibility is amply shown and is perhaps the best indication that this field may well be left to individual initiative.

These activities on the part of management deserve to be more widely known. Critics of industrial management make the most of instances of conditions below accepted standards implying that these isolated instances represent the general situation. Management, on the other hand, is normally inarticulate, and the public rarely learns what is being done voluntarily by large numbers of employers for their working forces. A wider knowledge of actual conditions would remove many misapprehensions and would be to the advantage of all concerned.

¹ National Industrial Conference Board, "The Workmen's Compensation Problem in New York State" and "Industrial Progress and Regulatory Legislation in New York State," New York, 1927.

CHAPTER IV

LIVING COSTS IN TWELVE INDUSTRIAL CITIES

IN studying the economic status of the wage earner it is as important to know the prices which he pays for the goods and services which he needs to maintain his standard of living as it is to know the financial return which he receives for his work. It was, therefore, necessary for the purposes of this study to assemble data which would show what differences exist in the cost of maintaining a fair American standard of living in communities of different size and cities in different sections of the eastern industrial area.

METHOD AND SCOPE OF THIS INVESTIGATION

Since the time available for this study was limited, the investigation was confined to four states: New York, Pennsylvania, Massachusetts and Ohio. For the same reason, it was impossible to investigate a large number of cities and, consequently, only three cities in each state were selected for study, one to represent the large cities, one the cities of medium size and one the smaller communities. The selection of these representative cities was made with great care after consultation with persons and organizations thoroughly conversant with conditions in the various states. Cities, to be selected as representative, must have certain definite characteristics. They must conform to certain population requirements in order that they might represent communities of a certain general size. They must be generally self-sufficing and must not rely upon some nearby larger city to supply any deficiency in their market facilities, since such a condition would introduce complications in obtaining prevailing price quotations. And finally, they must present a fairly diversified industry which insures the presence of different kinds of labor and prevents the possible influence

upon living costs of the activities of large employers in one-industry cities.

The cities selected for study were, in order of their size: for New York State, New York City, Syracuse and Lockport; for Pennsylvania, Philadelphia, Reading and Butler; for Massachusetts, Boston, Springfield and Leominster; and for Ohio, Cleveland, Dayton and Marion. Statistics showing the population characteristics of these cities are given on Table 16.

TABLE 16: GENERAL CHARACTERISTICS OF POPULATION IN TWELVE REPRESENTATIVE CITIES SELECTED FOR COST OF LIVING STUDIES

(Source: Fourteenth Census of the United States, 1920)

City	Population				Families	
	Total Number	Native White	Foreign-Born White	Percentage of Native White to Total Population	Total Number	Persons to a Family
New York						
New York City..	5,620,048	3,467,916	1,991,547	61.7	1,278,341	4.4
Syracuse.....	171,717	138,051	32,321	80.4	41,558	4.1
Lockport.....	21,308	17,971	3,226	84.3	5,178	4.1
Massachusetts						
Boston.....	748,060	491,566	238,919	65.7	164,785	4.5
Springfield.....	129,614	95,549	31,250	73.7	30,361	4.3
Leominster.....	19,744	14,656	4,984	74.2	4,568	4.3
Ohio						
Cleveland.....	796,841	522,488	239,538	65.6	182,692	4.4
Dayton.....	152,559	130,384	13,111	85.5	38,138	4.0
Marion.....	27,891	26,697	954	95.7	7,231	3.9
Pennsylvania						
Philadelphia....	1,823,779	1,290,253	397,927	70.7	402,946	4.5
Reading.....	107,784	97,298	9,553	90.3	25,202	4.3
Butler.....	23,778	21,102	2,370	88.7	5,530	4.3

The studies were conducted and data assembled by field workers from the Conference Board who visited the various cities and conducted their price studies on the ground. All of the studies, except that of New York City, were made between August and October, 1927. A study of living costs in the five boroughs of New York City was made in June, 1926, and since the change in costs between that date and the

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fall of 1927, as shown by the United States Bureau of Labor Statistics studies, was insignificant, the 1926 figures were used for this study.

An American family consisting of a man, his wife and two dependent children under fourteen years of age was taken as the standard family for this investigation. It will be seen from Table 16 that this conforms to the average size of family in the twelve cities covered, according to latest census figures. A standard budget based upon available data regarding consumption habits and other pertinent material was adopted, and prices were obtained on the basis of qualities and quantities specified in this budget. Secretaries of chambers of commerce and other persons and organizations familiar with local conditions were consulted on various matters which would assure the obtaining of thoroughly representative results. All these gave generously of their time and knowledge of conditions.

Throughout this investigation, emphasis was laid upon the importance of conducting the study on the basis of a fair, minimum, American standard of living. The attempt was not made to discover how cheaply a family of four could live. Many families in the communities covered are undoubtedly living at less expense than the amount shown by this investigation to be required to maintain a minimum American standard of living. But this study did not concern itself with immigrant standards of living conditions; it took into account only what native-born American wage earners might rightfully consider a minimum standard. Consequently, price studies were carried on in the sections of the cities which were largely inhabited by American wage earners.

It is not contended that the majority of wage earners' families in the communities covered purchase the exact commodities or quantities specified in the standard budget. It is not necessary for the validity of the comparisons that this should be the case. Individual and sectional tastes and habits vary and no budget can be devised which will exactly represent the expenditures of large numbers of families. But it is necessary to have some comparable standard which can be applied generally, and the standard budget serves this

purpose. The results measure the cost of maintaining a similar standard of living in each locality.¹

DIFFERENCES IN TOTAL COST OF LIVING

The total cost of living for a family of two adults and two minor children, according to a fair minimum American standard of living, was found to vary from \$1,659.84 per year in New York City, to \$1,441.96 per year in Marion, Ohio, or reduced to a weekly basis, from \$31.92 in New York City to \$27.73 in Marion. Thus, from the highest to the lowest of twelve representative cities there was a difference in the cost of living of only 13%. Individual items in the budget were found in some instances to show considerable variations in cost between cities. In fuel and light, for example, the cost in Springfield was more than double what it was in Butler. But the high and low costs of various items tended to balance somewhat, with the net result that there is surprisingly little difference in the cost of the entire budget throughout the twelve cities.

In the relative position of the cities, arranged in descending order according to living costs, size of city appears to exert considerable influence on the ranking. If Ohio were excluded from the study, this relationship between size of city and living cost would be striking, but the fact that Cleveland, which might be expected from its size to be among the first four cities in point of cost, is actually eighth shows that size is not the only factor affecting costs. But these small differences in the cost of living which determine the standing of the various cities, only emphasize the really significant conclusion that there is comparatively little difference in the cost of maintaining a fair minimum standard of living throughout the eastern part of the United States.

THE BUDGET

The total budget is made up of the following items: housing, food, clothing, fuel and light, and sundries. The total

¹ Only the summarized result of these cost of living studies is given in this chapter. A detailed report of these investigations is contained in the Conference Board's report, "Cost of Living in Twelve Industrial Cities," New York, 1928.

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cost of living and the costs of the various budget items in the twelve cities are shown on Table 17 and Chart 8.

Housing

Shelter is an essential in any mode of living but it is the least standardized item in the budget. Types of shelter considered in this investigation varied from the "cold water" flat of four rooms in Manhattan to a detached frame house of six or seven rooms found in the smaller cities. The living accommodations priced were not necessarily similar in character or in size but were the prevailing type in the particular locality; that is, the type which American wage earners occupied. The only stipulations made for collecting representative rents were that there be at least four rooms for a family of four, a bath for the exclusive use of the family, and that at least a majority of the persons in the neighborhood be American wage earners. Quotations given by local real estate dealers were checked by the Conference Board's field agents who, acting as prospective tenants, visited a number of houses in each section covered in this investigation.

A difference of \$2.78 was found between the highest and lowest housing costs. Rentals meeting the standards set ranged from \$25 to \$35 a month. In seven of the twelve cities, \$30 was found to be the proper figure, and this appears to be a safe general figure to represent rentals of this type. The types of housing and general environment obtainable for these rentals differ considerably. In Manhattan and the older parts of New York City the wage earner's family ordinarily occupies a small apartment of three or four rooms and lives in a building which also houses many other families. In Philadelphia and Reading, on the other hand, separate houses usually of brick with an average of six rooms and joined on either side to another house of similar design and construction are found extensively. Thus the streets present unbroken rows of houses, each the counterpart of the other.

Boston is well known for its "three decker" dwellings of three stories and three to six flats to a house. The size of these flats varies from three to nine rooms, with the five-

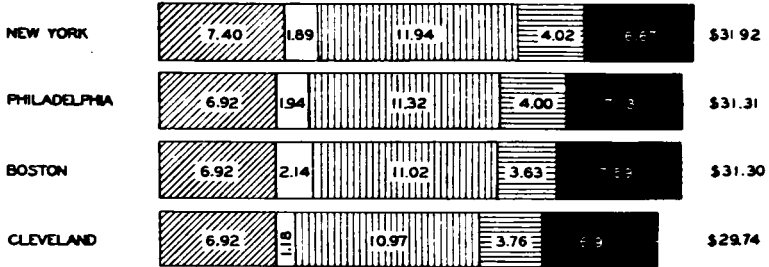
WAGE EARNER'S ECONOMIC STATUS

CHART 8: WEEKLY COST OF MAINTAINING A FAIR AMERICAN STANDARD OF LIVING IN TWELVE INDUSTRIAL CITIES, 1927

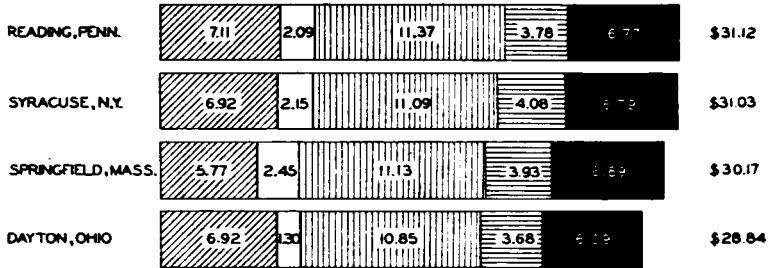
(National Industrial Conference Board)



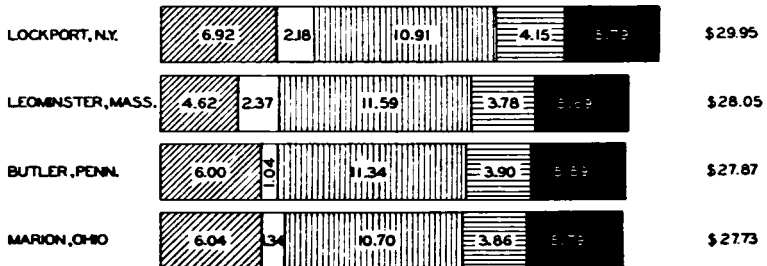
LARGEST CITIES IN STATE



CITIES OF 100,000 TO 200,000 POPULATION



CITIES OF 15,000 TO 30,000 POPULATION



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**TABLE 17: AVERAGE MINIMUM COST OF MAINTAINING
A FAIR AMERICAN STANDARD OF LIVING FOR THE
FAMILY OF AN INDUSTRIAL WORKER IN TWELVE
INDUSTRIAL CITIES**

(Source: National Industrial Conference Board)

Type of City	Total	Housing	Fuel and Light	Food	Clothing	Sundries
<i>Yearly Cost</i>						
<i>Large Cities</i>						
Boston, Mass.....	\$1,627.33	\$360.00	\$111.05	\$573.04	\$188.56	\$394.68
Cleveland, O.....	1,551.62	360.00	66.25	570.44	195.61	359.32
New York, N. Y.....	1,659.84	385.02	98.17	620.88	208.93	346.84
Philadelphia, Pa....	1,628.35	360.00	100.90	588.64	208.05	370.76
<i>Medium Size Cities</i>						
Dayton, Ohio.....	1,503.72	360.00	71.30	564.20	191.54	316.68
Reading, Pa.....	1,618.26	369.96	108.45	591.24	196.57	352.04
Springfield, Mass....	1,568.80	300.00	127.60	578.76	204.16	358.28
Syracuse, N. Y.....	1,601.52	360.00	115.20	576.68	212.16	337.48
<i>Small Cities</i>						
Butler, Pa.....	1,449.35	312.00	54.06	589.68	202.93	290.68
Leominster, Mass....	1,459.21	240.00	123.00	602.68	196.65	295.88
Lockport, N. Y.....	1,566.82	360.00	122.50	567.32	215.92	301.08
Marion, Ohio.....	1,441.96	314.04	69.53	556.40	200.91	301.08
<i>Weekly Cost</i>						
<i>Large Cities</i>						
Boston, Mass.....	\$31.30	\$6.92	\$2.14	\$11.02	\$3.63	\$7.59
Cleveland, O.....	29.83	6.92	1.27	10.97	3.76	6.91
New York, N. Y.....	31.92	7.40	1.89	11.94	4.02	6.67
Philadelphia, Pa....	31.31	6.92	1.94	11.32	4.00	7.13
<i>Medium Size Cities</i>						
Dayton, Ohio.....	28.91	6.92	1.37	10.85	3.68	6.09
Reading, Pa.....	31.12	7.11	2.09	11.37	3.78	6.77
Springfield, Mass....	30.17	5.77	2.45	11.13	3.93	6.89
Syracuse, N. Y.....	30.80	6.92	2.22	11.09	4.08	6.49
<i>Small Cities</i>						
Butler, Pa.....	27.87	6.00	1.04	11.34	3.90	5.59
Leominster, Mass....	28.05	4.62	2.37	11.59	3.78	5.69
Lockport, N. Y.....	30.13	6.92	2.36	10.91	4.15	5.79
Marion, Ohio.....	27.73	6.04	1.34	10.70	3.86	5.79

room flats predominating. Very few of these three story flat dwellings are found in Cleveland, two-family detached houses being more common. The unusual feature of the flats in Cleveland is that in a great many cases the only entrance to the second floor is by way of a side or rear entrance which leads into the kitchen. Also in Cleveland two

or three houses are often built on a lot, one in front and one or two single houses of about five rooms each in the rear. Flats were found to be the type of shelter most commonly available to wage earners in Springfield, Syracuse, Leominster and Lockport, but usually the buildings are but two stories; although there are some "three deckers" in Springfield. In Butler and Marion single detached houses of five, six or seven rooms predominate in the neighborhoods selected. Housing in Dayton, more than any other city, shows great variety. Every type of housing, except the "three deckers" is found, although in some sections the small single house is the prevailing type.

Food

The quality and quantity of food allowed in the budget for the standard family of four were determined on the basis of the number of calories which are required to keep persons of different ages and occupations in health, and on the basis of the necessary caloric distribution among meats, fish, eggs, milks, cereals, fruits, vegetables, sweets and fatty foods, in order to have the proper proportion of protein, calcium, phosphorus and iron. Effort was made to prepare a well-balanced food budget, based largely on the less expensive foods. Such a diet provides, at a minimum cost, all the nourishment and variety necessary. Some relatively expensive items are included, but the body of the food allowance is made up of the less expensive foods. Forty food items were priced and, in so far as possible, prices for bulk goods were obtained in preference to those for package goods. Both independent stores and chain stores were visited and the purchasing habits of the wage-earning population were observed as closely as possible.

The study of retail food costs indicates that there is considerable standardization in food prices in the different cities. This situation is due, probably in considerable measure, to the popularity of widely advertised, trade-marked goods distributed in packages which sell for a uniform price. The prevailing tendency to buy only for immediate needs, made necessary in many cases through lack of storage space, and the emphasis which has been placed in recent years upon

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sanitary food handling, have added to the appeal of the convenient quantity in the tightly sealed package.

Food is commonly believed to be considerably more expensive in large cities than in small communities, but the cost of the food budget in Marion, Ohio, where the lowest prices prevailed, was only about ten per cent lower than in New York City, where the highest food prices were found. And yet, food prices in New York City were not outstandingly high, since the cost of the weekly food budget was \$11.94, as compared with \$11.59 in Leominster, Massachusetts, \$11.37 in Reading, \$11.34 in Butler, Pennsylvania, and \$11.32 in Philadelphia.

Clothing

In making the clothing budget used in this survey, the Conference Board depended largely upon experience, common observation and the judgment of shop keepers. The budget is based on the assumption that the social needs of the family are confined to church, moving pictures, lodge and shopping, and that the more formal clothing of the man and wife are spared hard usage by the custom of wearing special clothing while at work. The quality priced was "inexpensive but fair grade of merchandise such as is usually purchased by wage earners." In no instance were sale or bargain prices secured.

The clothing questionnaires contained 31 items of men's clothing, 34 of women's, 62 of children's, 12 yard goods items, 4 shoe repairing items, and 3 cleaning and pressing services. The Conference Board's agents personally secured quotations on these items from stores catering to the wage earning classes. There were wide variations in quotations on the various articles, according to the kind of merchandise carried, but the prices, when averaged, showed a surprising uniformity throughout the cities investigated. The difference in the weekly clothing allowance between the city with the highest cost, Lockport, and that with the lowest, Boston, was only 52 cents or about twelve per cent.

Fuel and Light

This item includes coal for heating and cooking, gas for

cooking, and electricity for lighting. The variations in fuel costs are largely due to the kind of fuel used. In some sections, such as New England and New York State, anthracite is used very extensively, while in Ohio bituminous coal is used widely for domestic purposes. In Cleveland, the price of anthracite was \$6 a ton more than that of bituminous, which means a difference of \$30 a year in the fuel budget on the basis of the five tons allowed for a year's consumption. Prices were obtained from a number of dealers in each city and averaged. Ton lots were priced except in New York City, where the practice of buying 50 to 100 pound sacks of coal from pedlars is common.

In every city visited, the houses inspected had gas stoves for cooking as well as coal ranges. It was assumed that the coal range was used for heating and cooking during the winter months and that, therefore, gas was required for cooking only during the summer months. The same amount of cubic feet of gas was allowed for each city for the five months of the year when the coal range is not in use, with the addition of service charges wherever they existed. The same number of kilowatt hours of electricity was also allowed in each city, plus service charges.

It was found in this investigation that the combined cost of fuel and light is a not inconsiderable item in the wage earner's budget, and that it showed wide differences between cities. The yearly cost ranged from \$127.60 in Springfield, Massachusetts, where winters are rather severe and anthracite must be transported from mines in Pennsylvania, to \$54.06 in Butler, Pennsylvania, where bituminous coal is ordinarily delivered directly from the mine to the home. Also gas and electricity costs tended to be lower in cities where coal was low in price.

Sundries

This heading includes a number of miscellaneous items, each small in itself, but necessary in a family budget, such as transportation, recreation, reading material, stationery, postage, telephone, medical care, insurance, dues in fraternal organizations, church, charity and gifts, candy and tobacco, cleaning supplies and toilet requisites, furniture and house

furnishings. Many of these goods and services are without standardization as to quantity or use, and the amounts allowed for each item are arbitrary.

There is a difference of two dollars weekly between the city with the lowest sundries cost, Butler, and that with the highest, Boston. The chief element in this difference is the item of carfare which ranges from 5 cents to 10 cents. As is to be expected the cost of sundries varied according to the size group in which the city belonged. The larger cities showed the highest sundries cost and the small cities the lowest. The one exception was New York City, which had a lower sundries cost than six other cities with populations of over 100,000, Dayton being the only city in these two groups where this item was lower than in New York.

WEIGHTED COST OF LIVING FIGURES BY STATES .

The cost of maintaining a family of two adults and two children on the basis of a fair minimum American standard of living has been shown for typical cities in four states. But since the distribution of population varies between different states, the cost of living levels found for cities of different size in the four states will apply to varying proportions of the total population. In New York State, for example, more than one-half the population is in New York City alone, while in Massachusetts only about a fifth of the state's population is in Boston.

An attempt was made in this investigation to arrive at a weighted average cost of living for each state by applying the cost of living figures found for the large, medium and small cities to the proportions of population which would, in general, be subject to the three sets of conditions. Communities of less than five thousand inhabitants were eliminated from consideration on the ground that they are more agricultural than industrial in character and, hence, are subject to different conditions from those prevailing in urban centers. The remainder of each state's population was classified under one of the three heads: that in cities with populations from 5,000 to 30,000 to which the small city cost of living is believed to apply; that in cities with populations

from 30,000 to 200,000, of which the medium size city cost of living is considered representative; and that in cities with populations over 200,000 which constitute the large city group. The proportion of each state's population resident in the three city groups was then ascertained and the cost of living figures were weighted on this basis. The result is a composite cost of living figure for each state.

The distribution of population was found to differ widely in the four states. In New York State, 77.4% of the total population must be included in the large city group, while only 21.6% of the population of Massachusetts is found in this group. Only 9.6% of the population of New York State lives in the small size cities, but in Pennsylvania these cities account for 30.6% of the state's population. In Massachusetts, the medium size city predominates, with 51.2% of the state's total population living in these cities. When rated on this basis, the composite New York State weekly cost of living, because of the influence of New York City, was \$31.60, Pennsylvania stood next with \$30.22, Massachusetts was a close third with \$29.84, and Ohio stood last with \$29.08. The influence of New York City is evident in the comparatively high figure for New York State, but again the significance of the figures for the four states lies in their comparative similarity. Ohio shows a cost of living level only 9% lower than New York State, in spite of the latter's high content of urban population.

CONCLUSION

In estimating the results of cost of living studies it should be recognized that tastes and habits, particularly in food and clothing, vary indefinitely. The dietitian's statement that a certain number of food calories are necessary for proper nourishment does not make up deficiencies in income or prevent some from sacrificing food requirements for unnecessary luxuries. Actual consumption of commodities and purchases of services vary widely. In this study, a standard budget comprising the reasonable necessities of life for the family of four was adopted as a measuring stick and applied to price conditions in the twelve industrial cities. The re-

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sults of this investigation show what a similar form of living would cost in each locality, but not necessarily what families actually spend, since it is based on a comparison of prices for similar goods and services, and not on a comparison of actual expenditures.

Much fruitless argument is devoted to the correctness of various budget allowances. In the minds of some a certain sanctity attaches to the formation of a working budget which, in their opinion, renders it worthless unless it conforms to certain set specifications. What can at best provide only a rough medium for measuring differences in living costs is clothed with a statistical accuracy which it can never attain. To argue about fractional per cents of difference is to permit minute details to obscure the really constructive purposes which may be served. And to accept cost of living index numbers as infallible evidence upon which to regulate wage adjustments and salary differentials is to base important decisions upon precarious premises. Used as general indications of differences in living costs, these figures serve a useful purpose, but their limitations as well as their proper uses must be realized.

This investigation shows that a remarkable similarity in living costs exists throughout the twelve widely differing cities covered by the survey. Even between as dissimilar cities as New York and Marion, Ohio, there is only a 13% difference in living costs. The cost of individual budget items, such as food, clothing, housing, etc., may be relatively high in certain localities but the tendency of high costs of certain budget items to be offset by low costs of other items makes for a final balancing of costs. While the cities representing New York State show the highest living costs in two of the three city groups and stand second in the third group, this fact loses particular significance when the small amount of variation between the highest and lowest is brought out. The conclusion seems to be that while the value and accommodations obtained for a given expenditure may vary somewhat, there is no great difference in the cost of maintaining a fair minimum American standard of living throughout the eastern part of the United States.

CHAPTER V

GENERAL SUMMARY AND CONCLUSIONS

THE economic status of the wage earner depends in large part on his income, his expenditures and the circumstances which surround his working and living conditions. Not any one of these factors alone, but their inter-related operation, determines his comparative advantage or disadvantage over wage earners in different industries or in different sections of the country. In attempting to ascertain how the economic status of the wage earner in New York State compares with that in other states, the leading factors affecting this status have been treated under three headings: wages, industrial relations activities, and cost of living.

WAGES

The trend of wages over nearly a century has been gradually upward and that tendency is still apparent in spite of temporary reactions. Geographical boundaries have little effect upon wages except in so far as factors tending to raise or lower the general wage level are present in a greater or less degree in different states.

Wage Rates

Prevailing wage rates for standard mechanical occupations were taken as one basis for the comparison of wage levels between the eight states—New York, Massachusetts, Connecticut, New Jersey, Pennsylvania, Illinois, Michigan, and Ohio. Data were obtained from a large number of employers. For nine occupations so covered it was found that rates in New York State occupied, in general, a middle position, although in the case of male common labor New York rates were higher than those in other states.

Hourly and Weekly Earnings

As in the case of wage rates the figures of hourly and

weekly earnings, as reported by the United States Bureau of Labor Statistics, do not show New York State in a leading position. Hourly earnings in New York State were highest in only twenty-one of the 143 occupations covered, but stood second or third in a number of others.

Hourly earnings in the men's clothing industry in 1926, computed on the basis of clothing centers rather than states, proved to be relatively high in New York City and Rochester. In the case of weekly earnings in this industry, New York City showed the highest earnings in eight of the twenty-three occupations given, as compared with five for Chicago and three for Rochester. Throughout the various occupations and in the consolidation of figures for all wage earners, a fairly well-defined ranking of cities on the basis of earnings is apparent, with Chicago quite consistently in first place and New York City and Rochester second and third respectively, although in certain instances Cleveland surpasses one or both of the New York State cities.

In a study of wage changes conducted monthly by the Conference Board, payroll reports from the eight states covered in this study were tabulated by industries. According to the figures for June, 1927, selected as a representative month, New York State led in both hourly and weekly earnings in three of the thirteen industries covered—boots and shoes, cotton goods, and electrical apparatus and supplies—and was second or third in four other industries.

The Departments of Labor of five of the eight states covered—New York, Illinois, Massachusetts, New Jersey and Pennsylvania—conduct monthly wage studies within their respective states. In fifteen individual industries, which were fairly general in these states, figures compiled for December, 1927, showed New York State leading in weekly earnings in seven industries, second in two, and third in the remaining six. That this general wage superiority has been consistently maintained is indicated by the fact that from January, 1925 through December, 1927, earnings of all wage earners in New York State were higher than those in other states in all except eight of the thirty-six months covered. Only Illinois has from time to time challenged New York's leading position in this respect.

Annual Wage Cost per Wage Earner

Hourly or weekly rates or earnings cover periods too short to be taken as a measure of wage earner's income, since the latter is dependent upon continuity of employment as well. In the absence of data showing average annual earnings these figures can be approximately determined by dividing total wages paid during a year by the average employment. Figures from the United States Census of Manufactures for 1925 show that in New York this average cost per wage earner amounted to \$1,439, as compared with \$1,280 for the country as a whole. This reflects a higher earning capacity for the average New York State wage earner than is found in the country as a whole. Furthermore, between 1914 and 1925, this wage cost per wage earner increased 141% in New York State, as compared with 121% in the United States as a whole. The increase in New York State was greater than that in any of the seven other states. Replies to Conference Board questionnaires indicated that among eight industrial groups the average wage cost per wage earner in New York State during 1926 led in three industries, was second in one, third in two, fourth in one, and sixth in one. Taking into account New York's standing and the relative importance of the various industries, New York appears to have a clear claim upon first place.

Stability of Employment

Only a fairly steady rate of employment can produce an annual income which is implied by the rate of average hourly or weekly earnings. Tenure of employment is threatened periodically by general business depression and annually in some industries by the seasonal character of their operations. In an endeavor to ascertain relative stability of employment in the various states, figures from the United States Census of Manufactures for 1925 have been used. Employment during the highest and lowest months of the year has been compared with average employment for a number of leading industries and the percentage by which peak employment and lowest employment vary from the average has been computed.

The percentages of increase or decrease over the average

vary considerably between industries, and, of course, the effect of these fluctuations upon the wage-earning population of the state differs according to the importance of the industry as judged by the number employed. Taken as a whole, seasonality of employment in New York State appears to be below the average. In twelve of the twenty-one industries covered, New York State is lowest or second or third from lowest in variation above average employment during the peak month; and in eleven industries it is first, second or third from lowest in variation below the average during the month of lowest employment. This suggests that the wage earners as a whole in New York State suffer a smaller loss of income through periodic unemployment than those in the other states.

Further evidence of employment stability in New York State is provided by the employment index series for five states—New York Massachusetts, New Jersey, Pennsylvania and Illinois. The employment for 1925, 1926 and 1927, show less fluctuation and greater similarity from year to year in New York State than in the other states.

Workmen's Compensation Benefits

Another cause of loss of income to the wage earner is his disablement, either temporary or permanent, through accident or injury in the course of his employment. All except five states have enacted workmen's compensation laws to protect the worker against total loss of income during disability, but the New York State law has been shown to be easily the most liberal and to provide most generously for the injured wage earner.

Methods of Wage Payment

An attempt was made to ascertain how widely incentive wage systems were operative in the various states, since the economic status of the wage earner may be affected if he has some measure of control over the amount of his earnings. Michigan led in the proportion of workers on an incentive basis, with the high total of nearly 71% of the wage earners, covered by the reports to the Conference Board operating either under piece work or a bonus system. This was prob-

ably due to the extensive use of these systems in the automobile industry. New York stood fifth among the eight states in this respect. In the matter of piece work alone, however, New York stood second, with 38.2% of its wage earners paid on this basis, surpassed only by Ohio, with 40.2%. If the returns from New York City are separated from those for the remainder of the state, it develops that incentive wage systems are more prevalent up state than in New York City, the proportion of workers affected being 51.2% up state and only 19.9% in New York City.

Hours of Work

High earnings in New York State have been made in spite of comparatively low working hours. On the basis of comparable returns from metal working industries in the eight states, New York shows a large proportion of plants with a normal working week of forty-eight hours or less, surpassed only by Massachusetts. Also New York State shows a relatively small proportion of companies working over fifty-four hours, being second in this respect only to New Jersey.

Therefore, with wage rates generally in accord with levels in other states, with more stable tenure of employment indicated on account of a lesser degree of seasonality in its industries resulting in a higher annual wage payment per wage earner, and with more liberal provision in case of injury, the wage earner in New York State appears to occupy a favorable position in the matter of direct income.

INDUSTRIAL RELATIONS ACTIVITIES

Industrial relations activities, as developed in the United States, represent a voluntary contribution of management and workers to a better understanding and a more harmonious and satisfactory working relationship. Their growth has been free from legislative compulsion and has been dictated by management's realization that the greater good of all—owners or stockholders, executive managers and working forces—is best served through the maintenance of efficiency which is based upon understanding, contentment and economic security. The present survey of the scope and signifi-

cance of these activities is based upon data provided by 4,655 companies engaged in manufacturing, mining, public utilities, transportation and mercantile business, although the largest proportion were in the manufacturing field. The total employment of these companies, all of which normally employed fifty or more wage earners, was 2,505,815. New York State was represented by 1,301 establishments.

The exact measurement of the value of the contribution made by various industrial relations activities is impossible. Some companies carry a few activities, some carry a large number; some companies bear a large proportion of the expense, while others share the burden to a greater degree with the wage earner. It is impossible to say what the average benefit to the average wage earner will be, but if these activities, particularly those with an actual monetary value, are conducted on a considerable scale, it is a safe assumption that the cumulative effect is a definite benefit to the individual wage earner in one way or another. For example, when he receives bonus awards for long service, punctuality, attendance, or quality of product; protection in coverage by group life, health and accident insurance, allotments of pension awards, mutual aid, sickness and accident benefits, vacations with pay, purchase of company securities on advantageous terms, reduction of living costs through availability of necessary commodities at company stores at reduced prices, housing at reduced rentals, medical aid or treatment furnished free of charge or at nominal cost—an employee by reason of his service with an employer is obtaining a supplemented income or is being saved from expenses which he would otherwise have to meet.

Special Factors Influencing Extent of Industrial Relations Activities

In the present investigation fifteen representative industrial relations activities were selected for detailed analysis. Not only the numerical incidence of these activities was examined, but the effect, if any, of size of plant, size of city, character of industry and labor policy with regard to unionization, upon the extent of their operation. Conditions found to exist in New York State were contrasted with com-

posite experience in the seven other states covered. In this way the situation in New York was compared with average conditions prevailing in industrial states rather than with conditions in any one state.

Data tabulated on the basis of size of establishment indicate quite clearly that a greater proportion of large companies engage in these activities than do those of smaller size, which is to be expected. When the comparison is confined to plants of a generally similar size, it appears that a fairly strong similarity in quantity and character of activities is maintained. On the basis of size of city in which plants are located, the tabulation showed that fewest activities are maintained by establishments in small communities but above this point there was no outstanding tendency. Certain activities were found to be particularly popular with plants located in communities of the same general size.

Three industrial groups, public utilities, chemicals, and rubber, showed a more general participation in industrial relations work than others. On the basis of labor policy toward unionization, the smallest development of industrial relations work was found in closed union shops. Open shop establishments held first place in a number of activities but yielded leadership in others to the non-union or part union plants.

More detailed information relating to the operation of a number of activities was furnished by a limited number of the establishments which provided the data upon which the tabulations reviewed above were based. Of particular interest are the statistics indicating the cost and financial benefit of several activities during 1926. The composite experience of these companies showed, for example, that group life insurance gave individual coverage from \$1,279 to \$1,553 depending upon the type of plan; weekly benefits under group sickness and accident insurance average between \$11.88 and \$15.24; average benefits paid by mutual benefit associations were, for death \$375, for sickness \$40.97, and for accident \$42.31; the average medical cost per employee per year was \$5.12; food serving facilities maintained for employees resulted in an average yearly net loss of \$6.59 per employee served; the average yearly payment to pen-

sioned employees was \$505.70, and average annual awards in the form of supplemental bonuses for meeting certain standards varied from \$57.82 to \$117.55 per employee.

The Position of New York State in Industrial Relations Work

Conditions in New York State were found not to differ greatly from those in other states, but while in the proportion of companies participating in the activities the figure for New York exceeds that for the other states combined in only five of the fifteen activities, it takes the lead in nine activities in the proportion of wage earners affected. An appraisal of industrial relations development in a state, however, should not aim at establishing numerical superiority, but to note whether, with its advantages and its handicaps, the industry of the state has kept pace with general progress along these lines. New York State has evidently done so. With an industry in which small shop organization predominates and in which, according to returns in this survey, a somewhat greater degree of labor organization exists, New York has still maintained a position in industrial relations development on a par with the leading industrial states.

LIVING COSTS

In determining the economic status of the wage earner, it is as important to know the prices which he pays for the goods and services which he needs to maintain his standard of living as the financial return he receives for his work. It is a popular impression, that marked differences in the cost of goods and services which enter into the wage earner's budget exist in different sections and localities. While undoubtedly there is a certain amount of variation in prices, the investigations conducted in connection with this study in twelve eastern industrial cities indicate that this difference is likely to be overestimated.

Employing a standard budget, based upon available data regarding consumption habits and other pertinent material, the Conference Board conducted cost of living studies in one large, one medium-sized and one small industrial city in each of the states of New York Massachusetts, Pennsylvania and

Ohio. The cities, selected as representative, after consultation with persons and organizations intimately acquainted with social and economic conditions in the four states, were New York City, Boston, Philadelphia, and Cleveland in the large city group; Syracuse, New York; Springfield, Massachusetts; Reading, Pennsylvania; and Dayton, Ohio, in the medium sized city group; and Lockport, New York; Leominster, Massachusetts; Butler, Pennsylvania; and Marion, Ohio, in the small city group. By means of intensive field work in the localities selected, the Conference Board's field agents obtained prevailing prices and costs for similar commodities and services. In this manner, it has been possible to ascertain the cost of maintaining what is considered a fair minimum American standard of living. A family of an American wage earner, his wife and two dependent children under fourteen years of age, has been taken as the standard family in this investigation. The budget used was made up of the following items: housing, food, clothing, fuel and light and sundries.

It was found that in the twelve cities covered the cost of maintaining this family on a fair minimum American standard of living varied from \$1,659.84 per year in New York City to \$1,441.96 in Marion, Ohio, during the latter part of 1927. Reduced to a weekly basis, this variation was from \$31.92 in New York City to \$27.73 in Marion. In other words, living costs in Marion were only 13% lower than in New York City. Although the total cost of living varied little between the twelve cities, individual budget items showed a considerably greater difference. Housing was generally higher in the large cities and showed a difference of 38% between New York City and Leominster, Massachusetts. Food prices showed a difference of 11% between the high and low cost cities; clothing, 13%; fuel and light, 58%; and sundries, 26%. But high costs for one budget item were usually offset by low costs for another, with the result that differences in total living costs in the several cities were confined to small proportions. In general, a relationship was found between living costs and the size of community, with the larger cities showing somewhat higher living costs.

An attempt was made to compare the general costs of

living in the four states studied by obtaining weighted figures for each state. These figures were found by giving to each of the three cost of living levels a weight corresponding to the proportion of each state's population to which they would presumably apply. The composite cost of living figure thus obtained for New York State was \$31.60 per week, as compared with \$30.22 in Pennsylvania, \$29.84 in Massachusetts, and \$29.08 in Ohio.

The conclusion to be drawn from these cost of living studies is that, while local conditions in particular instances exert a recognizable influence upon the cost of particular items in the budget, in the final analysis there is comparatively little difference, at least throughout the eastern part of the country, in the total cost of maintaining a fair American standard of living.

RELATION OF WAGES TO COST OF LIVING

In estimating the economic position of the wage earner it is necessary to relate his wages to his cost of living. The American wage earner is frequently visualized as the "bread winner" of a family with an indefinite number of children. The inadequacy of reported average earnings for the maintenance of such a family upon anything approaching an American standard of living is so patent as to cast doubt upon the accuracy of the wage figures, or upon one's own powers of observation, which fail to reveal the poverty in the working population which would be inevitable if such families were supported on incomes suggested by these figures. The explanation is that social and economic conditions have changed; and, while factors which have contributed to this change are well recognized individually, their collective significance is sometimes overlooked.

The large family of the wage earner for the most part, does not exist. As evidence of this, the latest population census figures for a number of industrial states indicate an average family of between four and five persons. In some of these states, as shown in Chapter I, the foreign-born element, with its tendency toward large families, constitutes as high as 25% of the total population, and these figures also

include the agricultural population where larger families are likely to be found. The fact that in spite of these influences in the opposite direction the number of children per family is only from two to three indicates definitely that the large family is the exception.

The income available to the wage earner for the support of his family is usually gauged by reported average weekly earnings. These figures include so diverse a group that what is actually done in such a comparison is to compare the cost of supporting a family with an average of wages based upon the receipts of wage earners, male and female, of every class and of every standard of living, self-supporting and partially dependent. Modern industry has made places for vast numbers of young men and women, particularly since the breakdown of industrial conventions brought about by the emergency needs of the war. These young people are earning comparatively low wages during the learning period and, with few exceptions, not only are not supporting families, but are themselves being partially supported. And yet the wages of this large group, as well as those of common labor, go to make up the figure of average earnings which is compared with the cost of maintaining an American standard of living to determine the adequacy of prevailing wages. Such a criterion of earnings can have little value in judging the income of heads of families.

Furthermore, it can no longer be assumed that there is but one earner in each family. As modern industry has found uses for large numbers of young people, so modern business organization has absorbed hundreds of thousands of young men and women to carry on its complicated office routine. A considerable proportion of these live at home, and whether they make a regular contribution to family expenses, as is frequently done, or merely pay for their own clothes and incidentals, they are by so much relieving the financial burden of the father. The growing number of married women, both in the factory and in the office, is another factor affecting the family income.

Whatever the social significance of these tendencies may be, their economic significance is unmistakable. Apart from any increase in wage levels, family income is being augmented

by adding to the number of earners per family. As far back as 1920, there were practically two gainfully employed persons per family in New York State. Therefore, in the present economic order, the wage earner with a small family, and often receiving financial assistance from one or more others in the family, has replaced the wage earner with a large family entirely dependent upon his single efforts. Otherwise it would be difficult to account for the high standard of living, including frequently the enjoyment of expensive luxuries, which is a matter of common observation, and for the vast accumulation of savings bank deposits which has been a feature of recent years.

In spite of their shortcomings weekly earnings remain the best available criterion of income. In New York State they lend themselves to this purpose better than elsewhere, since the State Department of Labor, in addition to the average for the entire state, computes figures for New York City and the remainder of the state and also separately for men and women. This latter classification is particularly valuable for the purposes of this investigation since women are becoming an increasing proportion of the working population and their earnings average only about 60% of men's. The average earnings of men, even though this figure includes the wages of many who are not self-supporting, is the nearest approach to the earnings of heads of families.

The New York State Department of Labor found the average weekly earnings of male industrial workers to be \$33.32 in October, 1927. Although this figure includes the wages of many who are not yet in a position to support families and of others who do not attempt to maintain an American standard of living, the male wage earners of New York State appear to be well able to cope with living costs, since the weighted cost of living figure for New York State, on the basis of the cost of maintaining a family of two adults and two minor children, was \$31.62. If the figures for earnings and living costs are further subdivided, it is found that average weekly earnings of male industrial workers were \$36.65 in New York City, as against a living cost of \$31.92, while the earnings in the remainder of the state were \$30.69 as compared with living costs of \$30.80 in Syracuse and

\$30.13 in Lockport. And these figures represent income from only one wage earner.

It has been shown throughout this study that the economic status of the wage earner depends on many economic and social factors which vary from industry to industry and from one state to another and which in many instances cannot be measured with statistical precision. Wages vary from almost nothing to amounts which make many salaries suffer by comparison; differences in standards of living, conditions of work, requirements of regulatory legislation, extent and character of industrial relations activities are very great, and are used to support both the view that the wage earner is at the height of his prosperity and that he lives in distress and poverty. The necessity of constructing an average set of conditions—average wages and earnings, average cost of living, and average benefits from industrial relations activities and regulatory legislation—is, therefore, obvious. While this average may not in actual practice be found in any industry or locality, it is employed as a convenient device for making more or less valid comparisons.

It is clear, therefore, that the average wage earner does not exist any more than does the average company, but in so far as the average reflects prevailing conditions, it is a sound conclusion that the economic status of the wage earner in New York State compares favorably with the position of wage earners in the states which are counted among New York's strongest industrial competitors. This is true as regards all the elements which influence the ability of the wage earner to maintain a fair American standard of living, and particularly true as regards the standards of legislative regulation of industry.

APPENDIX.

APPENDIX

TABLES 18 TO 37

TABLE 18: DISTRIBUTION OF HOURLY WAGE RATES, PATTERN MAKERS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate					
	96-105 Cents	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents
Average of 8 states.....	8	22	26	31	11	2
New York.....	5	33	27	18	15	2
Connecticut.....	9	13	17	48	9	4
Illinois.....	14	27	23	31	..	5
Massachusetts.....	..	5	16	58	21	..
Michigan.....	22	23	11	33	11	..
New Jersey.....	8	9	33	50	..	..
Ohio.....	6	31	43	11	9	..
Pennsylvania.....	6	10	36	32	9	7
New York City.....	..	33	67	..	..	..
Up State.....	6	32	23	19	18	2

Cumulative percentage distribution

State	Hourly Rate					
	96 Cents and Above	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above
Average of 8 states.....	8	30	56	87	98	100
New York.....	5	38	65	83	98	100
Connecticut.....	9	22	39	87	96	100
Illinois.....	14	41	64	95	95	100
Massachusetts.....	..	5	21	79	100	100
Michigan.....	22	45	56	89	100	100
New Jersey.....	8	17	50	100	100	100
Ohio.....	6	37	80	91	100	100
Pennsylvania.....	6	16	52	84	93	100
New York City.....	..	33	100	100	100	100
Up State.....	6	38	61	80	98	100

TABLE 19: DISTRIBUTION OF HOURLY WAGE RATES, CORE MAKERS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate*					
	96-105 Cents	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents
Average of 8 States....	7	19	15	25	24	10
New York.....	3	20	15	29	28	5
Connecticut.....	..	..	18	46	27	9
Illinois.....	13	14	13	13	27	20
Massachusetts.....	..	62	..	13	25	..
Michigan.....	..	..	25	30	25	20
New Jersey.....	..	50	17	16	17	..
Ohio.....	19	23	19	8	27	4
Pennsylvania.....	10	20	7	33	13	17
New York City.....	20	20	40	20	..	..
Up State.....	..	21	11	30	32	6

Cumulative percentage distribution

State	Hourly Rate					
	96 Cents and Above	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above
Average of 8 States....	7	26	41	66	90	100
New York.....	3	23	38	67	95	100
Connecticut.....	..	..	18	64	91	100
Illinois.....	13	27	40	53	80	100
Massachusetts.....	..	62	62	75	100	100
Michigan.....	..	..	25	55	80	100
New Jersey.....	..	50	67	83	100	100
Ohio.....	19	42	61	69	96	100
Pennsylvania.....	10	30	37	70	83	100
New York City.....	20	40	80	100	100	100
Up State.....	..	21	32	62	94	100

TABLE 20: DISTRIBUTION OF HOURLY WAGE RATES,
MOLDERS MACHINE, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate					
	96-105 Cents	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents
Average of 8 States....	6	18	16	31	20	9
New York.....	3	20	17	43	8	9
Connecticut.....	..	..	33	17	42	8
Illinois.....	12	19	13	12	19	25
Massachusetts.....	..	43	..	..	43	14
Michigan.....	..	14	22	55	4	5
New Jersey.....	..	..	..	40	60	..
Ohio.....	18	19	11	22	23	7
Pennsylvania.....	4	13	26	31	22	4
New York City.....	17	16	50	17	..	..
Up State.....	..	21	10	48	11	10

Cumulative percentage distribution

State	Hourly Rate					
	96 Cents and Above	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above
Average of 8 States....	6	24	40	71	91	100
New York.....	3	23	40	83	91	100
Connecticut.....	..	..	33	50	92	100
Illinois.....	12	31	44	56	75	100
Massachusetts.....	..	43	43	43	86	100
Michigan.....	..	14	36	91	95	100
New Jersey.....	..	..	..	40	100	100
Ohio.....	18	37	48	70	93	100
Pennsylvania.....	4	17	43	74	96	100
New York City.....	17	33	83	100	100	100
Up State.....	..	21	31	79	90	100

**TABLE 21: DISTRIBUTION OF HOURLY WAGE RATES,
BLACKSMITHS, 1927**

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate					
	96-105 Cents	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents
Average of 8 States....	1	5	16	36	31	11
New York.....	1	1	17	32	40	9
Connecticut.....	..	..	15	43	34	8
Illinois.....	4	10	18	39	18	11
Massachusetts.....	5	..	5	37	48	5
Michigan.....	..	6	23	35	20	16
New Jersey.....	..	17	16	34	33	..
Ohio.....	..	7	16	32	31	14
Pennsylvania.....	..	9	14	45	21	11
New York City.....	11	11	45	33	..	..
Up State.....	..	..	13	31	46	10

Cumulative percentage distribution

State	Hourly Rate					
	96 Cents and Above	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above
Average of 8 States....	1	6	22	58	89	100
New York.....	1	2	19	51	91	100
Connecticut.....	..	..	15	58	92	100
Illinois.....	4	14	32	71	89	100
Massachusetts.....	5	5	10	47	95	100
Michigan.....	..	6	29	64	84	100
New Jersey.....	..	17	33	67	100	100
Ohio.....	..	7	23	55	86	100
Pennsylvania.....	..	9	23	68	89	100
New York City.....	11	22	67	100	100	100
Up State.....	..	..	13	44	90	100

TABLE 22: DISTRIBUTION OF HOURLY WAGE RATE, TOOL MAKERS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate				
	96-105 Cents	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents
Average of 8 States.....	3	15	27	42	13
New York.....	..	15	37	38	10
Connecticut.....	..	8	19	54	19
Illinois.....	24	27	28	18	3
Massachusetts.....	..	9	13	40	38
Michigan.....	2	23	30	37	8
New Jersey.....	6	38	31	25	..
Ohio.....	..	4	29	48	19
Pennsylvania.....	..	10	24	59	7
New York City.....	..	13	67	20	..
Up State.....	..	16	30	42	12

Cumulative percentage distribution

State	Hourly Rate				
	96 Cents and Above	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above
Average of 8 States.....	3	18	45	87	100
New York.....	..	15	52	90	100
Connecticut.....	..	8	27	81	100
Illinois.....	24	51	79	97	100
Massachusetts.....	..	9	22	62	100
Michigan.....	2	25	55	92	100
New Jersey.....	6	44	75	100	100
Ohio.....	..	4	33	81	100
Pennsylvania.....	..	10	34	93	100
New York City.....	..	13	80	100	100
Up State.....	..	16	46	88	100

TABLE 23: DISTRIBUTION OF HOURLY WAGE RATES, MILLING MACHINE OPERATORS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate					
	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents	36-45 Cents
Average of 8 States....	2	11	22	36	24	5
New York.....	..	8	21	41	22	8
Connecticut.....	..	..	11	37	48	4
Illinois.....	9	21	34	24	9	3
Massachusetts.....	..	4	25	17	47	7
Michigan.....	..	11	20	35	31	3
New Jersey.....	..	8	17	67	..	8
Ohio.....	4	16	21	39	16	4
Pennsylvania.....	5	10	25	42	13	5
New York City.....	..	..	40	60	..	..
Up State.....	..	9	18	38	26	9

Cumulative percentage distribution

State	Hourly Rate					
	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above	36 Cents and Above
Average of 8 States....	2	13	35	71	95	100
New York.....	..	8	29	70	92	100
Connecticut.....	..	..	11	48	96	100
Illinois.....	9	30	64	88	97	100
Massachusetts.....	..	4	29	46	93	100
Michigan.....	..	11	31	66	97	100
New Jersey.....	..	8	25	92	92	100
Ohio.....	4	20	41	80	96	100
Pennsylvania.....	5	15	40	82	95	100
New York City.....	..	..	40	100	100	100
Up State.....	..	9	27	65	91	100

TABLE 24: DISTRIBUTION OF HOURLY WAGE RATES,
LATHE OPERATORS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate					
	86-95 Cents	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents	36-45 Cents
Average of 8 States....	3	13	27	37	17	3
New York.....	1	8	30	38	20	3
Connecticut.....	..	..	16	58	23	3
Illinois.....	..	26	40	23	8	3
Massachusetts.....	..	..	28	34	38	..
Michigan.....	7	18	22	25	25	3
New Jersey.....	..	..	47	46	7	..
Ohio.....	4	16	19	43	14	4
Pennsylvania.....	7	13	44	29	5	2
New York City.....	..	8	42	42	8	..
Up State.....	1	8	28	38	21	4

Cumulative percentage distribution

State	Hourly Rate					
	86 Cents and Above	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above	36 Cents and Above
Average of 8 States....	3	16	43	80	97	100
New York.....	1	9	39	77	97	100
Connecticut.....	..	..	16	74	97	100
Illinois.....	..	26	66	89	97	100
Massachusetts.....	..	..	28	62	100	100
Michigan.....	7	25	47	72	97	100
New Jersey.....	..	..	47	93	100	100
Ohio.....	4	20	39	82	96	100
Pennsylvania.....	7	20	64	93	98	100
New York City.....	..	8	50	92	100	100
Up State.....	1	9	37	75	96	100

TABLE 25: DISTRIBUTION OF HOURLY WAGE RATES, MULTIPLE DRILL PRESS OPERATORS, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate				
	76-85 Cents	66-75 Cents	56-65 Cents	46-55 Cents	36-45 Cents
Average of 8 States.....	4	19	29	36	12
New York.....	5	15	29	35	16
Connecticut.....	..	10	25	55	10
Illinois.....	11	27	23	31	8
Massachusetts.....	..	19	24	38	19
Michigan.....	4	25	17	43	11
New Jersey.....	..	25	25	42	8
Ohio.....	3	16	39	34	8
Pennsylvania.....	4	24	40	24	8
New York City.....	..	12	50	38	..
Up State.....	6	15	26	34	19

Cumulative percentage distribution

State	Hourly Rate				
	76 Cents and Above	66 Cents and Above	56 Cents and Above	46 Cents and Above	36 Cents and Above
Average of 8 States.....	4	23	52	88	100
New York.....	5	20	49	84	100
Connecticut.....	..	10	35	90	100
Illinois.....	11	38	61	92	100
Massachusetts.....	..	19	43	81	100
Michigan.....	4	29	46	89	100
New Jersey.....	..	25	50	92	100
Ohio.....	3	19	58	92	100
Pennsylvania.....	4	28	68	92	100
New York City.....	..	12	62	100	100
Up State.....	6	21	47	81	100

TABLE 26: DISTRIBUTION OF HOURLY WAGE RATES, COMMON LABOR, FEMALE, 1927

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate			
	46-55 Cents	36-45 Cents	26-35 Cents	16-25 Cents
Average of 8 States.....	2	14	61	23
New York.....	..	16	61	23
Connecticut.....	4	11	52	33
Illinois.....	5	27	57	11
Massachusetts.....	6	16	45	33
Michigan.....	..	11	83	6
New Jersey.....	..	25	50	25
Ohio.....	..	6	65	29
Pennsylvania.....	..	8	84	8
New York City.....	..	..	100	..
Up State.....	..	19	54	27

Cumulative percentage distribution

State	Hourly Rate			
	46 Cents and Above	36 Cents and Above	26 Cents and Above	16 Cents and Above
Average of 8 States.....	2	16	77	100
New York.....	..	16	77	100
Connecticut.....	4	15	67	100
Illinois.....	5	32	89	100
Massachusetts.....	6	22	67	100
Michigan.....	..	11	94	100
New Jersey.....	..	25	75	100
Ohio.....	..	6	71	100
Pennsylvania.....	..	8	92	100
New York City.....	..	..	100	100
Up State.....	..	19	73	100

**TABLE 27: DISTRIBUTION OF HOURLY WAGE RATES,
COMMON LABOR, MALE, 1927**

(Source: National Industrial Conference Board)

Actual percentage

State	Hourly Rate			
	56-65 Cents	46-55 Cents	36-45 Cents	26-35 Cents
Average of 8 States.....	3	33	59	5
New York.....	4	43	52	1
Connecticut.....	..	27	73	..
Illinois.....	4	38	52	6
Massachusetts.....	5	26	66	3
Michigan.....	8	38	52	2
New Jersey.....	..	42	53	5
Ohio.....	..	18	74	8
Pennsylvania.....	..	34	56	10
New York City.....	12	63	25	..
Up State.....	2	40	57	1

Cumulative percentage distribution

State	Hourly Rate			
	56 Cents and Above	46 Cents and Above	36 Cents and Above	26 Cents and Above
Average of 8 States.....	3	36	95	100
New York.....	4	47	99	100
Connecticut.....	..	27	100	100
Illinois.....	4	42	94	100
Massachusetts.....	5	31	97	100
Michigan.....	8	46	98	100
New Jersey.....	..	42	95	100
Ohio.....	..	18	92	100
Pennsylvania.....	..	34	90	100
New York City.....	12	75	100	100
Up State.....	2	42	99	100

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TABLE 28: AVERAGE ACTUAL HOURLY EARNINGS IN SPECIFIED OCCUPATIONS IN THE BOOT AND SHOE INDUSTRY,¹ 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 450)

Occupation	New York	Illinois	Massachusetts	Michigan	New Jersey	Ohio	Pennsylvania
Cutters, vamp and whole shoe, hand, male.....	\$.948	\$.925	\$.857	\$.657	\$.763	\$.975	\$.651
Cutters, vamp and whole shoe, machine, male.....	.701	.587	.909	.607	..	.655	.639
Cutters, trimmings, hand (incl. dinkers and blockers), male.....	.638	.610	.570	..	.736	.524	.454
Skivers, upper, female.....	.563	.541	.598	.290	.452	.453	.407
Stampers, linings or uppers (incl. markers), female....	.424	.460	.414	.299	.448	.408	.282
Cementers and doublers, hand and machine (incl. reinforcers, pasters, and fitters), female.....	.365	.344	.386	.245	.472	.347	.265
Folders, hand and machine, female.....	.494	.490	.520	.270	.411	.422	.418
Lining makers (incl. lining closers and side and top facing stitchers), female.....	.445	.448	.504	.294	.430	.417	.332
Top stitchers (incl. under-trimmers and barber trimmers), female.....	.497	.452	.603	.357	.490	.596	.423
Vampers, female.....	.525	.556	.635	.348	.607	.489	.466
Fancy stitchers, female.....	.472	.392	.587	.352	.491	.449	.326
Table workers, female.....	.335	.312	.321	.261	.276	.343	.241
Assemblers, for pulling-over machine, male.....	.625	.687	.676	.420	.565	.672	.501
Pullers-over, machine, male....	.768	.858	.872	.556	.759	.868	.637
Side lasters, machine, male....	.680	.500	.774	.492	..	.805	.613
Bed-machine operators, male	.715	.730	.737	.584	.750	.837	.603
Turn lasters, hand (incl. first and second lasters), male....	.940	..	1.009	..	..	.696	.728
Goodyear welters (incl. inseamers), male.....	.919	1.353	1.061	.946	1.012	1.087	.726
Goodyear stitchers, male.....	.821	.954	.825	.636	.857	.910	.638
Heelers, wood, male.....	.863	..	.994	..	..	.826	.726
Edge trimmers, male.....	.831	.844	.877	.810	.886	.807	.689
Edge, setters, male.....	.806	.772	.848	.693	.812	.815	.658
Treers, hand and machine, male.....	.632	.565	.710	.533	.773	.517	.514
Repairers (not cobblers) (incl. tip fixers and scourers), female.....	.419	.350	.481	.268	..	.392	.337

¹ Number of employees covered—all occupations..... 52,697
 Average earnings per hour—all occupations..... .528
 Index number—earnings per hour—1913=100..... 219.1

TABLE 29: AVERAGE ACTUAL HOURLY EARNINGS IN SPECIFIED OCCUPATIONS IN COTTON GOODS MANUFACTURING,¹ 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 446)

Occupation	New York	Connecticut	Massachusetts	Pennsylvania
Pick tenders, male.....	\$.387	\$.363	\$.394	\$.421
Card tenders and strippers, male.....	.459	.362	.431	.420
Drawing frame tenders, female.....	.315	.323	.331	.377
Slubber tenders, male.....	.599	.463	.498	..
Speeder tenders, male.....	.495	.451	.460	..
Speeder tenders, female.....	.392	.381	.390	.365
Spinners, frame, female.....	.404	.356	.378	.401
Doffers, male.....	.426	.323	.414	.436
Spool tenders, female.....	.350	.282	.323	.353
Creelers or tiers-in, female.....	.341	.308	.286	..
Warp tenders, female.....	.465	.416	.396	.378
Slasher tenders, male.....	.513	.501	.549	.507
Drawers-in, female.....	.439	.427	.448	.320
Loom fixers, male.....	.657	.610	.620	.586
Trimmers or inspectors, female.....	.303	.271	.279	.333
Weavers, male.....	.523	.434	.459	.507
Weavers, female.....	.464	.382	.420	.441

¹Data for this industry cover 151 mills and 82,982 wage earners, or nearly 18% of the total number in the cotton industry in the United States in 1923.

TABLE 30: AVERAGE ACTUAL HOURLY EARNINGS IN SELECTED OCCUPATIONS IN FOUNDRIES AND MACHINE SHOPS,¹ 1925

(Source: U. S. Bureau of Labor Statistics, Bulletin 422)

Occupation	New York	Con- nec- ticut	Illinois	Massa- chusetts	Michi- gan	New Jersey	Ohio	Penn- sylvania
Chippers and rough grinders, male.....	\$.552	\$.497	\$.595	\$.555	\$.591	\$.559	\$.484	\$.543
Core makers, male.....	.753	.750	.796	.720	.747	.820	.744	.757
Laborers, male.....	.500	.482	.543	.502	.522	.464	.465	.476
Molders, hand, bench, male....	.713	.708	.791	.999	.804	.860	.754	.750
Molders, hand, floor, male....	.843	.770	.857	.975	.781	.860	.800	.808
Molders, machine, male.....	.785	.681	.669	.810	.773	.736	.709	.727
Molders' helpers, floor, male....	.582	.469	.503	.584	.484	.482	.461	.510
Pattern makers, male.....	.832	.767	.843	.726	.812	.853	.804	.832
Assemblers, male.....	.664	.637	.695	.631	.596	.748	.622	.626
Blacksmiths, male.....	.727	.743	.752	.693	.697	.727	.710	.718
Boring-mill hands and operators, male.....	.695	.682	.749	.678	.587	.752	.692	.685
Drill-press hands and operators, male.....	.626	.577	.651	.614	.578	.581	.558	.588
Fitters and bench hands, male	.710	.564	.686	.647	.610	.661	.589	.647
Grinding-machine hands and operators, male.....	.665	.585	.674	.611	.597	.660	.605	.693
Laborers, male.....	.449	.453	.505	.484	.467	.482	.448	.449
Lathe hands and operators, engine, male.....	.705	.644	.720	.607	.629	.716	.636	.677
Lathe hands and operators, turret, male.....	.648	.646	.743	.651	.588	.660	.623	.681
Machinists.....	.710	.671	.775	.654	.702	.720	.675	.711
Machinists' and toolmakers' helpers, male.....	.513	.461	.600	.479	.491	.562	.473	.473
Milling machine hands and operators, male.....	.715	.606	.725	.625	.605	.679	.617	.683
Packers and craters, male....	.554	.526	.536	.549	.525	.530	.508	.549
Planer hands and operators, male.....	.719	.681	.832	.663	.628	.780	.684	.758
Screw machine hands and operators, male.....	.666	.622	.726	.640	.671	.691	.637	.651
Other machine hands and operators, male.....	.633	.614	.668	.616	.697	.609	.626	.705
Toolmakers, male.....	.781	.702	.780	.705	.754	.794	.691	.729

¹ Average earnings for 1925 are presented in this report by occupations for a total of 40,393 wage earners in 413 foundries and 86,274 wage earners in 511 machine shops.

TABLE 31: AVERAGE ACTUAL HOURLY EARNINGS IN SELECTED OCCUPATIONS, HOSIERY INDUSTRY,¹ 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 452)

Occupation	New York	Illinois	Massachusetts	Michigan	New Jersey	Ohio	Pennsylvania
Folders, female.....	\$.514	\$.267	\$.440	..	\$.516	..	\$.432
Inspectors, female.....	.393	.272	.301	\$.276	.422	\$.309	.367
Knitters, footers, full-fashioned, male.....	1.549	..	..	..	1.656	..	1.541
Knitters, leggers, full-fashioned, male.....	1.413	..	..	..	1.427	..	1.313
Loopers, female.....	.537	.283	.352	.518	.521	.403	.478
Machine fixers, male.....	1.753	.551	.663	.653	1.296	.839	.872
Menders, female.....	.621	.302	.271	.411	.568	.275	.485
Pairers or maters, female.....	.363	.379	.329	.381	..	.431	.419
Seamers, full-fashioned, female	.548	..	..	..	.542	..	.524
Toppers, full-fashioned, female	.631	..	..	..	.553	..	.573
Winders, female.....	.490	.336	.361	.258	.466	..	.427

¹ The survey in the hosiery industry covered 30,546 wage earners.

TABLE 32: AVERAGE ACTUAL HOURLY EARNINGS IN SELECTED OCCUPATIONS IN THE UNDERWEAR INDUSTRY,¹ 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 452)

Occupation	New York	Connecticut	Illinois	Massachusetts	Michigan	Ohio	Pennsylvania
Buttonhole makers, female....	\$.374	\$.440	\$.483	\$.464	\$.347	\$.306	\$.303
Button sewers, female.....	.357	.432	.498	.405	.253	.407	.291
Cutters, hand: layers-up, and markers, male.....	.536	..	..	.685	..	.456	.421
Cutters, hand: layers-up, and markers, female.....	.352	.369	.379	.405	.313	.329	.355
Cutters, power, male.....	.525	.652	.606	.813	.582	.520	.569
Finishers, female.....	.374	.361	.471	.401	.293	.347	.324
Folders, female.....	.380	.344	.369	.458	..	.337	.335
Inspectors, female.....	.281	.331	.363	.391	.263	.304	.310
Knitters, web or tube, male.....	.597	.404	.542	.641	.431	.382	.461
Knitters, web or tube, female...	.414	.361	..	.451	.388	.291	.345
Machine fixers, male.....	.761	.702	.758	.730	.660	.654	.655
Menders, female.....	.301	.353	.415	.389	.244	.297	.345
Pressers, female.....	.398	.429	..	.366	.304	.401	.305
Sewers, female.....	.378	.393	.562	.420	.321	.375	.352
Hemmers, female.....	.339	..	..	.430	.307	.373	.328
Winders, female.....	.428	.336	.533	.408	.322	.424	.342

¹ The survey in the underwear industry covered 15,048 wage earners.

TABLE 33: AVERAGE ACTUAL HOURLY EARNINGS IN SPECIFIED OCCUPATIONS IN THE MOTOR VEHICLE INDUSTRY, 1925¹

(Source: U. S. Bureau of Labor Statistics, Bulletin 438)

Occupation	New York	Illinois	Michigan	New Jersey	Ohio	Pennsylvania
Assemblers, axle, male.	\$.634	\$.662	\$.755	²	²	\$.598
Assemblers, body-frame, male. . . . .	.771	.821	.746	\$.710	\$.750	.734
Assemblers, chassis, male. . . . .	.634	.661	.740	.718	.652	.600
Assemblers, final, male. . . . .	.688	.732	.755	.718	.716	.638
Assemblers, frame, male. . . . .	.675	.609	.807	.740	.765	.576
Assemblers, motor, male. . . . .	.711	.718	.770	.812	.693	.636
Automatic operators (lathe and screw-machine), male. . . . .	.699	.650	.813	.840	.802	.593
Bench hands, machine shop, male. . . . .	.663	.651	.754	.621	.749	.570
Blacksmiths, male. . . . .	.869	.731	1.023	.810	.986	.682
Drill-press operators, male. . . . .	.652	.621	.743	.735	.720	.555
Forge-shop helpers, male. . . . .	.551	.565	.770	.572	.826	.506
Gear-cutter operators, male. . . . .	.682	.657	.791	.754	.814	.609
Grinding-machine operators, male. . . . .	.712	.653	.793	.791	.806	.596
Helpers, male. . . . .	.516	.451	.648	.627	.635	.492
Inspectors, male. . . . .	.623	.656	.711	.697	.708	.576
Laborers, male. . . . .	.522	.487	.604	.553	.558	.450
Lathe operators, male. . . . .	.711	.644	.782	.762	.809	.620
Machinists, male. . . . .	.715	.638	.847	.764	.765	.678
Metal finishers, male.	³	1.008	.862	³	.770	.703
Metal panelers, male. . . . .	.872	.891	.755	.762	⁴	⁴
Milling machine operators, male. . . . .	.680	.645	.775	.748	.734	.570
Painters, general, male. . . . .	.690	.717	.795	.891	.783	.659
Polishers and buffers, male. . . . .	.860	..	.926	..	1.008	.696
Punch-press operators, male. . . . .	.683	.607	.732	.666	.706	.615
Sanders and rough-stuff rubbers, male. . . . .	.843	⁵	.792	.912	.918	⁵
Sewing machine operators, female. . . . .	.487	.400	.471	.445	.480	.461
Sheet-metal workers, male. . . . .	.767	.718	.816	.798	.763	.645
Testers, motor, male. . . . .	.644	.662	.738	.668	.664	.611
Tool and die makers, male. . . . .	.770	.754	.920	.788	.870	.678
Top builders, male. . . . .	.862	.733	.807	.773	.877	.645
Woodworking-machine operators, male. . . . .	.647	.659	.669	.588	.773	.725

¹ The data cover 144,362 wage earners, or 35.6% of the whole number employed in the industry.

² New Jersey and Ohio are grouped, denoting a combination of figures to avoid showing data for one establishment in any separate state, the figure being \$0.730.

³ New Jersey and New York are grouped, the figure being \$0.868.

⁴ Ohio and Pennsylvania are grouped, the figure being \$0.762.

⁵ Illinois and Pennsylvania are grouped, the figure being \$0.809.

TABLE 34: AVERAGE ACTUAL HOURLY EARNINGS IN SPECIFIED OCCUPATIONS IN THE PAPER BOX-BOARD INDUSTRY,¹ 1925

(Source: U. S. Bureau of Labor Statistics, Bulletin 407)

Occupation	New York	Connecticut	Illinois	Massachusetts	Michigan	New Jersey and Pennsylvania	Ohio
Head beater, men.....	\$.705	\$.733	\$.732	\$.806	\$.767	\$.690	\$.763
Assistant head beater, men...	.484	.600	.597	.690	.589	.700	.688
Plug pullers.....	.521	.544	.700	..	.559	..	.643
Jordan men.....	.545	.475	.673	..	.497	.583	.590
Beater helpers.....	.483	.439	.504	.545	.480	.517	.551
Machine tenders.....	.779	.805	.895	.925	.878	.857	.897
Back tenders.....	.620	.613	.637	.666	.625	.613	.645
Third hands.....	.604	.540	.688	.600	.534	.528	.571
Finishers.....	.509	.520	.505	.615	.550	.581	.566
Winder men.....	.489	..	.521	.531	.529	..	..
Finishers' helpers.....	.492	..	..	.551	.501	.554	..
Cutter boys.....	.502	.444	.508	.548	.472	.471	.499
Broke boys.....	.455	.419	.470	.524	.469	.491	.522
Screenmen.....	.483	.458	.507	.552	.500	.485	.550
Felt checkers.....	.465	..	..	.552	.500	.454	.520
Finishers, finishing room.....	.576	.530	.753	.633	.558	.454	.520
Cutters, finishing room.....	.519	.532	..	.702	.543	.600	.509
Rewinders, finishing room.....	.507	.500	.528	.742	.418	.600	.445
Laborers.....	.467	.463	.451	.505	.459	.493	.450

¹ This survey covered 70 representative establishments employing 9,985 wage workers. None of the employees of the box factories or sorting rooms were included.

TABLE 35: AVERAGE ACTUAL HOURLY EARNINGS IN SPECIFIED OCCUPATIONS IN WOOLEN AND WORSTED GOODS MANUFACTURING,¹ 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 443)

Occupation	New York	Connecticut	Massachusetts	Pennsylvania
Pick tenders, male.....	\$.438	\$.441	\$.427	\$.489
Card tenders, male.....	.414	.427	.410	.463
Card strippers, male.....	.487	.471	.448	.525
Card grinders, male.....	.551	.625	.516	.551
Gill-box tenders, female.....	.344	..	.326	.342
Comber tenders, female.....	.342	..	.377	.386
Drawing-frame tenders, female....	.353	..	.371	.334
Spinners, mule, male.....	.689	.641	.763	.592
Twister tenders, female.....	.428	.328	.351	.358
Spool tenders, female.....	.403	.349	.388	.367
Dresser tenders, male.....	.582	.641	.719	.821
Drawers-in, female.....	.447	.497	.507	.530
Loom fixers, male.....	.750	.762	.839	.866
Cloth inspectors, female.....	.396	..	.409	.433
Burlers, female.....	.531	.423	.376	.346
Menders, female.....	.633	.472	.514	.531
Perchers, male.....	.532	.575	.581	.605
Fullers, male.....	.461	.480	.487	.496
Washer tenders, cloth, male.....	.440	.455	.443	.487
Dryer tenders, cloth, male.....	.425	.434	.446	.479
Truckers, male.....	.414	.443	.413	.436
Laborers, dye house, male.....	.429	.443	.446	.535
Weavers, male.....	.665	.635	.678	.594
Weavers, female.....	.633	.607	.647	.509

¹ These data are based upon information covering 112 representative mills which at the time of the study employed 22,152 males and 17,818 females.

TABLE 36: AVERAGE ACTUAL HOURLY EARNINGS IN THE MEN'S CLOTHING INDUSTRY, 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 435)

Occupation	New York City	Buffalo	Rochester	Boston	Chicago	Cincinnati	Cleveland	Philadelphia
Basters, coat, male.....	\$.918	..	\$.962	\$.827	\$1.017	\$.745	..	\$.849
Basters, coat, female.....	.629	\$.539	.580	.475	.828	.536	\$.594	.520
Basters, pants, female....	.474	..	.526	.376	.735	.433	..	.556
Basters, vests, female....	.750	.352	.464	.590	.705	.339	.543	.454
Bushelers and tailors, male	.907	.838	.891	.806	.906	.782	.706	.665
Cutters, cloth, hand and machine, male.....	1.242	1.047	1.119	1.009	1.101	1.163	1.039	1.166
Examiners, shop and stock room, male.....	.910	.746	.938	.777	.952	.787	.861	.639
Examiners, shop and stock room, female.....	.613	..	.519	..	.608	.431	.502	.492
Fitters or trimmers, coat, male.....	1.135	..	.979	.965	1.327	.937	..	.986
Hand sewers, coat, male....	.873	..	..	1.011	.917	..	..	..
Hand sewers, coat, female..	.544	.496	.604	.495	.695	.500	.547	.443
Hand sewers, pants, female	.419	.382	.512	.392	.567	.419	..	.384
Hand sewers, vest, female..	.606	.426	.593	.550	.678	.513	.511	.485
Operators, coat, male.....	1.035	.957	1.102	1.037	1.181	.914	..	.952
Operators, coat, female....	.644	.665	.682	.570	.941	.632	.614	.588
Operators, pants, male....	.984	..	..	.872	1.047	.941	..	.854
Operators, pants, female..	.659	.479	.626	.518	.851	.558	.546	.519
Operators, vest, male.....	1.148	..	.804	.978	1.073	..	..	.821
Operators, vest, female....	.737	.527	.674	.605	.811	.558	.724	.517
Pressers, coat, male.....	.991	.776	.888	.888	1.013	.817	.955	.811
Pressers, pants, male.....	.951	.716	.946	.876	1.124	.760	.803	.856
Pressers, vest, male.....	1.095	.629	.889	.900	1.074	.704	1.037	.719
Shapers, coat, male.....	1.126	1.069	1.036	.993	1.101	.979	.811	1.082
All occupations								
Males.....	.995	.832	.934	.896	1.006	.873	.825	.821
Females.....	.541	.511	.591	.489	.745	.526	.566	.440
Males and females.....	.876	.619	.716	.719	.886	.656	.629	.660

TABLE 37: AVERAGE ACTUAL WEEKLY EARNINGS IN SPECIFIED OCCUPATIONS IN THE MEN'S CLOTHING INDUSTRY, 1926

(Source: U. S. Bureau of Labor Statistics, Bulletin 435)

Occupation	New York City	Buffalo	Rochester	Boston	Chicago	Cincinnati	Cleveland	Philadelphia
Basters, coat, male....	\$39.72	..	\$40.97	\$37.08	\$39.45	\$20.87	..	\$42.10
Basters, coat, female..	28.38	\$21.05	23.25	20.27	28.71	15.35	\$23.88	23.70
Basters, pants, female..	21.00	..	21.44	14.49	21.58	15.18	..	24.83
Basters, vests, female..	29.24	11.85	19.05	21.85	27.09	11.83	22.88	17.81
Busheleers and tailors, male.....	39.60	36.76	37.36	35.09	39.34	24.91	32.70	31.44
Cutters, cloth, hand and machine, male.....	53.36	43.75	49.62	42.15	43.89	42.43	47.52	56.71
Examiners, shop and stock room, male....	39.60	33.07	40.37	34.82	40.97	30.49	37.46	27.44
Examiners, shop and stock room, female..	28.42	..	19.90	..	24.95	16.58	24.16	23.56
Fitters or trimmers, coat, male.....	52.19	..	42.89	41.00	49.66	41.22	..	43.15
Hand sewers, coat, male.....	39.20	..	..	47.01	39.30	..	..	..
Hand sewers, coat, female.....	23.55	19.67	23.65	21.11	26.34	17.46	21.94	19.65
Hand sewers, pants, female.....	17.81	15.39	21.18	15.50	20.87	13.96	..	15.57
Hand sewers, vest, female.....	24.46	16.60	24.48	19.73	21.94	14.75	21.08	21.19
Operators, coat, male..	44.34	39.30	47.26	44.98	45.68	26.98	..	42.82
Operators, coat, female	28.06	26.24	27.00	24.63	34.33	20.21	24.88	25.14
Operators, pants, male.	41.57	..	..	32.54	34.36	28.27	..	33.49
Operators, pants, female.....	26.60	18.62	24.27	20.08	27.53	17.97	24.30	19.48
Operators, vest, male.	46.77	..	33.11	36.59	40.14	..	..	33.14
Operators, vest, female	29.31	19.09	25.95	22.14	28.24	15.60	31.48	21.19
Pressers, coat, male....	43.05	31.86	36.28	39.16	39.74	25.95	38.92	36.36
Pressers, pants, male..	39.79	30.11	38.82	35.01	37.58	24.21	33.74	34.30
Pressers, vest, male....	42.28	25.84	36.93	33.01	38.12	21.57	45.44	32.49
Shapers, coat, male....	48.65	41.38	41.81	42.86	41.31	33.65	39.35	49.77