

Monthly Labor Review



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12

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A Special Issue on Labor in—

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor*

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Labor in Puerto Rico, Alaska, and Hawaii . . .

OF THE MANY REASONS for producing this special issue of the Monthly Labor Review on the status of labor in Puerto Rico, Alaska, and Hawaii, the most compelling is that no other compilation of this type exists. Indeed, as the bibliography of related material so painstakingly unearthed by the Department of the Interior Library reveals, very little has been published in the way of comprehensive studies of labor in any one of the three areas embraced by the present inquiry.

But beyond this obvious justification is the interesting and challenging example, to a world beset with colonial problems, of the manner in which the United States has handled (not always without error) the progressive growth toward self-government of these three. That the United States has avoided colonialism is due, perhaps in some small measure, to our national origin in revolt against colonial status. One stern test of this national policy is the well-being of workers in the Territories and the chances for improving their lot. The 15 articles are designed to present facts from which the reader can judge the present situation as well as the prospects for working people.

The general pattern followed for each (one is pressed for a single expressive term applicable to all three, bearing in mind that Puerto Rico has Commonwealth status) is a discussion of the economy, labor force, and level of living; the existence and enforcement of labor law; the wage structure and working conditions; and the manner in which industrial relations are practiced.

While each of the three has its distinguishing characteristics (after all, their geographic relationship is a triangle with legs upwards of 6,000 miles long), there are some which they hold in common. All were acquired by the United States late in the 19th century. All enjoy a large degree of self-government and share common United States citizenship. Each was economically primitive at the time of acquisition, with a native population and a very sizable percentage of nonarable land. Lacking basic raw materials, none is self-sustaining. The policies and expenditures of the United

A Prefatory Note

States Government have had decisive effects on their economies. With an impartiality fine enough to satisfy their most enthusiastic advocates, we can proclaim them all to be vacation delights. Despite fast air travel, they remain remote and isolated from the States. Puerto Rico and Hawaii are islands. Alaska and Hawaii are sparsely populated. Since independence was granted the Philippines, they are our largest territories.

Similarity in terms of labor, however, does not extend beyond the practice of free trade unionism and collective bargaining. The island Commonwealth of Puerto Rico is an overpopulated nation striving to create an industrial expansion, to raise living standards, to improve its work-force skills, and at the same time to protect its workers from exploitation. The Territory of Alaska is an Arctic and sub-Arctic region, underpopulated and underdeveloped. Much of its industrial enterprise is absentee owned and its stable unionism operated from the States. Government workers constitute a large fraction of the work force. Wages and prices are high, and there is considerable seasonal importation of workers, especially in the construction field. The tropical Hawaiian Islands have moved rapidly from the primitive to the modern. Their cosmopolitan work force is concentrated in a highly specialized agriculture. National defense expenditures, tourist trade, and transportation activity are a boon to Territorial income. Unemployment, in fact, tends to vary with fluctuations in local Federal expenditures. Industrial relations have not matured and considerable strife has accompanied collective bargaining.

Our aims and our means, however, preclude our being encyclopedic, even within the confines of the labor field. And one of the revealing facts of this compedium is the paucity of facts concerning many items relating to the economics of labor. Some data, as routine and familiar in the States as the daily mail delivery, simply do not exist in Alaska, Hawaii, or Puerto Rico. The authors, chosen for their knowledge and integrity, have drawn on what is available, but at times they have had to improvise or to do without.—L. R. K.

Contributors to the Special Section

All the authors of the articles in the special section of the Monthly Labor Review on Labor in Puerto Rico, Alaska, and Hawaii are either working on the scene as experts or have been closely associated with one of the areas in a professional capacity. Our sincere thanks go to them for their faithful and fruitful efforts. What they have written represents their own views on the many problems discussed, and not necessarily those of the Bureau or the Department of Labor.

Special acknowledgment is due the Office of Territories of the Department of the Interior, and especially to Edwin M. Fitch of that Office, for cooperation and good counsel in planning and reviewing much of the material.

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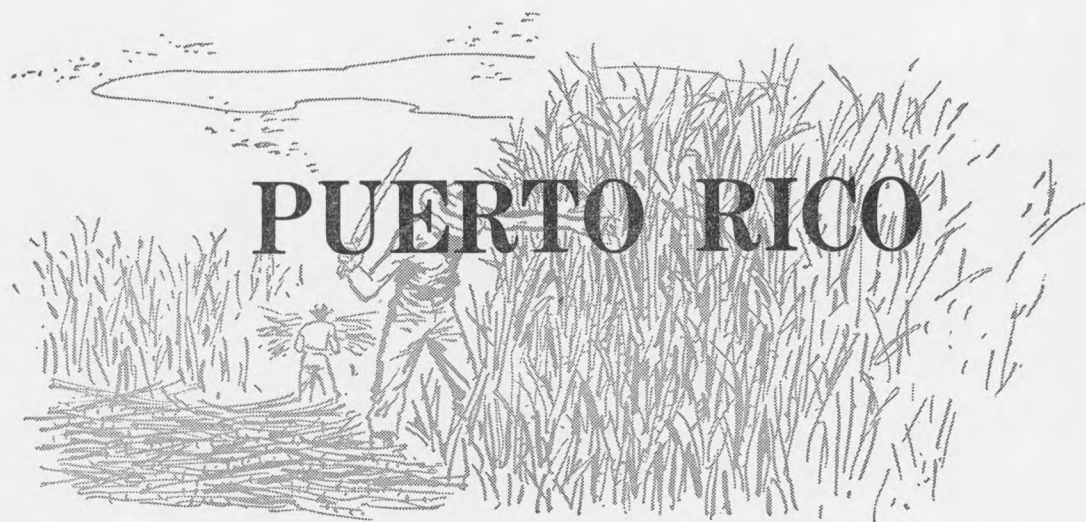
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PUERTO RICO

The Labor Force and Level of Living

SAMUEL WEISS AND A. J. JAFFE

UNTIL RECENT YEARS, Puerto Rico was a typically underdeveloped area, not too different from many of the present-day, underdeveloped areas in need of assistance. The economy of the island was largely dependent upon sugarcane, which was raised for export. Only small amounts of additional crops, such as coffee and tobacco, were raised. What little manufacturing there was consisted primarily of handwork, of which only needlework products were of any real significance. Since most of the good agricultural land was used to grow sugarcane, a large proportion of the food consumed by the population had to be imported.

The lack of fertile soil (only about half of the land is arable) and the very high population density (over 630 persons per square mile) made agriculture an extremely unsatisfactory base for the Puerto Rican economy. Under these conditions, the people were quite poor, with all of the accompanying characteristics of poverty including unemployment, illiteracy, high death rate, poor housing, and so on.

In the mid-1930's, the Puerto Rican Government gave serious consideration to the question of how to advance the island's economic well-being. Certain important steps were taken at that time, including a great expansion of the hydroelectric system, the establishment of a cement factory, expansion of the road system, and the adoption of various financial measures designed to aid economic development.

It was not until 1940, however, when the Popular Democratic Party came into office (under the leadership of Luis Muñoz Marín, the present Governor), that a real program of economic development got under way. World War II both aided and hindered the program. Projects of direct concern to the United States war effort were

fostered; others were neglected. After the war, the Government renewed its broader efforts to advance the island's economy.

Since 1940, great improvements have been made in practically every socioeconomic field. The Government's programs of health education and application of modern public health methods, together with general economic improvement, resulted in a decline in the death rate from 18.4 per thousand in 1940 to 7.7 per thousand in 1954. At the same time, life expectancy rose from 46 years in 1940 to 61 years in 1954—an increase of 1 year annually during those 15 years.

Enrollment in educational institutions in Puerto Rico increased from less than 300,000 in 1940 to almost 600,000 in 1954. During this same period, Government expenditures for education increased from \$7 million to \$38 million annually.

Much improvement has been made in housing through large-scale slum clearance and public housing programs. Electric power facilities have been greatly expanded: Between 1940 and 1952, electric power production rose from 174 million to 735 million kilowatt-hours. Transportation, communications, water supply, and sewerage have also been continually improved and expanded.

Population and Labor Force

Effect of Population Changes. Between 1940 and 1954, changes in the size of the labor force generally tended to parallel the changes in the size of the population of labor-force age, that is, the civilian population 14 years of age and over, excluding inmates of institutions. As the following figures show, in April 1940, the labor force constituted 52.0 percent of the population of labor-force age; in April 1950, 55.6 percent; and in April 1955, 48.6 percent.

	<i>Population of labor-force age</i>	<i>Labor force</i>
April 1940.....	1,150,000	598,000
April 1950.....	1,293,000	719,000
April 1954.....	1,275,000	631,000
April 1955.....	1,327,000	644,000

The labor-force and population changes were not exactly parallel because of outmigration and withdrawals to the military.¹ All of the persons who entered the military and the majority of the outmigrants were men. Since normally many more men than women are in the labor force, these withdrawals during the 1950's resulted in a

¹ See article on p. 1354 of this issue.

reduction in the size of the labor force simultaneously with a slight increase in the adult population.

The number of civilians 14 years of age and over in Puerto Rico increased by 143,000 persons between April 1940 and April 1950. During this decade, there was a net migration to the mainland of about 154,000 persons, most of whom were of labor-force age; this is about 13 percent of the population of labor-force age in 1940. Hence, the total natural growth of the adult population was almost 300,000 for the decade, or about 2½ percent per year.

Between April 1950 and April 1954, the population of labor-force age decreased from 1,293,000 to an estimated 1,275,000. The net migration to the mainland of persons 14 years of age and older numbered about 160,000, or about 12 percent of the number living in Puerto Rico in 1950; this is an unusually large loss.² Also, about 36,000 men withdrew from the civilian population to enter the military service. Hence, during these 4 years the natural growth of the adult population amounted to 178,000 or over 3 percent per year.

The Birthrate. Compared to the continental United States, Puerto Rico has a high rate of growth in its population of labor-force age, resulting from the high birthrate of past decades. Prior to 1940, the death rate was also very high by modern standards (18.4 per thousand in 1940), but during the 1940's it fell rapidly. In 1950, it was still fairly high, about 15 per thousand; but by 1954, it had dropped to 7.7 per thousand, which is not very different from the death rate on the mainland. The accelerated reduction in the death rate during the 1950's, compared with the preceding decade, contributed to the increased rate of natural growth of population of labor-force age since 1950.

During the last decade, the birthrate has not decreased enough to alter materially the future natural increase in the civilian population of labor-force age. In the period 1939-41, the net reproduction rate is estimated to have been about 184; 10 years later, in 1949-51, about 224.³ In 1953 and 1954, the net reproduction rate may have

been about 220. The rate of 220 indicates that the population in Puerto Rico could more than double during the next 25 to 30 years. Whether it will cannot be predicted, since future changes in birth and death rates are certain to occur.

Nevertheless, even if the birthrate should decrease greatly in the future and reach the level of that in the continental United States (net reproduction rate of 156 in 1952), it will be many years before such decreases affect the amount of natural growth in the population of labor-force age. This is so because 14 years must elapse between the time of birth and the time that a person becomes of working-force age. Currently, births exceed deaths by about 65,000 per year. Fourteen years from now, the survivors will still number close to 60,000 per year, in the absence of outmigration.

Economic Need for Migration. The combined effects of previous high fertility rates and a smaller number of outmigrants became apparent in the year April 1954 through March 1955. The natural growth of the civilian population of labor-force age amounted to about 52,000 in this year (that is, the number of persons becoming 14 years of age minus deaths among all civilians over 14). Simultaneously, the recession in the continental United States greatly curtailed the net outmigration to an estimated 16,000 civilians 14 years of age and over as compared with 36,000 in the year ending March 1954. Also, curtailment in the size of the Armed Forces resulted in a return of about 16,000 more men to civilian life than were inducted. The net outmigration was canceled by the excess of discharges from the Armed Forces. The civilian population of labor-force age grew by the amount of natural increase, about 52,000, to an estimated 1,327,000 as of April 1, 1955. This is a growth of about 4 percent in 1 year. By comparison, the population of labor-force age in the continental United States grew by about 1 percent during this same year.

In 1 year then, as a result of the curtailment of migration, population growth in Puerto Rico more than made up for the loss between 1950 and 1954. On April 1, 1955, the population of labor-force age was about 34,000 greater than on April 1, 1950. Clearly, if outmigration should continue to be curtailed, the potential growth of the labor force would be of such magnitude as to increase greatly the difficulties of providing enough additional

² See also Demographic and Labor Force Characteristics in Puerto Rican Population of New York City, New York, Bureau of Applied Social Research, Columbia University, 1954 (pp. 3-29).

³ Generally speaking, a rate of 100 implies that birth and death rates are about equal, that is, during a generation there would be no increase in the size of the population. A rate of 220 means that a stable population would increase by about 120 percent during one generation, providing birth and death rates at all ages remain unchanged.

jobs; indeed, continued large-scale outmigration is a necessary condition for further economic development.

Industrial Development

Government Encouragement. The core of the Commonwealth's efforts to improve the economic condition of the island has been the program "Operation Bootstrap" designed to increase industrialization. The Puerto Rican Government has recognized that increasing productivity through industrial expansion is an important factor in advancing the Puerto Rican economy—with its high population density, lack of natural resources, chronic unemployment, and relatively low standard of living.

To aid such industrialization, the Commonwealth has offered various inducements to encourage new industries to locate on the island. These incentives include tax exemption, industrial services, provision of factory buildings, and other forms of assistance. Between the end of World War II and April 1954, as a result, 287 new manufacturing plants commenced operation. In April 1954, they employed about 23,000 persons, or one-third of all employees in manufacturing.

In general, these Government-sponsored plants are much larger than other Puerto Rican factories; they average 80 employees per plant, almost 3 times the average work force of other factories. For the most part, they use modern machinery and produce goods identical with those manufactured on the mainland. These include apparel, electronics products, electric razors, radio parts, and pharmaceuticals. Since Puerto Rico is part of the United States, there is of course no tariff on Puerto Rican manufactured goods shipped to the mainland.

Puerto Rico's industrial development program has brought about a diversification of the manufacturing structure in a relatively brief period. For example, in April 1946, 6 out of every 10 employees in manufacturing were in the food and tobacco industries, but in April 1954, only 4 out of 10 were so employed.⁴ The Government's efforts to diversify industry is also evident in the fact that in April 1954 only 7 percent of the em-

ployees in Government-sponsored plants were engaged in food and tobacco manufactures.

In the long run, the most important aspect of the Commonwealth's efforts to speed economic development may be triggering the action of the industrialization program. As new and relatively good jobs are created through Government sponsorship of new plants, they tend to have a multiplier effect. Demand increases for consumer goods, housing, and so on. If this process continues for some time, large-scale economic development will take place.

The Changing Employment Distribution. In April 1954, 36 percent of all employed persons in Puerto Rico were engaged in agriculture, compared with 37 percent in April 1950 and 45 percent in April 1940 (table 1). The great majority of these workers were in the sugarcane fields. During the off-season, a larger proportion of agricultural workers were engaged in other crops, such as coffee and tobacco.

Among nonagricultural industries in April 1954, commerce (wholesale and retail trade) employed the greatest number of workers, with about 85,000, or 15 percent of the employed. Manufacturing, excluding home needlework, followed closely, with about 72,000 employees. The third largest group consisted of the various service industries, which employed 63,000 persons.

The most outstanding change from earlier periods is the increased employment in the better paying and more productive industries and, con-

TABLE 1.—Industrial distribution of employed persons in Puerto Rico, April 1940, 1950, and 1954

Industry division	Number (in thousands)			Percentage distribution		
	April 1954	April 1950	April 1940	April 1954	April 1950	April 1940
Total employed.....	559	638	508	100	100	100
Agriculture.....	200	235	230	36	37	45
Nonagriculture.....	359	403	278	64	63	55
Construction.....	27	24	16	5	4	3
Manufacturing.....	97	125	101	17	20	20
Home needlework.....	25	61	45	4	10	9
All other.....	72	64	56	13	10	11
Trade, wholesale and retail.....	85	92	54	15	14	11
Transportation, communication, public utilities.....	33	32	20	6	5	3
Services.....	63	78	164	11	12	13
Government ²	48	47	118	9	7	4
All other.....	6	5	4	1	1	1

¹ Partially estimated.

² Includes public school and college teachers.

Source: 1940 data from Puerto Rico Population, U. S. Census of Population, Bull. No. 2, table 14; 1950 and 1954 data from reports of the Puerto Rico Department of Labor, Bureau of Labor Statistics.

⁴ Data obtained from publications of the Puerto Rico Department of Labor, Bureau of Labor Statistics.

versely, the decreased employment in the relatively poorer paying industries. The better paying jobs are found in construction, manufacturing (excluding home needlework), and transportation, communication, and public utilities. Government employment—which includes schoolteachers, firemen, policemen, doctors, nurses, and other public health workers, as well as administrators—also belongs to the group of better paying pursuits. Altogether, such employment increased by an estimated 13,000 between 1950 and 1954.

The poorer paying and less productive jobs are found in agriculture, home needlework, commerce (especially retail trade, which includes pushcart and other peddlers), and the service occupations (especially domestic service). Employment, including unpaid family workers, in these industries decreased 93,000 between 1950 and 1954. The most significant decrease was in the home-needlework industry, in which employment declined from 61,000 to 25,000, or from 10 percent of all employed persons to 4 percent.

Since the number of unemployed decreased during this period, although the proportion of the unemployed to total labor force remained the same, it appears that these individuals were not deprived of jobs which they wanted. More probably, they took jobs in the better paying industries, or migrated to the continental United States, or entered the Armed Forces. In addition, a few women and older men may have withdrawn from the labor force.

Changes in Unemployment. In April 1940, the unemployment rate for men was about 16.2 percent. By April 1950, it had fallen to 10.4 percent, and by April 1954, to 9.0 percent. Several factors—including the Commonwealth's fostering of economic development, full or reasonably full employment on the mainland since the end of World War II, and extensive outmigration—combined to reduce the unemployment rate among men in Puerto Rico.

Among women, the unemployment rate seems to have remained about the same during the 1950's, fluctuating between about 10 and 14 percent, with no discernible trend.⁵ Almost all workingwomen are engaged in nonagricultural employment.

⁵ These figures exclude women engaged in home needlework, for whom it is difficult to measure unemployment. Comparable data for 1940 are not available.

Large seasonal fluctuations in unemployment are still occasioned by the growing of sugarcane. Between February and May or June, the cane is cut and employment is at its highest levels. During these months, the unemployment rate in agriculture may fall to 5 percent or so. In the off season for sugarcane, unemployment in agriculture may rise to as high as 20 percent. In nonagricultural employment, on the other hand, there is comparatively little seasonal change, and the unemployment rate varies only from about 10 to 14 percent.

Despite the decreases in unemployment which have occurred, Puerto Rico still suffers from chronic unemployment averaging about 15 percent of the labor force (table 2). This is one of the most important problems in the Commonwealth. During recent years, the pressure of population has been lessened by large-scale migration to the mainland, which reached a high of 69,000 in 1953, and dropped to an estimated 22,000 in 1954. As chart 1 shows, net outmigration has fluctuated inversely with levels of unemployment on the mainland.

If large-scale outmigration as experienced during 1953, for example, should not occur again in the future, unemployment will probably reach even higher levels than at present because of the potentially large growth in the population of labor-force age, and consequently, in the labor force. The economy at present has difficulty in providing

TABLE 2.—*Employment and unemployment in Puerto Rico, April 1950 to October 1954*
[In thousands]

Date	Labor force	Employment	Unemployment	Employment in manufacturing (excluding home needlework)
1950: April.....	719	638	82	64
July.....	710	615	96	52
October.....	710	594	116	56
1951: January.....	717	574	142	53
April.....	716	631	84	62
July.....	705	594	111	54
October.....	681	563	117	56
1952: January.....	669	541	129	56
April.....	662	586	76	59
July.....	662	572	90	65
October.....	641	535	106	63
1953: January.....	643	520	123	59
April.....	637	573	64	64
July.....	624	547	77	63
October.....	630	531	100	67
1954: January.....	639	522	117	65
April.....	631	559	72	72
July.....	626	536	90	66
October.....	628	519	109	67
1955: January.....	648	525	124	60
April.....	644	578	67	71

NOTE.—Because of rounding, employment and unemployment figures do not necessarily equal the labor force.

Source: Reports of the Puerto Rico Department of Labor, Bureau of Labor Statistics.

enough additional relatively well-paying jobs for those now underemployed⁶ or unemployed. Natural growth, unless offset by outmigration, will require providing between 2 and 4 percent additional new jobs each year for the growing labor force.

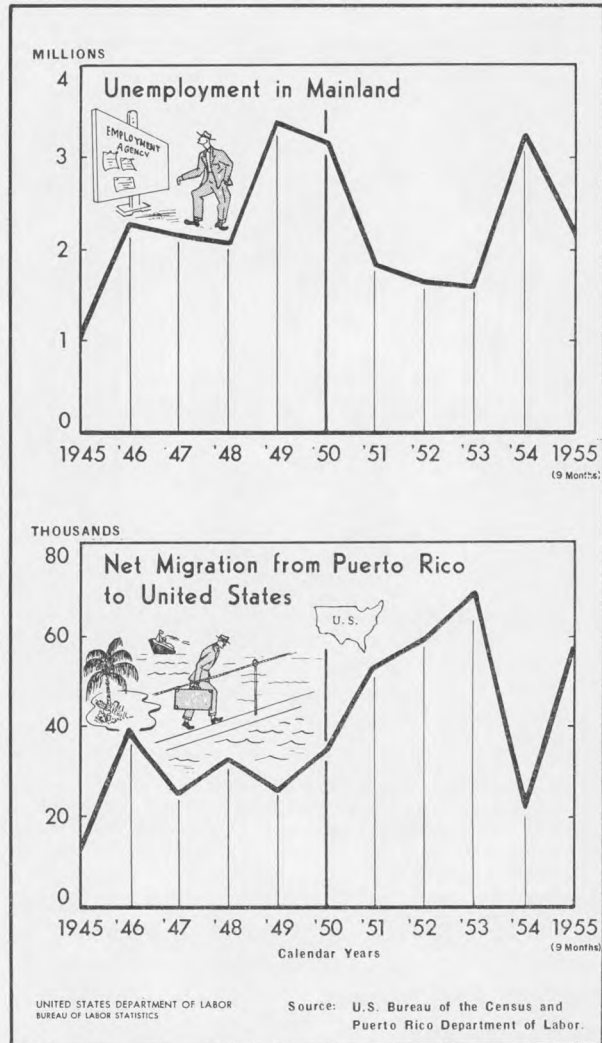
Improvement in Economic Well-Being

Operation Bootstrap, aided by the large-scale outmigration since World War II, has resulted in remarkable economic gains for the residents of Puerto Rico. The outmigration offset the natural population growth; therefore, the economic gains during these years were not dissipated among an ever-growing population. Instead, they were divided among about the same number of people each year, so that, on the average, each person improved his level of living.

As a result, the incomes of both individuals and families increased over the last decade and a half at a far more rapid rate than prices, enabling them to buy more goods and services and to satisfy a greater variety of material wants. All major sectors of the economy—wage earners, farmers, and businessmen—shared in these economic advances. Puerto Rico's average per capita income is now greater than the average in most Latin American countries, although it still falls far short of per capita income in even the low-income States on the mainland.

Increased Family Income. The average income of wage earners' families in Puerto Rico rose from \$360 in 1941, to \$1,081 in 1952, and to \$1,180 in 1953.⁷ Not all of the increased income, of course, could be translated into increased purchasing power in the market place. Because of an 80.3-percent rise in the cost of living between 1941 and 1953, the average wage earner's family would have had to increase its money income from \$360 to \$649 merely to break even in terms of purchasing power. The difference between this break-even point and the actual 1953 average of \$1,180 repre-

Chart 1. Relationship Between Net Migration from Puerto Rico to United States, and Mainland Unemployment, 1945-55



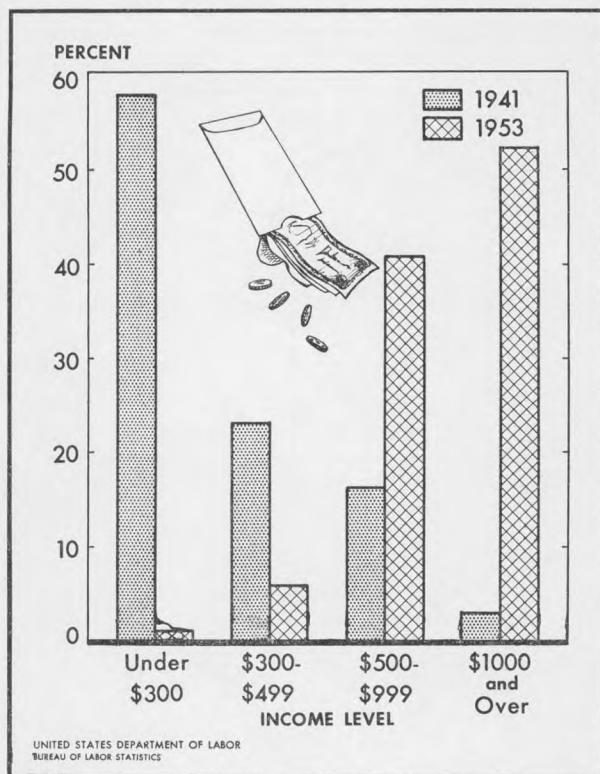
sents the improvements in real income. This increase amounted to 82 percent over the 12-year period. On an annual basis, the increase in real income amounted to slightly over 5 percent per year. Starting with any given year, this rate of increase would raise income by 50 percent in 8 years and would double it in approximately 14 years—a remarkably rapid rate of progress.

Over the 12 years from 1941 to 1953, the proportion of wage earners' families receiving an annual income of \$1,000 or more rose from 2.9 to 52.2 percent and those having an income below \$500 declined from 80.9 to 6.9 percent (chart 2).

⁶ See Concept and Measurement of Underemployment, Monthly Labor Review, March 1955 (p. 283).

⁷ Includes money income and other money receipts which are not considered regular income, such as inheritances, as well as the value of food produced for family use. 1941 data are from Incomes and Expenditures of Wage Earners in Puerto Rico, Puerto Rico Department of Labor with cooperation of U. S. Department of Labor, Bull. 1, May 1, 1947; data for 1952 and 1953 are from income and expenditure surveys by the Puerto Rico Department of Labor, Bureau of Labor Statistics.

Chart 2. Distribution of Wage Earner's Family Income, Puerto Rico, 1941 and 1953¹



¹ Data include money income plus the value of food produced for family use. In addition, data for 1941 include, but those for 1953 exclude, money receipts not considered regular income, such as inheritances. See text footnote 7 for source of data

Family Expenditure Patterns. The increased income of wage earners' families in Puerto Rico resulted in a shift in their expenditure patterns. In 1952,⁸ wage earners' families spent relatively less of their income for food and relatively more for clothing and household furnishings than in 1941, as shown below:

	Percentage distribution of expenditures in—	
	1952	1941
All expenditures.....	100.0	100.0
Food ¹	51.5	58.0
Housing.....	9.3	10.2
Housefurnishings.....	5.9	2.4
Clothing.....	13.0	8.3
Medical care.....	2.2	5.1
Other.....	18.1	16.0

¹ Includes alcoholic beverages.

Source: See footnote 7.

Although the proportion of income spent for food declined, the increase in income was sufficient to enable wage earners' families to buy more and better food and still have enough money left over to buy more of other goods. Expenditures for medical care decreased from 5.1 to 2.2 percent, a result of the Commonwealth's increasing medical and health facilities in the years since World War II ended. Also, the average wage earner's family in 1952 brought 2.7 times the amount of clothing and 4.2 times as much furniture as it did in 1941. These kinds of changes in expenditure patterns clearly reflect an improved standard of living.

Increased Per Capita Income. All major elements of the Puerto Rican community have made substantial gains in recent years. According to data compiled by the Puerto Rico Planning Board, per capita income increased from \$233 in 1943-44 to \$431 in 1953-54. During this 10-year period, the cost of living rose by 37.7 percent, resulting in an increase of about 34 percent in real income, or 3.1 percent annually, compared with an increase of 85 percent in money income.

These figures suggest that the income of wage earners' families (with an increase of slightly over 5 percent per year in real income between 1941 and 1953) has been increasing at a slightly more rapid rate than per capita income for the island as a whole. However, between 1943-44 and 1953-54, there was no significant change in the distributive shares of total income payments. Neither wages nor profits rose at the expense of the other. Compensation to employees changed from 61.6 to 62.6 percent of total income; the share represented by net profits of business rose from 30.9 to 32.6 percent; net interest decreased from 1.9 to 0.8 percent; and rental income decreased from 5.6 to 4.0 percent.⁹

From 1939 to 1949, Puerto Rico's rate of growth in per capita income was greater than any other Western Hemisphere country for which comparable data are available. As measured in constant prices, the per capita income of Puerto Rico rose

⁸ 1953 expenditure data are not yet available.

⁹ 1943-44 figures are from the 1951-52 Statistical Yearbook of Puerto Rico, Puerto Rico Planning Board, Bureau of Economic Statistics; 1953-54 from Net Income and Gross Product, 1950-54 (also published by the Planning Board) and unpublished Planning Board data.

by 67 percent during this 10-year period, as compared with 23 percent in Cuba, 37 percent in the continental United States, 48 percent in Canada, and 52 percent in Mexico.¹⁰

Comparison With Latin American Countries. Great as Puerto Rico's recent economic improvements have been, the average income and standard of living on the island are still considerably lower than those on the mainland. In 1952, Mississippi's per capita income of \$826—lower than that of any other State—was still about twice as large as Puerto Rico's per capita income.

However, in comparison with Latin American countries, Puerto Rico fares quite well. In 1952, Puerto Rico's per capita gross national product (which is always greater than the average of income payments to individuals) amounted to \$469. This was greater than in any Latin American country except Argentina. (See accompanying tabulation.)

	<i>Per capita gross national product (in 1952 prices)</i>		<i>Per capita gross national product (in 1952 prices)</i>
Argentina	\$688	Dominican Republic	\$189
Puerto Rico	469	Guatemala	182
Venezuela	457	Nicaragua	168
Cuba	454	El Salvador	167
Panama	382	Paraguay	166
Uruguay	382	Honduras	134
Chile	335	Peru	118
Brazil	278	Bolivia	109
Colombia	231	Ecuador	93
Costa Rica	203	Haiti	62
Mexico	199		

Source: Report on Economic Situation in Latin America, Foreign Operations Administration, Office of Research, Statistics and Reports, August 1954, table 1 (p. 89).

* * * * *

Puerto Rico has come a long way in ameliorating the poverty found among its people in earlier years. It still has a long way to go before its standard of living can compare with that on the mainland. But the direction and the magnitude of its rate of economic growth are encouraging. Continued advance at its recent rapid rate, if it can be sustained, points toward a dynamic, fruitful, and prosperous future.

¹⁰ Statistics of National Income and Expenditure, United Nations, New York City, Statistical Papers, Series H, No. 7, March 1955, table 2.

“The Commonwealth of Puerto Rico is unique in American political history. It has been called ‘a new kind of state.’ The Commonwealth is not a colony, nor a dominion as that term is understood in the British Commonwealth, nor a separate, independent nation. Nor is it a ‘commonwealth’ in the sense that the Philippines once was, nor a member state of the Union, nor an ‘incorporated territory’ as most of the States of the Union once were. It has practically the same autonomy in local affairs as a State of the Union; the Federal Government has in Puerto Rico the same authority as in a State of the Union, but Puerto Rico does not contribute except very limitedly to the U. S. Treasury and it does not have voting representation in Congress. The overwhelming majority of Puerto Ricans feels that the Commonwealth is admirably suited to their needs at the present time, but they are wont to rest assured also that, having been established under an agreement with Congress, its federal relations may also be altered by agreement with Congress.”

Puerto Rico, a handbook published by the Office of the Commonwealth of Puerto Rico, Washington (p. 21).

Migration to the Mainland

CLARENCE SENIOR

THE AIRPLANE has, in effect, drawn the island occupied by the Commonwealth of Puerto Rico close to the continental United States. The Commonwealth's labor force has now become part of the labor force of the mainland. Puerto Ricans continue to move to and from their homeland as job opportunities expand and contract, just as do millions of their fellow American citizens.

High employment encouraged almost 16 million persons to move their homes across State boundaries in the period between April 1950 and April 1953, including 148,000 Puerto Ricans who moved from the island to the continent in this period.

The Puerto Rican migratory flow is extremely sensitive to business conditions. In the major depression years of 1907-08, 1920-21, and in the decade of the 1930's, more Puerto Ricans returned to the island than moved away. The 1948-49 reduction in jobs resulted in a 22-percent drop in migration from the island; economic conditions in late 1953 and 1954 caused an over-the-year drop in migration to the continent of 68.8 percent. Increased demand for labor began to reflect itself in an upturn in Puerto Rican migration during the third quarter of 1955; present indications are that the migration flow for the entire year will probably be 30 percent more than for 1954.

The Puerto Rican migration is small compared either with the immigration waves of the past from other countries to the United States, or with the migration from one labor market to another within the United States in recent years. The migratory flow to the continent from Puerto Rico averaged about 4,000 a year from 1908 to 1945. "Full employment" following World War II, plus a dra-

matic increase in the use of airplanes, helped increase the migratory flow sharply. The net movement in the postwar years has been as follows:

	<i>Number of migrants</i>		<i>Number of migrants</i>
1946.....	39,900	1951.....	52,900
1947.....	24,600	1952.....	59,100
1948.....	32,800	1953.....	69,100
1949.....	25,700	1954.....	21,500
1950.....	34,700		

Two streams of migration flow from the island; they differ significantly in origin, destination, and length of stay. One flows out in the spring and back in the fall; the other flows out and remains permanently. One is fairly highly organized; the other, spontaneous. The first consists of farm-workers; the second of city people.

Farm Labor Migration

The Puerto Rican sugarcane season lasts from late fall to late spring; thus workers are available when needed on the farms of the continent. Most of them go to the United States under a work agreement formulated and enforced by Puerto Rico's labor authorities and return at the end of the continental farm season. They are placed in areas of agricultural labor shortages in cooperation with the Federal-State Farm Placement Service. The Puerto Rican Department of Labor, through the work agreement which must be signed by farm operators, strives to protect the workers from abuses which have sometimes characterized labor relations in agriculture.¹

The work agreement provides that the local prevailing rate of wages shall be paid, and that the worker shall be guaranteed 160 hours of work or wages per month and acceptable housing, rent free. It requires the employer to provide workmen's compensation for the migrant, despite the omission of farm labor from most State compensation laws. It also requires the employer to post a performance bond and to open his books to the agents of the Commonwealth's Department of Labor. The Department's Migration Division, with offices in New York and Chicago, investigates complaints, secures enforcement, and helps both

¹ See *Migratory Labor in American Agriculture*, Report of the President's Commission on Migratory Labor (Superintendent of Documents, Washington, 1951), a summary of which appeared in the *Monthly Labor Review*, June 1951 (p. 691).

employers and workers to solve their problems.² A former chairman of the United States Senate Subcommittee on Agricultural Labor has praised the program³ as unique in the field and tending to improve labor standards.

The farm-labor stream increased each year from the start of the program in 1947, until some 15,000 were covered by the work agreement in 1953. During the 1954 crop season, the number fell by about one-third. In 1955, there was a slight rise. Several thousand other workers, during their first season or two, established their own work relations with employers and now return each summer under their own arrangements.

One obstacle to the program is the private labor contractor who tries to recruit Puerto Rican workers for mainland employers who will not pay prevailing wages or assume the responsibilities required by the work agreement. Eight such agents were jailed in 1954 for illegal recruiting of workers for transportation to the continental United States without having obtained United States Employment Service clearance and having established this to the satisfaction of the Puerto Rico Employment Service.

² Usually, any sizable group of Puerto Rican farmworkers contains a sprinkling of bilingual persons who help introduce the others to new work methods, etc. Their efforts are supplemented by the Migration Division staff, which also furnishes sample menus so that Puerto Rican style food may occasionally be served if the employer furnishes meals.

³ For description of the program, see *Migratory Labor*, Hearings before the Subcommittee on Labor and Labor-Management Relations (82d Cong., 2d sess.), Part I, 1952 (pp. 793-811); see also, P. A. Pagan de Colón, *Farm Labor Program in Puerto Rico* (*in* Employment Security Review, U. S. Department of Labor, Bureau of Employment Security, March 1952, pp. 23-26); and *How To Hire Agricultural Workers From Puerto Rico*, New York office of Puerto Rico Department of Labor, 1955.

⁴ See *Florida Study and Puerto Rican Farm Workers in the Middle Atlantic States* published by the U. S. Department of Labor, Bureau of Employment Security, in May 1954 and November 1954, respectively.

⁵ For characteristics of Puerto Ricans in 2 major "core areas" in New York City in 1948, see C. Wright Mills, Clarence Senior, and Rose Kohn Goldsen, *The Puerto Rican Journey*, New York, Harper & Brothers, 1950. See also *Puerto Ricans in Philadelphia*, Philadelphia, Institute for Research in Human Relations, April 1954. Data on labor market participation, occupational trends, health, housing, education, and so forth, are contained in *Puerto Rican Population of New York City*, New York, Columbia University, Bureau of Applied Social Research, 1954.

⁶ The 5 major types of industry in which Puerto Ricans in the United States are found are: needle trades; radio, television, and other light assembly and manufacturing; food processing; hotel and restaurant services; and building trades. A majority of the workers are in manual occupations, principally as operatives. About 18 percent of the men and 12 percent of the women are in white-collar occupations.

⁷ For a comparison of New York City and non-New York Puerto Ricans, first- and second-generation, see *Puerto Ricans in the Continental United States*, U. S. Department of Commerce, 1950 Census of Population, Special Report P-E No. 3 D, 1953.

Continued high levels of employment on the mainland undoubtedly will lead to another upswing in the use of Puerto Rican farmworkers, who provide a highly satisfactory answer to the problems of seasonal farm labor. Most of those who come to the continent have worked in the sugarcane fields during the winter months. Swinging a machete to cut the heavy stalks of cane in the tropical sun is hard, grueling work. "Stoop" labor tasks on continental farms are usually less exacting. The Puerto Rican worker is widely accepted as making an outstanding contribution throughout the Middle Atlantic and New England States, where he is best known. Increasingly he is becoming a part of the East Coast migratory farm-labor stream.⁴

City Migrants

The migrants from the cities of the island to the cities of the mainland,⁵ are seeking a new environment in which to settle. These migrants in the decade 1945-54 numbered 380,000. They settle in urban service, trade, and industrial centers;⁶ about 75-80 percent now live in New York. The 1950 census showed 246,300 first- and second-generation Puerto Ricans there. The Health and Welfare Council of New York City estimated that on April 1, 1952, the figure was 321,000. The number in 1954 was somewhere between 450,000 and 500,000. The two major areas of first settlement and heaviest concentration are East Harlem and the Morrisania area of the Bronx. Manhattan, with 12 important nuclei, contains about 50 percent of the city's total; the Bronx, with 2 chief areas in addition to Morrisania, has around 30 percent; and Brooklyn, with a much more widely dispersed Puerto Rican population, has about 18 percent.

Those Puerto Ricans who have been in New York City longer and who have climbed the occupational ladder have moved to the less crowded areas of the city. They were found by the 1950 census enumerators in all but 1 of the city's 352 health areas.⁷ Puerto Ricans and their children are also found throughout the suburbs of Westchester, Nassau, and Suffolk Counties in New York and all along the west bank of the Hudson.

Dispersion of the Migrants

Outside of New York, migrants from Puerto Rico are found in such industrial areas as Bridgeport, Newark, Jersey City, Passaic, Paterson, Dover, Trenton, Camden, Philadelphia, Allentown, Bethlehem, Pittsburgh, Erie, Troy, Rochester, Schenectady, Buffalo, Youngstown (Ohio), Cleveland, Lorain, Ashtabula, Detroit, Gary, Chicago, Aurora (Ill.), Elgin, Joliet, Waukegan, Savanna (Ill.), Milwaukee, and in cities in Utah, Arizona, and California. The second largest grouping of Puerto Rican communities is found in and around Chicago. The tendency toward dispersion is encouraged and facilitated by the Commonwealth.

The Puerto Rican-born population of areas outside New York City increased at a rate more rapid than that of the metropolis from 1940 to 1953. Between 1940 and 1950, the increase was 442 percent outside the city and 306 percent within; the absolute increase outside New York was only around 150,000.

Dispersion began even before the United States took over the island in 1898, so that by the 1910 census, Puerto Ricans were found living in 39 States. Ten years later, they were living in 45 States; by 1930, in all 48 States. Then, in the 15 years which followed, the depression and transportation difficulties during World War II slowed down both the number migrating and their spread to new communities.⁸ After the war, migration picked up again and by 1950, 200 or more Puerto Ricans were living in each of 26 States, whereas in 1940 that many were found in only 10 States.

Estimates by the Migration Division, Department of Labor, show that the dispersion process continued to gather momentum until the fall of 1953. The Puerto Rican-born population increased between 1950 and early 1953 by 83.8 percent outside of New York City, compared with an increase of only 48.8 percent within that city.

The 1953-54 contraction in employment opportunities was a devastating blow to many of the recently established Puerto Rican communities throughout the industrialized areas of the continent. The Puerto Rican was among the last to be hired, and, therefore, among the first to be fired. One prosperous midwestern Puerto Rican community of around 3,000 shrank to about 900 in approximately 6 months. Most of the re-

mainder returned to former homes in Puerto Rico where relatives, friends, and a more familiar environment would help to tide them over their period of unemployment. (The 1954 increases in interstate unemployment insurance claims in southern States by workers who returned home after losing their jobs in northern States point up one of numerous parallels between the reactions of Puerto Ricans and those of other internal migrants in the United States.)

The Commonwealth Migration Program

The Commonwealth of Puerto Rico, as a matter of public policy, usually neither encourages nor discourages migration. It realizes that until the island's economic development has reached a point where it can offer job opportunities and economic security to its workers, ambitious citizens, who can, will search elsewhere. Therefore, the Government strives to help those who decide to leave to adjust more quickly in their new home community. On the other hand, whenever increasing numbers of Puerto Ricans lose their jobs in the States, as they did in the late summer of 1953, prospective migrants are urged to be certain they have jobs before going to the continent.

The Commonwealth's program of education and orientation of the migrant in his new home is administered by its Department of Labor. The chief agencies engaged in this program are the Puerto Rico Employment Service, which is affiliated with the United States Employment Service, and the Migration Division, which has a national field force, as well as the offices in Chicago and New York City already mentioned.

A migrant's education and orientation begin before he leaves home. The spontaneous nature of most of the migration requires a varied approach. Movies, newsreels, the radio, newspaper stories, leaflets and pamphlets, and personal interviews in the eight local offices of the Puerto Rico Employment Service—all are used to describe situations likely to be encountered in the continental United States and suggest ways to meet them.

The migrants encounter few problems uniquely characteristic of the Puerto Ricans as such; they cope with the same difficulties found by other

⁸ Clarence Senior, *Patterns of Puerto Rican Dispersion in the Continental United States* (*in* *Social Problems*, Brooklyn, N. Y., October 1954, pp. 93-99).

working-class groups, both past and present, who move in search of better economic opportunities, particularly if they also have differences in language, color, dress, or customs.

Language presents the greatest single difficulty for the Puerto Rican; this was also the case for most of the 40 million immigrants who came to our country in the past. Since knowledge of the English language is the most important single key to success in a migrant's new home, its use is encouraged by the Government in many ways. The Puerto Rico Department of Education, for example, has greatly increased its English classes for adults during the last few years. In these classes, materials pertinent to life on the continent are utilized.

The one-tenth of the Puerto Rican migrants who are nonwhites have their problems compounded by color prejudices, and many in the white majority suffer by extension of this attitude.

Difficulties of adjustment to a metropolitan environment parallel to a considerable degree those of the Kentucky "hillbilly" described so well by Warren Thompson. The family disintegration under the clash of cultures differs in no essential from the same process among immigrant families known to social workers for generations and set forth movingly in Oscar Handlin's Pulitzer prize-winning history, *The Uprooted*.⁹

A 64-page guide to New York City, in Spanish, has helped thousands to find their way more easily, not only on the city's subways but through its vast network of civic, social, labor, religious, and legal institutions. Adaptations of the guide have been issued through cooperation of the Migration Division and local committees in several cities.

The Migration Division's employment sections in New York and Chicago supplement the public employment services. Continental employment interviewers, who usually cannot speak or understand Spanish, welcome the assistance of the Division's offices. Orientation is given the Spanish-speaking migrant on many subjects, including Federal and State minimum-wage and maximum-hours regulations, fair employment

practices, unemployment insurance, and so forth. As one example, the Puerto Rican horror of "going on relief" is so strong and widespread that a great deal of time and energy is spent during slack employment periods on explaining that unemployment insurance is *not* relief and overcoming the resistance of the worker who has lost his job to registering for his insurance. The New York City Commissioner of Welfare has repeatedly stated that 94 or 95 out of every 100 New York-Puerto Ricans are self-supporting and that those Puerto Ricans who are forced onto relief get off the rolls quickly.

The Division maintains social workers to help the Puerto Ricans use effectively the agencies which can best serve their particular needs in problems of housing, health, conflicts with police, vocational rehabilitation, child care, juvenile delinquency, mental health, transportation, wage claims, burials, and family relationships. The social workers also provide information on the legal and customary responsibilities of landlords and tenants, and the right of citizens to fair treatment as well as the means of securing it in their new communities.

Local offices of the State employment services have been most helpful in interpreting the newcomers to the community, in addition to their original efforts in job placement under non-exploitative conditions. They have sometimes served as the focal point for the organization of an interagency committee which helps to speed up the adjustment process of these new entrants to the local labor market.¹⁰ This process is always one of mutual interaction if it is to accomplish its purpose of orienting the newcomer and turning a stranger into a neighbor. There has to be understanding, cooperation, and accommodation on the part of both the migrant and the resident population if full economic, social, and political participation is to be achieved. The Migration Division works with both migrants and local community leadership in all the fields mentioned above in whatever ways the situation indicates.

Community organizations and educational specialists add their efforts in aiding the migrant, the employers, and community institutions. Translations of educational material are made for public and private agencies; e. g., safety manuals for a foundry, suggested programs for parent-teachers' associations, exhortations to attend

⁹ Published by Little, Brown & Co., Boston, 1952. See also Clarence Senior, *Migrants, People—Not Problems* (in Transactions of the 50th anniversary meeting of the National Tuberculosis Association, New York, pp. 371-375); Donald R. Taft and Richard Robbins, *International Migrations*, New York, Ronald Press, 1955; and Warren Thompson, *Population Problems*, New York, McGraw-Hill Publishing Co., 1953 (pp. 303-313).

¹⁰ See *In-Migration of Puerto Rican Workers*, Milwaukee, Wisconsin State Employment Service, 1952.

English and vocational classes in evening schools, educational material for unions, and instructions on how to vote. The Migration Division's own program of education and orientation for the migrant and his family enters only those fields where community facilities do not yet exist. Members of the established community are reached through speeches, conferences, movies, exhibits, pamphlets, leaflets, radio, newspapers, and magazines in efforts to build up an understanding of the migrant, his background, his motivations, and his contributions to the area's economy.

The myths which always grow up about newcomers in a community are investigated by the Division and corrections of misstatements are furnished to interested individuals and groups. There are still many sources of friction, however,

particularly since 10 years of depression plus 5 years of war left many communities without needed educational and recreational facilities, and a shortage of housing. These frictions can and are being overcome in one community after another, as local institutions combat people's tendencies "to hate foreigners." They seek to work with the newcomers as fellow citizens, who are experiencing in their lifetime what most of our ancestors underwent in their search for a place where they could contribute their share to the common welfare. The Puerto Rican newcomer himself, inspired by the attention which his Commonwealth is attracting through "Operation Bootstrap,"¹¹ is organizing for self-help and cooperation with his neighbors.

¹¹ For discussion, see p. 1349 of this issue.

"The needlework industry in Puerto Rico had its inception in the 16th century. Needlework occupied a prominent place among the crafts introduced into the island in the early days of colonization. Due to its adaptability to home work and its potentialities as a medium of self-expression and as a means of adornment for women, embroidered apparel and decorative articles became very much in evidence in better homes throughout the island. Needlework became increasingly popular as a pastime. This tendency, encouraged by the custom prohibiting the frequent appearance of women in public, increased during the 300 years before Puerto Rico came under American influence. Thus needlework became an art among women of well-to-do families who had received instructions in music, art, and literature, and who had a great amount of leisure time in which to become skillful. In turn, the servants of these women learned to do the finest types of needlework."

Puerto Rico: The Needlework Industry, U. S. Department of Labor, Wage and Hour Division, 1940 (p. 1).

Labor Unions and Labor Relations

FERNANDO SIERRA-BERDECÍA

PUERTO RICANS firmly and unqualifiedly believe that collective bargaining offers the best known solution to the disputes of free labor and private enterprise. This belief is so deep-seated that it became a cardinal point in the constitution adopted by the Puerto Rican people and approved by the United States Congress in July 1952. Article II, section 17, of the constitution declares:

Persons employed by private businesses, enterprises, and individual employers and by agencies or instrumentalities of the government operating as private businesses or enterprises, shall have the right to organize and to bargain collectively with their employers through representatives of their own free choosing in order to promote their welfare.

In addition, the Puerto Rican Constitution further guarantees to labor the exercise of those rights necessary to, and inherent in, free collective bargaining. Thus, section 18 of the constitution states:

In order to assure their right to organize and to bargain collectively, persons employed by private businesses, enterprises, and individual employers and by agencies or instrumentalities of the government operating as private businesses or enterprises, in their direct relations with their own employers shall have the right to strike, to picket, and to engage in other legal concerted activities.

Nothing herein contained shall impair the authority of the Legislative Assembly to enact laws to deal with grave emergencies that clearly imperil the public health or safety or essential public services.

Adhering to this general principle, the Puerto Rican Legislature has enacted a great variety of social and labor legislation.¹ Some of this legislation parallels laws which exist in various States; other legislation is unique and was designed to meet the special problems both of the community and of the dominance of agriculture in the economy.

Moreover, the Commonwealth of Puerto Rico is subject to a number of Federal laws governing labor. The National Labor Relations (Taft-Hartley) Act is one of these. Under recent decisions, the National Labor Relations Board has asserted jurisdiction in Puerto Rico on the same basis as in the 48 States. Formerly, the Board had asserted jurisdiction over all enterprises in Puerto Rico as in the District of Columbia.

Since agricultural workers were excluded from the application of the Wagner Act and its successor, the (Taft-Hartley Act), large numbers of Puerto Rican workers were denied protection of the law. As a remedy, the Puerto Rican Legislature in 1945 enacted the Puerto Rico Labor Relations Act which specifically covers agricultural employees, as well as employees of government corporations. The Puerto Rican act, generally speaking, is comparable to the Federal law; it not only contains provisions to prevent commission of specified unfair labor practices, but also machinery for resolving representation disputes among labor unions. Moreover, it makes provision for enforcing arbitration awards and collective bargaining contracts.

The Puerto Rican Labor Relations Board, which is responsible for enforcing the Labor Relations Act, is often confronted with the perplexing problem of determining the appropriate unit for collective bargaining purposes. The ramifications of this problem in the field of seasonal agriculture comprise a novel field of decision for which no precedents are to be found in Federal activity.

Union Organization and Membership

The disposition for labor organization among Puerto Rican workers is historical and dates back even before the American occupation of Puerto Rico in 1898. The Samuel Gompers of the Puerto Rican labor movement was Santiago Iglesias, who in 1896 began labor organization and education on the island. For this "agitation," he was arrested on several occasions; at the moment of American occupation of the island in 1898, Iglesias was serving one of his several jail sentences. He escaped and joined forces with General Brooke, the American general who led the march on San Juan in the Spanish American War. Following the overthrow of the Spanish regime, Iglesias took

¹ See article on p. 1363 of this issue.

an increasingly active part in both the labor movement and the political life of Puerto Rico. He founded the first workers' organization, the Free Federation of Workers of Puerto Rico, and was designated as general organizer by the American Federation of Labor. His labor group became the AFL State organization in Puerto Rico.

Around 1940, the General Confederation of Workers of Puerto Rico (GGT) was organized and in 1949 became affiliated with the Congress of Industrial Organizations.

In addition to these two affiliated organizations, there are at present many independent labor groups which, for the most part, are organized only on a local basis. One exception is the independent International Longshoremen's Association (ILA), which also represents other groups of workers. This local was one of the groups in the original ILA when it was affiliated with the AFL in the United States. At the time of the expulsion of the ILA from the AFL and the creation of a new AFL union, later designated as the International Brotherhood of Longshoremen, a similar split took place in Puerto Rico, so that both an AFL longshoremen's affiliate and an ILA local exist on the island. The AFL Longshoremen won the most recent election conducted by the NLRB, on January 26, 1954, to establish representation rights on the Puerto Rico docks.

Predominant among the independent labor organizations on the island are: Unión Obreros Unidos de Loíza; Unión de Trabajadores Agrícolas e Industriales de Yabucoa; Unión de Trabajadores Agrícolas de Barceloneta; Unión de Trabajadores Metalúrgicos de Ponce; Unión de Trabajadores de Factoría y Ferrocarril de Fajardo; Unión de Trabajadores del Transporte de Puerto Rico y Ramas Anexas; Unión Obreros Unidos de Ferrovías; Unidad General de Trabajadores de Puerto Rico (UGT); Confederación General de Trabajadores de Puerto Rico (Auténtica); Federación Libre de los Trabajadores de Puerto Rico (FLT); and Organización Obrera Insular de Puerto Rico (OOI). The existence of the numerous independent labor groups mentioned above is the result, in part, of local organization and of splitting off from existing labor groups. Unfortunately, this division in the house of labor has not made for labor stability. This fractionalization and the accompanying changes of allegiance are characteristic of a youthful labor movement.

The structure of the labor organizations in Puerto Rico does not reveal the predilection of the rank and file for organization. The workers are more highly responsive to the appeals of organized labor than similar workers on the mainland. It is estimated that over half of the maintenance and production workers in Puerto Rico and three-fourths of the 150,000 wage and salary workers in agriculture are organized and covered by collective bargaining agreements.²

The smaller proportion of organized workers in industry is due to the fact that the island's industrialization program³ is fairly recent. For many years, agriculture was the almost exclusive source of employment. Accordingly, in Puerto Rico, the earliest endeavors to organize took place in that area and, as these organizational campaigns were largely successful, acceptance of the principles of trade unionism spread among the agricultural workers.

Further, the interest of Puerto Rican workers in organization is found in the high percentage of workers who vote in the elections conducted by the NLRB: according to the most recent figures, 73 percent of the workers participate in the elections. In 95 percent of the cases, a collective bargaining agent is selected.

Union Structure and Collective Agreements

Structurally, the Puerto Rican labor unions are somewhat loosely organized. The relatively elaborate internal structure, of continental trade unions is not to be found in the trade unions of the Commonwealth. Their bylaws and constitutions tend to be simple, covering only the most obvious matters. This loosely knit organization is perhaps most graphically demonstrated by the fact that until recently the Puerto Rican trade union movement was largely financed on a volunteer, or "pass the hat," basis. Assessment of regular dues was the exception, rather than the general rule. This lack of assured financial support, of course, meant curtailed activity—reflected in voluntary as contrasted with professional trade union officialdom—and a lack of stability which such an informal arrangement engenders. Since 1946, when a March 21 act (No. 168) permitted

² 14 international unions with headquarters in the United States claimed 53,000 members in Puerto Rico in 1954. See Directory of National and International Labor Unions in the United States, 1955 (BLS Bull. 1185).

³ See article on p. 1347 of this issue.

dues checkoff, the trend has been toward regular dues; today, dues are collected in many instances by virtue of checkoff provisions in union contracts. It is to be hoped that this is a symptom of growing up and of a greater stability in the labor organizations.

The collective bargaining agreements in Puerto Rico are likewise of a less complex nature than those on the continent. This is to be expected in the light of the less-experienced trade union officialdom, and to a certain degree, of the absence of the highly technical and complicated problems which more advanced trade unionism and collective bargaining bring about. Both the AFL and CIO have, from time to time, loaned skilled personnel to their affiliates on the island, who have introduced many of the more standard collective bargaining provisions. Provisions for union security, dues checkoff, and arbitration are to be found today in most Puerto Rican labor contracts. In addition, the Labor Relations Institute of the University of Puerto Rico has attempted to instruct both labor and management representatives not only in collective bargaining procedures, but in expressing accurately the substance of a labor agreement, once reached.

Associations of employers in Puerto Rico date back to 1909. The Association of Sugar Producers of Puerto Rico did not represent its members in collective bargaining until 1934, when the first islandwide contract in the sugarcane industry was negotiated with the AFL Free Federation of Workers.

Arbitration and Conciliation

The status of voluntary arbitration in Puerto Rico is of considerable importance. The firm establishment of the principle of collective bargaining and the interest of the Puerto Rican Government in promoting it result from the conviction that in collective bargaining is to be found the quickest and happiest solution to industrial disputes. Of course, collective bargaining alone is not sufficient in all cases. Education, voluntary arbitration, and mediation are all equally important facets of the same problem. Accordingly, the Puerto Rican Legislature established a

conciliation and arbitration service⁴ within the Department of Labor. Its services are supplied only if voluntarily requested by the parties to a dispute, although many contracts provide specifically for their use before resort to a strike.

The use of the services offered, the growing awareness of how collective bargaining works, and the increasing number of labor agreements are evidence that Puerto Rico's approach to the problem of labor-management accommodation is correct. The conciliation and arbitration service handled 611 cases in the fiscal year ending June 30, 1954. Of these, 132 were submitted to voluntary arbitration upon request of both parties. None of the arbitration awards required enforcement by the Supreme Court of Puerto Rico. Only 49 of the 611 cases reached the strike stage. This experience strongly indicates that organized labor and industry have confidence both in the processes of collective bargaining and the benefits of conciliation and mediation.

Labor Disputes

As in the United States, economic issues are the most frequent cause of labor disputes in Puerto Rico, but they have also arisen over lack of recognition, union security, refusal to bargain, contract duration, the checkoff, and other issues. The solution of disputes involving any one of these issues brings greater understanding and increasing knowledge of industrial relations in a community. This is later reflected in the collective bargaining agreements negotiated.

Labor relations on the waterfront are of great importance to Puerto Rico. The island depends primarily upon maritime transportation for all exports and imports, valued at \$347 million and \$532 million, respectively, in the year 1954. In a sense, a waterfront strike can be more crippling to the island's activities and economy than a naval blockade, for no ship is loaded or unloaded during a strike. Moreover, Puerto Rico is affected not only by waterfront strikes on the island docks, but by those in the States.

The dispute between the AFL Longshoremen and the ILA (Ind.) had repercussions in Puerto Rico, requiring a representation election. But, since in Puerto Rico the AFL affiliate had the upper hand, it gained control in the island long before the ILA (Ind.) was certified as bargaining

⁴ A mediation and conciliation service was established in 1942, and an arbitration section added in 1947. Since 1952, the service has been designated as the Mediation, Conciliation, and Arbitration Bureau.

agent in New York. For this reason, bargaining with the shipping concerns in Puerto Rico (all representing continental shipping firms) began in early 1954, well ahead of the New York negotiations. It was evident that any agreement reached in Puerto Rico on wages would affect future negotiations in New York.

The strike which began June 25, 1954, on Puerto Rican docks had disastrous effects on the island's economy. The issues involved were wage increases and changes in working conditions, and a demand by the shipping concerns that they be free to mechanize their operations, especially with bulk sugar shipments. The union's first demand for an increase of 25 cents an hour was rejected. Bargaining continued for more than a month with no settlement in sight. Both Federal and Commonwealth conciliators participated in the discussions. No special procedures to deal with this situation could be invoked by the Commonwealth since labor relations on the island's waterfront are regulated by the Taft-Hartley Act. The only recourse remaining was to expropriate the waterfront facilities after the Legislature decreed a state of emergency. As the Taft-Hartley Act does not cover government or political subdivisions, the Commonwealth Government could then directly intervene.

An act authorizing expropriation of all dock facilities was signed by the Governor on July 25. Among other things, this emergency act, effective through January 31, 1955, provided that the Government could negotiate a collective bargaining agreement with the union for the duration of the emergency.

On July 28, the expropriation took place and the dockhands returned to work. Bargaining

between the union and the shipping companies continued until September 3, when collective bargaining agreements were signed. The settlement provided for a 10-cent wage increase retroactive to January 1, 1954, and another 10-cent increase to take effect in 1955. The bulk shipments issue was postponed, to be negotiated later, if and when such shipments actually begin and to be arbitrated if necessary. On September 8, all dock facilities were returned to their owners. The Governor has appointed a commission to study means of solving waterfront disputes without recourse to crippling strikes.

Future Course

Through education, attempts will continue, as in the past, to inculcate on the island the knowledge and "know-how" of the best practices of free collective bargaining. Firmer contracts, more clearly expressed, will give rise to greater stability in the trade union movement and educational resources will continue to be devoted to this end. Similarly, more formal organization of the trade unions themselves will certainly promote this general objective, toward which both the Department of Labor and the University of Puerto Rico are rendering aid.

Above all, the concept in Puerto Rico of a free trade union movement carries with it the connotation of freedom from interference by either employers or government. To be truly effective, the growth must be internal and unrestricted. To those critics who are intolerant of the time necessary to learn these lessons, we can only say—"does anyone know any better solution for the problem of free men living in a free society?"

"Puerto Rico is in fact the biggest per capita customer of the United States in the whole world! We are now buying U. S. goods at a half-billion dollars annually."

Operation Bootstrap—The Industrial Revolution of Puerto Rico, speech by Teodoro Moscoso, Administrator, Economic Development Administration, Commonwealth of Puerto Rico. (*In Vital Speeches of the Day*, New York, August 15, 1955, p. 1429.)

Labor Laws and Their Enforcement

JOAQUÍN GALLART-MENDÍA

PUERTO RICO has today a body of laws of very broad social scope for the protection of workers. These laws compare advantageously with statutes in force in many of the 48 States of the Union, Alaska, and Hawaii. They apply equally to men and women. Progress by Puerto Rico in labor legislation during the last half century has been remarkable. During the last decade, the Government's principal emphasis has been on raising the economic status of the workers and improving their living and working conditions. This has been expressed in a program of positive action extending to all fields of human endeavor.

This article summarizes only those labor laws in force in the Commonwealth of Puerto Rico¹ which are of chief importance to the life and general welfare of the working class of Puerto Rico.

Minimum Wages

The creation of the Minimum Wage Board by a 1941 act² marked the beginning of a new era in labor legislation of immediate and positive benefit to the working people. This act aims primarily to protect workers so that, within the requirements of competitive enterprise, their living standards will be maintained at a fair level in proportion to general economic conditions.

Pursuant to this act, which supplemented and improved an earlier minimum wage law of 1919,³ 22 mandatory decrees fixing minimum wages and other working conditions in various industries, businesses, and occupations have been issued.⁴

Previously, only two laws had fixed minimum wages in Puerto Rico. The act of 1919 established a minimum weekly wage of \$6 for women and

minor females employed in industrial, commercial, or public-service occupations; and a 1923 act⁵ fixed a minimum salary of \$1 per day for laborers or mechanics in public works built by the Government, either through contract or by force account.

Hours of Work

Since August 7, 1935, the legal workday in Puerto Rico has been limited to 8 hours.⁶ Any employer operating a business for profit and hiring a worker in any occupation for more than 9 hours in any natural day would have to pay for the ninth hour worked at double rates and would be guilty of a misdemeanor if the worker had been engaged beyond the ninth hour. Prior to 1935, the only workers having a legal workday of 8 hours were laborers and mechanics employed by the Government on public works.⁷

Considering the 1935 act (No. 49) not as a wage law but rather as a penal act, the Supreme Court of Puerto Rico, in *Cardona v. District Court*,⁸ stated that, except where prevented through collective bargaining agreements, starvation wages could legally be paid in Puerto Rico under that statute. Under the *Cardona* case, an employee could work 12 hours per day for a long period, but if his employer could prove that his agreed rate of pay was such that the amount he received in-

¹ On July 25, 1952, pursuant to a compact entered into with the United States, Puerto Rico approved its own constitution and became known as the Commonwealth of Puerto Rico.

² Act No. 8 of April 5, 1941, amended by Act No. 48 of June 10, 1948.

³ Act No. 45 of June 9, 1919. In 1920, the Supreme Court of Puerto Rico upheld the constitutionality of this act, but later annulled it, following the doctrine in the case of *Adkins v. Children's Hospital of the District of Columbia*, 261 U. S. 525, 67 L. Ed. 785 (Apr. 9, 1923). In 1940, after the famous case of *West Coast Hotel Co. v. Parrish*, 300 U. S. 379, 81 L. Ed. 703 (Mar. 29, 1937), the Puerto Rico court restored the constitutional validity of this first statute fixing a minimum salary for the benefit of women workers.

⁴ Also in force in Puerto Rico are 33 Federal wage orders approved by the Wage and Hour Administrator of the U. S. Department of Labor, under the Fair Labor Standards Act of June 25, 1938. These wage orders apply to 108 industrial divisions, 13 of which, including some major industrial divisions, are now paying a minimum of 75 cents per hour. (See also p. 1370 of this issue.) Many of the workers covered by Federal wage orders are at the same time covered by local mandatory decrees; in such cases, those legal provisions which are more beneficial to the employees apply.

⁵ Act No. 11 of June 30, 1923.

⁶ Act No. 49 of August 7, 1935.

⁷ Section 2 of the Organic Act (Jones Act of Mar. 2, 1917).

⁸ 62 P. R. R. 59 (May 18, 1943). The provision contained in Act No. 49 for double pay for the 9th hour was regarded, not as a wage provision, but as a method of insuring compliance with the provision limiting hours of work. This act had been passed during a period when the doctrine was controlling that a State could not enact a minimum wage law. The constitutionality of Act No. 49 had been upheld on the ground that the Legislature had desired to improve the health of employees and relieve unemployment.

cluded the extra hours and double pay, he would collect no additional pay. But the mandatory decrees of the Minimum Wage Board—beginning in 1943—constantly limited the legal workday to 8 hours and imposed payment of extra time for work exceeding that limit, thus somewhat alleviating the adverse effects of the *Cardona* decision. In 1948, the legal import of that decision was enacted into law⁹ and the act of 1935 (No. 49) was repealed. This 1948 act not only limits the workday in Puerto Rico to 8 hours, but defines what is meant by extra hours and imposes payment of double time for work done in excess of that limit, except in the case of industries engaged in interstate commerce which are required to pay only at the rate of time and a half the regular wage for work in excess of 8 hours per day or 40 hours per week. Thus, instead of making it a crime to hire employees beyond 9 hours a day, payment of double time is assessed for all hours in excess of 8 worked out of 24 consecutive hours. Since July 25, 1952, the workday has been limited to 8 hours by constitutional provision.¹⁰

Workmen's Compensation

Puerto Rican workers in commercial, industrial, and agricultural pursuits are protected by the Workmen's Accident Compensation Act.¹¹ In contrast, most State workmen's compensation acts do not cover farm workers. The Puerto Rico act applies to all employers of three or more workers, irrespective of wage levels. Every workman or employee who suffers injury or occupational disease is entitled to medical attendance and hospital services. Workmen's compensation is payable to the injured workmen in case of permanent-total disability and for temporary- or permanent-partial disability. In case of death, the survivors are entitled to a benefit of as much as \$4,000 if they were either wholly or partially dependent on the deceased. Compensation or a death benefit amounting to \$500 or less is paid in full at one time. When more than \$500 is payable, the State Insurance Fund must require the employee (or beneficiary) to apply all or part of the sum to purchase a homestead, acquire a gainful business, or make some other investment that may be profitable.

The Puerto Rico law has been interpreted as a dependency rather than an inheritance act. More-

over, it expressly includes among the surviving beneficiaries the woman who at the time of a worker's death and during the last 3 years before had honorably lived with the workman in a public state of concubinage as husband and wife.

In contracts authorized under Act No. 89 of May 9, 1947, by the Secretary of Labor of Puerto Rico on behalf of laborers who annually to go to the United States to work in agriculture, the contracting employers are required to protect the Puerto Rican workers against labor accidents in the same manner in which laborers working in industrial activities in those States are protected.

The Workmen's Accident Compensation Act makes the State the exclusive insurer of the employers in case of industrial accidents, and, as a result, a rehabilitation program has been developed with remarkable results. Since 1946, the State Insurance Fund has operated at San Juan a Physical Medicine and Rehabilitation Clinic for treatment of injured workmen; another is being developed at Ponce. In 1952, a School of Physical and Occupational Therapy was founded to prepare qualified physiotherapists and occupational therapists and to extend the services of the San Juan Clinic. Students are trained in all physical medicine techniques so that rehabilitation may start from the very earliest moment, thus sparing the worker suffering and economic loss which cannot be recompensed in money.

Vacations, Sick Leave, and Severance Pay

Puerto Rico has no general law granting vacations or sick leave to employees in commercial, industrial, or agricultural pursuits; however, the Minimum Wage Board of Puerto Rico, as a general practice, includes in all its mandatory decrees provision for granting vacations and sick leave with full pay to employees covered by such decrees. Only 6¹² of the 22 decrees now in force contain no such provisions. Employees in industries and businesses covered by decrees granting benefits are usually entitled annually to 15 days' vacation and, in addition, 15 days' sick leave. The constitutional validity of granting vacations

⁹ Act No. 379 of May 15, 1948.

¹⁰ Under section 16 of Puerto Rico's constitution.

¹¹ Act No. 45 of April 18, 1935.

¹² Decrees No. 1 (leaf tobacco industry); No. 3 (sugar industry); No. 5 (soft drinks industry); No. 11 (construction industry); No. 17 (pineapple industry); and No. 19 (coffee industry).

was sustained by the Supreme Court of Puerto Rico.¹³ In case the employee should quit or be discharged, he is entitled to collect for all unused vacation time accumulated to date.

Puerto Rican workers are also entitled by law¹⁴ to 1 month's severance pay if laid off without just cause. This statute has proved a firm barrier against employer attempts to get rid of employees through arbitrary or capricious means. The law, however, is not applicable to work of a seasonable or limited duration; and the courts are responsible for determining whether the dismissal was just or unjust.

Collective Bargaining

The right of workers to organize and to select freely representatives of their own choosing, and to negotiate collectively with their employers as to wages and other conditions of employment is guaranteed by law in Puerto Rico.¹⁵ The law recognizes that labor-management disputes involve the interest of the public, the employee, and the employer, and it is the Government's policy to protect and promote each of these interests with due regard to the situation and to the rights of all parties. Collective bargaining contracts are declared to be affected by the public interest, so that employer-employee negotiations under the law are conducted with the principal objective of maintaining industrial peace. The right to strike is a corollary of collective bargaining and has been given constitutional recognition.¹⁶

In the Commonwealth, since May 1942,¹⁷ an employer may be guilty of a misdemeanor if he performs any act of discrimination against his employees, because they have organized, or taken part in activities of a labor union, or demanded that a collective labor agreement be made, or

participated in a strike or in a claim for better wages and working conditions, or are affiliated with a given political party.

Employment of Women and Children

Puerto Rico's labor legislation applies equally to men and women, but there are in addition two major statutes applicable only to women. A 1919 law¹⁸ prohibits the employment of women in commercial, industrial, or agricultural activities between 10 p. m. and 6 a. m., with the exception of women working in the packing and canning or fruit and vegetable refrigeration industries, women in the textile industry, and those under 18 years of age employed as telephone or telegraph operators, artists, nurses, or homeworkers. This law provides for the payment of double time after 8 hours of work and payment of 3 times the regular rate for all work in excess of 12 hours during any period of 24 consecutive hours.

Unlike the American Territories, the Commonwealth of Puerto Rico has a maternity welfare law.¹⁹ This law applies to women working in offices, commercial and industrial establishments, and public-service enterprises. It entitles prospective mothers who are employed to a rest which shall include 4 weeks before and 4 weeks after childbirth, with half pay. During the period of rest the employer shall be bound, notwithstanding any stipulation to the contrary, to keep the position open for the working mother. The Supreme Court of Puerto Rico upheld the constitutionality of this act in the case of *Ponce Candy Industries v. District Court*.²⁰

Child labor is regulated under a law prohibiting gainful employment during public-school hours of minors who are between 14 and 18 years of age.²¹ This law also provides that no minor aged 14 and over but less than 18 shall be employed at gainful work for more than 6 consecutive days in any week, or for more than 40 hours in any 1 week, or for more than 8 hours in any 1 day. A number of hazardous occupations are specified in which the employment of minors under 16 or under 18 years of age is strictly prohibited.

This law was amended to protect minors peddling newspapers.²² Under its terms, (1) no child under 15 years shall engage in selling, delivering, or distributing newspapers or other publicity material in districts or places declared by

¹³ *American Railroad Co. v. Minimum Wage Board*, 68 P. R. R. 736 (May 24, 1948).

¹⁴ Act No. 50 of April 20, 1949.

¹⁵ Act No. 130 of May 8, 1945, creating the Puerto Rico Labor Relations Board, amended by Act No. 6 of March 7, 1946.

¹⁶ Section 18 of the Commonwealth Constitution declares that "in order to assure their right to organize and to bargain collectively, persons employed by private businesses, enterprises, and individual employers and by agencies or instrumentalities of the government operating as private businesses or enterprises, in their direct relations with their own employers shall have the right to strike, to picket, and to engage in other legal concerted activities."

¹⁷ According to Act No. 114 of May 7, 1942.

¹⁸ Act No. 73 of June 21, 1919, amended.

¹⁹ Act No. 3 of March 13, 1942.

²⁰ 69 P. R. R. 387 (December 7, 1948).

²¹ Act No. 230 of May 12, 1942.

²² Act No. 90 of June 24, 1954.

the Secretary of Labor to be dangerous to life and safety; (2) newspaper enterprises or editing concerns which employ minors over 15 years for such work in places deemed dangerous shall establish stands or select sites in mutual agreement with the Secretary of Labor and with the authorization of the proper Commonwealth and municipal authorities; and (3) minors between 12 and 18 years shall not be employed in peddling newspapers or other publicity materials after 11 p. m. or before 5 a. m.

Other Labor Laws

Other laws of interest to the working people include those which (1) provide for a day of rest after 6 days of consecutive work in businesses not covered by the "Closing Act";²³ (2) prohibit issuance of injunctions in labor disputes;²⁴ (3) create a public employment service affiliated with the Employment Service of the United States;²⁵ (4) make unemployment compensation payable to workers in the sugar industry during the season following the cutting and grinding of each cane crop;²⁶ and (5) establish a mutual benefit plan for chauffeurs (defined in the law as persons operating motor vehicles for pay),²⁷ whereby both the chauffeur and his employer contribute to a common fund to be used to purchase an \$1,800 life insurance policy and to pay substantial benefits in case of illness or disability.

Enforcement of Labor Legislation

The Puerto Rico Department of Labor is responsible for enforcement of all labor legislation in the Commonwealth. The Department attempts to keep employers and workers currently advised concerning the various legal provisions in which they may be interested. Before a mandatory decree of the Minimum Wage Board is put into effect, the Bureau of Labor Standards holds general informational meetings of the employers and employees affected, to avoid involuntary violations and to obtain voluntary compliance by employers. The Bureau of Legal Affairs of the Department answers all inquiries made by labor unions, employer organizations, individual employers, or laborers as to the coverage, interpretation, and applicability of the various laws.

Violations of labor statutes are determined either through investigations conducted by the Department on its own initiative or following complaints filed by workers. The Department, following established policy, always attempts to reach a friendly arrangement in those cases in which it has intervened. At such times, administrative hearings are held and the parties involved are given the opportunity to make their respective allegations and to offer evidence. Whenever employers and employees fail to reach an agreement through proper administrative channels, the case is submitted to the Bureau of Legal Affairs, which institutes the proper judicial proceedings; however, this action is taken only when the employer, for any reason, refuses to comply with the Department of Labor's determination. To compel immediate enforcement of the law in extraordinary situations, the Secretary of Labor may resort to injunction proceedings; or he may institute special proceedings to force employers to produce the evidence needed in cases under investigation;²⁸ or through complaints based on a special proceeding established by law, he may claim the payment of wages or any other benefits provided for employees in any mandatory decree; and whenever the circumstances warrant, he may even file criminal indictments for labor law violations.²⁹ The Department's attorneys act as special prosecutors in criminal cases and as defenders in civil actions.

Probably the most effective weapon available to Puerto Rican workers in claiming payment of wages due, whether for regular or extra hours, vacations, or any other pecuniary benefit, is the provision contained both in the Minimum Wage Act and in the Hours Act (No. 379 of May 15, 1948) that employers must pay damages in an amount equal to that awarded the employees by the court. Experience has demonstrated that the workers' right to action against employers

²³ Act No. 289 of April 9, 1946.

²⁴ Act No. 50 of August 4, 1947.

²⁵ Act No. 12 of December 20, 1950.

²⁶ Act No. 356 of May 15, 1948.

²⁷ Act No. 428 of May 15, 1950.

²⁸ This authority was upheld in *Sierra v. Cuevas*, 72 P. R. R. 167 (Feb. 13, 1951).

²⁹ Act No. 8 of April 5, 1941 (the Minimum Wage Act), amended by Act No. 48 of June 10, 1948, empowers the Secretary of Labor to sue, on his own initiative or at the request of one or more laborers concerned, for any amount of money due as wages. Act No. 428 of May 15, 1950, creating the social security system for chauffeurs, grants him the same powers.

under these two laws has been highly effective in securing settlement of many claims because employers prefer to pay the original claim, and thus in most cases, avoid court litigation, rather than to risk paying the penalty in the event of an adverse judgment. These damages operate like a penalty against an employer for unduly withholding wages due to the employees³⁰ and may only be waived with the Secretary of Labor's approval.³¹ The employer may not plead good faith as a defense to escape the penalty.³²

The judicial or extrajudicial settlements in these claims cases, in order to have legal validity, must first be approved by the Secretary of Labor, as provided by the Hours Act. This, of course, affords better protection for those workers whose claims are taken to court through independent attorneys. In no case involving a court claim are the employees or workers made to pay attorneys' fees, because this obligation has been specifically imposed on the employers by law.³³

The Secretary of Labor may also appear in court in wage-claim cases, in representation and for the benefit of all such laborers as he may see fit. This has been the constant practice; in 1 specific case a total of 927 laborers were represented by him. In this respect, the legislation of Puerto Rico does not contain the limitation imposed on the appli-

cation of section 16 of the Fair Labor Standards Act by section 5 of the Portal-to-Portal Act as regards collective proceedings, which provides that no employee shall be a party plaintiff to any such action unless he gives his consent in writing and his consent is filed in the court in which such action is brought. The Supreme Court of Puerto Rico has decided that employees in wage claim cases need not appear personally in court if they are represented by attorneys. Furthermore, that court has upheld the Secretary of Labor's action continuing a court proceeding on behalf of a worker who, when testifying in the inferior court, stated that his employer owed nothing to him and that he had never authorized the Secretary of Labor to include him as a claimant in the case. In disposing of this case, the Supreme Court stated, in part, as follows:

. . . It is true that Montalvo was produced as a witness for the defendant and testified that the employer does not owe him anything and that he had not authorized the Commissioner of Labor to include him as a plaintiff in the instant case. But cases still arise, including apparently this case, where employees are not aware of their rights. The Commissioner was following the mandate of the Legislature laid down in Subsection 25 of Act No. 8, as amended, in pressing this action in favor of Montalvo to whom the defendant owed money according to his own records. Under these circumstances the defendant cannot take refuge in the ignorance of Montalvo as to his rights or his failure specifically to authorize his joinder as a plaintiff.³⁴

The Secretary of Labor of Puerto Rico has, with good reason, declared that "to the workers of Puerto Rico, the Department of Labor and its offices in the island represent their Government in action."

³⁰ *Overnight Motor Transportation Co. v. Missel* 316 U. S. 562. (June 8, 1949), p. 15; *Tuller v. Land Authority of Puerto Rico*, 70 P. R. R. 249 (July 13, 1949).

³¹ Section 13 of Act 379 of May 15, 1948.

³² In cases arising under the Fair Labor Standards Act, subsequent to approval of the Portal-to-Portal Act (May 14, 1947), the defense of good faith may be raised by an employer.

³³ Act No. 402 of May 12, 1950.

³⁴ *Commissioner of Labor v. Roman*, 73 P. R. R. 294 (April 3, 1952); see also p. 297.

“According to Dr. Coll y Toste ‘sugar cane was taken to Hispaniola in 1506, whence it was brought to Porto Rico in 1915.’ In 1548 the first sugar plantation was established near the Bayamon River. ‘Until then nothing but molasses was manufactured from the cane. Coffee was brought from Guadeloupe to Porto Rico in 1763. Tobacco was indigenous and much prized by the native Indians, but the Spanish Government fought its use; two Papal bulls excommunicated those who used it, and a Spanish royal cedula in 1608 prohibited definitely the cultivation of tobacco in Porto Rico. In 1634, however, tobacco was again grown, and also cacao.’ ”

Bulletin of the Department of Labor, Vol. 6, 1901 (p. 383): Labor Conditions in Porto Rico.

Wage Structure and Minimum Wages

FRANK ZORRILLA

WAGES in the Commonwealth of Puerto Rico stand midway between those of an underdeveloped, low-wage agricultural economy and those of a high-wage, high-productivity, industrialized economy. This wage structure places Puerto Rico in a somewhat difficult position, for it cannot compete with the underdeveloped areas on the basis of low wages nor with the industrialized areas on the basis of productivity.

In April 1955, workers engaged in manufacturing averaged 57.6 cents an hour. In 1953-54, average earnings in important industries were: sugarcane, \$3.37 per day; retail trade, 37 cents an hour; manufacturing (production workers), 47.9 cents; and construction, 55.2 cents. The Puerto Rico Minimum Wage Board has set minimum wages starting at 20 cents an hour in needlework trades producing for the Puerto Rican market and rising to \$1.10 for a specific occupation in construction. Minimum wages set by the U. S. Department of Labor for workers engaged in interstate commerce range from 22.5 cents in some needlework and textile products to 75 cents in various industries.

Wages by Industry

Agriculture. Agriculture, which is the center of economic activity on the island, provides around 36 percent of the total employment. The cultivation of sugarcane, with an average yearly employment of 64,500 (131,000 in the peak season), is the most important agricultural industry.

Sugarcane workers received an average of \$3.37 per day in 1953-54, compared with \$2.03 in 1945-

46 (table 1). In terms of mainland standards this is low, but due to the lack of mechanization, a ton of cane harvested in Puerto Rico requires 1.70 man-days; it needs only 0.38 man-day in Hawaii, and 0.76 in Louisiana.¹

Coffee ranks second to sugar in terms of employment and area of cultivation. In 1945-46, the workers in this industry received an average daily wage of \$1.05, while in 1953-54 they received \$1.69. The minimum daily wage of \$1.75 paid in the fall of 1955 is an increase of 67 percent over 1945-46. Coffee is harvested in high, sloping lands where mechanization is hardly possible. Thus, almost 15 man-days are needed to produce 100 pounds of coffee valued during the last 3 years at around \$54 on the farm. Moreover, an acre of land yields an average of only 150 pounds of coffee.

The daily wage rose substantially more between 1945-46 and 1953-54 in other agricultural industries than in coffee; for example, from \$1.59 to \$2.39 in pineapple and citrus fruits, \$1.63 to \$2.47 in dairy farms, and \$1.39 to \$2.21 in other farms. The percentage increase, however, was higher in coffee.

Manufacturing. Production worker employment in manufacturing industries has risen steadily since 1939—from 31,000 to 60,000 in April 1955. Their gross average hourly earnings² rose from 35.7 cents in April 1946 to 57.6 cents in April 1955, a rise of 61.3 percent (table 2).

The greatest gains in hourly earnings between April 1946 and April 1955 occurred in transportation equipment; metal products, except machinery; textile-mill products; and machinery (foundries).

¹ Statements of Fernando Sierra-Berdecia, then Commissioner of Labor, and Candido Oliveras, Chairman of the Minimum Wage Board, before the subcommittees of the Committee on Education and Labor and the Committee on Ways and Means of the U. S. House of Representatives (81st Cong., 1st sess.) on Extension of a Minimum Wage of 75 Cents Per Hour and Social Security Bill (H. R. 6000) to Puerto Rico, appendix A (p. 77). For data in the testimony by Mr. Oliveras, see also U. S. House of Representatives, Investigation of Minimum Wages and Education in Puerto Rico and the Virgin Islands, Hearings before a Special Investigating Subcommittee of the Committee on Education and Labor (81st Cong., 1st sess.), at San Juan, November 21, 1949 (p. 113).

² Gross hourly earnings are computed by dividing the total payroll of production workers by the total man-hours worked. As the average weekly hours amounted to 32.9 in April 1955, it may be assumed that the gross hourly earnings did not differ greatly from straight-time hourly earnings.

TABLE 1.—Number and average daily wages of wage and salary workers in agricultural industries, Puerto Rico, 1945-46 and 1953-54

Industry	Average number of workers, 1953-54	Average daily wage	
		1945-46	1953-54
Sugarcane.....	64,500	\$2.03	\$3.37
Coffee.....	16,000	1.05	1.69
Dairy farms.....	15,000	1.63	2.47
Pineapple and citrus fruits.....	11,800	1.59	2.39
Other farms.....	18,800	1.39	2.21

¹ Estimated by the Division of Research and Statistics of the Puerto Rico Minimum basis of previous studies.

Source: Department of Labor, Bureau of Labor Statistics, and Annual Reports of the State Insurance Fund of Puerto Rico, 1945-46 and 1953-54.

Trade. Trade in Puerto Rico is characterized by many small stores, a large number of them operated by the owners and their families. Wholesale establishments engaged in interstate commerce, obviously the larger and more prosperous, are subject to a minimum wage of 65 cents per hour, set under the Fair Labor Standards Act (table 3). The remaining establishments are bound by a 50-cent hourly minimum wage determined under the Puerto Rican minimum wage act (table 4).

³ Figures from the Division of Research and Statistics of Puerto Rico's Minimum Wage Board.

⁴ Annual Reports of the State Insurance Fund of Puerto Rico, 1945-46 and 1953-54.

In retail trade the average wage in 1953 was around 37 cents per hour, while in 1943 it was only 21 cents.³ Effective August 1955, the Commonwealth's Minimum Wage Board revised the wage decree applicable to retail trade, establishing weekly minimum rates which vary according to different zones established in the decree. Under the revised decree, wages paid in retail trade in the fall of 1955 are expected to average approximately 46 cents an hour, more than double the wages in 1943.

Construction. Approximately 34,000 workers were employed on the average in the construction industry in 1954-55. In 1954-55, their hourly wage averaged 57 cents, compared with 35.9 cents in 1945-46.⁴

The Puerto Rico Minimum Wage Board has set minimum hourly rates for the construction industry ranging from 32 cents to \$1.10, depending on the occupation. Whenever the work is related to interstate commerce, the lowest minimum permitted under the Fair Labor Standards Act is 50 cents. The Puerto Rican wage order was being revised in September 1955. The rates in the proposed mandatory decree range from 50 cents to \$1.40 per hour.

TABLE 2.—Number and average gross hourly earnings of production workers in manufacturing industries, Puerto Rico, April 1946 and April 1955

Industry	April 1946		April 1955		Percent increase in earnings, 1946-55
	Number of workers	Average gross hourly earnings (in cents)	Number of workers	Average gross hourly earnings (in cents)	
All industries.....	49,600	35.7	60,100	57.6	61.3
Food and kindred products.....	21,500	40.8	17,500	72.7	78.2
Tobacco manufactures.....	8,900	30.1	5,200	35.7	18.6
Textile-mill products.....	1,500	29.0	3,400	52.4	80.7
Apparel and related products.....	10,200	26.6	16,100	45.1	69.5
Lumber and wood products (except furniture).....	500	33.5	272	58.0	73.1
Furniture and fixtures.....	1,500	29.3	2,400	47.9	63.5
Paper and allied products.....	200	47.1	400	74.3	57.7
Printing, publishing, and allied industries.....	900	43.1	900	70.8	64.3
Chemical and allied products; products of petroleum and coal; and rubber products.....	1,000	46.2	1,200	68.0	47.2
Leather and leather products.....	200	29.5	1,900	47.6	61.4
Stone, clay, and glass products.....	1,300	47.6	2,600	71.5	50.2
Metal products, except machinery.....	200	31.9	1,000	63.8	100.0
Machinery (foundries).....	600	46.2	800	83.0	79.7
Electrical machinery.....	(1)	(1)	1,600	57.7	(1)
Transportation equipment.....	100	38.8	200	89.1	129.6
Instruments and related products.....	(1)	(1)	1,000	61.3	(1)
Miscellaneous manufacturing industries.....	1,000	47.5	3,600	57.5	21.1

¹ Data not available.
Source: Puerto Rico Department of Labor, Bureau of Labor Statistics,

Employment, Hours, and Earnings in Manufacturing Industries in Puerto Rico, 1955.

TABLE 3.—Minimum wage rates in Puerto Rico under the Fair Labor Standards Act, as amended

Industry and division	Hourly minimum wage rates (in cents)	Effective date	Industry and division	Hourly minimum wage rates (in cents)	Effective date
Alcoholic beverage and industrial alcohol:			Needlework and fabricated textile products—Con.		
Malt beverage division.....	75	Oct. 6, 1955	Children's and dolls' wear division:		
General division.....	75	Oct. 6, 1955	Hand-sewing operations.....	35	June 6, 1955
Artificial flower.....	43	Nov. 6, 1950	Other operations.....	40	June 6, 1955
Banking, insurance, and finance.....	75	July 13, 1953	Corde and bonnaz embroidery and corde hand-bag division.....	51	July 25, 1955
Button, buckle, and jewelry:			Cotton underwear and infants underwear division:		
Button and buckle (other than pearl, leather, or fabric) and bead division.....	48	June 8, 1953	Hand-sewing operations.....	22½	June 6, 1955
Costume jewelry general division.....	36	Jan. 4, 1954	Other operations.....	40	June 6, 1955
Costume jewelry hair ornament division.....	50	Jan. 4, 1954	Crochet beading, bullion embroidery, machine embroidered lace, insignia, and chevron division.....	47½	June 6, 1955
Leather and fabric button and buckle division.....	53	Dec. 6, 1954	Crocheted hats and infants' bootie division:		
Metal expansion watch band division.....	60	June 8, 1953	Hand-sewing operations.....	35	June 6, 1955
Pearl button and buckle division.....	54	Sept. 14, 1953	Other operations.....	45	June 6, 1955
Precious jewelry division.....	55	June 8, 1953	Crocheted slipper division.....	45	June 6, 1955
Rosary and native jewelry division.....	33	June 8, 1953	Dungarees, slacks, and related products division.....	47½	June 6, 1955
Cement.....	75	July 13, 1953	Fabric glove division:		
Chemical, petroleum, and related products industries:			Hand-sewing operations.....	22½	June 6, 1955
Fertilizer division.....	75	July 14, 1952	Machine operations and any operations known to the industry as cutting, laying off, sizing, banding, and boxing.....	57½	June 6, 1955
Hormones, antibiotics, and related products division.....	75	July 14, 1952	Other operations.....	40	June 6, 1955
General division.....	51	July 14, 1952	Handkerchief and square scarf division:		
Clay and clay products:			Hand-sewing operations.....	22½	June 6, 1955
Semivitreous and vitreous china food utensils division.....	40	June 25, 1951	Other operations.....	40	June 6, 1955
Structural clay and miscellaneous clay products division.....	40	Jan. 1, 1951	Hat body division.....	57½	June 6, 1955
Communications, utilities, and miscellaneous transportation industries:			Infant's wear division:		
Airline division.....	75	May 5, 1952	Hand-sewing operations.....	25	June 6, 1955
Cable and radiotelephone division.....	75	May 5, 1952	Other operations.....	40	June 6, 1955
Gas utility division.....	75	Oct. 20, 1955	Knit glove division.....	40	June 6, 1955
Radio broadcasting division.....	65	Oct. 20, 1955	Leather glove division:		
Telephone division.....	75	Oct. 20, 1955	Hand-sewing operations.....	30	June 6, 1955
Tourist broadcasting division.....	75	Oct. 20, 1955	Machine operations and any operations known to the industry as cutting, laying off, sizing, banding, and boxing.....	57½	June 6, 1955
Tourist bureau and ticket agency division.....	75	May 5, 1952	Other operations.....	40	June 6, 1955
Miscellaneous division.....	75	May 5, 1952	Silk, rayon, and nylon underwear division:		
Construction, business service, motion picture, and miscellaneous industries:			Hand-sewing operations.....	26	Oct. 6, 1955
Business service and miscellaneous industries division.....	65	Aug. 11, 1952	Other operations.....	48	Oct. 6, 1955
Construction division.....	50	Aug. 11, 1952	Suits, coats, skirts, fur garments, and related products division.....	55	Oct. 6, 1955
Motion pictures division.....	55	Aug. 11, 1952	Sweater and bathing suit division.....	50	June 6, 1955
Corsets, brassieres, and allied garments.....	55	Nov. 8, 1954	Miscellaneous apparel products division.....	47½	Oct. 6, 1955
Decorations and party favors.....	30	Aug. 13, 1951	General division:		
Electrical, instrument, and related manufacturing industries:			Hand-embroidery operations.....	35	Oct. 6, 1955
Lens and thermometer division.....	60	Sept. 12, 1955	Other operations.....	45	Oct. 6, 1955
Resistance-type household appliance division.....	65	Sept. 12, 1955	Paper, paper products, printing, publishing, and related industries:		
General division.....	70	Sept. 12, 1955	Daily newspaper division.....	60	Dec. 10, 1951
Food and related products:			Paper bag division.....	45	Dec. 10, 1951
Citron brining division.....	40	Oct. 20, 1955	Paperboard division.....	40	Dec. 10, 1951
General division.....	45	Oct. 20, 1955	Paper box division.....	55	Dec. 10, 1951
Handicraft products.....	26	Apr. 16, 1951	General division.....	40	Dec. 10, 1951
Hooked rug:			Plastic products:		
Hand-hooked rug division.....	33	July 21, 1952	Sprayer and vaporizer division.....	75	July 25, 1955
Machine-hooked rug division.....	40	July 21, 1952	Wall tile, dinnerware, and phonograph records division.....	60	July 25, 1955
Hosiery.....	50	May 3, 1954	General division.....	53	July 25, 1955
Jewel cutting and polishing:			Railroad, railway express, and property motor transport:		
Gem stone division.....	50	Nov. 19, 1951	Railroad division.....	33	May 4, 1953
Industrial jewel division.....	42½	Jan. 28, 1952	Railway express and property motor transport division.....	60	May 4, 1953
Leather, leather goods, and related products:			Rubber, straw, hair, and related products:		
Hide curing division.....	65	Sept. 14, 1953	Rubber products division.....	60	Oct. 13, 1952
Leather tanning and processing division.....	40	Sept. 14, 1953	Straw, hair, and related products division.....	37	July 20, 1953
Small leather goods, baseball, and softball division.....	32	Sept. 14, 1953	Shipping.....	75	July 24, 1950
General division.....	40	Sept. 14, 1953	Shoe manufacturing and allied industries.....	40	Jan. 4, 1954
Lumber and wood products:			Stone, glass, and related products:		
Furniture, woodenware, and miscellaneous wood products division.....	38	Aug. 11, 1952	Concrete pipe division.....	60	Mar. 30, 1953
Lumber and millwork division.....	42	Aug. 11, 1952	Glass and glass products division.....	60	Mar. 30, 1953
Men's and boys' clothing and related products:			Glass decorating division.....	42	Mar. 30, 1953
Hat and cap division.....	55	Mar. 14, 1955	Hot asphaltic plant mix division.....	75	Mar. 30, 1953
Necktie division.....	55	Mar. 14, 1955	Mica division.....	42	Mar. 30, 1953
Suits, coats, and jackets division.....	55	Mar. 14, 1955	General division.....	50	Mar. 30, 1953
General division.....	47½	Mar. 14, 1955	Sugar manufacturing.....	75	Mar. 2, 1953
Metal, machinery, transportation equipment, and allied industries:			Textile and textile products:		
Drydock division.....	75	Nov. 30, 1953	Cotton ginning and compressing division.....	40	Aug. 23, 1954
Fabricated wire products, steel spring, and slide fastener division.....	65	June 27, 1955	Hard fiber products division.....	37½	Aug. 23, 1954
General division.....	75	June 27, 1955	Mattress and pillow division.....	75	Aug. 23, 1954
Needlework and fabricated textile products:			General division.....	42½	Aug. 23, 1954
Art linen and needlepoint division:			Tobacco:		
Hand-sewing operations.....	22½	June 6, 1955	Puerto Rican cigar filler tobacco processing division.....	35	Nov. 28, 1955
Other operations.....	40	June 6, 1955	General division.....	50	Oct. 20, 1955
Blouse, dress, and neckwear division:			Wholesaling, warehousing, and other distribution.....	65	Aug. 27, 1951
Hand-sewing operations.....	35	June 6, 1955			
Other operations.....	45	June 6, 1955			

Source: U. S. Department of Labor, Wage and Hour and Public Contracts Divisions.

TABLE 4.—Minimum wage rates in Puerto Rico under the Commonwealth Minimum Wage Act

Mandatory decree number ¹	Industry	Effective date	Hourly minimum (or range of minimum) wage rates (in cents)
1	Leaf tobacco.....	Mar. 1943.....	25.0
3	Sugarcane growing.....	Apr. 1943.....	\$ 17.5-40.6
	Sugar manufacturing.....	do.....	
	Raw sugar.....		33.0-46.3
	Refined sugar.....		33.0-46.3
4	Hospitals.....	July 1951.....	31.0-60.0
5	Soft drinks.....	Mar. 1944.....	25.0-30.0
6	Restaurants.....	Jan. 1955.....	25.0-33.0
7	Theaters.....	Nov. 1953.....	35.0-70.0
8	Retail trade.....	Aug. 1955.....	27.1-43.4
9	Bread, bakery products, and crackers.....	July 1945.....	28.0-82.5
11	Construction.....	July 1946.....	32.0-110.0
12	Transportation.....	Feb. 1948.....	25.0-50.0
13	Laundries.....	June 1948.....	25.0-40.0
14	Furniture and wood products.....	Sept. 1948.....	25.0-60.0
15	Stone quarries.....	Nov. 1948.....	35.0-100.0
16	Wholesale trade.....	Oct. 1949.....	50.0
17	Pineapple.....		
	Agriculture.....	Sept. 1950.....	21.0-50.0
	Canning.....	do.....	30.0
18	Dairy.....		
	Agricultural phase.....	Jan. 1951.....	20.0-50.0
	Industrial phase.....	do.....	30.0-35.0
19	Coffee growing.....	Dec. 1954.....	21.9
20	Commercial printing, newspapers, and periodicals.....	Nov. 1951.....	35.0-60.0
21	Needlework.....	Jan. 1953.....	20.0-25.0
22	Hotels.....	Sept. 1952.....	24.0-40.0
23	Ice cream and ices.....	Feb. 1953.....	30.0-50.0
24	Beer.....	Aug. 1954.....	70.0

¹ The Supreme Court of Puerto Rico annulled decrees numbered 2 and 10 fixing minimum wages retroactively for sugarcane and dairy industry workers.

² Minimum when sugar is priced at \$3.74 per hundred pounds. For each cent above that price, the daily wage is increased 3/4 of a cent. The price of sugar was around \$6 a hundred pounds early in November 1955.

Source: Puerto Rico Minimum Wage Board.

Occupational Wages

In October 1953, production workers in manufacturing industries had gross hourly earnings of 47.9 cents; office workers in the same industries averaged 79.3 cents; repair and maintenance workers averaged 84.1 cents; and those in custodial work, 52.0 cents.⁵

In manufacturing, the best paid occupations, exclusive of processing, were: electrician (\$1.06); mechanic (\$0.99); secretary (\$0.96); plumber (\$0.85); carpenter (\$0.82); typist (\$0.80); storekeeper (\$0.80); payroll clerk (\$0.76); and clerk, general office (\$0.75). The lowest paid occupations were truckdriver helper (\$0.45); porter (\$0.46); gateman (\$0.59); watchman (\$0.59); and oiler (\$0.60). (See table 5.)

The average for all skilled workers (e. g., electricians, carpenters, and mechanics) was around 96 cents per hour, while their assistants averaged 70 cents per hour. Nonskilled workers, such as

may be found in custodial work, had an average wage rate of 52 cents per hour, 44 cents less than the rate of the skilled workers and 18 cents less than that received by semiskilled workers.

Interindustry Comparisons. A comparison of the earnings in those occupations important in terms of employment and common to all industries may illustrate to some extent the wage interrelationships in manufacturing (table 5). "Utility" workers, representing the most important nonprocessing occupation numerically, receive the highest wage in the food and kindred products industry (71 cents) and the lowest in tobacco manufactures (34 cents). Most of the workers in food and kindred products are found in the production of sugar, a high-paying industry which has a Federal minimum wage of 75 cents per hour. Average wages for utility workers in the other industries ranged from 36 to 60 cents per hour.

For clerical work, the next most important nonprocessing occupation, the average earnings were 75 cents per hour. The highest wages were paid in the chemicals and food industries and the lowest in the apparel and related products.

The manufacturing industries in Puerto Rico paying the highest wages are: transportation equipment and machinery; food and kindred products; stone, clay, and glass; and chemicals and allied products. Tobacco products is the lowest paying industry. (See tables 2 and 5.)

Minimum Wage Legislation

Puerto Rico has had its own minimum-wage law since 1941.⁶ The act empowers the Minimum Wage Board to set minimum wages and other working conditions in the different industries in Puerto Rico. The act excludes only domestic service and Government employment; however, industries operated by Government agencies are included. In 15 years, the Board has issued 22 mandatory decrees covering around 296,000 employees at peak employment and increasing their income by about \$23 million.

The Fair Labor Standards Act (covering all industries engaged in interstate commerce or in the production of goods for interstate commerce) was made applicable to Puerto Rico when passed, in 1938. Originally, this law applied to Puerto

⁵Puerto Rico Department of Labor, Bureau of Labor Statistics.

⁶See also p. 1363 of this issue.

Rico the same minimum wage established for the continental United States, but in 1940 Congress decided that it was not economically feasible to set the same flat minimum wage for Puerto Rico as for industries on the mainland. Because of the economic difficulties under which the industries of Puerto Rico operate, Congress amended the Fair Labor Standards Act to provide for a flexible arrangement for Puerto Rico. The Secretary of Labor of the United States appoints special industry committees which periodically review industry wage rates in Puerto Rico, looking toward the goal of the statutory minimum applicable in the United States.

Each industry committee is a tripartite body representing employers, workers, and the public, in equal numbers, and includes members from both the mainland and the Commonwealth. The 1955 amendments to the act provide that the committee shall recommend minimum wages for the industries under consideration and the Secretary of Labor of the United States shall publish the recommended wage orders in the Federal Register. These rates become final and binding on all employers in the industry within 15 days after publication.

Seventeen special industry committees have been convened since 1940; 33 wage orders cover approximately 100 industrial divisions.

The minimum wage rates fixed by the Wage and Hour Division of the U. S. Department of Labor and by the Puerto Rico Minimum Wage Board, for the different industries covered, are presented in tables 4 and 5.

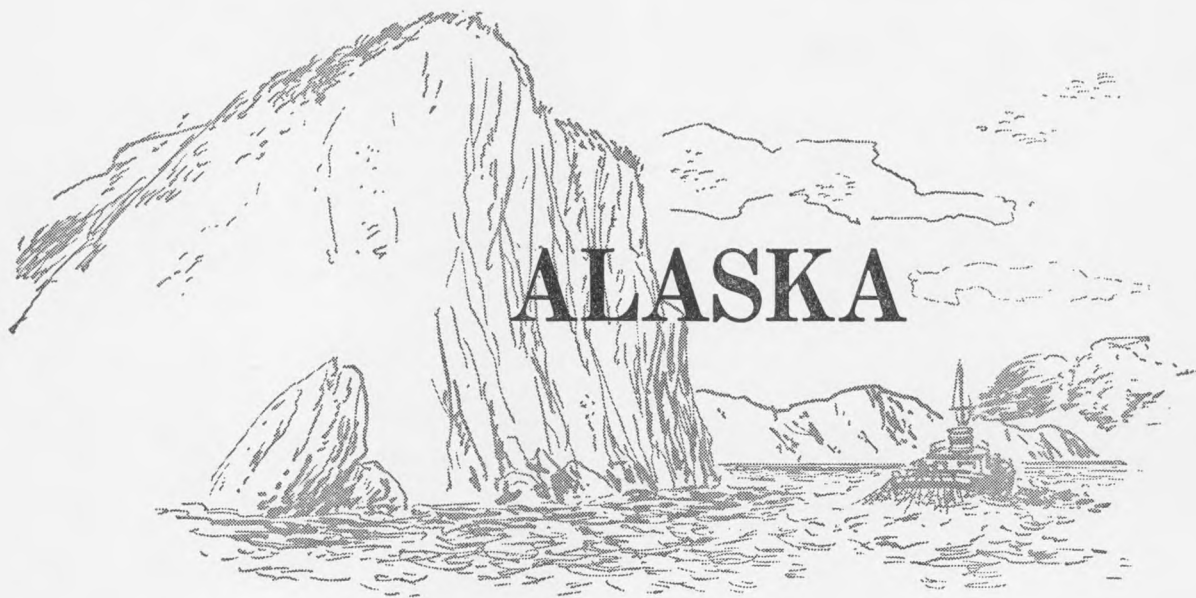
Both the Minimum Wage Board and the U. S. Department of Labor set the highest minimum wage that the industry can reasonably pay without creating substantial unemployment and without giving competitive advantages either to industries in Puerto Rico or to similar ones operating in the United States. Both the Minimum Wage Board of Puerto Rico and the Wage and Hour Division aim to revise their decrees and wage orders periodically, taking into consideration the ability of the industry to pay wages, the needs of the workers, and the possible competition that may exist between Puerto Rico industries and their mainland counterparts. Annual review of wage orders is now required of the Wage and Hour Division by act of the 84th Congress in 1955. Around 10 of the 22 Puerto Rican decrees have been, or are being, revised.

TABLE 5.—Number and straight-time average hourly wage rates of workers in selected nonprocessing occupations in manufacturing industries, by major industry groups, Puerto Rico, October 1953

Industry	Straight-time average hourly earnings									
	Utility worker	Clerk, general office	Mechanic	Porter	Watchman	Truck-driver	Assistant mechanic	Carpenter	Secretary	Truck-driver helper
Number of workers.....	2, 191	817	627	567	428	413	376	271	247	224
All industries.....	\$0. 643	\$0. 747	\$0. 992	\$0. 461	\$0. 592	\$0. 627	\$0. 716	\$0. 818	\$0. 960	\$0. 450
Food and kindred products.....	.711 (1)	.867 (2)	1.008 (5)	.533 (4)	.683 (2)	.620 (6)	.774 (2)	.853 (3)	.984 (5)	.449 (4)
Tobacco manufactures.....	.344 (11)	.682 (7)	.811 (10)	.314 (11)	.404 (10)	.384 (11)	.570 (5)	.676 (11)	.717 (10)	.328 (9)
Textile-mill products.....	.421 (7)	.572 (10)	1.157 (3)	.378 (9)	.437 (8)	.518 (10)	.551 (8)	.830 (4)	.639 (11)	.365 (8)
Apparel and related products.....	.382 (8)	.559 (11)	.903 (8)	.367 (10)	.419 (9)	.607 (9)	.447 (11)	.695 (10)	.808 (9)	.300 (10)
Lumber and furniture.....	.357 (10)	.670 (9)	1.205 (2)	.391 (8)	.466 (5)	.616 (8)	.559 (6)	.713 (9)	.915 (8)	.374 (7)
Paper and allied products; and printing, publishing, and allied industries.....	.540 (5)	.799 (3)	1.306 (1)	.572 (2)	.552 (3)	.620 (7)	.744 (3)	.733 (8)	1.056 (2)	.650 (1)
Chemicals and allied products; products of petroleum and coal; and rubber products.....	.592 (3)	.901 (1)	.863 (9)	.566 (3)	.538 (4)	.668 (3)	.555 (7)	.778 (6)	.980 (6)	.426 (5)
Leather and leather products.....	.363 (9)	.677 (8)	.950 (7)	.393 (7)	.394 (11)	.708 (2)	.510 (9)	.796 (5)	.972 (7)
Stone, clay, and glass products.....	.598 (2)	.718 (6)	1.059 (6)	.411 (6)	.461 (7)	.786 (1)	.779 (1)	.898 (1)	.990 (4)	.390 (6)
Fabricated metal products; machinery; electrical machinery, equipment and supplies; and transportation equipment.....	.456 (6)	.791 (4)	.778 (11)	.497 (5)	.720 (1)	.632 (5)	.487 (10)	.756 (7)	1.137 (1)	.620 (2)
Instruments and related products; and miscellaneous manufacturing industries.....	.561 (4)	.784 (5)	1.145 (4)	.647 (1)	.462 (6)	.633 (4)	.609 (4)	.857 (2)	1.040 (3)	.489 (3)

Source: See Rates per Hour, Hours Worked, and Weekly Wage in Inter-industrial Occupations in Manufacturing Industries, Puerto Rico, October 1953. Puerto Rico Department of Labor, Bureau of Labor Statistics.

NOTE.—The numbers in parentheses indicate the rank of wage rates in each industry in relation to the hourly rates paid in other industries, from the highest to the lowest paying industry.



366804—55—3

The Economy and the Labor Force

GEORGE W. ROGERS

ALASKA'S ECONOMY, its population, and its labor force are all products of its geography. An Arctic and sub-Arctic region, it is a big territory composed of several distinct regions, relatively remote from each other. Its economy is highly seasonal, depending primarily upon the production of raw and semiprocessed materials and upon Federal spending, much of which is related to Alaska's strategic defense location. The population is sparse and fluctuates sharply, as does the labor force, in response to seasonal factors and the course of Federal spending.

Physical Characteristics

Alaska is big. This is the most obvious generalization which can be made about the Territory. Its total area of 586,400 square miles is equal to nearly one-fifth the total area of the 48 States. Because of its size, Alaska cannot be treated realistically as a single region but must be considered as several distinctive regions, each with differing physical, climatological, and natural resources features. The most common geographical division is six regions: Southeastern, South Central, and Southwestern Alaska; the Yukon Plateau (or the Interior); the Seward Peninsula; and the Arctic Slope.

Alaska can also be characterized as a remote and relatively isolated area. Anchorage, the largest city, is 1,450 miles from Seattle and 2,500 miles from Minneapolis by direct airline; 2,633 miles from Great Falls, Mont., by road; and 1,800 miles from Seattle by ship and railroad. Alaska's various sections are remote one from another; in its extreme extent, it approximates the east-west, north-south spread of the continental

United States and there are four time zones within its boundaries. Its coastline is longer than that of the entire continental United States.

Despite the well-deserved debunking of Alaska as nothing more than a land of ice and snow, it is predominantly an Arctic and sub-Arctic region. About 80 percent of its total area is north of latitude 60° N. Permanently frozen ground (permafrost) underlies about 60 percent of the total area. The summer season, or the time between killing frosts, is abnormally short, varying from 165 days at Ketchikan to only 17 days at Barrow, with the season over its largest land area (the Yukon Basin) ranging from 54 to 90 days.

Economic Characteristics

Alaska is an economically underdeveloped area, which is important primarily as a source of raw and semiprocessed materials and as a strategic military outpost. The economic base is narrow, highly seasonal, and regionally varied.

Despite the fact that it is physically a part of the North American continent, Alaska is economically an island and its trade and communications with the continental United States are those of an overseas area. Its one land transportation link with the continental United States is the long and difficult route to Great Falls, Mont., much of it through the relatively uninhabited wildernesses of Canada. The main streams of commerce and migration are by sea and air.

Prices. Seasonality and remoteness combine to explain the first economic fact brought home to any newcomer to Alaska: the costs of doing business and of living in the Territory are very high. In recent years, there have been important reductions in price levels because of population increases, stimulation of competition, and improvement in distribution and transportation, but Alaska must still be characterized as a high-cost region. Reliable data on prices are very skimpy, but for consumer prices at least the Bureau of Labor Statistics of the United States Department of Labor collected data and published indexes for selected Alaskan cities for March 1945 and February and December 1951, which document the impressions of the traveler, businessman, and worker in the Territory. (See table 1.)

TABLE 1.—*Relative differences in costs of goods, rents, and services in selected Alaskan cities and Seattle*

[Costs in Seattle=100]

City and date	All items	Foods	Apparel	Housing ¹	Other
<i>March 1945</i>					
Juneau.....	115	130	113	107	107
Anchorage.....	141	153	131	160	124
Fairbanks.....	148	164	137	157	132
<i>February 1951</i>					
Anchorage.....	140	137	119	213	125
Fairbanks.....	147	147	125	217	130
<i>December 1951</i>					
Ketchikan.....	122	129	111	129	116

¹ 1945 figures represent average rental for 4- and 5-room dwellings meeting certain standards, plus fuel, utilities, and housefurnishings; 1951 figures, rent for 2- and 3-room dwellings meeting certain standards, plus fuel, utilities, and housefurnishings.

Source: Relative Differences in the Cost of Equivalent Goods, Rents, and Services in Three Alaska Cities and Seattle, March 1945, Bureau of Labor Statistics, U. S. Department of Labor, May 20, 1946. Relative Differences in the Cost of Consumption Goods, Rents, and Services in Two Alaska Cities and in Seattle, Wash., February 1951, U. S. Department of Labor, April 26, 1951. Relative Differences in the Cost of Consumption Goods, Rents, and Services in Ketchikan, Alaska, and Seattle, Wash., December 1951, U. S. Department of Labor, February 28, 1952.

Trade With the United States. Its physical characteristics have also fostered Alaska's economic dependence upon the United States. The statistics of trade between Alaska and the continental United States strikingly reveal Alaska as a source of raw and semiprocessed materials and its lack of self-sufficiency and dependence upon the outside for its consumer and capital goods. The dependent relationship was marked in the imbalance of trade from 1868 to 1940, inclusive—from Alaska to the United States, \$2.3 billion; and from the United States to Alaska, \$1.2 billion. With the United States entry into World War II, the "balance of trade" shifted; from 1941 through 1947 (the latest year for which data are available), Alaska's exports to the States, averaging \$78.7 million a year, nearly matched the \$80.5 million average value of its imports.¹

Nonresident Interests. Another earmark of Alaska's lack of self-sufficiency is the nonresident ownership of much of its economic activity. Extreme seasonality, remoteness, and high costs favor the use of seasonally imported labor and extractive activity over processing, while discouraging the accumulation of local supplies of labor, capital, and management talent. The Bristol Bay fisheries are an example of an industry which is almost wholly owned and operated by interests outside the region. Cannery and fishing

supplies are shipped in from the Puget Sound area. According to a recent study, "of a total of about 6,000 men presently employed in the fishing industry in the Bristol Bay area, 4,000 are brought in from the United States; 1,000 are recruited from other parts of the Territory; and only 1,000 are provided locally."²

The degree to which values produced and incomes generated with Alaska are divided between resident and nonresident interests is difficult to document. Although the harvest of the rich fur-seal resources on the Pribilof Islands is probably not a typical activity, it has been analyzed in these terms. It is carried out under Federal supervision and management, but the operation is administered from the Seattle office of the Fish and Wildlife Service rather than from the Alaska office of the Service. The raw furs are transported to St. Louis for final processing and sale, and the Government's share of the proceeds is deposited in the United States Treasury at Washington.

During 1951, the raw-fur value of the United States' share of the pelts and the value of byproducts came to \$2,702,959 (total value, including the share of fur processors and auctioneers in the States, was, of course, greater). This amount represents the value generated *within* the Territory by the harvesting and preliminary preparation of the pelts on the Pribilof Islands. The total benefit to the Territory, in the form of wages and salaries paid to resident workers and medical care and educational facilities provided these workers and their families by the Federal Government, was estimated at only \$200,000 for the year 1951.³ Thus, the region directly benefited from or retained only slightly more than 7 percent of the value produced there.

Federal Spending. It is not surprising, given the geographical position of the Territory, that military construction and other Federal spending are the major factors in determining the level of economic activity and the population growth in Alaska today. For the 13 years 1940-52, Federal

¹ Compiled from various issues of the Monthly Summary of Foreign Commerce of the United States, U. S. Department of Commerce, Bureau of the Census.

² Southwestern Alaska, Interior Report No. 5, Alaska District, Corps of Engineers, U. S. Army, January 20, 1954 (p. 35).

³ John L. Buckley, *Wildlife in the Economy of Alaska*, University of Alaska Press, February 1955 (p. 21).

defense construction expenditures for Alaskan projects have averaged \$114.3 million per year.⁴

In addition to direct military construction, there has been substantial defense-justified Federal civilian construction in the postwar period, particularly rehabilitation of the Alaska Railroad, expansion and improvement of road and airfield systems, and financing community facilities. For the fiscal years 1948-54, Federal obligations for all purposes in Alaska averaged \$413.2 million a year, the Department of Defense accounting for \$270.4 million of the total. (See table 2.)

Beginning in 1941, Federal spending had a number of important direct economic effects. The "balance of trade" with the United States shifted almost overnight from one in which the value of imports was little more than half the value of exports to one in which exports and imports were roughly equal, as already indicated. Alaska's construction industry catapulted from a minor economic activity to the leading industry. The new jobs generated by military construction and the servicing of a sizable military garrison contributed to a spectacular rise in Alaska's population. (See chart 1.)

Federal spending had even more indirect economic effects. The expansion of Alaskan markets created by population and business growth made possible the more efficient and economic distribution and transportation of goods. Military necessity stimulated greater expansion and improvements in Alaska's communication and transportation systems than could have been accomplished otherwise.

Structure of the Economy. The nature and structure of the Alaskan economy cannot be described in terms of "gross Territorial product," but only in terms of the "basic economy"—that dynamic portion of the economy which primarily determines the level of total income and employment. Discounting the construction industry, which is derived largely from Federal expenditures, Alaska's economic base is extremely narrow, resting primarily upon fishing, and to a much smaller degree upon mining; the fur trade, the forest products industry, tourist expenditures, and agriculture combined account for less than 10 percent of the total. (See table 3.) All are highly seasonal

Biennial Report, 1951-53, Alaska Development Board.

TABLE 2.—Federal obligations in Alaska, fiscal years 1948-54

[In millions of dollars]

Fiscal year	Total	Department of Defense	Other Federal agencies ¹
1948.....	\$200.5	\$103.9	\$96.6
1949.....	251.6	135.3	116.3
1950.....	137.2	1.9	135.3
1951.....	607.5	455.9	151.7
1952.....	414.9	266.0	148.9
1953 ²	679.5	512.9	166.6
1954 ²	600.9	416.9	184.0
Total.....	2,892.2	1,892.7	999.4
Annual average.....	413.2	270.4	142.8

¹ Excludes \$86,500,000 in FHA mortgage insurance on housing developments.

² Estimated.

NOTE.—Because of rounding, sums of individual items do not necessarily equal totals.

Source: Prepared by the Federal Bureau of the Budget at the request of Governor's Office, February 1954.

activities, mining and the fur trade are highly unstable cyclically, and the last three are relatively undeveloped.

The Alaskan economy is not an integrated one; rather, it is a collection of far-flung and relatively isolated centers of varied economic activity tied together in rather tenuous fashion at the political and public administration levels by definition more than anything else. Therefore, data are presented in table 3, not only for the "total" basic economy, but for three economic regions selected to illustrate the economic sectionalism:

1. Southeastern Alaska, separated from the rest of the country by Canadian territory and the impenetrable barrier of the great Malaspina Glacier and the towering St. Elias Range.

2. Central and Interior Alaska, roughly the area south of the Brooks Range and east of longitude 151° W. With the exception of Kodiak Island, the centers of development and population are laced together with a well-developed road system, and the economic unity of the region is furthered by the fact that the principal defense establishments are located there.

3. Northern and Western Alaska, the remainder of the Territory.

Population

Like its economy, the composition and nature of Alaska's population have marked sectional differences. Moreover, the population is sparse, predominantly urban, unstable, and highly seasonal.

The 1950 census enumeration of a population of 128,643 in Alaska, including 20,407 military personnel, represents only 0.225 person per square

mile of land area as compared with the United States average of 50.7 persons per square mile. Nearly half of the Alaskan people live in towns and cities with populations of 1,000 or more, 26.6 percent in places with 2,500 or more.

Although the total native population has remained relatively stable, the total white population has been subject to drastic ebbs and flows of migration. In 1867, there were probably 500 white persons in Alaska. According to data from the Census of Population for Alaska, thereafter the white population first increased rapidly to 1900 (30,493) following the gold stampedes, rose again to 1910 (36,400), then declined to 1920 (27,883), changed little to 1929 (28,640), again increased substantially to 1939 (39,170) following the revival of gold mining, and rose sharply to 1950 (92,808) as a result of the military construction program. In 1939, the white population represented only 54 percent of the total popula-

tion, but by 1950 it accounted for 72 percent. The number of males per female—one index of the relative stability of a population—from 1920 to 1950 ranged from 1.03 to 1.08 among the native population, and from 2.82 to 1.86 among white inhabitants.

In discussing Alaska's population, the month as well as the year must be specified, so great is the seasonal variation. The peak population ranged from 15 to nearly 32 percent above the low point in the years 1950-54 (table 4).

Data from the 1950 census for the three economic regions specified previously illustrate the wide sectional differences in the composition of Alaska's population (table 5). They underline the necessity for going beyond data for the Territory as a whole whenever possible. Similarly, comparisons of population figures for 1950 and 1939 indicated marked regional differences. The total population rose by more than 77 percent; in the South-

TABLE 3.—Alaska's income from production and other activities, by region¹
[Annual average, 1948-53]

Economic activity	Total		Economic regions					
			Southeastern Alaska		Central and Interior Alaska		Northern and Western Alaska	
	Amount (thousands of dollars)	Percent	Amount (thousands of dollars)	Percent	Amount (thousands of dollars)	Percent	Amount (thousands of dollars)	Percent
Total basic economy.....	\$201, 268	100.0	\$55, 394	100.0	\$109, 987	100.0	\$35, 887	100.0
Natural resources products.....	130, 632	65.0	46, 494	84.0	55, 846	50.7	28, 292	78.9
Fish and wildlife products.....	102, 582	51.0	42, 284	76.4	37, 178	33.7	23, 120	64.5
Commercial fisheries ²	89, 857	44.7	40, 307	72.8	31, 984	29.0	17, 566	49.0
Furs ³	4, 675	2.3	842	1.5	594	.5	3, 239	9.0
Other tangible wildlife values ⁴	8, 050	4.0	1, 135	2.1	4, 600	4.2	2, 315	6.5
Mineral products ⁵	20, 236	10.1	61	.1	15, 067	13.7	5, 108	14.2
Forest products ⁶	5, 575	2.8	3, 789	6.8	1, 761	1.6	25	.1
Agricultural products ⁷	2, 239	1.1	360	.7	1, 840	1.7	39	.1
Tourist expenditures ⁸	6, 336	3.1	3, 900	7.0	2, 341	2.1	95	.2
Construction ⁹	64, 300	31.9	5, 000	9.0	51, 800	47.2	7, 500	20.9

¹ For definition of regions, see accompanying text (p. 1377).

² Wholesale value, from annual statistical digests of the U. S. Fish and Wildlife Service, entitled "Alaska Fisheries and Fur Seal Industries."

³ Raw value. "Land furs" from Fish and Wildlife Service game and fur district records; "Pribilof fur seal," net proceeds transferred to General Fund reported in Combined Statement of Receipts, Expenditures and Balances of the U. S. Government, U. S. Treasury Department.

⁴ Estimated largely from data in Wildlife in the Economy of Alaska (see text footnote 3); also includes expenditures by nonresident sportsmen for fiscal year 1952 and minimum food value of take by resident hunters and native peoples, value of reindeer and ivory (computed from annual reports of the U. S. Fish and Wildlife Service and Alaska Native Service estimates of amount of wildlife products consumed and value of products).

⁵ Includes value of sand, gravel, and building stone. Total from Bureau of Mines annual area reports entitled "Mineral Production in Alaska"; regional breakdown prepared by Territorial Department of Mines.

⁶ Value f. o. b. mill. Estimated on basis of U. S. Forest Service reports of physical volume of lumber produced, cited in Alaska Development Board's Biennial Report, 1951-53 (p. 39); Bureau of Land Management reports on timber cut on public domain lands and average mill price of lumber (cited in annual reports of the Governor of Alaska); free use timber valued arbitrarily at \$10 per M bd.-ft.

⁷ Includes estimated value of home consumption. Total and regional values from 1950 U. S. Census of Agriculture, Vol. 1, pt. 34-1, and Alaska

Agricultural Experiment Station, Palmer, Alaska, and annual reports of Governor of Alaska.

⁸ Estimated on basis of average annual "touristry revenue" for 1951-53 (A Recreation program for Alaska, National Park Service, 1955, pp. 27-29); regional breakdown from data in Analysis of Alaska Travel With Special Reference to Tourists, by W. J. Stanton, U. S. National Park Service, 1953.

⁹ Total from Employment Security Commission annual reports to the Governor of Alaska; regional breakdown on basis of location and total value of projects (from materials in Construction Contracts Awarded in Alaska, 1947-52, Seattle First National Bank, Oct. 14, 1953; Value of Building Permits in Alaska, 1949-53, Alaska Development Board; and miscellaneous news items). This is not a particularly satisfactory basis for the allocation of wages, as the ratio of labor costs to total costs varies greatly by type of construction.

NOTE.—The transaction level for which valuation is shown corresponds roughly to the amount of processing and market preparation done in the Territory. For example, the value of raw furs is used because virtually all processing is done outside Alaska. Data are not shown for manufacturing as a category because value added to raw materials is negligible except for commercial fisheries and forest products. For construction, wages paid is used because most equipment, supplies, and materials were purchased outside Alaska; where Alaskan products were purchased, their value is already counted (in forest, mineral, or agricultural products).

eastern region, the increase was less than 12 percent and, in the Northern and Western region, nearly 22 percent, but the number of people in Central and Interior Alaska more than tripled.

Labor Force and Employment

The rapid increase in the size of Alaska's labor force during the past 15 years has been accompanied by drastic changes in its industrial composition. Government and industries primarily dependent upon Federal spending have become

the principal employers, but labor-force activity is still extremely seasonal.

Any analysis of Alaska's labor force is hampered by a dearth of statistical material on all but that portion of the labor force covered by the unemployment insurance (UI) program. Census data are available only decennially—October 1, 1939, and April 1, 1950, being the dates of the two most recent censuses. Moreover, the abnormally high seasonality of Alaska's economy makes these dates unrepresentative; in fact, they are not even comparable.

Chart 1. Alaska's Population, Total and Military, Monthly Average, 1940-54

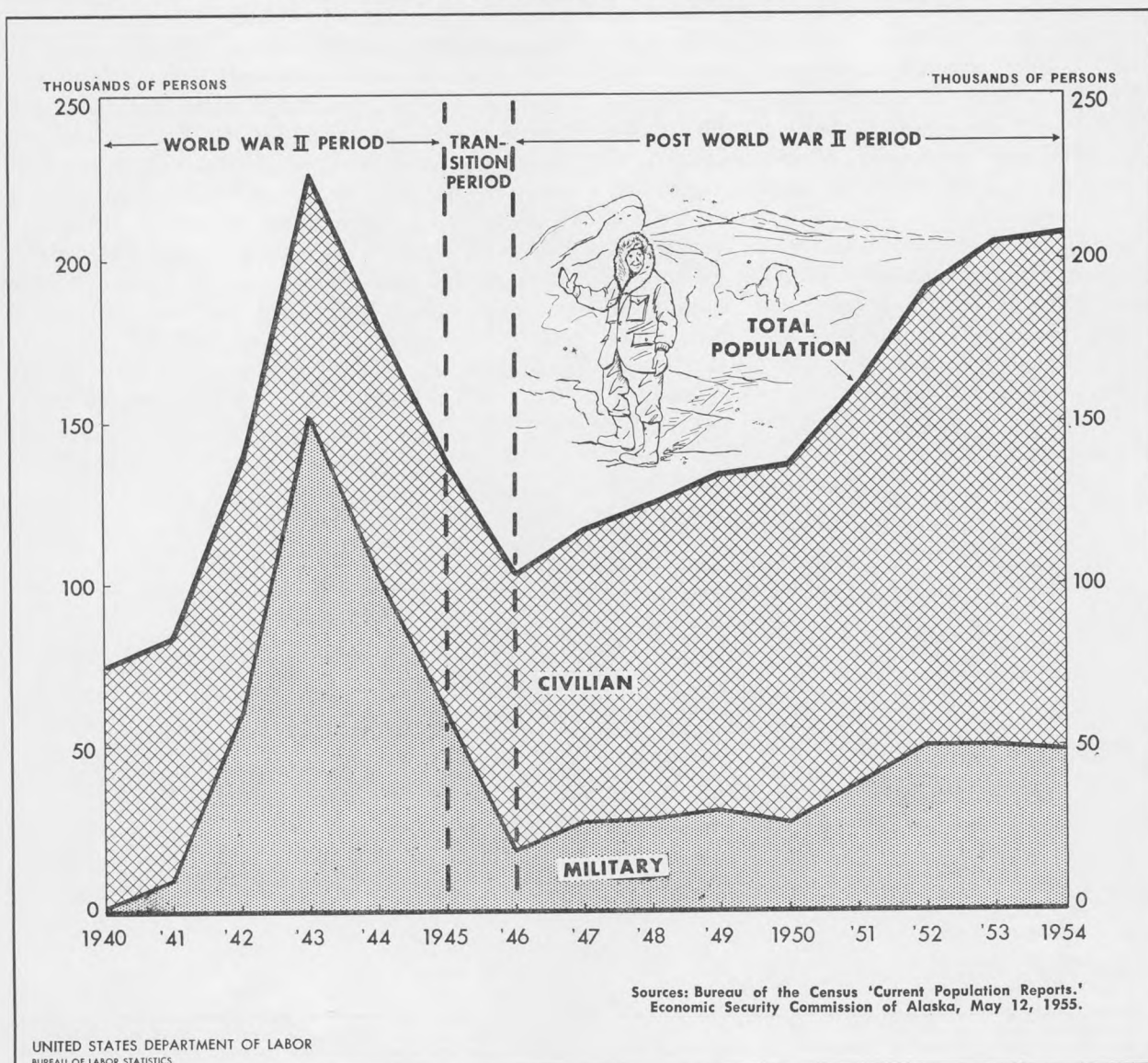


TABLE 4.—*Alaskan civilian population*

Year	Low (January ¹)	Peak (August 1)	Average ¹
1950.....	101,000	123,900	111,000
1951.....	112,000	140,900	123,000
1952.....	123,200	162,500	141,000
1953.....	142,000	174,300	155,000
1954.....	151,900	174,400	159,000

¹ 12-month moving average, computed by the Bureau of the Census.

Source: Estimate of Alaska Population, Jan. 1, 1950–July 1, 1953. Released cooperatively by Office of the Governor, Alaska Development Board, and Bureau of Vital Statistics, Juneau, Aug. 1, 1954; and Estimate of Alaska Population, July 1, 1953, to June 30, 1954, Report No. 3, released by Alaska Resource Development Board, in cooperation with Office of the Governor, Bureau of Vital Statistics, Alaska Department of Health, Juneau (undated).

Therefore, this article relies principally upon statistics for the portion of the labor force "covered" by the UI program as an index of trends and characteristics of the total labor force. In April 1950, covered employment represented about 48 percent of total civilian employment reported in the census of April 1, 1950. The remainder was composed almost entirely of Government and self-employed workers (including some fishermen).

The principal group of workers not covered by the unemployment insurance program during the years 1940–54 were government employees. During the peak month of 1952, there were 14,436 civilian government employees in Alaska, 11,852 being Federal civilian employees, and the total civilian government employees' payroll for that month amounted to \$6,257,700. For the low month, government civilian employment totaled 12,046 and the payroll \$5,208,200.⁵

Covered employment in 1952, with a peak of 49,995 and a low of 19,707, averaged 32,901, and total wages paid averaged \$17,132,000 per month.⁶ Thus, both in terms of numbers and earnings, government workers represent an important segment of the total labor force.

The period 1940–54 was one of generally rising employment and wages. Total wages paid to workers in covered employment increased more than 750 percent, in contrast to the 150-percent rise in the number of workers. (See table 6.) Thus, average annual earnings for these workers rose by 240 percent—from about \$1,850 to nearly \$6,300. This striking increase reflects not only the fact that Alaska has been, in general, a labor shortage area, but also such economic and physical characteristics as the seasonality of employment, the difficulty of inducing labor to move to a far northern country, the high cost of living, and the difficulties and cost of maintaining ties with relatives in the States. (For a discussion of average weekly earnings, see p. 1389 of this issue.)

But all Alaskans are not highly paid and well off. Census data show that in 1949 the median income for all persons 14 years of age and over who earned any income was \$2,072 and that, for nonwhite Alaskans, who made up about a quarter of the total, the median was only \$784. By contrast,

⁵ W. A. Lund, A Study of Employment in Federal, Territorial, and Municipal Agencies in Alaska, Calendar Year 1952, Juneau, Employment Security Commission.

⁶ Employment Statistics, Reports and Analysis Section, Employment Security Commission of Alaska, May 12, 1955.

TABLE 5.—*Distribution of Alaska's population, by military status, race, and place of residence, by regions,¹ 1950*

Population category	Total		Economic regions					
			Southeastern Alaska		Central and Interior Alaska		Northern and Western Alaska	
	Number of persons	Percent of total	Number of persons	Percent of total	Number of persons	Percent of total	Number of persons	Percent of total
Total.....	128,643	100.0	28,203	100.0	71,389	100.0	29,051	100.0
<i>Military status</i>								
Military.....	20,407	15.9	660	2.3	16,236	22.7	3,511	12.1
Civilian.....	108,236	84.1	27,543	97.7	55,153	77.3	25,540	87.9
<i>Race</i>								
White.....	92,783	72.1	19,655	69.7	64,095	89.7	9,033	31.1
Indigenous (natives).....	33,884	26.4	7,929	28.1	6,085	8.5	19,870	68.4
Other.....	1,976	1.5	619	2.2	1,209	1.8	148	.5
<i>Place of residence ²</i>								
Civilian population residing in:								
Places of 1,000 or more.....	50,910	47.0	18,130	65.8	³ 30,980	56.1	1,800	7.1
Places of less than 1,000.....	57,326	53.0	9,413	34.2	24,173	43.9	23,740	92.9

¹ For definition, see text, p. 1377.

² Elimination of military in places of 1,000 or more estimated in some cases.

³ Includes all places in the immediate environs of the city of Fairbanks.

Source: U. S. Census of Population: 1950, Vol. 1, and Bureau of Census worksheets on general characteristics of 1950 population by recording districts.

total earnings of workers covered by the UI program averaged \$4,633 in the same year.

The wide income differences were due in part to the inclusion of military personnel in the census data, but more significantly they reflected the limited degree to which native Alaskans (who make up most of the "nonwhite" category) had been brought into the regular labor force. No data are available on average income by region, but the effect of the regional distribution of economic activity has been apparent in recent years.

A substantial group of Alaskans were receiving such low incomes that the President of the United States, in the winter of both 1953 and 1954, declared the regions in which they resided as major disaster areas.⁷ At the same time, a substantial group of Alaskan workers employed in construction, Government, and secondary industries were

⁷ On October 30, 1953, and again on November 10, 1954, President Eisenhower notified the Governor of Alaska that, under the authority of Public Law 875 (81st Cong.), he had declared that a major disaster existed in those areas of Alaska which were adversely affected by fishing failures (most of coastal Alaska from Bristol Bay to Ketchikan).

Chart 2. Percentage Distribution of Average Monthly Employment in Alaska, by Industry, Division, 1940, 1943, and 1954

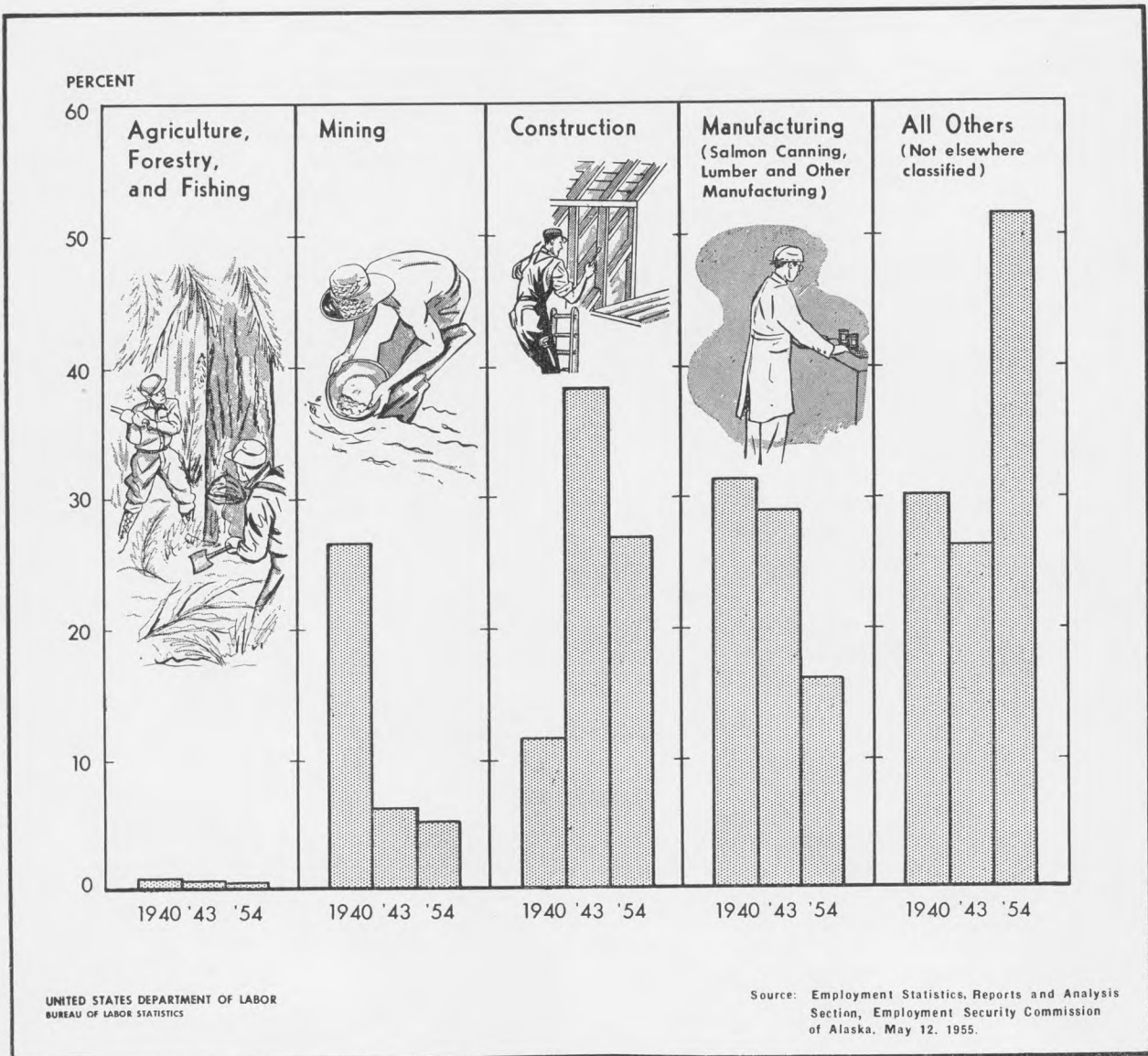


TABLE 6.—Average number of workers and wages in covered employment in Alaska, 1940-54

Year	Number of workers (monthly average)	Total wages (thousands of dollars)
1940.....	10,916	\$20,160
1941.....	16,566	36,792
1942.....	20,540	51,384
1943.....	15,853	49,124
1944.....	18,169	77,177
1945 ¹	13,780	47,728
1946.....	15,408	46,373
1947.....	24,784	99,646
1948.....	23,479	102,964
1949.....	23,089	106,990
1950.....	25,208	120,676
1951.....	32,755	186,579
1952.....	32,901	205,583
1953.....	30,681	192,569
1954.....	27,331	171,774

¹ Coverage was extended, effective July 1, 1945, from employers of 8 or more to employers of 1 or more.

Source: Employment Statistics, Reports and Analysis Section, Employment Security Commission of Alaska, May 12, 1955.

receiving relatively high incomes. Moreover, the Territorial and Federal Governments for many years have operated extensive public welfare programs in certain areas to keep the low-income families alive.

The seasonality of economic activity is illustrated very clearly in data for covered employment (table 7), although in recent years the variation between extremes has tended to be relatively smaller.

The industrial composition of Alaska's labor force has changed considerably during the past 15 years with the shift in the composition of Alaska's basic economy (which decreased the importance of fishing, mining, the fur trade, and the forestry and lumbering industries as construction and other activities depending upon Federal Government spending increased). The proportion of covered employment accounted for by the construction industry rose from about 11 percent in 1940 to over 38 percent in 1943, at the peak of the war

TABLE 7.—Seasonal variation in covered employment in Alaska, selected years

Year	Monthly average employment	Low			High		
		Month	Employment		Month	Employment	
			Number of workers	As percent of monthly average		Number of workers	As percent of monthly average
1940.....	10,916	January..	5,870	53.8	July.....	17,716	162.3
1950.....	25,208	---do....	14,579	57.8	August..	38,153	151.4
1951.....	32,755	---do....	18,199	55.6	---do....	49,538	151.2
1952.....	32,901	---do....	19,707	59.9	July.....	49,995	152.0
1953.....	30,681	---do....	20,411	66.5	---do....	45,302	147.7
1954.....	27,331	---do....	19,692	72.1	August..	38,959	142.5

NOTE.—In 1945, coverage was extended from employers of 8 or more workers to employers of 1 or more.

Source: Employment Statistics, Reports and Analysis Section, Employment Security Commission of Alaska, May 12, 1955.

effort, and was 27 percent in 1954. Mining employment, on the other hand, decreased from 26 percent of covered employment in 1940 to about 6 percent in 1954, and salmon canning from approximately 27 percent in 1940 to 9 percent in 1954. (See chart 2.)

Alaskan employment is still in a stage of transition—possibly to greater future stability. A recent authoritative forecast predicted that by 1962, although average employment in construction will drop by about 4,400 from 1954 levels, the anticipated establishment of 6 new forest products facilities in southeastern Alaska will generate almost 9,200 new jobs.⁸ Employment in forest products mills is expected to rise by about 1,100; in logging, by 2,030; and in various supporting industries, by 6,030.

⁸ Projections of Economic Activity in Alaska for the Period 1954-63, Bureau of Employment Security, Washington, D. C. Full text published in Senate Journal, Extraordinary Session of the Twenty-second Legislature of the Territory of Alaska, Juneau, April 4, 1955 (pp. 11-18).

“Alaska was purchased from Russia for \$7,000,000 in 1867 and the first year after purchase produced almost enough revenue from fur to pay the original purchase price.”

Laurence Stephenson, Organizing Federal Employees on the Alaska Railroad (*in* American Federationist, June 1931, pp. 718-719).

The U. S. Government As an Employer

JOSEPH T. FLAKNE

THE United States Government dominates the employment situation in Alaska to an unusual degree. According to a U. S. Civil Service Commission tabulation, there were over 15,000 Federal employees in the Territory as of June 30, 1954; they were estimated to constitute somewhat less than one-quarter of the total working force.¹ However, a large proportion of other workers are dependent upon Federal expenditures for their jobs.

The Departments of Defense, Interior, and Commerce, in that order, are the three largest Federal employers in the Territory. Together they accounted for 13,751, or 91.3 percent, of all Federal employees in Alaska in mid-1954. (See accompanying table.) Most of the Defense Department's 6,700 civilian employees worked for the Army and Air Corps in the Anchorage and Fairbanks areas. The majority of Department of the Interior workers were employed by the Alaska Railroad and the Alaska Road Commission. The 1,600 employees of the Department of Commerce performed their duties for the most part in connection with the work of the Civil Aeronautics Administration.

Classified and Wage-Board Employees

Classified employees, whose hours and conditions of work are largely fixed by Federal statute, numbered 6,896 on June 30, 1954. A nearly equal number of wage-board employees, while generally covered by Federal statutes governing sick and annual leave, accident compensation, retirement, and unemployment compensation, had their wages fixed by administrative action of the agency concerned rather than by Federal pay acts. In

addition, about 700 employees, although exempt from classification, were paid wages roughly corresponding to the classified pay scale and about 600 were paid under provisions of the Postal Pay Act.

Wage-board employees generally are in "blue collar" occupations requiring varying degrees of mechanical and manual skill, whereas classified employees typically work in clerical, professional, and executive occupations. Because a much larger number of Federal agencies in Alaska employ white-collar workers than wage-board employees, those agencies tend to dominate the Federal employment picture. Since World War II and until August 1, 1955, both groups in Alaska were exempt from the selection procedures of the competitive service; they could not achieve civil-service status by reason of employment in Alaska. Beginning in August, Government agencies in Alaska began a program of converting positions to the competitive civil service, and most Federal jobs have already been converted.

The large number of wage-board employees in June 1954—6,829—indicates the extent to which the Federal Government is carrying on industrial-type operations in the Territory. Defense had nearly 3,600 wage-board employees, mostly engaged in the maintenance, repair, and servicing of huge military installations. Interior employed about 1,800 wage-board workers to run the Alaska Railroad and used many such employees in road-building and road-maintenance occupations to operate the Alaska Road Commission. The Department of Commerce uses wage-board workers in operating and maintaining federally controlled airport installations and airways.

Employee Attitudes

As is the case with any large-scale employer, "Uncle Sam," in his role as employer in Alaska, appears to Federal workers in many different guises. To some, he is a good employer, offering a high degree of job security, paying high wages, establishing reasonable scheduled hours, and providing generous fringe benefits. To some, he seems to ignore the standard of equal pay for equal work, to be perhaps too much addicted to

¹ The Alaska Territorial Employment Service estimated that in June 1952 there were 60,500 employed workers in the Anchorage, Fairbanks, Juneau, Ketchikan, and Petersburg areas of whom 12,800 were Government workers, including municipal employees. Private employment has decreased since 1952, but Federal employment apparently has not.

Paid civilian employees in executive branch of Federal Government in Alaska, by agency, compensation authority, and residence, June 30, 1954

Agency	Total	Under Classification Act			Under wage board			Other Federal employees
		Total	Residents of Territory		Total	Residents of Territory		
			Number	Per cent		Number	Per cent	
Total.....	15,057	6,896	1,500	21.8	6,829	3,070	45.0	1,332
Defense.....	6,749	3,183	68	2.1	3,566	58	1.6	-----
Interior.....	5,393	2,108	1,043	49.5	2,683	2,555	95.2	602
Commerce.....	1,609	1,123	168	15.0	486	370	76.1	-----
Post Office.....	626	-----	-----	-----	-----	-----	-----	626
Agriculture.....	216	125	30	24.0	65	59	90.8	26
Justice.....	154	144	94	65.3	-----	-----	-----	10
Treasury.....	128	79	48	60.8	29	28	96.6	20
Health, Education, and Welfare.....	79	39	-----	-----	-----	-----	-----	40
Veterans Administration.....	47	44	28	63.6	-----	-----	-----	3
Housing and Home Finance Agency.....	16	16	15	93.8	-----	-----	-----	-----
Federal Communications Commission.....	9	9	-----	-----	-----	-----	-----	-----
Labor.....	8	8	2	25.0	-----	-----	-----	-----
Selective Service.....	8	3	3	100.0	-----	-----	-----	5
Civil Aeronautics Board.....	8	8	-----	-----	-----	-----	-----	-----
Other.....	7	7	1	14.3	-----	-----	-----	-----

Source: Computed from data issued by U. S. Civil Service Commission, November 1954.

red tape and personnel manuals, and to be inclined to place too much emphasis on his rights as the representative of sovereignty. To others, he appears indifferent to the more intangible aspects of employer-employee relationships.

Many of the problems of Alaskan Federal workers also exist in the States. However, they appear in Alaska in aggravated form because it is so far away from Washington, because Alaska in many ways is different, and because opinions in Washington vary as to what these differences are.

Federal employee criticism of Uncle Sam's personnel practices in Alaska rarely extend to fringe benefits. With the exception of medical care, such benefits equal or exceed the standards generally prevailing in private industry. Moreover, the Alaska Railroad is one of the few Federal operations anywhere with a comprehensive medical care program.

Territorial Pay Inequalities

Differences in wage standards as between classified and wage-board employees constitute one of the Federal Government's most difficult personnel problems in Alaska, particularly in the area northwest of the Panhandle. Classified employee salaries are determined by adding to the base pay

rates set by Congress a differential to compensate for the higher cost of living. Currently, the differential, which is determined by the Civil Service Commission, is the maximum permitted by law—25 percent. The differential is not used in computing the overtime rate or in determining retirement benefits. Since a 1953 ruling of the Internal Revenue Service, the classified cost-of-living differential may be excluded from gross income for income tax purposes.

On the other hand, the typical method of setting wage-board pay rates relates them to the higher wage levels prevailing in the Territory, although different Federal agencies use different methods of determining such relationships.² In only one Federal operation, the Alaska Railroad, are wage rates initially determined by collective bargaining.³ In all other Federal agencies, wage-board pay rates are set by administrative action, mostly through agency-designated wage boards.

If the price of consumer goods in Alaska were no more than 25 percent above the price of consumer goods in the United States, no serious conflicts between wage-board and classified pay rates would arise. In the Panhandle cities and towns from Ketchikan to Juneau, studies published in 1951 indicate that the cost of living was no more than 25 percent greater than in the Pacific Northwest. Decidedly higher living costs, however, were found in the huge area of Alaska north and west of the Panhandle which Alaskans call the Westward.⁴

In February 1951, the Bureau of Labor Statistics of the U. S. Department of Labor found that consumer prices were on the average 40 percent higher in Anchorage than in Seattle, and in Fairbanks, 47 percent higher.⁵ There is evidence, however, that this percentage differential has declined somewhat since 1951. For example, because a surplus of housing currently exists in Anchorage and Fairbanks compared with the

² The Alaska Railroad, for example, bases wage-board determinations on prevailing wages in the States plus an allowance for the higher level of consumer prices in Alaska.

³ Union organization on the Alaska Railroad is described in the article on Alaskan industrial relations in this issue of the Monthly Labor Review, (p. 1403).

⁴ From both an economic and a military standpoint, the heart of the Westward is the rail-belt area from the southern ports of Seward and Whittier to the northern terminus of the Alaska Railroad at Fairbanks, just a hundred miles short of the Arctic Circle. It includes 2 of Alaska's largest and fastest growing cities, Anchorage and Fairbanks.

⁵ U. S. Department of Labor press release of April 26, 1951. See also table 1, p. 1376 of this issue.

1951 shortage, rents, although they are still very high, have risen less in the rail-belt area since 1951 than they have in large stateside cities, and for the least desirable units have actually decreased. Furthermore, food prices are lower now than they were in 1951. Largely because of the influence of construction wage rates in Alaska, however, stabilized or declining living costs have had little effect upon prevailing wages.

On the Alaska Railroad, clerical as well as blue-collar workers are wage-board employees and their wages are not limited to rates set by Congress plus the 25-percent differential as are those of classified Federal employees. In rank-and-file clerical occupations, railroad workers' wages are \$75 to \$100 per month more than in the classified service in Alaska.⁶

This disparity in wage rates inevitably produces attempts by Federal agencies in Alaska to increase classified service privileges of one sort or another in an attempt to narrow the differences from wage-board and private industry wage rates. Charges of overgrading in the classified service are common. Housing and subsistence are often subsidized. Recently the General Accounting Office has taken informal exception to the per diem practices of Department of the Interior agencies in the Territory on the ground that per diem payments were being used in an attempt to increase the remuneration of classified employees. Various attempts to obtain congressional sanction for an increase in the cost-of-living allowance for classified employees have thus far proved unsuccessful.⁷

In spite of the availability of personnel manuals dealing with wage-board procedures, many Federal agencies in Alaska do not operate on a basis of common understanding of how wage-board determinations should be made. A study made by the Department of the Interior in Alaska in 1953 showed that unreasonable variations in wage-

board pay rates for the same occupation existed between agencies of the Department. Similar variations can be found between departments. For example, the Army and Air Force rates for skilled occupations, set under a rather rigid statistical method of determining prevailing wages,⁸ are among the highest wage-board rates in the Territory.

The Civil Service Commission is aware of these wage-rate discrepancies—which exist not only in Alaska, but elsewhere in the Federal service—and is currently considering the feasibility of legislation to eliminate them by centralizing wage-board determinations in Washington. Such centralization would have the added advantage of eliminating duplicate wage surveys by the various agencies. Some of the objections that have been made to this plan are that (1) it would require all Federal agencies in Alaska and elsewhere to use a wage formula resembling that used by the Army-Air Force, on the assumption that it would fit every wage-board situation; (2) it would impede collective bargaining in the isolated Federal agencies where it exists for wage-board employees; (3) it would make it more difficult to secure a prompt determination of wage-board rates; and (4) it would dilute agency responsibility for wage-board pay rates and therefore reduce the degree of agency control over total operating costs in Federal industrial-type activity.

Undoubtedly, something should be done to secure greater uniformity in wage-board, pay-rate determination procedures. Possibly some of the remedy consists in placing carefully trained persons in charge of wage administration, and in requiring a common philosophy of wage-rate determination rather than completely uniform pay rates in the same area and for the same occupation.

Working Rules

In the more intangible fields of working conditions, such as the handling of grievances, promotion and demotion, layoff and recall, and disciplinary discharge, Federal employees in Alaska as well as elsewhere fare less well than workers in the larger establishments in private industry.

Civil service procedures affecting grievances do not provide for such prompt disposition of grievances as do those of large segments of private

⁶ These comparisons are based on an unpublished Alaska Railroad study, *Wage Rates and Wage Policies of the Alaska Railroad, 1948-1955*, by E. M. Fitch, Paul Shelmerdine, and Harry Jones, Anchorage, 1955.

⁷ The Civil Service Commission, in cooperation with other Federal agencies, began in late 1955 to conduct surveys of living costs, environmental conditions, and prevailing salaries in United States Territories. The surveys are designed to provide factual information for use in determining appropriate allowances and differentials for Federal employees under the provisions of Executive Order No. 10,000, as well as in developing policies in relation to legislative proposals. The areas surveyed included Juneau, Fairbanks, and Anchorage. (Source: *Statistical Reporter*, October 1955, U. S. Bureau of the Budget, Division of Statistical Standards.)

⁸ The Army-Air Force methods of wage determination were described in the *Monthly Labor Review*, March 1954 (pp. 253-254).

industry. In industry, labor agreements usually provide for prompt consideration of individual grievances by the first line of management and a succession of appeals to top officials with relatively short time limits for each appeal. In the Federal Government, a more complicated procedure for grievances is spelled out in personnel manuals. Many employees fail to use it, however, either because they are unaware of the rules or because of a conviction that the prosecution of a grievance through Government channels at times can be a frustrating experience. Furthermore, in the case of the numerous employees who are veterans, Government appeal procedures permit final resort to the centralized authority of the Civil Service Commission.

Considering the size of the Federal Government, a quick decision is impossible under these circumstances, particularly if the case is appealed. The illustrations which follow relate to Alaska but are by no means unique. One Federal agency in Alaska discharged an employee for cause, and more than a year later was still fighting to maintain its decision before the Civil Service Commission. The discharge was sustained, but the employee was kept in a state of uncertainty for many months. In another instance, a discharge ruling of an Alaskan agency was eventually reversed. However, by the time final action of the appeal was taken, the employee had accumulated a bill for retroactive pay for more than \$5,000. If the Government, under existing statutes, could select and follow the most expeditious grievance procedures of private industry, Federal procedures might be tremendously improved.

The Alaska Railroad is the only Federal agency in Alaska that has spelled out grievance procedure, discharge machinery, and seniority, promotion, layoff, and recall rules in agreements signed with union representatives of employees. These rules follow the practices of unionized private industry. They have been found so desirable that Alaska Railroad employees, with the concurrence of officials, have strongly opposed proposals to convert the Railroad's personnel operations to conventional civil service procedures.

Problems of Recruiting

Alaskan labor shortages during World War II and immediately thereafter necessitated an unusual amount of attention to problems of recruiting. Postwar military construction would have been impossible without the use of thousands of construction workers brought up from the States for the May-October season. In the first part of the postwar period, private employers customarily provided transportation to and from Alaska. Similarly, Federal agencies filled permanent positions in Alaska with stateside recruits under contract for limited periods, with transportation paid to Alaska and a guarantee of return transportation upon satisfactory completion of contract.

During the last 10 years, the labor market situation in Alaska has undergone a revolutionary change. In some areas, particularly that served by the Alaska Railroad, the labor pool has become so large that some private employers and some Federal agencies now do almost all of their recruiting in the Territory. Even seasonal "outside" workers generally pay their own transportation to and from Alaska and get their jobs in Alaska rather than in the States. With the immigration of workers in the spring, unemployment rather than a labor shortage has been characteristic of Alaska in the past 2 or 3 years, just as it was, on a smaller scale, prior to World War II. As of the end of April 1955, two-thirds of the 3,000 unemployed persons in Anchorage and approximately three-quarters of the 1,875 unemployed in Fairbanks were men. In the early months of 1955, the Territory's unemployment compensation fund became practically insolvent.⁹

Neither private industry nor Government employing agencies have completely adjusted themselves to this change in the Alaskan labor market. While it is true that the great majority of new Federal employees in Alaska are now recruited in the Territory, notions of labor shortage have persisted in the Washington headquarters of some Federal agencies in spite of the substantial Alaskan labor pool. It is also true, of course, that

⁹ For discussion, see p. 1397 of this issue.

shortages of particular types of workers, e. g., engineers, do prevail in certain areas.

To the extent that this situation has emphasized stateside recruiting to a greater degree than necessary, it has aggravated problems of discrimination between local and stateside workers. A Federal employee recruited stateside can accumulate 45 days of annual leave but, if recruited locally, can accumulate only 30 days. A stateside recruit can return to the States every 2 years for a vacation, with travel time not counted against annual leave. A local recruit in Federal employment has no such privilege.¹⁰ Legislation is pending in Congress which will add to the

privileges of stateside recruits but not to those of local hires by providing that the stateside recruit who takes his vacation every 2 years may be paid by the Government for his cost of transportation.¹¹ In spite of such dual treatment, it should be emphasized that thousands of Federal employees in Alaska regard themselves not as temporary dwellers in an alien land but as permanent residents of one of the most vigorous, interesting, and beautiful areas of the Nation.

¹⁰ Annual and Sick Leave Act of 1951, as amended (65 Stat. 679-683).

¹¹ H. R. 3820 (84th Cong.), introduced February 8, 1955; referred to the House Committee on Post Office and Civil Service.

“On July 15, 1897, the steamer *Excelsior* entered her dock at San Francisco with a party of miners returning home from the Yukon River. The dispatches which went to the country through the press that evening and the following morning announced that a large amount of gold dust, variously stated at from \$500,000 to \$750,000, had been brought down on the *Excelsior*, and gave the details of the discovery and partial development the previous fall and winter of rich placer gold diggings on tributaries of the Klondike, a small river flowing into the Yukon from the eastward at a point in Northwest Territory not far from the boundary line between American and British territory. The news created some excitement among the miners of the West, but attracted no great attention in the East. On July 17, the steamer *Portland* landed at Seattle with some 60 miners from the Klondike and bringing gold dust to the value of \$800,000. This news was so skillfully handled by enterprising newspapers that within a week thousands of men, many of whom had never taken hold of pick or shovel with serious intentions in their lives, were making preparations to go to the new gold fields, and by August 1 the most dramatic, if not the most extensive, exodus since that of 1849 was well under way. . . . While it was evident that the mass of matter on the subject appearing in the daily press contained much that was exaggerated and untrue, yet it was recognized that truth also pervaded the stories that were told, for the amount of gold brought by the miners from the Yukon indicated beyond doubt that a strike of extraordinary character had been made.”

Bulletin of the U. S. Department of Labor, No. 16, May 1898 (pp. 298-299): The Alaskan Gold Fields and the Opportunities They Offer for Capital and Labor.

Wages and Working Conditions

H. L. CLARK

WHILE wages and working conditions in Alaska have received wide publicity, they are not regarded as unusual by longtime residents of the Territory. After all, most of Alaska's labor force was attracted to the Territory by the higher wages, and expected, in most instances, to find working conditions more severe than in the fairly stable economies in which they formerly worked.

History of Wage Developments

Because of the early prominence of mining in Alaska, wage scales were established and working conditions were improved early in the history of that industry. What was perhaps the first miner's wage scale was established during the height of the 1898 gold rush. Based on the seasonality of the work and the working conditions, it was admittedly an arbitrary one—" \$5 a day, the food is fine, and the gold is coarse."¹ Because of an extreme manpower shortage at the time, this rate did not hold for long.

The salmon canning industry—which had its beginning at Klawock in 1879, almost 20 years before the major gold rush—had its own "rule-of-thumb" wage rates even before the mining industry. Cannery wages were, and still are, basically the same as in the Pacific Northwest of the States. With the growth of the industry and fishing fleets, federally imposed fishing restrictions for conservation purposes shortened the "workyear" for both the cannery workers and the fishermen. The more concentrated cannery season and longer and harder workdays, however, have not changed the total pay for the season very much. Cannery operators, in order to assure themselves of a stable labor force, have continued to transport the nu-

cleus of their crew to and from the States, sporadically hiring local help as needed. Dissatisfaction of the local workers with this arrangement led in time to a "seasonal guaranty" for them—in essence, a guaranteed minimum seasonal wage. Typical wage guaranties in 1955 were, in the southeastern section, \$394 for women and \$561 for men for 2 months' work.

Wages in the fishing industry in Alaska always have been characterized by an entrepreneur status of the individual fisherman. In the early days, fishing seasons were long, the number of fishermen and fishing boats few, and, most important of all, there seemed to be an inexhaustible supply of fish. However, since 1936 the salmon catch has almost continuously dropped. This decrease, coupled with an increase in the number of boats and fishermen, has meant a decline in the individual fisherman's share of the overall profits made on his boat.

Construction wages in Alaska originally paralleled those in the States. After an attempt to follow prevailing Alaskan wage standards, principally in the mining industry, they became translations of stateside rates in light of the higher living cost in Alaska. (Yet the construction trade was the first to recognize the "prevailing" wage when an act was passed in 1931 requiring contractors on public projects to pay the prevailing rate as determined by the Board of Road Commissioners.) Wage rates paid by seasonal employers and those paid by employers who maintain steady crews throughout the year have differed widely. The difference is most noticeable in wages paid by Government agencies which hire on a wage-board basis and those paid by private contractors. Until 1952, many Federal agencies based construction wage rates on wages paid by private contractors on defense projects; since then, their rates have been closer to the lower level of wages paid by permanent industries in Alaska. Consequently, the differential between Federal rates and the private construction industry's rates has substantially increased. This has aggravated a dilemma which is inherent to the situation where both seasonal and year-round workers are involved in wage-board hiring. As stateside recruiting has tapered off in the construction industry, because

¹ The reference to gold being "coarse" meant that it was nugget size and a little pilferage was not unexpected.

of the growing permanent labor force in Alaska and the reduced demand for labor as a result of the completion of most major defense installations, wage scales have been determined more in the light of the Territory's higher living costs and to a great extent by the working conditions.

The lumber industry in the Territory has only recently attained prominence. In the past, wage scales in that industry, like those in most other Alaskan industries, were gaged by the "prevailing" rate, influenced by the mining industry in the early days, and recently by the seasonal construction rates. Starting with military and defense construction in Alaska, the demand for forest products brought into existence many more wood manufacturing plants. Employment in this industry has become less and less seasonal in nature and wage rates nearly parallel those of the lumber industry in the Pacific Northwest.

Wage rates in longshoring have risen during the boom periods created by the gold rush, later by World War II, and more recently by the buildup of defense installations, all of which caused serious shortages of workers for this industry. Currently, their wage rates are among the highest in the Territory.

Wages in other industries show a varied pattern. The differences result from the slow growth of manufacturing, compared with the rapid growth of trade due to the influx of myriads of workers during the construction boom period.

Wages in Government employment, which has remained high in relation to the total labor force, are determined differently for Federal and Territorial workers in Alaska. Federal employees in the classified service are hired at the standard civil service rates prevailing in the States, plus a 25 percent cost-of-living allowance, which is now exempt from Federal income tax. On the other hand, Territorial employees work under various standards and wage rates are not as uniform as in Federal employment. All Territorial agencies participating in Federal grants-in-aid operate under a standard merit system plan under which wage rates are patterned somewhat after those of the Federal Government. In some areas, a cost-of-living differential is paid but is not exempt from Federal income tax. For those reasons, a very considerable disparity between Federal and Territorial take-home wages for similar work exists.

TABLE 1.—Average weekly earnings in employment covered by the Employment Security Act of Alaska, selected industries, 1940 and 1954

Industry classification	1940		1954	
	Average weekly earnings	Industry rank	Average weekly earnings	Industry rank
All covered industries.....	\$35.51	-----	\$120.94	-----
Agriculture, forestry, fishing.....	29.45	8	103.87	8
Mining.....	34.38	5	126.78	5
Contract construction.....	45.04	--	170.60	--
Building contractors.....	39.35	3	161.14	3
General contractors.....	48.90	1	182.19	1
Special-trade contractors.....	38.02	4	176.29	2
Manufacturing.....	29.59	--	105.23	--
Salmon canning.....	28.93	9	94.75	11
Lumber.....	31.26	6	117.88	6
Other manufacturing.....	29.59	7	126.97	4
Transportation, communication, and other utilities.....	17.31	12	103.10	9
Wholesale and retail trade.....	23.84	11	96.93	10
Finance, insurance, and real estate.....	48.02	2	104.91	7
Service.....	26.22	10	86.67	12

Source: Employment Statistics, Table B, compiled by the Reports and Analysis Section, Alaska Employment Security Commission, Juneau, May 12, 1955.

Industry Wage Levels

The average weekly wage of workers covered by the Alaska Employment Security Act² increased threefold between 1940 and 1954. However, while the general average was just over \$35 in 1940, individual industry averages ranged from only \$17.31 a week in transportation, communications, and utilities to \$48.90 per week in general construction. (See table 1.) By 1954, the average had risen to nearly \$121, and, among industries, earnings ranged from \$86.67 in the service group to \$182.19 in general construction. Thus, the construction trades ranked at the top in both years. The agriculture, forestry, and fishing and the mining groups, and the lumber industry also maintained their relative positions. The most outstanding change in ranking occurred in finance, insurance, and real estate, which dropped from 2d to 7th place.

Underlying Factors

Stateside wage standards are the greatest influence on Alaskan wage rates. These standards, built up over the years in the various occupation and industry groups, have been established in many instances by stateside union wage contracts, which are the prototypes for Alaska. Moreover,

² For extent of covered employment, see p. 1382 of this issue.

most Alaskan employers and their workers came from the States. Recognition of higher living costs in Alaska as compared with the States also has been an important factor in the determination of wage rates. Transportation cost, costs resulting from spoilage of food and other materials, and shortages of housing and living facilities, supplies, and equipment have been reflected in Alaskan wage rates. The payment of two-way transportation in the fishing, mining, construction, and Government groups has influenced greatly the wage rates in those industries. Furthermore, the high seasonality of work in such industries as fishing, salmon canning and processing, construction, lighterage, and whaling always has been a strong influence.

The Territory's labor shortages during World War II, even for the most unskilled workers, were another factor which pushed wages upward substantially. High construction wage rates, occasioned by a "cost-plus" military construction boom, have made wages in construction and its supporting industries so attractive that the permanent labor force in Alaska has grown faster than in almost any other area. The rate of growth in the Territory's labor pool has created severe unemployment problems for Alaska during the winter months.

Regional differences among particular occupations and industry groups have meant lower scales in Southeast Alaska than in the Westward (the area north and west of the Panhandle). They are brought about by the lower cost of living in the southeastern section and the absence of the boom atmosphere still prevailing in the Westward section.

The seasonality of many activities also has an important effect on wages in Alaska. For example, scales for year-round road maintenance jobs are lower than those for highly seasonal construction work, and maintenance forces have increased as roads have been completed. Improved engineering techniques in construction now permit more year-round work in that industry.

The effect of Territorial labor laws on wages and hours³ cannot be overlooked. The 8-hour day, established in public works and in underground mines in 1913, in reality was a combination health-safety provision, but at the same time it resulted in a wage differential for the mining industry. The

1931 Legislature passed a law requiring contractors on public works to pay the "prevailing" wage rate as determined by the Board of Road Commissioners. The first wage and hour law, passed in 1939, also had some effect on Alaska's wage rates. This law applied only to women and set a minimum of \$18 for a 48-hour week and a 45-cent minimum hourly rate for part-time work. The wage and hour law now in effect in the Territory was passed in 1955 and applies to both men and women. With some exceptions, it sets a minimum hourly rate of \$1.25.

Typical Wage Scales

Alaskan wage rates for a given occupation vary greatly from industry to industry and from area to area. Within a particular area, wage rates for an occupation are uniform only when workers employed in different industries are members of the same union. The rates for different occupations within an industry in each area also encompass a wide range. (See table 2.) Such factors as geographic location and the nature of the work also affect the level of wages in particular industries.

As in the case of average earnings, construction wage rates universally set the pace. For example, in the Ketchikan area in the southeast, mechanics receive \$3.72 an hour in construction; from \$2.50 to \$3 in trade and services; from \$2.30 to \$2.70 in Government; and \$2.75 in lumbering and logging. In Anchorage, on the other hand, where cement finishers in private industry all belong to the same union, they receive a minimum of \$3.67 in both construction and the trade and service groups. However, it is not the basic hourly rates that attract stateside workers to the construction industry in Alaska so much as the overtime and holiday rates. Time-and-one-half and double-time rates are often the usual rates, because of the long days and 7-day weeks necessitated by the concentrated work seasons. Heavy-duty-truck drivers on construction jobs in the Anchorage area, for example, have an hourly rate of \$3.59, but they typically earn a "normal" year's wages in a few months. The earnings of these and other highly unionized skilled workers are usually above the average.

³ For a more comprehensive description of the provisions of these laws, see p. 1395 of this issue.

The construction industry also provides illustrations of the variation in wage rates among areas. The earnings of construction engineers in Anchorage and Fairbanks—where most of them work—range from \$800 to \$1,000 and from \$700 to \$900 a month, respectively.

Mining is an example of the wage variation among occupations within an industry. In the Fairbanks area, among professional and clerical workers, for instance, salaries range from \$335 a month for clerk-typists to \$550 for mining engineers. Rates for other mining employees be-

TABLE 2.—Wage and salary scales for selected occupations, by industry category, Anchorage, Fairbanks, and Ketchikan, May 1955

[In dollars]

Occupation	Anchorage			Fairbanks				Ketchikan				
	Construction	Government	Trade and service	Construction	Government	Placer mining	Trade and service	Construction	Fisheries	Government	Lumber products	Trade and service
[Salary scales on a monthly basis unless otherwise indicated]												
<i>Professional and clerical</i>												
Accountant.....	750-900	527-733	500-750	700-800	400-450		400-750					
Bookkeeper.....	450-600	356-480	350-500	425-500	355-438		315-500					
Clerk-typist.....	350-400	305	300-350	300-400	307	335	315-375					
Draftsman.....				3.00 hr.	437							
Engineer.....	800-1,000	527-733	650-900	700-900	527-645	550						
Salesclerk:												
Clothing.....		1.44 hr.	2.45-2.80 hr.									
General.....					1.66 hr.		1.50-1.75 hr.					
Grocery.....			2.45-2.80 hr.		2.34 hr.		1.50-1.75 hr.					
Secretary.....	400-500	356	350-450									
Stenographer or clerk-stenographer.....	400-450	330	325-400	350-450	307-350	335	325-450					
Teacher, primary and secondary school.....		4,550-6,185 yr.	5,430-7,200 yr.		5,550-6,200 yr.							
Technician, laboratory and/or X-ray.....		356	400		330		300					
[Wage scales on an hourly basis unless otherwise indicated]												
<i>Service</i>												
Baker.....	2.95		23.00 shift	2.70		1.92	27.50 shift					
Butcher.....	2.70		3.00	2.70			450-500 mo.					
Cook, camp.....	2.95	2.58-2.84	23.00 shift	2.75	2.58-284	1.92						
Dishwasher.....	2.15		14.00 shift	2.15		1.58	14.00 shift					
Janitor and/or bull cook.....	2.15	2.78	400-500 mo.	1.80		1.58	2.00	2.025			1.65	1.50-1.75
Kitchen helper.....				2.15		1.58	17.00 shift					
Waiter and/or waitress.....	2.25	1.46	12.00 shift	2.25		1.58	12.00 shift					
[Wage scales on an hourly basis unless otherwise indicated]												
<i>Trades and labor</i>												
Brickmason.....	4.39		4.39									
Bulldozer operator.....	3.74	2.95	3.54-3.74									
Carpenter.....	3.69	2.84	3.00-3.69	3.69	2.84	2.54	3.69 ¹	3.525		2.96-3.15		3.525
Cement finisher.....	3.67-3.92		3.67	3.60	2.78		3.60					
Chokersetters.....								3.095			2.35-2.75	
Crane-shovel operator.....	4.09-4.39	2.95	4.09-4.39									
Electrician.....	4.35	3.02	4.35	4.25	3.02	2.54	4.25	4.20		3.11		4.20
Fallers and buckers.....										2.75		
Hooktenders.....											3.00-3.50	
Ironworkers, structural.....	4.035			3.84			3.84					
Machinist.....		3.14	3.50									
Mechanic.....								3.72		2.30-2.70	2.75	2.50-3.00
Mechanic, heavy duty.....	3.79	3.02	3.39-3.79	3.79	3.14	2.54						
Mechanic, maintenance.....		3.02	500-600 mo.									
Painter.....	3.73	2.78	3.00-3.73	3.83	2.78		3.83	3.525		2.86		3.525
Plumber.....	4.25	2.95	4.25	4.35	2.95	2.54	4.35	3.75		3.11		3.50
Sheetmetal worker.....	4.10	3.02	4.10	4.10	3.02		4.10	3.95		3.11		3.95
Truckdriver, light.....	3.39		2.75-3.22						3.245-3.43	2.15-2.70	2.50-2.75	2.45
Truckdriver, heavy.....	3.59	2.66	2.98-3.52									
Welder.....	3.79-3.84	3.02	3.79-3.84	3.93	3.02	2.54	3.00	3.72		3.06		3.06
Laborer.....	3.255-3.29	2.22	3.25-3.29					3.095	2.475	1.85-2.45		2.00-2.50

¹ 1954 rates.

² Rate for cannery laborers is \$1.72 an hour.

Source: Data compiled by the Alaska Employment Security Commission, 1955.

gin at \$1.58 an hour for such workers as kitchen helpers and janitors and reach \$2.54 an hour for skilled workers.

Lumbering and logging is mainly concentrated in southeastern Alaska, and the wage rates reflect the somewhat lower cost of living that prevails there, as compared with Westward Alaska. The longer work season, steadier employment, etc., also affect the rates in this industry.

In longshoring, although the hourly rates are high to compensate for the sporadic nature of the work, earnings on a weekly, monthly, or annual basis compare with the lower classifications in the other industries. The longshore union agreements provide different wage scales for various types of work. The straight-time rate for the Juneau dock, for instance, is \$3.14 an hour for handling non-penalty cargo and \$3.24 for handling penalty cargo.⁴ The straight-time rate is in force only between 8 a. m. and 5 p. m., Monday to Friday, and then for only the first 6 hours of work each day. Because most cargo is handled at times other than those stipulated, the overtime rates of \$4.70 an hour for nonpenalty cargo and \$4.85 for hazardous cargo are most typical.

Women in Alaska, in general, receive the same pay as men when they perform identical duties. The pay differs between sexes in some occupations because the work is not equal—owing to extra requirements (heavy work, extreme working conditions, odd hours, etc.). A typical difference is for retail clerks in the Ketchikan area, where men receive \$1.95 to \$2.10 an hour and women from \$1.35 to \$1.70, because men are expected to do heavier lifting and the more tiring storage tasks.

Alaska-Stateside Wage Differentials

There are pronounced differences between Alaskan and stateside wage rates for both skilled and unskilled workers. Construction carpenters, for instance, got from \$3.52½ to \$3.69 an hour in Alaska in May 1955 (table 2), compared with the average union wage scale in the United States of \$3.01 on July 1, 1955, and a range from \$2.18 to \$3.55 among the 85 cities surveyed by the U. S. Department of Labor's Bureau of Labor Statistics.⁵ Even greater differences are found in the wage scales for construction laborers, who earned \$3.09 in Ketchikan and \$3.29 in Anchorage, compared

with the United States average union scale of \$2.04. The differences in wage scales between Alaska and principal cities in the States are somewhat smaller for office occupations, especially those with labor shortages, such as stenographers. For example, general stenographers in San Francisco-Oakland averaged \$65 a week in January 1955—the highest average among 17 labor-market areas surveyed by the BLS.⁶ In Anchorage, where stenographers' monthly rates are about as high as any place in the Territory, the range is from around \$300 to \$450; the average of \$325 is toward the lower side of the range, because stenographers, in general, do not remain more than a year or so with an employer and consequently do not receive large wage increments.

Wage differentials between Alaska and the States are largest in occupations in defense and heavy construction. They are attributable to the urgency of the work in Alaska, the shorter work season, the more difficult working conditions, the higher cost of living, and the fact that many construction workers maintain 2 residences, 1 for their family in the States and 1 for themselves in Alaska. The differentials are smallest in some of the skilled crafts, in trade and the service industries, and in office occupations that are not so much affected by the defense construction activity.

Hours of Work

The chance to double income, by working long hours, was a greater attraction for the thousands of workers who came during the various booms than was the actual base wage. The working of long hours in construction has virtually mocked the concept of the 40-hour week. During World War II and postwar years, the very nature of construction work in Alaska necessitated long overtime hours in the short working season, as already indicated. The decline in average hours worked in construction, caused in part by the growth in the labor supply in the last 2 years and the virtual elimination of emergency completion deadlines, has been due also in part to the increasing competi-

⁴ Penalty cargo includes cold-storage products such as meat and produce, cement, and materials such as creosote, the handling of which involves extra hazards.

⁵ See press release USDL-1225, July 27, 1955.

⁶ See Monthly Labor Review, October 1955 (p. 1119).

tion among contractors and the desires of unions to spread the work among all of their qualified members.

In 1955, the Legislature passed a wage and hour act requiring time and one-half pay after 8 hours in 1 day and 40 in 1 week. Since construction and other seasonal industries already were adhering pretty much to this pattern, its influence will be mostly felt in the services, trade, and other supporting industries.

In the light of earnings of workers (table 1), the number of hours worked must have been greater than the typical 40 for stateside industries. In the metal mining industries in the States, hours average slightly over 40 a week. In Alaska, they range from a low of about 27 during the winter to a maximum of about 52 during the summer. The U. S. Department of Labor's figures for private building construction do not show a seasonal range for average hours worked, but the average of 36.2 for 1954 falls far short of the 40 to 59 hours weekly—an average of 51.2—for Alaska. It is quite common during the summer construction season in Alaska for the week to be made up of six 9-hour days and in some instances, as high as seven 12- or 16-hour days.

The United States average for workers in the lumber and wood products (excluding furniture) industry was 40.6 hours in 1954. This compares with a range of 36.2 to 42.1 in Alaska, with an average of about the same as for the States as a whole. The production of lumber and wood products in Alaska is, of course, very much like that in the States and is not subject to the violent seasonal peaks and pressures that characterize the defense construction industry. Most of the trade and service industries and the Government agencies work steadily, with overtime only at particular times of the year. Workers in these categories average around 40 hours weekly, the same as their counterparts in the States.

Working Conditions

Climate, an influencing factor in Alaskan wage rates, also affects working conditions in the Territory. While the winters in the Westward and interior parts of the country are severe enough to close down much outdoor activity, the southeastern section is not hampered by frigid weather as much as are the States of New York, Montana, Illinois,

the Dakotas, and others. Unfortunately, most important construction work has been in the Westward section of Alaska. In the outlying areas where major advance attack-warning networks have been constructed, the severity of the winter climate cannot be overemphasized as a major factor in both obtaining workers and setting wage scales.

Tied somewhat to climatic conditions in Alaska is another factor that strongly affects wage rates and working conditions, the seasonality of the work, which results in a high rate of offseason unemployment. A large part of the Alaskan work force is made up of people in industries subject to closedowns during the winter months. In addition, employment in the important fishing and fish processing industries is seasonal because the fishing runs have fallen off steadily in recent years, bringing curtailment of the season, as already indicated. Over the years, the unemployment compensation law has operated to the advantage of these industries by providing the workers with unemployment benefits that are, in a way, an "offseason" wage. However, the average weekly benefit never has offset enough of the earnings loss to sustain the worker and his family at a reasonable level. For example, the maximum benefit is currently \$45 a week for the worker plus \$5 for each dependent child (up to 5 children), whereas the average earnings in covered employment were nearly \$121 a week in 1954.

Because of the heavy drains on the unemployment compensation fund caused by seasonal unemployment, workers with only a short attachment to the Alaska labor force are not now eligible for unemployment benefits.⁷

One of the mining industry's largest selling points to attract workers has been the camps provided by the major mining operations. By providing the best in food and adequate shelter, at low cost, the mining industry has added substantially to the take-home earnings of its workers. For somewhat the same reason, work on a year-round basis on the military installations frequently attracts workers. The on-the-base housing facili-

⁷ At the present time, about \$650,000 of the Alaska unemployment trust fund is frozen pending a decision, in connection with *The Fidalgo Island Packing Co. v. Phillips et al.*, as to whether seasonal cannery claimants will receive benefits based on claims filed outside the seasonal dates established by a former director of the Alaska Employment Security Commission. Effective July 1955, the Alaska Employment Security Law no longer provides for seasonal regulations, but changes in the provisions dealing with base-year wages will make many seasonal workers ineligible for benefits.

ties provided for the worker (and sometimes for his family) plus the advantage of purchasing at base post exchanges, make the lower wage rates seem more attractive.

The fringe benefits available to many Alaskan workers are similar to those granted in the States. For example, most union wage agreements in Alaska carry provisions for paid vacations of from 1 to 2 weeks, depending on length of service. Annual and sick leave provisions apply for most Government workers, and Federal workers recruited in the States receive more liberal annual leave than those who work in the States.

A substantial majority of Alaskan workers are covered by the unemployment compensation law.⁸ Currently, benefits up to \$45 a week are provided; if the worker has 5 dependent children, he may receive as much as \$70, as indicated previously. These benefits are the highest available to unemployed workers in any State.

Compensation for wage loss by injured workers has proved to be a fringe benefit in Alaska, where

working conditions are hazardous. The 10,000 to 12,000 commercial fishermen in Alaska constitute a large segment of the working force, and although they are subject to exceptional occupational hazards, they are not covered by workmen's compensation. Provision has been made to take care of disabled fishermen, however, through a special fund financed by the allocation of 30 percent of the commercial fishing license fees.

Other fringe benefits in the form of welfare funds, company-sponsored pooled-buying arrangements, credit unions, etc., are provided by both private and Government employing units. Paid transportation to and from Alaska, while not correctly classified as a fringe benefit, is nonetheless considered as such by the workers involved; nonresident employees in Government and private industries are often granted such benefits.

⁸ Prior to the extension of coverage to Federal employees in January 1955, about half of Alaska's employed workers were covered.

Entry for August 24, 1897, from diary of government agent investigating conditions during Alaskan gold rush: ". . . Applied at half a dozen . . . tents for a cup of coffee, but was refused, although . . . payment was tendered. A man with a pile of grub 6 feet high . . . declined to part with enough of it, even for pay, to enable a fellow-traveler to reach his own outfit a few miles farther on. . . . Reached the foot of Long Lake, 3 miles from Lindeman . . . Quite a number of tents here. Applied at 1 for a cup of coffee, and received a hearty invitation from the 3 occupants . . . to join them in the meal they were preparing. An attempted apology for the intrusion met the the unanimous assurance . . . that none was necessary, as they had themselves but 10 minutes before taken possession of the tent, which they had found unoccupied. After a sumptuous dinner of baking-powder biscuits, bacon, beans, and coffee, a letter was written to the owner of the tent, thanking him for his hospitality . . . Arrived at Lake Lindeman at 7 o'clock. The camp . . . contains about 50 tents and a temporary population of 200. . . . Situation somewhat discouraging; no blankets, no food—nothing but wet clothes and a bad cold. Made the acquaintance of two brothers from Juneau, and on statement of circumstances was invited to share their tent, given a change of clothing and half a teacupful of Hudson Bay rum, and put to bed. Opinion of the people on the trail improving."

Bulletin of the U. S. Department of Labor, No. 16, May 1898 (pp. 305-306): The Alaskan Gold Fields and the Opportunities They Offer for Capital and Labor.

Labor Law and Its Administration

L. E. EVANS

ALASKA'S LEGISLATURE first met on March 3, 1913, the day before the United States Department of Labor achieved Cabinet status. The 1913 session was made up largely of men who had entered the Territory during the gold-rush days of 1898 and 1899. They were miners experienced in establishing ad hoc governments as they set up camps on the heels of each new gold strike.

The laws enacted by these pioneer legislators compared favorably with labor legislation existing in the States at the time. The first territorial Legislature extended the voting franchise to women; established the 8-hour day on public works and in underground mines; prohibited employers from requiring their employees to patronize company stores or boardinghouses; declared employment in underground mines hazardous and created the position of mine inspector (variously titled since then) with broad authority to enforce safety rules; passed a miners' lien law; prohibited the use of deception, misrepresentation, false advertising, false pretenses, and unlawful force in recruitment of employees; passed an employers' liability act, the forerunner of workmen's compensation, and a measure for the mediation and arbitration of labor disputes.

The chairmen of the labor committees of Alaska's first Legislature were Senator Henry Roden of Fairbanks and Representative Tom Gaffney of Nome. They deserve full credit for the labor laws passed at the first session. To date, 22 regular and 3 extraordinary sessions of Alaska's Legislature have met; the topical discussion of Alaskan labor laws and their administration which follows is based on the actions of those sessions.

Equal Rights and Child Labor

Equal Rights. The first enactment of the 1913 Legislature gave Alaska's women the right to vote. Equal rights for women received further impetus as a result of a 1922 referendum in which women were asked whether they wanted to serve on juries; the 1923 Legislature established eligibility for jury duty regardless of sex; 10 years later, Alaskan women were given the right to hold public office.

An equal-pay law for Alaskan women was passed in 1949. Administered by the Commissioner of Labor, this law allowed the affected employee or the Commissioner to sue for back wages; the Commissioner was authorized to refer cases to the Attorney General for prosecution.

The first antidiscrimination law of the Territory was passed in 1945 and applied only to restaurants, theaters, hotels, and other such public places.

A Fair Employment Practices Act was passed in Alaska in 1953. Administered by the Territorial Department of Labor, this law declared that the opportunity to obtain employment without discrimination because of race, religion, color, or national origin was a civil right. It prohibited discrimination not only by employers but also by employees, labor organizations, and employment agencies.

Child Labor. In four different sessions of the Territorial Legislature, child-labor laws have been enacted or amended. The 1915 Legislature prohibited the employment of boys less than 16 years of age underground in mines and prohibited any person under age 18 from being employed as a hoisting engineer. In 1939, the employment of girls under 16 was prohibited.

The 1949 Legislature passed a general child-labor law with a minimum age of 16 in most occupations, 18 in hazardous occupations, and 21 in the business of serving or selling liquor. Part-time work during the school year was restricted to a maximum of 23 hours a week, and the hours of work for minors under 18 years of age were limited to 8 in 1 day and 40 in 1 week. This law was amended in 1951 to permit children over 16 to work more hours under certain conditions.

Wages and Hours

The enactments of the first Territorial Legislature indicated its awareness of the need for regulations as to wages and hours. However, its legislation in that field and that of succeeding sessions was restricted, until 1955, to laws applicable only to an industry, an age group, or a sex.

Minimum Wage and Overtime. Alaska's first wage-and-hour law was passed in 1939 and applied only to women. It set: A minimum age of 16 for employment; a minimum wage for women over 18 years of age of \$18 for a 48-hour workweek or, for part-time work, of 45 cents an hour; and maximum penalties of a \$250 fine or 6 months' imprisonment for violation. Discrimination against a complaining employee was prohibited. The Attorney General was charged with enforcement of the act, but in 1941, enforcement was transferred to the newly created Alaska Department of Labor.

The Legislature passed a wage-and-hour bill applying to both men and women in 1955. The minimum wage was set at \$1.25 an hour. Time and a half was required for work performed after 8 hours in 1 day and 40 in 1 week. There were numerous exemptions from the overtime requirements and a more limited number of exemptions from the minimum-wage provisions.

Public Works and the 8-Hour Day. An 8-hour day in mining and public works was established in the Territory as early as 1913. Yet, despite pressures for a general 8-hour-day law in 1915 and a 1916 referendum¹ favoring the passage of such a law, workers generally did not receive such protections until the wage-and-hour law just described was passed in 1955.

The rights of workers in public works received further protection in 1931 by the passage of an act which required contractors to pay prevailing wage rates as determined by the Board of Road Commissioners. Contractors were required to submit monthly reports to the Board showing the number of men employed and the wages paid. The Attorney General was authorized to enforce the act when so instructed by the Board of Road Commissioners. In 1953, the Legislature required contractors engaged in public works for the Territory

of Alaska to furnish performance and payment bonds. Provision was made for persons furnishing labor or material to sue on the payment bond; suits were to be brought by the Territory in the name of the claimant.

Liens. Lien laws to protect laborers, mechanics, and suppliers of material were about the only labor laws to predate the enactment of a lien law to protect miners by the first legislature. Almost every session since has amended or expanded this type of legislation. In 1933, an omnibus bill to amend, supplement, and codify all the lien laws of the Territory was found necessary. Now architects, engineers, and workers in the service industries are covered by lien laws.

Wage Collection. Although Alaska had a constantly expanding system of lien laws, failure or refusal to pay wages was not recognized as a public offense until 1923, when an act was passed requiring that (1) wages be paid at least once a month, not more than 15 days after the last day of the month in which they were earned; (2) an employee be paid "without delay," upon completing his services or being discharged; and (3) employers establish regular paydays and post notices to that effect. The employee who was forced to sue for his wages could be awarded the full amount due and an attorney's fee of not less than \$10 nor more than \$50, as well as \$25 as damages.

Wage collection laws have been amended from time to time. In 1945, the Alaskan Commissioner of Labor was authorized to sue for back wages without cost to the employee in meritorious cases. Succeeding Legislatures have broadened the Commissioner's authority and closed loopholes in wage-collection laws.

Worker Security

Unemployment Insurance. A special session of Alaska's Legislature was called in 1937 to enable the Territory to participate in the Federal Social Security Act, which had been enacted in 1935. A

¹ The vote favored the proposal by 6 to 1 and, as a result, a general 8-hour law was passed in 1917. It prohibited overtime work and declared violation of the act a misdemeanor. This law was subsequently declared unconstitutional.

Territorial Unemployment Compensation Act was passed, a 3-man commission was set up to administer its provisions, contributions from employers of 8 or more workers in covered industries were provided, and benefit payments were to start on January 1, 1939. The maximum benefit was \$15 a week; there was a 2-week waiting period. The original act also defined a seasonal industry and seasonal employees, for purposes of determining eligibility for benefits.

Alaska's unemployment compensation law was amended at every succeeding session of the Legislature; even its name was changed (in 1949)—to the Employment Security Law. Benefits were increased, their duration was extended, and numerous technical changes were made. In 1945, coverage was extended to employers of 1 or more workers. In 1947, a system of experience-rating credits for employers was enacted. Dependents' allowances were inaugurated in 1949.

The seasonality and experience-rating provisions of Alaska's employment security laws have caused more controversy than all its other labor legislation combined.

By 1955, a crisis had been reached in Alaska's employment security program. Two lawsuits had taken or tied up over \$1½ million of the funds originally intended for benefits.² Experience-rating credits earned over the years resulted in employers' paying into the fund approximately \$5½ million less than they would have if there had been no experience-rating provision. A heavy unemployment load in 1954 had drained another \$5 million. The employment security fund was exhausted while the 1955 legislature was in session and benefit payments were suspended.

The Legislature met this fiscal emergency by (1) increasing the taxable wage from \$3,000 to \$3,600 a year, effective January 1, 1955; (2) assessing a tax on employees of one-half of 1 percent on wages earned up to \$3,600 during the calendar years

1955 and 1956; and (3) authorizing a loan of \$2 million from the Territory's general fund for the purpose of paying unemployment insurance benefits, pending the passage of Federal legislation which would permit Alaska to borrow money from the Federal unemployment trust fund.³

Workmen's Compensation. The 1913 Legislature passed an employer's liability act. This law was followed in 1917 by a Workmen's Compensation Act for mine employees, which established a schedule of benefits but permitted either the employer or the employee to waive coverage. Benefits for temporary disability were set at 50 percent of wages. In 1923, Alaska's workmen's compensation was expanded to cover all private employers of five or more workers and the benefit schedule was increased; and, in 1946, Territorial Government employees were covered.

Improvements have been made from time to time. Responsibility for carrying out provisions of the act rested with the employer and the injured workman with recourse to the courts until 1946, when the Alaska Industrial Board was created. This Board was composed of the Commissioner of Labor as Chairman and Executive Officer, the Insurance Commissioner, and the Attorney General. Its duties as the administrative arm of the Territorial Department of Labor in workmen's compensation matters were spelled out.

Disabled Fishermen. The problem of care for the self-employed person who receives an occupational injury is closely related to workmen's compensation. Alaska's self-employed commercial fishermen constitute a large body of working people subject to numerous occupational hazards. Because they cannot fall back on workmen's compensation when disaster strikes, the disabled fishermen's fund was established to meet this need in 1951. Its moneys are obtained from 30 percent of the receipts from commercial fishermen's licenses. The fund is administered by a board composed of the Commissioner of Labor as Chairman and Executive Officer, the Commissioner of Health, the Commissioner of Taxation, and four people from the fishing industry who are appointed by the Governor with the approval of the Legislature.

² The decision in *The New England Fish Co. v. Vaara, et al.*, required the Commission to change the basis for its computation to determine whether there was a surplus in the trust fund. On the changed basis, there was a surplus and the Commission had to distribute experience-rating credits to employers. In connection with *The Fidalgo Island Packing Co. v. Philips, et al.*, about \$650,000 of the fund were frozen pending a decision as to whether certain seasonal employees were eligible for benefits.

³ Following the approval of Public Law 56 (84th Cong.) on June 1, 1955, \$3 million from the Federal fund was advanced to Alaska.

Territorial Employees

One test of the attitude of any State toward its labor laws may be found in the treatment of its own employees. A review of Alaska legislation relating to employment by the Territory and its political subdivisions shows that Alaska's Legislature follows the custom of the times, is sensitive to changes in economic conditions, and makes a sincere effort to treat its approximately 1,200 employees fairly.

Territorial offices are now on a 5-day week. Annual leave is provided at 30 days a year and may be accumulated up to 60 days. Sick leave is authorized at 1¼ days per month, cumulative to a maximum of 30 days.

The depression in the 1930's affected Alaska government employees. The salaries of all Territorial officials and employees were reduced by 10 percent in 1933. In 1935, an employee was prohibited from accepting outside employment if he earned \$200 a month or more. No person could be hired by the Territory or a political subdivision if his or her spouse earned \$200 a month or more. By 1943, the manpower shortage was acute, and the antinepotism laws of 1935 were repealed. As a result of the rising cost of living and increasing competition for labor, the first of a long series of salary increases started in 1945.

An example of how the Territory treats its employees may be found in the teaching profession. In 1929, the minimum salary for teachers in the First Division (Juneau area) was \$1,800; in the Third Division (Anchorage area), \$1,980; and in the Second and Fourth Divisions (Nome and Fairbanks, respectively), \$2,100. Differentials established to account for cost-of-living variations in different geographical areas of the Territory, still continues as shown by the 1953 scale for teachers: First Division, \$4,200 to \$5,600; third Division, \$4,540 to \$5,940; and Second and Fourth Divisions, \$4,800 to \$6,200. Furthermore, the Territory has had a teachers' retirement system since 1929, which is still in effect; and, in 1935, the Legislature passed an act providing that teachers cannot be required to state political or religious affiliations.

Two major protections were extended to Territorial employees in the postwar period. In 1946,

Territorial employees were covered under the Workmen's Compensation Act, as already indicated. The 1949 Legislature passed a public employees retirement act. Although this was repealed in 1951, provision was made for continuing payments to those already retired. To replace the retirement act, arrangements were made for covering all Territorial employees under the old age and survivors insurance provisions of the Social Security Act.

Development of Alaska Department of Labor

Most labor laws in Alaska initially applied to the mining industry and then were broadened to cover employees in other fields. The general practice of Alaska Legislatures was to give the responsibility for handling problems involving the health and safety of employees in any industry to one official, titled at different times as Mine Inspector, and later as Commissioner of Mines, ex officio Commissioner of Labor, and ex officio Commissioner of Transportation. The Legislature customarily left problems involving payment of wages, including workmen's compensation benefits, to private negotiations between employer and employee and to the courts. In some cases, wage problems were referred to the Attorney General for action.

The 1913 Legislature established the position of Mine Inspector to provide for the health and safety of miners. It gave him broad authority to require the correction of unsafe or unsanitary conditions; to close down an unsafe mine until corrections had been made; and to prosecute employers who refused to make corrections. Furthermore, he was given strict instructions to investigate the cause of each fatal and serious accident immediately upon receiving notice of it.

For many years, the Territorial Mine Inspector was the labor law administrator of Alaska. His duties were constantly expanded. In 1919, the Legislature recognized the dual nature of his job and gave him the added title of ex officio Labor Commissioner. Since his duties in connection with mine employees related primarily to health and safety, his added job of Labor Commissioner gave him the same responsibilities over all the industries of Alaska. Although he was given the

extra work, he was not given any increase in salary, appropriation, or personnel to take care of the new duties. This arrangement continued until 1941.

The 1923 Legislature appropriated \$4,000 to enable the ex officio Labor Commissioner to compile statistics on all industries in Alaska, showing the nature and severity of all industrial accidents in Alaska, the wage loss to employees and to employers, the amounts of compensation paid, and the cost of industrial insurance. The 1927 Legislature made sweeping changes in the Territory's workmen's compensation laws on the basis of this report.

An integrated Department of Labor was finally established in Alaska in 1941. The first Commissioner was appointed by the Governor and confirmed by the Legislature to serve until January 1, 1943. A Commissioner of Labor was to be elected at the general election in 1942 and every 4 years thereafter. The purpose of the office was to further, promote, and develop the welfare of the wage earners of the Territory of Alaska, to improve their working conditions, and to advance their opportunities for profitable employment.

In addition to the duties usually imposed upon the Department of Labor, the Legislature ordered that: "It shall be the duty of the Commissioner of Labor to aid and assist resident workers in Alaska to obtain, safeguard, and protect their rightful preference to be employed in industries in this Territory."

At present, the Territorial Department of Labor is charged with administration of the laws on wage collection, wages and hours, child labor, safety measures, equal pay, and fair employment practices, and the regulation of private employment agencies. The Commissioner of Labor, as indicated, is Chairman and Executive Officer of both the Alaska Industrial Board which administers workmen's compensation and the board which administers benefits for sick and disabled fishermen under the Disabled Fishermen's Fund. The Commissioner is also charged with the responsibility of mediation of labor disputes.

⁴For discussion, see p. 1404 of this issue.

Federal Labor Laws

Most Federal labor laws apply in Alaska in the same manner and to the same extent that they do in the States. Occasionally, agency policy or the fact of Alaska's great distances and small population have lead to a difference in the method of administration.

Labor-Management Relations. The National Labor Relations Act confers upon the National Labor Relations Board jurisdiction over all industries in Alaska, but the NLRB recently announced that the same jurisdictional standards would apply in the Territories as in the States.⁴ None of the agency's personnel have been stationed in the Territory, but agents have been sent in as necessary to conduct representation elections and hearings on unfair labor practice charges.

The arbitration and mediation machinery set up under Federal law similarly has operated in Alaska with stateside personnel in most cases. During World War II, the Federal Mediation and Conciliation Service stationed one person in the Territory during the summer months when labor disputes were most likely to occur and to have the greatest economic impact. This practice has been discontinued. Now, mediators from the Federal Service stationed in the States are available on request of the parties. Similarly, under the Railway Labor Act, representatives of the National Mediation Board have come in from the States on those rare occasions when they were needed to help resolve labor-management disputes of the White Pass and Yukon Railroad, Alaska's one privately owned rail common carrier.

Representatives of the U. S. Department of Labor's Bureau of Apprenticeship and Veterans Employment Service are currently stationed in the Territory to administer the Federal law under their respective jurisdictions; the representative of the Bureau of Veterans Reemployment Rights handles its Alaskan functions from Seattle. The Deputy Commissioner of Compensation in Seattle handles workmen's compensation cases under the Longshoremen and Harbor Workers' Act and the Defense Base Compensation Act and cases involving Federal employees are administered from Washington, D. C.

Wages and Hours. Although the Fair Labor Standards Act passed in 1938 applies in Alaska the same as it does in the States, no compliance investigations were made in the Territory prior to 1941, and the Territorial Commissioner of Mines, ex officio Commissioner of Labor, served as a source of information and distributed literature concerning the act. In that year, a group of investigators from the Wage and Hour and Public Contracts Divisions of the U. S. Department of Labor, came to Alaska in the summer, made as many investigations as possible, and returned to the States in the fall. In 1943, the first paid representative of the U. S. Department of Labor in Alaska was appointed to represent the entire Department; his staff consisted of a secretary and an investigator until December 1946, when the Department of Labor's representa-

tion in the Territory was reduced to the Territorial Representative, who resigned in October 1947. By that time a Veterans Employment Representative had been employed; he remained the only representative of the Department until May of 1948. At the present time, two resident investigators of the Wage and Hour and Public Contracts Divisions work full time.

In Government construction, the prevailing wage law (Davis-Bacon Act), the Anti-Kickback Act (Copeland Act), and the 8-hour laws apply in Alaska as they do in the States. The contracting agency is initially responsible for the enforcement of these laws. In the last few years, several investigations have been made at the request of contracting agencies by U. S. Department of Labor personnel under the supervision of the Office of the Solicitor of Labor.

“On the evening of March 29, 1867, [Edward D.] Stoeckl [the Russian minister to the United States] called at [Secretary] Seward's home with the welcome news that the Czar had given his consent to the transaction [the sale of Alaska to the United States], and suggested that the treaty be concluded the next day. The eager Seward pushed away the whist table:

“‘Why wait till tomorrow, Mr. Stoeckl? Let us make the treaty tonight!’

“‘But your Department is closed. You have no clerks, and my secretaries are scattered about the town.’

“‘Never mind that,’ responded Seward. ‘If you can muster your legation together, before midnight you will find me awaiting you at the Department, which will be open and ready for business.’

“So, at 4 o'clock on the morning of March 30, 1867, the treaty was put into final form and signed.” . . .

Thomas A. Bailey, *A Diplomatic History of the American People*, 3d ed., New York; F. S. Crofts & Co., 1947 (pp. 398-399).

The Character of Industrial Relations

EDWIN M. FITCH

INDUSTRIAL RELATIONS in Alaska have developed under the divergent influences of both private and Government employment. In private industry, aside from some service industries, trade unionism is the rule rather than the exception and generally has followed the basic pattern observed in the States. Working conditions, working rules, and pay rates are usually determined by collective bargaining, and unions have used strike threats as a means of supporting their demands.

In contrast, Government employees, in Alaska as in the States, are predominantly nonunion. The Alaska Railroad is the only exception to this generalization among Federal agencies in the Territory. (An attempt to organize the wage-board employees of the Alaska Road Commission was unsuccessful.) Government trade unions have for the most part limited their activity to lobbying for favorable employee legislation.¹

Private Industry

The principal Alaskan industries from the viewpoint of industrial relations are: (1) construction (predominately for Federal agencies); (2) fishing and fish products, of which salmon is by far the most important; (3) lumbering (sawmills and logging); (4) service trades; (5) mining; (6) pulp; and (7) transportation. In spite of the importance of Federal agencies in Alaska, private employment is 4 to 5 times as large as Government employment.

Construction. In terms of payroll, most of the construction in recent years in Alaska has been for the military. The amount of such construction is still substantial, although it has passed its

peak. The centers of defense construction are Anchorage and Fairbanks, the 2 major cities in Alaska and the 2 largest cities along the line of the Alaska Railroad.

Prime contractors have formed the Alaska Chapter of the Associated General Contractors of America. In addition, subcontractors covering plumbing, electrical work, painting, etc., who are not included among the AGC employers, have sometimes organized their own trade groups.

The construction trades generally are among the most strongly organized in Alaska.

The Alaska Chapter of the AGC conducts negotiations on wages and working rules with two principal groups of unions in the construction trades:

1. The basic trades (except carpenters) which include the operating engineers, teamsters, laborers, cement masons, ironworkers, lathers, plasterers, and bricklayers. The American Federation of Labor unions representing these crafts usually band together in their dealings with the general contractors.

2. The carpenters, who are represented by an association of local AFL unions called the Carpenters District Council of Alaska. An estimated one-half of the construction workers in the Territory are carpenters. In recent years, they have preferred not to form a "united front" with the other construction crafts but have conducted separate negotiations with AGC representatives.

Employees who work for subcontractors are organized in a group of unions which do not deal with the general contractors but directly with their immediate employers. These unions include the electrical workers, plumbers and steamfitters, painters, sheet-metal workers, asbestos workers, and related crafts.

Negotiations between general contractors and the basic trades are usually conducted in Seattle, Wash., although occasionally they have been transferred to Anchorage. Because the Alaska locals are perhaps too young to have developed strong local leaders, they are usually content to allow national and international union officials to conduct their negotiations for them.

The carpenters, on the other hand, have tended to break away from Seattle control and are a more militant and less disciplined group. Generally, the carpenter negotiations have tended to be more difficult than those with other basic crafts, partly

¹ According to the 1955 Directory of National and International Unions (BLS Bull. 1185), 43 international unions reported a combined membership of 16,000 in Alaska.

because local leaders are less experienced and partly because Alaska carpenter union officials apparently prefer to run the risk of less expert local negotiations rather than accept control from Seattle.

Unions representing the subtrades, usually conduct their negotiations with local subcontractors but have on occasion negotiated with employer associations such as the Association of Electrical Contractors. Although the subcontractors employ a much smaller number of construction workers than the prime contractors, completed negotiations between subcontractors and their employees' unions frequently have set the pace for subsequent prime-contractor negotiations. Attempts by contractor employers to secure a united front in labor negotiations have thus far been no more successful than attempts to institute a united front on the part of the basic trades and carpenters local unions.

Except for an unorganized strike by some of the carpenter locals in 1953, no major construction strikes have occurred since 1950. In 1951, the Department of the Interior took the lead in the attempt to overcome the acrimony that had developed through disputes and strikes in prior years. While the Department had no operating responsibilities in the field of labor except for its own employees, it sponsored, in cooperation with the Department of Labor, the Federal Mediation and Conciliation Service, the Department of Defense, and other interested Federal agencies, a series of meetings between union and contractor representatives in Anchorage designed to establish a more peaceful basis for settling disputes.

While the influence of this somewhat dramatic gesture can hardly be appraised, relations in the Territory's construction industry have been more peaceful since that time. The usual run of jurisdictional disputes have been settled for the most part without resort to strikes. The Alaskan construction industry in this respect has a better record in recent years than do many defense installations in the States.

Fishing and Fish Products. In dollar value, the salmon industry is by far the most important of the Alaskan fisheries. It extends from Bristol Bay through the Aleutian Islands, Cook Inlet, and down into southeastern Alaska. The salmon industry each year signs nearly 30 different contracts with 17 unions. The principal union

groups with which the industry deals are the Alaska Fishermen's Union and the nonresident Cannery Workers Union, representing resident workers; both of these are affiliated with the Congress of Industrial Organizations. It also deals on a nonresident basis with the AFL Machinists.

Problems resulting from Seattle control have had even more important effects on cannery workers than on construction workers. The salmon industry is, in fact, the only large industry in Alaska which, in spite of the rapid growth of the Territory's labor pool, regularly transports hundreds of workers from Pacific coast ports to cannery sites in the Territory.

Practically all of the negotiations with unions representing the nonresident workers take place in Seattle. Collective bargaining with resident workers is usually conducted within the area where they are employed. While serious disputes have arisen in the industry, no major work stoppage has occurred since the Bristol Bay strike of 1951.

Another industry closely related to the salmon industry and other fishing operations is the cold storage industry in southeastern Alaska which processes fish of all kinds for freezing and operates cold storage warehouses in the Panhandle fishery ports. The cold storage workers are mainly represented by the independent International Longshoremen's union. Serious disputes in this industry usually have been settled with relatively minor work stoppages.

Lumbering. Small logging and lumbering operations are found in the forestry areas of both western and southeastern Alaska. The only large operations are in the southeast, principally in the vicinity of Juneau and Ketchikan. Sawmill employees are represented by the Lumber and Sawmill Workers, a branch of the AFL Carpenters, and the loggers by the International Woodworkers of America (CIO).

Service Trades. In the service trades unions are strong among the culinary crafts and retail clerks in Alaska's three largest cities, Fairbanks, Anchorage, and Juneau. In spite of organizing drives no serious work stoppages have occurred in recent years among Alaska service trade employees, except one which lasted for several weeks in Juneau in the fall of 1954.

Mining. In value of output, the most important mining areas in Alaska are the Fairbanks gold-mining region and the Healy River and Matanuska coal mines along the Alaska Railroad. The major gold-mining operator in the Fairbanks region is the United States Smelting, Refining & Mining Co., which, about 30 years ago, bought up most of the gold claims around Fairbanks. The only gold operations in the Territory that have become unionized are those of the company in the Fairbanks area. The Alaska Juneau hard-rock mine operated under union agreements prior to its closing in 1942.

The employees of this company organized under the auspices of the International Union of Mine, Mill & Smelter Workers (a CIO affiliate prior to 1950 when it was expelled on charges of Communist domination), in 1940, but in 1947 severed relations because some officers of the international failed to file non-Communist affidavits under the Taft-Hartley Act. In 1949, the International Brotherhood of Electrical Workers (AFL) granted the company's mine employees an industrial charter under which they are now operating.

Pulp. The building of a \$50-million pulp mill in Ketchikan marked the first large-scale utilization of Alaska's enormous pulp resources. Although employed in an infant industry, the loggers have been organized by the International Woodworkers of America (CIO). Employees in the pulp mill itself are represented by the AFL Pulp and Sulphite Workers. This industrial union local is now being challenged by AFL craft unions in representation election petitions filed under the provisions of the Taft-Hartley Act.

Transportation. The largest transportation operation in the Territory is the Alaska Railroad which is not operated by private industry; its industrial relations program is discussed later in this article. In privately owned transportation, the extent of unionization varies. Employees of the White Pass and Yukon Railway are generally represented by the railroad brotherhoods. Over-the-road trucking in Alaska is strongly unionized, with drivers and mechanics represented by the AFL

Teamsters. Several not very successful attempts have been made to organize employees of the local transit industry in Anchorage and Fairbanks. The employees of the certificated air carriers are well organized; the same union arrangements that exist in both domestic and foreign airline operations have been transferred to Alaska.

Federal Government

The Alaska Railroad, which is operated by the U. S. Department of the Interior, has made a unique contribution to the history of labor relations in the Territory by operating under labor agreements negotiated with trade unions representing its employees. This history of collective bargaining began in the 1920's, when the railroad signed an agreement with one of the railroad operating brotherhoods covering the hours, wages, and working conditions of its train- and engine-service employees. Since that time, the practice of collective bargaining has grown until, at the present time, labor agreements signed by the representatives of nine trade unions cover wages and working rules for almost all the employees below the intermediate supervisory and official ranks. These are the standard railroad labor organizations, with the exception of the American Federation of Government Employees, which represents clerks, maintenance-of-way workers, and bridge and building employees.

Agencies of the Department of the Interior are not required under statute to bargain collectively with representatives of their employees. The Secretary of the Interior, however, in 1948, issued a statement of labor policy for the Department's ungraded employees which permits the management of Interior agencies to negotiate agreements with union representatives of their ungraded employees, but with the condition that labor agreements must have the Secretary's approval before they become effective.²

The Alaska Railroad in 1947 had already issued a statement of labor policy setting forth labor relations standards subsequently adopted by the Secretary for all Interior agencies. As trade union relationships for the railroad had begun in the 1920's, these statements in fact only formalized methods of dealing with employees which the management of the railroad had been following substantially for a great many years.

² Policy Memorandum Covering General Labor Relations Policy for Ungraded Employees of the Department of the Interior, January 16, 1948 (Office of the Secretary of the Interior).

The Alaska Railroad has had the usual run of labor disputes involving changes in wage rates and working rules as well as grievances arising out of the interpretation of working rules. For such grievances, adjustment board procedure has been set up for train- and engine-service employees. Under the procedure an award is made by a neutral party, and is binding unless it is disapproved by the Secretary.

Disputes arising out of changes in wage rates or agreements are referred to the Secretary of the Interior if they cannot be resolved on the property. Submission of a dispute to the Secretary is, in fact, a pressure tactic which represents a kind of substitute for the right to strike—not granted to Federal employees, of course. In form, this situation is not entirely fair to the unions, as the Secretary is ultimately responsible for the management of the railroad. In substance, it has sometimes been true in the past that trade union demands have been more effective when presented to the Secretary than when presented to the general manager of the railroad. The unions also have resorted to congressional lobbying on issues which they have been unable to resolve in collective bargaining.

The provisions in the labor agreements of the Alaska Railroad have been taken largely from those in effect on private stateside carriers, which has often resulted in conflict with those Federal personnel rules which are authorized but not required by statute. The railroad has fought a slowly retreating battle in matters of this sort, but thus far has managed to avoid conforming to many personnel management conventions in vogue in most other Federal agencies.

The Taft-Hartley Act

Since the Taft-Hartley Act applies to the Territory of Alaska, it has produced the usual run of cases concerning representation, and charges of unfair employer and union practices. An unusually large number of the unfair practice cases have alleged violation of the Taft-Hartley prohibition of the closed shop.

NLRB Jurisdiction. Under the Taft-Hartley Act, the National Labor Relations Board has plenary jurisdiction over enterprises in United States Territories. However, in recent years, the Board

has tended not to exercise jurisdiction over certain Territorial enterprises which are engaged in interstate commerce, on the basis of the small volume of their operations. Currently, the NLRB is following the policy, laid down in a 1955 case involving a Puerto Rico concern,³ that the same standards of jurisdiction apply in the Territories as in the several States.

Representation Cases. The number of representation cases in Alaska during recent years has not been large. More than half have involved initial organizing efforts rather than competing unions. In a few cases, a contesting union has won representation rights over an existing union and, in a few others, the majority of employees voted against union representation. The NLRB held that Alaskan fishermen were independent contractors, whether company fishermen or not, and therefore not considered employees under the Taft-Hartley Act.⁴

Unfair Practices. Employer actions which the unions have attacked through the unfair labor practice provisions of the Taft-Hartley Act include refusal to bargain, discouraging or interfering with union membership, and the circulation of anti-union petitions. Employers have used the procedures of the Taft-Hartley Act against the secondary boycott, union attempts to compel discrimination against an employee, and picketing.

Many unfair practice cases in Alaska have involved attempts by unions or by unions and employers jointly to enforce the closed shop. Most of the unions involved were in the construction field. Where the evidence has supported the charges, the National Labor Relations Board has consistently enforced the act's prohibitions against restricting the hiring to union members. In several instances, employers have been ordered to hire and give back pay to workers who were refused jobs because they were not union members; in some cases, either the union alone or the union and the company jointly have been ordered to make good this back pay. In some closed-shop cases, the NLRB has ordered the exclusion of the illegal closed-shop clause from future agreements.

³ *Conrado Forestier, d. b. a. Cantera Providencia* (111 NLRB 141, Mar. 4, 1955).

⁴ *Alaska Salmon Industry, Inc.* (110 NLRB 145, Nov. 17, 1954).

Territorial Problems

Labor relations problems in Alaska have in many respects resembled those in the States. Some labor problems have arisen, however, out of the somewhat unique economic situation of the Territory. Foremost among these has been the problem of determining what constitutes a fair and reasonable wage. While Alaska has made striking economic progress in the past 10 years, it still exhibits the kinds of economic instability characteristic of a pioneer area. The economics of prices and wages is in many respects related to the newness of the country and its distance from stateside markets.

Construction Wage Levels. The size of the construction industry has, of course, had a tremendous influence on economic conditions in the Territory. Wage rates have been agreed to at levels exceeding construction wages in the Pacific Northwest by \$1 to \$1.25 and more per hour. High contractor wage rates, in conjunction with what has amounted to a guarantee of premium overtime for the relatively short construction season, have produced earnings which have made it difficult for year-round employers to negotiate wages which they regarded as reasonably related to Alaskan price levels and Alaskan productivity. Undoubtedly construction wages have played an important part in increasing the spread between stateside and Alaskan wages.

A subsidiary wage problem has resulted from union attempts, successful in many instances, to require contractors in southeastern Alaska to pay the wage rates in effect in the Anchorage-Fairbanks area. Yet, the cost of living in Anchorage and Fairbanks is from 10 to 15 percent higher than it is in most Panhandle cities.

The construction industry has avoided coming to grips with the twin problems of high wage rates and excessive overtime largely because the Federal Government has been its principal customer. As long as Uncle Sam pays the bill, and wage rates and overtime standards are reasonably uniform, contractors have a minimum of financial incentive to resist union pressures.

This situation is changing with the growth of a labor pool in Alaska and a decline in military con-

struction which has made bidding for Alaskan contracts more sharply competitive. The Territory is ceasing to be regarded as an overseas base to which workers must be lured by the promise of extravagant take-home pay. While the wage practices of more wasteful days have continued, there is at least a possibility that both unions and management will interpret the economic situation in a more reasonable light as the amount of military construction continues to decline. The transition to more normal wage-price relationships, in comparison with stateside enterprise, will obviously be difficult, but there is some indication that employers may get a more sympathetic attitude toward the problems of this transition than they now expect.

Seattle Control of Trade Unions. Alaskan trade unions, particularly in the construction industry, follow the policy of absentee control. The influence of Seattle in union matters has been justified on the ground of the desirability of relying upon the greater skill and experience of Seattle union officials. Furthermore, it seems to be true that labor relations have been more disturbed and disagreements more prolonged in the case of the carpenters, who have tried more than other construction workers to throw off Seattle control. Nevertheless, the desire for a more democratic control of Alaskan union activities is increasing and growing pains accompanying any shift from Seattle to local responsibility are inevitable. With some unions such as the International Longshoremen's and Warehousemen's Union (Ind.), the desire for local control has led locals to openly defy their national officers.

Seattle control of union affairs in the construction industry has been substantially weakened over the years. At one time, an Alaskan resident had to go to Seattle in order to be hired as a construction employee to work in the Territory. With the development of a large labor market within Alaska, the necessity for paying transportation for large groups of workers to and from the Territory has largely disappeared. With this growing labor market, the trend toward local autonomy will inevitably continue. Outside the construction industry, local union autonomy may sometimes be even greater in Alaska than in the

States merely by reason of the greater distances in space and time to national and regional union headquarters.

Other Problems. The tradition of excessive overtime, already referred to briefly, has created an industrial relations problem in Alaska. The short Alaska season and labor shortages in past years have produced a long-hours habit of thought which has been hard to break. For example, it was freely predicted that the 40-hour workweek experiment of the Alaska Railroad in 1949 would not work. Today, it would hardly occur to anyone in the rail-belt area that the pre-1949 hours' schedules should be resumed.

Moreover, Alaskan contractors are vulnerable to additional wage demands occasioned by their insistence on regular work schedules in excess of 40 hours per week for which they must pay premium overtime. The Alaska Road Commission pointed the way to a solution in 1953 by reducing work schedules for those it regards as construction-type workers. In the face of competitive necessities, the construction industry is slowly adopting shorter hours. Yet, strikes have been called in

Alaska over proposed reductions in hours of work. Also, some contractors still insist on the necessity of long hours in the face of heavy unemployment which has bankrupted Alaska's unemployment compensation fund.⁵ Part of this unemployment has actually been caused by high wage rates and excessive overtime which have induced more workers to come to Alaska at their own expense than the economy of the Territory could absorb.

The battle over unemployment compensation is itself a peculiar industrial relations problem, because it involves legislation rather than collective bargaining. In the 1955 session of the Territorial Legislature, unions and some contractor employers lined up against Alaskan employers generally in a successful attempt to keep unemployment benefits for seasonal construction employees, many of whom spend their winters in the States. A compromise resulted in reducing construction unemployment benefits somewhat but still allowing a disproportionate share of unemployment benefits to go to nonresident seasonal workers.

⁵ For discussion, see p. 1397 of this issue.

“Fundamentally, the American people appear to have accepted [eventually] Seward's treaty because it was demonstrated to them [through Seward's campaign of 'education'] that Alaska was worth the money. Yankee love for a bargain and a highly developed speculative instinct were not to be denied. Bret Harte caught the spirit:

‘T'aint so very mean a trade
When the land is all surveyed.
There's a right smart chance for fur-chase
All along this recent purchase,
And, unless the stories fail,
Every fish from cod to whale;
Rocks too; mebbe quartz; let's see,—
Seems I have heered such stories told:
Eh!—why, bless us,—yes, it's gold!

“Harte was right. There are few today who, on economic grounds at least, will accuse Seward of folly in having bought this princely domain for one and nineteen-twentieth cents an acre. . . .”

Thomas A. Bailey, *A Diplomatic History of the American People*, 3d ed. New York; F. S. Crofts & Co., 1947 (p. 404).



Economic Forces and Growth Prospects

JAMES H. SHOEMAKER

NO ISLAND COMMUNITY has moved from a primitive to a modern status in so short a period as has Hawaii.¹ Primarily, this growth has centered around one basic change—the transformation of an isolated, self-sufficient economy to a mass-production, highly specialized agricultural economy closely tied to the rise in Hawaii's trade with the United States. With the continued expansion of air and surface transportation, these developments will accelerate. The Islands now generate \$300 million in "internal income" annually, in addition to approximately \$700 million of income derived each year from business with the mainland (chart 1). Thus, Hawaii is a billion-dollar-a-year economy. Significantly, over nine-tenths of the growth in production (principally in pineapples and sugar), employment, and income during the 177 years of Hawaii's history has occurred within the last 83 years. In this period since 1872, the labor force also grew rapidly, stimulated by the burgeoning Island economy and sharply increasing population through immigration and a favorable birth-death ratio.

Previously, from an estimated 300,000 in 1778 (when the Islands were discovered), population had declined continuously to an alltime low of 56,000 in 1872, including over 2,000 part-Hawaiians and 49,000 native Hawaiians. Thus the non-Hawaiian population numbered less than 6,000, with nearly half of this group being Oriental. By contrast, the racial composition of the half a million population in Hawaii in 1955 is estimated to be as follows: Japanese, 37.6 percent; Caucasian, 20.2 percent; Hawaiian and part-Hawaiian, 19.1 percent; Filipino, 12.4 percent; Chinese, 6.5 percent; and all others, 4.1 percent.

Determining Factors in the Economy

It is virtually a truism that a community's economy mirrors the conditions under which it develops. In Hawaii, too, before the beginning of World War II, the economy had successfully adapted to the framework of conditions which have determined its character—resources, location, population, and political and economic ties to the United States.

Resources. Because Hawaii lacks industrial minerals and fuels, its productive activities have been limited mainly to agricultural products. Sharp variations in topography, soil, and rainfall restrict intensive cultivation to less than one-tenth of the total land area. The cultivated area is enormously productive, however, because of a large supply of ground water for irrigation and year-round summer weather.

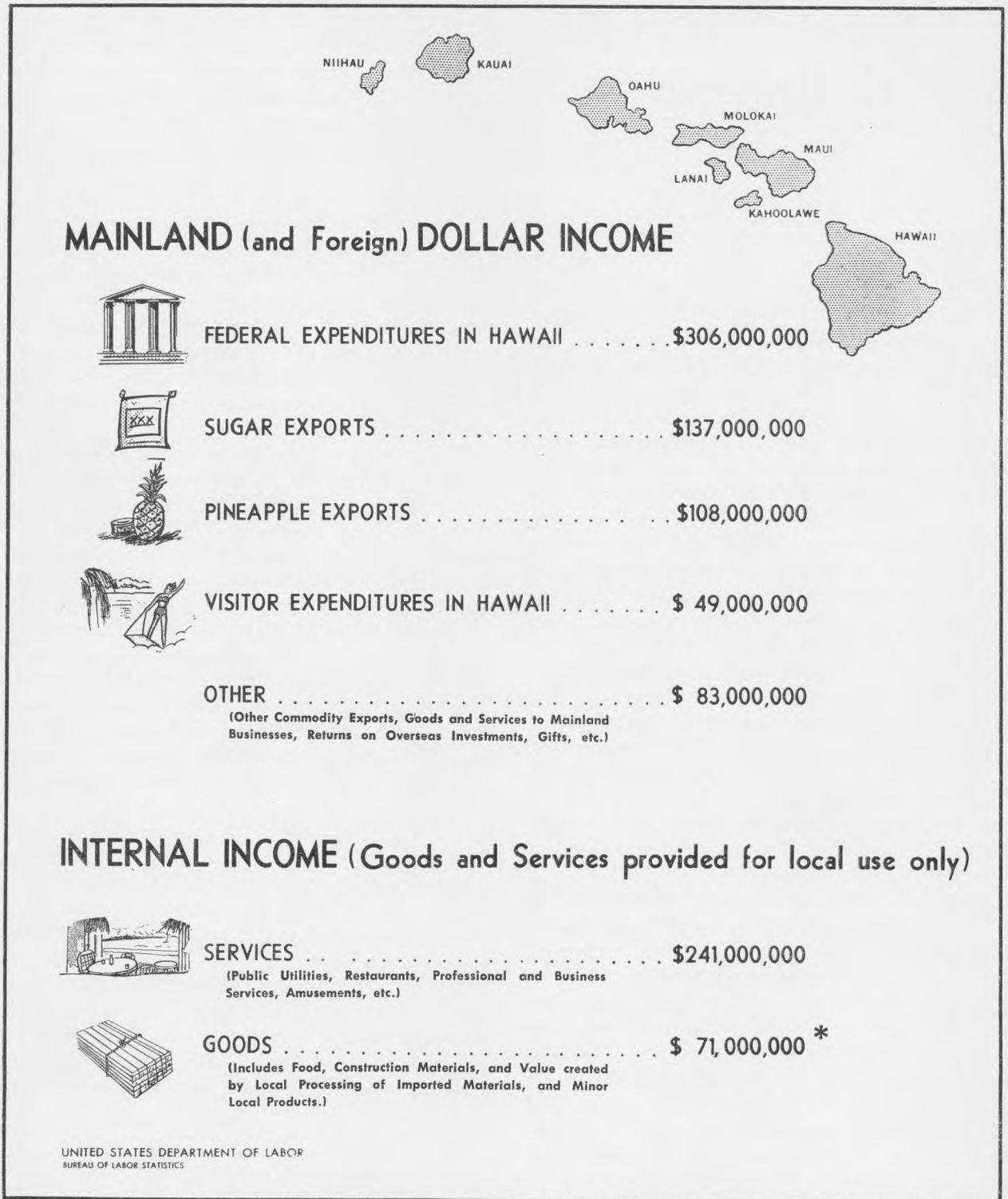
With such resource limitations, production in Hawaii has centered in the mass production of sugar and pineapples, the most profitable crops that have been developed. Sugar was the primary factor in creating the close trade relations with the United States that resulted in the annexation of Hawaii by the United States in 1900. It has continued to be Hawaii's largest commodity export (chart 2). The growth of the pineapple industry to a mass production level occurred later. The key to its expansion was the Ginaca machine, invented in 1913, to peel and core the fruit. Since then, Hawaii has continued to produce more canned pineapple than all other areas in the world combined.

Location. Hawaii's central position in the Pacific makes it an outpost of national defense, a tourist center, and a center for shipping and airlines. These activities provide a substantial part of the Islands' total income.

Defense activities did not become an important income source until the 1930's. Thereafter, they increased sharply until 1941, when they became the principal stimulus to Hawaii's economy. In the past 3 years, these activities have provided a

¹ For a comprehensive account of the historical development and characteristics of the island economy, see *The Economy of Hawaii in 1947* (with special reference to wages, working conditions, and industrial relations), BLS Bull. 926, 1948.

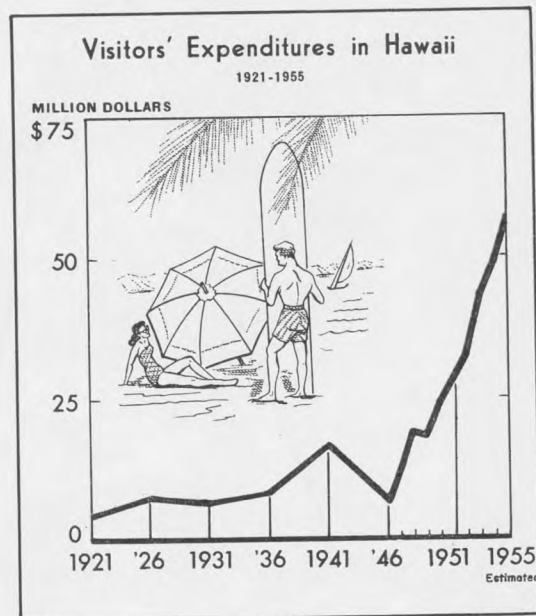
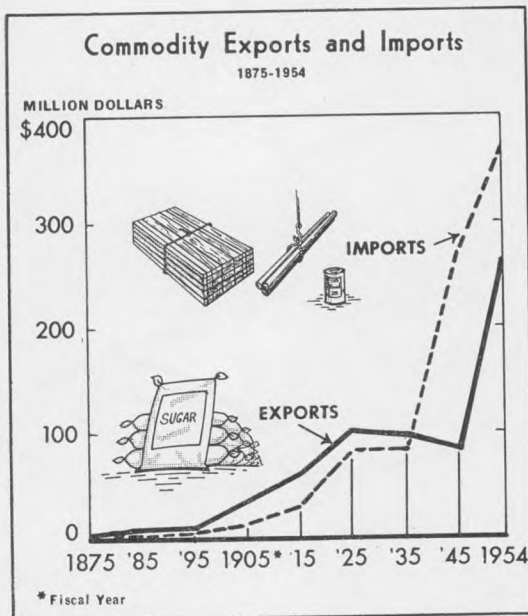
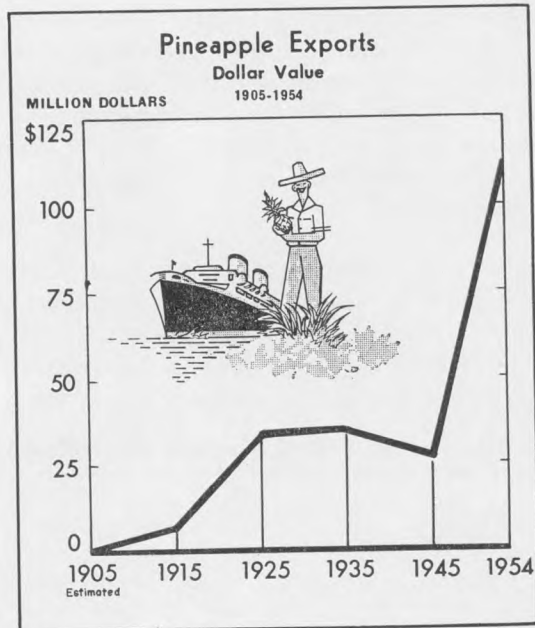
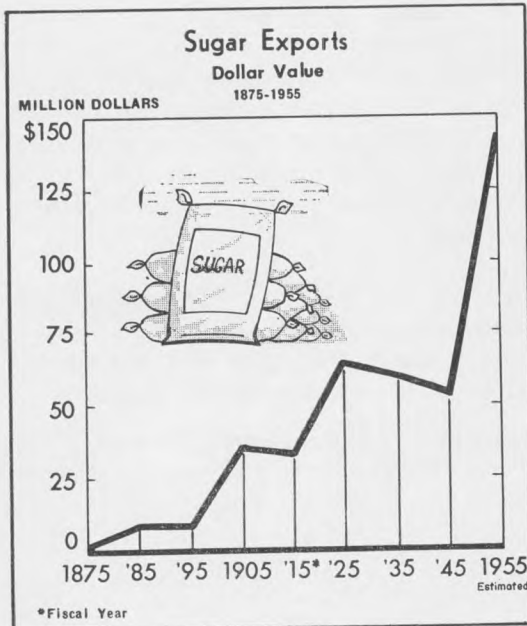
Chart 1. How Hawaii Earns a Living, Sources of Income, 1954



*(\$43,000,000 locally produced food for local consumption, \$3,000,000 construction and other materials, and \$25,000,000 "value added by manufacture"—i. e., by the processing of imported raw materials.)

Sources: *Sugar Exports*—Hawaiian Sugar Planters' Association. *Pineapple Exports*—Department of Business Research, Bank of Hawaii. *Visitor Expenditures*—Research Committee, Hawaii Visitors Bureau. *Remaining Items* (including Federal Expenditures, Other, Services, and Goods)—Department of Business Research, Bank of Hawaii.

Chart 2. Long-Term Trends in Hawaii's Economy



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Sources: *Sugar Exports*—Hawaiian Sugar Planters' Association. *Pineapple Exports*—(1) 1905-1945, U. S. Department of Commerce; (2) 1955, Department of Business Research, Bank of Hawaii. *Commodity Exports and Imports*—(1) 1875-1895, Hawaiian Customs records; (2) 1905-1945, U. S.

Department of Commerce; (3) 1955, Department of Business Research, Bank of Hawaii. *Visitors' Expenditures*—Research Committee, Hawaii Visitors Bureau.

predominant share—over a quarter of a billion dollars—of the area's total annual income.

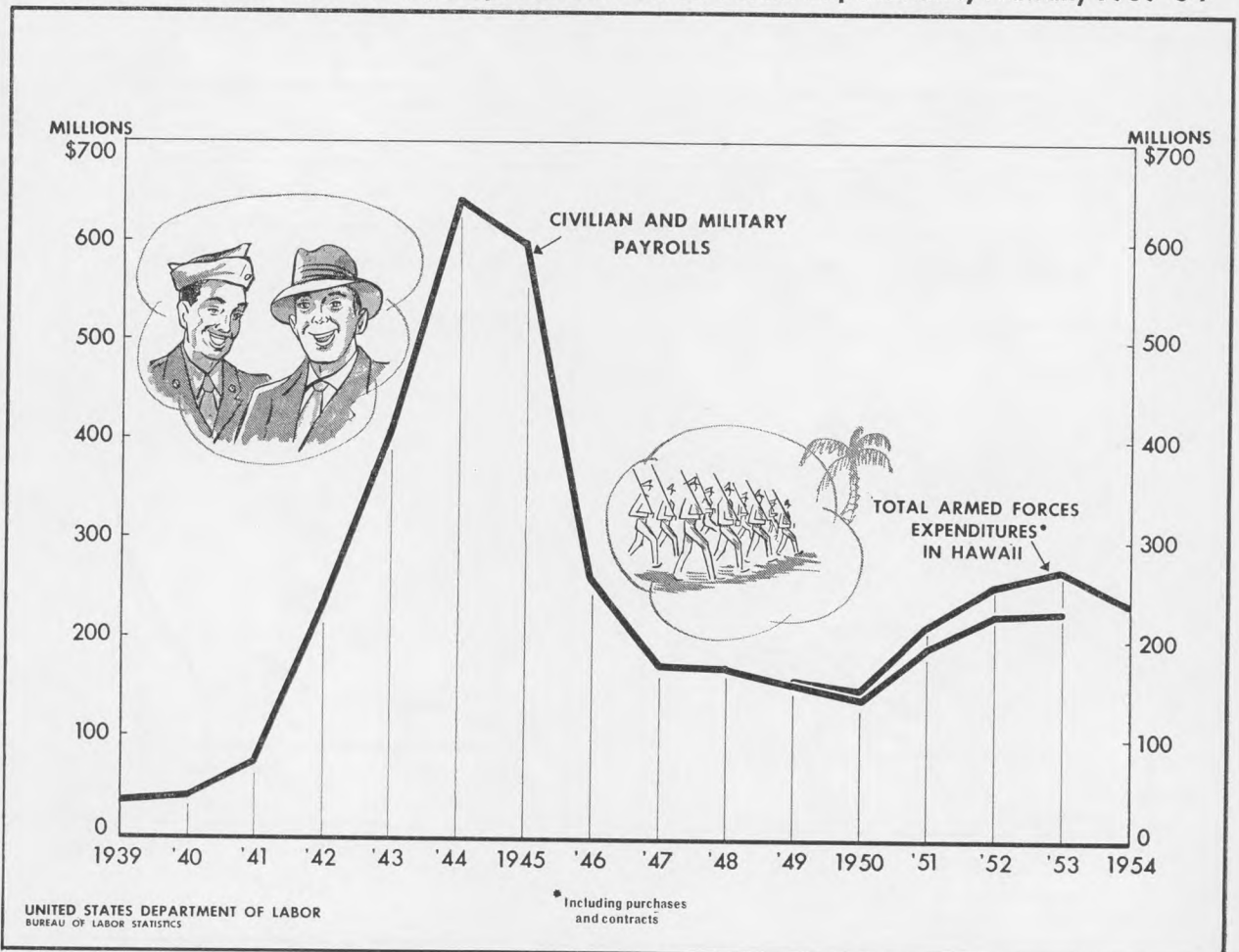
Tourist trade rose gradually throughout the 1920's and 1930's, was abruptly suspended during World War II, and expanded sharply after the war ended. Tourist expenditures in Hawaii, which amounted to only \$6 million in 1946, will probably exceed \$55 million in 1955, and are increasing. In addition, shipping and airlines presently account for approximately \$25 million of revenue annually in the Territory.

Population. No other area of the United States contains such a widely variant population of Oriental and Occidental racial groups working together to earn a living. The racial diversity, however, complicates the problem of achieving

effective economic policies in government, of formulating workable relations between labor and management, and of developing cooperation throughout the business community. Despite the picturing of Hawaii as an island paradise, racial tensions and antagonisms are clearly evident. Nevertheless, these racial groups bring to the Hawaiian economy a broad range of inherent abilities and contacts with other parts of the world, thus providing the basis for creating a rich and unique culture based on interracial cooperation.

Political and Economic Ties. The substantial contribution made by the United States to the growth and development of the Hawaiian economy—both as a market for Hawaiian products

Chart 3. Civilian and Military Payrolls and Armed Forces Expenditures, Hawaii, 1939-54



Sources: *Civilian and Military Payrolls*—(1) 1939-1952, *Income of Hawaii*, U. S. Department of Commerce, Office of Business Economics, 1953; (2) 1953, mimeographed supplement to *Income of Hawaii*, op. cit., issued in August

1954. *Total Armed Forces Expenditures*—Department of Business Research, Bank of Hawaii.

and as a source of supply for Hawaiian industry—has made it possible for the Islands to achieve high per capita productivity and modern living standards. This integration is reflected in the following developments: the expansion of mainland markets for Island products; the growth of Island branches of mainland firms and the general expansion of mainland business activity in Hawaiian markets; the increasing mobility of labor and capital between Hawaii and the mainland; the rising level of mainland visitors to Hawaii; and the growth of the political importance of Hawaii and of working relations between the Territorial and Federal Governments.

Underlying Instabilities

Hawaii's economic position is vulnerable because of two underlying instabilities. Most important is its dependence on defense activity as a major income source. Although it seems certain that Hawaii will continue as a major outpost of national defense, fluctuations in the volume of defense activity affecting the Islands will require local economic readjustments. However, a sizable cutback in military expenditures, perhaps ranging from \$50 million to \$100 million in 1 year, would create a major economic problem. Two developments that affected defense activities in Hawaii in recent years illustrate the impact on the Island economy of major changes in military programs (chart 3).

From 1948 through 1950, as a result of continued cutbacks in defense employment and expenditures, Hawaii experienced the most severe period of unemployment in its history. By contrast, the decision in October 1954 to transfer the 25th Division from the Orient to Hawaii resulted in a sudden increase of \$36 million in annual defense expenditures in Hawaii.

An effective plan for mitigating the effects of substantial declines in defense activities would be readily available through a "standby program" providing for water conservation and irrigation projects. A comprehensive program of this type would create direct employment to counteract a sharp cutback in defense outlays and, when the projects were completed, would provide a permanently higher level of resources, production, and employment in agriculture.

The second unstable element in the Hawaiian economy grows out of the Islands' extreme dependence on shipping. Repeated interruptions to shipping, primarily due to labor-management disputes in Hawaii or on the mainland's West Coast, have had temporary but substantial disruptive effects on the economic life of the Territory. Continuity of shipping, assured by governmental or other action, is necessary to avoid a retarding effect on economic development.

Postwar Growth

These problems have not kept Hawaii from achieving a remarkable record of postwar economic expansion, more than proportionate to that for the United States as a whole. This record is reflected in an unprecedented rise in the number of modern, well-equipped homes, and the rapid spread in the ownership of motorcars—from 1 car for every 7 persons in the population to a ratio of 1 to 3. Comparable growth has occurred in the per capita use of telephones and electric appliances, and in the construction of schools, highways, docks, and airports. These advances have contributed to Hawaii's rising standard of living which today compares favorably with that in the United States.

The long-range economic outlook in Hawaii is expected to resume its upward trend which was interrupted by a mild recession during July 1953 to July 1954 from the peak business levels in the spring of 1953.

In 1954, there was a mild decline of \$6 million in the value of the export of sugar and pineapples; a sharp decline in the expenditures of the Armed Forces (from \$271 million to \$237 million); and a rise in the volume of tourist trade to \$49 million. Estimates of economic activities in 1955, however, indicate that they will equal or exceed 1953 levels. Armed Forces' expenditures in Hawaii have again increased substantially. Also, sugar and pineapple harvests are running at somewhat higher levels than in 1954 and tourist trade for 1955 is estimated at over \$55 million, an alltime high.

Paralleling the expansion of the business activities that are geared to "mainland dollars," there has been a growth of community facilities and production to serve local needs. Communication, surface and air transportation, electric power,

wholesale and retail distribution, and other services for Island residents have been modernized as rapidly as resources permit. Food crops and a limited amount of construction materials also have been produced for local use.

Possibilities for Long-Range Growth

Tourist trade is the most rapidly growing segment of the Hawaiian economy today. Should this expansion continue at its present rate, it is estimated that the income from tourist trade will exceed that for the sugar industry by 1965. In recognition of its expanding economic status, research studies have been undertaken to analyze the economic factors affecting the tourist trade and to propose methods for maintaining it at a high level.

New agricultural exports in the form of flowers and foliage (made possible by air freight), papaya, tropical fruit juice concentrates, coffee, and fresh pineapple are contributing to the growth in the dollar volume of minor exports of Hawaii. To effect this expansion, it is essential that new water conservation and irrigation projects be carried forward. This is being accomplished by the "Hawaii Irrigation Authority" established in 1953. In addition, byproducts from the wastes of the sugar and pineapple industries already have been developed and new ones are being studied.

Other developments on the Islands also augur well for an expanding economy. The processing of imported raw materials (to replace more costly finished imports) is a growing industry. The Standard Oil Co. of California is planning the construction of a \$30-million refinery. And expansion of farm products for sale in the Honolulu market provides still another opportunity for growth. (Hawaii still imports two-thirds of the dollar value of the food consumed locally.)

Absorption of the Growing Labor Force

The long-run expansion in Hawaii's population and labor force raises the significant question whether the rate of economic growth in the Islands is sufficient to meet the increasing pressures for jobs.

Hawaii's birthrate in 1954 was 33.7 per thousand (16,200 live births), or about 8 percent higher than the birthrate for the United States.

Currently 6,000 students graduate from high school each year. Present enrollment in the lower grades indicates that this figure will rise to well over 9,000 by 1965 (allowing for the normal number of "dropouts").

Only about 40 percent of the high school graduates become part of Hawaii's labor force upon graduation. Half of them go on for further training and education and the remaining tenth enter military service. Most of these latter two groups, however, enter the labor force after completing their training, or upon return from military service. In addition, a high percentage of married and unmarried women in Hawaii are employed; they account for nearly a third of total employment in the Islands.

Hawaii has an extraordinarily youthful population. The census of 1950 showed that half of the people in Hawaii were less than 25 years of age; today this figure is even lower. For the Nation as a whole, the average age is slightly over 30.

Based on these data it is estimated the Islands' labor force will increase approximately 50 percent by 1970. Whether the economy can absorb this growth depends principally on the future level of defense activity in Hawaii. Assuming no significant change from the present level, the possibilities for economic growth previously described provide an assurance that production, income, and employment can be increased to make room for the growing labor force. But this growth will require broad and aggressive community support to formulate and direct programs for the development of the Island economy.

Summary of Underlying Trends

Several primary trends are evident in the expanding integration of Hawaii into the mainland markets. These are: (1) urbanization, which increasingly centers the economic activity of each Island in its principal cities; (2) a gradual unification of all Islands into a metropolitan area based on interisland air service centering in Honolulu; (3) a continued growth of Hawaii as the central Pacific port for surface and air transportation; (4) a rise in the relative importance of tourist trade, stimulated by air transportation; (5) the increasing application of scientific methods and of mechanization, spreading from the basic plantation industries into all phases of production in the

Territory; (6) increasing per capita productivity, a rising level of wages and salaries, and a resultant rise in living standards, accompanied by a change from Oriental to American modes of living; (7) a marked increase in Island government employment and services, resulting in a rising level of taxation; (8) an expanding flow of high school and university graduates into business life, creating an increasingly urgent employment problem; and (9) a growing awareness of the necessity for programs designed to create new forms of production, employment, and income.

Despite this expansion, the growth of employment in Hawaii's basic industries has been out-

stripped by the growth in Hawaii's work force. If the Islands are to provide stability of employment for the labor force of the Territory, community support for programs of economic expansion are essential. This would create still another trend—a gradual widening of the economic base by the diversification of productive effort into the following activities: a continued expansion in tourist trade; the manufacturing of more goods and the provision of more services for local use; the development of new exports; the development of byproducts in the sugar and pineapple industries; and the processing of imported raw materials to take the place of costly finished products.

“The Territory of Hawaii has four counties: Hawaii, Honolulu, Kauai, and Maui. Hawaii County is coextensive with the Island of Hawaii. Honolulu County—the legal designation of which is ‘City and County of Honolulu’—consists of the Island of Oahu (as well as a number of very small, unpopulated islands). Kauai County includes the Islands of Kauai and Niihau. Maui County comprises the Islands of Maui, Lanai, Molokai, and Kahoolawe, which is uninhabited. (Also included with Maui County is the peninsular area of Molokai officially designated as ‘Kalawao County,’ which consists only of the Kalaupapa Leper Settlement.) . . .

“Populous Honolulu County, with less than 10 percent of the land area, receives over three-fourths of the Territory's total income. By contrast, Hawaii County—the ‘Big Island’—has three-fifths of the land area of the Territory and accounts for 10 percent of total income. While the distribution of population is the main factor, contributing appreciably to Honolulu County's high share of the total income is a per capita income ranging from one-third to one-half above that of the other three counties. The latter are predominantly rural, with plantation farming by far the principal source of employment.”

Charles F. Schwartz, Assistant Chief, National Income Division, Office of Business Economics: *Income of Hawaii, A Supplement to the Survey of Current Business*, United States Department of Commerce, Office of Business Economics, Washington, 1953.

Characteristics of the Labor Force

EDWIN C. PENDLETON

RAPID GROWTH has marked Hawaii's population and labor force during the past several decades. The expansion in the labor force is not likely to be reversed in the near future because of the increasing annual rate of entrants to the labor market, and, compared with the United States, the younger than average age composition of both the population and the labor force.

The labor-force growth has been characterized by the relative and absolute increase of women workers and the continued fairly high participation rates, particularly for women and for lower age groups. Moreover, there has been a rapid occupational and industrial shift away from agriculture, offset by increased employment in government, services, and trade. Since civilian employment in private industry exhibits long-time stability, the influence of Federal Government activity on employment and income is outstanding.

For the half century 1900 to 1950, the total population of Hawaii increased about three and a quarter times. Population declined only in the postwar years 1948 to 1952, mainly because of the outmigration of warworkers.

TABLE 1.—Population and labor force, and labor-force distribution by sex, Territory of Hawaii, percent changes, 1910-50

Year	Percent change from 10 years earlier		Percentage distribution of the labor force		
	Population	Labor force	Total	Men	Women
1920	33.4	(¹)	100.0	87.3	12.7
1930	43.9	38.1	100.0	88.5	11.5
1940	14.9	22.2	100.0	80.6	19.4
1950	18.1	10.5	100.0	75.5	24.5

¹ Not available.

Source: Bureau of the Census.

The labor force has also grown rapidly, almost doubling from 1920 to 1950. The rate of labor-force growth has been declining sharply, however; concomitantly a noticeable shift in the sex composition of the labor force has taken place (table 1).

Age and Sex Composition

The median age of the total population was 24.9 years in 1950 compared with 30.7 years for the United States. Furthermore, for the same census year, one-half of the population was under the age of 25 compared to 41.9 percent for the United States. An age distribution of the Hawaiian labor force points up the youthful character of the population (table 2).

TABLE 2.—Percentage distribution of the labor force, by age and sex, Territory of Hawaii, 1940 and 1950

Age group	1940			1950		
	Total	Men	Women	Total	Men	Women
All ages	100.0	100.0	100.0	100.0	100.0	100.0
14-24 years	29.7	28.0	37.2	23.1	20.9	30.5
25-34 years	30.0	31.2	25.1	29.8	29.6	30.3
35-44 years	19.8	19.7	19.9	23.6	24.8	19.9
45-54 years	11.9	11.7	12.5	14.7	15.3	13.0
55-64 years	6.4	6.9	4.4	6.8	7.4	5.2
65 years and over	2.1	2.4	.9	1.8	2.1	1.0

NOTE. Because of rounding, sums of individual items do not necessarily equal 100.

Source: Bureau of the Census.

For age groups through 44 years, the percentages of participation for the total labor force as well as for men and women generally are higher for Hawaii than for the United States. For example, in 1950, 50.5 percent of all men and 60.8 percent of all women in the Island labor force were in the 14 through 34 age group, while the corresponding percentages for the United States were 41.0 and 47.4.

The important implication to be drawn from the data on the youthful composition of the population and labor force is that as the large number of workers in younger age groups move into the middle-age groups, the younger age groups will not decrease significantly. This influence is based on the present school population; the number of school separations will more than double in the next 10 years. Approximately 37 percent of those graduated from high schools enter immediately into the labor force and, within 18 months, 45 percent of the graduates are in the labor force.

For this reason, pressure for jobs will continue, if not increase. Furthermore, the absolute and relative numbers of women in the labor force are not expected to decline. This conclusion is predicated on several factors, including the traditional seasonal employment of large numbers of women in the pineapple industry and the fact that many women seek employment to improve their economic status.

Racial Composition

The Territory's racially heterogeneous population is reflected in the composition of the labor force (table 3). However, because clear-cut definitions of "racial" classifications are not feasible (many people in Hawaii have two or more "racial" strains), analysis of labor force and population problems in terms of racial composition would be misleading and confusing. Also, the data presented below do not carry any implications as to the character of employment and unemployment as far as "race" is concerned.

TABLE 3.—*Racial composition of the population and labor force, and labor-force participation rates, by race, Territory of Hawaii, 1940 and 1950*

Race	Percentage distribution				Labor-force participation rate	
	Population, 14 years and over		Labor force, 14 years and over			
	1940	1950	1940	1950	1940	1950
All races.....	100.0	100.0	100.0	100.0	100.0	100.0
Hawaiian ¹	12.3	13.6	9.5	11.1	48.1	48.5
Caucasian.....	28.3	25.3	30.9	27.3	68.1	63.9
Chinese.....	7.0	6.7	6.0	6.3	53.9	56.0
Filipino.....	13.2	12.7	17.5	15.4	² 82.6	71.7
Japanese.....	35.8	37.6	33.2	36.2	58.0	56.9
Other ³	3.5	4.1	2.9	3.7	51.8	52.3

¹ Includes part-Hawaiians.

² This rate is high because most of the Filipinos were previously imported male plantation labor. In the 1940 population, 14 years old and older, there were 6 Filipino males for every Filipino female.

³ Korean, Negro, Puerto Rican, and other Polynesian.

NOTE. Because of rounding, sums of individual items do not necessarily equal 100.

Source: Bureau of the Census.

Labor-Force Participation Rates

For purposes of viewing the actual and potential labor force in terms of job opportunities, a useful trend measure is the labor-force participation rate, or the percent of the total population in the labor force. It is significant that the labor-force participation rate for Hawaii historically has been considerably higher than that for the United States (table 4).

In 1950, the labor-force participation rate for the United States was 53.4 percent compared with 59.2 for Hawaii. Since 1920, however, the rate for Hawaii has declined more rapidly than that for the United States; for Hawaii, the decline for men was 11.6 percentage points. By 1950, this rate for men was only 0.5 percentage points higher for Hawaii than for the United States. After 1930, the women's participation rate for Hawaii increased and in 1950 was 4.1 percentage points higher than that for the United States.

An analysis of labor-force participation rates by age groups (at 10-year age intervals) shows that, for groups up to 45 years, the rates for women in Hawaii are above corresponding age-group rates for the United States as a whole. There is no indication that this relationship is likely to be reversed.

With respect to employment and unemployment trends, the implication to be drawn from these data on Hawaiian labor force participation rates is that the Island economy must have, or create, proportionately more jobs than the mainland. This is an additional reason why the rate of economic growth in Hawaii is an important problem, particularly for the private sector of the economy.

Employment-Unemployment Trends

As a result of the impact of World War II, the proportions of the total Hawaiian labor force unemployed from 1940 through 1947 were substantially below those for the United States. For

TABLE 4.—*Percentage distribution of the population by labor-force status and sex, Territory of Hawaii and the United States, 1920-50*

Labor-force status and sex	Hawaii				United States			
	1920	1930	1940	1950	1920	1930	1940	1950
<i>Both sexes</i>								
Population, 14 years and over.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In labor force.....	66.0	63.7	62.4	59.2	55.6	54.5	52.2	53.4
Not in labor force.....	34.0	36.3	37.6	40.8	44.4	45.5	47.8	46.6
<i>Male</i>								
Population, 14 years and over.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In labor force.....	91.0	86.1	82.7	79.4	86.4	84.1	79.0	78.9
Not in labor force.....	9.0	13.9	17.3	20.6	13.6	15.9	21.0	21.1
<i>Female</i>								
Population, 14 years and over.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In labor force.....	22.8	21.2	30.9	33.1	23.3	24.3	25.4	29.0
Not in labor force.....	77.2	78.8	69.1	66.9	76.7	75.7	74.6	71.0

Source: Bureau of the Census.

TABLE 5.—*Civilian labor force: Average number of persons employed and unemployed, Territory of Hawaii, 1945-54*

[In thousands]				
Year	Total labor force	Employed labor force	Unemployed labor force	Unemployed as percent of total labor force
1945.....	230.8	229.3	1.5	0.65
1946.....	195.0	192.9	2.1	1.09
1947.....	196.3	193.3	3.0	1.50
1948.....	196.4	186.9	9.5	4.81
1949.....	199.0	177.6	21.4	10.77
1950.....	188.3	170.6	17.7	9.40
1951.....	192.5	184.2	8.3	4.31
1952.....	195.2	186.8	8.4	4.31
1953.....	196.0	186.4	9.5	4.87
1954.....	197.3	185.5	11.8	5.96

Source: Financing Unemployment Insurance in Hawaii, 1954, prepared for the Bureau of Employment Security, Territory of Hawaii, Department of Labor and Industrial Relations (unpublished manuscript).

Hawaii, they ranged from 0.65 to 4.45 percent compared with 1.2 to 14.6 percent for the United States. From 1948 through 1954, however, the unemployment rates for Hawaii were consistently above those for the United States and in recent years showed some tendency to stabilize between 4 and 6 percent (table 5). This trend poses a significant problem for Hawaii despite the substantial rise in the level of economic activity since prewar years.¹

The unfavorable unemployment situation arises from fundamental conditions peculiar to Hawaii. These are: (1) The inability of the economy to absorb the increasing numbers of youthful entrants into the labor force in addition to a general rise in the labor force; (2) significant industry changes—primarily the impact of mechanization in the sugar, pineapple, and construction industries, which has resulted in a substantial reduction in the labor force in those industries since 1939; (3) the erratic and unpredictable level of Federal Government employment, which has been a dynamic influence in Hawaii's economy; (4) some tendency toward a decline in emigration; and (5) the marked stability of the total civilian labor force in private industry.

The long-run implication of Hawaii's stable civilian labor force is that private industry has not been absorbing, and may not absorb its share of the expanding labor force. This development imposes a greater burden on the erratic Federal Government employment sector to which the Hawaiian economy became geared during World War II. (See chart.) However, recent increases in

¹ Income of Hawaii, U. S. Department of Commerce, Office of Business Economics, 1953 (p. 9).

Government expenditures, arising from continued international tensions, and expansion of the tourist industries and service trades are expected to help meet the employment demands of the growing labor force.

Seasonal Factors

Seasonal variation in employment is not now a significant problem in Hawaii. Its industrialized agriculture is considerably more stabilized than agriculture elsewhere in the Pacific area. Plantation operations have been so organized as to lessen considerably the seasonal labor-force variation that usually marks crop production. Seasonal requirements in pineapple canning are easily met because the canning season occurs during the summer months when students are available for temporary jobs. Because of drought and lack of anticipated market expansion, the pineapple industry was not able to employ the usual number of summer workers in 1954. These statements concerning the tendency toward seasonal labor-force stability are valid despite the considerable fluctuation in monthly employment figures for pineapple canning and pineapple plantations. The seasonal labor demands are not met by large supplies of migratory seasonal labor as in many mainland areas, but by local workers who are not part of the regular labor force.

TABLE 6.—*Occupational distribution of the employed labor force, Territory of Hawaii, 1940 and 1950*

Item	Percentage distribution	
	1940	1950
<i>Class of worker</i>		
Employed.....	100.0	100.0
Private wage and salary workers.....	73.8	66.2
Government workers.....	12.1	20.5
Self-employed workers.....	10.4	11.5
Unpaid family workers.....	3.7	1.8
<i>Major occupation group</i>		
Employed.....	100.0	100.0
Professional, technical and kindred workers.....	7.3	9.8
Farmers and farm managers.....	2.3	2.6
Managers, officials, and proprietors, except farm.....	7.3	8.3
Clerical and kindred workers.....	6.5	12.4
Sales workers.....	5.2	6.5
Craftsmen, foremen, and kindred workers.....	10.5	15.5
Operatives and kindred workers.....	12.1	15.0
Private household workers.....	5.2	2.0
Service workers, except private household.....	6.6	9.8
Farm laborers (unpaid family workers).....	1.8	1.0
Farm laborers, except unpaid, and farm foremen.....	24.2	9.0
Laborers, except farm and mine.....	10.4	7.5
Occupation not reported.....	.6	.6

Source: Bureau of the Census.

The construction industry, often quite seasonal on the mainland because of climatic conditions, fluctuates over longer than annual periods in Hawaii, and reflects private and Federal Government construction requirements.

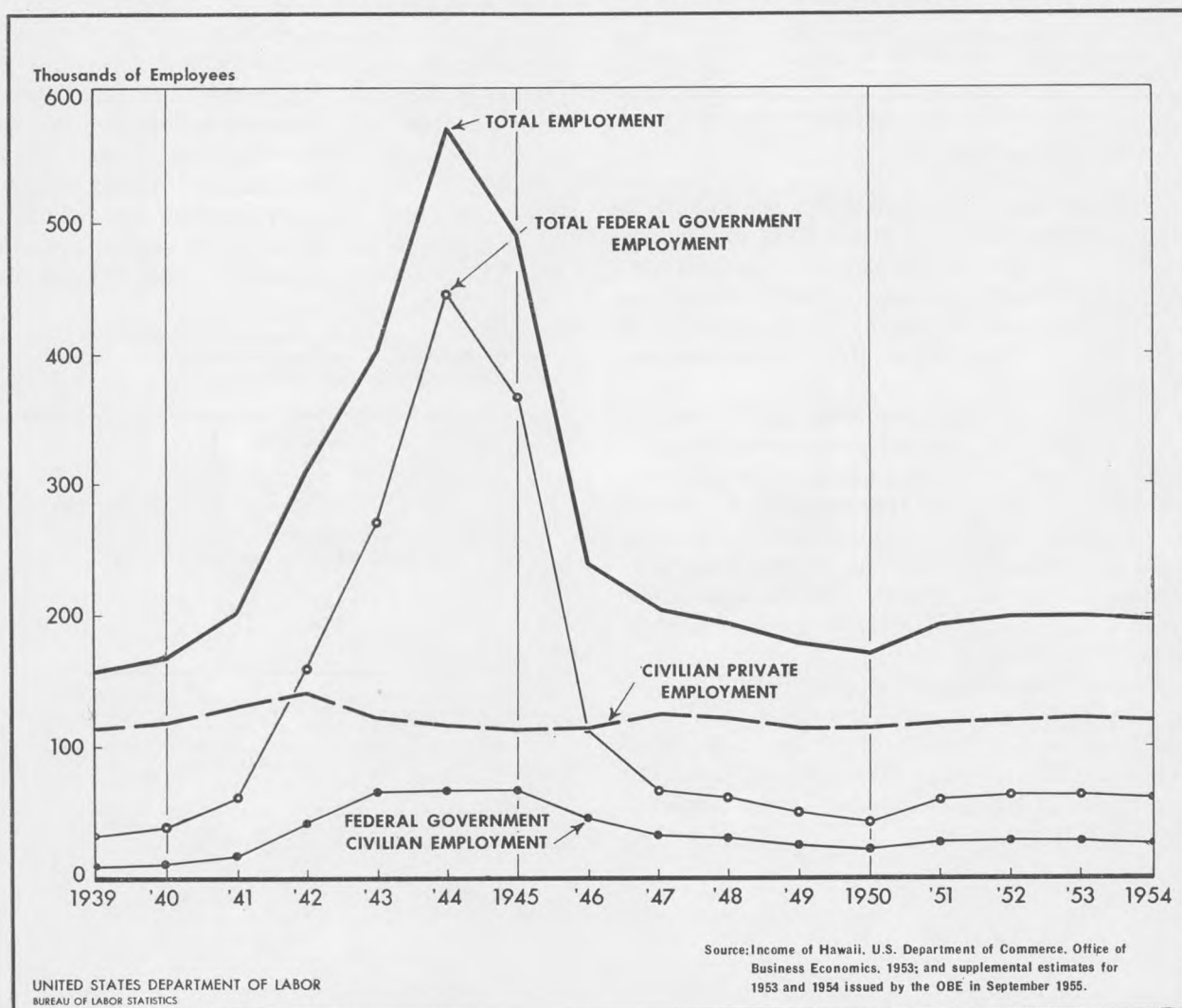
Occupational and Industrial Distribution

The major occupational and industrial shifts in Island employment are evident in census data for 1940 and 1950. (See tables 6 and 7.) These data show the following relative changes: (1) A decline

in private wage and salary workers and a rise in Government workers; (2) a very large drop in agricultural employment; and (3) a rise in employment in service industries and occupations. Employment in manufacturing, which accounts for a small proportion of Hawaii's total employment, is relatively stable. For example, in 1954, this industry group employed only about 2,000 more workers than it did in 1939.² In agriculture, employment dropped nearly 50 percent in

² Income of Hawaii, op. cit., see source reference to chart.

Total Employment, and Civilian Private and Federal Government Employment, Hawaii, 1939-54¹



¹ All figures expressed as average number of full-time equivalent employees. Full-time equivalent employment measures man-years of full-time employment of wage and salary earners and its equivalent in work performed by

part-time workers. Full-time employment is defined simply in terms of the number at hours which is customary at a particular time and place.

TABLE 7.—*Industrial distribution of the employed labor force, Territory of Hawaii, 1940 and 1950*

Major industry group	Percentage distribution	
	1940	1950
Total employed labor force.....	100.0	100.0
Agriculture, forestry, and fisheries.....	35.5	19.0
Mining.....	.2	.1
Construction.....	7.0	7.0
Manufacturing.....	10.0	12.7
Durable goods.....	1.6	3.4
Nondurable goods.....	8.4	9.3
Transportation, communication, and other public utilities.....	5.5	7.9
Wholesale and retail trade.....	14.2	18.9
Wholesale trade.....	1.7	3.3
Retail trade.....	12.5	15.6
Finance, insurance, and real estate.....	1.4	2.4
Business and repair services.....	1.9	2.5
Personal services.....	10.0	6.5
Private households.....	6.0	2.6
Personal services except private households.....	4.0	3.9
Entertainment and recreation.....	1.0	1.6
Professional and related services.....	7.4	10.0
Public administration.....	5.0	11.0
Postal service.....	.2	.4
Federal public administration.....	3.1	7.3
Territorial and local public administration.....	1.7	3.3
Industry not reported.....	.9	.6

NOTE. Because of rounding, sums of individual items do not necessarily equal 100.

Source: Bureau of the Census.

this period; those displaced from jobs in agriculture generally moved to urban areas to seek employment. Significantly, combined employment in trade, finance, transportation, utilities, and services increased 56 percent for the period from 1939 through 1954, which offset the displacement from agriculture.

From 1939 to 1954, the total civilian employment increase, for industry groups where employment increased, was nearly 52,000. Two industry segments accounted for approximately 61 percent of the total employment increase. Federal and local governments had the largest increase—slightly more than 22,000, and employment in retail trades and automobile services increased by about 9,700.

Federal Government employment has also accounted for a substantial proportion of total employment in Hawaii. For the years 1948 through 1954, the proportions ranged from 14.1 percent to 22.4 percent, although they tended to decline in recent years.

Federal employment as percent of total employment, Island of Oahu¹ (range for 12 months)

1948.....	20.7 to 22.4
1949.....	15.1 to 21.7
1950.....	14.1 to 16.8
1951.....	18.2 to 20.1
1952.....	18.1 to 19.4
1953.....	16.2 to 18.7
1954.....	15.4 to 16.6

¹ The data are shown for Oahu, because 98 percent of all Federal employment in Hawaii is on this island. For the Territory as a whole, Federal employment as a proportion of the total employed labor force has ranged from 11.3 to 12.3 percent monthly from September 1953 through May 1955, according to employment estimates of the Territorial Bureau of Employment Security.

Source: Bureau of Employment Security, Territory of Hawaii, Department of Labor and Industrial Relations.

These percentages applicable to Federal employment in Hawaii considerably exceed the United States figures for total Government employment (including local, State, and Federal workers) as a percent of the total employed civilian labor force. From 1948 to 1953, Government employment as a percent of the total employed civilian labor force in the United States ranged from 9.5 to 10.8. When State and local governments are excluded, the percentages for Government employment in the United States range from 3.1 to 3.9; thus, the

TABLE 8.—*Government employment, total and Federal, as a percent of total employed civilian labor force, United States and Territory of Hawaii, 1948-54*

Year	Total government employment (percent)		Federal Government employment (percent)	
	United States ¹	Hawaii ²	United States ¹	Hawaii ²
1948.....	9.5	27.0	3.1	³ 18.3
1949.....	9.9	25.6	3.2	15.8
1950.....	10.0	24.0	3.2	13.4
1951.....	10.4	26.7	3.7	16.6
1952.....	10.8	26.6	3.9	16.5
1953.....	10.7	26.0	3.7	15.8
1954.....	11.0	25.6	3.6	15.0

¹ Calculated from labor-force estimates, U. S. Department of Commerce, Bureau of the Census, Bull. P-57; and government employment statistics, U. S. Department of Labor, Bureau of Labor Statistics.

² Calculated from data in Income of Hawaii, and supplemental data, op. cit., chart, source reference. Employment figures used are in average full-time equivalents. For an explanation of this measure, see chart, footnote 1.

³ These percentages are lower than those given above, which are based on monthly employment estimates for Oahu prepared by the Bureau of Employment Security, Territorial Department of Labor and Industrial Relations.

incidence of Federal employment in Hawaii since 1948 has been at least 4 times higher than in the United States (table 8).

According to the 1950 census, only 8 States showed Federal civilian employment as a percent of the employed civilian labor force exceeding 5 percent or more.³

The most volatile aspect of Federal employment in Hawaii concerns military construction and services which depend on the number of service

personnel stationed in Hawaii. Since the Federal Government in 1952 accounted for 31 percent of the total Territorial income and 36.3 percent of its total wage and salary disbursements, it is clear that the Federal Government's expenditures are crucial in problems of labor-force size and employment and unemployment potentials.

³ Arizona, 5.4 percent; California, 5.4 percent; Colorado, 5.1 percent; Nevada, 7.3 percent; New Mexico, 5.6 percent; Utah, 10.0 percent; Virginia, 5.7 percent; and Washington, 6.8 percent.

"That Hawaii should have been discovered at all by men whose only means of water transportation was the outrigger canoe and whose only device for reckoning a course was by observation of the naked eye on the sun and stars is a mystery which is likely to remain forever sealed. Whether they were driven from their native lands . . . by warfare or by violent storms or whether they sought new lands for an expanding population, the fact remains that they did discover Hawaii at a fairly early time [about 500 A. D.]. To judge by the meager data from legendary sources, the earliest settlers of Hawaii remained completely isolated for perhaps a thousand years—at least 30 generations. During the 11th and 12th centuries, Hawaii is believed to have come again within the range of Polynesian travel, and as a result of several important invasions from the south a new and aggressive people imposed their rule as well as much of their culture upon the indigenes. Several important additions to the floral and faunal resources of the region, including the breadfruit, were made during this period. In the course of the next 500 years, during which the Islands were again cut off from contact, the indigenous culture was gradually evolved.

"Not until Captain Cook's voyage in 1778 were the Islands really discovered in any sense which fundamentally affected their relations to the larger world around the Pacific. Following the publication of *Cook's Voyages* in 1784, the Islands for the first time secured a position on the charts and maps of explorers and navigators and within a few years Hawaii began to fulfill the very important function which Captain Cook had anticipated—serving as a supply and refreshment base for ships crossing the Pacific. . . . Hawaii was so located as to be among the last of the Pacific island groups to be discovered, but so strategic was its position that its settlement has been accomplished more rapidly than in the other oceanic islands."

Andrew W. Lind, *An Island Community: Ecological Succession in Hawaii*, Chicago, University of Chicago Press, 1938 (pp. 6-7).

Working Conditions and Workers' Wages

THOMAS H. IGE

IMPROVED wages and working conditions in Hawaii today clearly reflect the great strides made in the Territory's economy, especially since 1941. From an isolated, underdeveloped economy paying a prevailing wage of "one dollar a day" for 10 hours' work, present-day Hawaii can match its labor standards with those of the continental United States.

World War II with its concentrated impact on Hawaii accentuated the economic transformation that had been taking place. By the end of the war, the Territory had become a highly unionized area; 10 years before, unions were unknown in the Islands outside of limited areas in Honolulu. In the transition, the basic agricultural industries were highly mechanized and industry generally was modernized. With existing international tensions in the Pacific area, the impact of Federal expenditures remains substantial and continues to reshape the Hawaiian economy today.

Per capita personal income in Hawaii increased from \$525 in 1939 to \$1,704 in 1954. Corresponding figures for the United States were \$556 and \$1,770. After allowance for increases in prices, taxes, and population, the real per capita disposable income in Hawaii in 1954 rose by two-thirds since 1939. Relatively, these gains were greater than for the United States in the same period.¹

The rise in income has been accompanied by marked shifts in the industrial structure of Hawaii. These changes are evident in the accompanying tabulation which shows average annual earnings per full-time civilian employee as a percent of all wages and salaries paid in Hawaii, by major industry category, in 1939 and 1954.

The Federal Government replaced agriculture as the leading source of wages and salaries paid in Hawaii. The decrease of 12.8 percentage points in the portion of the total payroll accounted for by agriculture was almost matched by the increase of 9.9 points for the Federal Government. However, agricultural workers made the largest relative gain in average annual earnings in this period. (See chart.)

Average hourly earnings in Hawaiian industry (excluding trade, construction, and services) increased almost 39 percent in the first half of 1954.² Similarly, average weekly earnings went up by 30 percent and average hours worked per week decreased by 6½ percent.

	Percent of all wages and salaries paid	
	1939	1954
All civilian industries ¹ -----	100.0	100.0
Agriculture-----	26.4	13.6
Contract construction-----	4.1	6.0
Manufacturing-----	12.0	11.6
Wholesale and retail trade-----	15.8	16.9
Finance, insurance, and real estate-----	2.8	2.8
Transportation-----	5.0	5.1
Communication and public utilities-----	3.2	3.2
Services-----	9.4	9.5
Federal Government-----	9.2	19.1
Local government-----	12.2	12.1

¹ Data are not shown for mining, which had only 250 employees in 1939 and 210 in 1954.

NOTE.—Because of rounding, sums of individual items do not necessarily equal 100.

Source: Income in Hawaii, U. S. Department of Commerce, Office of Business Economics, 1953, table 3 (p. 19), and supplemental estimates for 1954 issued by the OBE in September 1955.

The general upward movement in the Islands' earnings and income varied by specific industry as a result of several factors, including the marked shift in the Hawaiian economic structure, as well as the extent of unionization and mechanization, and the nature of competition among industries.

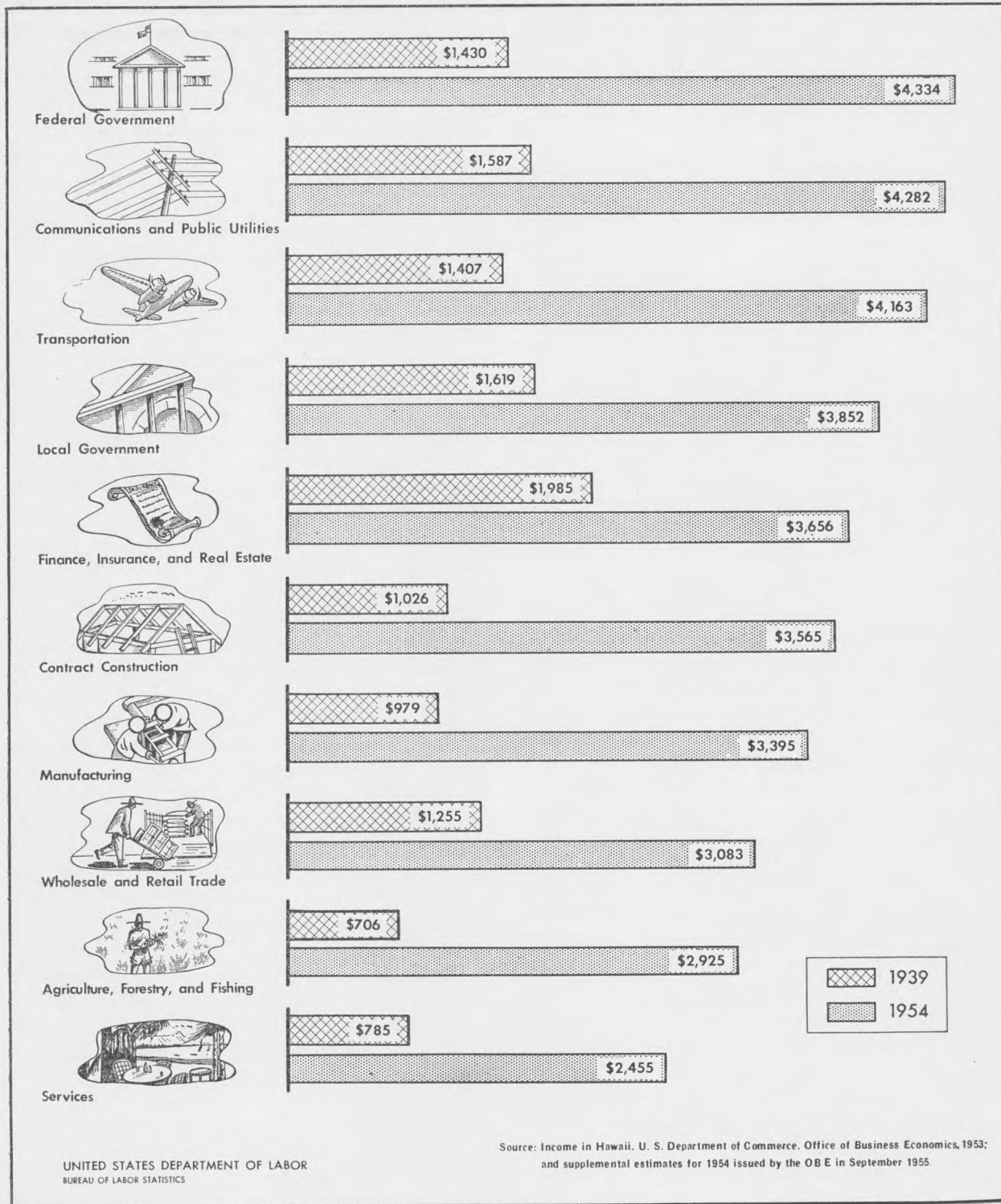
Sugar Industry

An industrywide job classification system in the sugar industry was first established in November 1946 under a contract with Local 142 of the International Longshoremen's and Warehouse-

¹ Income figures for Hawaii were taken from a comprehensive study, Income in Hawaii, U. S. Department of Commerce, Office of Business Economics, 1953. For the years 1953 and 1954, the per capita income for Hawaii was \$1,740 and \$1,704, respectively.

² Earnings and Hours in Hawaiian Industry, Hawaii Employers Council, March 1954.

Average Annual Earnings Per Full-Time Civilian Employee, by Major Industry Group or Division, Hawaii, 1939 and 1954



men's Union. With few exceptions, this basic wage structure eliminated wage differentials for comparable jobs among plantations on the various Islands. It also incorporated housing perquisites into base wage rates for the first time. The hourly rates agreed to in 1946, and corresponding rates for 1954, are listed below:

Labor grade	Hourly base rate ¹	
	1946	1954
1.....	0. 705	1. 06
2.....	. 74	1. 095
3.....	. 785	1. 145
4.....	. 83	1. 20
5.....	. 89	1. 26
6.....	. 96	1. 32
7.....	1. 045	1. 40
8.....	1. 14	1. 495
9.....	1. 25	1. 605
10.....	1. 38	1. 735

¹ Premium base rates are paid on 3 big plantations with the highest (on Waialua) being 8.5 cents more for labor grade 1. These premium rates taper off for higher labor grades with no differential at the top level. Four plantations on the Island of Hawaii pay 7.5 cents per hour less than the industry-wide base rates, but provide a wage escalator tied to the price of raw sugar in the New York market.

Straight-time average hourly earnings in the sugar industry in 1954 were \$1.28 per hour; monthly data ranged from \$1.22 to \$1.35 per hour. In 1953, the corresponding range was \$1.23 to \$1.30.

Unlike agricultural employment on the mainland, the sugar industry in Hawaii has been de-seasonalized and employment, by and large, is on a year-round basis. Census data show that of all those who worked in the sugar industry in the sample year of 1949, about 83 percent worked from 50 to 52 weeks as compared with 73 percent in wholesale and retail trades; only 3.6 percent worked less than 26 weeks. The marked increase in basic wage rates (as shown in the tabulation), therefore, is reflected in annual earnings. Average annual earnings per full-time employee of sugar companies (both field and mill) rose from \$1,657 in 1946 to \$2,868 in 1952.

Twelve plantations out of a total of 26 are presently on a year-round, 40-hour workweek, with overtime after 8 hours per day and 40 hours per week. The others, with 2 exceptions, have a 40-hour workweek for 38 weeks; 1 plantation pays overtime after 40 hours for 32 weeks and the other for 26 weeks. Premium pay of 5 cents per hour is provided on all these plantations for work between 7 p. m. and 12 midnight, and 10 cents per hour for work between 12 midnight and 5 a. m.

Supplementary benefits are standardized under the industrywide agreement. Six paid holidays are provided and, in addition, time-and-one-half rates are paid for work on these holidays. The standard vacation provision is 1 week after 1 year's service and 2 weeks after 2 years with accumulation of 1 week permitted. Sick leave is provided at two-thirds pay for 12 days after 1 year's service and for 36 days after 5 or more years. A 3-day waiting period is stipulated before sick benefits begin. Benefits are also paid for the first 5 days in industrial accidents to offset the waiting period required under the Territorial workmen's compensation law. The 1955 Legislature cut the waiting period to 2 days.

Contributory medical and pension plans, also industrywide, under the agreement with the ILWU, provide liberal benefits. The medical plan calls for benefits for medical services, surgery, and all medicine given or prescribed by the company doctor, and includes consultants' or specialists' services if necessary. Minimum benefits under the pension plan are \$2 a month for each year of service with the company after the first year, with a maximum payment of \$75 per month exclusive of social security benefits.

With the rapid rise in labor costs, the sugar industry has intensified its mechanization program in order to maintain its competitive position. In addition, marginal land areas have been abandoned in favor of more intensive cultivation of the remaining arable areas. Although the number of full-time workers on sugar plantations decreased from 44,430 in 1939 to 21,415 in 1952, the physical volume of production has remained substantially unchanged. Thus, total wages and salaries paid in this period to workers in the industry more than doubled—from \$30 million to over \$61 million—and substantial improvement in working conditions were made.

The sugar industry has been almost completely unionized by the ILWU in the last decade. Unionization, however, has had a more pervasive effect on both the sugar and pineapple plantations than that indicated by the terms of the collective bargaining contracts in these industries. The pendulum has swung away from company paternalism that characterized these industries for the past 50 years and is beginning to swing from the middle ground toward one of union paternalism. Welfare benefits, provided in these contracts, are

administered largely by the union. Elaborate athletic programs previously conducted by the companies are now under union direction. In the 1955 ILWU Territorial convention, funds for setting up union centers for both business and social activities on all the major islands were approved; ventures into retail credit and discount buying for members are also under consideration.

Pineapple Industry

The 8 pineapple companies in Hawaii, with 11 plantations and 9 canneries, employed about 6,000 regular employees in 1954 and 22,000 during the peak of the harvest. Converted into its full-time equivalent, this employment amounted to over 11,000 workers. The number of regular employees has declined slightly since 1946.

Under an industrywide contract with ILWU Local 142, hourly base rates in this industry start at \$1.20 per hour for the lowest labor grade both in the plantations and in the canneries and range up to \$2.05. A 10-cent hourly differential (lower) is provided, however, for women workers in each labor grade. On the plantations, both the regular and seasonal work forces are about 95 percent men. Operations at the canneries, however, are more seasonal, and thus the large part-time work force is predominantly women. The regular work force, about 2,000, is composed primarily of men in the semiskilled and skilled groups. Thus, average hourly earnings for regularly employed men workers in the canneries are much higher than on the plantations which employ mainly unskilled labor.

During the last 10 years, the wage differentials that have existed among pineapple plantations on the Islands have been virtually eliminated and the differentials between earnings of cannery workers, who are mostly city residents, and the rural plantation workers, have been narrowed. In 1954, average hourly earnings of \$1.48 on the pineapple plantations compared with the \$1.28 average on the sugar plantations.

Supplementary wage practices in the pineapple industry are substantially similar to those previously described for the sugar industry. The fact that the ILWU Local 142 bargains for employees in both industries tends to standardize their work conditions. Because of the highly seasonal work requirements in the pineapple industry, however,

the regular 40-hour workweek is not applied during 14 weeks of the peak season. During this period, overtime is paid after 44 hours per week. Premium pay of 5 and 10 cents per hour is provided for second and third shifts, respectively, during the busy season.

Building and Construction

The construction industry, with approximately 9,000 workers and over 800 employing units, is almost completely nonunionized in Hawaii. The 213 members of the General Contractors Association who employ the bulk of these workers set the pattern of basic wage rates. These rates generally coincide with the minimums required under the Davis-Bacon Act as applied to thousands of workers on Federal projects in the Islands (table 1). For jobs or trades that cut across industry lines, however, the rates spread substantially.

TABLE 1.—Hourly job rates established under Davis-Bacon Act and by General Contractors Association and median rates for all industries, Territory of Hawaii

Selected job classifications	Job rates	All industries ¹ (median rates)
Carpenters.....	\$2.10	\$1.76
Electricians.....	2.45	1.82
Machinists.....	2.18	1.82
Painters, brush.....	1.85	1.71
Plumbers.....	2.45	1.71
Sheet-metal workers.....	2.40	1.925
Truckdrivers (5-10 tons).....	1.73	1.45
Welders.....	2.18	1.71
Highlift operators.....	1.68	1.38
Labor, common.....	1.35	1.15

¹ Pay Rates in Hawaii, Hawaii Employers Council, January 1955.

Longshore Industry

Hourly wage rates in the longshoring industry, one of the earliest to be organized in Hawaii, have advanced more than in other industries. The straight-time hourly rate of 70 cents in 1941 increased to \$1.30 by the end of 1946 and reached \$2.16 in June 1955. In 1941, the longshore hourly rate obtained by ILWU locals on the mainland's West Coast exceeded that in Hawaii by 30 cents an hour. The differential was reduced to 22 cents by the end of 1946 and to 11 cents in 1955. The differential has narrowed from about 40 percent in 1941 to 5 percent in 1955. Thus, the ILWU's long-sought-after wage equality with the West Coast longshore industry appears to have been almost achieved. The skill differentials for longshoremens, winch drivers, hatch tenders, leadermen,

gang foreman, and other jobs likewise closely approximate West Coast longshore standards.

Supplementary wage practices in the Hawaiian longshore industry, including penalty cargo differentials, call-in pay, overtime payments, shift differentials, and vacations with pay also have been keyed to practices prevailing in the ports of San Francisco, Los Angeles, and Seattle. Patterned after longshore industry practices throughout the United States, health, welfare, and pension plans have also been strongly emphasized in Hawaii in recent years. A comprehensive medical plan was established in 1952 on a contributory basis and subsequently underwritten by the New York Life Insurance Co. A noncontributory pension plan was also negotiated in the same year. The plan provides, among other things, a minimum monthly pension of \$75 (exclusive of social security benefits) at 65 after 25 years of credited service.

Clerical Workers

Compensation for clerical workers varies greatly from industry to industry and even within firms in the same industry. The dispersion around the median monthly salary for these workers is considerable for each job classification listed in table 2. The great bulk of these jobs are located within the city limits of Honolulu; unionization among white-collar workers is virtually nonexistent.

A 5-day workweek for officeworkers is the prevalent practice in Hawaii. Only 12 out of 118 firms in a recent survey³ had a regular workweek for officeworkers exceeding 40 hours. Overtime is generally paid after 40 hours of work. Paid holiday provisions appear to be more liberal for office workers in Hawaii than on the mainland, with 10, 11, and 12 holidays with pay frequently provided.

TABLE 2.—Salaries of selected clerical jobs in the Territory of Hawaii, 1954

Job classification	Median monthly salary	Middle 50 percent of range
Senior account clerk.....	\$370	\$315-\$438
Account clerk.....	250	210- 305
Order clerk.....	237	188- 284
Stock clerk.....	258	215- 294
Cashier.....	222	175- 265
Bookkeeping-machine operator.....	254	215- 298
Switchboard operator.....	265	234- 265
Secretary.....	322	285- 365
Stenographer.....	268	240- 300
Senior typist.....	240	203- 278
Senior clerk.....	325	272- 375

Source: Pay Rates in Hawaii, Hawaii Employers Council, January 1955.

Pension and medical plans cover most of the Territory's officeworkers.

Summary

Wages and working conditions in Hawaii today compare favorably with those in the United States. Although sugar and pineapple are the primary export industries in Hawaii, Federal Government employment is becoming increasingly important. Improved labor standards have led generally to increased labor costs and have spurred rapid mechanization in basic industries. Advancing technology has caused a shift of workers to distributive and service industries as well as to Government employment. The continued high level of Federal expenditures in the Islands has cushioned the impact of the employment transfers. Workers retained in the highly mechanized sugar and pineapple industries have shared in the increased productivity and made substantially greater gains proportionately than other workers in recent years. With closer economic ties to the continental United States, wages and working conditions in Hawaii will increasingly be patterned after prevailing practices on the mainland.

³ Pay Rates in Hawaii, Hawaii Employers Council, January 1955.

“A little over 20 years ago, in 1900, a young Harvard graduate interested in agriculture came to Hawaii. His name was James D. Dole, son of a well known Unitarian minister near Boston. He had the vision to see the possibilities in canning pineapple and organized a modest little company capitalized at \$20,000, with 12 acres of pineapple plantation. The first year's output was 1,893 cases.”

Albert W. Palmer, *The Human Side of Hawaii—Race Problems in the Mid-Pacific*, Boston and Chicago, Pilgrim Press, 1924 (pp. 100-101).

Labor Legislation and Enforcement

ROBERT SROAT AND RUTH W. LOOMIS

HAWAII'S LABOR LAWS generally have been patterned after labor legislation in the continental United States. For example, the Hawaii wage and hour and child labor laws generally parallel the Fair Labor Standards Act; the Federal Davis-Bacon Act and 8-hour law provided the pattern for a combined "little Davis-Bacon Act." The Hawaiian laws were enacted only a few years later than their Federal counterparts despite the many factors which retarded their development.

Situated over 2,000 miles from the mainland, workers in the Islands were not affected significantly by the notable growth of union organization in the United States during the early 1900's. For the most part, the Island labor force was engaged in agriculture and related activities. It was composed of a heterogeneous mixture of races, principally Oriental, who had come from countries in which working conditions were primitive, hours were long, and wages were low. By contrast, working conditions in Hawaii were comparatively advanced, thus lessening the pressures for social legislation.

With the growth of communication and transportation facilities, however, Hawaii gradually was transformed from an isolated insular community to an integral part of the larger and more complex economy of the United States. Advertising Hawaii as a vacation resort brought not only the tourist trade but mainland unions. Additionally, a new labor force emerged; it was comprised of children of the immigrant workers, who were Americanized and citizens. Educated in American schools, the new workers became conscious of rights and equality. Various labor laws enacted by Congress were made applicable to Hawaii. Finally, agriculture became indus-

trialized and its workers were unionized. All of these developments provided the impetus to the enactment of a body of laws beneficial to labor by recent Territorial Legislatures. These laws are surveyed briefly in this article.

Wage and Hour Law

The wage-hour law sets a maximum 48-hour week for purposes of overtime compensation as well as a 75-cent hourly minimum wage for the island of Oahu and a 65-cent minimum for the other islands in the Hawaiian chain. When hours over 48 are worked in 1 week, compensation of one and one-half times the regular rate is required. Also, all split shifts must fall within 14 consecutive hours, except in an extraordinary emergency.

Specific exemptions exclude from the law's coverage employees having a guaranteed salary of \$350 or more per month; employers in agriculture with less than 20 workers in any 1 work-week;¹ or domestic employees in and about a private home. The law further excludes individuals employed by certain members of their family; those who are in bona fide executive, administrative, supervisory, or professional capacity; outside salesmen and outside collectors; and those employed in the fishing industry except in the canning of fish. It also exempts employees already subject to the Fair Labor Standards Act and such groups of workers as seamen, taxicab drivers, golf caddies, and students employed by a nonprofit school. All other employees, both men and women, minors or adults, are benefited equally under this law.

The original wage-and-hour law, which became effective April 1, 1942, provided a 5-cent hourly differential between the minimum rates applicable to Oahu and to the other Hawaiian Islands—25 cents and 20 cents, respectively. In 1945, a uniform minimum rate of 40 cents was established for all the Islands. Legislative action in 1953, however, reestablished an hourly differential—65 cents for Oahu and 55 cents for the other Islands. This differential was maintained when the 1955 Legislature increased the rates in these areas to 75 cents and 65 cents, respectively. Changes in

¹ Employers in industrialized agriculture (those employing 20 or more workers) were excluded until July 1, 1945, when they were made subject to the statute. At that time an estimated 28,000 island agricultural workers were covered under the law.

the minimum rates can only be made by the Legislature; the statute does not provide for increasing the minimum rates through administrative wage orders or wage board procedures.

The law is administered by the Wage and Hour Division within the Bureau of Labor Law Enforcement of the Department of Labor and Industrial Relations. In addition to the main staff of field inspectors located in the central office on Oahu, 1 inspector is located in each of the branch offices located on the 3 major islands—Hawaii, Maui, and Kauai. From the Maui office, itinerant services are provided to the islands of Molokai and Lanai.

Enforcement features of this law are of 3 types: (1) criminal penalties for willful violations (maximum \$500 fine or 90 days' imprisonment, or both); (2) injunction proceedings brought by the Director of Labor and Industrial Relations; and (3) suits for the recovery of unpaid wages and overtime pay which may be brought by the interested employees or by the Director in their behalf; in the latter instances, attorneys' fees or court costs are supplied to the employees without charge.

In the 13 years of enforcement of this law, from April 1, 1942, to April 1, 1955, \$534,900 in back wages were recovered by the Wage and Hour Division for distribution among 6,471 male and 6,634 female employees. Minimum-wage violations accounted for \$245,000 and overtime violations for \$289,900 of the amount recovered. During the early years of enforcement some type of violation was found in more than 40 percent of the inspected establishments with covered employees. However, violations have declined steadily since; only 10 percent were in violation during the last fiscal year.

Child Labor Law

The child labor law bars work for minors under age 16 if they are legally required to attend school, and under 14 whether or not school is in session, with a few exceptions. It requires all employers of minors under 18 years of age to secure an employment certificate issued by the Department of Labor and Industrial Relations, to retain the certificate during such employment, and to return it upon termination of employment.

The Department may refuse certification, or may revoke a previously issued certificate, if the work is deemed hazardous to life and health, contributes to delinquency, or if the certificate was improperly issued originally. No minor under 16 may work with power-driven machinery, after 6 o'clock in the evening, or in any occupation deemed hazardous. No specific hazardous occupation orders have been promulgated, and this aspect of the law is left to the discretion of the issuing officer.

Three types of employment are specifically exempted from the restricting provisions of the law: work in domestic service in a private home; work in connection with the sale and distribution of newspapers; and work done solely for a parent or guardian by a minor, if it is performed when the minor is not legally required to attend school.

Any willful violation of the law is a misdemeanor, punishable by a fine not to exceed \$1,000 or by imprisonment for not more than 6 months, or both.

The law permits children under 14 to be employed in the entertainment field under regulations prescribed by the Commission of Labor and Industrial Relations.² Thus, the Commission has adopted a theatrical employment regulation which governs the employment of all minors in gainful occupations such as dancers, singers, musicians, entertainers, or motion picture or theatrical performers. This regulation sets the hours for employment of minors under 16 in these activities, but forbids such employment on premises where liquor is served or sold.

Administrative policies prohibit the employment of minors under 16 in bowling alleys, and boys under 16 and girls under 18 in penny arcades and similar places of amusement.

The Department has issued a total of 156,903 child labor certificates from January 1, 1940, the effective date of the law, to June 30, 1954. In the fiscal year 1939-40, 3,951 certificates were issued. The number rose to a peak of 20,929 in fiscal 1945-46 under the impact of the war manpower shortage in the Territory, but declined to 5,746 in fiscal 1953-54. In the last 5 fiscal years, certificates have averaged 6,270 annually:

² A 5-man group within the Department of Labor and Industrial Relations. It sets major policies, formulates rules and regulations, and appoints the Director of the Department.

The Department has been designated by the U. S. Department of Labor as issuing authority for child-labor certificates for all industries in the Territory covered under the Fair Labor Standards Act. Most of the employed minors are in the canning industry, which is covered under the Federal law. No violations of this act have been reported in the Territory. Primarily, this record has been the result of good voluntary compliance but in the early period following the act's passage, rigid enforcement was an important element.

Wage Claim Law

The wage claim statute, effective January 1, 1940, authorized the Director of the Department of Labor and Industrial Relations to accept wage claims by employees in the amount of \$200 or less and to effect their settlement. A series of statutory amendments has raised this limitation to claims of \$500 or less, as of July 1, 1955.

Enforcement is accomplished largely through conference between the parties concerned, with a Department representative acting as mediator. If necessary, use is made of the legal staff of the Department and the courts. The Department has also invoked the mechanic's lien law in pertinent cases. A new law,³ not yet tested, is expected to prevent employers who are financially irresponsible or dishonest from being chronic violators of the wage claim law. It calls for the securing of judgment on unpaid claims and, if payment is not made within the following 30 days, the enjoinder of the employer from further business activity until the judgment is satisfied.

From the inception of the law on January 1, 1940, to July 1, 1954, the Department has accepted 3,624 claims amounting to about \$287,400 and has secured settlement in the amount of \$228,300, or 79.4 percent.

From 1941 to 1954, both the number and amount of claims accepted by the Department increased steadily. In fiscal 1940-41, 133 claims amounting to \$4,376 were accepted, compared with 372 claims totaling \$34,334 in fiscal 1953-54.

Commercial Employment Agency Law

Aside from licensing provisions, the principal feature of the act regulating commercial employ-

ment agencies is the restriction of maximum fees. When the law went into effect on January 1, 1940, it limited the maximum fee to 10 percent of the first month's wages. However, an amendment to the law, effective May 20, 1955, specifies that if the first month's wages are \$100 or less, the maximum fee permitted is 10 percent; if the monthly wages are \$100.01 to \$150, the maximum is 15 percent; and if they exceed \$150, the maximum is 20 percent.

At present, five private commercial employment agencies are in operation, usually as an adjunct to another business, since the hitherto low maximum fee and the free placement services available at the Territorial employment agency dictated marginal operation of these private agencies. What effect the new scale of maximum fees will have is not known, but it is believed that the majority of the job placements will be in the \$150 or more monthly wage category.

Emigrant Agent Act

In 1950, an agent recruited workers to work on the lettuce farms in Salinas, Calif. On some of the farms, the workers found that wages and working conditions differed greatly from those promised by the agent. This incident centered attention on the need to protect local workers from similar exploitation and, in 1951, the Emigrant Agent Act was enacted.

The statute defines an emigrant agent as any person "engaged in soliciting, inducing, procuring, or hiring workers to go beyond the limits of the Territory, for the purpose of seeking or accepting employment." Each agent is required to obtain a license which is issued only after he complies with detailed regulations intended to insure that each recruited worker is informed of the exact terms and conditions of the employment offered to him. To effectuate these regulations, each agent is required to file with the Director of the Department of Labor and Industrial Relations a bond of \$5,000 which stipulates that the agent will comply fully with the act's provisions and regulations. The bonding requirement is waived when the agent is recruiting workers only for employment in the performance of a contract with the United States or its States or Territories.

³ Act 26, effective July 1, 1955.

Minors are further protected by a provision in the law that requires guaranteed return transportation to the point of hire.

Nine licenses are presently outstanding, and compliance, by and large, has been good. The Department has been called upon infrequently to intercede against the agents.

Public Works Act

Act 133, a "little Davis-Bacon Act," became effective on August 14, 1955. Like its Federal counterpart, it sets prevailing rates, to be determined by the Director of the Department of Labor and Industrial Relations, for laborers and mechanics at the job site on all public construction contracts to which the Territory of Hawaii, the City and County of Honolulu, or any other county is a contracting agency. It also provides overtime compensation at one and one-half times the employee's basic hourly rate after 8 hours daily or after 40 hours weekly.

Enforcement of the act is the joint responsibility of the governmental contracting agency and the Department. Either agency may require payment of wages or overtime compensation found due to laborers or mechanics on contracts to which the law is applicable. To date, the Department has had no enforcement experience under the statute. Moreover, it has not yet fully determined the scope of the problem its enforcement will encompass.

Workmen's Compensation Act

Enacted in 1915, this law provides compulsory coverage for all employees engaged in gainful business or agriculture, regardless of the nature of their work. Compensation payment for industrial injuries is secured by policies obtained from private insurance carriers for 8,693 subject employers; an additional 80 employers subject to the law are authorized as self-insurers. Government workers are covered on the same basis as private employees. Since its constitutionality was upheld by the Hawaii Supreme Court 2½ years after its enactment,⁴ the law has been subject to numerous amendments, but its basic provisions have remained unchanged.

As a result of amendments effective July 1, 1955, benefits are among the most liberal in the

Nation. Weekly compensation is set at two-thirds of the employee's average weekly wages up to a maximum of \$50, with total compensation limited to \$20,000. Medical treatment is unlimited as to time and amount. A 2-day waiting period is required before compensation is paid for temporary-total disability, but if the disability continues for more than 7 days, compensation is paid from the first day. Should permanent-total disability continue after a worker has received the full \$20,000, he receives half of the weekly compensation from a special compensation fund maintained with payments of \$2,000 by the employer for each death case in which there are no dependents. Other expenditures from this fund are made for second injury payments, attendants' allowances for totally disabled workers, purchase of accident-prevention equipment and educational material for the teaching of safety, and rehabilitation of injured workers to the extent of \$1,000 for any one person.

Interpretations of the act by the Supreme Court have ranged widely over almost all its provisions.⁵ The latest decision of the Supreme Court on the subject of workmen's compensation deals with causal connection between conditions under which work is performed and a cerebral hemorrhage.⁶

Until 1940, administration of workmen's compensation was the responsibility of Industrial Accident Boards appointed by the Governor for each county. In that year, the Bureau of Workmen's Compensation was established within the newly created Department of Labor and Industrial Relations with responsibility for the administration of the law. The Industrial Accident Boards were given the sole function of reviewing awards on appeal.

⁴ *Anderson v. Hawaiian Dredging Co.*, 24 Haw. 97.

⁵ Accidents "arising out of" employment: *Honda v. Higa*, 33 Haw. 576; *Asaeda v. Haraguchi*, 37 Haw. 556.

Contracting out: *In re Gonzales*, 31 Haw. 672.

Damages: *Reinhardt v. County of Maui*, 23 Haw. 524.

Death benefits: *Morita v. Hawaiian Fertilizer Co.*, 27 Haw. 431.

Dependents: *In re Pioneer Mill Co.*, 31 Haw. 814; *Zarate v. Allen & Robinson*, 32 Haw. 118; *In re Lee Yit Kyau Pang*, 32 Haw. 699.

Furnishing of medical care as evidence of notice to employer: *Abdul v. American Factors*, 32 Haw. 503.

Independent contractor: *Tomondong v. Ikezaki*, 32 Haw. 373.

Wages: *In re Martin*, 33 Haw. 412; *Forrest v. Theo. H. Davies & Co.*, 37 Haw. 517.

⁶ Recognizing that some jurisdictions follow a rule that unusual strain or exertion must be established in such cases, the Hawaii court, although failing to find a causal connection in the matter before it, adopted the view that to constitute an "accident" within the meaning of the act, a claimant need only establish that either the cause of the injury was accidental in character or that the effect suffered by him was the unforeseen result of performance of his routine duties.

Labor Relations: Pattern and Outlook

HAROLD S. ROBERTS

THE EARLY HISTORY of labor organization in the Territory of Hawaii is similar to that of any community where the imported foreign worker sought the haven of a new country to improve the conditions under which he and his family lived. In Hawaii, the imported workers, who were recruited under the prevailing contract labor system, were predominantly of Oriental origin. The three major racial groups that came to Hawaii to work on the sugar plantations and help build the community were Chinese, Japanese, and Filipino. Although the definitive book on the historical development of the labor movement in Hawaii has yet to be written, comprehensive examinations of the development of labor organization are available.¹

Development of the Labor Movement

With the first reported commercial export of sugar from Hawaii in 1837 and the first strike at Koloa on the Island of Kauai in 1841 for a 25-cent-per-day wage, the impact of labor upon the Territory's economy was established. The passage of the Master and Servants Act of 1850 instituted the system of contract labor. The act permitted the sugar planters to import Oriental labor, thus assuring them a cheap, continuous labor supply. At about the same time, an employers' organization, the Royal Hawaiian Agricultural Society, was formed. It was reorganized about 1895, as the Hawaii Sugar Planters' Association, which was concerned primarily with the varied needs of the industry, and only incidentally with the problems of labor supply.

Following the annexation of Hawaii by the United States in 1898 and the adoption of the

Organic Act of 1900 which established the Territorial form of government, contract labor was prohibited and employers were no longer able to enforce such contracts. As a result, many Japanese laborers in Hawaii moved to the West Coast of the United States. Approximately 6,000 relocated in 1904 and 10,000 in 1905 and, by 1907, about 40,000 had left Hawaii. Immigration of Japanese to the United States and to Hawaii was curtailed, however, following negotiation of the "Gentlemen's Agreement" and enactment of the Immigration Act of 1907.

Although the reports by the United States Commissioner of Labor in the early 1900's show organization of boilermakers, plumbers, blacksmiths, carpenters, and bricklayers in Hawaii, union membership was relatively small and largely ineffective. These early unions restricted their membership to "white" workers, i. e., Caucasians, and excluded the local "Oriental," i. e., Chinese and Japanese. Some early organizational progress was made in 1903 with the formation of the "Federation of Allied Trades" which attempted to protect job security against Oriental competition. In 1905, the "Japanese Reform Association" was established with the aim of preventing discrimination against the Japanese immigrants.

The first major efforts directed to eliminating some of the wage inequities claimed by the workers were made in 1908. In that year, the "Higher Wage Association" was formed. Later, it called a strike (under the slogan of "equal pay for equal work") to obtain higher wages to offset rising prices and eliminate wage differentials between Caucasian and Oriental workers.

World War I prosperity and the high bonuses paid to workers to offset the inflated price of sugar kept labor demands to a minimum. With the end of the war, however, labor sought to reduce hours of work, increase basic wages, obtain overtime pay, and incorporate the wartime bonuses

¹ Edward Johannessen, *The Labor Movement in Hawaii*, M. S. thesis, Stanford University, 1950; Richard A. Liebes, *A Study of the Efforts of Labor to Obtain Security Through Organization*, M. A. thesis, University of Hawaii, 1938; C. J. Henderson, *Labor: An Undercurrent of Hawaiian Social History* (*in* Proceedings of the Sociology Club, University of Hawaii, Vol. 13, 1951); Mark Perlman and John B. Ferguson, *Labor, Trade Unionism, and the Competitive Menace in Hawaii*, University of Hawaii, Industrial Relations Center, 1952; James H. Shoemaker, *Labor in the Territory of Hawaii*, 1939, and *The Economy of Hawaii in 1947*, U. S. Department of Labor (Bureau of Labor Statistics Bulls. 687, 1940 and 926, 1948); and Arnold L. Wills, *History of Labor Relations in Hawaii* (*in* Labor-Management Relations in Hawaii, University of Hawaii, Industrial Relations Center, 1955, bibliography, pp. 61-62).

into the basic wage structure. Two organizations were formed in 1919-20—the Filipino Laborers' Association, under Pablo Manlapit, and the Japanese Federation of Labor. The Filipino group struck first, on January 19, 1920, but returned to work by February 10 after eviction from company houses. The strike called on February 8, 1920, by the Japanese Federation and involving approximately 7,000 workers, ended unsuccessfully on July 1 because of the failure of the 2 labor organizations to work together, the flu epidemic, the eviction from company houses, and the effective opposition of the employers.

In 1924, Manlapit's organization lost a strike for the 8-hour day, a \$2-per-day wage, and the incorporation of wartime bonuses into base rates. Reasons for the failure were apparent in the existing economic and labor environment. The 1920's on the mainland were characterized by the spread of the open shop and welfare unionism. Similarly, under Hawaii's plantation system, housing facilities, medical services, recreational needs, and similar benefits were provided by the employers, thus permitting them to exercise substantial community control. As on the mainland, the unions fought this "paternalism" on the basis that it was inimical to the independence of employees.

The stranding of substantial numbers of unionized seamen in Hawaii following strikes in 1934 and 1936 on the mainland's West Coast created favorable conditions for the organization of workers in the Territory. Approximately 1,200 seamen were stranded after the 1936 strike, which lasted 98 days.

Concomitantly, the National Labor Relations (Wagner) Act, passed in 1935 to protect the rights of employees to organize and bargain collectively with their employers, helped to provide a foundation for later organizational efforts in Hawaii. The first National Labor Relations Board consent election under the act was held on October 10, 1940, at the McBryde Sugar Plantation and involved Local 76 of the CIO Cannery Workers. This election resulted in the first collective bargaining agreement, signed August 6, 1941, in the sugar industry. The first waterfront agreement was signed with the International Longshoremen's and Warehousemen's Union on June 12, 1941.

The establishment of military controls following the outbreak of World War II led to Federal Government restrictions on the mobility of the labor force and to wage controls; both actions helped to create resentment among the workers. After the controls were lifted in 1944, union organizing efforts were highly successful. Almost overnight the labor community found itself organized by the ILWU.²

In 1945 alone, 75 elections involving 14,000 workers were held in Hawaii. Eleven thousand of these votes were for representation, and only 752 were against. By 1946, the ILWU felt strong enough to call a strike in the sugar industry. The work stoppage began September 1, lasted for 79 days, and involved approximately 21,000 workers. Although the union did not achieve all of its demands, it obtained a substantial wage settlement—primarily through conversion of worker perquisites into the basic wage. The ILWU which had considered the perquisite system to be one of the major factors tying the worker to the plantation, hailed the strike as a victory and a sign of its growing strength. It claimed that its members had cast 15,400 votes favoring the strike, and that only 100 were opposed.

The union's strength was also tested in strikes which occurred in the stevedore industry in 1949 and in the pineapple industry in 1947 and 1951. The 1949 strike involving waterfront workers attempted to establish the principle of new contract term arbitration and to achieve wage parity with waterfront workers on the mainland's West Coast. The 1947 strike against 8 pineapple companies also involved the wage issue. The 1951 strike was directed against the Hawaiian Pineapple Co. over the issues of industrywide bargaining and union security.

Thereafter, relationships between the ILWU and the major employers in Hawaii were ostensibly quiescent until a dispute flared in the summer of 1955 at the Onomea Sugar Co. Some observers explained the lack of overt conflict on the basis that the union needed to stabilize its position in Hawaii in order to meet the competitive pressures from the Sailors' Union of the Pacific (AFL) and the Teamster Union (AFL), both on the West Coast.

² The ILWU (Ind.) was expelled from the Congress of Industrial Organizations (CIO) on August 29, 1950, on charges that it was Communist dominated.

Labor Relations in the Sugar Industry

The 1955 dispute which occurred when the Onomea Sugar Co. laid off 35 hand weeders reflected the basic shortcomings of an "armed truce" collective bargaining arrangement. On May 30, 530 employees of the company walked off the job protesting the layoff action. In the background of the dispute was the rejection by employers in the industry of the ILWU's demand to negotiate an adequate industrywide "severance pay" provision on the ground that the current industrywide contract was not due to expire until January 31, 1956. Allan S. Davis, president of the Hawaiian Sugar Planters' Association, accused the union of "flagrant" violations of its contract. "The union" he said, "gave . . . assurance [against strikes] in a written contract in return for substantial benefits granted by the companies to the employees and the union. The union has since seen fit to disregard its pledge, not once but a number of times, and has flagrantly violated the contract agreements dealing with layoffs due to job elimination and the handling of grievances."³

Davis continued: ". . . if contracts can be broken by the ILWU with impunity at times and places of the union's own choosing—such as at Onomea—then no segment of the industry is safe from these unwarranted and destructive tactics." In a similar vein, the 1954 Annual Report of the Hawaii Employers Council previously had pointed out that although the number of man-days idle due to strikes was the lowest since 1945, 16 strikes had occurred in the Territory in 1954. Eleven of these had been initiated by the ILWU, according to the report, and ". . . 10 of these were in violation of no-strike clauses in the contracts."

Jack Hall, ILWU Regional Director for Hawaii, in a Labor Day address, replied to the accusation by Davis. He said:

An examination of each of the so-called 11 "illegal" strikes in the sugar industry since March 1954 shows that with two exceptions—the lockout at Naalehu and the walkout at Onomea—all were minor and of an inconsequential nature . . . The 11 walkouts were spontaneous ones. In practically every case the men were disciplined for the claimed violation of the agreement, as provided in the agreement, usually by suspension from work . . . they [industry] talk about these very minor disturbances as if they rocked the financial foundations of the industry. . . .⁴

Leading representatives in the sugar industry subsequently commented on labor-management relations in the sugar industry, noting some improvements and the existence of good relations in certain plantations but also that these instances were exceptional. R. G. Bell, vice president and general manager of Alexander & Baldwin, Ltd., stated that—

. . . the isolation and interdependence of the average plantation community has created some social problems which, under the union's [ILWU] leadership, have been brought into the economic area for the purpose, I believe, to make it more difficult for them to be solved. Why should this be so? Apparently to create sources of potential conflict which can be brought to light as needed to create grievances which in turn help to create militancy and dependency on the union.⁵

J. E. Russell, president, T. H. Davies & Co., Ltd., pointed out that "in some areas of their jurisdiction, relations with the ILWU have improved," and that there was "real hope of achieving compatibility in the future." However, he questioned the union's basic attitude toward employers:

The major stumbling block is uncertainty as to the policy of the [ILWU] . . . which represents employees in the sugar industry.

In 1948, Mr. Harry Bridges made the following statement before a committee of the United States Congress:

"It is our . . . policy . . . that they (union members) can't trust an employer, that if they depend upon an employer for *any* type of security [and] fair treatment, they'll get stung and that is what we tell them."

He also told that committee that the interests of the workers and those of the employers are *always* adverse and antagonistic; that there was, therefore, no common meeting ground, no basis for any permanent mutually satisfactory agreement.

That does not sound as though the ILWU was interested in *any* sort of compatibility at that time. Remember, he wasn't talking about any *particular* employer. He was talking about all employers . . .

I think that . . . this kind of attitude is a serious obstacle, not only to our sugar industry, but to the entire future progress of Hawaii.⁶

Sugar industry spokesmen also discussed the industry's economic position in the light of pending wage negotiations. A. G. Budge, president

³ Statement in the (Honolulu) Advertiser, June 25, 1955.

⁴ ILWU broadcast over station KHON, Honolulu, September 9, 1955.

⁵ Speech delivered to West Honolulu Rotary Club, September 2, 1955 (p. 8).

⁶ Speech delivered to Main Kiwanis Club, September 1, 1955 (pp. 8-9).

of Castle & Cooke and second vice president of the Hawaiian Sugar Planters' Association, said: "The industry is in no position to pay more either directly or indirectly to labor without hazarding its future. This is unfortunate, but true."⁷ G. W. Sumner, president of American Factors and first vice president of the Hawaiian Sugar Planters' Association, did not quite rule out any wage adjustment, but noted that ". . . we cannot make concessions beyond what prudent business judgment dictates. If we have to say 'No', we will mean it."⁸

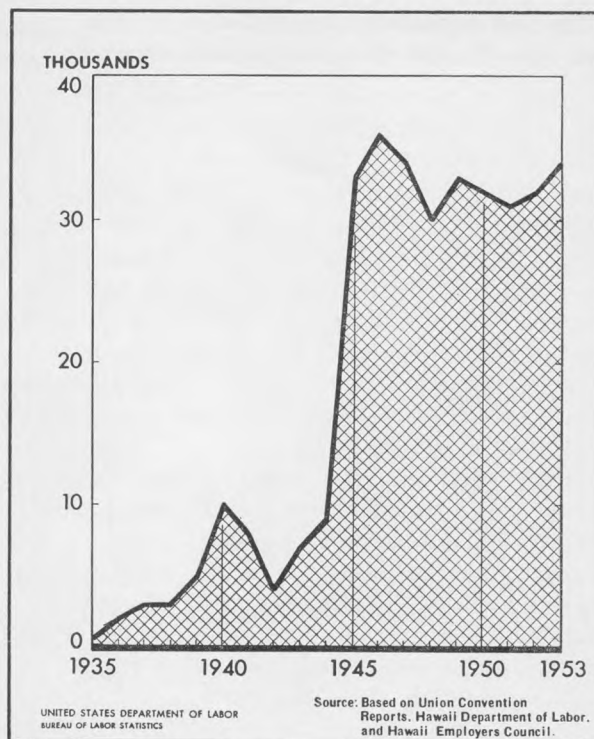
At the recent ILWU convention in Hilo, in September 1955, Louis Goldblatt, the union's international secretary-treasurer, responded to the employers' arguments indicating that the union would be fair in the forthcoming contract negotiations but that the employers would have to support their claims of inability to pay wage increases. The union was entitled to all the facts, he stated, and, if wages were to be held at present levels, "the burden of proof must fall on the employer in view of national wage hikes, enormous increases in productivity by sugar workers, and their declining share of the revenue dollar."

Trade Union Membership

Complete and accurate membership figures are extremely difficult to obtain. Even if all union locals supplied such data, varied definitions used by unions to report membership would pose the problem of comparability. Concepts and practices used by unions to measure membership differ widely and, in addition, the records of local unions are frequently incomplete.⁹ Hawaiian trade union membership data are rough approximations, based on fragmentary data available from union convention reports, the Territorial Department of Labor, and the Hawaii Employers Council. These data are intended merely to provide some basis for trend comparisons.¹⁰ (See chart.)

Membership growth was slow following the enactment of the NLRA in 1935 and the occurrence of major West Coast strikes. Immediately prior to World War II, a substantial upsurge occurred. Membership declined during the military occupation but by the end of 1944 it had almost regained the prewar level. Major in-

Trade Union Membership¹ in Hawaii, 1935-53



¹ Does not include employees in the Hawaii Education Association and the Hawaii Government Employees Association. Total membership in these 2 organizations is about 13,000.

creases occurred in 1945, due to the removal of military controls in 1944, spiraling prices, and renewed organizing activity which was facilitated by a willingness on the part of major employers to agree to NLRB representation elections requested by unions.

The ILWU is the largest single union in the Territory, with extensive bargaining rights in the sugar, pineapple, and longshore industries. Dues-paying membership claimed by the union in 1955 is 22,502, compared with 23,571 in 1954, and is distributed, by industry, as follows: Sugar, 14,812;

⁷ Speech delivered to Affiliated Chambers of Commerce of Hawaii, August 26, 1955 (p. 4).

⁸ Speech delivered to Hilo Kiwanis Club, August 26, 1955 (p. 8).

⁹ Even on the mainland, where unions submit comprehensive reports of trade union membership to the U. S. Department of Labor, Bureau of Labor Statistics, problems of comparability of membership data have not been completely resolved.

¹⁰ Thirty-two international unions claiming membership in Hawaii reported to the U. S. Department of Labor, Bureau of Labor Statistics, a combined Hawaiian membership of 33,000 in 1954. See Directory of National and International Labor Unions in the United States, 1955 (BLS Bull. 1185). This total represented approximately a sixth of the estimated Hawaiian civilian labor force.

pineapple, 5,131; longshore, 1,790; and miscellaneous, 769. The decline in ILWU membership is largely attributable to employment declines in the sugar and pineapple industries, arising out of mechanization and other factors.¹¹

Unity House, which includes the Teamsters, Hotel & Restaurant Employees, and other unions, claims membership of approximately 3,500. These unions have members in the major hotels, dairies, milk products industries, local transit, and other industries. Membership in these unions has been increasing.

NLRB Representation Proceedings

A review of the representation petitions before the National Labor Relations Board illustrates graphically the growth of the trade union movement in Hawaii. Relatively few companies have agreed to recognize employee organizations without prior certification by the NLRB that the union represented a majority of the employees in the appropriate bargaining unit. Data concerning the number of representation elections in which the unions won certification from 1938 through 1947 point up the fact that the major drive for union recognition following the lifting of wartime military restrictions was highly successful (table 1).

In 1944, 1945, and 1946 alone, the NLRB certified 190 unions as bargaining agents. In addition, the Hawaii Employment Relations (Little Wagner) Act, enacted in 1945, provided for representation election machinery for employees not covered by the National Labor Relations Act. The elections held in 1945 and 1946 under the Hawaiian statute also resulted in substantial union victories. The net result was the organization of the bulk of the sugar and pineapple industry with a potential employee membership in excess of 20,000.

¹¹ The ILWU, however, has blamed Arthur A. Rutledge, local president and business manager of the AFL Teamsters, for its failure to increase its membership. A statement from an ILWU report is quoted in the (Honolulu) Advertiser of Sept. 23, 1955, as follows: "Whenever the ILWU organized a new group of workers, Rutledge . . . in collaboration with certain employers, conducted an anti-ILWU smear campaign." The union passed a resolution on "labor unity" which read in part, "The Rutledge-led Teamsters are now engaged in open warfare against our union. . . . We will continue our fight for labor unity with all working people even though it may require bypassing certain 'misleaders' of labor." Rutledge replied: "The only thing that stands between the domination of the economy and the political situation and the business community by the ILWU, is the Teamsters Union, and they know it."

TABLE 1.—Number of National Labor Relations Board representation elections held, and number in which unions were certified, Hawaii, 1938-54

Year	Elections held	Unions certified	Year ¹	Elections held	Unions certified
1938.....	3	1	1947.....	25	18
1939.....	7	6	1948.....	10	7
1940.....	4	4	1949.....	10	6
1941.....	4	4	1950.....	12	9
1942.....	0	0	1951.....	17	9
1943.....	6	6	1952.....	26	18
1944.....	34	34	1953.....	42	34
1945.....	66	61	1954.....	37	24
1946.....	105	95			

¹ Figures are on a fiscal year basis starting in 1948.

Source: NLRB regional office, Honolulu, T. H.

The aggressive organizing efforts in recent years and particularly in the past 3 years are reflected in the voting record in representation elections since 1947. Nevertheless, recruiting efforts have not been easy. The record of NLRB elections indicate that during 1948-54 about 30 percent of the total valid votes cast were for "no union"; in 1954, over 40 percent voted "no union" (table 2).

Other Indicators of Union Growth

In addition to the union gains indicated in NLRB representation proceedings, the increased number of contracts in force and strike activity were also measures of advances in unionization in Hawaii (table 3).

Labor-management agreements generally followed the mainland pattern, particularly with respect to provisions for longer term contracts which sought to achieve industrial stability. A large majority of the agreements concluded in 1954 and 1955 were made effective for longer than the usual 1-year term. The stevedoring

TABLE 2.—Results of representation elections conducted by the National Labor Relations Board in Hawaii, 1948-54

Fiscal year	Employees eligible to vote	Total valid votes cast	Valid votes cast				Employees in units choosing representation
			AFL affiliates	CIO affiliates	Unaffiliated unions	No union	
1954.....	1,068	1,021	443	0	149	429	690
1953.....	2,083	1,821	881	0	462	478	1,761
1952.....	1,245	1,123	611	0	34	478	933
1951.....	979	828	215	47	325	241	614
1950.....	1,323	1,188	543	0	354	291	1,056
1949.....	316	284	49	0	37	198	(!)
1948.....	903	725	134	0	473	118	(!)

¹ No figures available.

Source: NLRB regional office, Honolulu, T. H.

TABLE 3.—Number of contracts in force and strike activity, Hawaii, 1940-54

Year	Number of contracts in force	Number of strikes	Number of man-days idle	Year	Number of contracts in force	Number of strikes	Number of man-days idle
1940....	(1)	7	33,200	1948....	156	11	121,194
1941....	(1)	11	34,000	1949....	141	6	244,624
1942....	(1)	2	67	1950....	121	53	51,052
1943....	12	4	716	1951....	129	17	150,625
1944....	14	1	60	1952....	132	30	81,256
1945....	76	9	8,875	1953....	132	21	91,631
1946....	167	19	1,909,779	1954....	132	16	39,764
1947....	176	22	91,116				

¹ Data not available.

Source: Territorial Commission of Labor and Industrial Relations and Annual Reports of the Hawaii Employers Council.

companies signed a contract which expires June 15, 1956; the 7 major pineapple companies signed a contract which runs to February 1, 1956; and the sugar companies extended their agreements to January 31, 1956. In addition, the Honolulu Rapid Transit Co. agreed to a July 16, 1957, contract termination date and the Hawaiian Telephone Co. negotiated a contract extension to December 31, 1957. Late in 1955, the Matson Navigation Co. reached an agreement which covers its employees in four Waikiki hotels and runs until May 31, 1957.

Issues Affecting Industrial Stability

The status of union-management relations in Hawaii is pointed up in disagreements over crucial issues involving union security and collective bargaining rights. These conflicts represent a departure from the general practice in which collective bargaining developments in Hawaii are patterned after those on the mainland.

In the background of this variance from mainland accomplishments in union-employer accommodation was the Territory's significant lag in unionization compared with that on the mainland, particularly in the 1930's. In addition, adaptations of mainland labor developments were necessary to meet local needs. Because of Hawaii's unique position—its highly integrated economy, dependence on water transportation, and vulnerability in case of a major dispute, as well as the dominance by the ILWU of the Islands' major industries—employers have sought to incorporate safeguards in agreement provisions. Unfortunately mutual "good faith" cannot be inscribed in agreements; nor can contracts be shielded from

the impact of disputes and settlements on the West Coast. Employers in Hawaii have made efforts, however, to limit the unions' contractual strength and to prevent "restrictive union controls" in the collective bargaining agreements.

Union Security. In discussing the issue of union security in its 10th anniversary report (1953), the Hawaii Employers Council pointed out its continuing opposition to the union shop because of its "encroachments on the rights and freedoms" of employees. The status of union-shop agreements in Hawaii is illustrated in a report prepared by the council in June 1950. The study compares the collective bargaining provisions of 400 mainland agreements collected by the Bureau of National Affairs, Inc., with 150 Hawaii agreements representing a majority of the contracts then in effect in the Territory. Although the council's study covers all major contract provisions, the comparison presented is limited to union-security provisions.

Percent of agreements having union-security provisions in—

	United States	Hawaii
Closed shop.....	5	1
Union shop.....	50	27
Maintenance of membership.....	15	0
Revocable checkoff of dues.....	5	2
Irrevocable checkoff.....	45	72
Renewal irrevocable.....	15	38
Initiation fees deducted.....	30	67

¹ Less than 1.

² Mainly includes firms which are nonmembers of the Hawaii Employers Council.

Further evidence of the employers' implementation of their opposition to the union shop is available in a later analysis of 143 agreements made by the council in May 1953. The study showed no union-shop provisions in 26 sugar, 20 pineapple, 9 longshore, and 26 trade contracts. However, union-shop agreements were found in the following industries: 7 in food processing and manufacturing, 2 in utilities and transportation, 4 in construction, and 4 in all other industries. The ILWU had no union-shop agreements, and all other independent unions had only 1. The Teamsters had 7; the Machinists, 2; the Electrical Workers, 1; and other AFL unions, 6. Most of the contracts with union-shop clauses were between unions and employers who were not members of the council.

Contracts recently negotiated, however, have incorporated so-called "security language." The strongest provision short of a union-shop clause thus far negotiated reads:

The company acknowledges its belief in a strong and responsible union. The company also recognizes that a strong and responsible union is possible only to the extent that the employees take part in the union and its activities. The company declares that it will not make any statement nor commit any act to discourage any employee with respect to membership in the union.—Agreement between the Hawaiian Electric Supply Co. and the International Brotherhood of Electrical Workers, Local 1260 (AFL).

The "Three Clauses." Perhaps no issue has created as much controversy between employers and non-ILWU unions as the continuing insistence by the employers on the inclusion in their contracts of the "three clauses," namely: (1) no-strike, no-lockout clause; (2) no-discrimination clause; and (3) discharge clause.¹² The unions have contended that the Hawaii Employers Council, as the organized spokesman for the major companies in Hawaii, has utilized these clauses to restrain and impede the exercise by the employees of their rights to engage in normal union activity, including the refusal to cross a bona fide picket line.

¹² For a detailed discussion of the 3 clauses, see the National Labor Relations Board's decision in *Shell Oil et al.*, 23-C-40, 43, 44, June 22, 1948, 77 NLRB 1306. See also Paul F. Brissenden, The "Three Clauses" in Hawaiian labor agreements (*in* Political Science Quarterly, Mar. 1953, pp. 89-108) and William Nakaue, The Three Clauses in Labor Relations in Hawaii (research manuscript), University of Hawaii library, 1955. The three clauses at issue in the *Oil* cases are reproduced as follows:

"The parties hereto agree that during the term of this agreement any past, existing, or future custom or practice of the employer or the union to the contrary notwithstanding, there shall be no lockout by the employer, nor any strike, sitdown, refusal to work, stoppage of work, slowdown, retardation of production, or picketing of the employer on the part of the union or its representatives or on the part of any employee covered by the terms of this agreement.

"The employer will not discriminate against any employee because of his membership in the union or for legitimate union activities: *Provided, however,* That such activity shall not interfere with employer's operations, and must not be conducted during working hours unless expressly provided for in this agreement. The union agrees for itself and its members that neither it, its representatives or members will attempt to intimidate or coerce any employee of the employer for the purpose of compelling such employee to join the union.

"Employees shall be subject to discharge by employer for insubordination, pilferage, drunkenness, incompetence or failure to perform the work as required, or for failure to observe safety rules and regulations and employer's house rules, which shall be conspicuously posted. Any discharged employee shall, upon request, be furnished the reason for his discharge in writing. Probationary and temporary employees may be summarily discharged."

¹³ 1 American Labor Arbitration Awards (p. 67,824, par. 67,359). Honolulu Construction & Draying Co. Decided October 10, 1945.

Interpreting the discharge clause in a case involving the Honolulu Construction & Draying Co. and AFL Teamsters Local 996, an arbitration board held that refusal to cross a picket line was a violation of the section of the contract which required, among other things, that the employees "perform work as required."¹³

In the *Shell Oil* case (see footnote 12), Teamsters' Local 904 had contended that the oil companies and the Hawaii Employers Council violated the provisions of the National Labor Relations Act by stipulating the "three clauses" as a condition precedent to collective bargaining and insisting that the employees give up rights protected under the act before the employer would grant any collective bargaining concessions. The trial examiner upheld the complaint but was reversed by the National Labor Relations Board after the Labor Management Relations (Taft-Hartley) Act was passed. The Board held that:

... the evidence is insufficient to establish that the council used unlawful means in persuading the oil companies to insist on the inclusion of the three clauses.

Union objections to the three clauses were based not only on the ground that the employers were seeking to undermine their strength but also that they could not negotiate effectively with employers because of the insistence of the council on a certain "policy" position. On March 29, 1947, the Teamsters and the ILWU advised the council as follows:

Because your council has given to its members the impression that unions have agreed by signing certain clauses to give up their statutory rights and because this is not true, the undersigned hereby inform you that we are in complete agreement on the question of crossing bona fide picket lines at the direction of employers.

While we may have our differences—

1. We will not cross bona fide picket lines at the direction of your council or your members.
2. We will not conspire with your council or your members to do away with workers' rights guaranteed by the National Labor Relations Act.
3. We will not permit Hawaii's monopolists to play one group of workers against another and thus destroy all unions in these Islands.

The council, on the other hand, as the employers' representative in collective bargaining matters, argued that their unified position was intended to avoid alleged "whipsawing" of individual employers by the unions. Other unions have contended, however, that the ILWU was able to

avoid these restrictive clauses in its contracts, or relied on its economic strength to prevent employers from insisting on strict application of these provisions.

Arnold Wills, formerly NLRB officer-in-charge in Honolulu, in a speech to the Honolulu Rotary Club, on September 12, 1950, said:

I can truthfully state that I know of no single item which in the last few years has caused so much bitterness and hostility and frustration among labor leaders and among unionized employees in general as employer insistence that these three clauses go into every contract. I believe such insistence to be detrimental to our community since they penalize those unions which believe contracts are sacred and honestly strive to negotiate contracts they can live with and honor. They mean nothing to people who believe a contract is a scrap of paper—a truce in a class war . . .

Lastly, they just don't work. Employer Council figures indicate that there have been approximately 40 contract violations in the form of strikes, walkouts, or quickies . . . since January 1, 1950 . . . Aside from the attitude that a contract is only a truce in a class war, there will always be men who will refuse to cross a picket line when their best manly instincts tell them it is dishonorable and disreputable to help break a worthy strike.¹⁴

Outlook for Labor-Management Relations

That labor-management peace is vital in Hawaii is unquestioned. The recent testimony by Randolph Sevier, president of Matson Navigation Co., before the House Committee on Merchant Marine and Fisheries, indicates the high priority he places on reasonable stability in labor-management relations in the light of his company's plans for greater expansion of trade in the Pacific area. Mr. Sevier is quoted as saying:

I feel the weight of the testimony you've received in these hearings focuses on one urgent immediate problem: The need for stability of labor relations in the maritime industry and emergence of true collective bargaining between labor and management. . . . The problems inherent in Matson's offshore service to Hawaii must be solved because the isolation of the Islands demands the maintenance of this vital transportation link by oceangoing vessels.¹⁵

The road to greater industrial stability in Hawaii is similar to that which must be taken on the mainland. However, Hawaii's need for industrial peace is greater than on the mainland, because a major labor dispute in the Territory has wider and deeper repercussions. The geographic isolation of the Islands, although favorable in

terms of tourist appeal, makes the Territory's economy vulnerable in case of a major work stoppage—particularly on the waterfront, and in the basic sugar and pineapple industries.

Among the factors which militate against a high degree of industrial peace in the immediate future are the exceedingly rapid unionization of the Islands and the distrust between employers and labor that was bred by the character of labor-management relations in the past. Workers have supported ILWU claims, convinced that the gains in wages and working conditions have been obtained only because of the union's militant efforts.

Thus, the highly integrated Hawaiian economy was particularly susceptible to union organization. The ILWU, first as an affiliate of the Congress of Industrial Organizations and later as an independent union following its ouster from the CIO in mid-1950 because of its Communist-oriented policy, has acted as an effective and admittedly "militant" union, with interests beyond basic bread and butter union goals. The failure of AFL and CIO affiliates to obtain a foothold in the Territory has resulted in the dominance of the ILWU in the sugar, pineapple, and ocean transportation industries—a sizable segment of the industrial operations in the Island community.

A number of disturbing situations, several concerning developments on the mainland's West Coast, may effect a change in the pattern of labor-management relations in the Territory. These developments include renewed efforts to deport Harry Bridges and other officers of the ILWU¹⁶ and continued jurisdictional disputes between the ILWU and the SUP (AFL) and the Teamsters (AFL).

Locally, several current developments will significantly affect union-management relations. The ILWU is presently planning its demands for negotiations in sugar, pineapple, and stevedoring industries which are scheduled for 1956. The sugar agreement, which expires January 31, 1956, is first on the union's bargaining agenda. The

¹⁴ Arnold L. Wills, *op. cit.* (pp. 22-23).

¹⁵ (Honolulu) Advertiser, June 29, 1955.

¹⁶ The fifth effort to deport Bridges failed when Federal Judge Louis E. Goodman dismissed the Government complaint stating: "My conclusion is that the Government has failed to prove the allegations of this complaint as to the respondent's alleged membership in the Communist Party by clear and convincing evidence."—Honolulu Star Bulletin, September 29, 1955.

issue of severance pay may complicate the negotiating picture in this industry. Increased organizational efforts by the ILWU have already created some competition with AFL affiliates and other independent unions. In addition, a number of AFL international unions have indicated an interest in a membership drive particularly in the building trades. By contrast, the recent Matson Navigation Co. agreements with the AFL Teamsters covering the firm's hotel employees have avoided some major contract problems.

The economic situation, on the whole, is promising and may help to minimize labor-management problems. Favorable developments in the hotel and tourist industry, increased military expenditures, and a growing interest of mainland capital in Territorial business ventures may provide enough "organizing elbow room" for all. Heavy construction outlays planned by major companies suggest a favorable business environment in the next few years.

The dispute over the "three clauses" seems to be in abeyance, although the picket-line issue still disturbs many AFL officials. The union-

security issue, however, is still very controversial. The unions continue to oppose the Hawaii Employers Council on the union-shop issue and its participation at the bargaining table.

The problem of the ideological character of ILWU leadership remains without any indication of action by the membership to modify or resolve it. The Smith Act trial and conviction of Jack Hall, ILWU regional director, as part of the Communist conspiracy, is being appealed. Radio and press reports frequently criticize the union's leadership, but apparently exert relatively little influence on the membership. Splinter efforts of so-called "rightwing" union groups, such as Bert Nakano's, by and large have been ineffective. The feeling seems to be prevalent that any changes in basic philosophy will have to come from within the ILWU.

The AFL-CIO merger will have little effect on unionization in the Territory. To date, apparently, the total potential membership has not offered sufficient incentive for a major organizing drive by an individual international union or group of unions.

" . . . The story of Hawaii's industry [until the mid-twenties] . . . has been the story of a tree, an animal, and a plant. The tree was sandalwood—the great article of export which was shipped to China in great quantities in the early days. So feverishly did the chiefs compel the people to cut sandalwood that by 1825 it was becoming extinct and it is now commercially unobtainable in the Islands. Then came the period when prosperity depended on an animal—the whale which, it may be noted incidentally, is a mammal and not a fish. From 1820 onward great fleets of whaling ships, mostly American, brought prosperity to the Islands by their purchases of supplies. But the Civil War, and a later disaster in the Arctic Ocean, wrought havoc with the whaling fleet and the kerosene lamp made whale oil almost a curiosity, so that by 1870 the whaling fleet had ceased to be an economic resource and the Islands were left without an occupation or a market; for the plant, the sugarcane, upon which Hawaii's third era of economic prosperity depends, did not become the dominant industrial factor until the reciprocity treaty of 1876 opened the American market to Hawaiian sugar free of duty."

Albert W. Palmer, *The Human Side of Hawaii—Race Problems in the Mid-Pacific*, Boston and Chicago, Pilgrim Press, 1924 (p. 42).

Bibliography on Labor Conditions, Labor Problems, Labor Economics

MARGARETE MCBRIDE

NOTE.—*Asterisk indicates publications not available for examination by compiler of bibliography.*

General Notes

Territorial statistics are included in general publications of the U. S. Department of Commerce, Bureau of the Census, such as the *Statistical Abstract of the United States* and the 1950 Census reports on population, agriculture, and housing.

Labor legislation applicable to the Territories appears in the—

Annual Digest of State and Federal Labor Legislation, July 1, 1953–September 30, 1954. Washington, U. S. Department of Labor, Bureau of Labor Standards, 1955. (Bull. 178.)

Useful guides to references on labor problems and conditions include such periodical indexes as the *Readers' Guide to Periodical Literature*, *International Index to Periodicals*, *Industrial Arts Index*, and *Public Affairs Information Service Bulletin*. Here, too, should be noted the *Monthly Catalog of U. S. Government Publications*.

Bibliographies and book lists devoted specifically to matters of labor interest appear in the *Monthly Labor Review* of the U. S. Department of Labor, Bureau of Labor Statistics; the *Library Journal*; and publications of the International Labor Office.

For Puerto Rico, two useful area publications are available:

Anuario Bibliográfico Puertorriqueño: Índice Alfabético de Libros, Folletos, Revistas y Periódicos Publicados en Puerto Rico. Río Piedras, Biblioteca de la Universidad de Puerto Rico. Available to 1952.

Current Caribbean Bibliography: A Cumulative List of Publications Issued in the Caribbean Countries of France, Great Britain, the Netherlands and the United States, 1950–1953. Port-of-Spain, Trinidad, Caribbean Commission, 1955. (Vol. 3, Nos. 3–4.)

The Commission states that the next issue will be an annual number for 1954, to be published as Vol. 4; hereafter the bibliography is to be produced once a year rather than semiannually.

Another valuable aid is the *Report on Surveys, Research Projects, Investigations and Other Organized Fact-Gathering Activities of the Government of Puerto Rico*, listed herein under "Puerto Rico—Official Publications."

For Hawaii, *Abstracts: Agricultural, Industrial and Economic Research, Territory of Hawaii, 1930–1952*, listed herein under "Hawaii—Official Publications," performs a service similar to that of the Puerto Rican *Report on Surveys . . .*, noted above. Its coverage, however, is broader, embracing nonofficial as well as governmental projects.

For all three areas here considered, bibliographies appended to published works dealing with regional labor problems (some of which may be located through the *Bibliographic Index*, H. W. Wilson Co., New York) lead to additional pertinent material.

Puerto Rico

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Amending the Fair Labor Standards Act of 1938. Hearings Before Subcommittee on Labor, Committee on Labor and Public Welfare, United States Senate, 84th Cong., 1st sess., on S. 18, S. 57, etc. Washington, 1955.

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* *Apuntes Sobre el Movimiento Obrero en Puerto Rico.* By Juan S. Bravo. San Juan, Departamento del Trabajo, Oficina de Servicios, División de Imprenta, 1952. 24 pp. 2d ed.

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Census of Manufactures. San Juan, Office of the Governor, Puerto Rico Planning Board, Bureau of Economics and Statistics.

Supplement to *Statistical Yearbook*. Includes statistics on number of employees and total wages paid. Latest available edition, 1952.

A Comprehensive Agricultural Program for Puerto Rico. By Nathan Koenig. Washington, U. S. Department of Agriculture (in cooperation with the Commonwealth of Puerto Rico), 1953. xii, 299 pp., bibliography, maps, illus.

Analyzes condition of agricultural laborers in Puerto Rico.

The Concept and Measurement of Underemployment. By Fernando Sierra Berdecía and A. J. Jaffe. (*In Monthly Labor Review*, U. S. Department of Labor, Bureau of Labor Statistics, Washington, 78:3, March 1955, pp. 283-287.)

Consumers' Price Index for Wage Earners' Families in Puerto Rico and Retail Food Prices. San Juan, Department of Labor, Bureau of Labor Statistics. Monthly. English text; tables in English and Spanish.

Economic Development of Puerto Rico, 1940-1950, 1951-1960. San Juan, Office of the Governor, Puerto Rico Planning Board, Economic Division, 1951. 179 pp.

Economic Prospects of Migration. By Roberto de Jesus. (*In Monthly Information Bulletin*, Caribbean Commission, Port-of-Spain, Trinidad, 6:12, July 1953, pp. 269-270. Reprinted from *Fomento de Puerto Rico*.)

Economic Report to the Governor, 1954. San Juan, Office of the Governor, Puerto Rico Planning Board, Bureau of Economics and Statistics, [1955?]. 55, 27 pp. English text; appendixes in English and Spanish.

Effect of Labor Costs and Migration on the Puerto Rican Economy. (*In Monthly Labor Review*, U. S. Department of Labor, Bureau of Labor Statistics, Washington, 78: 6, June 1953, pp. 625-627.)

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By Alice C. Hanson and Manuel A. Perez. San Juan, Department of Labor, 1947. 152 pp., diagrams. (Bull. 1.)

Prepared in cooperation with the U. S. Bureau of Labor Statistics.

Industrial Development Company of Puerto Rico [a case study]. (*In Economic Development of Underdeveloped Countries; Evolution and Functioning of Development Corporations: Working Paper by Secretary-General [of United Nations]*, pp. 13-35. New York, 1955. U. N. Document E/2690, 19th sess., item 5.)

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The Labor Month in Review

THE historic first constitutional convention of the American Federation of Labor and Congress of Industrial Organizations opened on December 5 and the 20-year schism in labor's ranks was closed. The 1,400 delegates, who represent 16 million members, elected George Meany and William F. Schnitzler, president and secretary-treasurer of the old AFL, to the same positions in the combined organization. Former CIO president Walter P. Reuther was elected President of the Industrial Union Department and to one of 27 vice-presidencies of the AFL-CIO.

Principal speakers at the convention were President Eisenhower, Secretary of Labor James P. Mitchell, Governor Averell Harriman, New York, and presidential candidate Adlai E. Stevenson. All four termed the merger a salutary force for the Nation's welfare.

AFL-CIO president George Meany sought to reassure a meeting sponsored by the National Association of Manufacturers that the new federation was not a monopoly, did not have, or desire, centralized control over its affiliates, and wanted only a fair share of the national product. Charles R. Sligh, NAM board chairman, was critical of the federation's political activity. Mr. Meany replied: "If the NAM philosophy to disenfranchise unions is to prevail . . . If we can't act as unions to defend our rights, then there is no answer but to start a labor party."

Subsequently, Mr. Meany also made some trenchant observations in the field of foreign affairs as he and Mr. Reuther accepted 1955 social justice awards of the National Religion and Labor Foundation. Sharply attacking "liberals" for softness in fighting communism, he charged that those who claimed to be neutral in the struggle between communism and democracy, were "aides and allies of communism in fact and in effect . . ."

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Integration of the two federations had been overwhelmingly approved on December 1 and 2 by concurrent farewell conventions—the AFL's 74th and the CIO's 17th. Dissent to the CIO Convention's otherwise unanimous approval of merger was entered by Michael J. Quill, president of the Transport Workers Union, and two local industrial union councils. Later, however, the TWU's executive council and executive board voted for affiliation, subject to a membership referendum.

Meeting its first internal problem, the new federation's 29-member Executive Council refused to allow the 1.4 million member Teamsters to affiliate more than its industrially organized membership (400,000) with the Industrial Union Department. Admission of the Teamsters was followed, surprisingly, by the affiliation of 34 other former AFL unions on the same basis. Total membership in the IUD, including members of 31 CIO affiliates, was about 7 million, with CIO members predominating by nearly 2 to 1. Other problems were posed by separate mutual assistance pacts negotiated in late November and early December between the Teamsters' Regional Conferences and two union outcasts—the International Longshoremens' Association (ousted from the AFL because of racketeering) and the Mine, Mill and Smelter Workers (expelled from the CIO on charges of Communist-domination). The Machinists had previously rebuffed affiliation overtures by the United Electrical Workers, also expelled from the CIO for following Communist policies.

Early fruit of labor's consolidation was the unification agreement reached by the rival Meat Cutters' and Packinghouse Workers' unions, subject to their respective convention approvals. Also, conflicts between the Meat Cutters and the Retail Clerks, former AFL affiliates, ended with an accord delineating their jurisdiction in the handling of meat in retail trade.

THE unique problems of merger tended to obscure other important labor developments. The nationwide strike over wage and time study issues at the Westinghouse Electric Corp., called in mid-October, was unresolved by early December. Strike aid for the Electrical Workers (formerly CIO) came in the form of contributions from the

Steelworkers (\$500,000) and the Auto Workers (\$100,000), and newspaper advertisements paid for by the AFL in November.

Another example of labor unity predating the AFL-CIO merger was the joint walkout of two competing unions early in November at plants of the International Shoe Co. and the Brown Shoe Co. The wage strike by the United Shoe Workers and the Boot and Shoe Workers, then CIO and AFL affiliates, respectively, followed joint wage negotiations with each company. Settlement of the dispute, affecting about 29,000 employees, was reached on December 2.

At the November convention of the United Automobile Workers (then AFL), union officers narrowly defeated an attempt by pro-merger forces to affiliate with its much larger rival of the same name.

A package increase of 16½ cents an hour for 750,000 nonoperating railroad employees was recommended by a Presidential Emergency Board to permit them to "catch-up" with increases received by operating employees in the period since 1948. Of the total, 14½ cents represents higher wage rates and 2 cents the carriers' cost of assuming the full expense of the existing health and welfare plan, now shared.

New Jersey joined five other States in ruling that supplemental unemployment benefits paid to workers under contracts with Ford and General Motors would not invalidate simultaneous payment of State unemployment compensation. The action came close to fulfilling the requirement of the two contracts that States with two-thirds of the companies' employees sanction concurrent payment of both types of benefits. With the latest ruling, about 65 percent of the employees at both companies are covered. Another obstacle to effectuation of the plans was overcome when both companies received rulings from the Treasury Department that payments into trust funds for layoff benefit plans will be deductible business expenses in computing income taxes.

The National Association of Manufacturers endorsed a layoff wage plan similar to those in effect between the Glass Workers and two major plate glass companies. These provide an employer-paid savings account for each employee, to be drawn on in periods of layoff or prolonged illness, and to

belong to him if his employment is discontinued for any reason.

SEVERAL important legal cases were handled on the appellate court level. In a 2 to 1 decision upholding the Secretary of Labor's authority to fix minimum wages on a nationwide basis in industries working on Federal contracts, the U. S. Court of Appeals for the District of Columbia reversed a lower court ruling which had limited that authority in the textile industry to a locality basis only.

Communist-oriented unions lost and won court cases involving questions of their right to use the National Labor Relations Board's services. In a decision of possible broad impact on other unions, the Court of Appeals in Chicago denied use of the Board's machinery to the United Electrical Workers on the ground that all of the union's officers had not filed non-Communist oaths. The court found that certain UE officials (12 secretaries of UE district councils and 3 international union trustees) were in fact union officers.

Echoing its decision involving the Fur and Leather Workers Union, the U. S. Court of Appeals for the District of Columbia ruled that the Board could not deny its services to the Mine, Mill and Smelter Workers because the union's secretary, Maurice E. Travis, had filed a false non-Communist oath. The court cited the earlier ruling which declared that "Congress explicitly provided a criminal penalty for false non-Communist affidavits . . . if these sanctions have proved insufficient, it is for Congress, not the courts, to provide new ones."

FOR THE FIRST TIME, the United States Supreme Court agreed to hear a test of a State right-to-work law, specifically Nebraska's, one of 18 similar State statutes in effect.

Martin P. Durkin, president of the Plumbers and Pipefitters since 1942, except for brief service as Secretary of Labor, died on November 13; Daniel J. Tobin, president-emeritus of the Teamsters, succumbed a day later.

Boyd Leedom, recently appointed as an NLRB member was named Board chairman to succeed Guy Farmer, whose term expired in August. Stephen S. Bean was nominated to Board membership for a 5-year term.

Summaries of Studies and Reports

New BLS Economic Sector Indexes of Wholesale Prices

A NEW SERIES of monthly economic sector indexes¹ prepared by the Bureau of Labor Statistics describes changes in commodity prices at various levels of production and in various sectors of the economy. Thus, it permits more effective analysis of the underlying and divergent movements of commodity prices during periods of economic readjustment.

The economic sector indexes supplement but do not replace the Bureau's wholesale price index.² Whereas the wholesale price index measures price movements for individual commodities and groups of commodities, the economic sector index combines wholesale prices in accordance with selected economic criteria³ to facilitate analysis of price behavior and the interpretation of widely used indicators of the Nation's output, income, and spending.

The new indexes divide commodities among three categories: (1) raw or crude materials; (2) intermediate materials for further processing, components, and supplies; and (3) finished goods.⁴ Each of these is further subdivided in accordance with end-use and durability. Thus, in the finished goods category, consumer goods are subdivided into (1) foods, (2) other nondurable goods, and (3) durable goods. The weights used for the commodities in the new series are the same as those used in the WPI (table 1).

The economic sector indexes illustrate a number of familiar generalizations about commodity prices. First, the prices of raw materials, especially those traded on organized exchanges or sold in highly competitive markets, are always more volatile than prices of semifinished or finished goods. They are especially affected by wars and other exceptional changes in demand. They move up rapidly and down rapidly. Second, prices of goods

which involve a greater degree of fabrication and are sold upon more conventional, fixed terms move upward much less rapidly in periods of political crisis or of great changes in demand. Once up, however, they do not readily decline because of the more elaborate cost structure upon which they are based. Third, postwar periods have been characterized by a new and higher price level for virtually all commodities than prevailed before the war. Fundamentally, this high price level is based upon the wartime inflation of credit. As the years go by in a period of postwar readjustment, and production reaches a peacetime footing, first one and then another segment of the economy adjusts its prices and costs to this new and higher price level. This process of "catching-up," with its realignment of prices and values, has characterized the years since World War II.

1947-55 Price Movements

The differential movements of prices during the readjustment period following World War II are indicated by the new economic sector index series. During that period, a number of noneconomic factors have greatly affected the commodity markets and their effects are evident in all the

¹ For complete data and technical description, see Economic Sector Indexes, January 1947-July 1955, Bureau of Labor Statistics, October 1955.

² The new series will be made available as a part of the regular monthly report on the Wholesale Price Index. See BLS Bull. 1168, ch. 10, for a description of background and uses, concepts and scope, and survey methods of the Wholesale Price Index.

³ The assignment of these commodities to the various sectors is based primarily on the amount of processing, manufacturing, or assembly to which the commodities are subjected at various stages before they reach the ultimate consumer. The specific assignment of each commodity is shown in the table of relative importances.

⁴ The new economic grouping, "finished goods," is generally comparable with the former series, "manufactured products," the principal difference arising from the inclusion in finished goods of many commodities not formerly priced. Especially important in this category are all types of machinery except automotive equipment and farm machinery. The classification of "intermediate materials and components for manufacturing" is roughly comparable with the former grouping of "semimanufactured articles," and "crude materials for further processing" is approximately the same as the former "raw materials" series.

TABLE 1.—Relative importances of the economic sector index as of December 1954

[1947-49=100]

Commodity	Percent of all commodities	Commodity	Percent of all commodities	Commodity	Percent of all commodities
All commodities	100.00	Intermediate materials for durable manufacturing	9.34	Supplies—Continued	
Crude materials for further processing	12.48	Prepared paint	.21	Supplies for manufacturing—Continued	
Crude foodstuffs and feedstuffs	7.22	Plastic materials	.90	Soaps and synthetic detergents	0.03
Fresh and dried fruits and vegetables	.26	Lumber	.70	Belts and belting and other products, rubber	.46
Grains	1.55	Plywood	.12	Lumber	.16
Livestock and live poultry	3.13	Iron and steel, except iron ore and scrap	4.89	Paper, excluding newsprint	.03
Fluid milk	1.00	Nonferrous metals except scrap and wire and cable	1.79	Office supplies and accessories, paper	.03
Eggs	.06	Bolts, nuts, screws, and rivets	.47	Small cutting tools for machine tools and metalworking machinery	.54
Hay and oilseeds	.41	Soft surface floor covering	.03	Abrasive products and buffing and polishing wheels	.18
Green coffee, tea, and cocoa beans	.77	Flat glass	.19	Arc welding machines and equipment and incandescent lamps	.26
Unprocessed fin fish	.04	Gypsum products	.01	Cutlery, household	.01
Crude nonfood materials, except fuel	4.62	Insulation materials	.03	Fire clay brick	.16
Crude nonfood materials, except fuel, for manufacturing	3.93	Components for manufacturing	4.54	Brushes	.01
Plant and animal fibers	1.23	Tires and tubes	.24	Supplies for nonmanufacturing industry	3.71
Oilseeds	.18	Wire and cable	.44	Manufactured animal feeds	1.20
Leaf tobacco	.43	Hardware not elsewhere classified	.17	Other supplies	2.51
Hides and skins	.08	Fabricated structural metal products	.27	Grains	.15
Coal, bituminous	.16	Miscellaneous fabricated nonstructural metal products	.27	Hayseeds and oilseeds	.09
Crude petroleum and natural gasoline	.78	Tractors for other than farm use	.04	Other textile products (excluding burlap)	.02
Inorganic chemicals	.07	Metal working machine tools	.08	Cut soles, leather	.01
Fertilizer materials	.04	General purpose machinery and equipment	.79	Organic chemicals	.15
Natural rubber and reclaimed rubber	.20	Internal combustion engines, except automotive and aircraft	.30	Mixed fertilizer	.26
Wastepaper	.05	Electrical machinery and equipment	1.84	Other chemicals and allied products	.26
Iron ore and iron and steel scrap	.44	Metal and wood household furniture	.04	Tires and tubes	.21
Nonferrous metals scrap	.27	Hard surface floor covering	.01	Heels and soles, rubber	.02
Crude nonfood materials, except fuel, for construction	.69	Metal household containers	.05	Paper, excluding newsprint	.07
Concrete ingredients	.69	Materials and components for construction	6.39	Converted paper and paper products	.86
Crude fuel	.64	Prepared paint	.29	Miscellaneous fabricated metal products	.33
Crude fuel for manufacturing	.39	Lumber	1.19	Incandescent lamps	.05
Coal, Pennsylvania anthracite and bituminous	.24	Millwork	.36	Safety glass	.01
Gas	.15	Softwood plywood	.10	Small arms and ammunition	.01
Crude fuel for nonmanufacturing industry	.25	Building board	.07	Brushes	.01
Coal, Pennsylvania anthracite and bituminous	.15	Finished steel and foundry and forge shop products	.51	Finished goods (goods to users, including raw foods and fuels)	44.81
Gas	.10	Mill shapes and wire and cable	.42	Consumer finished goods	35.02
Intermediate materials, supplies, and components	42.71	Hardware, not elsewhere classified	.06	Consumer foods	12.84
Intermediate materials and components for manufacturing	25.30	Plumbing equipment	.20	Consumer crude foods	1.63
Intermediate materials for food manufacturing	2.47	Heating equipment	.36	Fresh and dried fruits and vegetables	.71
Flour and milled rice	.29	Fabricated structural metal products	.89	Milk for fluid use	.46
Meats and processed poultry	.19	Miscellaneous fabricated metal products	.47	Eggs	.41
Dairy products and ice cream	.42	Valves and fittings	.36	Unprocessed fin fish	.05
Frozen fruits and juices	.02	Metal and wood household furniture	.09	Consumer processed foods	11.21
Sugar and confectionery	.81	Hard surface floor covering	.03	Cereal and bakery products	2.28
Fats and oils, edible	.46	Plate and window glass	.04	Meats, poultry, and fish	3.29
Other processed foods	.19	Concrete products	.34	Dairy products and ice cream	2.40
Organic chemicals and essential oils	.09	Structural clay products	.16	Canned and frozen fruits and vegetables	.98
Intermediate materials for nondurable manufacturing	8.95	Gypsum products	.10	Sugar and confectionery	.54
Yarns, broadwoven goods, narrow fabrics, and thread, cotton	1.46	Prepared asphalt roofing	.19	Packaged beverage materials	.79
Tops, yarns, broadwoven and knit outerwear fabrics, wool	.80	Other structural nonmetallic minerals	.16	Fats and oils, edible	.42
Synthetic textiles	1.10	Processed fuels and lubricants	3.51	Other processed foods	.41
Silk products	.04	Processed fuels and lubricants for manufacturing	2.21	Miscellaneous feed stuffs	.10
Other textile products (excluding burlap)	.02	Coke	.10	Consumer nondurable goods	14.60
Leather	.27	Gas	.19	Broadwoven goods, thread and housefurnishings, cotton	.63
Cut soles, leather	.09	Electricity	1.07	Blankets, broadwoven and knit outerwear fabrics, wool	.07
Gasoline and lubricating oils	.17	Gasoline, kerosene, residual fuel oils, and lubricating oils	.85	Broadwoven goods, synthetic	.11
Industrial chemicals	2.05	Processed fuels and lubricants for non-manufacturing industry	1.30	Apparel	3.95
Paint materials	.19	Gas	.05	Footwear	.80
Drug and pharmaceutical materials	.17	Electricity	.47	Gloves	.02
Fats and oils, inedible	.18	Gasoline, kerosene, residual fuel oils, and lubricating oils	.78	Coal, Pennsylvania anthracite and bituminous	.19
Nitrogenates and phosphates	.19	Containers, nonreturnable	1.72	Gas	.49
Soaps and synthetic detergents	.05	Burlap	.09	Electricity	.83
Synthetic rubber, crude	.20	Setup boxboard	.05	Gasoline, kerosene, and distillate fuel oils	2.25
Heels and soles, rubber	.04	Converted paper and paperboard products	.77	Organic chemicals	.08
Woodpulp	.55	Metal containers	.50	Prepared paint	.03
Paper	.84	Glass containers	.31	Pharmaceutical preparations	.57
Container board and folding boxboard	.24	Supplies	5.79	Mixed fertilizer	.01
Miscellaneous fabricated nonstructural metal products	.20	Supplies for manufacturing	2.08	Other chemicals and allied products	.71
Building lime	.01	Flour	.16	Tires and tubes	.24
Notions and accessories	.09	Other textile products (excluding burlap)	.02	Footwear and other products, rubber	.14
		Industrial leather	.03		

TABLE 1.—Relative importances of the economic sector index as of December 1954—Continued

Commodity	Percent of all commodities	Commodity	Percent of all commodities	Commodity	Percent of all commodities
Consumer finished goods—Continued		Consumer finished goods—Continued		Producer finished goods—Continued	
Consumer nondurable goods—Con.		Consumer durable goods—Con.		Producer goods for manufacturing industries—Con.	
Converted paper and paperboard products.....	0.18	Passenger cars.....	3.18	Passenger cars and motortrucks.....	1.26
Incandescent lamps and batteries.....	.53	Household furniture.....	.74	Wood and metal commercial furniture.....	.07
Cutlery, household.....	.03	Floor covering.....	.27	Fire extinguishers.....	.01
Cigarettes.....	.63	Household appliances.....	1.11	Producer goods for nonmanufacturing industries.....	5.10
Cigars.....	.13	Television and radio receivers.....	.58	Handtools.....	.05
Other tobacco products.....	.05	Other household durables.....	.46	Agricultural machinery and equipment.....	.86
Alcoholic beverages.....	1.13	Toys, sporting and athletic goods, and small arms.....	.30	Construction machinery and equipment.....	.31
Nonalcoholic beverages.....	.45	Jewelry, watches, and photographic equipment.....	.40	Elevators and escalators and industrial scales.....	.01
Toys and small arms and ammunition.....	.18	Other miscellaneous products.....	.16	Miscellaneous machinery.....	.84
Notions and accessories.....	.02	Producer finished goods.....	9.79	Electrical machinery and equipment.....	1.29
Pens and pencils.....	.07	Producer goods for manufacturing industries.....	4.69	Motor vehicles.....	1.30
Matches and brushes.....	.08	Handtools.....	.16	Household furniture.....	.06
Consumer durable goods.....	7.58	Boilers, tanks and sheet-metal products.....	.22	Commercial furniture.....	.22
Leather and small leather goods.....	.10	Construction machinery and equipment and tractors for other than farm use.....	.23	Soft surface floor covering.....	.01
Millwork.....	.02	Metalworking machinery and equipment.....	1.05	Other household durable products.....	.02
Hardware.....	.08	General purpose machinery and equipment.....	.86	Sporting and athletic goods.....	.05
Brass plumbing fixtures.....	.02	Miscellaneous machinery.....	.09	Photographic equipment.....	.06
Miscellaneous fabricated nonstructural metal products.....	.07	Electrical machinery and equipment.....	.74	Musical instruments and fire extinguishers.....	.02
Farm and garden tractors and agricultural machinery.....	.06				
Metalworking machine tools for home workshop and power-driven handtools.....	.03				

economic sectors. The first of these was the removal of wartime controls of prices and discontinuance of commodity allocations. The termination of controls, at a time when supplies of certain kinds of goods were limited in relation to huge pent-up wartime demands, stimulated the extraordinary price rise which culminated in 1948. Then, following a period of price decline and readjustment in 1949, a slow rise began early in 1950.

In mid-1950, the outbreak of hostilities in Korea brought a wave of speculative buying of commodities such as always accompanies a war, with its vast potential new demands for goods and services. By early 1951, prices at wholesale had soared to exceptional peaks for the postwar period. Once this initial rise was over, and it became clear that the Korean conflict would be less extensive than many had feared, commodity prices began to decline. The years since 1951 have represented another period of price readjustment, spurred by the very high level of economic activity both in the United States and abroad, and made possible by the abundant supplies of all kinds of goods available to meet domestic demands.

Since early 1953, the general level of prices of commodities as a whole has been remarkably stable, varying by less than 2 percent, as shown

by the Bureau of Labor Statistics' Wholesale Price Index. Underlying this general stability, there have been two divergent trends—the decline of prices of farm products and of certain other raw materials to about their early 1950 pre-Korean levels, and the slow, sustained rise of prices of industrial and other finished goods, which had lagged behind the more volatile prices of agricultural raw materials throughout World War II and the Korean hostilities.

Major Economic Groups

The new economic sector indexes illustrate these developments by showing relative price movements of crude materials, intermediate materials, and finished goods. (See chart 1 and table 2.) After the lifting of price controls in mid-1946, prices rose rapidly. Prices of intermediate and finished goods moved together, but by 1948 when the peak was reached, prices of crude materials had advanced about 25 percent above their levels of January 1947, while intermediate and finished materials had risen by about 15 percent. As all types of goods became more plentiful, prices declined. By the end of 1949, crude materials were again at their 1947 levels, while intermediate products and finished goods lost only about one-half of the initial price advance. The Korean

boom again forced all prices to new peaks, with crude materials again advancing more than intermediate and finished goods, and reestablishing the relationship which had existed in the early postwar readjustment period. As the flush of the boom ebbed, the decline in prices for immediate and finished goods was relatively minor, with their prices on more or less of a plateau, while prices of crude materials once more dropped to a point almost equal to their January 1947 levels. From the end of 1951 to the autumn of 1955, prices for intermediate and finished goods have been comparatively steady, in contrast to the sharp downward trend for prices of raw materials.

Finished goods, taken as a whole, followed the general course of wholesale prices already described, but with a more moderate fluctuation, varying by less than about 20 percent over the entire period. (See chart 2 and table 2.) They rose rapidly to a peak in the latter part of 1948,

and then declined until early 1950—but never to as low a level as in early 1947. They then began to recover in the spring of 1950, before the Korean crisis. The hostilities in Korea brought a rise of almost 13 percent, which was followed by a moderate decline—less than 5 percent. Prices of finished goods in the postwar period, reflect in addition to rising costs of raw materials, higher costs of various other kinds—for wage rates, transportation, fuel, power, and supplies, as well as added overhead based upon higher costs of machinery, equipment, and new construction. Hence, it is only to be expected that prices of finished goods will be more stable and more “sticky” than raw materials per se, which involve less fabrication.

Among finished goods, consumer goods are, dollarwise, more important than producer goods, and they therefore have dominated the movement of this index. Among these finished goods are, of course, foods and textile products, which were

Chart 1. Wholesale Price Economic Sector Indexes, Major Groups, January 1947–October 1955

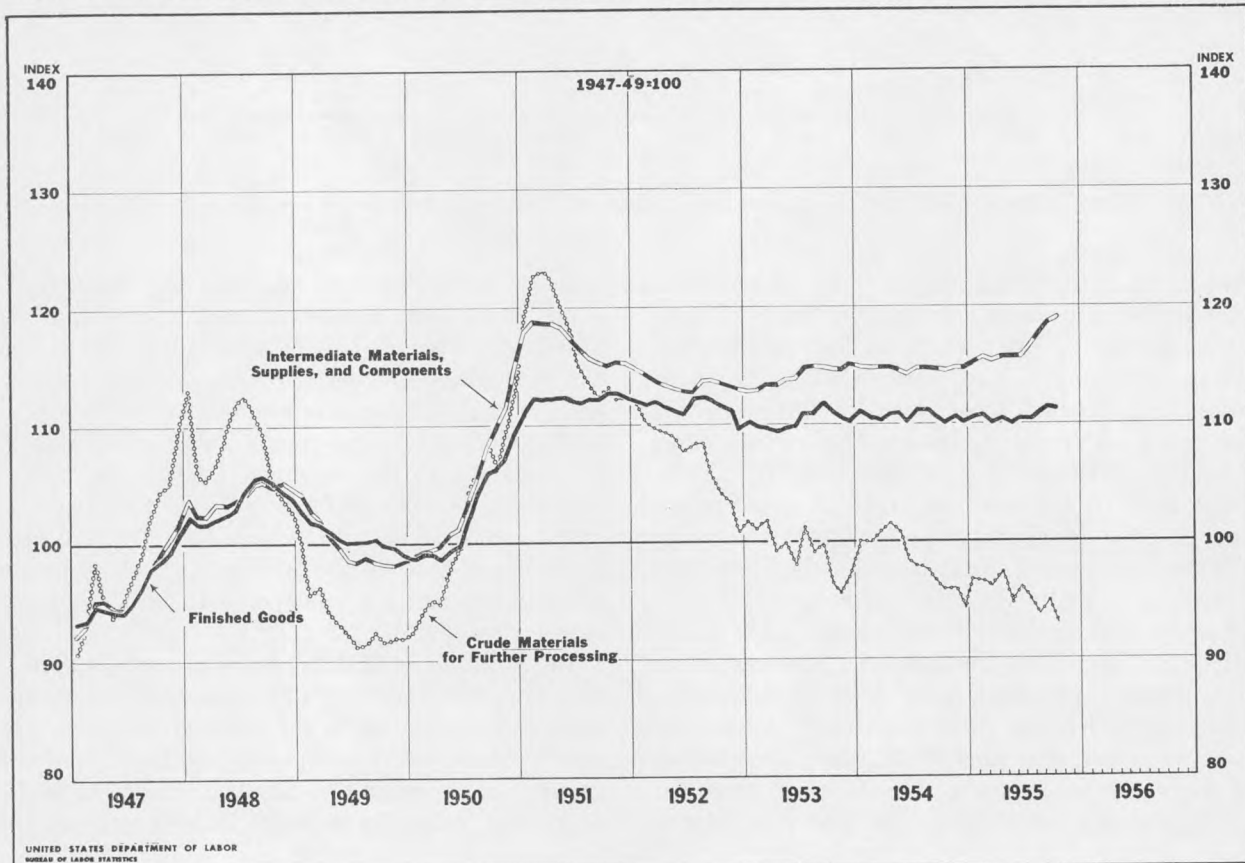
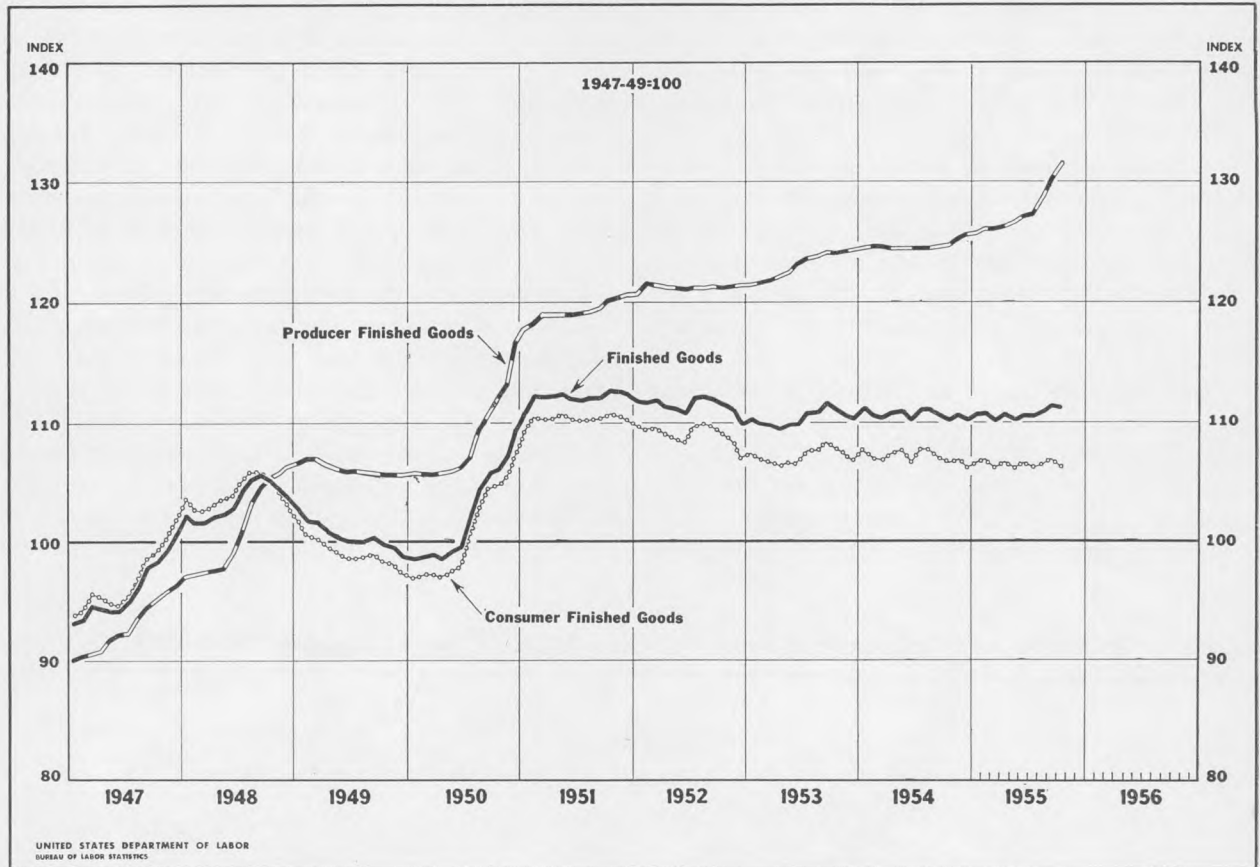


Chart 2. Wholesale Price Economic Sector Indexes, Finished Goods, January 1947–October 1955



subject to wide price surges and which have recently been declining in price. Prices of producer finished goods, which include machinery, tools, instruments, and various other types of equipment, began the postwar period at low levels compared with consumer goods, having risen comparatively little during World War II. From early 1947 to the autumn of 1955, these prices have gone up by about 43 percent as compared to 13 percent for consumer finished goods. The first rise came immediately after the renewal of price controls, and continued into 1949, after other prices had declined. In that brief business recession, prices of producer goods declined very little. The onset of Korean hostilities brought the second spurt in prices, and since 1951, while other prices of many consumer goods have declined, producer finished goods have risen. In this rise, higher

costs of production for these highly fabricated goods have been a very important factor, combined with strong demand. Historical data are not adequate to indicate whether the current level of producer goods prices, relative to prewar—that is, to 1939—is, in general, higher or lower in 1955 than that for consumer goods. For those few products, such as farm machinery and standard machine tools, for which price records are available, it appears that prices of producer goods are still not as high relative to 1939 as prices of many consumer goods.

In addition to the importance of costs of manufacturing, the durability of the products is another element contributing to the stability of prices. It can be observed by comparing the movements of groups within consumer finished goods (table 2). In general, prices for products which can be stored

TABLE 2.—Annual averages, 1947-54, and October 1955 average of commodities in the economic sector index

[1947-49=100]

Groups and subgroups	1947	1948	1949	1950	1951	1952	1953	1954	October 1955 ¹
All commodities	96.4	104.4	99.2	103.1	114.8	111.6	110.1	110.3	111.5
Crude materials for further processing	98.6	108.0	93.4	101.8	116.9	107.4	99.2	98.3	93.0
Crude foodstuffs and feedstuffs	100.7	108.8	90.5	97.0	112.3	105.7	94.6	94.7	82.7
Crude nonfood materials except fuel ²	96.0	106.8	97.2	111.0	128.1	110.9	106.2	104.2	111.4
Crude nonfood materials, except fuel, for manufacturing	96.1	107.0	96.9	111.2	128.6	110.8	105.8	103.6	111.0
Crude nonfood materials, except fuel, for construction	93.0	101.9	105.2	106.8	113.0	113.0	117.4	121.0	125.6
Crude fuel	89.4	105.6	105.0	104.6	106.5	107.2	111.0	106.0	106.8
Crude fuel for manufacturing	89.3	105.7	105.0	104.5	106.2	106.9	110.5	105.5	106.5
Crude fuel for other	89.5	105.5	105.0	104.7	106.9	107.8	111.8	106.7	107.3
Intermediate materials, supplies, and components	96.2	104.0	99.9	104.3	116.9	115.5	114.1	114.8	119.1
Intermediate materials and components for manufacturing	96.4	104.0	99.6	104.5	118.4	113.4	115.2	115.4	120.5
Intermediate materials for food manufacturing	102.8	106.0	91.2	94.9	105.7	101.5	101.8	100.9	95.6
Intermediate materials for nondurable manufacturing	99.2	105.0	95.8	100.5	116.5	104.8	104.0	102.3	103.4
Intermediate materials for durable manufacturing	91.2	103.0	105.8	111.9	124.3	124.6	130.1	133.1	144.2
Intermediate components for manufacturing	94.4	101.9	103.8	107.6	122.2	122.5	124.7	125.3	135.7
Materials and components for construction	93.3	103.2	103.5	108.9	119.1	118.3	120.2	120.9	128.9
Processed fuels and lubricants	94.8	107.4	97.8	99.7	104.2	102.8	103.6	103.5	104.1
Processed fuels and lubricants for manufacturing	95.8	106.9	97.3	98.9	103.5	102.3	102.5	102.5	102.4
Processed fuels and lubricants for other than manufacturing	93.1	108.2	98.6	101.1	105.4	103.7	105.5	105.3	106.9
Containers, nonreturnable, for manufacturing	97.0	101.3	101.7	104.4	122.7	116.0	116.2	118.2	122.6
Supplies	99.0	103.5	97.5	100.8	113.5	113.5	107.8	110.2	109.8
Supplies for manufacturing	96.6	102.0	101.4	108.3	120.7	117.6	118.3	120.0	130.9
Supplies for other than manufacturing	100.1	104.2	95.8	97.5	110.4	111.8	103.2	105.9	100.3
Manufactured animal feeds	104.1	105.9	90.0	90.0	100.2	108.7	88.9	96.3	75.1
Other supplies	97.9	103.2	93.9	101.7	116.0	113.4	111.1	111.2	114.8
Finished goods	95.9	103.5	100.6	102.4	112.1	111.5	110.4	110.7	111.3
Consumer finished goods	96.8	104.1	99.2	100.9	110.3	109.0	107.1	107.1	106.2
Consumer foods	97.0	105.8	97.2	99.2	111.3	110.4	104.6	103.8	99.9
Consumer crude foods	96.9	104.4	98.8	89.9	103.2	109.9	102.6	92.3	95.8
Consumer processed foods	97.0	106.1	96.9	100.9	112.8	110.5	105.0	106.0	100.8
Consumer other nondurable	97.4	103.5	99.2	100.8	108.5	105.9	106.9	107.2	108.0
Consumer durable goods	94.8	101.3	104.0	105.0	112.1	113.0	113.8	114.7	116.9
Producer goods	92.8	101.1	106.1	108.7	119.3	121.3	123.1	124.7	131.5
Producer goods for manufacturing industries	92.8	101.1	106.1	109.0	120.3	122.7	124.7	126.4	133.7
Producer goods for other than manufacturing industries	92.8	101.0	106.2	108.4	118.5	120.2	121.9	123.4	129.6

¹ Preliminary.² July index revised to 110.6.

for only a limited time and must be used quickly fluctuate much more widely than those which last longer and can be stored by either buyer or seller in order to smooth out short-term fluctuation in supply and demand. The classic example, of course, is perishable foods, but clothing—with its element of fashion—also has some of the same

market characteristics in that goods are rarely held over from season to season. It is generally true also that the durable goods are manufactured goods, the supply of which can be quickly reduced if demand diminishes, and for which it is traditional for prices not to change rapidly, either up or down, because costs also do not change rapidly.

Earnings in Cigar Manufacturing, April 1955

CIGAR WORKERS averaged \$1.13 an hour, exclusive of premium pay, in April 1955, according to a survey conducted by the Bureau of Labor Statistics.¹ A third of the 34,000 production workers covered by the study earned less than \$1 an hour and 70 percent less than \$1.25. Workers in the Middle Atlantic region, accounting for half of the industry's total employment, averaged \$1.19 an hour,

with 22 percent earning less than \$1. South-eastern workers (largely in Florida) averaged \$1.04, and nearly half earned less than \$1 an hour.

Among the occupational groups studied separately, lowest national averages were recorded for floormen, janitors, and tobacco strippers, all

¹ See Wage Structure: Cigar Manufacturing, BLS Report 97, 1955.

The study included establishments employing 8 or more workers primarily engaged in the manufacture of cigars. The regions represented in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee.

TABLE 1.—Number and average straight-time hourly earnings¹ of production workers in cigar manufacturing establishments by selected characteristics, United States, selected regions and areas, April 1955

Item	United States ²		Selected regions								Selected areas					
			New England		Middle Atlantic		Border States		Southeast		Philadelphia, Pa. ³		York County, Pa.		Tampa, Fla. ⁴	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
All establishments, total	34,019	\$1.13	647	\$1.04	16,676	\$1.19	1,882	\$1.15	11,175	\$1.04	5,595	\$1.23	2,022	\$1.04	4,811	\$1.12
Men	5,987	1.20	183	1.07	2,540	1.24	302	1.26	2,310	1.17	775	1.31	273	1.17	1,541	1.18
Women	28,032	1.11	464	1.03	14,136	1.18	1,580	1.12	8,865	1.01	4,820	1.22	1,749	1.02	3,270	1.09
Method of manufacture: ⁵																
Hand	2,559	1.07			633	1.34			942	1.00						
Machine	31,460	1.13	599	1.05	16,043	1.19	1,843	1.15	10,233	1.05	5,575	1.23	1,930	1.05	4,187	1.13
Establishment size:																
8-100 workers	2,206	1.02	198	1.14	1,116	1.00			358	1.03			601	.94	238	.95
101-500 workers	11,951	1.09			6,483	1.16			2,309	.90	1,029	1.13	1,421	1.09	792	.97
501 or more workers	19,862	1.16			9,077	1.24			8,508	1.08	4,521	1.26			3,781	1.16
Community size:																
Under 100,000	10,267	1.09			4,533	1.15			3,707	.99			2,022	1.04		
100,000 or more	23,752	1.14	449	1.07	12,143	1.21	1,310	1.15	7,468	1.07	5,595	1.23			4,811	1.12
Labor-management contract coverage:																
Union establishments	17,480	1.15	647	1.04	5,616	1.25	1,833	1.15	7,742	1.08	1,720	1.21			3,015	1.17
Nonunion establishments	16,539	1.10			11,060	1.16			3,433	.96	3,875	1.24			1,796	1.03

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes data for regions in addition to those shown separately.

³ Includes Philadelphia and Delaware Counties, Pa., and Camden County, N. J.

⁴ Includes Hillsborough County, Fla.

⁵ Establishments were classified as hand-method or machine-method plants

on the basis of primary operations measured by value of product. Of the 34,019 workers within the scope of the study, 7,088 (mostly in the Southeast) were employed in establishments using both methods of production. With very few exceptions, these workers were in establishments classified as machine-method plants for purposes of this tabulation.

NOTE.—Dashes indicate no data or insufficient data to justify presentation.

slightly below \$1 an hour. Men employed as maintenance machinists and machine adjusters were the highest paid, averaging \$1.82 and \$1.64, respectively. Women cigarmaking machine operators accounted for nearly two-fifths of the production workers in the industry. Operators of 4-position machines averaged \$1.27, compared with \$1.02 an hour for operators of 2-position machines.

A majority of the workers were employed in establishments providing paid vacations and holidays. Insurance benefits were also common.

Industry Characteristics

Cigar manufacturing in the United States began in colonial times, and for many years cigars were the principal tobacco product. Although employment in cigar manufacturing has declined considerably from the peak reached during the years immediately after World War I, average employment in 1954 in the cigar industry amounted to nearly 40,000—about 8,000 more than in the cigarette industry. Establishments within the scope of this study employed 34,000 of the 36,000 production workers estimated to be employed by the industry in April 1955.

Geographically, the greatest part of the industry is concentrated in the Middle Atlantic and Southeast regions, respectively, accounting for roughly one-half and one-third of the production workers. Philadelphia, York County, Pa., and Tampa, Fla., are the three centers of industry concentration.

Severe competition and industrial changes beginning in the 1920's have had important effects on the cigar industry. One such factor has been the notable shift toward cigarette smoking, which has contributed to a sharp curtailment in the per capita consumption of cigars. Cigar production declined from 8 billion in 1920 to less than 6 billion in 1954. During the same period the number of cigarettes produced increased from 47 billion to more than 400 billion.²

The introduction and widespread use of automatic cigarmaking machines has also had a pronounced effect on the industry. In 1924, it has been estimated that less than a third of the cigars produced were manufactured by machine.³ Today, more than nine-tenths of the cigars are

² See annual reports of the Commissioner of Internal Revenue, Internal Revenue Service, U. S. Treasury Department.

³ Willis N. Baer, *The Economic Development of the Cigar Industry in the United States*, Lancaster, Pa., The Art Publishing Co., 1933.

machine made. Of the 100 plants studied in April 1955, only 17 employed hand methods of production exclusively; 25 of 26 plants using both methods manufactured a minor proportion of their total output by hand; and all remaining plants produced only machine-made cigars. The hand method of manufacture is now generally limited to three situations: (1) Small establishments unable for financial or other reasons to convert to machine methods; (2) establishments specializing in the production of higher priced cigars—often of distinctive sizes and shapes not suitable to machine methods; and (3) a desire to retain older employees who are unable to make the transition from hand operations to mechanical means. With respect to the latter, the survey disclosed some hand cigarmakers reportedly working to supplement social security pension benefits.

Increasing mechanization coupled with declining production has caused a steady decrease in employment. The industry employed 112,000 workers in 1921, 84,000 in 1929, 51,000 in 1940, and 36,000 in April 1955. Mechanization has also resulted in an increase in the concentration of production in larger plants. The number of plants with an annual output of 40 million cigars increased from 11 in 1921 to 40 by 1951.⁴

Before the introduction of cigarmaking machines, cigar workers were generally men, whereas more than 80 percent of the current labor force are women. Operators of cigarmaking machines and tobacco-stripping machines in April 1955 accounted for almost half of the industry's production workers. All but a small proportion of these workers were women.

Establishments operating under labor-management agreements covering a majority of their workers employed half of the production workers in the industry in April 1955. This represents an increase since 1940, when the corresponding proportion was only about a fourth. The Cigar Makers' International Union of America (AFL) is the oldest and largest labor organization in the industry.

Wage studies conducted by the Bureau in the 1930's and since, indicate a substantial upward movement of wages in the industry. Cigar workers averaged 37 cents an hour in 1937, 42

cents in 1940, 73 cents in 1946, and \$1.13 in April 1955.

Earnings of three-fourths of the factory workers were based on a piecework system. Among the occupations studied, piecework rates applied to virtually all hand cigarmakers, cigarmaking-machine operators, and packers, and to a large majority of the banding- and cellophaning-machine operators and strippers. Group piece-rate plans were generally reported for cigarmaking-machine operators employed as a team; otherwise, individual piece rates were applicable. Machine adjusters, machinists, maintenance men, floormen, janitors, and inspectors were paid on a time rate.

Average Hourly Earnings

The 34,000 production workers covered by the study averaged \$1.13 an hour in April 1955 (table 1). A third of these earned less than \$1 an hour and 70 percent earned less than \$1.25 (table 2), as indicated earlier. More than 500, or 1.6 percent of the workers earned less than 75 cents an hour—the Federal minimum wage at that time. Most of these were handicapped workers and learners granted certificates under the Fair Labor Standards Act; others were employed in establishments engaged in intrastate commerce and thus not subject to the act.

Workers in the Middle Atlantic region averaged \$1.19, with 22 percent earning less than \$1 an hour. Southeastern workers (largely in Florida) averaged \$1.04, with nearly half earning less than \$1. The significance of the differences in regional wage levels is obscured by variations in occupational composition accompanying different manufacturing methods. Less than 3 percent of the workers in the Middle Atlantic region were engaged in the lower paying "hand" occupations (whole work, bunchmaking, or rolling), while 20 percent of the workers in the Southeast were so employed. Regional averages for New England and the Border States were \$1.04 and \$1.15, respectively.

Philadelphia and Tampa led all other cities in cigar manufacturing; workers in these areas averaged \$1.23 and \$1.12, respectively. Cigar workers in York County, Pa., the next largest industry concentration, averaged \$1.04. Among these centers, Tampa was the only area producing

⁴ See footnote 2.

significant numbers of handmade cigars, and even there, the overwhelming majority were made by machine.

The wage data were also classified according to size of community, size of establishment (as measured by total employment), and the extent to which the work force was covered by labor-management contracts. These comparisons, however, do not fully isolate the influence of each factor as a determinant of wages. Many of the larger plants, for example, were located in large cities. As suggested by the following comparisons of production-worker averages, wages tended to be highest in the larger communities, larger establishments, and establishments operating under union contracts.

Cigar workers in communities with less than 100,000 population averaged \$1.09 as compared with an average of \$1.14 recorded in larger communities. Averages for these community groupings were \$1.15 and \$1.21 in the Middle Atlantic region and 99 cents and \$1.07 in the Southeast.

On an industrywide basis, workers in establishments employing 100 or fewer workers averaged

\$1.02; those in plants having from 101 to 500 workers, \$1.09; and those in plants of 501 or more averaged \$1.16 an hour. Wage relationships within regions were less consistent (table 1).

Plants having collective bargaining agreements with labor unions employed nearly 70 percent of the workers in the Southeast region. Workers in these plants averaged \$1.08 an hour, 12 cents more than workers in plants not covered by agreements. Only a third of the workers in the Middle Atlantic region were employed under the provisions of labor-management contracts; they averaged \$1.25, compared with \$1.16 for workers in nonunion plants. Nationwide averages for union and non-union plants were \$1.15 and \$1.10, respectively.

Women accounted for 28,000 or four-fifths of the total industry work force, and averaged \$1.11 an hour compared with \$1.20 for men. Although men had higher average earnings in some of the occupations in which both men and women were employed, the 9-cent difference in general pay levels is partly attributed to the fact that higher paid work, such as maintenance and machine adjusting, was performed by men.

TABLE 2.—Percentage distribution of production workers by average straight-time hourly earnings¹ in cigar manufacturing establishments, United States, selected regions and areas, April 1955

Average hourly earnings ¹ (in cents)	United States ²			Selected regions				Selected areas		
	All workers	Men workers	Women workers	New England	Middle Atlantic	Border States	Southeast	Philadelphia, Pa.	York County, Pa.	Tampa, Fla.
Under 75.....	1.6	0.8	1.8	1.9	0.4	0.4	3.6	0.1	1.7	1.1
75 and under 80.....	7.2	5.4	7.6	13.4	3.7	2.7	12.8	2.3	6.6	9.4
80 and under 85.....	4.9	3.6	5.2	5.4	3.5	1.3	7.7	2.1	9.1	4.9
85 and under 90.....	5.1	4.9	5.2	8.8	3.9	2.4	5.9	3.2	6.9	6.6
90 and under 95.....	6.6	5.7	6.9	8.0	5.2	3.6	8.6	4.7	8.3	10.0
95 and under 100.....	7.0	8.7	6.6	5.1	5.3	6.8	10.3	4.7	11.4	8.7
100 and under 105.....	7.9	9.0	7.6	10.5	6.4	10.9	9.0	5.0	13.3	7.9
105 and under 110.....	7.5	10.1	6.9	11.6	6.6	12.0	8.6	8.2	8.3	6.6
110 and under 115.....	6.3	6.7	6.2	8.8	4.8	12.0	6.9	5.8	6.0	7.9
115 and under 120.....	7.0	6.9	7.0	7.6	6.5	14.0	4.9	5.3	5.4	5.8
120 and under 125.....	8.8	6.3	9.3	2.8	11.6	12.9	4.8	9.0	13.7	7.5
125 and under 130.....	10.5	3.7	11.9	3.1	14.8	9.3	3.8	13.7	2.5	2.6
130 and under 135.....	4.3	3.3	4.5	1.5	6.1	2.0	2.7	8.6	1.0	3.0
135 and under 140.....	4.6	2.3	5.1	.8	7.8	2.8	1.5	4.6	1.2	2.5
140 and under 145.....	2.6	2.2	2.7	3.6	3.7	1.3	1.7	6.5	.5	3.3
145 and under 150.....	1.0	1.6	.9	.2	1.4	.7	.6	2.4	.7	1.1
150 and under 155.....	2.3	1.9	2.4	1.2	3.7	.7	.9	9.6	.6	1.8
155 and under 160.....	.7	1.9	.5	2.2	.6	.5	1.0	.5	.1	1.9
160 and under 165.....	.7	2.1	.4	.2	.6	.6	1.0	.2	.2	2.0
165 and under 170.....	.4	1.2	.3	.5	.4	1.0	.3	.4	.3	.7
170 and under 175.....	.3	1.3	.1	-----	.4	.3	.2	.2	(3)	.5
175 and under 180.....	.4	1.3	.2	1.5	.4	.3	.5	.3	.3	1.0
180 and under 185.....	.6	2.5	.1	1.1	.4	.6	.9	.2	(3)	.4
185 and under 190.....	.4	1.8	(3)	.2	.4	.1	.2	.2	(3)	.3
190 and under 195.....	.3	1.3	(3)	-----	.4	.1	.3	.4	.9	.2
195 and under 200.....	.2	.7	.1	-----	.2	.6	.1	.3	(3)	.2
200 and over.....	.8	2.9	.4	.2	.9	.2	.9	1.4	.6	2.0
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers.....	34,019	5,987	28,032	647	16,676	1,882	11,175	5,595	2,022	4,811
Average hourly earnings ¹	\$1.13	\$1.20	\$1.11	\$1.04	\$1.19	\$1.15	\$1.04	\$1.23	\$1.04	\$1.12

¹ Excludes premium pay for work on weekends, holidays, and late shifts.

² Includes data for regions in addition to those shown separately.

³ Less than 0.05 percent.

NOTE.—Due to rounding, sums of individual items do not necessarily equal 100.

TABLE 3.—Average straight-time hourly earnings¹ of men and women in selected production occupations in cigar manufacturing establishments, United States, selected regions and areas, April 1955

Sex and occupation	United States ²		Selected region								Selected areas					
			New England		Middle Atlantic		Border States		Southeast		Philadel- phia, Pa. ³		York Coun- ty, Pa.		Tampa, Fla. ⁴	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Men																
Adjusters, machine: Total ⁵	558	\$1.64	-----	-----	265	\$1.76	42	\$1.68	173	\$1.48	82	\$1.91	28	\$1.62	65	\$1.26
Banding and cellophaning machine.....	98	1.62	-----	-----	47	1.73	-----	-----	30	1.45	16	1.77	-----	-----	11	1.19
Cigarmaking machine.....	373	1.69	-----	-----	175	1.83	27	1.71	121	1.51	57	2.00	-----	-----	47	1.31
Stripping machine.....	69	1.45	-----	-----	29	1.52	-----	-----	21	1.38	-----	-----	-----	-----	6	1.00
Cigarmakers, hand: Total.....	1,112	1.25	55	\$0.95	182	1.42	-----	-----	735	1.24	-----	-----	-----	-----	735	1.24
Whole work.....	375	1.27	55	.95	179	1.43	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Bunch makers.....	529	1.33	-----	-----	-----	-----	-----	-----	522	1.33	-----	-----	-----	-----	522	1.33
Rollers.....	208	1.02	-----	-----	-----	-----	-----	-----	202	1.02	-----	-----	-----	-----	202	1.02
Floormen.....	940	.99	-----	-----	403	.97	-----	-----	422	.98	157	1.01	-----	-----	216	1.00
Inspectors, cigars (examiners).....	44	1.15	-----	-----	21	1.22	-----	-----	-----	-----	20	1.22	-----	-----	-----	-----
Janitors.....	109	.98	-----	-----	43	1.01	-----	-----	38	.93	-----	-----	-----	-----	11	.88
Machinists, maintenance.....	108	1.82	-----	-----	63	1.91	-----	-----	31	1.66	19	1.98	21	2.06	-----	-----
Maintenance men, general utility.....	95	1.53	-----	-----	38	1.48	-----	-----	24	1.65	22	1.41	-----	-----	-----	-----
Packers, cigars.....	210	1.39	12	1.50	24	1.05	-----	-----	168	1.43	-----	-----	17	1.05	168	1.43
Women																
Banding- and cellophaning-machine operators.....	1,006	1.08	-----	-----	480	1.14	48	1.11	376	1.02	158	1.19	108	1.00	153	1.00
Cigarmakers, hand: Total ⁵	1,962	1.98	-----	-----	254	1.39	-----	-----	1,409	1.04	22	.93	64	.87	1,223	1.07
Bunch makers.....	204	1.17	-----	-----	30	1.05	-----	-----	123	1.24	-----	-----	-----	-----	123	1.24
Rollers.....	1,396	1.03	-----	-----	86	.92	-----	-----	1,098	1.05	-----	-----	-----	-----	1,098	1.05
Cigarmaking-machine operators, 4 positions.....	8,403	1.27	100	1.14	6,363	1.30	566	1.17	-----	-----	2,316	1.33	-----	-----	221	1.46
Cigarmaking-machine operators, 2 positions.....	4,658	1.02	-----	-----	1,143	1.04	-----	-----	3,000	1.00	300	1.05	614	1.01	710	1.08
Floorwomen.....	409	.98	10	1.19	181	1.01	-----	-----	151	.93	80	1.02	233	1.01	-----	-----
Inspectors, cigars (examiners): Total.....	646	1.15	-----	-----	424	1.17	61	1.17	67	1.14	115	1.26	-----	-----	-----	-----
Loose cigars.....	379	1.16	-----	-----	219	1.18	36	1.15	-----	-----	-----	-----	-----	-----	-----	-----
Packed cigars.....	267	1.14	-----	-----	205	1.16	25	1.19	18	1.04	-----	-----	-----	-----	-----	-----
Janitors.....	106	.97	-----	-----	64	.98	10	.99	20	.92	24	.97	-----	-----	-----	-----
Packers, cigars.....	2,459	1.21	18	1.43	1,364	1.21	158	1.11	667	1.25	448	1.33	222	1.13	182	1.67
Strippers: Total.....	4,216	.98	83	.86	2,059	1.03	290	1.08	1,339	.89	812	1.03	335	.98	443	.91
Hand.....	439	.93	-----	-----	102	1.17	-----	-----	200	.82	-----	-----	-----	-----	154	.79
Machine.....	3,777	.99	83	.86	1,957	1.03	-----	-----	1,139	.90	812	1.03	335	.98	289	.97

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes data for regions in addition to those shown separately.

³ Includes Philadelphia and Delaware Counties, Pa., and Camden County, N. J.

⁴ Includes Hillsborough County, Fla.

⁵ Includes data for workers not shown separately.

NOTE.—Dashes indicate no data or insufficient data to warrant presentation.

Occupational Earnings

The occupational categories for which average straight-time hourly earnings are presented in table 3 account for four-fifths of the production workers in the industry. Nationwide averages for these occupations ranged from 93 cents for women employed as hand tobacco strippers to \$1.82 for men working as maintenance machinists.

Operators of cigarmaking machines were virtually all women, accounting for nearly half the total number of women in the industry. Those assigned to 4-position machines,⁵ used in the manufacture of long-filler cigars, averaged \$1.27 an hour, nationally, as compared with \$1.02 for operators of 2-position machines, used in making short-filler cigars. Regionally, 4-position machines

were widely used in the Middle Atlantic States, whereas all of the operators in the plants studied in the Southeast were employed on 2-position machines.

Nearly two-thirds of the 3,000 workers engaged in manufacturing cigars by hand methods were employed in the Tampa area. Only a very small proportion of these workers made a complete cigar. Most were either employed as bunch-makers or rollers under the "teamwork" system of manufacture. In this last remaining center of hand cigar production, 735 men on the hand method averaged \$1.24 an hour, compared with \$1.07 for the 1,223 women in similar work. Plants using the hand method of manufacture exclusively accounted for less than two-fifths of the hand cigarmakers, the remaining being employed in establishments that were primarily producers of machine-made cigars.

⁵ The various operators of a 4-position machine include: (1) Filler tender, (2) binder layer, (3) wrapper layer, and (4) inspector.

TABLE 4.—Percent of production workers employed in cigar manufacturing establishments with formal provisions for selected supplementary wage benefits,¹ United States, selected regions and areas, April 1955

Selected benefits ¹	Percent of production workers in—							
	United States ²	Selected regions				Selected areas		
		New England	Middle Atlantic	Border States	Southeast	Philadelphia, Pa.	York County, Pa.	Tampa, Fla.
Paid vacations: ³								
After 1 year's service ⁴	81	96	95	98	53	99	67	92
1 week.....	69	96	91	64	26	99	67	29
1-2 weeks.....	9		(⁵)		27			63
2 weeks.....	3		3		34			
After 5 years' service.....	81	96	95	98	53	99	67	92
1 week.....	13	27	10	3	15	(⁵)	47	29
1-2 weeks.....	9		(⁵)		27			63
2 weeks.....	59	69	84	95	10	99	20	
Paid holidays: ^{4 6}	69	93	88	86	40	99	20	63
1 or 2 days.....	9				30			63
5 days.....	(⁵)	31	4			(⁵)		
6 days.....	43	62	56	86	10	63	20	
7 days.....	13		26			34		
Insurance and pension plans: ⁷								
Life insurance.....	55	31	73	89	29	52	52	24
Accidental death and dismemberment insurance.....	10	31	10	3	11	6	52	24
Sickness and accident insurance.....	19	31	21	34	5	13	52	
Hospitalization insurance.....	55	31	56	39	51	46	52	
Surgical insurance.....	39		34		41	34	52	
Medical insurance.....	3			3				
Retirement pension.....	15		16	61	10	12		

¹ If formal provisions for supplementary benefits were applicable to half or more of the workers in an establishment, the benefit was considered applicable to all workers. Because of length-of-service and other eligibility requirements, the proportion of workers currently receiving the benefits may be smaller than estimated.

² Includes data for regions in addition to those shown separately.

³ Vacation payments, such as percent of annual earnings and flat-sum amounts, are converted to an equivalent time basis.

⁴ Includes provisions in addition to those shown separately.

⁵ Less than 2.5 percent.

⁶ Limited to full-day holidays provided annually.

⁷ Includes only those plans for which at least a part of the cost is borne by the employer and excludes legally required plans such as workmen's compensation and social security. In addition to the plans listed separately, data were collected on sick-leave provisions and catastrophe insurance.

Tobacco stripping (removal of stems from tobacco leaves) was accomplished by machine in nearly all but the smaller plants. The nearly 3,800 women thus employed averaged 99 cents an hour, nationally, with averages of 90 cents and \$1.03 recorded for the Southeast and Middle Atlantic regions, respectively. Fewer than 450 women were employed to strip tobacco leaves by hand; they averaged 82 cents an hour in the Southeast and \$1.17 in the Middle Atlantic region.

Cigar packers averaged \$1.21 an hour on an industrywide basis, with workers in Tampa receiving the highest average wage (\$1.67). This comparatively high rate reflects the importance of the job which involves the selection of cigars according to color and shade, considerations of greatest importance in packing higher priced cigars, generally made by hand.

Establishment Practices

Data on minimum rates of pay ⁶ were also collected in the study. The 75-cent Federal hourly minimum wage served as the lowest hiring-in rate for plants employing three-fourths of the workers in the industry. The Southeast was the only

region reporting minimum entrance rates below 75 cents an hour. Nearly two-fifths of the workers in this region were employed by plants having an established minimum of 65 cents for inexperienced workers. All of these plants were reported as engaged in intrastate commerce.

Several plants had different minimums for newly hired or inexperienced workers and workers having acquired some experience on the job. Differences between the 2 minimum rates were generally 5 cents an hour. More frequently, however, the minimum rate of pay for inexperienced and experienced workers were the same. Notable exceptions were those Southeastern plants reporting a minimum entrance rate of 65 cents, which at the same time maintained a 75-cent minimum job rate for workers with specified service.

Work schedules of 40 hours a week applied to more than 70 percent of the workers covered by the study. A weekly work schedule of 32 hours was reported by some plants, mainly in the Middle Atlantic region; an eighth of the Southeastern

⁶ Minimum entrance and minimum job rates, for purposes of this study, are defined as the lowest established rate for inexperienced and experienced workers in unskilled occupations (except watchmen), apprentices, and handicapped and superannuated workers.

workers had weekly schedules of 48 hours. Extra-shift operations were not common, accounting for only 5 percent of the industry's work force. Workers assigned to late shifts usually received the same pay rate as day-shift workers.

Paid vacations were provided to four-fifths of the workers in the industry, to 95 percent of the workers in the Middle Atlantic region, and to half the workers in the Southeast meeting minimum service requirements (table 4). Most Middle Atlantic workers received 1 week's vacation after a year of service and 2 weeks after 5 years. Southeastern workers receiving vacation pay were commonly allowed 3 percent of their annual earnings if in the service of the company for 1 year.

Paid holidays were provided to seven-tenths of the cigar workers. Over half of the workers in the Middle Atlantic region received 6 days an-

nually and another fourth received 7 days. In the Southeast, two-fifths of the workers were employed by plants providing paid holidays—usually 1 day a year (Labor Day).

Life insurance and hospitalization insurance, financed wholly or in part by the employer, were available to slightly more than half of the workers in the industry, and were most prevalent among the various types of health and insurance benefits studied.

Pensions—providing regular payments upon retirement for the remainder of the worker's life—were reported in establishments employing 15 percent of the workers in the industry. This benefit was in addition to those provided under the Federal OASI program.

—L. EARL LEWIS

Division of Wages and Industrial Relations

Earnings in Office-Building and Contract-Cleaning Services, 1955

EARNINGS and related wage practices in the office-building service industry and the contract-cleaning services industry were surveyed¹ by the Bureau of Labor Statistics in the summer of 1955. The study of the office-building service industry covered operators and managers of office buildings; in case of owner-occupied office buildings they were included only if some space was rented. The contract-cleaning services industry included establishments primarily engaged in cleaning windows and furnishing janitorial services to dwellings and other buildings, including office buildings.

¹ Establishments employing fewer than 8 workers were excluded from each study. Earnings data relate to straight-time hourly earnings and exclude premium pay for overtime and for work on weekends and holidays. Premium pay for late-shift work is included; however, such payments were rarely reported and do not appreciably affect the averages presented.

Approximately 71,000 office-building service workers were covered in the study of that industry, which was conducted in 24 large cities; New York and Chicago, the largest areas of concentration, accounted for 30,600 and 9,400 workers, respectively. More than 18,600 contract-cleaning-service workers were covered in the study of that industry which was conducted in 9 cities; New York accounted for half of these workers.

Office-Building Service

Women cleaners in office buildings had average hourly earnings ranging from 56 cents to \$1.57 among the 24 large cities in which the Bureau of Labor Statistics conducted studies during the summer of 1955. Engaged in such light cleaning tasks as sweeping and dusting, these workers averaged less than \$1 an hour in 8 cities (mostly in the South), between \$1 and \$1.30 in 13 cities, \$1.37 in Seattle, \$1.47 in Chicago, and \$1.57 in San Francisco (table 1). Women operators of passenger elevators, whose citywide averages ranged from 66 cents to \$1.64, earned slightly more than women lightwork cleaners in 16 of the 21 cities in which comparisons were possible.

Among the men's jobs studied, stationary engineers were the highest paid, with citywide averages ranging from \$1.45 in New Orleans to \$2.83 in Chicago and exceeding \$2 an hour in 6 of the 16 cities for which sufficient data were available to permit publication of averages. Three-fourths of the men employed as office-building cleaners were assigned to the heavier cleaning tasks, such as wet-mopping, washing walls and ceilings, and operating heavy cleaning equipment; the remain-

TABLE 1.—Average straight-time hourly earnings¹ of men and women in selected occupations in the office-building service and contract-cleaning services industries, selected cities, summer 1955

Industry and city	Payroll period 1955	Men					Women		
		Cleaners ²	Elevator operators, passenger	Engineers, stationary boiler	Firemen, stationary boiler	Watchmen	Window washers	Cleaners, lightwork	Elevator operators, passenger
		Average hourly earnings ¹							
<i>Office-building service</i> (24 cities)									
Atlanta.....	May.....	\$0.75	\$0.83	\$1.56	-----	\$0.91	\$0.82	\$0.56	\$0.66
Baltimore.....	May.....	.93	.90	1.63	-----	.78	-----	.81	.90
Boston.....	May.....	1.20	1.17	1.91	-----	1.19	-----	1.17	1.14
Chicago.....	July.....	1.94	1.97	2.83	\$2.42	1.49	2.28	1.47	-----
Cincinnati.....	June.....	1.07	.98	1.80	1.38	1.02	1.36	.91	-----
Dallas.....	May.....	.89	.97	1.62	-----	.89	-----	.77	.87
Denver.....	June.....	1.16	-----	1.89	1.41	1.06	-----	1.13	1.15
Detroit.....	June.....	1.21	1.14	2.17	-----	1.12	-----	1.06	.99
Houston.....	June.....	.89	1.06	1.84	-----	.85	-----	.86	.85
Indianapolis.....	July.....	1.12	1.05	-----	-----	1.07	-----	.89	-----
Kansas City, Mo.....	June.....	1.26	1.46	-----	-----	1.19	-----	1.07	1.04
Los Angeles.....	June.....	1.27	1.24	-----	-----	1.21	1.49	1.18	1.20
Milwaukee.....	April.....	1.29	-----	-----	-----	-----	-----	1.06	1.10
Minneapolis.....	June.....	1.55	-----	2.21	-----	1.55	2.00	1.28	1.39
Newark.....	June.....	1.27	1.37	-----	-----	1.16	-----	1.07	1.12
New Orleans.....	June.....	.78	.85	1.45	1.43	1.55	-----	.88	.74
New York City ³	April.....	1.66	1.69	2.06	1.85	1.71	-----	1.27	1.35
Philadelphia.....	May.....	1.35	1.40	1.95	1.59	1.43	-----	1.06	1.37
Pittsburgh.....	June.....	1.49	1.54	2.22	-----	1.57	1.68	1.23	1.36
Portland, Oreg.....	May.....	1.32	1.13	-----	-----	1.31	-----	1.25	1.30
St. Louis.....	July.....	1.15	-----	-----	-----	1.27	-----	.04	1.06
San Francisco.....	June.....	1.65	1.64	2.08	-----	1.65	2.38	1.57	1.64
Seattle.....	June.....	1.44	1.37	-----	-----	-----	1.77	1.37	1.37
Washington, D. C.....	March.....	.86	.81	1.86	1.01	.82	.97	.78	.88
<i>Contract-cleaning services</i> (9 cities)									
Boston.....	May.....	1.23	-----	-----	-----	-----	1.69	1.14	-----
Chicago.....	July.....	1.73	-----	-----	-----	-----	2.32	1.44	-----
Detroit.....	June.....	2.02	-----	-----	-----	-----	2.54	1.29	-----
Los Angeles.....	June.....	1.39	-----	-----	-----	-----	2.18	1.23	-----
New York City ³	April.....	1.37	-----	-----	-----	-----	2.18	1.22	-----
Philadelphia.....	June.....	1.20	-----	-----	-----	-----	1.86	1.03	-----
Pittsburgh.....	June.....	1.05	-----	-----	-----	-----	1.79	.82	-----
San Francisco.....	July.....	1.71	-----	-----	-----	-----	2.45	-----	-----
Washington, D. C.....	March.....	1.10	-----	-----	-----	-----	1.28	-----	-----

¹ Excludes premium pay for overtime and for work on weekends and holidays. Premium pay for late-shift work is included; however, such payments were rarely reported and do not appreciably affect the averages presented.

² Includes lightwork and heavy-work cleaners.

³ Survey limited to Borough of Manhattan.

NOTE.—Dashes indicate no data or insufficient data to warrant presentation.

der were engaged in work similar to that indicated for women. Men's wage rates were generally similar for the two types of work. Averages for men cleaners as a group ranged from 75 cents an hour in Atlanta to \$1.94 in Chicago; the next highest levels were in San Francisco (\$1.65) and New York City (\$1.66).

Chicago, New York, and San Francisco had the highest level of pay for office-building service workers as a group. Ranking next in most occupations were Minneapolis, Pittsburgh, Portland (Oreg.), and Seattle. The lowest level of earnings was in the South.

Not only the level of wages but also the degree of dispersion of individual earnings differed among cities. For example, individual earnings of a great majority of the women cleaners in Chicago, Minneapolis, Portland (Oreg.), San Francisco, and Seattle were grouped in a very

narrow range; much wider variations in earnings were recorded in most other cities (table 2). In each of the cities having a high degree of concentration of earnings, all or a great majority of the workers were employed in establishments having written agreements with labor unions.

Office buildings in which a majority of workers were covered under terms of labor-management agreements employed 75 percent or more of the workers in: Chicago, Kansas City (Mo.), Minneapolis, Pittsburgh, Portland (Oreg.), San Francisco, and Seattle; 50 to 75 percent of the workers in Milwaukee, Newark, New York, Philadelphia, and St. Louis; between 25 and 50 percent in Boston, Denver, and Washington; and fewer than 25 percent in all other cities. Where service employees of buildings were covered by union agreements, two or more international unions were usually involved. Cleaners and elevator

operators were generally covered by the Building Service Employees' International Union (AFL), while stationary engineers and firemen belonged to the International Union of Operating Engineers (AFL).

More than half of the 71,000 office-building service employees within the scope of the Bureau's study were cleaners; nearly 2 of every 3 of these were women. Operators of passenger elevators accounted for another 20 percent of the total employment. Men elevator operators outnumbered women by more than 3 to 1 in this work category for all cities combined, but proportions varied greatly by city. Men accounted for nearly all of the elevator operators in Chicago, Cincinnati, Indianapolis, and New York, and were predominant in the job in 8 other cities, but women clearly outnumbered men in the job in 10 cities. The relative importance of stationary engineers and firemen differed substantially by city, primarily because of differences in heating requirements and methods; thus, heating by purchased steam reduced the need for such workers in many cities. Window washers were not commonly found in the industry since, in many cities, the custom was to contract this work to establishments specializing in such services. Among the 24 cities, fewer than 350 workers were classified

as window washers; nearly half of these were employed in Chicago.

Scheduled hours of work were largely determined on an occupational basis. The great majority of the elevator operators in all cities worked at least 40 hours a week, with a noticeable tendency for men to work a greater number of hours than women. Women cleaners, usually employed at night, frequently were scheduled to work fewer than 40 hours a week. Work schedules of 30 hours a week were prevalent for these workers in Baltimore, Boston, Dallas, Milwaukee, New York, and Philadelphia. The only cities in which a majority of the women cleaners were scheduled to work as many as 40 hours a week were Atlanta, Chicago, Denver, Kansas City, Los Angeles, New Orleans, Pittsburgh, and San Francisco.

Paid vacations for office-building service workers were reported by virtually all of the establishments studied (table 3). A majority of the workers in 13 cities were employed by establishments providing a week's vacation after a year of service, while 2 weeks for a similar period of service was common in 9 cities; vacations of more than 1 but less than 2 weeks were provided by establishments employing a fifth of the workers in Newark and more than half in New York. After 3 years of service, a majority of the

TABLE 2.—Distribution of women cleaners (lightwork) in office buildings, by straight-time hourly earnings,¹ selected cities, summer 1955

City	Total number of workers	Average hourly earnings ¹	Number of workers receiving straight-time hourly earnings of—												
			Under \$0.50	\$0.50 and under \$0.60	\$0.60 and under \$0.70	\$0.70 and under \$0.80	\$0.80 and under \$0.90	\$0.90 and under \$1.00	\$1.00 and under \$1.10	\$1.10 and under \$1.20	\$1.20 and under \$1.30	\$1.30 and under \$1.40	\$1.40 and under \$1.50	\$1.50 and under \$1.60	\$1.60 and over
Atlanta.....	441	\$0.56	103	148	139	37	14								
Baltimore.....	342	.81			102	106	31	72	16				15		
Boston.....	975	1.17					24	42	83	337	489				
Chicago.....	3,646	1.47					7	94	56	43	20	3	3,189	412	11
Cincinnati.....	485	.91			30	64	9	198	56	43					
Dallas.....	481	.77		2	58	364	6	15		34	2				
Denver.....	183	1.13						15		158	10				
Detroit.....	969	1.06				56	16	195	343	238		119	1	1	
Houston.....	573	.86			8	188	231	65	24	54	3				
Indianapolis.....	239	.89				20	137	51	21	3	7				
Kansas City, Mo.....	342	1.07					34	2	259	17		18	3		9
Los Angeles.....	700	1.18					63		72	257	225	3	8	18	54
Milwaukee.....	349	1.06						38	272	39					
Minneapolis.....	487	1.28						6	6		458	17			
Newark.....	224	1.07				20		14	88	67	35				
New York City ²	10,137	1.27						290	1,270	550	3,359	4,258	4	206	200
New Orleans.....	218	.70	10	1	102	56	49								
Philadelphia.....	1,272	1.06							1,094	163	15				
Pittsburgh.....	695	1.23							3	213	474	5			
Portland, Oreg.....	265	1.25									254	11			
St. Louis.....	693	1.04				54	30	65	434	51		3	6	50	20
San Francisco.....	198	1.57												178	
Seattle.....	328	1.37										328			
Washington, D. C.....	661	.78		3	71	270	263	34	19	1					

¹ See footnote 1, table 1.

² Survey limited to Borough of Manhattan.

workers in all cities except Atlanta were employed in establishments that granted a 2-week vacation. Three-week vacations after 15 years of service were provided by building managements employing more than half of the workers in 9 cities.

Paid holidays were granted to almost all workers. Six days a year were granted to a majority of the workers in 14 cities. Five days were the most common practice in Atlanta and Dallas, while a majority of the workers in 5 other cities received 7 days a year. The most liberal provisions were reported in Boston where nearly four-fifths of the workers received 11 paid holidays a year, reflecting the fairly widespread industrial practice in that area. Half of the workers in New York received 9 days and two-fifths received 11 days a year. Two-thirds of the workers in Washington received eight holidays with pay.

Health, insurance, or retirement-pension benefits, financed wholly or in part by the employer, were available in some form to a majority of the

workers in all except four of the cities. Among the several benefits studied, hospitalization insurance and surgical insurance plans were most common; buildings employing a majority of the workers in more than half of the cities reported such plans. Boston, Milwaukee, and St. Louis were the only cities in which a majority of the workers received sick-leave benefits; catastrophe insurance (extended medical coverage) was virtually nonexistent. Types of benefits frequently reported are presented in table 3.

Contract-Cleaning Services

Men cleaners employed by contract-cleaning establishments in 9 large cities had average hourly earnings ranging from \$1.05 in Pittsburgh to \$2.02 in Detroit. Averages for these workers in New York City and Los Angeles were \$1.37 and \$1.39, respectively, at the time of the Bureau's study. The large majority of these work-

TABLE 3.—Percent of production workers employed in office-building service and contract-cleaning services establishments with formal provisions for selected supplementary wage benefits,¹ selected cities, summer 1955

Industry and city	Paid vacations ²					Paid holidays ³				
	Total ⁴	After 1 year's service		After 3 years' service		Total	Under 6 days	6 days	7 days	Over 7 days
		1 week	2 weeks	1 week	2 weeks					
<i>Office-building service</i> (24 cities)										
Atlanta	86	65	13	46	33	74	74			
Baltimore	100	67	33	36	64	100		76	7	17
Boston	100	5	95		100	100		5	10	85
Chicago	100	100			100	100		100		
Cincinnati	100	72	28	38	57	100	18	82		
Dallas	100	31	69		100	100	69	23	8	
Denver	100	83	17	21	79	100		94	6	
Detroit	100	71	29	23	77	100		84		
Houston	100	55	45	38	58	100	15	75	7	(⁵)
Indianapolis	100	82	18	33	67	100		100		
Kansas City, Mo.	100	83	17	9	91	100		92		8
Los Angeles	100	53	47	12	88	100	3	62	31	4
Milwaukee	100	37	63	10	90	100		91		
Minneapolis	100		100		100	100		92		8
Newark	96	42	36	9	87	100		15	57	27
New Orleans	100	46	50	38	58	100	5	62	5	28
New York City ⁶	100	7	17	17	92	100			(⁵)	98
Philadelphia	100	80	20		100	100		8	75	18
Pittsburgh	100		100		100	100		100		
Portland, Oreg.	100		100		100	100		100		
St. Louis	100	74	21	13	81	100		84	100	
San Francisco	100		97		97	100			12	4
Seattle	100		100		100	100			100	
Washington, D. C.	100	55	41	29	70	100	5	20	7	68
<i>Contract-cleaning services</i> (9 cities)										
Boston	83	34	49	10	73	100	10		4	87
Chicago	100	100		19	76	100	7	93		
Detroit	91	91		21	79	48		48		
Los Angeles	98	98		12	86	88		82		6
New York City ⁶	99	⁸ 43		14	85	99			28	72
Philadelphia	100	100			100	100			80	20
Pittsburgh	86	57		⁹ 14	15	86		86		
San Francisco	100		100		100	100			100	
Washington, D. C.	85	85		43	42	90	5	76		8

See footnotes at end of table.

TABLE 3. *Percent of production workers employed in office-building service and contract-cleaning services establishments with formal provisions for selected supplementary wage benefits,¹ selected cities, summer 1955—Continued*

Industry and city	Insurance and pension plans ¹⁰						
	Life insurance	Accidental death and dismemberment insurance	Sickness and accident insurance	Hospitalization insurance	Surgical insurance	Medical insurance	Without health insurance or pension plans
<i>Office-building service (24 cities)</i>							
Atlanta.....	24	10	—	18	6	6	71
Baltimore.....	37	37	29	36	25	36	52
Boston.....	36	14	16	23	19	—	7
Chicago.....	3	—	—	97	97	97	—
Cincinnati.....	34	—	13	41	4	—	47
Dallas.....	44	36	—	65	55	50	23
Denver.....	93	73	75	91	91	86	7
Detroit.....	38	—	34	54	49	17	37
Houston.....	63	40	17	94	94	25	3
Indianapolis.....	26	15	26	51	51	12	49
Kansas City, Mo.....	43	9	15	21	16	16	42
Los Angeles.....	38	15	15	51	46	33	40
Milwaukee.....	27	27	31	68	62	62	9
Minneapolis.....	—	—	—	97	97	97	3
Newark.....	47	14	14	53	53	—	31
New Orleans.....	45	30	—	40	40	31	55
New York City ⁴	95	15	96	99	99	36	—
Philadelphia.....	92	8	4	79	22	80	4
Pittsburgh.....	100	85	91	91	91	13	—
Portland, Oreg.....	22	—	22	100	100	100	—
St. Louis.....	43	11	11	21	21	10	40
San Francisco.....	100	100	—	100	100	100	—
Seattle.....	100	100	100	100	100	100	—
Washington, D. C.....	28	5	10	29	29	20	54
<i>Contract-cleaning services (9 cities)</i>							
Boston.....	40	—	40	40	40	—	60
Chicago.....	12	27	26	86	86	79	14
Detroit.....	25	—	79	79	—	—	21
Los Angeles.....	72	72	—	75	75	75	25
New York City ⁶	44	5	91	80	68	36	9
Philadelphia.....	100	100	100	100	100	100	—
Pittsburgh.....	86	24	100	71	49	49	—
San Francisco.....	100	100	—	100	100	100	—
Washington, D. C.....	—	—	—	—	—	—	100

¹ Supplementary wage benefits were treated on the basis that if formal provisions in an establishment were applicable to half or more of the workers the benefit was considered applicable to all workers. Because of length of service and other eligibility requirements, the proportion of workers currently receiving the benefits may be smaller than estimated.

² Vacation payments such as percent of annual earnings and flat-sum amounts are converted to an equivalent time basis.

³ Limited to full-day holidays provided annually.

⁴ Includes provisions in addition to those shown separately.

⁵ Less than 2.5 percent.

⁶ Survey limited to Borough of Manhattan.

⁷ 57 percent of the workers were employed in establishments providing over 1 and under 2 weeks.

⁸ 56 percent of the workers were employed in establishments providing over 1 and under 2 weeks.

⁹ 42 percent of the workers were employed in establishments providing over 1 and under 2 weeks.

¹⁰ Includes only those private plans for which at least a part of the cost is borne by the employer and excludes legally required plans such as workmen's compensation and social security.

NOTE.—Due to rounding, sums of individual items do not necessarily equal totals.

ers were employed during the evening hours, and for the most part, received the same pay rate as day-shift workers. Women lightwork cleaners earned substantially less than men cleaners in each of the cities permitting comparison. Generally, the heavier cleaning duties were assigned to men, whereas women usually performed lighter tasks.

Men window washers averaged considerably more than men cleaners in each city. The wage differential amounted to approximately 80 cents an hour in Los Angeles and New York.

Establishments were classified as union establishments if more than half of the service workers were employed under the terms of labor-management

agreements. On this basis, virtually all of the contract-cleaning service workers within the scope of the study in Philadelphia and San Francisco were employed in union establishments; 70 to 80 percent in Chicago, Los Angeles, and New York; 50 to 60 percent in Boston and Detroit; and less than half of the workers in Pittsburgh and Washington, D. C. With only a few exceptions, labor-management agreements were negotiated with the Building Service Employees' International Union (AFL).

Three-fourths of the 19,000 workers covered by the study were employed as cleaners; three-fifths of these were men. Window washers accounted for a tenth of the total work force and were nearly all men.

Short workweeks were characteristic of the industry in nearly all of the cities. The majority of the women cleaners in Boston, Detroit, New York, Philadelphia, and Pittsburgh normally worked 25 to 30 hours a week; in Chicago, a 35-hour week was typical; and in San Francisco, all women cleaners worked 40 hours. A majority of the men cleaners in Chicago, New York,

Philadelphia, and Pittsburgh worked 40 hours a week, but shorter workweeks were prevalent in Boston, Detroit, and Los Angeles.

Paid vacations, paid holidays, and various types of health, insurance, and pension plans were available to a majority of the workers. (See table 3.)

—ALEXANDER MOROS

Division of Wages and Industrial Relations

State Labor Legislation in 1955

SUBSTANTIAL PROGRESS was made in several areas of labor legislation when the legislatures of 45 States and the 3 Territories convened in 1955. As in former years, the greatest activity was in workmen's compensation and unemployment insurance legislation.¹ Minimum-wage laws were adopted for the first time in 3 States and existing laws were strengthened in 5 other jurisdictions. In fact, more progress was made this year in State minimum-wage legislation than in any year since 1937. Also, equal-pay laws were passed for the first time in 3 States, and mandatory fair employment practice acts in 3 States. Occupational safety programs were strengthened in seven jurisdictions. Five States took steps to improve the conditions of migratory agricultural workers. Assistance to older workers in finding jobs will result from laws in four States—Michigan, New York, Pennsylvania, and Ohio.

Wages

Minimum-wage legislation was passed this year in 6 States and 2 Territories. Idaho, New Mexico, and Wyoming passed minimum-wage laws for the first time; these laws apply to men as well as women and set a statutory 75-cent-an-hour minimum-wage rate. Nevada, New Hampshire, and Massachusetts, as well as Alaska and Hawaii, made major improvements in their laws. These laws apply regardless of sex except the Nevada statute, which applies to women and minor girls only.

Alaska replaced its former law, which applied to women only, with a new law applying to men, women, and minors. It sets a minimum-wage rate of \$1.25 an hour, and requires time and one-half after 8 hours a day or 40 hours a week. Statutory hourly minimum rates were increased in Hawaii from 65 to 75 cents for Honolulu City and County, and from 55 to 65 cents elsewhere in the Islands; and in New Hampshire from 65 cents to 75 cents. In Massachusetts, effective April 1, 1956, the general statutory minimum-wage rate will be 90 cents and the minimum which may be set under wage orders will be 55 cents for service industries and 75 cents for other occupations. At present, these rates are 75, 50, and 65 cents, respectively. The Nevada act was amended to increase the minimum from 75 cents to 87½ cents for women 18 years of age and over, but the 75-cent-an-hour minimum for girls under 18 was retained.

Twenty-nine States, the District of Columbia, and the three Territories now have minimum-wage laws. In 8 States and the 3 Territories, the laws apply to men as well as women. (See table.)

Three States—Arkansas, Colorado, and Oregon—passed equal-pay laws, whereby men and women employed on the same or equivalent jobs by an employer shall receive the same wage or salary rate. Seventeen jurisdictions now have such laws.²

Wage-payment laws, requiring workers to be paid at regular intervals, were improved in three

¹ See Monthly Labor Review, November 1955 (p. 1245) for article on workmen's compensation legislation enacted in 1955. An article on new unemployment insurance legislation is scheduled for the January 1956 issue.

² Alaska, Arkansas, California, Colorado, Connecticut, Illinois, Maine, Massachusetts, Michigan, Montana, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, and Washington.

*States and Territories having minimum-wage laws applying to both men and women*¹

State or Territory	Statutory minimum rate	Authorization for setting rates under wage-board procedure
Alaska.....	\$1.25 an hour.....	Not authorized.
Connecticut.....	75 cents an hour.....	Authorized.
Hawaii.....	75 cents an hour in city and county of Honolulu, 65 cents elsewhere.	Not authorized.
Idaho.....	75 cents an hour.....	Do.
Massachusetts.....	90 cents an hour; except that under wage orders minimum rates of 55 cents an hour for service occupations and 75 cents for other occupations may be set.	Authorized.
New Hampshire.....	75 cents an hour; except 70 cents for laundry employees, nurses' aides, or practical nurses, and 65 cents for theater ushers and pinboys in bowling alleys.	Authorized for women and minors, but not for men.
New Mexico.....	75 cents an hour, except 50 cents for "service" employees as defined.	Not authorized.
New York.....	No statutory minimum.....	Authorized.
Puerto Rico.....	do.....	Do.
Rhode Island.....	do.....	Do.
Wyoming.....	75 cents an hour.....	Not authorized.

¹ Minimum-wage laws in the following jurisdictions apply only to women and minors or to women and minor girls: Arizona, Arkansas, California, Colorado, Illinois, Kansas, Kentucky, Louisiana, Maine, Minnesota,

Nevada, New Jersey, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Utah, Washington, Wisconsin, and the District of Columbia.

States. A new Oklahoma law extended coverage considerably, bringing in retail stores for the first time. The act also required an employer to pay an employee all wages due him at the time he is discharged, or 5 days after demand if he resigns. The Missouri law requiring semimonthly paydays was extended to all employees of corporations and railroads—except for executive and professional employees, as well as sales persons and others employed on a commission basis, who may be paid monthly. In New York, an amendment required that salesmen on commission receive regular monthly payments.

Discrimination in Employment

Three new fair employment practices acts were passed this year—in Michigan, Minnesota, and Pennsylvania. Such acts are designed to prevent discrimination in employment because of race, creed, color, or national origin. The new acts were all mandatory, covering private employers of 8 or more in Michigan and Minnesota and of 12 or more in Pennsylvania. These statutes prohibit

³ Connecticut, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Washington, and Alaska.

⁴ Colorado, Indiana, Kansas, and Wisconsin.

certain discriminatory practices, and create State fair employment practices commissions to administer the provisions.

In Iowa, the Legislature adopted a resolution directing the Governor to appoint a commission to study the problem of discrimination in the State and to recommend remedies.

With adoption of the Michigan, Minnesota, and Pennsylvania acts, 12 jurisdictions³ now have mandatory acts of this type, and 4 other States⁴ have antidiscrimination acts that depend primarily upon educational means to accomplish results.

Occupational Health and Safety

New occupational safety legislation will strengthen the accident prevention programs in six States and Hawaii. Three States established new safety divisions. Maryland created a Division of Industrial Safety within the Department of Labor and Industry to carry on safety activities previously divided between the Department and the Industrial Accident Commission. A tripartite Occupational Safety Advisory Board was also created, to formulate and propose to the Commissioner of Labor rules and regulations for accident prevention and reporting. Maine created a

Board of Safety Rules and Regulations to adopt safety codes, after public hearing, for the construction industry. The act also gave the Labor Commissioner the right of entry to the site of construction activities for safety inspections and rules enforcement. Nevada established a special Department of Industrial Safety, within the Industrial Commission, to administer that agency's industrial safety functions, including the authority to issue rules and regulations to protect the life and safety of employees. The act specified, for the first time, that hearings must precede adoption of such rules. It also specifically authorized the Commission to employ safety inspectors.

Hawaii also authorized the employment of safety personnel, specifying that at least 2 industrial safety engineers and 5 industrial inspectors shall be hired. In addition, the amendment provided that places of employment, as well as machines or equipment, may be tagged as unsafe and their use prohibited until made safe. A Minnesota act prohibited the lending or leasing of any machine or mechanism on which points of danger are not guarded, as well as the manufacture or sale of such unguarded machines.

Two States amended their laws relating to safety and sanitation by extending their application to additional establishments. The Massachusetts law authorizing the Labor Commissioner to adopt sanitary regulations for certain establishments was made applicable also to garages, building or construction projects, and premises used by express, trucking, or transportation companies. In New Hampshire, "commercial establishments," as well as manufacturing or mercantile establishments, must now keep first-aid chests available for use, maintain sanitary conditions, and provide safeguards for machines.

Migratory Labor

Several State legislatures gave attention to improving the conditions of migratory agricultural workers. A comprehensive act was passed in Washington regulating farm-labor contractors. These contractors must obtain a license from the Department of Labor and Industries, and, when applying for the license, provide facts both about their character and their proposed method of oper-

ation. The Director may revoke a license or refuse to renew it if a contractor violates any State law regulating employment in agriculture, payment of wages, or conditions affecting farmworkers' health and safety. Contractors are prohibited from making false representations, transporting workers to places where a strike or lockout exists, or engaging in certain other practices.

Three States—Michigan, New York, and Texas—provided for study commissions to undertake or continue the exploration of problems of migratory agricultural workers.

Improved schooling opportunities for children of migratory workers in New York should result from an amendment to the State school code, permitting district boards of education to transfer funds to adjoining school districts in which children from migrant-labor camps are provided educational facilities.

Child Labor

While no comprehensive child-labor acts were passed in 1955, amendments were made to child-labor and school-attendance laws in about a third of the States.

Ten States improved standards relating to hours of work, hazardous employment, or required school attendance.

The maximum workweek for minors under 16 years of age was reduced from 44 to 40 hours in New York; 12 States and 3 Territories now set a maximum 40-hour week for children under the age of 16. In Massachusetts, boys were prohibited from working in street trades between 8 p. m. and 6 a. m., instead of between 9 p. m. and 5 a. m. In Delaware, children under 16 may no longer work until midnight in bowling alleys; the 7 p. m. nightwork regulation applicable for most other employment was reinstated for such work. In Ohio, various provisions which have been in effect the last few years on a temporary basis were made permanent. These include a minimum age of 18 for a considerable number of hazardous occupations, such as the operation of power-driven woodworking machines, logging and sawmilling occupations, and occupations involving exposure to radioactive substances. Nebraska prohibited the sale of liquor in a public place by any minor,

and Tennessee added work in canneries to the hazardous occupations prohibited for minors under 18 years old. Maine set 16 as the minimum age for all employment in theaters except as actors.

In Montana, the minimum age for employment during school hours was raised from 14 to 16, through an amendment to the school-attendance law. South Dakota deleted from its school-attendance law the former provision permitting children under age 16 who had completed the sixth grade to be excused from school for not more than 40 days between April 1 and November 1, if needed at home. Illinois increased its minimum school term from 8 to 9 months.

Child-labor and school-attendance standards were substantially lowered in Utah and South Carolina. In Utah, an amendment to the child-labor law reduced to 14 years its long-standing 16-year minimum age for work in factories at any time and for most employment during school hours. It also reduced from 14 to 10 years the minimum age for work outside school hours in agriculture, and from 12 to 10 the minimum age for employment as caddies or newsboys. Children of 14 or 15 may now operate power-driven farm machinery either for, or with the consent of, their parents. In South Carolina the entire school-attendance law was repealed.

Certain child-labor standards were lowered in a few other States. In Delaware, boys between 12 and 16 and girls between 14 and 16 may now work in street trades until 9 p. m. on Friday, Saturday, and during vacations instead of until 7 p. m. In Oklahoma, an exemption was enacted to its prohibition of work after 6 p. m. by boys under 16 and girls under 18. Now, boys of 15 and girls 15 to 18 may work as cashiers, ushers, or in concession stands in theaters until 11 p. m. Puerto Rico lowered from 14 to 12 its minimum age for work as newsboys, while in Wisconsin boys of 12, rather than 14, may now be employed as caddies, if they use caddy carts.

A number of States amended their laws regulating hours of work for women. Most of these laws apply also to girls aged 16 and over, or in some cases to minors of 16 and 17, as well as women.

⁵ Arkansas, Delaware, Maine, Massachusetts, Nebraska, New York, Ohio, and Vermont.

Hours and Related Standards for Women

Eight States amended their women's hours laws.⁵ Maine extended coverage of its 9-hour-day, 54-hour-week provision to commercial amusement places.

Nebraska, Massachusetts, and Arkansas provided for exemption from the meal-period requirement in certain establishments where continuous operations are necessary. The Vermont provision permitting women and minors of 16 and 17 to work 10 hours a day and 60 hours a week for 10 weeks a year was amended to eliminate the requirement that the 10 weeks be consecutive. In Ohio, the maximum 8-hour day for women aged 18 and over was amended to permit officeworkers to be employed 10 hours on 1 day each week, if such time is within 12 consecutive hours, while the 10-hour span for women employed in restaurants was increased to 12 hours. The weekly maximum for manufacturing establishments was increased from 45 to 48 hours.

In New York, the nightwork prohibition for women 16 years of age and over was amended to reinstate the exemption for certain employees, including writers and reporters in newspaper offices. The Delaware nightwork prohibition applying to women aged 16 and over was repealed. Ohio modified its prohibition against women taxicab drivers to make the prohibition apply only to nightwork. Ohio laws regulating women's employment in delivery service or handling heavy materials were also modified. Suitable seats for female employees must now be provided in commercial establishments in New Hampshire, as well as in other specified establishments, as a result of a 1955 amendment to the occupational health and safety law.

Emergency Relaxations

Acts authorizing temporary relaxations of certain laws during emergencies were extended for 1 or 2 years in 4 States. The Massachusetts act, permitting relaxations for minors 16 years of age and over, and for women, was extended for 1 year, as was the New York act that authorizes dispensations for persons of both sexes aged 16 and over. The California act authorizing the Govern-

nor to issue permits relaxing the maximum hours-of-work standards for women was extended for 2 years. In addition, the North Carolina act authorizing the Governor to suspend or modify its labor laws during a war period was made applicable also during a period of threatened war, and its operation extended for 2 more years.

Industrial Relations

Although efforts were made in over a fourth of the States to enact so-called "right to work" laws, these efforts were defeated in all the States but Utah. Eighteen States now have such laws.⁶ The Kansas Legislature passed a "right to work" act, but it was vetoed by the Governor. However, that State's labor-management relations act was amended to include a prohibition against closed-shop agreements. Union shops are permitted, as formerly, upon majority vote of the employees.

Other amendments to the Kansas labor relations act included the listing of additional unfair labor practices both for employers and for employees. Employers were prohibited from employing labor spies, and from making the checkoff without an individually signed order from each employee. Employees were prohibited from participating in a strike until a strike vote was held. The Minnesota labor relations act was amended to eliminate its provisions relating to strike notices and to provide instead a procedure under which the State labor conciliator is petitioned to take jurisdiction 10 days before a proposed strike or lockout becomes effective. In Texas, unions not representing a majority of the employees were prohibited from striking or picketing; the law further authorized the trial judge, if in doubt, to hold an election to determine if the union in any particular case actually represents a majority of the employees.

New Hampshire prohibited unions, along with other associations and corporations, from making contributions to political campaigns. Wisconsin, which already prohibited associations and corporations from contributing to political campaigns, extended this prohibition specifically to unions. Indiana and Pennsylvania have similar laws, while Texas prohibits contributions only from unions. In Ohio, a resolution was passed directing the Legislative Service Commission to appoint a

committee to investigate union contributions to political campaigns.

In Maine, an amendment to the act which set up the State Board of Arbitration and Conciliation stated specifically that the Board was responsible for furthering harmonious labor-management relations in the State, and authorized it to serve as a board of conciliation, a board of arbitration, or a board of inquiry.

Unions may now sue in their own names in Rhode Island on behalf of individual members in actions arising out of employer violation of a collective bargaining contract. Rhode Island also made it clear that employers advertising for workers while a strike or lockout is in existence must state this fact in type as large as the largest print in the advertisement. Connecticut specified the size of type for such statements.

Michigan, Ohio, and Texas each provided for a study of the problems arising in labor-management relations.

Older Workers

Legislation aimed toward improvement of employment opportunities for older workers was enacted in Michigan, New York, Ohio, and Pennsylvania. Michigan authorized the establishment of a division in each employment service office whose sole function shall be to secure suitable employment for persons over 65 years of age. New York appropriated \$50,000 to its labor department to be used solely for employing job counselors and interviewers for persons over 45 years of age. A resolution adopted in Ohio requested the Legislative Service Commission to survey the employment of older workers in that State and devise methods of increasing their employment opportunities.

In passing a fair employment practices act this year, Pennsylvania added a ban on discrimination against persons between the ages of 40 and 62.

Other Significant Legislation

Several States passed new laws or amendments this year dealing with time off to vote. Alaska and Hawaii enacted laws allowing workers time off

⁶ Alabama, Arizona, Arkansas, Florida, Georgia, Iowa, Louisiana, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Utah, and Virginia.

from work to vote with no loss of pay. These two laws, and amendments to the laws of Iowa, Nevada, and South Dakota, followed the recent trend toward allowing such time off only if there is insufficient time to vote outside working hours. The Colorado law applies to both municipal and general elections, and the Wyoming law to general elections as well as to primaries. Nevada added a provision specifying that there should be no loss of pay for time taken to vote, whereas Wyoming repealed such a provision.

A new Washington law prohibited common carriers by rail from requiring any employee or applicant for employment to pay the cost of a

medical examination or the cost of furnishing any records required by the employer as a condition of employment.

The Massachusetts industrial homework law was amended to eliminate any reference to independent contractors and to prohibit homework unless the employer maintains a plant or factory in the State. It also required a record of the hours worked by the employees and increased the schedule of fees for the renewal of employers' permits.

—**BEATRICE McCONNELL**
Bureau of Labor Standards

Foreign Labor Briefs*

Co-determination for Government Workers in West Germany

THE EXTENT of "co-determination" in West Germany was broadened by the personnel representation law for Government workers, which became effective September 5, 1955. Co-determination denotes a system of worker-management cooperation, unique to West Germany, providing for employee participation in administrative decisions. This concept of labor-management relations had its first application in 1951 with the enactment of a law providing representation for workers in the iron, steel, and coal industries. Workers in all other private industries were covered by the general co-determination law enacted in 1952.¹ The new law covers 900,000 Federal civil-service employees, as well as 1.3 million workers employed by State and local governments, public enterprises, and Government-owned corporations.

The system of personnel representation provided in the new law consists essentially of Personnel Councils, each composed of 5 to 25 worker representatives, which are established at various administrative levels in Government agencies. Functions of the councils include implementation of labor laws, collective agreements, and administrative regulations; handling of grievances; and participation in certain social and personnel decisions, either on the basis of "cooperation" or "co-determination".²

Decisions subject to "cooperation" can be reached only after discussions between Government officials and the Personnel Council at a particular administrative level. Disagreements are referred for final decisions to the Government authorities and the Personnel Council at the next higher level. This procedure applies to most personnel actions affecting civil-service officials (e. g., upgrading, downgrading, transfer, hiring, and notice of termination), and to some personnel actions relating to wage and salaried workers³ (e. g., hiring, notice of termination, and temporary

transfer), as well as on "social" matters affecting all workers such as family allowances, accident prevention, and allocation of Government housing.

Under "co-determination," however, unresolved disputes are referred to Government authorities and Personnel Councils at successively higher levels, and then, at the highest level, to a Conciliation Board of three for final determination. Co-determination is applicable to certain "social" decisions affecting all workers (e. g., those concerning scheduled work hours, rest periods, time and place of wage payment, vacation schedules, vocational training, administration of welfare programs, and determination of piece and job rates) and to personnel decisions relating to upgrading, downgrading, and permanent transfers for wage and salaried workers only. However, certain issues concerning the composition and conduct of the Personnel Councils are referred directly to the established Administrative court system if disputes arise. These include the right of workers to vote or hold office, election procedures, terms of office, competence of council members, and the implementation of plant agreements.

Final enactment of the 1955 law was preceded by a legislative battle of more than 3 years, due to strong union opposition and differences of opinion among the Government's political parties. Although the law incorporated only minor concessions to the union point of view and was termed "antilabor" by a German Trade Union Federation (DGB) leader, it appears that the unions are prepared to cooperate in its administration.

Several factors account for trade union disappointment with the law. The major objection is that it falls far short of giving workers effective control over personnel policy. For Germans, this is a political, as well as an economic issue, since workers feel that disloyalty of the civil-service staff was one of the major factors leading to

*Prepared in the Bureau's Division of Foreign Labor Conditions. Based on Foreign Service reports and information from other American and foreign sources.

¹ For a historical review of co-determination and descriptions of the 1951 and 1952 laws, see *Monthly Labor Review*, December 1951 (pp. 649-656), and April 1953 (pp. 393-395).

² These councils are analogous to works councils in private industry which were provided under the 1951 and 1952 laws.

³ Civil-service officials (Beamte), salaried workers (Angestellte), and wage earners (Arbeiter) are distinct groups in the Government's labor structure, and are subject to separate wage and employment regulations. The first 2 groups have separate union organizations outside the German Trade Union Federation (DGB). However, the DGB organizes civil-service officials and salaried workers, in addition to the wage earners who comprise the bulk of its membership.

collapse of the Weimar Republic. Hence, they are concerned over the fact that worker participation in labor-management relations has been successively more restricted with each co-determination law. Specifically, they point out that the law covering the iron, steel, and coal industries departs substantially from the original concept of co-determination in that it makes no provision for participation by federal or provincial economic councils in overall economic policy decisions of the Government. The general co-determination law of 1952, in turn, is far weaker than its predecessor. It limits worker representation, and excludes trade union representation, on boards of directors and fails to provide for the appointment of personnel directors from labor's ranks. Finally, under the new law, worker influence is still further weakened by the absence of worker representation in management activities except through the Personnel Councils.

Also, the DGB argues that the new legislation permits it a lesser role in labor-management "cooperation" than it has in works councils in private industry. It points to the fact that unions cannot submit candidate lists for elections to the Personnel Councils or call council meetings, or even be admitted to such meetings without majority approval by the council membership (approval by one-fourth of the membership is required under the general co-determination law).

The DGB, which seeks to organize all Government workers, contends also that the law has strengthened the organizing appeal of rival unions representing civil-service officials and salaried workers. The traditional class consciousness, which is firmly embedded in the German official structure, is particularly acute among German civil-service employees. For these reasons the DGB was opposed to a separate co-determination law for Government workers and different court jurisdiction, i. e., the referral of disputes involving the Councils' composition and conduct to the established Administrative court system rather than to the quasi-legal Labor Courts as under the first two co-determination laws. They argued that it was inconsistent to subject workers to different legal procedures in situations involving essentially similar issues, and deplored the emphasis in the law on *group* (i. e., civil-service officials, salaried workers, and wage earners) rather than *joint* elections, representation, and decisions.

Recent Developments in Greek Labor Policy

ADOPTION OF A PROGRAM designed to facilitate free collective bargaining and the reliance on labor-management-Government consultations to resolve labor problems highlighted developments in the Greek Government's labor policy in 1955. Late in 1954, the Government had defined its labor policy, through the medium of an economic policy statement by the Minister of Coordination, as follows:

1. The Government recognized the principle of free trade unionism, which presupposed the Government abstention from any intervention in the affairs of the trade unions.
2. The Government would consult with the General Confederation of Greek Labor (GSEE) and Greek employers on labor matters. For this purpose, a tripartite advisory committee would be established.
3. Minimum wage rates would be increased.
4. Recent labor legislation would be reviewed and, if desirable, amended.

The Government took a number of steps early in 1955 to carry out these objectives. The legal daily minimum wage rates for all nonagricultural workers were increased in January. The Government consulted occasionally with the GSEE and Greek employers on its labor program, and considered their views in arriving at decisions. Existing laws were examined, and several legislative proposals were introduced, including the Collective Bargaining Act passed by Parliament in May. The law established permanent machinery for labor-management-Government consultations on labor problems and enunciated the principle that collective bargaining should be restricted to labor and management.

In June, Minister of Labor Andreas Stratos stated to United States Department of Labor officials attending the 38th ILO Conference in Geneva that the new law justified "full optimism for the development of mutual confidence for a better organization of the economic life of our country." He pointed out that two major elements are conducive to this purpose:

1. The collective bargaining system is improved in the light of the new law, which establishes a really free bar-

gaining system, and provides that the State, in exceptional cases, has the right to intervene when the public interests are affected.

2. The tripartite National Consulting Board for Social Policy will be the instrument through which the formulation of governmental policy, on a sound basis, coordinated with the views of the employers and the workers, may be expected.

Both labor and industry officials have been optimistic regarding the new labor program's potential for improving labor-management-Government relations. The new tripartite arrangements provide for a high level committee of five members each from Government, industry, and labor. The committee will advise on industry and nationwide collective agreements and will formulate minimum substantive standards for local agreements. It

will also consider other labor problems, such as safety measures and social security.

With the death of Premier Papagos in October and the subsequent formation of a new Cabinet which included a new Minister of Labor, implementation of the new law is uncertain. Greek Government officials credit a number of recently negotiated collective agreements to the effectiveness of the law.

A fairly extensive period of testing will be needed before a final appraisal can be made of the effectiveness of the new labor program. Meanwhile, however, the spirit of cooperation expressed by all three parties points to the possibility of definite progress in industrial relations within a reasonable period of time.

Philippine Minimum Wage Law and Real Wages

THE Philippine Minimum Wage Law of 1951, because of determined opposition, was not enforced vigorously until the pro-labor Magsaysay administration came into office late in 1953. In 1954, the Wage Administration Service secured for worker claimants a total of 1.5 million pesos in wage restitutions. This prompted a strong movement, led by former Agricultural Secretary Araneta, for downward revision of the law's wage standards, especially for agricultural labor. He contended that the law had intensified unemployment and interfered with industrialization. However, President Magsaysay reported to the Philippine Congress early in 1955:

I would like to reiterate my conviction that only the most compelling reasons clearly related to the national interest could justify changes in the Minimum Wage Law. This administration will not lightly regard any action that may adversely affect the workmen's continuing struggle for a decent life.¹

A presidential committee, which had been appointed to hear testimony on the effect of the Minimum Wage Law, did not recommend its revision and the Philippine House Committee on Labor decided not to report out any of 11 proposed

bills to amend the law. In August 1955, however, the Philippine Congress passed a public works appropriation bill with a rider which would permit payment of 2.5 pesos (the current daily minimum wage for agricultural labor) in rural public works projects instead of the 4 pesos required for such projects under the Minimum Wage Law. The trade unions urged President Magsaysay to veto the legislation, claiming that the rider would reduce wage standards. Proponents of the rider termed it an unemployment relief measure, pointing out that at the lower wage the Government could hire many more workers. The measure became law shortly thereafter without the President's signature.

From 1951, when the Minimum Wage Law became effective, through 1954, the purchasing power of wages (in 1941 dollars) for skilled workers increased 16 percent and that for unskilled workers, 21 percent, as shown in the accompanying table.

*Daily wage rates for workers in Manila, 1951-54*¹

Year	Money wage rates (pesos) ²		Real wage rates ³ (pesos)	
	Skilled	Unskilled	Skilled	Unskilled
1951.....	7.13	4.63	1.98	1.29
1952.....	7.25	4.95	2.10	1.43
1953.....	7.40	5.09	2.27	1.56
1954.....	7.44	5.03	2.30	1.56

¹ Statistical Bulletin, Central Bank of the Philippines, December 1954 (p. 218).

² 1 Philippine peso = 50 U. S. cents.

³ Real wages represent the purchasing power of money wages, taking account of changes in the cost-of-living index.

¹ Report on the State of the Nation, President Magsaysay, January 25, 1955 (p. 11).

Technical Note

Accuracy of BLS Current Estimates of Employment*

STATISTICS ON EMPLOYMENT are under constant scrutiny, for the trends they reflect are among the leading economic indicators. Private and governmental analysts, planners, and executives rely on the BLS monthly series of nonagricultural employment for current measurement on an industry basis. It is therefore important to know how accurate these estimates of employment are. That is, How much do they differ from a "true" count based on the same conceptual definition of employment?

Theory of Error

The question just asked implies that the error of the current estimate is to be determined through (1) agreement on a conceptual definition of employment, (2) knowledge of a "true" figure, and (3) adoption of the convention that the difference between an accepted "true" figure and the estimate shall be identified as error in the estimate. At least two difficulties in applying this definition of error are evident immediately. One is the question of concepts of employment. We shall assume in this discussion that concepts have been agreed upon.¹ The other difficulty is that the "true" count is unknown. Even an attempted census, conducted with the most skilled enumerators, and with unlimited access to all records, would yield an imperfect count. We have never had an entirely accurate complete enumeration, and probably never shall. Therefore, in trying to answer these questions, we must be content with some approximation of the "true" count.

There are at least seven major sources which contribute to total error in any statistical sample survey. The most widely publicized of these is sampling error; that is, the degree to which plants

selected for the particular sample are not representative of all plants in the universe.

All other sources may be listed under the general heading of measurement error. These include especially (1) deviations from original concepts in the framing of instructions to respondents for reporting; (2) biases that may arise because the universe being measured is itself dynamic, and even a changing sample may not reflect adequately all changes that occur in membership of the universe; (3) errors in classification, e. g., placement of a plant in the wrong industry; (4) response error, which encompasses both misinterpretation or mistakes in reporting and imperfect estimates made by the respondent because his records are incomplete; (5) nonresponse biases which might arise from refusal or from delinquency in reporting; and (6) statistical processing errors, which include faulty estimating procedure, improper editing of reports, and computational mistakes.

For many types of samples, an elaborate mathematical analysis has been developed for use in determining and controlling sampling error. This analysis relies chiefly on probability theory, and makes it possible to quantify, with a considerable degree of satisfaction, the probable representativeness of the sample. Theoretical analysis of measurement errors is being developed on a good many fronts, but is as yet much less adequate than sampling theory. The result is that today a published statistic frequently is accompanied by an estimate of sampling error or variance; but very rarely by any evidence of expected size of other types of error. The treatment of error which will be presented here is one designed to encompass not only sampling error, but also a large part of measurement error.

*Prepared by Walt R. Simmons and John P. Wymer of the Bureau's Division of Manpower and Employment Statistics.

¹ A Federal interagency committee, with the advice of many public and private organizations, has been reviewing this aspect of the problem over the past year and expects to submit a report in 1956.

The BLS Employment Series

To understand the procedure used in calculating the errors of the BLS estimates, it will be useful to review briefly the nature of the program and the method of preparing estimates.² These are published each month for the entire nonfarm segment of the economy, for 200 separate industries within that segment, and for about 50 combining groups of industries. These estimates are part of a cooperative Federal-State current employment statistics program. They rest upon reports submitted by 155,000 of the Nation's 4 million business establishments, which employ approximately 16 million persons, or about one-third of all nonfarm workers.

Employment data for the pay period ending nearest the 15th of the month are collected on a "shuttle" questionnaire from the 155,000 establishments. The form provides space for entering data for 12 months. Employers are asked to report immediately after they complete their payroll records for the pay period requested, in order to minimize reporting error. Entering data for the current month on the line below those for the previous month also helps to insure comparability.

Data on these schedules for establishments which reported for both the current and previous months are used to calculate the ratio of employment in the current month to that in the previous month. The ratio for an industry for the current month of, say, August might, for example, be 1.015, meaning that employment had increased 1.5 percent between July and August. The ratios, or link relatives, for succeeding months are chained together by multiplication in order to show the change over two or more months. If, for example, the relative for this industry for September were 1.032, the chained relative for September would be 1.015 times 1.032 or 1.047, showing employment to have increased by 4.7 percent over the 2-month period.

The relatives are converted to estimates of numbers of employees by multiplying the chained relatives by an initial "benchmark" from another source. The overall estimating procedure is accordingly called a benchmark and link relative technique.

A benchmark is an attempted complete count or an estimate (generally based on more complete

data than can be obtained on a current basis) of the number of workers in an industry as of a given date or during a stated period of time. It is the number which is accepted in *lieu* of the unknown "true" figure. For each industrial sector the BLS seeks the best available count or estimate, relying primarily upon data from tax returns under the social security system, as shown in the following tabulation of sources:

Source of benchmark	Percent of total benchmark
All sources.....	100
State unemployment insurance (UI) tax returns....	73
Federal FICA tax returns (old-age and survivors insurance).....	7
U. S. Bureau of the Census, Division of Governments (State and local governments).....	9
U. S. Civil Service Commission (Federal Government).....	5
Interstate Commerce Commission (railroads).....	3
Miscellaneous (American Hospital Association, National Catholic Welfare Conference, U. S. Office of Education, National Income Division of the U. S. Department of Commerce).....	3

Ordinarily, averages of these data for the first calendar quarter of each year are used as benchmarks. The Federal FICA tax return is used for small firms which are covered by that tax but which are not covered by the UI tax. Beginning in 1956, changes in UI coverage will increase the proportion of the total benchmark accounted for by the UI tax returns to 76 percent and reduce the FICA portion to 4 percent.

Error and Discrepancy

The availability of annual employment benchmarks makes it possible to observe for an industry category the discrepancy between a new benchmark and the BLS estimate for the same period. Discrepancy is a better term than error of estimate to use in labeling the observed difference, because the difference encompasses mistakes of measurement in the benchmark as well as errors in the current estimate. Error of estimate, on the other hand, refers to the difference between the unknown "true" employment and the estimate. It differs from the discrepancy by the amount that the "true" employment differs from the benchmark.

² For greater detail on this point, see Techniques of Preparing Major BLS Statistical Series, BLS BuL 1168 (pp. 42-49), and Monthly Labor Review, September 1953 (pp. 968-973).

A measurement error which occurred in both the benchmark and the estimate by the same amount would not appear in the discrepancy.

Adjustment and Revision

In 1947, BLS overhauled and expanded its employment program, and adopted a system of annual checking of all series against new benchmarks. Each year, the sample estimates are compared with new benchmarks and discrepancies are studied, industry by industry. Depending on the size of the overall discrepancy, the sizes of discrepancies for individual industries, and the probable reasons for the observed differences, a decision is made either to adjust to the new benchmark and issue revisions of earlier estimates or to wait until the next year to adjust and revise. The "normal" decision is to make the adjustment. However, if the discrepancies are mostly trivial, it seems wiser not to make an irritating but inconsequential revision. Moreover, if there is reason to doubt the comparability of benchmarks in individual industries in 2 adjacent years, adjustments have not been made to that particular set of benchmarks in order to reduce the number of discontinuities that otherwise would be introduced into the series. The result of these reviews has been to adjust to the benchmarks of 1951, 1953, and 1954. Preliminary investigation indicates that adjustment will be made to 1955 benchmarks.

When an adjustment is made to a new benchmark, the level of the series is changed to that of the benchmark at the benchmark date. The adjustment is said to be "wedged back to zero at the previous benchmark"; that is, a revised series is prepared under the assumption that the discrepancy grew at a uniform rate during the period between the two benchmarks. To illustrate, if the estimate for a particular series 1 year after adjustment to the previous benchmark was 100,000 while the new benchmark was 112,000, the discrepancy would be 12 percent. The series would be revised upward by 1 percent in the first month following the previous benchmark period, 2 percent in the second month, and so on, with the revision reaching 12 percent at the new benchmark. The objective of this technique is to preserve as nearly as possible the original trend while still incorporating the evidence of the new benchmark.

Magnitude of Discrepancies

Overall Discrepancy. For total nonfarm employment, the discrepancy accumulated since the previous adjustment has averaged about one-half percent per year. In only 1 year since 1947, namely the interval from the 1950 check to the 1951 check, has the newly accumulated discrepancy been as much as 1 percent (table 1).

TABLE 1.—Discrepancy between BLS current estimate of total nonfarm employment and benchmark data, first quarter, 1948-54

Year	Discrepancy accumulated—		Years since previous adjustment	Adjustment made
	During the year (percent)	Since previous benchmark adjustment (percent)		
1948.....	0.4	0.4	1	No.
1949.....	.9	1.3	2	No.
1950 ¹	-.7	.6	3	No.
1951.....	1.1	1.7	4	Yes.
1952.....	.4	.4	1	No.
1953.....	.7	1.1	2	Yes.
1954.....	.02	.02	1	Yes.

¹ Between 1949 and 1950, both the estimate and the benchmarks showed a decline, but the decline in the estimate was less than that in the benchmarks.

Major Industrial Segments. As would be expected, the amount of discrepancy varies among industry divisions. For 1954, the date of the most recent adjustment, discrepancies ranged from a high of 3.1 percent in construction to the trivial 0.04 percent in nondurable-goods manufacturing (table 2). It will be noted that in 5 of the 10 broad industry categories listed, the current estimate was slightly higher than the benchmark and in the other 5 it was lower, with the result that the nonfarm total estimate differed from the benchmark by only 8,000 workers on a base of nearly 48 million.

TABLE 2.—Discrepancy between BLS estimates and first quarter 1954 benchmarks, by industry divisions

Industry category	Benchmark (thousands of employees)	BLS estimate (thousands of employees)	Discrepancy (benchmark minus estimate)	
			Absolute	Percent
Total.....	47,964.7	47,956.7	8.0	0.02
Manufacturing.....	16,273.2	16,329.4	-56.2	-0.3
Durable goods.....	9,427.6	9,486.4	-58.8	-.6
Nondurable goods.....	6,845.6	6,843.0	2.6	.04
Mining.....	805.5	788.8	16.7	2.4
Contract construction.....	2,302.1	2,373.1	-71.0	-3.1
Transportation, communication, and public utilities.....	4,015.3	4,032.9	-17.6	-.4
Wholesale and retail trade.....	10,316.6	10,345.4	-28.8	-.3
Finance, insurance, and real estate.....	2,059.0	2,044.4	14.6	.7
Service and miscellaneous.....	5,501.6	5,387.7	113.9	2.3
Government.....	6,688.4	6,655.0	33.4	.5

Manufacturing Industries. More than half of the industries for which separate estimates are prepared are in the manufacturing division. Comparison of the published estimates for 132 manufacturing industries with benchmarks showed the following frequency distribution of industries classified by size of discrepancy (table 3).

TABLE 3.—*Distribution of individual manufacturing industries by amount of discrepancy between BLS estimates and first quarter 1954 benchmarks*

Amount of discrepancy (percent)	Number of individual industries	Cumulative percent of all manufacturing industries
0-0.9.....	46	35
1.0-2.4.....	43	67
2.5-4.9.....	27	88
5.0-9.9.....	11	96
10.0 and over.....	5	100
Total.....	132	100

Performance Ratio

The statistician likes to attempt summarization of data with some single measure, which never tells all the story, but which may convey a good part of what is significant. It is, of course, for this reason that we speak of arithmetic means, medians, and coefficients of correlation. A measure of this type has been developed as one indicator of the accuracy of an employment estimate, or a group of employment estimates. This indicator is called the performance ratio.³ It depends on discrepancies observed at the time of adjustment to a new benchmark. More specifically, it is calculated in the following manner: First, the median discrepancy (without regard to algebraic sign) is determined for the group of industries under observation; e. g., for the data in table 3, the median discrepancy is 1.7 percent (that is, half the industries have a larger discrepancy, half smaller). Second, the median discrepancy is expressed as a decimal fraction, 0.017, and subtracted from unity—1.000 minus 0.017 equals 0.983. As with baseball fielding averages, this result is read as a performance ratio of "nine-eighty-three." A performance ratio of "one thousand" would represent a perfect set of estimates.

For the 8 industry divisions (table 2), the performance ratio for 1954 is 994. For the nonfarm

³ This is but one of several summarizing statistics which have been used for the same general purpose.

total, it has been above 990 in all but 1 year since 1947, assuming annual adjustment to new benchmarks. In that year, 1951, it was 989.

BLS Efforts Toward Improving Estimates

Whatever success the Bureau may have in estimating employment, it needs to continue its analysis of observed discrepancies, as well as its efforts to minimize errors of all types. The latter include improvements in the representativeness of the sample and the quality of both the benchmarks and employer response. The Bureau's current work in these areas is described below.

Analysis of the Discrepancy. Earlier in this article, seven of the major sources of error were listed, and the existence of other possible sources was implied. The Bureau lacks resources for completely separating an observed discrepancy into all its components. BLS analysts do, however, inspect and review carefully each observed difference and attempt to isolate the components of the discrepancy.

The combinations of causes which lead to discrepancies in particular industries vary greatly. Sometimes one source seems to have been the principal trouble area, sometimes another—and frequently the precise cause cannot be isolated. However, one general factor which emerges from these benchmark checks is especially significant because of its size and frequency of occurrence. This factor is the impact of changes made in industrial classification of individual firms. With but few exceptions, the BLS current estimates of employment do not reflect changes in the industrial activity of individual plants which have taken place since adjustment to the previous benchmark, although the industrial activity of each plant in the sample is checked each year. All needed changes in coding are introduced at the time of adjustment to a new benchmark. These, with code changes made in nonsample firms by the UI agencies, are wedged back to the last previous benchmark. Thus, the observed discrepancy in an individual industry includes, among other components, the amount of change in industrial activity during the interval since the previous benchmark adjustment.

Within the manufacturing division, at least 50 percent of the adjustment to individual industries

arises from this factor. In some years, changes in classification may have accounted for 80 percent of observed discrepancies. The impact of industrial classification changes is, of course, dampened when comparisons relate to broader industrial categories and is practically eliminated at the level of total nonfarm employment.

Sampling Research. Sampling research is a continuing part of the Bureau's employment program. The development of new theory, the availability of higher speed in tabulating equipment, and somewhat improved budgetary conditions make likely progress in this area.

Quality of Benchmarks. There are substantial reasons for believing that if the benchmarks contained no errors, discrepancies would be smaller than those now observed. Therefore, in the interest of greater absolute accuracy, BLS continuously tries to improve the benchmarks. Since three-quarters of the total benchmark comes from State tax returns for unemployment insurance, first emphasis is given to those returns. With the Federal Bureau of Employment Security and with State statisticians, BLS collaborates in the preparation of instructions for processing and tabulating the tax returns—keeping in mind particularly their later use as benchmarks. Detailed editing of benchmarks begins in the State agency, where State examiners audit the data in preparing benchmarks for local estimates, as a part of the Federal-State employment statistics program. This auditing process is built around a benchmark

control card, which is a continuing ledger record of employment for the principal employers in each industry in the State.

Later, a graphic analysis for continuity, and for detection of unusual developments, is carried out by industry by the Washington BLS staff.

Quality of Response. Many respondents in the employment statistics program have reported monthly to the BLS for 20 years or longer. During this period, both employers and BLS editors have had opportunity to review the impact of a tremendous variety of situations, including war and peace, depression and prosperity, strikes, holidays, vacations, overtime arrangements, 2- and 3-shift operations, incentive and fringe-benefit payments, and wage guarantees. As a result of this experience, the BLS has been able to develop a substantial body of instructions for patrolling the quality of response. Instructions are supplemented by correspondence between employers and BLS editors for the purpose of exploring and resolving apparently new or strange developments.

Despite the efforts just described, in some areas the precise interpretation given by respondents to particular situations remains in doubt. In October 1955, BLS inaugurated a regular field-visiting program to a sample of respondents for the purpose of further strengthening the relationship between fact and the numbers reported on questionnaires. It is expected that this activity will be a continuing program and a primary vehicle for further improvement of the employment series.

Significant Decisions in Labor Cases¹

Labor Relations

Union Harassing Tactics Fair in Bargaining. The United States Court of Appeals for the District of Columbia held that the National Labor Relations Board had no power to order a union to cease its "harassing tactics" while negotiating a new collective bargaining agreement.²

The employer and the union were negotiating a new collective bargaining agreement when the union began various harassing tactics to exert economic pressure on the employer. Among other things, there were unannounced walkouts, refusals of employees to work special hours, slowdowns, an organized refusal to work overtime, and an unauthorized extension of rest periods from 10 to 15 minutes. On these facts, the Board found that the union had failed in its duty to bargain in good faith and ordered the union to cease using these measures.

The court set aside this part of the Board's order. Though the tactics were "unprotected" activity under the National Labor Relations Act and the employees could have been discharged for engaging in them, this behavior was not forbidden by the act. To support its conclusion, the court quoted the United States Supreme Court's statement that "Congress made in the National Labor Relations Act no express delegation of power to the Board to permit or forbid this particular union conduct. . . . The conduct here described is not forbidden by this act and no proceeding is authorized by which the Federal Board may deal with it in any manner."³

These tactics could not be used as evidence that the union was not bargaining in good faith. "There is not the slightest inconsistency between genuine desire to come to an agreement and use of economic pressure to get the kind of agreement one wants." Since the union might have called an economic strike to bring pressure on the em-

ployer during bargaining without having been accused of a lack of good faith, "no such inference can be drawn from a partial withholding of services at that time and for that purpose." Congress forbade certain conduct, but not the conduct involved in this case.

One judge dissented because he believed that the union's conduct, considered on the record as a whole, constituted substantial and legitimate evidence of the union's failure to bargain in good faith. In his opinion, "the union's actions were designed unilaterally to change working conditions during the bargaining process." Though the union could have called a strike, the conduct in question had been denounced time and again by the Board and the courts. There is a legal distinction between an economic strike and sit-down strikes and slowdowns. Since the latter two are not condoned, he held that the Board should be allowed to consider them as evidence of failure to meet the good-faith test of collective bargaining. The court's decision, he said, gave the employer a choice of either operating his plant as best he could, shutting it down in retaliation, or discharging the employees engaged in the unprotected activities. This would not further the act's purpose of eliminating industrial strife.

Craft Union Bargaining for Departmental Unit. The NLRB ordered a self-determination election when a craft union sought to sever an entire department as a separate bargaining unit, because this craft union had traditionally and historically represented employees on either a craft or departmental basis.⁴

The craft union petitioned for severance of a department of the employer's plant as a separate bargaining unit though this department was part of a larger bargaining unit in the plant. The

¹ Prepared in the U. S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

² *Textile Workers Union of America, CIO v. NLRB* (C. A. D. C., Oct. 27, 1955).

³ *International Union, UAW v. Wisconsin Employment Relations Board*, 336 U. S. 245 (1949).

⁴ *General Motors Corp.*, 114 NLRB No. 11 (Oct. 6, 1955). This was 1 of 3 recent cases in which the Board developed the doctrines connected with the bargaining units which craft unions may represent. See also: *General Motors Corp.*, 114 NLRB No. 53 (Oct. 6, 1955) and *General Motors Corp.*, 114 NLRB No. 54 (Oct. 6, 1955).

industrial union representing the noncraft employees in the department intervened and insisted that (1) the craft union could not represent the other employees in the department under the Board's rule in the *American Potash* case;⁵ (2) the *American Potash* rule should be reconsidered; and (3) the proposed unit was inappropriate because (a) employees having the same classifications as some of the unskilled employees in the department were assigned to and worked in other departments of the plant, (b) some of the employees in the proposed departmental unit performed work throughout the plant in proximity with other employees, and (c) the craft union did not seek to represent all the employees in the department.

The Board reconsidered and affirmed its *American Potash* rule that "craft severance would be permitted only where the requested unit constituted a true craft consisting of a distinct and homogeneous group of skilled journeymen craftsmen, working as such . . . and the petitioning union traditionally and historically represented the craft whose severance was sought." In that same case, the Board had also announced that severance on a departmental basis would be granted where the departmental group was functionally distinct and separate, and the petitioning union traditionally devoted itself to serving the special interests of the employees involved.

The Board was unable to find any merit in the other contentions of the intervening union. As for the departmental employees which the craft union did not seek to represent, the Board held that if the employees were in fact assigned to the department and worked under the supervision of the department's foreman, they would be included in the unit if, as a result of the election, the department became a separate bargaining unit.

Effect of Change in Jurisdictional Standards. The United States Court of Appeals for the Ninth Circuit held that the 1954 change in the NLRB's jurisdictional standards would not prevent enforcement of a 1952 Board order against an employer who would not meet the new test.⁶

⁵ *American Potash & Chemical Corp.*, 107 NLRB 1418 (1954).

⁶ *NLRB v. Stanislaus Implement Co.* (C. A. 9, Oct. 12, 1955).

⁷ *NLRB v. National Gas Co.*, 215 F. 2d 160 (8th Cir., 1954).

⁸ *NLRB v. Armo Drainage & Metal Products Inc.*, 220 F. 2d 573 (8th Cir., 1955); *NLRB v. Red Rock Co.*, 187 F. 2d 76 (5th Cir., 1951), cert. denied, 341 U. S. 950 (1951).

⁹ *Curtis Brothers, Inc.*, 114 NLRB No. 27 (Sept. 20, 1955).

The Board had issued an order against this employer on November 12, 1952, in an unfair labor practice case. However, as a result of the 1954 revision of jurisdictional standards, jurisdiction would not have been exercised had the case come up after the changes were made. Thus, the court was faced with deciding how the jurisdictional changes affected enforcement proceedings on orders which had been issued prior to the changes.

In the *National Gas* case,⁷ one court refused to enforce such a Board order. That case, however, was distinguished from the present one on two grounds. First, the Board itself subsequently recognized that the *National Gas* case represented an "unwarranted extension" of its former jurisdictional standards. Second, when *National Gas* was decided, the Board had not announced its policy on the effect of the jurisdictional changes on decided cases in which an order had been issued. The court's opinion was therefore based in part on the Board's presumed intention. This proved to be an incorrect presumption when the Board decided to apply its new standards to pending and future cases, but not to those in which an order had already been issued. Because of these two factors, this court said that its decision did not conflict with that of the court in *National Gas*.

Other courts had indicated that an employer could not prevent enforcement of the Board's order simply because of the Board's changes in jurisdictional standards.⁸ The Ninth Circuit concluded that "the policy of the Board that its 1954 standards do not apply to cases in which it had theretofore made an order is sound and should not be disturbed."

Union Disclaimer of Interest in Representation. The NLRB held that a union's disclaimer of interest in representing employees was ineffective when it continued to picket the employer's plant with the intention of inducing him to enter into a contract with the union, whether or not it was representative of the majority of the employees.⁹

The union had been certified as the bargaining representative on September 30, 1953, but no contract had been negotiated. In February 1954 the union authorized a strike and picketing began with signs giving notice of the strike.

However, the union notified the Board's regional director a year later, on February 16, 1955,

that it expressly disclaimed the right to represent the employees. Though the picketing was discontinued on February 17, it was resumed the next day when the pickets appeared carrying signs announcing that the employer hired nonunion labor and that the union wanted the employees to join it.

The Board reaffirmed its rule that a disclaimer of interest in representation must be clear and unequivocal. In this case the disclaimer was said to be inconsistent with the union's conduct in light of all the facts. Further, the Board concluded that the union intended to force the employer to enter into a contract with it whether or not it represented a majority of the employees.

Election Upheld Despite Union Literature. The NLRB held that a representation election need not be set aside merely because the union had circulated a letter containing allegedly false information on the day before the election.¹⁰

A statement that the employer's counsel was probably receiving \$5,000 to keep the union out was made in a letter the union circulated on the day before the election. The employer alleged that this information was "false, misleading, inflammatory, and highly material." Furthermore, he did not have a chance to make a reply before the election.

The Board found that the statement "could not have so affected the employees as to impair their ability to make a free, uncoerced, and uninhibited choice of a collective bargaining representative in the election." Then it reaffirmed its *Peerless Plywood* rule¹¹ which prohibits making campaign speeches within 24 hours of a scheduled election. It pointed out that this rule specifically exempts campaign literature from its scope, and, according to a prior decision,¹² the distribution of union literature need not be timed so as to give the employer an opportunity to reply.

Misconduct of Board Employee. The United States Court of Appeals for the Seventh Circuit held that a second representation election should have been set aside because the NLRB failed to make it clear to the employees that the first election had been invalidated because of the improper conduct of its field examiner in attending organizational meetings of the union and not because

of any misconduct of the employer, according to a report allegedly circulated by the union.¹³

Prior to the first representation election, the Board's field examiner attended two organizational meetings of the union, actively participating in the second one. Though the Regional Director did not recommend it, the Board set the election aside and ordered a new one. Before the second election, the employer notified the Board that the union was circulating reports that the first election had been voided because of the employer's misconduct and requested the employees be given the true facts. The Board took no remedial action.

The court said that "in view of the fact that it was the actions of the Board's own representative which caused the setting aside of the first election, it was the duty of the Board to lean over backwards to be certain that the taint of such conduct was not present when the second election was held." In fact, the Board was found to have established, in a prior case, the standard for elections when it said that "in election proceedings, it is the Board's function to provide a laboratory in which an experiment may be conducted, under conditions as nearly ideal as possible." Since the Board did not act to present to the employees the true reasons for setting aside the first election, the court felt that the misconduct of its representative had carried over to and affected the second election. Consequently, that election should have been set aside, too.

Discrimination for Concerted Activity. The Board held that an employer had unlawfully suspended 4 employees who stopped working to question him about the earlier discharge of 2 of their coworkers.¹⁴

The employer had discharged two employees and, later that day, the employees involved here left their machines for about an hour in accordance with a preconceived plan to question their employer about the discharges, which they regarded as capricious. As a result, they were suspended for 4 days.

The Board found that these workers were partially concerned over their own job security, which they thought was in jeopardy if the employer could and would fire people for the slightest reason.

¹⁰ *Hills Brass Co.*, 114 NLRB No. 35 (Sept. 22, 1955).

¹¹ *Peerless Plywood Co.*, 107 NLRB 427 (1953).

¹² *Comfort Slipper*, 112 NLRB No. 28 (1955).

¹³ *NLRB v. Fresh'nd-Aire Co.* (C. A. 7, Oct. 13, 1955).

¹⁴ *Solo Cup Co.*, 114 NLRB No. 31 (Sept. 21, 1955).

Since they were engaged in concerted activities for their mutual aid and protection, their activity was protected by the NLRA; their temporary suspension amounted then to unfair discrimination.

Department Discontinued for Economic Reasons. The United States Court of Appeals for the Sixth Circuit held that a small truckline operator did not violate sections 8 (a) (3) and (1) of the NLRA by discharging his two maintenance employees and discontinuing the maintenance department because the union wages were so high that the work could be performed more cheaply by outside business concerns.¹⁵

The two employees, hired to service and maintain an employer's trucks at his terminal, joined the same union to which all the other employees belonged. After the union demanded that their wages be raised to the union's uniform rate in the area for such employees, the employer discharged them and eliminated the department from his business. Thereafter, he arranged to have other business concerns care for the trucks as that was not as expensive as maintaining his own facilities.

He contended that the discharges were an attempt to resolve a difficult economic position, but the Board found no support for this since he had simply acted in "subjective anticipation" of what the union might do if he refused to raise the wages. Thus, the Board found that the discharges constituted a prima facie case of discrimination and interference which was not rebutted by the employer's contention.

The court, on the other hand, found that the record supported the employer's position rather than the Board's. According to the testimony of the union officials, the demanded rates were uniform in the area, a strike would have resulted from a refusal to pay those rates, and the strike would have effectively closed the employer's business. The court stated that there could be discharges for any reason other than union membership, activity, or relationship. The evidence that the jobs had been discontinued with no indication

of their future resumption supported the employer's position that the discharges were economically motivated. Since the employer's motivation is determinative in such cases, there was no violation.

Enforcement of Board Order Barred by False Affidavit. The United States Court of Appeals for the Sixth Circuit held that the conviction of a union president for filing a false non-Communist affidavit with the NLRB bars enforcement of the Board's subsequent unfair labor practice order against an employer based on charges filed by the union, even though the false affidavit was not in effect when the complaint was issued.¹⁶

Section 9 (h) of the act requires that a non-Communist affidavit be filed with the Board annually by each officer of a union before that union can avail itself of the processes of the Board. On August 30, 1950, the president of the union filed such an affidavit and continued to do so each year thereafter. The Board considered that the union had therefore met the statutory requirements and issued the complaint in this case on February 27, 1952.

However, the union president was convicted on April 30, 1954, of having filed a false affidavit in 1950, and an appeal was pending in the Court of Appeals for the District of Columbia when this case was decided. As the result of considerable litigation in the District of Columbia courts,¹⁷ the Board was forced to consider the complaint issued in 1952 even though it had determined that the union had not complied with the requirements of the act. The employer, contending the Board should not have acted on the complaint, asked the court to dismiss the Board's petition.

Since a jury had found that the 1950 affidavit was false, the court had to decide whether the union had complied with section 9 (h) of the act because "what purports to be an affidavit is now merely a piece of paper evidencing false swearing." This decision was necessary to a determination of the right of the Board to have its order enforced because "there is no doubt but that the legal effect of noncompliance with section 9 (h) of the act is a bar to enforcement proceedings in the courts."

The union argued that the complaint had been issued while the union president's 1951 affidavit, not his 1950 one, was in effect. As there had been no showing that it was false, the union should be

¹⁵ *NLRB v. Adkins Transfer Co.* (C. A. 6, Oct. 5, 1955).

¹⁶ *NLRB v. Lannom Manufacturing Co.* (C. A. 6, Oct. 6, 1955).

¹⁷ *United Electrical Workers v. Herzog*, 110 F. Supp. 220 (1953), affirmed, *Farmer v. United Electrical Workers*, 211 F. 2d 36 (1953), cert. denied, 347 U. S. 943 (1954); *International Fur & Leather Workers Union v. Farmer*, 117 F. Supp. 35 (1953); *Farmer v. International Fur & Leather Workers Union*, 221 F. 2d 862 (1955).

considered to have met its statutory obligations. The court, however, was not impressed by this argument. Relying on prior judicial expressions concerning the character of the Communist Party,¹⁸ it said that "in the absence of a showing to the contrary, the reasonable presumption would be a continuing membership in such an organization rather than a withdrawal from the membership ranks. Considering the falsity of the 1950 affidavit and the nature of the Communist Party, we do not regard the renewal affidavit in 1951, unsupported by any alleged change in the factual situation, as a sufficient showing to the contrary." It therefore concluded that the union had not met the requirements of the act and that the Board's petition for enforcement of its order should be dismissed. The fact that the conviction of the union president had been appealed was not enough to postpone action on the Board's petition since the court felt that the parties were entitled to a decision on the case in order that they might ask for a review of the case by the United States Supreme Court if they wished.

One judge dissented on the ground that if the Board had authority to determine that the union was not in compliance with the act, there was not sufficient evidence in the record to support such a finding. Further, he could not agree that the court should presume that the union president had filed a false affidavit in 1951 simply because he had filed one in 1950.

Unemployment Compensation

Multiple Employment. Claimant was regularly employed full time as a laborer. As a sideline he also worked part time as a pinsetter in a bowling alley. However, he quit the sideline because the hours were too long when added to those of his regular employment. Subsequently, his regular employer closed down and claimant lost his job. On the ground that he left his part-time work

voluntarily without good cause attributable to his employer, the Iowa Employment Security Commission denied unemployment benefits based on his wages in both jobs prior to his quitting. On appeal to the district court, the Commission argued that the disqualification would apply to any noncasual work, whether covered employment or not, and irrespective of how extensive or minor the work may be. The court reversed the Commission's decision,¹⁹ holding that the application of the disqualification to this claimant is not within the intention of the legislature, since, when he quit the sideline, he was still fully employed. The court observed, however, that wage credits earned in the sideline could be deleted in processing the claim.

Cause Attributable to the Employer. Claimant was compelled to leave his work because of an injury sustained in the course of his employment. He was under a doctor's care for 6 weeks and was then advised to obtain lighter work. The Iowa Employment Security Commission found that claimant quit his job without good cause attributable to his employer and therefore denied benefits. In reversing the Commission, the district court held²⁰ that the phrase "attributable to his employer" includes causes which arise from the employment itself and does not imply that the employer must be guilty of some fault or wrongdoing in causing the termination of the employment.

Good Cause for Quitting. A decrease in the number of employees resulted in a substantial increase in the claimant's work. Also, changes in the production procedure made her job more difficult. The new work required the use of a knee press which the claimant could not use because she had a bad knee. Company officials refused to discuss with the claimant a change in the method of doing the work, and one of her superiors told her to go home. She left her work. A decision of the Ohio Board of Review, denying claimant unemployment benefits on the ground that she quit work without just cause, was reversed by an Ohio court of common pleas.²¹ The court held that "just cause" means "reasonable excuse" and that it covers reasons which are personal to the employee and extraneous

¹⁸ *American Communications Association v. Douds*, 339 U. S. 382 (1950); *Dennis v. U. S.*, 341 U. S. 494 at 498, 547, and 564 (1950).

¹⁹ *McCarthy v. Iowa Employment Security Commission* (Iowa Dist. Ct., Sept. 23, 1955).

²⁰ *Raffety v. Iowa Employment Security Commission* (Iowa Dist. Ct., Sept. 14, 1955).

²¹ *Weaver v. The United Woolen Co.* (Ohio Ct. of Com. Pleas, Oct. 4, 1955).

to the employment such as arduousness and constant pressure.

Disobedience Implicit in Insubordination. A disagreement and argument between claimant and his employer culminated in the claimant's discharge for alleged insubordination as to the manner of conducting certain features of the business. The Ohio Bureau of Unemployment Compensation disqualified the claimant from receipt of unemployment benefits on the ground that he was

discharged for a just cause consisting of insubordination. On appeal to an Ohio court of common pleas, this decision was reversed as being against the manifest weight of evidence, unreasonable, and contrary to law.²² The court said that this case involved nothing more than one of the ordinary incidents, problems, and unpleasanties of the employer's business, and that the facts do not support a finding of insubordination, which implies disobedience.

²² *Free v. Circle Cab Co.* (Ohio Ct. of Com. Pleas, Sept. 22, 1955).

Conferences and Institutes Scheduled for January 1956

EDITOR'S NOTE.—As a service to its readers, the *Monthly Labor Review* publishes a list of forthcoming conferences and institutes devoted to the broad field of industrial relations. Institutes and organizations are invited to submit schedules of such meetings for listing. To be timely enough for publication, announcements must be received 60 days prior to the date of a conference.

January	Conference and sponsor	Place
16	Regional Meeting. Sponsor: President's Committee on Employment of the Physically Handicapped.	Kansas City, Mo.
16-18	Seminars on (1) Recruiting, Training, and Company Integration of College Graduates; (2) Planning for a Sound Industrial Relations Organization; (3) Developing a Sound Grievance Procedure and the Techniques of Arbitration; and (4) How to Set Up and Operate a Cost Reduction Program. Sponsor: American Management Association.	New York, N. Y.
18	Western Labor-Management Relations Conference. Sponsors: California Chamber of Commerce and Chamber of Commerce of the United States.	San Francisco, Calif.
19	Seminar on Executive Appraisal. Sponsor: American Management Association.	New York, N. Y.
23-Feb. 2	Course on Data Processing. Sponsor: Engineering and Management Course, University of California.	Los Angeles, Calif.
24-27	West Coast General Management Conference. Sponsor: American Management Association.	San Francisco, Calif.
31-Feb. 2	Institute on Effective Coordination as a Function of Modern Management. Sponsor: The Cooperative League.	Chicago, Ill.

Chronology of Recent Labor Events

October 1, 1955

THE POLICY COMMITTEE of the CIO Textile Workers Union accepted contract proposals from 4 Rhode Island and Connecticut textile dyeing and finishing plants, providing a 6-cent-an-hour increase for 2,000 workers during the next year.

On the same day, the Textile Workers signed a 3-year contract with 300 dyeing and finishing plants in New York, New Jersey, and Pennsylvania, ending a 4-hour strike of about 16,000 workers. The contract provided for an immediate increase of 12 cents an hour and 6-cent increases on October 1 of 1956 and 1957, improved fringe benefits, including a 7th paid holiday, and increases in employer-paid pensions.

October 3

THE Railway Labor Executives' Association notified the Brotherhood of Railroad Trainmen that its application for resumption of membership in the association, terminated in 1937, was accepted, effective January 1, 1956. A few days earlier, the association had accepted a similar application by the Order of Railway Conductors and Brakemen.

October 4

THE Brotherhood of Railroad Trainmen (Ind.) reached a wage agreement with the major railroads for about 110,000 employed workers, providing for increases of 10½ cents an hour, retroactive to October 1, for most of the workers; monthly raises of \$30 and \$21 for dining-car stewards and yardmasters, respectively; and additional daily raises for yard conductors, brakemen, and switch tenders, ranging from 82 cents to \$1.30 for those going on a 40-hour workweek as of December 1, and from 50 to 98 cents for those already on such a schedule. The union accepted 4 cents of the raise in lieu of health and welfare benefits and agreed to defer until June 30, 1956, requests for payments for fringe services.

On October 10, the railroads signed a similar agreement with the AFL Switchmen's Union of North America.

On October 15, following 9 months of negotiations and the appointment of a Presidential Emergency Board (see Chron. item for Aug. 1, 1955, MLR, Oct. 1955), the Brotherhood of Locomotive Firemen and Enginemen (Ind.) reached agreement with the major railroads on a package settlement estimated at 17 to 17½ cents an hour for 60,000 employees. The main provisions of the new pact were a

wage increase of from 21½ to 33½ cents an hour for yard-service workers on a 40-hour workweek; an 8-cent hourly increase for all road-service workers not on a 40-hour week; higher minimum earnings for passenger-service employees; and, for the first time, a daily minimum-earnings guarantee for the freight-service workers. Conversion to the 40-hour weekly schedule is not compulsory, according to union officials.

On October 27, the Brotherhood of Locomotive Engineers (Ind.) reached a wage settlement, retroactive to October 1, 1955, with the railroads, providing for a 5-percent general increase in the average daily rates plus a 2-percent increase to widen the differential between engineers and other railroad employees. A portion of the increase was in lieu of a health-welfare plan. The pact also guarantees daily wage minimums of \$17.43 and \$18.49 for the engineers in passenger and freight service, respectively; and provides that a 5-day weekly schedule will go into effect only if the union so requests on all the railroad lines.

October 5

AFTER a 16-week strike, the AFL Machinists reached a new agreement with the Flying Tiger Line, providing for wage rates equal to those paid by other airlines with which the IAM has contracts (see MLR, Mar. 1955, p. 337), and for the restoration of the strikers to the seniority positions, classifications, shifts, and locations they occupied before the strike. At the beginning of the strike, the company had attempted to shift its maintenance work to overseas sites, but aviation unions there, alerted by the International Transportworkers Federation and the International Metal Workers Federation, responded with picket lines and boycotts.

October 6

THE NLRB, in *General Motors Corp., Chevrolet Muncie Div. (Forge Plant)*, Muncie, Ind., and *International Die Sinkers' Conference (Ind.)*, reaffirming its departmental severance principle enunciated in *American Potash* (see Chron. item for Mar. 1, 1954, MLR, May 1954), directed a self-determination election among the company's forge die shop employees because they constitute a traditional departmental unit and the petitioning union has traditionally represented such employees on either a craft or departmental basis. The United Automobile Workers (CIO) opposed severance because other plant employees had the same classifications as the noncraft employees in the die shop and the die repairmen at times worked throughout the plant in close proximity with other than die-shop employees.

FOLLOWING a gunfight between nonstrikers working in the Perfect Circle Corp. foundry at New Castle, Ind., and about 5,000 demonstrating members of the CIO Auto Workers, which had called a strike against the company 10 weeks earlier after management rejected union demands for a union shop, a supplemental layoff-pay plan, and arbitration of all disputes, the Governor of Indiana called out an Indiana National Guard battalion to enforce order

in the city. Meanwhile, groups of workers in company plants at Hagerstown and Richmond, Ind., had petitioned the NLRB for decertification elections. On October 10, the Governor proclaimed full martial law in New Castle and extended National Guard protection to the rest of Henry County, to Hagerstown, and to areas around the company's plants in Richmond. On October 20, martial law was ended and a reduced force of National Guardsmen was assigned to maintain order, under civil control, in the strike-bound areas. (See also p. — of this issue.)

On October 27, the NLRB ordered decertification elections among production and maintenance units in the Richmond and Hagerstown plants, overriding the contention of the CIO Auto Workers that the leaders of workers petitioning decertification should comply with the Taft-Hartley Act's filing requirements of non-Communist affidavits.

THE Federal court of appeals in Cincinnati refused to enforce an NLRB unfair labor practice order which was in favor of the Fur and Leather Workers Union (Ind.), because there was no evidence that the union's ex-president, Ben Gold, who had been convicted in April 1954 for filing a false anti-Communist affidavit in 1950, had renounced his Communist Party membership at the time the NLRB issued the order in February 1952. The court refused to "freeze" its proceeding pending the judgment of the Federal court of appeals in the District of Columbia on an appeal of the conviction of Mr. Gold. (See Chron. item for Feb. 15, 1955, MLR, Apr. 1955.) The case was *NLRB v. Lannom Manufacturing Co.*

October 9

THE New York State Unemployment Insurance Administrator ruled that jobless employees of Ford Motor Co. were entitled to receive State unemployment compensation in addition to company-paid supplemental unemployment benefits.

On October 25, the State Attorney General concurred in the Administrator's ruling, but suggested that, in such circumstances, specific permission for payment of benefits under the State unemployment insurance law be incorporated in the law and that a Federal ruling be sought on whether company payments to the SUB fund would be subject to the State unemployment insurance tax.

October 10

THE Supreme Court of the United States denied review in the following cases, thereby in effect upholding the decisions of the lower courts:

1. *Douls, etc. v. International Longshoremen's Association (Ind.), et al.* The reversal of the convictions of the International Longshoremen's Association and some of its officials for criminal contempt of a court order to stop interfering with truck operations by the AFL Teamsters' union during last year's New York waterfront strike. (See Chron. item for June 24, 1955, MLR, Aug. 1955.)

2. *Brown, d. b. a. Brown Engineering Co. v. Mitchell, etc.* The Fair Labor Standards Act applies to employees

of a firm of consultant engineers providing preliminary and on-the-job services on construction for interstate traffic. (See Chron. item for July 12, 1955, MLR, Sept. 1955.)

THE first break in the dispute over union recognition by 22 Miami and Miami Beach, Fla., hotels came when the AFL Hotel and Restaurant Employees Union signed a contract with the Vanderbilt Hotel, which was not directly involved in the dispute. Four days later, the union signed a 5-year contract, providing pay increases for about 200 employees, with the Monte Carlo Hotel—the first of the hotels to be struck or picketed. (See also p. 1490 of this issue.)

October 12

THE Supreme Court of North Carolina, in *Hudson et al. v. Atlantic Coast Line Railway Co. et al.*, ruled that a union-shop agreement conforming to provisions of the Federal Railway Labor Act was valid, regardless of the State's right-to-work law forbidding union-security agreements.

October 13

THE Federal court of appeals in Chicago held that the Board failed in its duty, in setting aside a representation election and ordering a second one, to acquaint the employees concerned of the true reason of its action—the preelection misconduct of the Board's own field examiner and not that of the employer as reported by the union to its members. The court thus upheld the employer's challenge of the second election in *NLRB v. Fresh'nd-Aire Co., Div. of Cory Corp.*

October 16

THE CIO Oil, Chemical and Atomic Workers announced the signing of 3-year contracts with Union Carbide Nuclear Co., providing for a 24-cent-an-hour wage increase for 4,500 atomic workers at the Oak Ridge, Tenn., and Paducah, Ky., plants, to be made in 3 installments by October 15, 1957. On the same day, the Carborundum Metals Co. also signed an agreement with the union, providing for a 5-percent general wage increase immediately, and 2½ percent more in October 1956 and again in October 1957 for its 1,500 atomic workers at the Jamestown, N. Y., plant.

October 18

THE NLRB held, in *Mathieson Chemical Corp. et al., Morgantown, W. Va., and United Association of Journey-men and Apprentices of the Plumbing and Pipe Fitting Industry . . . Local 152, AFL, et al.*, that the institution of a superseniority system by an employer, following a strike, and the consequent dismissal of strikers were in fact motivated by a desire to punish the strikers and to reward nonstrikers and those who abandoned the strike. The Board ordered the employer to rescind his discrimina-

tory system and reinstate the employees affected to their jobs and old seniority status.

FOR the first time, the University of Notre Dame Laetare Medal—the highest award given annually to Catholic laymen in the United States—was awarded to a labor leader, the AFL president George Meany, at a ceremony held in Washington, D. C.

October 19

THE NLRB refused to assert jurisdiction over an egg processor and packager who had annual egg sales of \$100,000 to outlets of several large retail chainstore enterprises. Recognizing that the retail chains themselves met the jurisdictional criterion for multistate chains, the Board emphasized that in a case of this kind, the individual retail outlets must have a sufficient volume of direct interstate sales to meet its jurisdictional standards; the \$11,000 volume in this case was insufficient. Prior decisions were overruled insofar as they conflicted with this ruling. The case, involving a representation petition, was *New Jersey Poultry & Egg Cooperative Association, Inc.*, Flemington, N. J., and *Amalgamated Food & Allied Workers, Local 56, AFL*.

October 20

THE impartial umpire under the AFL-CIO no-raiding agreement decided that the CIO Electrical Workers (IUE) violated the agreement by intervening in an NLRB representation proceeding brought by the AFL Machinists (IAM) in an attempt to extend its representation of the toolroom workers of the General Electric Co.'s plant in Danville, Ill., to the production and maintenance unit represented by the AFL Auto Workers. To the IUE's contention that the agreement does not apply to a situation when a CIO union merely joins in a raid initiated by one AFL union against another AFL union, the umpire replied that each party to the no-raiding agreement promises it will not "directly or indirectly . . . attempt or seek to organize or represent employees for whom an established bargaining relationship exists" and that the pledge is not conditional on the absence of initial attacks by unions not signatory to the pact. The decision was in re *International Union, United Automobile Workers of America (AFL) and International Union of Electrical . . . Workers (CIO)*.

A union violated the Taft-Hartley Act, the NLRB held in *Marlin Rockwell Corp.*, Plainville, Conn., and *Adam Raczkowski, et al.*; *International Union, United Automobile . . . Workers of America, CIO, et al.* and *Same*, by (1) attempting to cause a discriminatory discharge of three employees who had submitted resignations from the union shortly before a maintenance-of-membership contract expired but had voluntarily paid up their membership dues until the date of the expiration, and (2) by collecting from them dues for a period subsequent to that date. The Board ruled that the act guarantees a union member the

right to resign from his union whenever he chooses, provided he continues paying his dues for the duration of the union contract then in effect.

October 21

THE Secretary of Labor announced the first minimum-wage determination for the bituminous-coal industry under the Public Contracts Act. The rates effective for contracts initiated on or after November 25 range from \$1.40 to \$2.346 an hour for 22 coal-producing districts, with \$2.245 applying to the 8 districts which supply about four-fifths of the United States production.

October 23

THE AFL International Alliance of Stage Employees announced a new contract with the Association of Motion Picture Producers for about 15,000 production employees of major film studios, providing for a reduction in the work-week to 5 days, effective January 30, 1956, and a 2½-percent general wage increase starting January 30, 1958; an immediate hourly wage raise of 25 cents an hour for workers hired by the day; and higher employer contributions to the pension and health and welfare funds. The pact is effective October 25, 1956, and expires January 30, 1959.

October 25

A Conference on Equal Job Opportunity, sponsored by the President's Committee on Government Contracts and attended by 50 business and industrial leaders, met at Washington under the chairmanship of Vice President Nixon to discuss "effective ways of eliminating discrimination in employment due to race, religion, color, or national origin." (See also p. 1494 of this issue.)

THE AFL Executive Council approved the merger agreement of February 22, 1955, between the AFL Meat Cutters and the Fur and Leather Workers Union (see Chron. item for Aug. 8, 1955, MLR, Oct. 1955). It voiced its satisfaction with efforts of the Meat Cutters to eliminate Communists from positions of influence in the Fur Workers union.

THE Federal Wage and Hour Administrator, under the Fair Labor Standards Act, set a new minimum piece rate of 30 cents per gross for homeworkers in Puerto Rico engaged in the hand braiding of leather buttons, 24 to 30 ligne, effective November 28, 1955.

October 26

THE Pacific Maritime Association and the AFL Marine Firemen reached a 3-year working agreement providing for a \$25 monthly pay raise and an increase in its overtime rates for approximately 2,000 workers. The Firemen did not adopt the new pay system of incorporating penalty pay into the monthly base rates (see Chron. item for Sept. 26, 1955, MLR, Nov. 1955).

October 27

THE Governor of Pennsylvania approved a fair-employment-practices bill forbidding employers of 12 or more workers to discriminate in employment against any person "the best able, and most competent to perform the services required," because of age (specifically, against persons between 40 and 62 years old), race, religion, or national origin. The penalties for violating the law are a fine of \$100 to \$500 and/or imprisonment up to 30 days.

THE Federal court of appeals for Washington, D. C., in *Textile Workers Union of America, CIO, et al. v. NLRB*, rejected a Board decision that a union had violated the Taft-Hartley Act by applying harassing tactics, such as production slowdowns and refusals to work overtime, to bring economic pressure on an employer during a bargaining impasse. The court held that this harassment, although unprotected by the act, did not constitute evidence of the union's failure to bargain in good faith, saying, "aside from some specified conduct, such as jurisdictional strikes and secondary boycotts, we do not find that Congress limited the use of economic pressure in support of lawful demands." (See also page 1478 of this issue.)

October 30

THE impartial chairman of the New York women's neckwear industry ordered 3 New York blouse manufacturers to pay \$60,000 to the AFL Ladies' Garment Workers' Union for importing large quantities of blouses from Japan. The arbitrator ruled that the imports from Japan violated the union's contract with the manufacturers, which requires that all blouses be made in union shops. (See also p. 1494 of this issue.)

October 31

THE New York State Board of Standards and Appeals announced regulations for on-the-job protection of workers from the hazards of atomic energy and other radiation.

The Board chairman said that this code, effective December 15, would be the first in the Nation to conform with the safety regulations recently established by the Atomic Energy Commission.

A NEW 2-year contract, retroactive to September 1, 1955, and covering 6,000 employees, was signed by the CIO Transport Workers Union and the Pan American World Airways. The pact provides for an 11-cent hourly wage increase for mechanics and other ground-service workers, and sets a new pay plan whereby the flight-service employees will receive a premium pay of \$3.75 an hour for time flown in excess of 70 hours a month up to 255 hours in a calendar quarter, with overtime pay at time and a half for any additional hours flown over the 255 hours.

THE Westinghouse Electric Corp. granted a 16-percent wage increase, spread over 5 years, and improvements in working conditions to 25,000 nonunion employees. The provisions closely parallel the company's offer recently rejected by the striking CIO Electrical Workers and the terms of an agreement with the Federation of Westinghouse Independent Salaried Unions reached 3 days earlier. (See also p. 1491 of this issue.)

THE NLRB ruled, in *Jack Lewis and Joe Levitan, d. b. a. California Footwear Co. et al.*, Los Angeles, Calif. and *United Shoe Workers of America, Local 122*, that an employer who, for valid economic reasons, transferred his plant from Los Angeles to a place 15 miles outside the city and subleased it to another firm with which, however, he agreed to share the control of the new plant's operations, violated, jointly with the lessor, the Taft-Hartley Act by refusing (1) to bargain with the union about transferring employees to the new location and (2) to recognize the union for his new employees or apply to them the existing contract. Considering the employer's conduct a deliberate attempt to get rid of the union, the Board ordered him to bargain, holding that the union's loss of majority status was directly attributable to his refusal to bargain about transfers from the old plant.

Union Conventions Scheduled for January 1956

<i>January</i>	<i>State conventions</i>	<i>Place</i>
13	Illinois, CIO-----	Chicago
20	Connecticut, CIO-----	Hartford
27	Oklahoma, CIO-----	Tulsa

Developments in Industrial Relations¹

IMMEDIATE WAGE INCREASES were negotiated during October for approximately 225,000 members of 4 of the operating railroad brotherhoods and provision was also made for added wage increases and a reduction in work schedules on December 1 for some yard-service employees. A number of wage settlements were concluded in the telephone industry. Several developments evidenced union-management cooperation, for example, a reduction of wage rates to improve the competitive position of a firm. A number of settlements followed brief strikes, some lasting only an hour or two, but disputes over new contracts with Westinghouse Electric Corp. resulted in strikes by the CIO Electrical Workers and the Independent Electrical Workers. A bitter strike of the CIO Auto Workers at the Perfect Circle Corp. in Indiana flared into violence, and both this strike and the St. Louis transit stoppage brought intervention of State authorities.

The question of free trade was involved in an arbitration award giving the AFL Ladies' Garment Workers damages against three New York blouse manufacturers for importing Japanese-made blouses in violation of terms of their agreements with the union. The AFL and CIO took steps to solve the remaining problems involved in their forthcoming merger.

Automation—a subject increasingly discussed in management and union circles and around the bargaining table—was aired before a subcommittee of the congressional Joint Committee on the Economic Report during the last half of October. Varying opinions were expressed by industry, union, and Government witnesses. These ran the gamut from optimism based on an expected stimulating effect to apprehension of economic and social consequences unless accompanied by proper planning to mitigate transitional hardships. Several labor witnesses and private consultants, apprehensive over rapid displacement of workers and

too intensive changeover in skill requirements, urged business and Government to assume responsibility for the costs of dislocation. They warned against reliance on automatic adjustment and proposed legislative and economic “cushions,” including a shorter workweek, higher consumer purchasing power, earlier retirement, worker retraining programs, improved social welfare laws, and special assistance to small business and distressed communities. In contrast, a number of business leaders and Government representatives viewed the new technology as an evolutionary phase of an expanding economy attaining ever-higher living standards; far from eliminating jobs, automation was viewed as opening up new industries and products and a method of coping with labor shortages expected in the future. Still other witnesses considered it essential to avoid intensifying the anticipated labor shortages.²

Settlements, Negotiations, and Work Stoppages

Transportation. By the end of October, the outlook for uninterrupted service in the railroad industry was brighter with the settlement of four long-standing wage disputes. The agreements provided for immediate increases in earnings for more than 225,000 workers affected thereby, and additional increases for some, effective December 1, when hours of specified groups of yard-service employees will be reduced. All of the agreements were reached with the operating or transportation brotherhoods. Separate contracts with the Nation's major railroads were negotiated by the unaffiliated Brotherhood of Railroad Trainmen, representing about 110,000 employed members; the Brotherhood of Locomotive Firemen and Enginemen, representing about 60,000; and the Brotherhood of Locomotive Engineers, for about 48,000 road and yard engineers. The fourth agreement, between a group of western railroads and the Switchmen's Union (AFL), covered about 10,000 members.

The engineers will receive basic rate increases of 5 percent plus 2 percent to increase pay differentials over other occupations. Among the firemen and enginemen, approximately 31,000 road-service employees had their basic hourly rates increased

¹ Prepared in the Bureau's Division of Wages and Industrial Relations.

² A summary of testimony at the hearings is scheduled to appear in the January 1956 issue of the Monthly Labor Review.

by 8 cents an hour, about 3,000 yard-service employees who are on a 40-hour week received a 10½-cent hourly increase on October 1, while the remaining 26,000 yard-service workers who are working longer hours received 4½ cents an hour. Practically all members of the other 2 unions received 10½-cent hourly increases effective October 1. About 2,000 members of the Brotherhood of Railroad Trainmen received flat monthly increases—\$30 for stewards and \$21 for yardmasters—instead of the hourly raises. Part of the increases to the various transportation brotherhoods were designated as in lieu of health and welfare plans currently in effect for the larger group of nonoperating railroad workers.

All the agreements, except that of the Locomotive Engineers, provided that yard-service employees, accounting for less than half of the workers covered by these agreements, will obtain extra boosts in daily or hourly pay on December 1 when those now on 6- or 7-day schedules convert to a 40-hour week.

The Trainmen's and Switchmen's agreements provided additional increases on December 1 for those workers whose hours were to be reduced at that time, ranging from 82 cents to about \$1.30 a day, depending on the occupation; the Trainmen's agreement provided for a \$36-a-month increase for yardmasters at that time. The additional increases due on December 1 for yardmen belonging to the Brotherhood of Locomotive Firemen and Enginemen will bring their total hourly increase under the new settlement to 29½ cents for engineers and 25½ cents for firemen who go on the shorter workweek. The total increase for the yardmen already on a 40-hour week, whether members of the Trainmen or the Locomotive Firemen and Enginemen, will be 4 cents an hour less since they received a 4-cent increase in their hourly pay at the time their hours were reduced. Provision was also made in the agreement of the Locomotive Engineers for establishment of a 5-day week for yard engineers if requested on all roads.

Progress was not as satisfactory in negotiations affecting the Nation's 800,000 nonoperating employees. The railroads' offer of a package increase amounting to 10½ cents an hour was rejected by

11 AFL unions, as was a mediator's proposal that the issue be submitted to arbitration.

A 3-year working agreement covering about 2,400 West Coast ship stewards was negotiated by the Pacific Maritime Association and the Marine Cooks' Union (AFL). The contract followed the formula adopted last month by the Sailors Union of the Pacific (AFL), raising monthly base rates to incorporate penalty pay plus an added \$25.³ Other major provisions included employer contributions toward establishment of a welfare fund and wage reviews on each June 1 anniversary date. The third AFL seamen's union—the Marine Firemen—did not eliminate penalty pay for its 2,000 members but also secured a flat \$25 monthly raise under terms of its new 3-year contract with the same association.

About 2,500 bus and streetcar operators employed by the St. Louis Public Service Co. in St. Louis, Mo., returned to work on October 15 after members of the AFL Street, Electric Railway and Motor Coach Employees Union voted to end a 4-day strike and resume negotiations with the company. The State of Missouri seized the company under its public utility antistrike law on October 11 when the stoppage began and the State Attorney General filed suit against the union for \$10,000 for each day the strike continued after the seizure. This was the first time the penalty section of the State law had been invoked. The union struck over an arbitration panel recommendation for a wage increase of 12 cents an hour in 3 installments over an 18-month period; it demanded a flat 25-cent increase and a 1-year contract.

Communications. A 14-day strike that idled about 22,000 employees of the Pacific Telephone & Telegraph Co. in northern California and Nevada ended October 23, when the company and the CIO Communications Workers reached agreement on a new contract. The agreement provided for an hourly wage increase averaging 10.2 cents for plant employees, advances of \$3 or \$3.50 in starting rates for operators in some cities, and raises of \$2 to \$2.50 for other operators. Increases for commercial and accounting department employees ranged from \$2 to \$4.50 a week. Two independent unions that supported the strike—the United Brotherhood of Telephone Workers and the United Brotherhood of Telephone Workers

³ See Monthly Labor Review, November 1955 (p. 1283).

of Northern California and Nevada—also agreed to wage increases of \$2 to \$4.50 for their members employed in the company's accounting and commercial departments.

The same company previously had announced an agreement with the Federation of Women Telephone Workers of Southern California (Ind.) providing wage increases ranging from \$2 to \$2.50 per week. Reached under a wage reopening clause, the pact covered 12,000 telephone operators.

Another agreement reached October 23 by the CIO union and the Northwestern Bell Telephone Co. also provided weekly raises of \$2 to \$4.50, averting a strike that would have affected 19,000 workers in 5 States.

Earlier in October, the Michigan Bell Telephone Co. concluded an agreement with the CIO Communications Workers for pay raises ranging from \$2.50 to \$5 a week, plus upward reclassification of salary schedules for workers in several towns, certain job upgradings, and some shortening of operators' evening tours. The 1-year agreement, reached after a work suspension of less than 2 hours, continues the present 40-hour week, although the union had sought 35 hours. It was similar to a settlement which followed a September strike of a few hours by 16,000 employees of the Ohio Bell Telephone Co.

Hotels. The first settlement in the 6-month-old strike of about 2,000 workers in 22 Miami and Miami Beach, Fla., hotels came on October 14, when the Monte Carlo Hotel and the AFL Hotel & Restaurant Employees Union agreed on a 5-year contract. The agreement provided for wage increases ranging from \$3 to \$15 a week in the first year, together with a 6-day week with time and one-half pay for the 6th day and other extra work. Additional wage increases were provided for 1957 and 1958, as well as a health and welfare plan to be introduced in 1957. The union continued to seek recognition from the other hotels involved in the strike.

On two occasions after the strike began, the National Labor Relations Board (NLRB) denied union requests for a representation election, citing the Board's long-standing policy against taking jurisdiction in hotel disputes. In 1949, in a case involving the Greenbrier Hotel, White Sulphur Springs, W. Va., and again in 1951, in a case in-

volving the St. Louis Hotel Association, the NLRB took the position that the hotel business does not directly involve interstate commerce and thus does not come under the provisions of the Taft-Hartley law.

The union argued that the Board's policy was outdated and that hotels should not be classified as local business, since the bulk of their trade is interstate. Union members in northern areas were notified that they were in danger of losing their membership if they sought work in Miami at nonunion hotels; there is customarily considerable migration of hotel workers from area to area as the seasons change.

Under Florida law, the hotels can be required to recognize and negotiate with a union only if the majority of their employees have voted for unionization. However, the law makes no provision for elections and thus the union could not prove officially that it represented a majority. The hotel operators consistently refused to abide by a card check or any unofficial tally of sentiment.

On October 19, the Florida Supreme Court ruled that hotel picketing in the area was unlawful because the Hotel Employees union represented "an insignificant number" of hotel workers. The international union's vice president announced immediately that it would appeal to the United States Supreme Court.

Electrical Equipment. Although the General Electric Co. and the CIO Electrical Workers had agreed on a 5-year contract in August,⁴ the union called a nationwide strike of about 46,000 IUE employees of the Westinghouse Electric Corp. on October 17 when negotiations became deadlocked. The stoppage continued through the end of the month. The company offered a total wage increase of about 16 percent spread over a 5-year contract period, plus liberalized pensions and social insurance benefits. The union demanded that the company make a wage offer for the final year of the existing 2-year contract that expires in the autumn of 1956, before making proposals for a longer contract. It also asked for arbitration of disputes over time studies and work standards for nonproduction workers, which had caused a stoppage a few weeks earlier.⁵ To aid the Westinghouse strikers, the union assessed its

⁴ See Monthly Labor Review, October 1955 (p. 1170).

⁵ See Monthly Labor Review, November 1955 (p. 1286).

members \$15, or a day's pay each month, whichever is larger, for the duration of the work stoppage.

About 25,000 Westinghouse employees not covered by union contracts were granted benefits closely paralleling the company's offer rejected by the unions. Pay raises for each of the first 3 years would amount to 3 percent or a minimum of \$1.80 per week (4½ cents an hour), stepped up to 3½ percent in the last 2 years of the 5-year period. Salaried employees earning over \$71.20 weekly will receive additional increases ranging up to \$4.80 and skilled day workers will receive additional increases ranging from ½ to 12 cents an hour. Other improvements included longer vacations, increased pension and insurance benefits, and an escalator provision for quarterly wage adjustments based upon changes in the Bureau of Labor Statistics Consumer Price Index.

Several days earlier, the company signed a 5-year contract with the Federation of Westinghouse Independent Salaried Unions, retroactive to October 15. This contract, covering about 14,000 office employees, also provided for annual wage increases totaling about 16 percent over the life of the contract, as well as changes in supplementary benefits.

A strike of members of the independent United Electrical Workers union closed the Lester, Pa., Westinghouse plant. This dispute started October 15 in a local disagreement over a company proposal to discontinue incentive wage premiums and pay all employees a fixed hourly wage. On October 26, members of the independent United Electrical Workers union stopped work in a contract dispute at other Westinghouse plants.

Metalworking. A particularly bitter dispute flared into violence on October 5 when 8 persons, including strikers and those inside the plant, were injured in a clash arising out of the prolonged stoppage at the New Castle, Ind., foundry of the Perfect Circle Corp. The incident occurred when about 5,000 members of the CIO United Automobile Workers from all parts of the State marched to the foundry (which employs about 260 workers) after the company had discharged 35 workers on October 4, largely because of an earlier picket-line disorder. Subsequently, the Governor sent Indiana National Guardsmen to the area to maintain order and close the plant.

The foundry and the Richmond and Hagerstown, Ind., plants had been struck on July 25 by the UAW in a dispute over a union shop and a wage increase, but the company has continued partial production with nonunion workers. Employees in the Hagerstown and Richmond plants have petitioned the NLRB to decertify the union as bargaining agent. The company indicated that it would not sign a new contract for the Hagerstown and Richmond plants until the decertification matter had been settled, and the union refused to negotiate for the New Castle foundry alone.

On October 10, the Governor invoked full martial law in the 3 towns affected by the strike. At the same time, he made it clear that the company would be permitted to reopen its New Castle foundry and that union members could picket the plants. The union condemned the use of the National Guard and martial law, calling it "a tailormade strikebreaking machine." Martial law was ended on October 20 and the number of National Guardsmen was reduced.

Package contracts, reportedly valued at 17 cents and including a 12-cent hourly general wage increase, were negotiated in mid-September by the CIO United Automobile Workers and the Wright Aeronautical Div. of Curtiss-Wright Corp. The new 2-year contracts, containing a 1-year wage reopener, affect 14,000 production and white-collar employees in 5 New Jersey plants. Because of recognition of the skilled trades by additional increases (up to 4 cents an hour), a group of 400 technicians withdrew application to the NLRB for separate bargaining representation. Other contract provisions included liberalization of vacation, medical, and insurance benefits. Among new job-security provisions was the option given employees with at least 2 years' seniority to follow their jobs if company operations are relocated.

The CIO United Steelworkers and the Crane Co., a manufacturer of plumbing supplies, reached agreement during October on a general hourly wage increase of 11½ cents for 5,000 production and maintenance workers. An additional 3½ cents will be used for inequity adjustments.

Wage reductions to aid employers were negotiated in two settlements. Under a contract with West Michigan Shipyards, Inc., AFL Marine Council employees agreed to reduce their earnings by 50 cents an hour for 6 months. The resulting savings, it was indicated, would be applied to

encourage development of the Muskegon harbor as a winter layup center for Great Lakes vessels. The CIO Auto Workers at Electric Auto-Lite's Toledo plant agreed to a pay cut to help the firm regain its competitive position. Incentive plan revisions, estimated to reduce labor costs by 38 cents an hour, were adopted together with provision for new time studies, job reassignments, and other concessions.

A different pattern was noted when Jaeger Machine Co., a heavy construction equipment manufacturer, voluntarily doubled a 4-cent scheduled pay raise for CIO Steelworkers, because of high productivity.

Textiles, Footwear, and Apparel. A 4-hour strike following contract expiration was terminated by a settlement October 1 between the Textile Workers Union (CIO) and 300 dyeing and finishing plants in New York, New Jersey, and Pennsylvania. The new 3-year agreement gave 16,000 employees a 24-cent hourly wage increase in three installments—12 cents immediately, and an additional 6 cents October 1, 1956, and again in October 1957. Workers in 2 categories were accorded extra 5-cent raises. Other benefits included a 7th paid holiday and increases in company contributions of \$1 a month per employee in 1956 and again in 1957 to company-financed pension plans. On the same day, the union also agreed, in a 1-year contract, to a 6-cent hourly increase for 2,000 workers in 4 Rhode Island and Connecticut dyeing and finishing plants; similar settlements were reached later with other New England plants.

In the shoe industry, Endicott Johnson Corp. on September 22 announced wage increases for its 18,500 employees in 9 northern New York and Pennsylvania plants as well as in its retail stores. The increases, effective October 10, are the first since 1952 and reportedly will average about \$76 annually per worker—or 3 to 4 cents an hour.

Wage increases for 3,800 clerical, stock, production, and maintenance employees of Craddock-Terry Shoe Co. in Virginia were announced, to take effect January 2, 1956. At that time, the company's minimum wage will be raised to \$1 an hour and workers already earning more will receive a 5-percent increase.

Other Industries. In mid-October, the International Brotherhood of Electrical Workers (AFL)

announced new 2-year contracts with New York associations of electrical contractors. Some 6,000 electricians in the construction industry will receive an hourly wage increase of 20 cents, effective January 1, 1956, and an additional 15 cents a year later.

Hollywood film studios will adjust from a 6- to a 5-day week January 30 under a new contract between the International Alliance of Theatrical Stage Employees and the Association of Motion Picture Producers. (Studios operating chiefly for TV were also expected to reduce their workweek.) Other terms of the 39-month contract included an immediate 25-cent hourly wage increase for daily-rated employees, liberalized vacation provisions, and increased employer payments to industry pension and health and welfare funds. When the 5-day workweek becomes effective in January, weekly employees will obtain about the same pay they had been receiving for 6 days. On January 30, 1958, all pay scales will be increased by 2½ percent. About 15,000 workers are covered by the pact. A similar agreement with the association was reached by unions representing truckdrivers, culinary workers, building service employees, and common laborers.

Three-year contracts covering 6,000 atomic energy workers were signed by the CIO Oil, Chemical & Atomic Workers with Union Carbide Nuclear Co. (a division of the Union Carbide & Carbon) for its Oak Ridge, Tenn., and Paducah, Ky., plants and with Carborundum Metals Co. for its Jamestown, N. Y., atomic installation. Union Carbide employees will receive a 24-cent hourly wage increase—10 cents immediately, 7 cents next October, and an additional 7 cents in October 1957. The Carborundum agreement provides for a wage rise of about 10 percent also effective in three steps—5 percent now, and 2½ percent on each of 2 subsequent anniversary dates. At the end of October, the AFL Atomic Trades Council was still seeking settlements at two other Oak Ridge units.

The AFL Teamsters, representing 12,500 drivers and pasteurization plant employees, settled with metropolitan New York milk dealers on a \$5 weekly package pay increase, thus removing the threat of a delivery tieup. The New York companies indicated probable absorption of the higher labor costs, but New Jersey distributors remained noncommittal as to price adjustments. Under

the 2-year contract, wages will be raised by \$2 a week and employer pension and welfare payments increased by \$3, bringing total employer contributions to the fund to \$9 a week.

Approximately 11,500 Bakery and Confectionery Workers (AFL) at 19 National Biscuit Co. plants received 6-percent wage increases, averaging 10 cents an hour, retroactive to September 1. Under the 2-year contract, the company will also boost its payments to the union's national health and welfare fund and, effective January 1, 1957, will provide a 3d week's vacation after 10 instead of 12 years' employment.

Union Developments

Mergers. Leaders of the AFL and CIO held a series of meetings during October to complete preparations for their joint convention early in December. They largely resolved the assignment of key staff positions, including the designation of the present incumbents, James McDevitt (AFL) and Jack Kroll (CIO), as codirectors of political action and the naming of 22 regional officers. John W. Livingston, a vice president of the UAW-CIO, was chosen director of organization to head the revitalized organizing campaign planned by the new federation. George T. Brown, staff assistant to President Meany, was moved to the important post of director of international affairs of the merged organization.

Withdrawing objections raised twice earlier this year,⁶ the AFL Executive Council approved the absorption of the unaffiliated Fur Workers by the Amalgamated Meat Cutters (AFL). President George Meany expressed satisfaction with the progress of the Meat Cutters' drive to eliminate leftwing leadership from the 45,000-member fur group, but he added that the AFL will maintain continued vigilance to insure no Communist influence. In addition to other measures, the meat union had placed a few locals under receivership in the process of expelling over 70 members beyond the 29 officials "marked" by the AFL Council for removal. §

Other Union Activities. Leaders of the AFL Teamsters and the International Longshoremen's

Association (Ind.) spelled out details for a joint cooperation pact designed to provide mutual assistance in organizing and bargaining and to determine procedures for settling jurisdictional disputes. The agreement was subject to consideration by the Teamsters' executive board and to ratification by Atlantic and Gulf Coast dockworkers. There was no specific mention of financial aid for the ILA, which is reportedly in debt for several hundred thousand dollars and is being sued for \$10 million by New York shippers for damage which they attributed to the September 6 strike.⁷ In a contempt case⁸ arising out of last year's New York waterfront strike, the United States Supreme Court rejected on October 24 the Government's appeal from a lower court ruling reversing the contempt convictions of the ILA and its officials.

The Executive Board of the International Ladies' Garment Workers' Union (AFL) instructed its locals to seek a general wage increase for one-third of its 440,000 members, designed to maintain the industry's pay structure after the Federal minimum wage rises to \$1 an hour on March 1, 1956. It also directed its locals to seek a minimum of \$1.10 an hour in union firms. To further insure protection against a deterioration of standards in high-wage centers, the Board authorized a new recruiting campaign among workers in the South and Midwest to get unorganized shops to follow a similar pattern of general pay rises. In another policy decision, it advised against the guaranteed annual wage, preferring the shortened workweek as the most practical method of stabilizing employment and earnings in the industry. The union noted that it had pioneered in guaranteed wage plans but had then abandoned them because of the large number of small producers and their dependence on style fluctuations.

Asserting that it is not contractually obligated to deduct an assessment, Swift & Co. refused to check off the dues increase recently adopted by the CIO Packinghouse Workers as a strike fund measure.

The ILGWU dedicated a middle-income cooperative apartment housing project upon a former slum site in New York City, which it financed by a \$15-million mortgage.

To relieve a local housing shortage, the CIO Auto Workers announced that it will construct a

⁶ See Monthly Labor Reviews, April 1955 (p. 459), May 1955 (p. 579), and October 1955 (p. 1174).

⁷ See Monthly Labor Review, November 1955 (p. 1283).

⁸ See Monthly Labor Review, July 1954 (p. 792).

268-home subdivision, including recreational facilities, for Ford workers in California. Many of these employees must commute nearly 100 miles since the plant was moved to Milpitas from Richmond, Calif.

Other Developments

Supplemental Unemployment Benefits. The New York State Attorney General ruled that the receipt of supplemental unemployment benefits by Ford Motor Co. workers would be compatible with public jobless insurance, thus corroborating the view of the State's unemployment insurance administrator. However, the attorney general stated that this matter should be specifically covered by legislative amendment and that a Federal ruling was also needed on whether employers' payments were subject to State unemployment insurance taxes.

Arbitration and Court Decisions. The ILGWU won an unusual arbitration decision, expected to have wide repercussions, in a case involving imports from Japan by three New York blouse manufacturers. The companies were fined \$60,000, with the Garment Workers planning to disburse the fines for its philanthropic activities. The arbitrator ruled that a clause in the union contract with these and other manufacturers requiring that all blouses be made in ILGWU shops had been violated. The companies affected by the award disavowed intentions of siphoning off work from the union and stressed they were seeking a market that would otherwise be satisfied by import houses not having agreements with the union. Although the union supports lowered trade barriers to promote higher living standards, it has become concerned over the threat to job opportunities and wage levels for its 30,000 blouse-makers in the mid-Atlantic States. An upsurge this year in the importation of Japanese-made cotton blouses—generally retailing for \$1 or less and reportedly representing roughly one-fifth of all blouses sold in the United States—has led the Garment Workers to seek Government relief in the form of import quotas or higher tariffs. Although the Japanese workers are reportedly also unionized,

⁹ *Item Co. v. NLRB* (U. S. Sup. Ct., No. 216, Oct. 10, 1955).

the ILGWU claimed hourly union wage rates in Japan were as low as 13 cents.

In a case⁹ involving alleged discrimination against Newspaper Guild employees in obtaining merit raises, the United States Supreme Court upheld the right of labor unions to secure access to wage information necessary to the "policing" of a collective bargaining agreement.

Race Discrimination. A step toward carrying out the administration's objective of combating racial and religious discrimination in employment was taken on October 25 by a meeting of leading industrialists and Government agency officials. The President's Committee on Government Contracts sponsored the 1-day conference to study the best ways to make further progress in the elimination of job discrimination. The conference emphasized that the primary problem in employment today was not in hiring but in promotion and upgrading. It also concluded that the fears of many companies about putting nondiscrimination practices into force, particularly in the South, have proved unjustified; and that a nondiscrimination policy, to be effective, must be formulated by and receive constant direction by top management.

Labor-Management Cooperation. An unusual 2-year relationship was ended when the Fruehauf Trailer Co. announced full repayment of its \$1.5-million debt to the AFL Teamsters. The union had aided the company president in a proxy fight to retain control by supplying a loan at 4 percent interest, secured by company stock, since outright purchase of the securities was banned by the Teamsters' constitution.

In a rather unusual action, over a score of skilled Italian refugee tailors—the vanguard of possibly as many as 1,000—were flown to New York and guaranteed jobs there in their trade by employers under contract to the Amalgamated Clothing Workers (CIO). Considered adaptable to United States production methods, the workers (to be employed at established pay rates and admitted to union membership) will help alleviate the skilled-tailor shortage that has resulted from death or retirement of older workers. This step was the result of combined sponsorship by labor, industry, and private and governmental agencies.

Book Reviews and Notes

Special Reviews

A Trade Union Analysis of Time Study. By William Gomberg. New York, Prentice-Hall, Inc., 1955. xix, 318 pp., bibliography, charts. 2d ed. \$7.50.

In his first edition (1948), the author subjected time-study techniques to a penetrating analysis and concluded that they represented more nearly an art of approximation than measuring tools of scientific precision. Time study, he said, could not achieve the end product, a specific production standard, but only define a range within which the true standard is to be found. Since traditionally selection of a final standard within the range depends heavily on a time-study engineer's judgment, the author called for other judgments in the selection process, or selection by collective bargaining.

The earlier edition was one of the major modern articulations of the trade union attitude toward time study, an attitude of skepticism toward the claimed scientific formulation of production standards, which has been growing over the past dozen years. In the present edition, the author buttresses his earlier theoretical analysis with strong evidence derived largely from the experimental work of Adam Abruzzi and Gerald Nadler. The new evidence is brought to bear on time study's less exact points; namely, performance rating, selection of raw data, and allowing for physiological and psychological causes of fatigue. The "standard data" system of established time values for a wide range of elemental human emotions is also subjected to critical analyses based on recent experiments in the field.

A recurrent theme of sociological impact runs through both editions, and in the second appears more forcefully to indicate organized labor's mounting interest in the role of the industrial

engineer. In his opening sentence, Mr. Gomberg states that "the industrial engineer works at the bridgehead where technological problems merge into social questions." And later he states that "above all, in a democratic society he [the engineer] must understand the relationship between efficiency and consent," consent meaning worker cooperation and understanding. Examples given of outstanding trade union activities and practices in the field of time study include those of the Textile Workers Union of America (CIO), United Automobile Workers (CIO), and those of Mr. Gomberg's own organization, the International Ladies' Garment Workers' Union (AFL).

The book is highly recommended for students and others who are interested in the general field of establishing production standards—so closely related to productivity—which is still the subject of honest differences and more than a little heat.

—K. G. VAN AUKEN, JR.
Bureau of Labor Statistics

Fundamentals of Private Pensions. By Dan M. McGill. Homewood, Ill., Richard D. Irwin, Inc. (for University of Pennsylvania, Wharton School of Finance and Commerce, Pension Research Council), 1955. 239 pp., bibliography. \$5.

The complexities and variables involved in the planning and administration of private pensions in the United States become strikingly apparent as one reads this informative volume. It is the first publication of the recently formed Pension Research Council of the Wharton School of Finance and Commerce, University of Pennsylvania. It is well for any research group to start at the beginning and this is what Dr. McGill has done. He describes in great detail in the first chapter the underlying forces that have brought the private pension movement to its present state of public concern, with special emphasis on the relative role and influence of public pensions in the development of private plans.

The expressed intent of the volume is "to serve as a basic text for those persons aspiring to a fuller understanding of the private pension mechanism." It was not the intention to impress the technicians but to inform "college or university students and trainees in insurance companies, trust companies, and pension consulting firms." In this sense, it

is a basic manual or guide and should prove very valuable for students and trainees as a reference for basic terms, concepts, and issues in the private pension field.

Chapters 2, 3, and 4 constitute an elaborate glossary of basic terms and concepts in the various technical aspects of private pension planning and administration. These chapters should be extremely helpful in clearing up confusion over the myriad types and combinations of private pension arrangements as to coverage, benefit structure, and sources and methods of financing. The material will be most useful, however, when it is accompanied by the interpretation of a competent instructor who can draw upon practical examples and experiences for detailed and concrete illustrations.

Chapter 5 is by far the most interesting and readable part of the book, as it deals with the problems of costs and discusses pro and con the relative merits of insured plans and self-administered trusteed plans. In this chapter, it becomes clear that if present trends continue, private pensions will be an increasingly significant source of investment resources in the future and, further, that the issues of security of benefits and flexibility in handling investments of pension funds have just begun to crystallize. This chapter is also valuable as a source of basic information for those who are interested in the whole problem of the impact of pension costs on the hiring and retention of middle-aged and older workers. Here are clearly set forth the whole range of variables that may influence the costs of pensions to the employer, such as anticipated rates of interest on invested pension contributions, basic expenses involved in developing and administering the plans, provisions for retention beyond a normal retirement age, and the degree to which employees are contributors to the fund.

Dr. McGill and his colleagues deserve much credit for bringing some order into the literature and discussions surrounding the private pension field. Certainly this volume sets the stage for promising publications from the Pension Research Council.

—CHARLES E. ODELL
Bureau of Employment Security

Personnel Policy in a Public Agency—The TVA Experience. By Harry L. Case. New York, Harper & Brothers, 1955. 176 pp., bibliography. \$3.

Experiment in Management: Personnel Decentralization in the Tennessee Valley Authority. By Robert S. Avery. Knoxville, University of Tennessee Press, 1954. 212 pp. \$4.50.

The appearance of two studies on the personnel relationship system of the Tennessee Valley Authority reflects the continuing interest in the problem of collective bargaining arrangements for government employees. Despite differences in orientation and style—TVA Personnel Director Harry Case writes with the informal but informed assurance of the direct participant, while Robert Avery takes the scholarly approach—the basic problems treated and the basic findings are parallel. Mr. Case deals with the broad sweep of TVA policies and their implications; Mr. Avery is concerned directly with the impact of the broad policies on the decentralization of the personnel authority to operating departments.

The TVA personnel policy, although meeting the inherent responsibilities of a Federal agency, has sought to combine flexibility in management with a democratic employee relations policy. In providing the flexibility needed for the region's unified resources development, Congress also authorized a merit system for TVA specifically outside of the civil service, but required the same non-political administration. Mr. Case points to the TVA record of success in maintaining a non-political merit system; Mr. Avery adds that freedom from civil service regulations made possible a decentralized personnel program.

Flexibility also made possible the development of an employee relations policy consistent with that on the national private industrial scene. The effective relations between TVA and the TVA Trades and Labor Council, particularly in joint participation in wage determination, job classification, employee training, and safety are described. Flexibility has even permitted some accommodation of the union security question, always troublesome in government employment. The two studies together provide an interesting account of the metamorphosis from TVA "neutrality" on union security, through an informal recognition of

limited preference, to the formal policy adopted in 1951 of granting certain preference to union members in appointment and layoff, without any requirement of union membership.

The experience with the slower development of organization among the professional and non-professional white-collar employees is particularly relevant to the problem of collective bargaining for government employees. It was not until appropriate bargaining units were organized and coordination developed among them that the TVA Salary Policy Employee Panel was established and recognized in 1943. Mr. Case reports that the adoption of the prevailing rate policy for setting white-collar salaries in 1951 only partially solved these problems.

The TVA bargaining structure is undoubtedly an adaptation to its own unusual milieu. But the TVA experience, so well described in these studies, should assist government administrators in meeting the need, in the language of the Hoover Commission's Task Force Report on Federal Personnel, for "formal provisions for the positive participation of employees, both as individuals and in organized groups, in the formulation and improvement of Federal personnel policies and practices."

—JOSEPH P. GOLDBERG
Bureau of Labor Statistics

Shapeup and Hiring Hall: A Comparison of Hiring Methods and Labor Relations on the New York and Seattle Waterfronts. By Charles P. Larrowe. Berkeley and Los Angeles, University of California Press, 1955. 250 pp., bibliography, maps, illus. \$4.50.

Professor Larrowe has written an interesting account of the two distinct methods of hiring longshoremen on the East Coast and on the West Coast. He first describes the shapeup and the role played by employers and public officials in creating the system on the New York docks, where the dockworkers have for some time been represented by the International Longshoremen's Association (Ind.). Then, in nontechnical language, he explains in considerable detail the operation of the closely administered employer- and union-operated hiring hall during the past 6 or more years on the West Coast where the stevedores are represented by

the International Longshoremen's and Warehousemen's Union (Ind.). After pointing out the many contrasts presented in longshoring on the two coasts, he concludes that in the East waterfront workers suffer from irregular employment, while in the West they work with as much regularity as employees in other industries.

There follows a résumé of developments on the New York waterfront which brought on a series of investigations leading to findings that, as a result of the lack of a systematic method of hiring, labor conditions within the port were depressing and degrading; employees were subject to exploitation, extortion, and indignities; crime was encouraged; and the cost of necessities of life was greatly increased. A chapter is devoted to an analysis of the reforms instituted upon completion of the investigation, when, in 1953, the legislatures of the States of New York and New Jersey passed the Waterfront Commission Acts which proscribed the shapeup, set up Government-operated hiring halls, and created a bi-State agency endowed with broad powers including the authority to investigate and ban from the longshore industry both employees and employers.

The author questions the necessity of carrying Government intervention in the port of New York as far as was done in the Waterfront Commission Acts, in view of the successful working of the privately operated hiring halls in West Coast ports. He predicts, however, that eventually a responsible union and a responsible employers' association on the Atlantic will attain sufficient maturity to evolve and reach an agreement similar to that enjoyed by their counterparts on the Pacific Coast, and that supervision by fiat and sanction will then cease. The study concludes with a timely epilog, written in January 1955, which reviews the first year's experience with the State-controlled hiring halls operated as a part of the New York reform program. The exploration of the "labyrinthine passages of the Taft-Hartley Act" well deserves the perusal of those who must delve into the depths of labor-management relations. The more casual readers, professional and lay alike, will find the entire voyage through the volume most informative.

—STEPHEN S. BEAN
National Labor Relations Board

Automation

A Case Study of a Company Manufacturing Electronic Equipment. By Edgar Weinberg. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1955. 19 pp., bibliography. (Studies of Automatic Technology, 1.) Free.

The Introduction of an Electronic Computer in a Large Insurance Company. By K. G. Van Auken, Jr. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1955. 18 pp. (Studies of Automatic Technology, 2.) Free.

Proceedings of Symposium on Electronics and Automatic Production, San Francisco, Calif., August 22-23, 1955. [Menlo Park, Calif., Stanford Research Institute?], 1955. Various pagings, diagrams, illus.

Contains numerous references to the kinds of skilled workers required, and to the impact upon employment of the introduction of automatic production, especially that characterized by electronics. The symposium was sponsored jointly by the National Industrial Conference Board and Stanford Research Institute.

Source Materials on Automation and Related Subjects. [Detroit, United Automobile, Aircraft, and Agricultural Implement Workers of America, CIO], Research and Engineering Department Library, April 1955. 74 pp.

Education and Training

Apprenticeship—Past and Present. By Reginald Perry. Washington, U. S. Department of Labor, Bureau of Apprenticeship, 1955. 34 pp. 3d ed. 20 cents, Superintendent of Documents, Washington.

A story of apprentice training in the skilled trades in the United States since colonial days.

Apprentice Training in the Building Trades, 1950-55. By John S. McCauley. (In *Construction Review*, U. S. Department of Labor and U. S. Department of Commerce, Washington, October 1955, pp. 9-12. 30 cents, Superintendent of Documents, Washington.)

Guide to Guidance, Volume XVII: A Selected Bibliography of 1954 Publications of Interest to Deans, Counselors, Advisers, Teachers, and Administrators. By Kathryn Anne Emerson. Syracuse, N. Y., Syracuse University, 1955. 64 pp.

References on vocational guidance are included.

General Education and Vocational Training in Great Britain. By G. D. H. Cole. (In *International Labor Review*, Geneva, August-September 1955, pp. 164-186. 60 cents. Distributed in United States by Washington Branch of ILO.)

Housing

The European Housing Developments and Policies in 1954. Geneva, United Nations, Economic Commission for Europe, 1955. 61 pp. (E/ECE/209; E/ECE/HOU 54.) 40 cents, Columbia University, International Documents Service, New York.

The Solution of the Housing Problem in the Federal Republic of Germany. (In *International Labor Review*, Geneva, August-September 1955, pp. 187-202. 60 cents. Distributed in United States by Washington Branch of ILO.)

Industrial Hygiene

Criteria for the Diagnosis of Occupational Illness. (In *Industrial Medicine and Surgery*, Chicago, October 1955, pp. 427-442. 75 cents.)

Illnesses caused by metals and other inorganic substances, solvents, radiation, and organic material are the subjects, respectively, of four separate papers discussing diagnostic criteria.

Dust Is Dangerous. By C. N. Davies. London, Faber and Faber, Ltd., 1954. xvii, 116 pp., bibliographical footnotes, diagrams, illus. \$4.50, John de Graff, Inc., New York.

Seeks to "explain and classify the dangers of dust, and to set out general principles for assessing and dealing with dust problems" in industry.

Guide for Industrial Audiometric Technicians. By Employers Mutuals of Wausau. Wausau, Employers Mutual Liability Insurance Co. of Wisconsin, 1955. 36 pp., diagrams, illus.

Designed as a teaching aid and a source of information "to enable the technician to deal more effectively with the new problems of industrial hearing conservation."

Papers Read at McIntyre-Saranac Conference on Occupational Chest Disease, Saranac Lake, N. Y., February 7-9, 1955. (In A.M.A. Archives of Industrial Health, Chicago, September 1955, pp. 229-367, bibliographies, charts, illus. \$1.)

The concluding presentation in the Archives of the papers presented at the Saranac conference. Previous installments were in the July and August issues.

The Protection of Workers Against Ionizing Radiations. Geneva, International Labor Office, 1955. 66 pp., bibliography, forms, illus. 50 cents. Distributed in United States by Washington Branch of ILO.

Report submitted to International Conference on the Peaceful Uses of Atomic Energy, Geneva, August 1955.

Occupational Health Publications in the United States Prior to 1900. By Carey P. McCord, M.D. (In *Industrial Medicine and Surgery*, Chicago, August 1955, pp. 363-368. 75 cents.)

Industrial Relations

The 1955 Ford and General Motors Union Contracts. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1955. 7 pp. (Reprint 2171; from Monthly Labor Review, August 1955.) Free.

Union-Security Provisions in Agreements, 1954. By Rose Theodore. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1955. 10 pp., charts. (Reprint 2170; from Monthly Labor Review, June 1955.) Free.

Work Stoppages in the Bituminous-Coal Mining Industry, 1927-54. By Ann J. Herlihy. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1955. 18 pp. (BLS Report 95.) Free.

Local Employers' Associations. By William H. Smith. Berkeley, University of California, Institute of Industrial Relations, 1955. 72 pp., bibliography. 25 cents.

Describes various types of local employers' associations and the services they perform, especially in the field of labor-management relations.

Trade Unionism and Collective Bargaining in Italy. By J. A. Raffaele. (In Social Research, New York, Summer 1955, pp. 138-162. \$1.50.)

Labor and Social Legislation

State Right-To-Work Laws: Pros and Cons. (In Management Record, National Industrial Conference Board, Inc., New York, July 1955, pp. 271-281.)

A Statement of the Laws of Haiti in Matters Affecting Business. By Charles Fernand Pressoir, Georges Baussan Fils, Pierre Chauvet. Washington, Pan American Union, Department of International Law, Division of Law and Treaties, 1955. 77 pp., bibliography. 2d ed. \$3.

Includes a section on labor and social legislation. Similar reports have been published by PAU in 1955 for Brazil, Ecuador, and Peru.

Recopilación de Leyes y Reglamentos Sobre Trabajo y Seguridad Social, [El Salvador]. San Salvador, Ministerio de Trabajo y Previsión Social, 1954. 465 pp.

Labor Organization

History of the Brotherhood of Maintenance of Way Employees: Its Birth and Growth, 1887-1955. By D. W. Hertel. [Detroit, Brotherhood of Maintenance of Way Employees], 1955. xxvii, 308 pp., illus. \$3.50.

The Labor Movement in San Antonio, Texas, 1865-1915. By Harold A. Shapiro. (In Southwestern Social Science Quarterly, Austin, Tex., September 1955, pp. 160-175.)

Women in the Trade Union Movement, [Great Britain]. London, Trades Union Congress, 1955. 99 pp., illus. 2s. 6d.

Relazione della Segreteria Confederale, 2d Congresso Nazionale, Confederazione Italiana Sindacati Lavoratori, Roma, 23-27 Aprile 1955. Rome, [Confederazione Italiana Sindacati Lavoratori], 1955. xv, 317 pp.

Report of the Secretariat to the second national congress of the Italian Confederation of Workers' Unions, Rome, April 23-27, 1955.

The Trade Union Movement in Norway. Oslo, Arbeidernes Faglige Landsorganisasjon i Norge, 1955. 68 pp. 2d ed. In English. 1 kr.

Manpower

Aircraft and Parts Manufacturing. By Ruth Rosenwald. Washington, U. S. Department of Labor, Bureau of Employment Security, 1955. 12 pp. (Industry Manpower Survey 72.) Free.

Labor Force Characteristics in Twenty Small Arizona Communities. By William J. Haltigan. (In Arizona Business and Economic Review, University of Arizona, College of Business and Public Administration, Bureau of Business Research, Tucson, September 1955, pp. 1-12, chart, map.)

Medical Care and Health Insurance

The Economic Position of Medical Care, 1929-53. By Frank G. Dickinson and James Raymond. Chicago, American Medical Association, 1955. 36 pp., charts. (Bull. 99.)

Reprints, with additions, of articles in the AMA Journal for September 3 and 10, 1955.

Guiding Principles for the Organization of Occupational Medical Services in Places of Employment. (In Occupational Safety and Health, International Labor Office, Geneva, April-September 1955, pp. 111-120, bibliography. 75 cents. Distributed in United States by Washington Branch of ILO.)

Voluntary Health Insurance Coverage—A Survey. (In American Economic Security, Chamber of Commerce of the United States, Washington, July-August 1955, pp. 9-19, charts. 25 cents.)

Some considerations on Sickness Insurance in Latin America. By Luis Mijares Ulloa. (In Bulletin of the International Social Security Association, [Geneva], July 1955, pp. 243-253.)

Migratory Labor

Migratory Farm Workers in the Atlantic Coast Stream—A Study in the Belle Glade Area of Florida. By William H. Metzler. Washington, U. S. Department of

Agriculture, 1955. 79 pp., bibliography, chart, map, illus. (Circular 966.) 30 cents, Superintendent of Documents, Washington.

Report of the New York State Joint Legislative Committee on Migrant Labor, 1955. Albany, 1955. 25 pp. (Legislative Document, 1955, No. 51.)

Discusses various migrant labor problems and applicable legislation and makes recommendations.

Occupations

I Find My Vocation. By Harry Dexter Kitson. New York, McGraw-Hill Book Co., Inc., 1954. 282 pp., bibliographies, forms, illus. 4th ed. \$2.80.

Designed primarily as a textbook for use by teachers and counselors responsible for assisting students in choosing an occupation.

Teaching as a Career. By Earl W. Anderson. Washington, U. S. Department of Health, Education, and Welfare, Office of Education, 1955. 20 pp., bibliography. (Bull., 1955, No. 2.) 15 cents, Superintendent of Documents, Washington.

Older Worker and the Aged

Aging and Retirement. Edited by Irving L. Webber. Gainesville, University of Florida, Institute of Gerontology, 1955. 142 pp., bibliographical footnotes, charts. (Institute of Gerontology Series, Vol. 5.) \$2, University of Florida Press, Gainesville.

Report on Fifth Annual Southern Conference on Gerontology held at University of Florida, December 28-30, 1954.

Flexible Retirement and Preretirement Planning. Ithaca, N. Y., Cornell University, New York State School of Industrial and Labor Relations, [1955?]. 66 pp., charts.

Digest of proceedings of Cornell seminar for business and industry, December 7-8, 1954.

The Employment of Older Women. (In *International Labor Review*, Geneva, July 1955, pp. 61-77. 60 cents. Distributed in United States by Washington Branch of ILO.)

Occupations for Men and Women After 45. By Juvenal L. Angel. New York, World Trade Academy Press, Inc., 1954. 99 pp., bibliography. \$5.

Report of Governor's Committee to Study Problems of the Aging. Salem, Oreg., 1954. 41 pp., charts.

Report of the Committee on the Economic and Financial Problems of the Provision for Old Age. London, 1954. 120 pp. (Cmd. 9333.) 4s. net, H. M. Stationery Office, London.

Includes sections on Government and private pensions and other forms of assistance for the aged in Great Britain.

Pension and Welfare Plans

Pension Plans and Their Administration. By F. Beatrice Brower. New York, National Industrial Conference Board, Inc., 1955. 56 pp. (Studies in Personnel Policy, 149.)

Proceedings of 32d Annual Meeting of National Council on Teacher Retirement of the National Education Association, St. Louis, Mo., February 23-25, 1955. [Madison, Wis., Ray L. Lillywhite, Secretary of Council, 905 University Avenue], 1955. 131 pp., charts.

The Law of Employee Benefit Plans. By David Ziskind. (In *Washington University Law Quarterly*, St. Louis, Mo., April 1955, pp. 112-153. \$1.25.)

Seventh Annual Labor-Management Conference, New Brunswick, N. J., April 26, 1955: Benefit Plans in Collective Bargaining. New Brunswick, Rutgers University, Institute of Management and Labor Relations, 1955. 93 pp.

Report of United Mine Workers of America Welfare and Retirement Fund for Year Ending June 30, 1955. Washington, 1955. 33 pp., charts, illus.

Industrial Pension Plans [in Canada]. (In *Labor Research*, Canadian Congress of Labor, Ottawa, July-September 1955, pp. 1-12, charts. 15 cents.)

Henimod Folkepension. By Geert Drachmann. Copenhagen, Det Danske Forlag, 1955. 86 pp., charts. (Socialpolitisk Forenings Småskrifter 20.) 3.75 kr.

Personnel Management

Management Training—Cases and Principles. By William J. McLarney. Homewood, Ill., Richard D. Irwin, Inc., 1955. xx, 371 pp., bibliographies. Rev. ed. \$5.50.

Provides cases and principles to be used in a conference program of management training, "fitted to the first-line supervisor and the middle-management man."

Selected Reading List on Human Relations in Management. New York, Columbia University, Department of Industrial and Management Engineering, 1955. 30 pp. \$3.

Prepared for 4th Utility Management Workshop and 6th Industrial Research Conference, Arden House, Columbia University, 1955.

Supervisory Development. Washington, Bureau of National Affairs, Inc., 1955. In 2 parts, 14 and 13 pp. (Personnel Policies Forum Surveys 31 and 32.) \$1 each.

Social Security (General)

American Social Insurance. By Domenico Gagliardo. New York, Harper & Brothers, 1955. xxiii, 672 pp., bibliography. Rev. ed. \$6.

The Contribution of Life Insurance to Social Security in the United States. By Chester C. Nash. (In *International Labor Review*, Geneva, July 1955, pp. 21-39. 60 cents. Distributed in United States by Washington Branch of ILO.)

Twenty Years Under the Railroad Retirement and Unemployment Insurance Systems. (In *Monthly Review*, U. S. Railroad Retirement Board, Chicago, October 1955, pp. 183-208, charts.)

Mothers' Allowances Legislation in Canada. Ottawa, Department of National Health and Welfare, Research Division, 1955. 92 pp. (Social Security Series, Memorandum 1.) Rev. ed.

Wages and Hours of Labor

A Deviation in the Pattern of Relative Earnings for Production Workers and Office Personnel. By John P. Henderson. (In *Journal of Business*, University of Chicago, School of Business, July 1955, pp. 195-205. \$1.75.)

Earnings and Hours in April 1955, [Great Britain]. (In *Ministry of Labor Gazette*, London, September 1955, pp. 305-312. 1s. 6d. net, H. M. Stationery Office, London.)

Wages in Japan. Tokyo, Daily Labor Press, Inc., 1954. 69 pp., charts, illus.

Includes data on fringe benefits, factors adversely affecting wages, labor productivity, and labor legislation.

Jordbruksstatistikk, 1954. Oslo, Statistisk Sentralbyrå, 1955. 107 pp., survey form. (Norges Offisielle Statistisk, XI, 202.) 3 kr.

Annual compilation of Norwegian agricultural statistics. Tabulations of wages of men and of women, 1954-55, are included.

Work Accidents

Injury Experience in the Coking Industry, 1952—Detailed Analysis of Safety Factors and Related Employment Data. By Seth T. Reese and Naomi W. Kearney. Washington, U. S. Department of the Interior, Bureau of Mines, 1955. 20 pp. (Bull. 548.) 20 cents, Superintendent of Documents, Washington.

A 4-page summary of data for 1954 was issued recently by the Bureau of Mines as one of its Mineral Industry Surveys (HSS 438).

Injury Experience in the Oil and Gas Industry of the United States, 1954. By Nina L. Jones and Nell B. Bradley. Washington, U. S. Department of the Interior, Bureau of Mines, 1955. 7 pp. (Mineral Industry Surveys, HSS 437.)

[1954 Accident Experience of Member Plants of Portland Cement Association.] (In *Accident Prevention Magazine*, Portland Cement Association, Chicago, Summer 1955, pp. 3-23, charts, illus.)

Annual Report on Compensable Work Injuries: Part I, Work Injuries Reported During 1954 to the Illinois Industrial Commission Under the Workmen's Compensation and Occupational Diseases Acts. [Chicago], Illinois Department of Labor, Division of Statistics and Research, 1955. Various pagings, charts, map.

Miscellaneous

The American Economy—Attitudes and Opinions. By A. Dudley Ward. New York, Harper & Brothers, 1955. xx, 199 pp. \$3.50.

One of the "Ethics and Economic Life" series originated by Federal Council of Churches. In a section on "work," various phases of the work life are discussed—satisfaction and dissatisfaction, use of leisure, retirement, security, labor unions, and youth training.

Labor. Washington, Government Printing Office, Superintendent of Documents, August 1955. 25 pp. (Price List 33-37th ed.) Free.

Lists publications on a variety of labor subjects for sale by the Superintendent of Documents.

Man, Motives, and Money: Psychological Frontiers of Economics. By Albert Lauterbach. Ithaca, N. Y., Cornell University Press, 1954. 366 pp., bibliography. \$5.

This study attempts to develop the complexity, variability, and elasticity of the motivations that guide economic decisions and actions.

An Adventure in Free Enterprise: [Highlights of Proceedings of 7th Annual Conference of Council of Profit Sharing Industries, Chicago, October 28-29, 1954]. Chicago, Council of Profit Sharing Industries, [1955?]. 64 pp., chart, illus.

Annual Report of the U. S. Department of Health, Education, and Welfare, 1954. Washington, 1955. 278 pp., charts, map. 75 cents, Superintendent of Documents, Washington.

The several agencies of the department whose work is reported upon include the Social Security Administration and the Office of Vocational Rehabilitation.

The Dock Worker: An Analysis of Conditions of Employment in the Port of Manchester, [England]. Liverpool, University of Liverpool, Department of Social Science, 1954. 277 pp., charts. 17s. 6d., University Press of Liverpool.

Current Labor Statistics

A.—Employment and Payrolls

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- 1512 Table A-4: Indexes of production-worker employment and weekly payrolls in manufacturing industries ¹
- 1512 Table A-5: Federal personnel, civilian and military ¹
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- 1536 Table C-4: Average hourly earnings, gross and excluding overtime, of production workers in manufacturing industries ¹
- 1536 Table C-5: Indexes of aggregate weekly man-hours in industrial and construction activity ¹
- 1537 Table C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas ²

¹ Beginning with the June 1955 issue, data shown in tables A-2, A-3, A-4, A-5, C-1, C-2, C-3, C-4, and C-5 have been revised because of adjustment to more recent benchmark levels. These data cannot be used with those appearing in previous issues of the Monthly Labor Review. Comparable data for earlier years are available upon request to the Bureau of Labor Statistics.

² This table is included in the March, June, September, and December issues of the Review.

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- 1545 Table D-2: Consumer Price Index—United States average, food and its subgroups
- 1545 Table D-3: Consumer Price Index—United States average, apparel and its subgroups
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A: Employment and Payrolls

TABLE A-1: Estimated total labor force classified by employment status, hours worked, and sex

[In thousands]

Labor force status	Estimated number of persons 14 years of age and over ¹												
	1955										1954 ²		
	Oct.	Sept.	Aug.	July	June	May	April	Mar.	Feb.	Jan.	Dec.	Nov. ³	Oct.
	Total, both sexes												
Total labor force.....	70,250	69,853	70,695	70,429	69,692	68,256	67,784	66,840	66,550	66,700	66,811	67,909	68,190
Civilian labor force.....	67,292	66,882	67,726	67,465	66,696	65,192	64,647	63,654	63,321	63,497	63,526	64,624	64,882
Unemployment.....	2,131	2,149	2,237	2,471	2,679	2,489	2,962	3,176	3,383	3,347	2,838	2,893	2,741
Unemployed 4 weeks or less.....	1,079	1,128	1,060	1,160	1,433	996	958	964	1,138	1,329	1,164	1,274	1,129
Unemployed 5-10 weeks.....	471	390	528	609	464	453	538	795	893	881	726	705	635
Unemployed 11-14 weeks.....	130	172	189	116	135	161	355	356	377	263	241	183	181
Unemployed 15-26 weeks.....	238	242	195	280	337	470	664	615	524	415	351	379	406
Unemployed over 26 weeks.....	213	216	265	306	311	409	447	450	447	459	376	352	391
Employment.....	65,161	64,733	65,488	64,994	64,016	62,703	61,685	60,477	59,938	60,150	60,688	61,731	62,141
Nonagricultural.....	57,256	56,858	57,932	57,291	56,335	55,740	55,470	54,785	54,854	54,853	55,363	55,577	54,902
Worked 35 hours or more.....	45,984	46,636	44,910	43,955	45,830	45,831	43,721	45,248	44,741	44,074	45,958	40,506	43,666
Worked 15-34 hours.....	6,811	5,357	5,173	5,201	5,580	5,617	7,478	5,618	5,935	6,606	5,801	11,195	7,144
Worked 1-14 hours.....	2,289	2,087	1,924	1,913	2,194	2,440	2,361	2,241	2,265	2,170	2,079	2,322	2,184
With a job but not at work ⁴	2,173	2,777	5,945	6,221	2,731	1,852	1,911	1,678	1,914	2,004	1,435	1,554	1,899
Agricultural.....	7,905	7,875	7,536	7,704	7,681	6,963	6,215	5,692	5,084	5,297	5,325	6,154	7,239
Worked 35 hours or more.....	5,937	6,093	5,572	5,625	5,637	5,175	4,332	4,273	3,619	3,551	3,788	4,598	5,353
Worked 15-34 hours.....	1,547	1,343	1,347	1,505	1,579	1,372	1,441	976	1,004	1,167	977	1,126	1,464
Worked 1-14 hours.....	297	309	328	330	334	263	257	249	292	305	302	259	295
With a job but not at work ⁴	124	129	290	244	132	153	186	194	269	274	259	171	126
	Males												
Total labor force.....	48,265	48,216	49,180	49,323	48,848	47,801	47,590	47,226	46,922	47,044	47,005	47,426	47,586
Civilian labor force.....	45,341	45,279	46,245	46,393	45,888	44,773	44,493	44,078	43,731	43,879	43,759	44,180	44,317
Unemployment.....	1,254	1,201	1,387	1,603	1,753	1,624	2,093	2,283	2,431	2,395	1,996	1,875	1,796
Employment.....	44,087	44,078	44,858	44,790	44,135	43,149	42,400	41,795	41,301	41,485	41,762	42,305	42,522
Nonagricultural.....	38,145	38,107	38,878	38,715	38,153	37,527	37,113	36,772	36,680	36,732	36,954	37,134	36,792
Worked 35 hours or more.....	32,415	32,918	32,054	31,636	32,805	32,626	31,211	31,946	31,481	31,041	32,071	28,956	30,780
Worked 15-34 hours.....	3,340	2,574	2,633	2,620	2,848	2,674	3,688	2,766	3,036	3,454	2,972	6,236	3,782
Worked 1-14 hours.....	937	837	764	825	978	1,072	1,049	981	972	972	900	917	864
With a job but not at work ⁴	1,453	1,778	3,427	3,635	1,622	1,156	1,165	1,079	1,190	1,265	1,011	1,026	1,366
Agricultural.....	5,942	5,971	5,980	6,075	5,982	5,622	5,287	5,023	4,621	4,733	4,808	5,171	5,730
Worked 35 hours or more.....	4,863	4,977	4,803	4,912	4,800	4,492	4,052	4,005	3,338	3,378	3,600	4,155	4,579
Worked 15-34 hours.....	765	681	704	726	845	810	862	620	757	864	711	659	822
Worked 1-14 hours.....	205	195	228	223	222	185	201	212	269	266	256	206	201
With a job but not at work ⁴	110	118	244	209	115	135	172	186	256	245	241	151	128
	Females												
Total labor force.....	21,985	21,637	21,515	21,106	20,844	20,456	20,191	19,614	19,628	19,655	19,806	20,484	20,604
Civilian labor force.....	21,951	21,603	21,481	21,072	20,808	20,420	20,154	19,576	19,590	19,617	19,767	20,445	20,565
Unemployment.....	877	948	850	868	926	865	869	893	952	952	841	1,018	945
Employment.....	21,073	20,654	20,631	20,204	19,882	19,555	19,284	18,683	18,638	18,666	18,925	19,427	19,619
Nonagricultural.....	19,111	18,751	19,075	18,575	18,182	18,213	18,357	18,014	18,174	18,122	18,408	18,444	18,110
Worked 35 hours or more.....	13,568	13,716	12,856	12,320	13,025	13,205	12,510	13,302	13,263	13,034	13,887	11,550	12,885
Worked 15-34 hours.....	3,471	2,784	2,541	2,581	2,731	2,943	3,790	2,852	2,898	3,151	2,919	4,960	3,362
Worked 1-14 hours.....	1,352	1,250	1,160	1,088	1,216	1,368	1,311	1,259	1,293	1,198	1,178	1,406	1,330
With a job but not at work ⁴	719	1,001	2,518	2,587	1,209	696	745	600	720	739	424	528	533
Agricultural.....	1,962	1,904	1,556	1,629	1,700	1,342	927	669	464	544	517	983	1,509
Worked 35 hours or more.....	1,074	1,116	766	714	837	683	280	269	181	173	188	443	775
Worked 15-34 hours.....	782	661	643	779	734	563	579	356	247	303	266	467	642
Worked 1-14 hours.....	92	115	100	102	112	78	55	37	22	39	46	53	94
With a job but not at work ⁴	14	11	46	34	17	18	14	8	14	29	17	20	0

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. Prior to July 1955, data refer to the week including the 8th of the month; subsequent data refer to the week including the 12th of the month. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

² Data beginning January 1954 are based upon a new Census sample in 230 areas and are not entirely comparable with previously published estimates for earlier months. Revised monthly data for 1953 were published in the

Census Bureau's "Annual Report on the Labor Force: 1954."

³ Census survey week contained legal holiday.

⁴ Includes persons who had a job or business, but who did not work during the survey week because of illness, bad weather, vacation, labor dispute, or because of temporary layoff with definite instructions to return to work within 30 days of layoff. Also includes persons who had new jobs to which they were scheduled to report within 30 days.

Source: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2: Employees in nonagricultural establishments, by industry ¹—Continued

Industry	1955										1954			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1954	1953
	Transportation and public utilities	4,118	4,151	4,137	4,113	4,081	3,997	3,939	3,966	3,937	3,927	3,996	3,986	4,005	4,008
Transportation.....	2,783	2,792	2,769	2,749	2,735	2,701	2,653	2,648	2,625	2,617	2,653	2,672	2,690	2,688	2,890
Interstate railroads.....	1,241.7	1,245.5	1,239.7	1,224.4	1,196.2	1,158.6	1,158.6	1,156.8	1,152.3	1,152.9	1,186.8	1,185.7	1,202.9	1,215.4	1,376.9
Class I railroads.....	1,092.1	1,096.1	1,090.8	1,075.8	1,049.8	1,012.4	1,010.6	1,008.7	1,008.4	1,008.4	1,029.2	1,036.7	1,055.1	1,064.6	1,206.5
Local railways and bus lines.....	116.0	113.2	112.4	118.4	119.7	119.7	120.5	121.1	121.7	122.6	123.0	123.0	124.0	126.9	129.1
Trucking and warehousing.....	791.2	772.8	762.0	760.4	754.5	747.9	743.9	732.3	724.3	748.0	741.0	737.0	719.7	731.4	731.4
Other transportation and services.....	642.7	637.2	634.4	632.0	631.0	627.0	626.3	618.8	617.7	625.9	622.0	625.8	626.3	661.3	661.3
Bus lines, except local.....	45.2	45.5	45.8	43.9	43.1	43.4	43.2	43.3	44.0	44.1	44.1	44.5	45.8	51.4	51.4
Air transportation (common carrier).....	117.3	116.7	116.2	114.7	112.7	110.1	108.4	107.2	106.1	105.5	104.8	104.4	105.2	104.9	104.9
Communication.....	752	770	773	770	758	716	709	741	737	735	736	736	736	741	747
Telephone.....	727.5	731.0	727.4	715.2	673.6	666.9	699.7	696.1	693.4	694.2	694.3	693.9	698.8	702.2	702.2
Telegraph.....	41.9	41.6	42.0	41.6	41.5	41.6	40.8	40.6	41.1	41.5	41.0	41.0	41.2	43.7	43.7
Other public utilities.....	583	589	595	594	588	580	577	575	575	577	578	579	579	576	576
Gas and electric utilities.....	566.2	571.7	570.8	564.6	557.1	554.3	554.4	553.3	553.1	554.7	555.2	556.4	556.3	552.4	552.4
Electric light and power utilities.....	253.0	254.8	254.5	252.0	248.1	248.3	248.3	247.6	247.2	247.4	247.6	248.0	249.0	248.2	248.2
Gas utilities.....	143.1	145.2	144.4	142.5	140.1	138.4	138.6	138.2	138.5	139.2	139.5	140.1	139.1	133.2	133.2
Electric light and gas utilities combined.....	170.1	171.7	171.9	170.1	167.9	167.6	167.5	167.5	167.4	168.1	168.1	168.3	168.2	171.1	171.1
Local utilities, not elsewhere classified.....	23.0	23.4	23.4	23.0	22.7	22.8	22.5	22.0	22.1	22.2	22.3	22.5	22.4	23.2	23.2
Wholesale and retail trade	10,919	10,813	10,638	10,633	10,643	10,534	10,549	10,408	10,309	10,419	11,354	10,745	10,548	10,498	10,527
Wholesale trade.....	2,905	2,877	2,863	2,858	2,826	2,801	2,804	2,813	2,806	2,817	2,860	2,849	2,819	2,796	2,784
Retail trade.....	8,014	7,936	7,775	7,775	7,817	7,733	7,745	7,595	7,503	7,602	8,494	7,896	7,729	7,702	7,744
General merchandise stores.....	1,440.7	1,392.5	1,315.0	1,313.4	1,348.7	1,341.8	1,371.7	1,304.8	1,269.2	1,326.6	1,903.0	1,518.1	1,398.4	1,395.8	1,444.5
Food and liquor stores.....	1,535.9	1,515.2	1,499.0	1,505.7	1,502.7	1,486.7	1,478.2	1,471.4	1,467.4	1,462.3	1,493.6	1,471.8	1,460.2	1,446.2	1,395.3
Automotive and accessories dealers.....	783.5	785.1	788.3	784.9	776.6	767.8	762.5	755.4	749.4	749.3	767.1	754.3	749.4	764.6	798.8
Apparel and accessories stores.....	598.6	588.4	540.8	552.8	596.1	593.5	612.3	578.3	555.3	579.0	723.2	614.4	597.5	592.4	598.6
Other retail trade.....	3,655.6	3,654.7	3,631.4	3,618.4	3,592.8	3,542.9	3,520.7	3,485.2	3,461.6	3,485.1	3,607.4	3,537.4	3,523.2	3,502.8	3,506.1
Finance, insurance, and real estate	2,215	2,224	2,241	2,237	2,206	2,171	2,161	2,150	2,132	2,124	2,136	2,134	2,136	2,114	2,038
Banks and trust companies.....	555.6	561.2	560.7	549.0	540.8	539.9	538.2	535.7	531.8	532.6	530.3	529.5	529.3	513.5	513.5
Security dealers and exchanges.....	78.7	80.2	79.4	77.9	76.9	76.5	75.5	74.2	72.4	70.8	70.0	69.2	67.3	65.7	65.7
Insurance carriers and agents.....	798.3	802.7	798.6	788.1	781.1	782.5	781.5	778.3	776.2	777.5	776.4	775.8	770.6	739.4	739.4
Other finance agencies and real estate.....	791.6	796.8	798.7	790.6	771.7	762.2	754.7	744.1	743.3	754.6	756.9	761.2	746.4	719.3	719.3
Service and miscellaneous	5,725	5,791	5,818	5,816	5,775	5,733	5,674	5,571	5,536	5,533	5,588	5,622	5,660	5,629	5,538
Hotels and lodging places.....	507.6	575.4	574.2	513.9	488.3	479.7	462.9	461.5	456.3	462.9	465.6	474.4	498.0	504.3	504.3
Personal services:															
Laundries.....	336.4	337.7	339.0	337.7	333.1	328.5	325.4	324.0	326.2	327.1	328.3	329.5	331.4	339.2	339.2
Cleaning and dyeing plants.....	155.3	151.1	155.7	160.8	160.4	157.1	154.1	150.3	152.7	155.1	158.4	159.8	160.7	166.2	166.2
Motion pictures.....	240.6	239.6	239.9	239.3	238.7	236.5	228.9	224.4	224.4	225.5	229.9	236.7	231.5	234.0	234.0
Government	7,042	6,911	6,717	6,696	6,851	6,881	6,927	6,922	6,873	6,835	7,166	6,917	6,829	6,751	6,645
Federal.....	2,160	2,173	2,190	2,187	2,183	2,159	2,153	2,148	2,142	2,139	2,457	2,165	2,147	2,188	2,305
State and local ⁴	4,882	4,738	4,527	4,509	4,668	4,722	4,774	4,774	4,731	4,696	4,709	4,752	4,682	4,563	4,340

¹ The Bureau of Labor Statistics series on employment in nonagricultural establishments are based upon reports submitted by cooperating firms. These reports cover all full- and part-time employees in private nonagricultural establishments who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. Because of this, persons who worked in more than one establishment during the reporting period will be counted more than once. In Federal establishments the data generally refer to persons who worked on, or received pay for, the last day of the month. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded. These employment series have been adjusted to first-quarter 1954 benchmark levels indicated by data from government social-insurance programs.

Data for the 2 most recent months are subject to revision without notation; revised figures for earlier months will be identified by asterisks the first month they are published.

These data differ in several respects from the nonagricultural employment data shown in the Monthly Report on the Labor Force (table A-1, civilian labor force), which are obtained by household interviews. This MRLF series relates to the calendar week which contains the 8th day of the month. It includes all persons (14 years and over) with a job whether at work or not, proprietors self-employed persons, unpaid family workers, and domestic servants.

² Durable goods include: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

³ Nondurable goods include: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

⁴ State and local government data exclude, as nominal employees, elected officials of small local units, and paid volunteer firemen.

See footnote 1, p. 1502.

NOTE.—Information on concepts, methodology, etc., is given in a technical note on Measurement of Industrial Employment, which appeared in the September 1953 Monthly Labor Review.

TABLE A-3: Production workers in mining and manufacturing industries¹—Continued

[In thousands]

Industry	1955											1954			Annual average	
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	1954	1953	
Manufacturing—Continued																
Machinery (except electrical).....	1,175.6	1,147.2	1,154.8	1,159.5	1,181.7	1,174.2	1,164.0	1,144.2	1,125.0	1,109.3	1,105.9	1,092.0	1,092.5	1,147.8	1,303.1	
Engines and turbines.....	57.0	57.2	57.8	57.8	58.2	57.6	56.1	54.5	54.8	54.2	53.6	50.5	52.3	53.6	64.7	
Agricultural machinery and tractors.....	87.8	114.3	122.0	123.2	123.6	123.3	121.4	117.6	112.1	106.0	101.6	99.6	105.8	105.8	126.2	
Construction and mining machinery.....	98.3	96.7	94.6	94.5	91.9	90.1	88.5	86.5	85.6	85.0	85.2	86.7	89.4	89.4	99.6	
Metalworking machinery.....	200.9	198.1	196.9	197.9	195.9	193.9	192.0	190.1	189.6	189.5	191.5	192.5	193.3	208.5	242.6	
Special-industry machinery (except metalworking machinery).....	129.7	127.5	126.8	128.3	127.6	127.3	125.1	123.5	122.4	123.2	122.7	123.5	127.8	138.9	138.9	
General industrial machinery.....	162.3	156.2	155.8	156.3	155.9	155.7	155.1	150.7	150.7	150.4	151.1	152.4	152.7	153.3	173.1	
Office and store machines and devices.....	83.3	80.9	81.5	82.8	82.1	82.8	83.3	82.6	82.3	83.2	82.1	83.0	82.8	82.8	88.5	
Service-industry and household machines.....	125.0	126.1	130.6	143.3	144.5	142.5	138.6	131.9	126.8	127.1	124.6	123.5	134.5	157.8	157.8	
Miscellaneous machinery parts.....	202.9	197.8	193.5	197.2	195.1	192.9	190.1	187.3	185.9	185.2	180.4	177.9	187.1	211.9	211.9	
Electrical machinery.....	882.6	858.1	818.2	802.0	815.7	808.8	804.2	803.2	803.4	799.5	809.1	810.7	799.9	794.6	925.1	
Electrical generating, transmission, distribution, and industrial apparatus.....	266.3	252.6	255.7	264.0	263.6	261.1	259.0	256.4	255.0	256.0	250.9	250.6	257.1	290.7	290.7	
Electrical appliances.....	57.2	54.8	52.8	52.3	52.7	51.5	51.7	50.5	49.5	51.9	52.8	52.7	52.2	59.0	59.0	
Insulated wire and cable.....	21.0	19.8	20.0	20.7	20.8	20.7	20.4	20.3	20.6	20.7	20.4	20.4	19.4	26.1	26.1	
Electrical equipment for vehicles.....	64.2	60.5	61.7	64.0	64.6	64.5	64.5	63.7	62.2	59.7	57.4	50.6	56.6	67.1	67.1	
Electric lamps.....	22.8	22.5	22.7	22.7	22.6	22.3	22.1	22.0	21.9	21.6	21.4	21.3	22.1	24.2	24.2	
Communication equipment.....	389.7	371.3	353.8	356.5	350.0	350.2	352.3	358.1	358.3	366.6	373.5	370.1	353.1	419.9	419.9	
Miscellaneous electrical products.....	36.9	36.7	35.3	35.5	34.5	33.9	33.2	32.4	32.0	32.6	34.3	34.2	34.1	38.1	38.1	
Transportation equipment.....	1,355.1	1,379.2	1,419.9	1,447.1	1,456.3	1,462.0	1,446.8	1,426.4	1,399.8	1,374.7	1,333.8	1,249.0	1,334.9	1,542.9	1,542.9	
Automobiles.....	687.0	721.6	760.5	782.3	788.6	789.1	772.7	750.1	729.5	701.8	665.1	579.6	628.4	767.1	767.1	
Aircraft and parts.....	513.3	501.3	501.7	502.5	508.9	517.5	519.7	523.2	523.1	525.1	523.6	522.1	544.3	568.7	568.7	
Aircraft.....	333.1	327.3	326.2	323.4	328.0	329.8	328.2	329.6	325.8	325.9	324.0	323.5	333.8	343.0	343.0	
Aircraft engines and parts.....	92.2	88.8	89.1	92.1	93.2	96.5	99.0	99.7	99.8	100.2	100.3	102.0	108.8	124.7	124.7	
Aircraft propellers and parts.....	9.0	8.7	8.9	9.1	9.1	9.3	9.7	9.8	10.0	10.8	11.1	11.3	11.3	13.1	13.1	
Other aircraft parts and equipment.....	79.0	76.5	77.5	77.9	78.6	81.9	82.8	84.1	87.5	88.2	88.2	85.3	90.5	88.0	88.0	
Ship and boat building and repairing.....	102.2	104.9	107.9	113.2	109.4	107.2	107.6	105.6	103.7	104.2	101.4	103.8	112.3	135.1	135.1	
Shipbuilding and repairing.....	84.0	86.2	87.9	91.8	87.5	85.7	86.5	85.1	84.3	86.6	85.0	88.4	94.1	115.1	115.1	
Boatbuilding and repairing.....	18.2	18.7	20.0	21.4	21.9	21.5	21.1	20.5	19.4	17.6	16.4	15.4	18.3	20.0	20.0	
Railroad equipment.....	45.6	42.8	41.9	41.4	42.1	41.3	39.7	40.8	37.4	37.0	35.7	34.7	42.3	62.4	62.4	
Other transportation equipment.....	9.0	8.6	7.9	7.7	7.3	6.9	7.1	6.7	5.7	6.6	8.0	8.8	7.6	9.6	9.6	
Instruments and related products.....	223.7	222.0	219.8	218.6	219.9	211.3	217.8	218.9	216.4	216.5	217.7	217.6	217.5	223.3	243.7	
Laboratory, scientific, and engineering instruments.....	30.4	29.1	29.3	29.4	21.7	30.1	30.1	29.7	29.8	29.7	29.7	29.0	31.0	34.8	34.8	
Mechanical measuring and controlling instruments.....	61.8	61.4	60.6	61.7	61.6	61.2	60.5	59.6	59.8	59.4	59.1	58.7	57.8	59.1	59.1	
Optical instruments and lenses.....	9.9	9.7	9.9	9.7	9.7	9.7	9.8	9.8	9.9	10.0	10.1	10.4	10.7	11.7	11.7	
Surgical, medical, and dental instruments.....	28.4	28.2	28.0	27.6	27.6	26.4	27.2	27.2	27.2	27.3	27.1	27.2	27.9	31.0	31.0	
Ophthalmic goods.....	19.4	19.3	19.1	19.4	19.1	18.6	18.7	18.5	18.4	18.3	18.3	18.3	19.0	21.6	21.6	
Photographic apparatus.....	43.6	44.6	44.7	44.6	43.9	44.0	44.4	43.9	44.1	45.0	45.1	45.4	45.7	47.4	47.4	
Watches and clocks.....	28.5	27.5	27.0	27.5	27.7	27.8	28.2	27.7	27.3	28.0	28.2	28.5	31.1	38.2	38.2	
Miscellaneous manufacturing industries.....	404.6	399.7	388.3	371.7	384.7	378.6	376.3	377.1	370.9	360.0	373.0	389.8	393.0	379.0	413.4	
Jewelry, silverware, and plated ware.....	43.7	42.1	38.7	41.3	40.4	41.0	42.5	42.3	43.2	44.6	46.0	45.7	43.6	43.8	43.8	
Musical instruments and parts.....	15.6	15.2	14.8	15.2	15.0	14.9	15.0	15.0	14.9	15.1	15.1	15.1	14.4	15.1	15.1	
Toys and sporting goods.....	80.2	78.2	74.6	76.4	74.0	70.2	65.7	62.2	57.1	61.0	71.9	76.3	69.2	81.1	81.1	
Pens, pencils, other office supplies.....	22.2	22.2	21.5	22.1	22.2	22.0	21.5	21.1	20.9	22.1	22.6	22.4	22.2	22.3	22.3	
Costume jewelry, buttons, notions.....	56.2	54.7	51.6	53.8	51.5	51.5	55.0	56.5	55.0	54.6	56.3	56.9	53.2	56.2	56.2	
Fabricated plastics products.....	64.2	61.5	59.3	62.8	62.0	61.6	61.6	59.6	58.3	59.3	59.2	58.0	58.2	64.6	64.6	
Other manufacturing industries.....	117.6	114.4	111.2	113.1	113.5	115.1	115.8	114.2	110.6	116.3	118.7	118.6	118.4	130.4	130.4	

¹ See footnote 1, table A-2. Production and related workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, janitorial, watchman services, products development, auxiliary production for plant's own use (e. g., powerplant), and recordkeeping and other services closely associated with the above production operations.

² See footnote 2, table A-2.

³ See footnote 3, table A-2.

See footnote 1 on p. 1502.

TABLE A-4: Indexes of production-worker employment and weekly payrolls in manufacturing industries ¹

[1947-49=100]

Period	Employment	Weekly payrolls	Period	Employment	Weekly payrolls	Period	Employment	Weekly payrolls
1939: Average.....	66.2	29.9	1949: Average.....	93.8	97.2	1955: January.....	101.2	141.5
1940: Average.....	71.2	34.0	1950: Average.....	99.6	111.7	February.....	102.3	144.4
1941: Average.....	87.9	49.3	1951: Average.....	106.4	129.8	March.....	103.3	146.6
1942: Average.....	103.9	72.2	1952: Average.....	106.3	136.6	April.....	103.6	146.7
1943: Average.....	121.4	99.0	1953: Average.....	111.8	151.4	May.....	104.1	150.1
1944: Average.....	118.1	102.8	1954: Average.....	101.8	137.7	June.....	105.8	152.1
1945: Average.....	104.0	87.8				July.....	104.7	151.0
1946: Average.....	97.9	81.2	1954: October.....	102.0	139.1	August.....	107.2	154.6
1947: Average.....	103.4	97.7	November.....	102.3	142.2	September.....	108.2	158.8
1948: Average.....	102.8	105.1	December.....	102.2	143.1	October.....	108.2	158.8

¹ See footnote 1, tables A-2 and A-3. See footnote 1 on p. 1502.

TABLE A-5: Federal personnel, civilian and military

[In thousands]

Branch and agency	1955										1954				Annual average	
	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	1954	1953	
Total Federal civilian employment ¹	2,173	2,190	2,187	2,183	2,159	2,153	2,148	2,142	2,139	2,457	2,165	2,147	2,142	2,188	2,305	
Executive ²	2,146.9	2,164.5	2,161.3	2,157.4	2,132.9	2,127.4	2,122.1	2,116.4	2,113.2	2,431.1	2,138.7	2,121.3	2,115.9	2,161.6	2,278.8	
Department of Defense.....	1,035.1	1,040.0	1,036.4	1,033.2	1,023.7	1,020.9	1,019.9	1,016.8	1,014.6	1,011.9	1,011.7	1,011.1	1,012.6	1,027.3	1,130.6	
Post Office Department.....	506.1	510.2	510.6	509.3	503.8	504.6	502.1	503.7	504.8	808.4	506.2	501.8	503.3	529.2	526.5	
Other agencies.....	605.7	614.2	614.3	614.9	605.3	602.0	600.1	595.8	593.7	610.8	620.9	608.3	599.9	605.1	621.7	
Legislative.....	21.5	21.6	21.6	21.7	21.6	21.7	21.8	21.8	21.7	22.0	22.1	22.1	22.0	21.9	22.2	
Judicial.....	4.2	4.1	4.0	4.0	.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.9	
District of Columbia ³	229.6	232.0	232.4	231.9	228.2	227.9	228.2	227.6	226.7	230.7	226.9	226.4	225.7	227.5	240.9	
Executive ²	209.2	211.5	211.9	211.3	207.7	207.3	207.5	207.0	206.1	209.8	206.0	205.5	204.7	206.7	219.8	
Department of Defense.....	90.0	90.9	91.1	90.6	88.3	88.0	88.0	87.7	87.4	87.0	87.0	86.8	86.5	87.1	90.4	
Post Office Department.....	8.5	8.6	8.5	8.6	8.7	8.7	8.7	8.8	8.8	13.0	8.7	8.7	8.7	9.3	9.5	
Other agencies.....	110.7	112.2	112.3	112.2	110.7	110.6	110.9	110.5	109.9	109.8	110.2	110.0	109.5	110.4	119.8	
Legislative.....	19.7	19.7	19.8	19.9	19.8	19.9	20.0	19.9	19.9	20.1	20.2	20.2	20.2	20.1	20.3	
Judicial.....	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	
Total military personnel ⁴	2,958	2,974	2,969	2,964	2,997	3,065	3,133	3,188	3,231	3,209	3,261	3,286	3,309	3,326	3,545	
Army.....	1,109.5	1,123.8	1,120.5	1,109.3	1,143.5	1,201.8	1,263.0	1,300.3	1,334.0	1,326.1	1,351.9	1,368.3	1,385.0	1,402.0	1,508.9	
Air Force.....	957.6	959.8	956.1	959.9	959.9	959.6	957.0	955.9	952.9	947.2	966.4	965.1	961.7	946.0	957.9	
Navy.....	660.4	659.1	659.9	660.7	660.0	667.1	674.9	689.4	698.5	686.5	692.7	702.0	711.1	725.1	792.7	
Marine Corps.....	201.7	202.0	203.7	205.2	205.7	208.0	210.4	214.2	217.6	220.7	221.8	221.5	221.8	223.8	250.6	
Coast Guard.....	29.2	29.0	28.7	28.6	28.1	28.0	27.9	27.7	28.0	28.0	28.5	28.8	28.9	29.5	34.7	

¹ Data refer to Continental United States only.² Includes all executive agencies (except the Central Intelligence Agency) and Government corporations. Civilian employment in navy yards, arsenals, hospitals, and on force-account construction is also included.³ Includes all Federal civilian employment in Washington Standard Metro-

politan Area (District of Columbia and adjacent Maryland and Virginia counties).

⁴ Data refer to Continental United States and elsewhere.

See footnote 1 on p. 1502.

TABLE A-6: Employees in nonagricultural establishments for selected States ¹

[In thousands]

State	1955									1954				Annual average	
	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	1954	1953
Alabama.....	686.3	659.5	674.9	676.0	671.7	665.2	670.1	662.1	660.1	675.3	672.2	671.6	668.9	664.4	679.9
Arizona ²	217.8	213.5	213.0	218.6	215.9	216.4	215.2	211.3	210.1	216.5	211.3	208.1	201.5	204.5	202.4
Arkansas ²	318.1	313.7	312.8	314.5	314.4	313.7	311.7	305.7	304.2	317.5	312.0	309.9	311.8	307.9	316.1
California.....	4,138.4	4,105.3	4,028.3	4,020.2	3,969.5	3,944.6	3,895.5	3,856.0	3,837.6	3,978.3	3,911.6	3,930.0	3,942.1	3,855.2	3,876.9
Colorado.....	423.4	424.3	422.8	419.8	410.5	404.7	398.9	393.9	395.0	410.3	408.5	410.0	411.8	400.6	412.2
Connecticut.....	867.0	860.8	853.4	855.7	854.3	848.0	847.1	843.1	843.9	866.2	853.3	851.5	846.6	851.2	879.3
District of Columbia.....	499.5	492.9	493.3	496.6	493.0	491.0	489.3	486.7	487.8	501.7	494.0	492.6	492.0	491.5	508.9
Florida.....	857.6	851.9	845.1	856.9	871.0	899.6	908.6	909.3	903.4	911.0	873.9	843.3	828.0	861.6	835.7
Georgia.....	938.6	937.2	923.2	927.0	916.2	908.2	914.7	905.1	902.9	923.7	911.8	905.8	896.0	892.2	906.2
Idaho ²	142.4	139.4	137.8	135.9	131.7	128.6	126.0	125.5	126.3	134.9	136.6	139.9	142.1	132.3	134.7
Illinois.....	3,348.3	3,330.0	3,314.2	3,337.3	3,305.5	3,282.6	3,252.7	3,231.7	3,240.3	3,343.7	3,303.5	3,295.7	3,298.1	3,280.3	3,411.4
Indiana.....	1,390.0	1,384.6	1,370.1	1,379.0	1,360.8	1,354.6	1,335.7	1,318.3	1,313.1	1,343.2	1,324.9	1,318.0	1,317.6	1,318.8	1,423.6
Iowa.....	639.2	635.9	631.4	636.1	628.5	624.2	617.1	610.3	611.9	630.9	627.3	629.8	629.5	618.8	633.0
Kansas ²	548.2	546.6	547.6	548.3	546.6	547.8	541.1	532.0	535.3	553.6	550.3	548.4	550.2	542.3	546.4
Louisiana.....	699.6	693.9	690.5	688.7	677.7	677.6	681.3	676.7	678.1	709.0	701.9	699.3	695.8	693.2	696.4
Maine.....	275.2	280.3	280.1	277.6	264.8	259.1	258.2	259.5	260.2	268.3	265.1	268.6	271.3	266.6	274.7
Maryland.....	829.3	820.4	815.2	814.1	803.3	798.1	789.0	774.2	775.3	800.1	796.7	798.3	797.2	789.6	806.5
Massachusetts.....	1,816.1	1,798.6	1,782.4	1,790.3	1,773.8	1,767.2	1,754.3	1,739.4	1,744.3	1,805.8	1,776.2	1,774.7	1,777.2	1,773.3	1,827.8
Michigan.....	2,355.6	2,338.0	2,368.3	2,397.0	2,400.0	2,386.1	2,353.4	2,331.1	2,325.6	2,376.0	2,325.0	2,257.3	2,194.1	2,288.1	2,455.1
Minnesota.....	889.2	880.8	870.9	861.0	848.8	827.9	814.2	814.3	822.0	855.8	859.9	862.8	872.9	845.8	865.9
Mississippi.....	349.5	345.3	343.1	346.0	343.7	341.3	341.3	336.3	338.3	349.2	344.0	343.6	341.3	336.0	341.5
Missouri.....	1,278.7	1,265.6	1,262.4	1,262.8	1,255.7	1,252.9	1,246.9	1,233.2	1,235.3	1,276.3	1,250.6	1,246.6	1,248.9	1,253.2	1,292.0
Montana.....	163.0	164.0	162.4	160.6	154.1	148.3	144.2	143.2	143.6	150.6	152.3	150.2	152.2	152.8	154.2
Nebraska ²	362.9	360.0	358.9	358.3	354.4	348.5	342.2	337.6	339.0	354.0	352.2	355.7	355.9	348.3	348.2
Nevada ²	90.9	89.4	88.9	87.2	83.9	80.5	79.7	77.5	76.1	78.1	78.0	77.6	80.2	75.7	71.1
New Hampshire ²	182.3	185.4	185.1	182.0	176.5	174.6	173.8	173.1	173.3	176.3	174.7	175.6	177.7	174.7	175.8
New Jersey ²	1,876.7	1,867.3	1,844.1	1,837.5	1,815.6	1,797.5	1,789.5	1,783.2	1,786.2	1,833.0	1,816.9	1,819.4	1,824.9	1,815.0	1,849.5
New Mexico ²	183.5	180.9	180.4	182.4	180.3	178.0	175.4	172.7	171.6	177.8	176.4	176.5	176.0	174.1	178.1
New York.....	5,951.6	5,890.4	5,834.4	5,851.1	5,802.0	5,789.8	5,784.0	5,743.8	5,749.7	5,970.7	5,908.8	5,909.7	5,893.7	5,856.3	5,973.2
North Carolina.....	1,032.3	1,014.2	994.7	1,003.9	997.2	996.5	998.3	994.8	994.4	1,023.1	1,013.1	1,014.2	1,005.0	991.9	1,012.0
North Dakota.....	119.9	118.7	117.8	116.7	114.8	112.0	108.3	107.6	107.9	115.0	116.4	119.2	119.5	114.3	112.7
Ohio.....	3,091.0	3,051.7	3,037.1	3,040.6	3,007.0	2,979.8	2,941.7	2,909.2	2,910.7	2,999.8	2,959.8	2,953.4	2,954.0	2,956.0	3,108.3
Oklahoma.....	550.1	547.6	548.3	547.7	544.7	540.8	534.3	531.3	530.6	546.4	540.7	538.0	537.5	535.4	539.0
Oregon ²	495.6	496.9	487.1	477.7	462.1	450.6	443.0	438.9	438.3	461.6	462.3	471.5	483.1	453.7	465.8
Pennsylvania.....	3,733.4	3,683.1	3,665.3	3,686.1	3,643.4	3,616.0	3,575.4	3,546.5	3,556.0	3,681.3	3,644.4	3,635.5	3,610.7	3,637.1	3,865.4
Rhode Island.....	301.6	297.8	290.6	294.0	292.3	294.8	294.7	292.7	292.8	302.0	299.4	297.2	291.4	288.8	302.4
South Carolina.....	526.8	523.1	514.5	517.7	515.4	515.9	515.4	511.3	509.4	520.4	512.8	513.3	511.9	509.9	532.5
South Dakota ²	124.6	125.7	126.6	125.3	123.7	121.3	118.4	117.3	117.8	122.4	123.9	125.3	125.3	121.9	121.0
Tennessee.....	840.9	836.7	830.6	831.8	823.4	815.5	819.8	813.4	816.7	843.0	829.4	826.2	826.2	818.3	831.8
Texas.....	2,273.7	2,271.4	2,258.5	2,263.8	2,238.7	2,230.4	2,212.1	2,195.4	2,191.1	2,253.9	2,218.8	2,206.0	2,205.8	2,189.6	2,227.9
Utah.....	233.6	222.5	221.6	221.8	220.0	215.6	210.8	206.8	207.2	218.1	216.4	218.6	219.7	210.7	216.5
Vermont.....	104.4	104.4	103.4	102.1	100.0	98.6	97.7	97.6	97.3	101.0	100.5	101.4	102.0	101.2	103.8
Virginia.....	918.0	904.0	897.9	897.4	891.1	889.8	883.1	876.7	877.2	909.1	897.8	896.2	888.5	881.6	900.2
Washington.....	774.3	765.8	762.2	747.7	735.6	724.0	710.2	702.8	704.2	736.1	736.7	750.7	753.2	723.1	736.0
West Virginia.....	483.9	480.6	472.1	472.4	465.6	461.2	454.9	450.8	447.2	465.8	461.5	461.1	460.4	464.7	506.0
Wisconsin.....	1,107.2	1,112.0	1,112.0	1,094.3	1,077.1	1,064.7	1,049.2	1,038.8	1,037.5	1,065.3	1,059.0	1,064.0	1,076.3	1,057.3	1,093.8
Wyoming ²	88.6	90.2	89.9	87.6	83.0	79.1	78.0	77.1	78.4	84.1	85.6	87.7	89.8	85.6	87.5

¹ Data for earlier years are available upon request to the Bureau of Labor Statistics or the cooperating State agency. State agencies also make available more detailed industry data. See table A-7 for addresses of cooperating State agencies.

² Revised series; not comparable with data previously published.

B: Labor Turnover

TABLE B-1: Monthly labor turnover rates in manufacturing, by class of turnover ¹

Year	[Per 100 employees]												Annual average
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Total accession													
1948	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	2.7	4.4
1949	3.2	2.9	3.0	2.9	3.5	4.4	3.5	4.4	4.1	3.7	3.3	3.2	3.5
1950	3.6	3.2	3.6	3.5	4.4	4.8	4.7	6.6	5.7	5.2	4.0	3.0	4.4
1951	5.2	4.5	4.6	4.5	4.5	4.9	4.2	4.5	4.3	4.4	3.9	3.0	4.4
1952	4.4	3.9	3.9	3.7	3.9	4.9	4.4	5.9	5.6	5.2	4.0	3.3	4.4
1953	4.4	4.2	4.4	4.3	4.1	5.1	4.1	4.3	4.0	3.3	2.7	2.1	3.9
1954	2.8	2.5	2.8	2.4	2.7	3.5	2.9	3.3	3.4	3.6	3.3	2.5	3.0
1955	3.3	3.2	3.6	3.5	3.8	4.3	3.4	4.5	4.3				
Total separation													
1948	4.3	4.7	4.5	4.7	4.3	4.5	4.4	5.1	5.4	4.5	4.1	4.3	4.6
1949	4.6	4.1	4.8	4.8	5.2	4.3	3.8	4.0	4.2	4.1	4.0	3.2	4.3
1950	3.1	3.0	2.9	2.8	3.1	3.0	2.9	4.2	4.9	4.3	3.8	3.6	3.5
1951	4.1	3.8	4.1	4.6	4.8	4.3	4.4	5.3	5.1	4.7	4.3	3.5	4.4
1952	4.0	3.9	3.7	4.1	3.9	3.9	5.0	4.6	4.9	4.2	3.5	3.4	4.1
1953	3.8	3.6	4.1	4.3	4.4	4.2	4.3	4.8	5.2	4.5	4.2	4.0	4.3
1954	4.3	3.5	3.7	3.8	3.3	3.1	3.1	3.5	3.9	3.3	3.0	3.0	3.5
1955	2.9	2.5	3.0	3.1	3.2	3.2	3.4	4.0	4.4				
Quit													
1948	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7	2.8
1949	1.7	1.4	1.6	1.7	1.6	1.5	1.4	1.8	2.1	1.5	1.2	.9	1.5
1950	1.1	1.0	1.2	1.3	1.6	1.7	1.8	2.9	3.4	2.7	2.1	1.7	1.9
1951	2.1	2.1	2.5	2.7	2.8	2.5	2.4	3.1	3.1	2.5	1.9	1.4	2.4
1952	1.9	1.9	2.0	2.2	2.2	2.2	2.2	3.0	3.5	2.8	2.1	1.7	2.3
1953	2.1	2.2	2.5	2.7	2.7	2.6	2.5	2.9	3.1	2.1	1.5	1.1	2.3
1954	1.1	1.0	1.0	1.1	1.0	1.1	1.1	1.4	1.8	1.2	1.0	.9	1.1
1955	1.0	1.0	1.3	1.5	1.5	1.5	1.6	2.2	2.7				
Discharge													
1948	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
1949	.3	.3	.3	.2	.2	.2	.2	.3	.2	.2	.2	.2	.2
1950	.2	.2	.2	.2	.3	.3	.3	.4	.4	.4	.3	.3	.3
1951	.3	.3	.3	.4	.4	.4	.3	.4	.3	.4	.3	.3	.3
1952	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.3	.3	.3
1953	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3
1954	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1955	.2	.2	.2	.3	.3	.3	.3	.3	.3				
Layoff													
1948	1.2	1.7	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2	1.3
1949	2.5	2.3	2.8	2.8	3.3	2.5	2.1	1.8	1.8	2.3	2.5	2.0	2.4
1950	1.7	1.7	1.4	1.2	1.1	.9	.6	.6	.7	.8	1.1	1.3	1.1
1951	1.0	.8	.8	1.0	1.2	1.0	1.3	1.4	1.3	1.4	1.7	1.5	1.2
1952	1.4	1.3	1.1	1.3	1.1	1.1	2.2	1.0	.7	.7	.7	1.0	1.1
1953	.9	.8	.8	.9	1.0	.9	1.1	1.3	1.5	1.8	2.3	2.5	1.3
1954	2.8	2.2	2.3	2.4	1.9	1.7	1.6	1.7	1.7	1.6	1.6	1.7	1.9
1955	1.5	1.1	1.3	1.2	1.1	1.2	1.3	1.3	1.1				
Miscellaneous, including military													
1948	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1949	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1950	.1	.1	.1	.1	.1	.1	.2	.3	.4	.4	.3	.3	.2
1951	.7	.6	.5	.5	.4	.4	.4	.4	.4	.4	.4	.3	.5
1952	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
1953	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.3
1954	.3	.2	.2	.2	.2	.2	.2	.3	.3	.2	.1	.2	.2
1955	.3	.2	.2	.2	.2	.2	.2	.2	.2				

¹ Data for the current month are preliminary.

NOTE.—Month-to-month changes in total employment in manufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons:

(1) Accessions and separations are reported for the entire calendar month; the employment and payroll reports, for the most part, refer to a 1-week pay period ending nearest the 15th of the month.

(2) The turnover sample is not so large as that of the employment sample and includes proportionately fewer small plants; certain industries are not covered. The major industries excluded are: printing, publishing, and allied industries; canning and preserving fruits, vegetables, and seafoods; women's, misses', and children's outerwear; and fertilizers.

(3) Plants are not included in the turnover computations in months when work stoppages are in progress; the influence of such stoppages is reflected, however, in the employment figures.

Beginning with data for October 1952, components may not add to total separation rate because of rounding.

Information on concepts, methodology, etc., is given in a technical note on Measurement of Labor Turnover, which appeared in the May 1953 Monthly Labor Review.

TABLE B-2: Monthly labor turnover rates in selected industries

[Per 100 employees]

Industry	Total accession rate		Separation rate									
			Total		Quit		Discharge		Layoff		Misc., incl. military	
	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955
<i>Manufacturing</i>												
All manufacturing.....	4.3	4.5	4.4	4.0	2.7	2.2	0.3	0.3	1.1	1.3	0.2	0.2
Durable goods.....	4.6	4.8	4.5	4.1	2.7	2.1	.3	.3	1.2	1.5	.2	.2
Nondurable goods.....	3.7	4.0	4.2	3.7	2.7	2.3	.3	.3	1.0	1.0	.2	.2
Ordnance and accessories.....	2.4	3.7	4.2	3.6	1.6	1.7	.2	.3	2.3	1.4	.1	.2
Food and kindred products.....	4.7	4.5	5.3	4.8	2.5	2.0	.3	.3	2.3	2.3	.2	.2
Meat products.....	5.3	5.3	5.0	5.2	1.9	1.5	.3	.3	2.7	3.1	.1	.2
Grain-mill products.....	4.1	2.9	4.8	3.9	2.7	1.9	.2	.3	1.6	1.4	.2	.2
Bakery products.....	3.8	3.7	4.1	3.8	3.0	2.5	.4	.4	.5	.8	.1	.1
Beverages:												
Malt liquors.....	2.0	2.9	6.9	5.2	1.7	1.1	.1	.2	4.9	3.7	.2	.2
Tobacco manufactures.....	3.3	3.6	3.4	3.4	2.7	2.3	.3	.4	.3	.7	.1	.1
Cigarettes.....	1.3	3.0	2.9	2.5	2.0	1.7	.2	.4	.6	.2	.1	.2
Cigars.....	5.4	4.4	4.0	4.5	3.4	2.9	.5	.3	.1	1.2	(1)	(1)
Tobacco and snuff.....	2.0	1.6	2.7	2.0	2.1	1.6	.2	.2	.1	.1	.3	.1
Textile-mill products.....	3.8	4.4	4.2	4.1	2.6	2.5	.3	.3	1.1	1.1	.2	.2
Yarn and thread mills.....	4.1	5.3	5.7	4.4	2.9	2.7	.3	.3	2.3	1.3	.2	.2
Broad-woven fabric mills.....	3.8	4.1	4.1	4.3	2.7	2.7	.3	.3	.9	1.0	.3	.2
Cotton, silk, synthetic fiber.....	3.6	4.1	3.8	4.1	2.7	2.7	.3	.4	.6	.7	.2	.2
Woolen and worsted.....	4.8	4.0	6.0	5.5	2.8	2.3	.3	.2	2.7	2.7	.3	.3
Knitting mills.....	4.0	4.9	4.2	4.2	2.8	2.6	.3	.3	1.1	1.0	.1	.2
Full-fashioned hosiery.....	3.1	3.1	3.3	3.4	2.6	2.2	.2	.2	.5	1.0	.1	.1
Seamless hosiery.....	3.9	5.0	3.7	4.6	2.2	2.4	.2	.3	1.1	1.4	.2	.5
Knit underwear.....	4.0	4.9	3.9	3.3	2.6	2.9	.3	.1	1.0	.3	(1)	.1
Dyeing and finishing textiles.....	2.8	3.6	3.5	3.1	1.9	1.5	.3	.2	1.2	1.2	.2	.2
Carpets, rugs, other floor coverings.....	3.5	4.0	2.6	3.8	1.3	1.3	.1	.3	1.0	2.0	.2	.3
Apparel and other finished textile products.....	4.8	5.7	4.6	4.6	3.8	3.8	.3	.3	.3	.4	.1	.1
Men's and boys' suits and coats.....	3.0	3.6	3.5	3.7	2.2	2.5	.3	.2	.8	.8	.2	.2
Men's and boys' furnishings and work clothing.....	5.1	6.0	4.8	4.8	4.2	4.1	.3	.3	.2	.2	.1	.1
Lumber and wood products (except furniture).....	5.5	6.1	6.0	6.9	4.7	4.0	.4	.4	.7	2.3	.2	.2
Logging camps and contractors.....	(2)	9.8	(2)	14.4	(2)	6.2	(2)	.4	(2)	7.7	(2)	.2
Sawmills and planing mills.....	4.8	5.4	5.4	5.1	4.0	3.7	.4	.4	.8	.8	.2	.2
Millwork, plywood, and prefabricated structural wood products.....	3.7	4.6	4.2	4.9	2.9	3.1	.3	.4	.7	1.3	.2	.1
Furniture and fixtures.....	5.5	6.7	4.9	4.3	3.5	3.0	.6	.6	.6	.5	.2	.2
Household furniture.....	5.8	7.2	5.0	4.5	3.6	3.2	.7	.7	.5	.4	.2	.2
Other furniture and fixtures.....	4.7	5.3	4.7	4.0	3.3	2.7	.3	.4	.9	.6	.2	.3
Paper and allied products.....	3.4	3.5	4.2	3.3	3.0	2.2	.3	.4	.7	.5	.2	.2
Pulp, paper, and paperboard mills.....	1.9	2.3	3.5	2.2	2.5	1.4	.2	.2	.7	.3	.2	.2
Paperboard containers and boxes.....	5.7	4.7	5.1	4.2	3.9	3.1	.5	.5	.5	.4	.2	.1
Chemicals and allied products.....	2.3	2.2	2.8	1.9	2.0	1.3	.2	.2	.4	.2	.2	.2
Industrial inorganic chemicals.....	2.2	2.2	2.4	2.1	1.9	1.4	.1	.2	.2	.2	.2	.3
Industrial organic chemicals.....	1.6	1.4	2.2	1.3	1.6	.8	.1	.1	.4	.2	.2	.1
Synthetic fibers.....	1.7	1.0	2.0	1.1	1.1	.5	(1)	(1)	.6	.4	.2	.1
Drugs and medicines.....	2.2	1.4	2.3	1.6	1.9	1.3	.1	.1	.3	.1	.1	.1
Paints, pigments, and fillers.....	1.8	1.4	3.2	2.1	2.4	1.6	.3	.1	.3	.2	.2	.1
Products of petroleum and coal.....	1.1	1.1	2.5	1.3	1.8	.9	.3	.1	.3	.1	.2	.2
Petroleum refining.....	.5	.5	2.0	.9	1.4	.6	(1)	(1)	.3	.1	.2	.2
Rubber products.....	4.1	3.6	3.1	2.9	2.3	1.9	.2	.3	.4	.6	.2	.2
Tires and inner tubes.....	2.2	1.9	2.3	1.8	1.8	1.2	.1	.1	.2	.2	.1	.3
Rubber footwear.....	6.8	4.4	3.6	3.1	3.1	2.2	.3	.1	.1	.6	.2	.2
Other rubber products.....	5.2	5.0	3.7	3.9	2.5	2.4	.3	.4	.6	.9	.3	.2
Leather and leather products.....	3.8	4.5	4.8	4.6	3.5	3.2	.3	.3	.8	1.0	.2	.2
Leather: tanned, curried, and finished.....	2.8	3.8	2.9	3.7	1.5	1.6	.3	.2	.8	1.5	.3	.3
Footwear (except rubber).....	3.9	4.6	5.1	4.8	3.8	3.4	.2	.3	.8	.9	.2	.2
Stone, clay, and glass products.....	3.2	4.2	3.8	2.9	2.3	1.7	.3	.2	1.0	.7	.2	.2
Glass and glass products.....	4.0	6.0	4.4	3.0	1.6	1.5	.5	.2	2.0	1.2	.3	.2
Cement, hydraulic.....	2.4	2.1	3.5	2.0	2.7	1.5	.3	.3	.2	(1)	.3	.2
Structural clay products.....	3.7	3.7	4.1	3.6	2.4	2.2	.4	.4	1.0	.7	.3	.2
Pottery and related products.....	3.3	4.2	2.9	2.8	2.3	1.9	.2	.2	.3	.6	.1	.1
Primary metal industries.....	3.1	3.3	3.2	2.8	2.1	1.6	.3	.3	.5	.6	.2	.2
Blast furnaces, steel works, and rolling mills.....	2.1	2.5	2.7	2.1	2.0	1.4	.2	.2	.4	.3	.2	.2
Iron and steel foundries.....	5.0	5.8	4.1	3.9	2.6	2.4	.6	.6	.7	.6	.2	.2
Gray-iron foundries.....	5.0	4.7	4.2	4.1	2.6	2.7	.5	.5	.9	.7	.1	.1
Malleable-iron foundries.....	5.2	5.6	4.1	4.0	3.0	2.7	.5	.8	.2	.4	.3	.2
Steel foundries.....	5.0	7.3	4.0	3.6	2.5	2.0	.8	.7	.6	.7	.2	.3
Primary smelting and refining of non-ferrous metals:												
Primary smelting and refining of copper, lead, and zinc.....	3.7	3.8	4.5	4.3	3.7	2.8	.4	.6	.2	.7	.2	.1
Rolling, drawing, and alloying of non-ferrous metals:												
Rolling, drawing, and alloying of copper.....	3.0	1.5	1.8	2.7	1.3	.9	.2	.2	.1	1.5	.2	.2
Nonferrous foundries.....	5.0	5.5	4.0	5.0	2.4	2.3	.5	.7	.7	1.6	.4	.4
Other primary metal industries:												
Iron and steel forgings.....	3.7	3.4	3.3	2.6	1.9	1.5	.4	.3	.7	.6	.3	.2

See footnotes at end of table.

TABLE B-2: Monthly labor turnover rates in selected industries—Continued

[Per 100 employees]

Industry	Total accession rate		Separation rate									
			Total		Quit		Discharge		Layoff		Misc., incl. military	
	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955	Sept. 1955	Aug. 1955
<i>Manufacturing—Continued</i>												
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	4.9	5.5	5.3	4.7	2.9	2.2	0.4	0.5	1.7	1.7	0.2	0.3
Cutlery, handtools, and hardware.....	4.5	4.2	4.2	3.7	3.0	2.3	.4	.4	.6	.8	.2	.2
Cutlery and edge tools.....	4.5	4.1	2.7	2.4	2.2	1.7	.2	.3	.2	.3	.1	.1
Handtools.....	3.0	3.6	3.2	2.5	2.4	1.7	.3	.2	.5	.4	.1	.2
Hardware.....	5.1	4.6	4.9	4.9	3.4	2.9	.5	.5	.7	1.3	.3	.2
Heating apparatus (except electric) and plumbers' supplies.....	4.9	5.8	5.0	4.9	3.1	2.6	.5	.7	1.1	1.3	.2	.3
Sanitary ware and plumbers' supplies.....	4.1	4.3	3.9	4.6	2.9	2.5	.8	.8	.2	1.1	.1	.2
Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified.....	5.3	6.7	5.6	5.1	3.3	2.6	.4	.7	1.6	1.4	.3	.4
Fabricated structural metal products.....	4.3	5.1	5.3	3.8	2.7	2.1	.4	.5	2.0	1.1	.2	.2
Metal stamping, coating, and engraving.....	6.3	6.5	6.4	5.0	2.7	2.0	.5	.4	3.0	2.2	.3	.4
Machinery (except electrical).....	3.5	3.5	3.5	2.8	2.1	1.6	.3	.3	.8	.7	.2	.2
Engines and turbines.....	5.3	3.5	4.2	3.4	3.0	1.6	.6	.2	.6	1.5	.1	.2
Agricultural machinery and tractors.....	(2)	3.7	(2)	2.6	(2)	1.7	(2)	.2	(2)	.4	(2)	.3
Construction and mining machinery.....	3.6	3.6	3.6	2.6	2.6	1.9	.4	.4	.4	.2	.2	.2
Metalworking machinery.....	2.7	2.9	3.1	2.2	1.8	1.3	.3	.3	.8	.5	.2	.2
Machine tools.....	2.2	2.8	2.6	1.7	1.8	1.2	.2	.2	.4	.2	.2	.2
Metalworking machinery (except machine tools).....	2.6	2.7	1.9	2.1	1.4	1.4	.3	.3	.1	.2	.2	.2
Machine-tool accessories.....	3.8	3.3	4.9	3.3	2.3	1.6	.4	.4	2.2	1.2	.1	.2
Special-industry machinery (except metalworking machinery).....	2.9	3.3	3.3	2.5	2.1	1.7	.3	.3	.7	.4	.2	.1
General industrial machinery.....	3.3	4.3	3.5	2.9	2.2	1.7	.3	.3	.7	.6	.2	.2
Office and store machines and devices.....	3.6	3.1	2.2	1.9	1.6	1.3	.2	.2	.2	.4	.2	.1
Service-industry and household machines.....	4.1	3.6	5.7	4.4	2.1	1.6	.3	.2	3.0	2.3	.3	.4
Miscellaneous machinery parts.....	4.0	3.3	2.9	2.5	1.9	1.4	.3	.2	.5	.7	.3	.2
Electrical machinery.....	6.2	5.2	4.4	3.3	3.2	2.1	.4	.3	.7	.7	.2	.2
Electrical generating, transmission, distribution, and industrial apparatus.....	4.1	3.1	3.5	2.5	2.5	1.5	.3	.3	.5	.5	.2	.2
Communication equipment.....	(2)	6.1	(2)	3.3	(2)	2.4	(2)	.3	(2)	.3	(2)	.3
Radios, phonographs, television sets, and equipment.....	7.9	7.1	5.6	3.7	4.2	2.6	.6	.3	.7	.5	.1	.3
Telephone, telegraph, and related equipment.....	(2)	3.4	(2)	2.0	(2)	1.6	(2)	.1	(2)	(1)	(2)	.2
Electrical appliances, lamps, and miscellaneous products.....	7.6	6.0	5.2	4.6	3.1	2.4	.4	.4	1.7	1.6	.1	.2
Transportation equipment.....	5.5	5.5	5.0	5.7	2.3	1.8	.3	.3	2.1	3.3	.2	.4
Automobiles.....	6.3	6.5	5.3	6.8	2.1	1.5	.4	.3	2.5	4.4	.3	.6
Aircraft and parts.....	3.3	3.0	3.6	2.6	2.6	1.8	.1	.2	.7	.5	.1	.1
Aircraft.....	3.2	2.8	3.6	2.5	2.7	1.9	.1	.1	.6	.4	.1	.1
Aircraft engines and parts.....	3.9	3.0	3.1	2.5	1.8	1.6	.2	.2	.8	.5	.2	.2
Aircraft propellers and parts.....	3.1	2.9	4.7	2.8	1.1	1.3	.1	.1	3.4	1.3	.1	.1
Other aircraft parts and equipment.....	4.5	4.5	4.5	3.9	2.5	1.8	.3	.4	1.5	1.5	.2	.2
Ship and boat building and repairing.....	12.7	12.5	10.6	15.8	2.6	3.1	.6	.6	7.2	11.9	.1	.2
Railroad equipment.....	5.2	7.0	5.3	5.4	1.0	1.3	.4	.3	3.3	3.1	.6	.8
Locomotives and parts.....	5.8	5.4	2.2	2.0	.7	.6	.1	.1	.7	.5	.7	.8
Railroad and street cars.....	4.9	7.8	7.1	7.1	1.1	1.6	.5	.4	4.8	4.4	.6	.7
Other transportation equipment.....	7.4	8.9	4.7	5.1	4.2	3.9	.5	.7	(1)	.4	(1)	.1
Instruments and related products.....	3.8	2.6	3.9	2.1	2.4	1.2	.3	.2	.9	.6	.2	.2
Photographic apparatus.....	(2)	1.3	(2)	1.5	(2)	.7	(2)	.1	(2)	.5	(2)	.1
Watches and clocks.....	(2)	5.1	(2)	3.1	(2)	1.4	(2)	.2	(2)	1.2	(2)	.3
Professional and scientific instruments.....	3.0	2.5	3.6	2.2	2.4	1.3	.3	.2	.7	.5	.2	.2
Miscellaneous manufacturing industries.....	4.5	6.3	5.3	5.0	3.3	3.1	.4	.5	1.5	1.2	.2	.2
Jewelry, silverware, and plated ware.....	4.3	3.9	4.0	2.4	3.1	1.8	.2	.3	.5	.3	.2	.1
<i>Nonmanufacturing</i>												
Metal mining.....	4.8	4.8	5.3	4.6	4.5	3.7	.4	.3	.1	.4	.2	.2
Iron mining.....	(2)	2.3	(2)	1.4	(2)	.7	(2)	.1	(2)	.5	(2)	.2
Copper mining.....	7.4	6.7	7.0	7.1	6.0	5.4	.5	.5	.2	.8	.3	.4
Lead and zinc mining.....	2.8	2.5	3.0	3.2	2.6	2.8	.1	.1	.1	.1	.1	.2
Anthracite mining.....	(2)	1.7	(2)	1.7	(2)	.8	(2)	(1)	(2)	.8	(2)	.2
Bituminous-coal mining.....	2.1	1.7	1.7	1.3	.7	.6	.1	(1)	.8	.4	.1	.1
Communication:												
Telephone.....	(2)	2.3	(2)	2.0	(2)	1.7	(2)	.1	(2)	.2	(2)	.1
Telegraph.....	(2)	2.1	(2)	1.8	(2)	1.4	(2)	.1	(2)	.2	(2)	.2

1 Less than 0.05.

2 Not available.

3 Data relate to domestic employees except messengers and those compensated entirely on a commission basis.

NOTE.—See footnote 1 and NOTE on table B-1, p. 1516. For industries included in the durable- and nondurable-goods categories, see table A-2, footnotes 2 and 3 (exceptions are contained in the note to table B-1).

Table C-1: Hours and gross earnings of production workers or nonsupervisory employees ¹—Continued

Year and month	Manufacturing—Continued																	
	Apparel and other finished textile products—Continued																	
	Household apparel			Women's suits, coats, and skirts			Women's and children's undergarments ⁴			Underwear and night-wear, except corsets			Corsets and allied garments			Millinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average	\$39.74	36.8	\$1.08	\$64.81	32.9	\$1.97	\$44.28	36.9	\$1.20	\$41.58	36.8	\$1.13	\$48.10	37.0	\$1.30	\$58.48	36.1	\$1.62
1954: Average	\$39.82	36.2	1.10	63.31	32.3	1.96	44.04	36.1	1.22	41.27	36.2	1.14	48.24	36.0	1.34	58.16	35.9	1.62
1955: Average	39.96	36.0	1.11	63.60	31.8	2.00	44.65	36.9	1.21	41.92	37.1	1.13	48.55	36.5	1.33	64.51	38.4	1.68
1953: Average	\$44.53	36.5	\$1.22	\$44.52	37.1	\$1.20	\$47.75	37.6	\$1.27	\$42.18	37.0	\$1.14	\$49.53	38.1	\$1.30	\$51.09	39.0	\$1.31
1954: Average	45.14	36.7	1.23	43.68	36.1	1.21	47.99	37.2	1.29	42.80	36.9	1.16	50.79	37.9	1.34	52.38	38.8	1.35
1955: Average	45.26	36.5	1.24	44.77	36.7	1.22	48.76	37.8	1.29	44.58	38.1	1.17	54.26	39.9	1.36	5.58	39.7	1.40
1953: Average	\$65.93	40.7	\$1.62	\$79.00	39.5	\$2.00	\$65.37	40.6	\$1.61	\$66.18	40.6	\$1.63	\$43.78	42.5	\$1.03	\$83.81	38.8	\$2.16
1954: Average	66.18	40.6	1.63	73.72	38.0	1.94	66.83	41.0	1.63	67.40	41.1	1.64	44.20	42.5	1.04	85.06	39.2	2.17
1955: Average	67.40	40.6	1.66	68.16	35.5	1.92	70.06	41.7	1.68	70.47	41.7	1.69	45.68	43.5	1.05	86.19	39.0	2.21
1953: Average	\$68.89	41.5	\$1.66	\$68.55	41.8	\$1.64	\$71.32	42.2	\$1.69	\$51.25	41.0	\$1.25	\$51.34	41.4	\$1.24	\$55.46	41.7	\$1.33
1954: Average	70.97	41.5	1.71	70.81	41.9	1.69	73.08	42.0	1.74	50.00	40.0	1.25	49.48	39.9	1.24	54.95	40.7	1.38
1955: Average	71.28	41.2	1.73	72.85	42.6	1.71	71.81	40.8	1.76	50.82	39.7	1.28	50.43	40.4	1.28	56.17	40.7	1.35

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees ¹—Continued

Year and month	Manufacturing—Continued																	
	Printing, publishing, and allied industries—Continued			Chemicals and allied products														
	Miscellaneous publishing and printing services			Total: Chemicals and allied products			Industrial inorganic chemicals †			Alkalies and chlorine			Industrial organic chemicals †			Plastics, except synthetic rubber		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average	\$104.15	39.6	\$2.63	\$75.58	41.3	\$1.83	\$82.81	41.2	\$2.01	\$82.39	41.4	\$1.99	\$80.18	40.7	\$1.97	\$82.88	42.5	\$1.95
1954: Average	104.91	39.0	2.69	78.50	41.1	1.91	86.09	40.8	2.11	83.81	40.1	2.09	83.23	40.6	2.05	83.80	41.9	2.00
1955: Average	105.84	39.2	2.70	79.52	41.2	1.93	88.32	40.7	2.17	85.36	39.7	2.15	85.07	40.9	2.08	85.24	42.2	2.02
1953: Average	\$87.29	40.6	\$2.15	\$69.87	39.7	\$1.76	\$74.84	39.6	\$1.89	\$68.71	40.9	\$1.68	\$78.47	41.3	\$1.90	\$85.90	41.1	\$2.09
1954: Average	90.76	40.7	2.23	72.98	40.1	1.82	78.01	39.8	1.96	72.16	41.0	1.76	81.79	41.1	1.99	89.19	41.1	2.17
1955: Average	93.02	40.8	2.28	72.76	40.2	1.81	80.60	40.3	2.00	73.21	40.9	1.79	84.25	41.3	2.04	91.02	41.0	2.22
1953: Average	\$76.08	41.8	\$1.82	\$74.64	41.7	\$1.79	\$64.22	41.7	\$1.54	\$59.36	42.4	\$1.40	\$64.89	45.7	\$1.42	\$59.67	45.9	\$1.30
1954: Average	77.87	41.2	1.89	76.26	41.0	1.86	67.52	42.2	1.60	61.48	42.4	1.45	68.24	45.8	1.49	63.16	46.1	1.37
1955: Average	78.72	41.0	1.92	77.11	40.8	1.89	69.37	42.3	1.64	61.01	41.5	1.47	68.24	45.8	1.49	62.88	45.9	1.35
1953: Average	\$74.29	45.3	\$1.64	\$69.94	40.9	\$1.71	\$57.66	38.7	\$1.49	\$80.37	42.3	\$1.90	\$90.17	40.8	\$2.21	\$94.19	40.6	\$2.32
1954: Average	77.46	45.3	1.71	71.51	40.4	1.77	60.37	38.7	1.56	82.32	42.0	1.96	92.62	40.8	2.27	96.22	40.6	2.37
1955: Average	78.43	45.6	1.72	71.73	40.3	1.78	60.14	38.8	1.55	83.13	42.2	1.97	95.58	41.2	2.32	97.85	40.6	2.41

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees 1—Continued

Year and month	Manufacturing—Continued																	
	Products of petroleum and coal—Continued			Rubber products													Leather and leather products	
	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products			Tires and inner tubes			Rubber footwear			Other rubber products*			Total: Leather and leather products		
				Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average	\$78.81	41.7	\$1.89	\$77.78	40.3	\$1.93	\$88.31	39.6	\$2.23	\$65.60	40.0	\$1.64	\$70.93	41.0	\$1.73	\$51.65	37.7	\$1.37
1954: Average	80.73	41.4	1.95	78.21	39.7	1.97	87.85	38.7	2.27	67.43	39.9	1.69	71.91	40.4	1.78	50.92	36.9	1.38
1955: January	79.79	40.5	1.97	83.84	41.3	2.03	97.41	41.1	2.37	68.97	40.1	1.72	76.08	41.8	1.82	52.68	37.9	1.39
September	92.88	43.0	2.16	87.57	41.7	2.10	103.39	42.2	2.45	67.60	39.3	1.72	78.58	41.8	1.88	52.45	37.2	1.41

Year and month	Leather, tanned, belting, and finished																		
	Leather, tanned, belting, and finished			Industrial leather belting and packing			Boot and shoe cut stock and findings			Footwear (except rubber)			Luggage			Handbags and small leather goods			
	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum
1953: Average	\$68.23	39.9	\$1.71	\$67.97	41.7	\$1.63	\$50.16	38.0	\$1.32	\$49.10	37.2	\$1.32	\$57.09	39.1	\$1.46	\$46.99	38.2	\$1.23	
1954: Average	69.17	39.3	1.76	66.30	39.7	1.67	49.71	37.1	1.34	48.15	36.2	1.33	56.93	37.7	1.51	48.00	38.4	1.25	
1955: January	71.46	39.7	1.80	68.06	39.8	1.71	52.39	39.1	1.34	49.88	37.5	1.33	55.50	37.0	1.50	47.85	38.9	1.23	
September	72.98	40.1	1.82	70.93	40.3	1.76	51.14	37.6	1.36	49.01	36.3	1.35	62.09	39.8	1.56	49.28	38.2	1.29	

Year and month	Stone, clay, and glass products																		
	Gloves and miscellaneous leather goods			Total: Stone, clay, and glass products			Flat glass			Glass and glassware, pressed or blown *			Glass containers			Pressed and blown glass			
	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum
1953: Average	\$44.04	36.4	\$1.21	\$70.35	40.9	\$1.72	\$97.34	40.9	\$2.38	\$67.89	39.7	\$1.71	\$69.60	40.0	\$1.74	\$65.46	39.2	\$1.67	
1954: Average	44.64	36.0	1.24	71.86	40.6	1.77	100.61	40.9	2.46	70.77	39.1	1.81	72.47	39.6	1.93	63.15	38.5	1.79	
1955: January	45.38	36.9	1.24	73.94	41.2	1.81	111.11	42.9	2.52	72.25	39.7	1.82	73.63	39.8	1.85	70.31	39.5	1.78	
September	45.63	36.5	1.25	73.49	40.6	1.81	110.34	43.1	2.56	72.47	39.6	1.83	74.21	39.9	1.86	70.74	39.3	1.80	

Year and month	Glass products made of purchased glass																		
	Gloves and miscellaneous leather goods			Cement, hydraulic			Structural clay products *			Brick and hollow tile			Floor and wall tile			Sewer pipe			
	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum	Total: Rubber products	Tires and inner tubes	Rubber footwear	Other rubber products*	Total: Leather and leather products	Coke and petroleum products	Other petroleum products	petroleum
1953: Average	\$60.01	41.1	\$1.46	\$73.39	41.7	\$1.76	\$64.06	40.8	\$1.57	\$61.77	42.6	\$1.45	\$67.47	40.4	\$1.67	\$64.56	40.1	\$1.61	
1954: Average	70.75	40.5	1.60	75.71	41.6	1.82	66.26	40.9	1.62	64.63	42.8	1.51	68.17	40.1	1.70	66.99	40.6	1.65	
1955: January	62.47	41.1	1.62	80.22	42.0	1.91	67.49	40.9	1.65	65.76	42.7	1.54	69.08	40.4	1.71	68.45	40.5	1.69	
September	63.72	42.2	1.51	76.91	41.8	1.84	67.40	41.1	1.64	65.79	43.0	1.53	68.28	40.4	1.69	69.19	40.7	1.70	

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees¹—Continued

Year and month		Manufacturing—Continued																	
		Stone, clay, and glass products—Continued																	
		Clay refractories			Pottery and related products			Concrete, gypsum, and plaster products ⁴			Concrete products			Cut-stone and stone products			Miscellaneous non-metallic mineral products ⁴		
		Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average		\$66.47	38.2	\$1.74	\$62.04	37.6	\$1.65	\$72.87	43.9	\$1.66	\$71.56	43.9	\$1.63	\$63.91	41.5	\$1.54	\$74.07	40.7	\$1.82
1954: Average		67.16	36.9	1.82	61.69	36.5	1.69	73.92	44.0	1.68	71.88	44.1	1.63	64.53	41.1	1.57	73.66	39.6	1.86
1955: Average		76.98	38.3	2.01	66.73	37.7	1.77	81.70	45.9	1.78	79.34	46.4	1.71	70.09	43.1	1.63	83.80	41.9	2.00
		Stone, clay, and glass products—Continued																	
		Abrasive products			Asbestos products			Nonclay refractories			Total: Primary metal industries			Blast furnaces, steel-works, and rolling mills ⁴			Blast furnaces, steel-works, and rolling mills, except electro-metallurgical products		
1953: Average		\$79.98	40.6	\$1.97	\$76.43	42.7	\$1.79	\$71.51	36.3	\$1.97	\$84.25	40.9	\$2.06	\$87.48	40.5	\$2.16	\$87.48	40.5	\$2.16
1954: Average		76.44	38.8	1.97	77.42	41.4	1.87	67.66	34.0	1.99	80.88	38.7	2.09	83.38	37.9	2.20	83.16	37.8	2.20
1955: Average		88.38	41.3	2.14	86.92	43.9	1.98	92.51	38.7	2.18	91.94	40.5	2.27	103.75	41.5	2.60	104.17	41.5	2.44
		Primary metal industries																	
		Electrometallurgical products			Iron and steel foundries ⁴			Gray-iron foundries			Malleable-iron foundries			Steel foundries			Primary smelting and refining of nonferrous metals ⁴		
1953: Average		\$80.36	41.0	\$1.96	\$76.33	40.6	\$1.88	\$74.89	40.7	\$1.84	\$76.95	40.5	\$1.90	\$79.98	40.6	\$1.97	\$80.93	41.5	\$1.95
1954: Average		79.80	40.1	1.99	74.30	38.9	1.91	73.70	39.2	1.88	73.92	38.5	1.92	75.82	38.1	1.99	80.00	40.2	1.99
1955: Average		90.80	42.0	2.10	87.22	44.5	1.96	79.04	38.0	2.08	91.30	41.5	2.20	95.12	41.0	2.32	95.12	41.0	2.32
		Primary smelting and refining of copper, lead, and zinc			Primary refining of aluminum			Secondary smelting and refining of nonferrous metals			Rolling, drawing, and alloying of nonferrous metals ⁴			Rolling, drawing, and alloying of copper			Rolling, drawing, and alloying of aluminum		
1953: Average		\$80.41	42.1	\$1.91	\$81.81	40.5	\$2.02	\$73.63	41.6	\$1.77	\$82.29	42.2	\$1.95	\$85.37	42.9	\$1.99	\$77.74	40.7	\$1.91
1954: Average		76.61	39.9	1.92	85.05	40.5	2.10	74.80	41.1	1.82	80.80	40.4	2.00	81.20	40.2	2.00	79.79	40.3	1.98
1955: Average		85.49	41.1	2.08	92.06	40.2	2.29	86.33	43.6	1.98	92.21	42.3	2.18	96.14	43.9	2.19	88.91	40.6	2.19

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees ¹—Continued

Year and month	Manufacturing—Continued																	
	Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued															Machinery (except electrical)		
	Miscellaneous fabricated metal products ⁴			Metal shipping barrels, drums, kegs, and pails			Steel springs			Bolts, nuts, washers, and rivets			Screw-machine products			Total: Machinery (except electrical)		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average	\$78.51	42.9	\$1.83	\$82.35	41.8	\$1.97	\$83.13	42.2	\$1.97	\$79.18	42.8	\$1.85	\$81.07	44.3	\$1.83	\$82.91	42.3	\$1.96
1954: Average	75.70	40.7	1.86	83.03	40.7	2.04	78.21	39.3	1.99	76.17	40.3	1.89	75.26	40.9	1.84	81.61	40.6	2.01
1955: Average	85.17	42.8	1.99	94.57	42.6	2.22	82.47	38.9	2.10	89.40	43.4	2.06	82.75	43.1	1.92	88.62	41.6	2.09
1953: Average	\$85.28	41.2	\$2.07	\$93.66	42.0	\$2.23	\$82.41	41.0	\$2.01	\$77.21	39.8	\$1.94	\$79.20	39.6	\$2.00	\$75.20	40.0	\$1.88
1954: Average	86.05	40.4	2.13	94.94	41.1	2.31	82.41	40.2	2.05	78.21	39.5	1.98	80.77	39.4	2.05	76.03	39.6	1.92
1955: Average	88.51	40.6	2.18	91.25	39.5	2.31	87.74	41.0	2.14	81.20	40.0	2.03	88.56	41.0	2.08	86.11	39.8	1.97
1953: Average	\$79.42	41.8	\$1.90	\$78.85	41.5	\$1.90	\$80.98	42.4	\$1.91	\$96.64	45.8	\$2.11	\$94.92	46.3	\$2.05	\$89.52	44.1	\$2.03
1954: Average	77.17	40.6	1.95	77.99	40.2	1.94	82.17	41.5	1.98	92.87	42.6	2.18	89.03	42.6	2.09	85.08	41.1	2.07
1955: Average	90.51	43.1	2.10	90.09	42.9	2.10	91.35	43.5	2.10	97.86	43.3	2.26	93.73	42.8	2.19	94.82	43.1	2.20
1953: Average	\$100.93	46.3	\$2.18	\$51.32	42.8	\$1.90	\$81.56	42.7	\$1.91	\$71.93	41.1	\$1.75	\$82.84	44.3	\$1.87	\$94.59	44.2	\$2.14
1954: Average	98.72	43.3	2.28	79.54	41.0	1.94	81.36	41.3	1.97	70.22	39.9	1.76	82.94	43.2	1.92	89.01	41.4	2.15
1955: Average	102.68	44.5	2.35	81.97	41.4	1.98	83.43	41.1	2.03	73.57	41.1	1.79	87.60	43.8	2.00	90.64	41.2	2.20

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees ¹—Continued

Year and month	Manufacturing—Continued																	
	Electrical machinery—Continued																	
	Motors, generators, and motor-generator sets			Power and distribution transformers			Switchgear, switchboard, and industrial controls			Electrical welding apparatus			Electrical appliances			Insulated wire and cable		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1953: Average	\$84.03	41.6	\$2.02	\$76.33	40.6	\$1.88	\$75.84	41.9	\$1.81	\$85.20	42.6	\$2.00	\$76.92	40.7	\$1.89	\$72.24	42.0	\$1.72
1954: Average	82.82	40.4	2.05	78.59	40.3	1.95	75.95	40.4	1.88	83.21	41.4	2.01	75.84	39.5	1.92	70.47	40.5	1.74
1955: January	84.25	40.7	2.07	81.95	41.6	1.99	76.40	40.0	1.91	83.02	41.1	2.02	77.81	39.9	1.95	73.34	41.2	1.78
February	84.87	41.2	2.06	82.59	41.5	1.99	76.99	40.1	1.92	84.66	41.5	2.04	77.01	39.9	1.93	73.93	41.3	1.79
March	84.67	41.3	2.05	82.17	41.5	1.98	77.38	40.3	1.92	86.72	42.3	2.05	79.15	40.8	1.94	73.57	41.1	1.79
April	84.46	41.2	2.05	84.40	42.2	2.00	77.97	40.4	1.93	89.22	43.1	2.07	79.54	41.0	1.94	74.64	41.7	1.79
May	85.70	41.6	2.06	84.20	42.1	2.00	79.35	40.9	1.94	93.68	44.4	2.11	79.35	40.9	1.94	75.24	41.8	1.80
June	84.67	41.3	2.05	86.23	42.9	2.01	80.56	41.1	1.96	95.97	45.7	2.10	79.37	40.7	1.95	76.44	42.0	1.82
July	84.23	40.3	2.09	84.04	41.4	2.03	80.39	40.6	1.98	93.29	43.8	2.13	77.62	39.6	1.96	73.85	40.8	1.81
August	84.85	40.6	2.09	82.81	41.2	2.01	78.72	41.0	1.92	95.22	45.2	2.12	78.57	40.5	1.94	74.75	41.3	1.81
September	84.71	39.4	2.15	86.92	42.4	2.05	70.13	35.6	1.97	93.93	44.1	2.13	78.21	39.7	1.97	78.63	42.5	1.85
	Electric equipment for vehicles						Communication equipment ⁴			Radios, phonographs, television sets, and equipment			Radio tubes			Telephone, telegraph, and related equipment		
1953: Average	\$76.70	40.8	\$1.88	\$65.21	40.5	\$1.61	\$66.66	40.4	\$1.65	\$64.64	39.9	\$1.62	\$62.27	40.7	\$1.53	\$82.49	42.3	\$1.95
1954: Average	75.84	39.5	1.92	64.91	39.1	1.66	68.68	39.7	1.73	67.49	39.7	1.70	63.43	39.4	1.61	80.40	40.4	1.99
1955: January	80.78	40.8	1.98	68.17	40.1	1.70	70.53	40.3	1.75	69.32	40.3	1.72	64.06	39.3	1.63	85.90	41.7	2.06
February	84.82	42.2	2.01	68.91	40.3	1.71	70.40	40.0	1.76	68.11	39.6	1.72	65.60	40.0	1.64	86.53	41.8	2.07
March	84.80	42.4	2.00	69.60	40.7	1.71	70.80	40.0	1.77	68.68	39.7	1.73	64.55	39.6	1.63	86.53	41.8	2.07
April	82.78	41.6	1.99	69.60	40.7	1.71	70.98	40.1	1.77	68.68	39.7	1.73	65.04	39.9	1.63	87.15	41.9	2.08
May	86.05	42.6	2.02	69.66	40.5	1.72	70.98	40.1	1.77	68.85	39.8	1.73	64.29	39.2	1.64	88.41	42.3	2.09
June	78.01	39.6	1.97	69.26	40.5	1.71	71.96	40.2	1.79	69.43	39.9	1.74	64.02	38.8	1.65	90.30	43.0	2.10
July	82.42	40.4	2.04	66.81	39.3	1.70	69.78	39.2	1.78	68.60	39.2	1.75	62.21	37.7	1.65	84.46	41.2	2.05
August	85.08	41.3	2.06	67.32	39.6	1.70	72.32	40.4	1.79	69.43	39.9	1.74	65.74	39.6	1.66	92.63	43.9	2.11
September	82.82	40.4	2.05	59.34	34.7	1.71	74.34	41.3	1.80	70.30	40.4	1.74	69.88	41.3	1.68	95.42	44.8	2.13
	Electrical machinery—Continued									Transportation equipment								
	Miscellaneous electrical products ⁴			Storage batteries			Primary batteries (dry and wet)			X-ray and non-radio electronic tubes			Total: Transportation equipment			Automobiles ⁴		
1953: Average	\$67.94	40.2	\$1.69	\$76.67	41.0	\$1.87	\$59.20	40.0	\$1.48	\$72.36	40.2	\$1.80	\$85.28	41.2	\$2.07	\$87.95	41.1	\$2.14
1954: Average	68.95	39.4	1.75	76.82	39.6	1.94	59.04	39.1	1.61	78.18	40.3	1.94	86.67	40.5	2.14	89.32	40.6	2.20
1955: January	72.57	39.2	1.79	76.64	39.1	1.96	59.74	39.3	1.62	77.03	39.3	1.96	92.62	42.1	2.20	96.75	43.0	2.25
February	70.18	40.1	1.81	81.80	40.9	2.00	60.83	39.5	1.64	77.60	40.1	1.96	93.28	42.4	2.20	98.99	43.8	2.26
March	71.06	39.7	1.79	78.80	39.6	1.99	60.28	39.4	1.53	77.81	39.7	1.96	94.37	42.7	2.21	100.56	44.3	2.27
April	73.12	40.4	1.81	80.80	40.4	2.00	62.22	40.4	1.54	79.40	39.9	1.99	92.62	42.1	2.20	97.88	43.5	2.25
May	73.12	40.4	1.81	83.22	41.2	2.02	61.60	40.0	1.54	78.41	39.8	1.97	94.79	42.7	2.22	101.00	44.3	2.28
June	72.36	40.2	1.80	81.19	40.8	1.99	60.37	39.2	1.54	80.80	40.4	2.00	88.26	40.3	2.19	99.20	40.0	2.23
July	72.83	39.8	1.83	82.00	40.0	2.05	60.19	39.6	1.62	84.87	41.4	2.05	92.99	41.7	2.23	97.75	42.5	2.30
August	73.75	40.3	1.83	86.31	42.1	2.05	61.62	39.5	1.56	80.80	40.2	2.01	92.06	41.1	2.24	95.45	41.5	2.30
September	76.26	41.0	1.86	90.90	43.7	2.08	61.00	39.1	1.56	85.28	41.4	2.06	93.56	41.4	2.26	97.16	41.7	2.33
	Motor vehicles, bodies, parts, and accessories			Truck and bus bodies			Trailers (truck and automobile)			Aircraft and parts ⁴			Aircraft			Aircraft engines and parts		
1953: Average	\$88.78	41.1	\$2.16	\$74.26	40.8	\$1.82	\$73.60	40.0	\$1.84	\$83.80	41.9	\$2.00	\$82.19	41.3	\$1.99	\$87.29	43.0	\$2.03
1954: Average	89.95	40.7	2.21	75.98	40.2	1.89	76.19	40.1	1.90	85.07	40.9	2.08	85.07	40.9	2.08	85.06	40.7	2.09
1955: January	99.65	43.9	2.27	80.93	41.5	1.95	80.77	41.0	1.97	87.95	41.1	2.14	88.80	41.3	2.15	86.69	40.7	2.13
February	101.23	44.4	2.28	91.43	44.6	2.05	84.15	42.5	1.98	88.38	41.3	2.14	89.23	41.5	2.15	87.74	41.0	2.14
March	98.31	43.5	2.26	85.70	43.5	1.97	83.50	42.6	1.96	87.10	40.7	2.14	87.72	40.8	2.15	85.65	40.4	2.12
April	101.68	44.4	2.29	85.87	42.9	1.99	84.55	42.7	1.98	88.15	41.0	2.15	88.56	41.0	2.16	87.10	40.7	2.14
May	89.38	39.9	2.24	82.69	41.5	1.99	84.82	42.2	2.01	88.15	41.0	2.15	88.15	41.0	2.15	86.67	40.5	2.14
June	98.83	42.6	2.32	80.77	41.0	1.97	83.01	41.3	2.01	89.40	41.2	2.17	89.19	41.1	2.17	89.62	41.3	2.17
July	96.28	41.5	2.32	81.18	41.0	1.98	83.43	41.3	2.02	88.97	41.0	2.17	89.19	41.1	2.17	86.37	39.8	2.17
August	98.00	41.7	2.35	79.79	40.3	1.98	85.91	41.5	2.07	90.89	41.5	2.19	90.47	41.5	2.18	89.76	40.8	2.20

See footnotes at end of table.

TABLE C-1: Hours and gross earnings of production workers or nonsupervisory employees ¹—Continued

Year and month	Finance, insurance, and real estate ²			Service and miscellaneous									
	Banks and trust companies	Security dealers and exchanges	Insurance carriers	Hotels, year-round ³			Personal services						Motion picture production and distribution ⁴
							Laundries			Cleaning and dyeing plants			
	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings
1953: Average.....	\$54.84	\$82.94	\$67.29	\$38.40	42.2	\$0.91	\$39.69	40.5	\$0.98	\$45.71	40.1	\$1.14	\$81.52
1954: Average.....	57.39	95.02	70.08	40.13	41.8	.96	40.10	40.1	1.00	47.12	39.6	1.19	89.09
September.....	57.71	96.75	70.68	40.64	41.9	.97	40.50	40.1	1.01	47.24	39.7	1.19	89.81
October.....	58.02	97.24	70.90	40.87	41.7	.98	40.50	40.5	1.00	47.72	40.1	1.19	92.95
November.....	58.11	100.09	70.79	41.16	42.0	.98	40.40	40.0	1.01	46.77	39.3	1.19	89.44
December.....	58.51	111.75	71.29	41.38	41.8	.99	40.70	40.3	1.01	47.01	39.5	1.19	92.74
1955: January.....	58.97	110.82	72.22	41.26	42.1	.98	40.40	40.0	1.01	46.41	39.0	1.19	93.98
February.....	59.02	108.37	71.79	40.96	41.8	.98	40.20	39.8	1.01	45.22	38.0	1.19	90.54
March.....	59.08	107.97	71.90	40.45	41.7	.97	40.60	40.2	1.01	47.04	39.2	1.20	93.36
April.....	59.00	106.08	72.36	40.35	41.6	.97	40.70	40.3	1.01	47.24	39.7	1.19	92.66
May.....	58.69	102.04	72.89	40.79	41.2	.99	41.62	40.8	1.02	49.61	41.0	1.21	94.22
June.....	58.60	100.97	73.13	40.47	41.3	.98	40.80	40.4	1.01	48.12	40.1	1.20	93.11
July.....	58.77	101.69	74.13	40.89	41.3	.99	41.01	40.6	1.01	47.04	9.2	1.20	95.94
August.....	58.67	97.16	74.22	40.77	41.6	.98	40.40	40.0	1.01	45.82	38.5	1.19	92.93
September.....	58.60	95.58	74.51	40.69	41.1	.99	40.70	40.3	1.01	48.36	40.3	1.20	94.94

¹ Data are based upon reports from cooperating establishments covering both full- and part-time employees who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. For mining, manufacturing, laundries, and cleaning and dyeing plants, data refer to production and related workers only. For the remaining industries, unless otherwise noted, data relate to nonsupervisory employees and working supervisors.

Data for the most recent month are subject to revision without notation; revised figures for earlier months will be identified by asterisks the first month they are published.

² See footnote 2, table A-2.

³ See footnote 3, table A-2.

⁴ Italicized titles which follow are components of this industry.

⁵ Figures for class I railroads (excluding switching and terminal companies) are based upon monthly data summarized in the M-300 report by the Interstate Commerce Commission and relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group I).

⁶ Data relate to employees in such occupations in the telephone industry as switchboard operators, service assistants, operating-room instructors, and pay-station attendants. During 1954 such employees made up 43 percent of

the total number of nonsupervisory employees in telephone establishments reporting hours and earnings data.

⁷ Data relate to employees in such occupations in the telephone industry as central office craftsmen; installation and exchange repair craftsmen; line, cable, and conduit craftsmen; and laborers. During 1954 such employees made up 25 percent of the total number of nonsupervisory employees in telephone establishments reporting hours and earnings data.

⁸ Data on average weekly hours and average hourly earnings are not available.

⁹ Money payments only; additional value of board, room, uniforms, and tips not included.

* August 1954—Average weekly earnings for other rubber products shown previously as \$77.15 should have read \$71.15.

See footnote 1 on p. 1502.

NOTE.—Information on concepts, methodology, etc., is given in a technical note on Hours and Earnings in Non-agricultural Industries, which appeared in the April 1954 Monthly Labor Review.

TABLE C-2: Gross average weekly earnings of production workers in selected industries, in current and 1947-49 dollars¹

Year	Manufacturing		Bituminous-coal mining		Laundries		Year and month	Manufacturing		Bituminous-coal mining		Laundries	
	Current	1947-49	Current	1947-49	Current	1947-49		Current	1947-49	Current	1947-49	Current	1947-49
1939: Average.....	\$23.86	\$40.17	\$23.88	\$40.20	\$17.64	\$29.70	1954: September.....	\$71.86	62.65	\$81.17	\$70.77	\$40.50	\$35.31
1940: Average.....	25.20	42.07	24.71	41.25	17.93	29.93	October.....	72.22	63.07	87.54	76.45	40.50	35.37
1941: Average.....	29.58	47.03	30.86	49.06	18.69	29.71	November.....	73.57	64.20	88.29	77.04	40.40	35.25
1942: Average.....	36.65	52.58	35.02	50.24	20.34	29.18	December.....	74.12	64.85	92.01	80.50	40.70	35.61
1943: Average.....	43.14	58.30	41.62	56.24	23.08	31.19	1955: January.....	73.97	64.72	92.01	80.50	40.40	35.35
1944: Average.....	46.08	61.28	51.27	68.18	25.95	34.51	February.....	74.74	65.39	94.50	82.68	40.20	35.17
1945: Average.....	44.39	57.72	52.25	67.95	27.73	36.06	March.....	75.11	65.71	91.88	80.38	40.60	35.52
1946: Average.....	43.82	52.54	58.03	69.58	30.20	36.21	April.....	74.96	65.64	93.00	81.44	40.70	35.64
1947: Average.....	49.97	52.32	66.59	69.73	32.71	34.25	May.....	76.30	66.81	93.87	82.20	41.62	36.44
1948: Average.....	54.14	52.67	72.12	70.16	34.23	33.30	June.....	76.11	66.53	98.28	85.91	40.80	35.66
1949: Average.....	54.92	53.95	63.28	62.16	34.98	34.36	July.....	76.36	66.57	95.50	3.26	41.01	35.75
1950: Average.....	59.33	57.71	70.35	68.43	35.47	34.50	August.....	76.33	66.66	94.50	82.53	40.40	35.28
1951: Average.....	64.71	58.30	77.79	70.08	37.81	34.06	September ²	77.71	67.63	96.99	84.41	40.70	35.42
1952: Average.....	67.97	59.89	78.09	68.80	38.63	34.04							
1953: Average.....	71.69	62.67	85.31	74.57	39.69	34.69							
1954: Average.....	71.86	62.60	80.85	70.43	40.10	34.93							

¹ These series indicate changes in the level of average weekly earnings prior to and after adjustment for changes in purchasing power as measured by the Bureau's Consumer Price Index, the years 1947-49 being the base period.

² Preliminary.
See footnote 1 on p. 1502.

TABLE C-3: Average weekly earnings, gross and net spendable, of production workers in manufacturing industries, in current and 1947-49 dollars¹

Year	Gross average weekly earnings		Net spendable average weekly earnings				Year and month	Gross average weekly earnings		Net spendable average weekly earnings			
	A-mount	Index (1947-49=100)	Worker with no dependents		Worker with 3 dependents			A-mount	Index (1947-49=100)	Worker with no dependents		Worker with 3 dependents	
			Current	1947-49	Current	1947-49				Current	1947-49	Current	1947-49
1939: Average.....	\$23.86	45.1	\$23.58	\$39.70	\$23.62	\$39.76	1954: September.....	\$71.86	135.7	\$59.55	\$51.92	\$66.78	\$58.22
1940: Average.....	25.20	47.6	24.69	41.22	24.95	41.65	October.....	72.22	136.4	59.84	52.26	67.07	58.58
1941: Average.....	29.58	55.9	28.05	44.59	29.28	46.55	November.....	73.57	138.9	60.92	53.16	68.18	59.49
1942: Average.....	36.65	69.2	31.77	45.58	36.28	52.05	December.....	74.12	140.0	61.36	53.68	68.63	60.04
1943: Average.....	43.14	81.5	36.01	48.66	41.39	55.93	1955: January.....	73.97	139.7	61.15	53.50	68.41	59.85
1944: Average.....	46.08	87.0	38.29	50.92	44.06	58.59	February.....	74.74	141.2	61.76	54.03	69.02	60.38
1945: Average.....	44.39	83.8	36.97	48.08	42.74	55.58	March.....	75.11	141.9	62.05	54.29	69.32	60.65
1946: Average.....	43.82	82.8	37.72	45.23	43.20	51.80	April.....	74.96	141.6	61.93	54.23	69.20	60.60
1947: Average.....	49.97	94.4	42.76	44.77	48.24	50.51	May.....	76.30	144.1	62.98	55.15	70.27	61.53
1948: Average.....	54.14	102.2	47.43	46.14	53.17	51.72	June.....	76.11	143.7	62.83	54.92	70.12	61.29
1949: Average.....	54.92	103.7	48.09	47.24	53.83	52.88	July.....	76.36	144.2	63.02	54.94	70.32	61.31
1950: Average.....	59.33	112.0	51.09	49.70	57.21	55.65	August.....	76.33	144.2	63.00	55.02	70.29	61.39
1951: Average.....	64.71	122.2	54.04	48.68	61.28	55.21	September ²	77.71	146.8	64.08	55.77	71.40	62.14
1952: Average.....	67.97	128.4	55.66	49.04	63.62	56.05							
1953: Average.....	71.69	135.4	58.54	51.17	66.58	58.20							
1954: Average.....	71.86	135.7	59.55	51.87	66.78	58.17							

¹ Net spendable average weekly earnings are obtained by deducting from gross average weekly earnings, Federal social security and income taxes for which the worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have, therefore, been computed for 2 types of income-receivers: (1) A worker with no dependents; (2) A worker with 3 dependents. See footnote 1, table C-2.

The computations of net spendable earnings for both the worker with no dependents and the worker with 3 dependents are based upon the gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition. The

primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income-receivers.

² Preliminary.
See footnote 1 on p. 1502.

NOTE.—Information on concepts, methodology, etc., is contained in a technical note on the Calculation and Uses of the Net Spendable Earnings Series (Revised May 1954), which is available upon request to the Bureau of Labor Statistics.

TABLE C-4: Average hourly earnings, gross and excluding overtime, of production workers in manufacturing industries¹

Year	Manufacturing			Durable goods		Nondurable goods		Year and month	Manufacturing			Durable goods		Nondurable goods	
	Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime		Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime
		Amount	Index (1947-49=100)							Amount	Index (1947-49=100)				
1941: Average	\$0.729	\$0.702	54.5	\$0.808	\$0.770	\$0.640	\$0.625	1954: September	\$1.81	\$1.76	136.6	\$1.93	\$1.87	\$1.66	\$1.61
1942: Average	.853	.805	62.5	.947	.881	.723	.698	October	1.81	1.76	136.6	1.93	1.87	1.66	1.61
1943: Average	.961	.894	69.4	1.059	.976	.803	.763	November	1.83	1.77	137.4	1.94	1.88	1.67	1.62
1944: Average	1.019	.947	73.5	1.117	1.029	.861	.814	December	1.83	1.77	137.4	1.95	1.88	1.67	1.62
1945: Average	1.023	² 963	² 74.8	1.111	² 1.042	.904	² .858	1955: January	1.84	1.78	138.2	1.96	1.89	1.68	1.63
1946: Average	1.086	1.051	81.6	1.156	1.122	1.015	.981	February	1.85	1.78	138.2	1.96	1.89	1.68	1.63
1947: Average	1.237	1.198	93.0	1.292	1.250	1.171	1.133	March	1.85	1.79	139.0	1.97	1.89	1.68	1.63
1948: Average	1.350	1.310	101.7	1.410	1.366	1.278	1.241	April	1.86	1.80	139.8	1.98	1.90	1.69	1.65
1949: Average	1.401	1.367	106.1	1.469	1.434	1.325	1.292	May	1.87	1.80	139.8	1.99	1.91	1.70	1.65
1950: Average	1.465	1.415	109.9	1.537	1.480	1.378	1.337	June	1.87	1.80	139.8	1.99	1.91	1.70	1.65
1951: Average	1.59	1.53	118.8	1.67	1.60	1.48	1.43	July	1.89	1.82	141.3	2.02	1.94	1.71	1.66
1952: Average	1.67	1.61	125.0	1.77	1.70	1.54	1.49	August	1.88	1.81	140.5	2.01	1.94	1.70	1.65
1953: Average	1.77	1.71	132.8	1.87	1.80	1.61	1.56	September ³	1.90	1.83	142.1	2.03	1.95	1.72	1.66
1954: Average	1.81	1.76	136.6	1.92	1.86	1.66	1.61								

¹ Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The computation of average hourly earnings excluding overtime makes no allowance for special rates of pay for work done on holidays. These data are based on the application of adjustment factors to gross average hourly earnings, as described in Eliminating Premium Overtime From

Hourly Earnings in Manufacturing, Monthly Labor Review, May 1950; reprint Serial No. R. 2020.

² 11-month average; August 1945 excluded because of V-J holiday period.

³ Preliminary.

See footnote 1 on p. 1502.

TABLE C-5: Indexes of aggregate weekly man-hours in industrial and construction activity¹

(1947-49=100)

Industry	1955										1954			Annual average	
	Sept. ²	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	1954	1953
Total ³	111.7	109.8	107.2	108.0	106.1	103.1	103.0	100.8	99.9	102.9	103.5	103.0	102.3	101.5	113.3
Mining division	78.4	78.7	78.6	80.4	77.7	75.7	76.0	76.4	76.8	77.4	76.5	75.8	73.5	76.6	87.5
Contract construction division	132.4	129.3	128.7	122.3	117.2	106.1	100.6	92.4	96.0	108.9	118.2	123.5	123.8	115.9	123.1
Manufacturing division	111.0	109.1	106.0	107.8	106.4	104.5	105.2	103.6	102.0	103.8	103.2	101.9	101.2	101.1	113.6
Durable goods	117.9	115.8	114.2	117.2	116.7	114.3	113.6	111.5	109.4	110.5	109.4	106.6	103.9	107.5	125.2
Ordinance and accessories	385.3	383.9	386.5	395.2	399.1	400.8	410.8	411.6	415.6	429.0	431.7	437.9	441.8	502.2	798.5
Lumber and wood products (except furniture)	97.8	99.3	95.6	99.5	91.7	86.2	84.6	85.5	84.2	88.4	92.2	94.0	89.2	85.0	93.0
Furniture and fixtures	111.7	108.6	100.0	103.3	100.1	99.2	102.0	101.3	98.0	101.7	102.0	102.6	100.7	96.5	108.5
Stone, clay, and glass products	113.9	112.1	107.6	110.6	108.0	105.1	103.3	99.8	98.9	101.6	102.1	102.2	100.7	99.0	106.6
Primary metal industries	117.2	110.9	109.7	114.0	112.4	109.0	106.5	103.2	100.7	98.7	96.2	92.8	91.5	94.5	113.9
Fabricated metal products (except ordinance, machinery, and transportation equipment)	118.6	116.0	113.2	116.2	116.0	113.6	113.2	110.6	109.1	111.5	110.6	107.9	106.2	108.3	123.4
Machinery (except electrical)	104.1	103.6	103.7	107.3	106.6	104.4	102.2	99.6	97.6	97.5	95.1	94.8	95.4	100.6	119.0
Electrical machinery	134.8	129.5	124.3	129.1	128.6	127.3	127.0	126.6	125.7	127.7	128.7	125.9	122.9	123.4	147.1
Transportation equipment	140.4	141.6	147.9	145.8	155.2	153.7	154.4	150.9	147.1	146.0	139.2	125.9	118.1	135.0	158.6
Instruments and related products	117.7	114.9	113.1	115.5	110.4	113.1	114.2	112.9	112.2	113.7	112.9	112.3	111.9	114.9	129.9
Miscellaneous manufacturing industries	106.1	101.5	95.6	101.1	99.4	97.7	99.3	97.4	93.9	98.3	102.4	103.2	100.3	98.0	109.5
Nondurable goods	102.7	101.2	96.2	96.6	94.0	92.8	95.2	94.2	93.2	95.8	95.8	96.3	97.9	93.5	99.7
Food and kindred products	104.3	102.8	96.4	96.4	90.4	85.1	80.4	79.8	82.3	88.0	91.7	96.7	105.2	90.3	93.7
Tobacco manufactures	114.2	102.6	75.2	79.7	76.9	72.0	77.2	81.4	85.4	95.4	94.0	111.0	107.9	87.8	90.1
Textile-mill products	84.3	83.6	79.6	81.7	80.4	80.2	83.0	83.0	81.4	83.2	82.4	80.9	79.7	78.7	89.8
Apparel and other finished textile products	109.4	108.1	98.1	102.9	100.5	100.1	109.5	107.6	102.4	103.6	101.8	100.3	101.1	99.0	106.9
Paper and allied products	118.1	116.4	113.5	113.8	111.7	110.1	110.5	109.3	108.7	110.7	111.7	111.4	111.1	109.2	111.6
Printing, publishing, and allied industries	110.7	106.8	106.0	106.7	105.5	105.1	105.7	104.0	103.3	107.0	105.4	105.4	105.6	104.4	105.4
Chemicals and allied products	108.9	105.9	105.7	106.9	107.6	107.7	107.4	104.4	103.9	104.7	104.3	104.1	103.3	103.5	108.1
Products of petroleum and coal	95.6	95.8	97.0	96.1	95.7	93.7	92.7	90.3	91.2	92.2	93.8	94.0	96.7	95.7	100.9
Rubber products	116.9	112.4	112.0	116.4	114.0	110.9	109.1	108.6	108.3	108.5	104.3	102.3	96.9	97.0	111.6
Leather and leather products	94.8	99.1	94.8	95.5	89.6	90.9	98.4	98.6	94.0	93.3	90.6	86.8	88.3	89.9	96.5

¹ Aggregate man-hours are for the weekly pay period ending nearest the 15th of the month and do not represent totals for the month. For mining and manufacturing industries, data refer to production and related workers. For contract construction, the data relate to construction workers.

² Preliminary.

³ Includes only the divisions shown.

See footnote 1 on p. 1502.

TABLE C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas ¹—Continued

Year and month	Connecticut—Con.			Delaware						Florida						Georgia		
	Waterbury			State			Wilmington			State			Tampa-St. Petersburg			State		
	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings
1953: Average	\$75.93	42.9	\$1.77	\$69.89	40.8	\$1.71	\$82.28	41.2	\$2.00	\$55.36	42.2	\$1.31	\$54.53	42.0	\$1.30	\$50.27	39.9	\$1.26
1954: Average	72.36	40.2	1.80	70.90	39.9	1.78	84.23	40.3	2.09	56.44	41.5	1.36	56.03	41.2	1.36	49.66	39.1	1.27
1954: September	74.03	40.9	1.81	69.29	39.8	1.74	83.33	39.7	2.10	56.17	40.7	1.38	55.48	40.2	1.38	49.27	39.1	1.26
October	74.44	40.9	1.82	70.84	39.8	1.78	84.22	39.8	2.12	56.30	40.8	1.38	56.98	40.7	1.40	50.93	40.1	1.27
November	76.36	41.5	1.84	73.77	40.2	1.84	86.99	40.9	2.13	57.13	41.7	1.37	59.50	41.9	1.42	52.65	40.5	1.30
December	74.30	40.6	1.83	74.44	40.7	1.83	88.86	41.6	2.14	58.23	42.5	1.37	59.50	42.5	1.40	52.53	40.1	1.31
1955: January	75.11	40.6	1.85	73.36	40.0	1.83	85.73	40.4	2.12	57.95	42.3	1.37	58.10	41.5	1.40	51.61	39.7	1.30
February	77.42	41.4	1.87	75.36	40.3	1.87	88.01	40.8	2.16	57.12	42.0	1.36	57.96	41.4	1.40	51.74	39.8	1.30
March	78.77	41.9	1.88	78.09	41.1	1.90	90.91	41.7	2.18	57.39	42.2	1.36	55.89	40.5	1.38	52.53	40.1	1.31
April	77.46	41.2	1.88	76.96	40.7	1.89	90.39	41.2	2.19	56.86	41.5	1.37	56.99	41.0	1.39	52.40	39.7	1.32
May	79.38	42.0	1.89	79.04	42.2	1.87	91.43	42.0	2.18	57.82	41.6	1.39	57.51	40.5	1.42	52.80	40.0	1.32
June	79.90	42.5	1.88	76.53	41.3	1.85	91.53	41.7	2.20	58.10	41.5	1.40	57.95	41.1	1.41	52.93	40.1	1.32
July	80.32	42.5	1.89	76.53	39.9	1.92	91.48	41.3	2.22	57.25	40.6	1.41	56.28	40.2	1.40	54.41	40.3	1.35
August	75.55	40.4	1.87	72.44	39.2	1.85	86.24	40.0	2.16	57.39	40.7	1.41	55.88	40.2	1.39	53.87	40.5	1.33
September	81.89	43.1	1.90	77.23	40.8	1.89	90.34	40.6	2.23	57.92	40.5	1.43	57.08	40.2	1.42	55.08	40.5	1.36
Georgia—Continued																		
Atlanta						Savannah			Idaho			Illinois			Indiana			
State						State			State			State			State			
Chicago						State			State			State			State			
1953: Average	\$62.83	40.8	\$1.54	\$63.57	42.1	\$1.51	\$76.48	40.9	\$1.87	\$76.39	41.1	\$1.86	\$79.84	41.3	\$1.93	\$76.96	40.6	\$1.89
1954: Average	63.04	39.9	1.58	66.04	41.8	1.58	78.28	41.2	1.90	76.34	40.0	1.91	78.92	39.8	1.98	76.27	39.6	1.93
1954: September	62.02	39.5	1.57	65.85	40.9	1.61	82.26	42.4	1.94	77.49	40.4	1.92	79.79	40.1	1.99	75.29	39.7	1.89
October	63.04	39.9	1.58	66.82	41.5	1.61	79.46	41.6	1.91	76.76	40.0	1.92	78.36	39.2	2.00	77.54	40.1	1.93
November	65.77	40.6	1.62	69.21	42.2	1.64	78.35	41.9	1.87	78.03	40.5	1.93	80.94	40.4	2.00	79.37	40.5	1.96
December	65.93	40.7	1.62	69.93	42.9	1.63	79.15	42.1	1.88	78.87	40.7	1.94	82.01	40.7	2.01	80.43	40.8	1.97
1955: January	64.56	40.1	1.61	67.20	42.0	1.60	80.10	41.5	1.93	79.05	40.5	1.95	82.01	40.4	2.03	80.35	40.6	1.98
February	64.88	40.3	1.61	68.26	42.4	1.61	76.40	40.0	1.91	79.60	40.7	1.96	82.56	40.6	2.03	81.88	41.2	1.99
March	66.42	40.5	1.64	68.32	42.7	1.60	77.11	40.8	1.89	80.36	40.9	1.97	83.13	40.8	2.04	81.85	41.0	2.00
April	67.56	40.7	1.66	68.53	42.3	1.62	78.36	40.6	1.93	80.48	40.9	1.97	83.26	40.7	2.05	81.55	40.8	2.00
May	68.14	40.8	1.67	69.01	42.6	1.62	80.59	40.7	1.98	81.17	41.0	1.98	84.20	40.9	2.06	83.02	41.4	2.00
June	65.76	40.1	1.64	69.54	42.4	1.64	86.96	43.7	1.99	81.98	41.3	1.98	85.77	41.4	2.07	82.29	41.1	2.00
July	71.72	41.7	1.72	72.50	42.9	1.61	81.81	40.7	2.01	81.10	40.7	1.99	84.66	40.6	2.09	81.98	40.4	2.03
August	68.61	40.6	1.69	70.90	42.2	1.68	84.97	42.7	1.99	82.25	41.3	1.99	86.39	41.2	2.10	82.75	40.7	2.03
September	68.61	40.6	1.69	72.76	42.3	1.72	84.97	42.7	1.99	84.35	41.7	2.02	89.20	42.0	2.12	85.18	41.8	2.04
Iowa																		
State						Des Moines			Kansas			Kentucky			State			
Topeka						Wichita			State			State			State			
1953: Average	\$69.08	40.8	\$1.69	\$73.98	40.0	\$1.85	\$74.18	41.3	\$1.79	\$66.62	41.1	\$1.62	\$76.33	40.9	\$1.86	\$68.00	41.9	\$1.62
1954: Average	71.01	40.4	1.76	75.50	39.2	1.93	78.47	41.8	1.88	71.90	41.8	1.72	82.36	41.9	1.97	66.17	39.8	1.66
1954: September	72.45	40.6	1.79	77.20	39.2	1.97	80.06	42.2	1.90	78.84	43.1	1.83	85.40	42.8	2.00	67.63	39.8	1.70
October	73.04	41.2	1.77	77.73	39.7	1.96	80.35	42.1	1.91	78.79	42.8	1.84	83.06	41.8	1.99	68.07	40.4	1.68
November	72.24	40.6	1.78	73.50	38.4	1.91	81.66	42.4	1.93	80.20	43.8	1.83	84.66	42.7	1.98	68.43	40.1	1.71
December	74.99	41.6	1.80	78.44	39.3	2.00	81.52	42.4	1.92	83.31	45.0	1.85	86.28	43.1	2.00	67.66	40.6	1.67
1955: January	74.41	41.3	1.80	78.49	39.4	1.99	81.66	42.2	1.93	85.11	44.8	1.90	85.27	42.7	2.00	67.30	40.4	1.66
February	73.05	40.5	1.81	79.34	39.2	2.03	80.29	41.7	1.93	72.27	39.6	1.82	84.35	42.3	1.99	68.43	40.7	1.68
March	74.88	41.1	1.82	80.90	39.9	2.03	81.63	42.4	1.92	79.38	42.3	1.88	85.68	43.1	1.99	69.07	40.6	1.70
April	73.24	40.6	1.80	78.49	39.5	1.99	80.74	42.1	1.92	80.08	43.4	1.84	82.79	41.8	1.98	69.64	40.4	1.72
May	74.58	41.0	1.82	81.02	40.4	2.01	80.42	42.3	1.90	80.56	43.7	1.84	83.25	42.0	1.98	70.29	40.7	1.73
June	74.22	40.8	1.82	80.86	40.0	2.02	78.19	41.6	1.88	79.41	43.1	1.84	82.70	41.6	1.99	72.52	41.5	1.75
July	73.76	40.3	1.83	78.43	39.1	2.01	79.58	41.9	1.90	78.42	43.2	1.82	83.52	41.7	2.00	71.31	40.9	1.75
August	76.23	41.2	1.85	81.83	40.4	2.03	80.21	41.6	1.93	80.14	43.6	1.84	84.70	41.4	2.05	71.51	40.9	1.75
September	78.15	41.7	1.88	83.97	40.4	2.08	81.16	41.7	1.95	75.50	40.7	1.86	84.42	41.4	2.05	73.41	41.2	1.78
Louisiana																		
State						Baton Rouge			Maine			Maryland			State			
New Orleans						Portland			State			State			State			
1953: Average	\$63.80	41.7	\$1.53	\$89.02	41.6	\$2.14	\$62.56	40.1	\$1.56	\$56.88	40.6	\$1.40	\$59.57	41.6	\$1.43	\$67.35	40.7	\$1.66
1954: Average	65.25	41.3	1.58	91.84	41.0	2.24	65.60	40.0	1.64	56.52	39.9	1.42	60.91	40.6	1.50	68.58	39.8	1.72
1954: September	65.73	41.6	1.58	93.56	40.5	2.31	66.66	40.4	1.65	55.38	38.8	1.43	61.33	40.5	1.52	68.28	39.9	1.71
October	64.27	41.2	1.56	90.76	40.7	2.23	66.73	40.2	1.66	56.34	39.2	1.44	61.56	40.3	1.53	68.48	39.7	1.73
November	64.75	42.6	1.52	92.75	40.5	2.29	65.57	39.5	1.66	57.55	39.7	1.45	61.16	39.6	1.54	71.00	40.3	1.76
December	65.72	42.4	1.55	90.54	40.6	2.23	65.90	39.7	1.66	59.06	40.8	1.45	61.10	40.2	1.52	72.30	40.6	1.78
1955: January	66.75	40.7	1.64	91.17	40.7	2.24	65.07	39.2	1.66	59.26	41.0	1.44	63.02	41.3	1.53	71.77	40.3	1.78
February	66.99	41.1	1.63	90.76	40.7	2.23	65.40	39.4	1.66	58.50	40.9	1.43	61.34	40.7	1.52	72.06	40.4	1.78
March	68.72	41.9	1.64	93.66	40.9	2.29	67.56	40.7	1.66	58.52	40.7	1.44	61.34	40.1	1.53	72.49	40.5	1.79
April	69.72	41.5	1.68	95.35	41.1	2.32	67.94	40.2	1.69	57.39	39.8	1.44	61.97	40.9	1.52	73.95	40.9	1.81
May	69.22	41.7	1.66	92.80	40.7	2.28	67.83	39.9	1.70	58.09	40.3	1.44	61.05	39.7	1.54	72.63	40.3	1.80
June	69.47	42.1	1.65	93.38	40.6	2.30	70.21	41.3	1.70									

TABLE C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas¹—Continued

Year and month	Nebraska—Con.			Nevada			New Hampshire						New Jersey							
	Omaha			State ³			State ³			Manchester ³			State			Newark—Jersey City				
	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings		
1953: Average	\$67.85	41.6	\$1.63	\$86.74	41.7	\$2.08	\$57.37	40.4	\$1.42	\$54.53	38.4	\$1.42	\$74.32	40.9	\$1.82	\$75.83	41.1	\$1.84		
1954: Average	70.64	41.4	1.71	86.43	40.2	2.15	57.46	39.9	1.44	53.68	37.8	1.42	74.43	39.8	1.87	75.55	39.7	1.90		
1954: September	70.07	40.3	1.74	90.80	40.9	2.22	56.45	39.2	1.44	50.34	35.7	1.41	74.85	39.9	1.88	75.03	39.9	1.90		
October	71.67	41.8	1.72	86.76	39.8	2.18	57.13	39.4	1.45	52.77	36.9	1.43	74.70	39.8	1.88	76.24	40.0	1.91		
November	75.72	42.0	1.80	86.37	39.8	2.17	58.84	40.3	1.46	54.00	37.5	1.44	76.05	40.3	1.89	76.38	39.8	1.92		
December	74.91	42.8	1.75	87.02	40.1	2.17	59.62	41.4	1.44	56.77	39.7	1.43	76.95	40.5	1.90	77.51	40.2	1.93		
1955: January	72.74	41.7	1.74	87.05	40.3	2.16	59.60	41.1	1.45	56.63	39.6	1.43	76.46	40.2	1.90	77.36	40.0	1.93		
February	70.31	40.8	1.72	85.10	39.4	2.16	59.89	41.3	1.45	57.46	39.9	1.44	77.30	40.6	1.90	78.32	40.6	1.93		
March	70.51	41.0	1.72	85.28	39.3	2.17	60.30	41.3	1.46	57.71	39.8	1.45	77.11	40.5	1.90	77.27	40.1	1.93		
April	71.50	41.5	1.72	83.11	38.3	2.17	58.40	40.0	1.46	54.09	37.3	1.45	77.10	40.2	1.92	78.15	40.1	1.95		
May	74.94	42.7	1.76	83.44	38.1	2.19	59.28	40.6	1.46	55.15	38.3	1.44	78.70	40.8	1.93	79.18	40.4	1.96		
June	74.83	42.6	1.76	84.37	38.7	2.18	60.71	41.3	1.47	56.70	39.1	1.45	78.68	40.6	1.94	79.42	40.5	1.96		
July	74.22	42.2	1.76	91.20	40.0	2.28	58.29	40.2	1.45	53.96	38.0	1.42	79.14	40.5	1.95	79.83	40.3	1.98		
August	76.26	42.3	1.80	91.03	40.1	2.27	59.28	40.6	1.46	55.48	38.8	1.43	78.58	40.4	1.94	79.75	40.3	1.98		
September	79.96	43.8	1.82	91.96	39.3	2.34	60.09	40.6	1.48	55.30	38.4	1.44	79.57	40.7	1.95	80.62	40.8	1.98		
New Jersey—Continued																				
Paterson						Perth Amboy			Trenton			State			Albuquerque			New York		
1953: Average	\$74.66	41.0	\$1.82	\$75.30	41.1	\$1.83	\$73.78	40.9	\$1.80	\$74.16	41.2	\$1.80	\$71.10	41.1	\$1.73	\$71.12	39.7	\$1.79		
1954: Average	75.05	40.5	1.85	75.48	40.0	1.89	72.03	39.6	1.82	78.91	41.1	1.92	74.39	41.1	1.81	71.50	38.8	1.84		
1954: September	75.97	41.0	1.85	76.50	40.5	1.89	73.67	40.3	1.83	81.32	41.7	1.95	75.85	41.0	1.85	71.84	39.0	1.84		
October	75.85	40.8	1.86	75.74	39.8	1.90	73.85	40.2	1.84	81.36	41.3	1.97	76.67	41.0	1.87	72.06	39.0	1.85		
November	77.11	41.3	1.87	76.50	40.2	1.90	73.70	39.9	1.85	82.01	40.8	2.01	74.96	40.3	1.86	73.12	39.4	1.86		
December	78.31	41.7	1.88	78.07	40.6	1.92	76.01	40.8	1.86	82.20	41.1	2.00	78.02	41.5	1.88	73.61	39.5	1.87		
1955: January	76.82	41.1	1.87	77.91	40.6	1.92	76.08	40.6	1.87	85.28	41.4	2.06	76.48	40.9	1.87	73.52	39.0	1.88		
February	77.09	41.2	1.87	78.27	40.7	1.92	78.29	41.4	1.89	81.80	40.9	2.00	75.30	40.7	1.85	74.26	39.3	1.89		
March	77.63	41.4	1.87	78.88	40.7	1.94	76.56	40.9	1.87	80.20	40.1	2.00	73.82	39.9	1.85	74.26	39.4	1.88		
April	75.71	40.4	1.87	79.74	40.5	1.97	74.05	39.9	1.86	81.61	40.4	2.02	71.94	39.1	1.84	73.08	38.8	1.88		
May	78.14	41.3	1.89	80.04	40.9	1.96	79.57	41.9	1.90	80.80	40.2	2.01	71.74	39.2	1.83	74.13	39.3	1.89		
June	79.48	41.7	1.91	81.48	41.3	1.97	73.52	39.4	1.87	78.72	41.0	2.12	74.15	40.3	1.84	74.60	39.5	1.89		
July	78.08	40.9	1.91	79.04	39.6	2.00	78.90	40.9	1.93	79.80	39.9	2.00	75.95	40.4	1.88	74.87	39.1	1.91		
August	78.57	41.2	1.91	82.43	41.3	2.00	76.98	40.2	1.92	80.99	40.7	1.99	77.08	41.0	1.88	74.79	39.3	1.90		
September	80.36	41.7	1.93	82.57	41.1	2.01	78.43	40.7	1.93	83.85	40.9	2.05	78.36	40.6	1.93	76.05	39.7	1.92		
New York—Continued																				
Albany-Schenectady-Troy			Binghamton			Buffalo			Elmira			Nassau and Suffolk Counties			New York City					
1953: Average	\$76.57	40.4	\$1.90	\$67.08	39.4	\$1.70	\$83.04	41.6	\$1.99	\$72.05	40.6	\$1.78	\$83.77	42.5	\$1.97	\$67.49	37.9	\$1.78		
1954: Average	76.08	39.6	1.92	65.62	37.7	1.74	82.96	40.3	2.06	73.67	40.4	1.82	83.21	41.0	2.03	68.66	37.4	1.84		
1954: September	77.72	40.5	1.92	64.58	36.9	1.75	82.77	39.7	2.08	74.36	40.5	1.84	84.32	41.5	2.03	69.31	37.7	1.84		
October	77.39	40.0	1.94	65.86	37.5	1.76	84.26	40.5	2.08	75.38	40.8	1.85	86.83	42.0	2.07	68.96	37.5	1.84		
November	78.78	40.4	1.95	66.97	38.2	1.75	87.62	41.3	2.12	74.87	40.5	1.85	86.27	41.8	2.07	69.73	38.0	1.83		
December	78.50	40.1	1.96	68.14	39.0	1.75	88.36	41.8	2.11	75.43	40.5	1.86	85.56	41.4	2.07	70.23	38.0	1.85		
1955: January	77.47	39.5	1.96	65.77	37.5	1.75	86.98	41.2	2.11	74.59	39.9	1.87	84.04	40.9	2.05	70.63	37.5	1.88		
February	78.39	39.8	1.97	68.73	38.8	1.77	87.71	41.4	2.12	73.68	39.9	1.85	84.24	41.2	2.04	71.68	37.9	1.89		
March	78.75	40.3	1.96	69.93	39.4	1.78	86.65	41.0	2.11	74.52	40.2	1.85	84.88	41.3	2.06	71.74	38.1	1.88		
April	78.31	39.6	1.98	68.34	38.4	1.78	86.88	40.8	2.13	73.79	40.0	1.85	82.69	40.1	2.06	69.29	37.2	1.86		
May	80.21	40.2	1.99	68.63	38.6	1.78	88.61	41.4	2.14	74.16	40.0	1.85	82.46	40.7	2.03	70.48	37.8	1.87		
June	81.46	40.7	2.00	70.49	39.5	1.79	87.60	40.9	2.14	76.37	40.8	1.87	82.84	40.5	2.04	71.10	38.0	1.87		
July	80.57	40.2	2.01	69.71	39.2	1.78	89.40	41.0	2.18	76.54	40.6	1.88	81.55	39.9	2.04	71.47	37.7	1.90		
August	82.37	40.8	2.02	70.93	39.8	1.78	89.45	40.9	2.19	75.39	40.5	1.86	79.76	39.0	2.05	71.22	37.7	1.89		
September	84.93	41.2	2.06	70.73	39.4	1.79	90.07	41.0	2.20	77.41	41.0	1.89	84.44	40.5	2.09	72.06	38.1	1.89		
New York—Continued																				
Rochester			Syracuse			Utica-Rome			Westchester County			State			Charlotte					
1953: Average	\$76.54	41.6	\$1.84	\$77.02	42.2	\$1.83	\$69.21	40.8	\$1.70	\$70.11	40.0	\$1.76	\$48.34	39.3	\$1.23	\$51.33	40.1	\$1.28		
1954: Average	76.51	40.0	1.91	74.43	40.3	1.85	69.03	39.5	1.75	71.58	39.2	1.82	47.88	38.3	1.25	52.66	40.2	1.31		
1954: September	77.05	40.2	1.92	75.14	40.5	1.85	69.67	39.4	1.77	71.70	39.6	1.81	48.75	39.0	1.25	53.06	40.5	1.31		
October	76.84	40.0	1.92	77.01	40.9	1.89	70.27	40.0	1.76	70.64	39.3	1.80	49.75	39.8	1.25	53.84	41.1	1.31		
November	77.62	40.3	1.93	75.94	40.6	1.87	71.10	40.3	1.76	75.45	40.7	1.85	50.27	39.9	1.26	54.52	41.3	1.32		
December	77.23	40.0	1.93	76.92	40.8	1.89	70.88	40.1	1.77	75.21	40.5	1.86	50.93	40.1	1.27	54.10	41.3	1.32		
1955: January	77.54	40.1	1.93	76.80	40.7	1.89	71.75	40.1	1.79	71.52	39.0	1.83	49.78	39.2	1.27	53.06	40.5	1.31		
February	78.04	40.2	1.94	76.23	40.4	1.89	70.92	39.9	1.78	72.67	39.7	1.83	50.29	39.6	1.27	55.46	41.7	1.33		
March	79.03	40.4	1.96	78.31	41.0	1.91	71.01	40.2	1.77	73.39	40.0	1.84	51.05	40.2	1.27	54.93	41.3	1.33		
April	79.03	40.3	1.96	78.35	41.0	1.91	70.44	39.9	1.76	73.59	39.9	1.84	48.38	37.8	1.28	54.27	40.5	1.34		
May	79.67	40.5	1.97	79.07	41.1	1.92	70.61	39.9	1.77	75.53	40.4	1.87	50.94	39.8	1.28	55.88	41.7	1.34		
June	81.10	40.6	2.00	78.86	41.1	1.92	72.94	40.6	1.79	72.29	39.4	1.84	51.20	40.0	1.28	56.57	41.9	1.35		
July	81.25	40.4	2.01	79.26	41.0															

TABLE C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas¹—Continued

Year and month	North Carolina—Con.			North Dakota						Ohio										
	Greensboro—High Point			State			Fargo			State			Akron			Cincinnati				
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings		
1953: Average				\$65.26	44.2	\$1.48	\$63.79	42.2	\$1.51	\$79.86	41.0	\$1.95				\$73.86	41.5	\$1.78		
1954: Average	\$47.73	37.0	\$1.29	67.55	44.3	1.52	69.70	41.9	1.66	78.88	39.6	1.99				74.78	40.4	1.85		
1954: September	49.01	37.7	1.30	66.36	43.7	1.52	68.36	40.5	1.69	79.29	39.7	2.00				75.78	40.8	1.86		
October	50.44	38.8	1.30	70.96	45.9	1.55	76.35	44.7	1.71	80.54	40.1	2.01				77.07	41.0	1.88		
November	50.57	38.9	1.30	69.71	45.4	1.54	76.43	42.8	1.78	81.47	40.2	2.03				77.84	41.1	1.89		
December	50.96	39.2	1.30	66.94	43.9	1.53	74.60	43.7	1.71	82.72	40.7	2.03				78.67	41.4	1.90		
1955: January	49.66	38.2	1.30	65.68	43.0	1.55	74.64	45.3	1.65	83.40	40.7	2.05	\$86.48	38.9	\$2.22	76.78	40.2	1.91		
February	50.05	38.5	1.30	68.54	44.2	1.55	73.08	44.9	1.63	83.56	40.7	2.05	86.64	38.9	2.23	77.44	40.6	1.91		
March	50.31	38.7	1.30	67.07	43.8	1.53	69.95	43.8	1.62	84.34	41.0	2.06	87.24	39.1	2.23	79.14	41.2	1.92		
April	44.93	34.3	1.31	68.63	43.9	1.56	72.32	44.8	1.62	83.98	40.7	2.06	87.94	39.0	2.25	78.60	40.9	1.92		
May	49.78	38.0	1.31	69.76	45.4	1.54	72.44	44.9	1.61	85.98	41.3	2.08	88.13	39.1	2.25	79.97	41.3	1.94		
June	49.27	37.9	1.30	71.96	46.2	1.56	77.65	46.3	1.68	85.02	40.8	2.08	88.81	39.4	2.25	79.77	40.9	1.95		
July	49.26	37.6	1.31	71.42	45.7	1.56	75.36	44.3	1.70	86.40	40.6	2.13	85.44	37.7	2.27	78.78	40.5	1.95		
August	50.67	38.1	1.33	69.29	43.2	1.60	75.54	43.2	1.75	87.18	41.2	2.12	89.89	39.6	2.27	80.85	41.4	1.97		
September	51.99	38.8	1.34	72.50	45.0	1.61	79.93	46.1	1.73	88.23	41.4	2.13	90.87	39.6	2.29	83.12	42.1	1.95		
			Ohio—Continued						Oklahoma						Oregon					
			Cleveland			Dayton			State			Oklahoma City			Tulsa			State		
1953: Average	\$84.87	41.6	\$2.04				\$70.14	41.5	\$1.69	\$67.82	43.2	\$1.57	\$75.26	40.9	\$1.84	\$82.04	38.7	\$2.12		
1954: Average	81.70	39.8	2.05				72.04	41.4	1.74	69.76	42.8	1.63	78.12	40.9	1.91	83.81	38.8	2.16		
1954: September	79.96	38.9	2.06				72.69	41.3	1.76	70.95	43.0	1.65	77.71	40.9	1.90	80.13	37.2	2.15		
October	82.65	40.0	2.07				71.69	41.2	1.74	68.53	42.3	1.62	77.71	40.9	1.90	85.42	39.2	2.18		
November	84.12	40.6	2.07				72.73	41.8	1.74	69.28	42.5	1.63	79.42	41.8	1.90	86.64	39.4	2.20		
December	86.12	41.3	2.09				71.86	41.3	1.74	69.17	42.7	1.62	78.12	40.9	1.91	86.76	39.6	2.19		
1955: January	86.59	41.2	2.10	\$88.98	41.0	\$2.17	72.04	41.4	1.74	68.30	41.9	1.63	78.12	40.9	1.91	87.95	39.6	2.22		
February	86.27	41.1	2.10	92.32	42.2	2.19	70.52	41.0	1.72	66.65	41.4	1.61	77.52	40.8	1.90	86.45	39.1	2.21		
March	87.05	41.4	2.10	92.28	42.1	2.19	71.86	41.3	1.74	67.55	41.7	1.62	79.49	41.4	1.92	86.12	38.9	2.21		
April	86.36	41.0	2.11	91.76	42.0	2.18	73.04	41.5	1.76	68.13	41.8	1.63	80.54	41.3	1.95	86.65	39.4	2.29		
May	89.74	42.1	2.13	95.15	43.1	2.21	74.58	41.9	1.78	69.86	42.6	1.64	81.58	41.2	1.98	90.27	39.6	2.30		
June	86.66	40.8	2.12	91.31	41.8	2.18	72.92	41.2	1.77	69.70	42.5	1.64	81.54	41.6	1.96	88.23	38.8	2.27		
July	90.41	41.6	2.17	95.11	41.8	2.28	73.93	41.3	1.79	69.63	42.2	1.65	81.12	41.6	1.95	90.82	40.8	2.23		
August	90.67	41.6	2.18	93.49	41.5	2.25	73.93	41.3	1.79	70.22	41.8	1.68	82.94	42.1	1.97	90.82	40.8	2.23		
September	90.54	41.3	2.19	94.40	41.5	2.27	75.48	41.7	1.81	71.74	42.7	1.68	83.56	42.2	1.98	86.97	38.5	2.26		
			Oregon—Continued						Pennsylvania											
			Portland			State			Allentown—Bethlehem—Easton			Erie			Harrisburg			Lancaster		
1953: Average	\$76.19	38.4	\$1.98	\$71.38	39.9	\$1.79	\$67.05	38.8	\$1.73	\$75.21	41.1	\$1.83	\$63.80	39.6	\$1.61	\$62.50	41.2	\$1.52		
1954: Average	77.44	38.3	2.02	70.10	38.4	1.82	64.11	36.8	1.74	74.49	39.9	1.87	59.45	37.2	1.60	63.07	40.2	1.57		
1954: September	75.34	37.5	2.01	70.33	38.5	1.83	65.10	37.2	1.75	75.25	40.5	1.86	57.52	36.5	1.58	65.24	40.9	1.60		
October	78.66	38.9	2.02	70.52	38.5	1.83	65.20	37.3	1.75	75.77	41.0	1.85	58.08	36.3	1.60	64.07	40.6	1.58		
November	78.03	38.1	2.05	71.53	38.9	1.84	65.69	37.6	1.75	74.77	39.9	1.87	58.95	36.8	1.60	64.55	40.6	1.59		
December	80.23	38.7	2.07	72.16	39.1	1.85	63.68	36.6	1.74	76.44	40.4	1.89	58.73	37.1	1.58	63.55	40.4	1.57		
1955: January	81.81	39.2	2.09	72.20	38.9	1.86	65.73	37.2	1.77	78.43	41.0	1.91	59.73	37.1	1.61	64.00	40.3	1.59		
February	80.56	38.9	2.07	72.60	39.1	1.86	65.79	37.9	1.76	78.80	41.0	1.92	61.65	38.1	1.62	63.91	40.4	1.58		
March	79.81	38.5	2.07	73.65	39.5	1.87	67.99	38.5	1.77	80.30	41.5	1.94	63.19	38.6	1.64	65.07	41.0	1.59		
April	80.52	38.6	2.09	73.43	39.0	1.88	69.36	38.6	1.80	78.94	40.9	1.93	63.71	38.4	1.66	64.96	40.4	1.61		
May	82.49	39.3	2.10	75.70	39.9	1.90	71.94	39.1	1.84	81.45	41.9	1.94	66.31	39.9	1.66	66.70	41.3	1.62		
June	81.37	38.4	2.12	76.31	40.1	1.90	70.19	38.5	1.82	82.15	42.3	1.94	64.67	39.1	1.65	66.76	41.7	1.60		
July	80.31	38.5	2.09	76.54	39.4	1.94	71.52	38.0	1.88	79.23	41.7	1.90	66.18	39.3	1.68	66.22	41.0	1.62		
August	83.74	39.8	2.10	76.53	39.5	1.94	70.61	37.8	1.87	79.10	41.2	1.92	66.59	39.4	1.69	67.03	41.4	1.62		
September	83.15	39.0	2.13	79.34	40.1	1.98	75.62	39.8	1.90	83.10	42.4	1.96	68.68	40.0	1.72	68.39	41.5	1.65		
			Pennsylvania—Continued																	
			Philadelphia			Pittsburgh			Reading			Scranton			Wilkes-Barre—Hazleton			York		
1953: Average	\$73.91	40.5	\$1.83	\$81.89	40.4	\$2.03	\$66.15	39.9	\$1.66	\$54.62	39.1	\$1.40	\$51.14	37.6	\$1.36	\$63.08	41.8	\$1.51		
1954: Average	74.12	39.3	1.89	80.37	38.6	2.08	63.31	38.0	1.67	54.13	37.8	1.43	50.44	36.9	1.37	62.11	40.1	1.55		
1954: September	74.89	39.5	1.90	82.10	38.8	2.12	62.80	37.9	1.66	54.63	38.2	1.43	50.78	37.5	1.35	61.12	40.0	1.53		
October	75.33	39.5	1.91	80.47	38.3	2.10	62.23	37.4	1.66	54.61	38.0	1.44	50.19	36.5	1.38	62.30	40.3	1.55		
November	76.13	39.9	1.91	82.26	38.8	2.12	64.94	39.0	1.67	54.52	38.1	1.43	51.40	37.6	1.37	62.20	40.1	1.55		
December	76.97	40.3	1.91	84.21	39.5	2.13	65.03	38.8	1.68	53.78	37.4	1.44	52.06	38.0	1.37	62.85	40.6	1.55		
1955: January	75.37	39.5	1.91	85.52	40.0	2.14	64.74	38.4	1.69	54.52	38.1	1.43	50.94	37.4	1.36	62.26	40.3	1.55		
February	75.63	39.7	1.91	84.70	39.6	2.14	65.05	38.7	1.68	55.35	38.6	1.43	51.33	37.8	1.36	63.21	40.6	1.56		
March	76.25	39.9	1.91	85.92	40.0	2.15	66.82	39.4	1.70	54.48	38.1	1.43	52.37	38.2	1.37	63.68	40.9	1.56		
April	75.42	39.2	1.92	86.04	40.0	2.15	66.11	39.0	1.70	52.13	36.1	1.44	49.17	35.5	1.39	63.91	40.9	1.59		
May	77.86	40.3	1.93	88.13	40.8	2.16	68.02	39.8	1.71	54.17	37.7	1.44	52.27	38.1	1.37	65.15	41.7	1.58		
June	78.25	40.4	1.94	90.22	41.5	2.17	68.10	39.5	1.72	55.39	38.2	1.45	53.05	38.5	1.38	66.05	41.7	1.58		
July	77.57	39.8	1.95	91.85	40.5	2.27	68.50	39.8	1.72	54.00	37.5	1.44	51.15	37.2	1.38	63.39	40.4	1.57		
August	79.02	40.4	1.96	89.97	39.9	2.26	69.35	40.2	1.73	55.79	38.5	1.45	52.66	37.8	1.39	65.54	41.4	1.58		
September	80.10	40.7	1.97	95.84	41.4	2.32	68.50	39.1	1.75	56.67	38.5	1.47	52.52	37.3	1.41	64.40	39.9	1.61		

See footnotes at end of table.

TABLE C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas¹—Continued

Year and month	Rhode Island						South Carolina						South Dakota					
	State			Providence			State			Charleston			State			Sioux Falls		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hourly earnings
1953: Average	\$60.50	39.8	\$1.52	\$60.45	40.3	\$1.50	\$49.60	40.0	\$1.24	\$50.27	39.9	\$1.26	\$63.95	43.5	\$1.47	\$71.10	45.0	\$1.58
1954: Average	60.44	39.5	1.53	61.10	40.2	1.52	49.64	39.4	1.26	52.00	39.1	1.33	67.39	43.8	1.54	73.84	45.3	1.63
1954: September	61.45	39.9	1.54	62.12	40.6	1.53	50.29	39.6	1.27	54.14	40.1	1.35	67.25	42.8	1.57	77.48	47.6	1.63
October	59.83	38.6	1.55	61.35	40.1	1.53	50.93	40.1	1.27	52.88	38.6	1.37	74.56	48.0	1.55	83.95	51.3	1.64
November	60.53	38.8	1.56	61.05	39.9	1.53	51.82	40.8	1.27	53.46	39.6	1.35	75.00	47.2	1.59	83.30	50.1	1.66
December	61.86	40.7	1.52	62.78	41.3	1.52	51.94	40.9	1.27	52.78	39.1	1.35	70.47	45.0	1.57	81.17	49.4	1.64
1955: January	61.29	40.4	1.52	62.02	40.8	1.52	52.10	40.7	1.28	54.53	39.8	1.37	73.37	47.0	1.56	82.15	50.2	1.64
February	61.48	40.4	1.52	62.27	40.7	1.53	52.61	41.1	1.28	53.86	39.6	1.36	71.74	45.9	1.56	79.39	48.8	1.63
March	61.30	40.6	1.51	61.71	40.6	1.52	52.86	41.3	1.28	54.81	40.3	1.36	67.42	42.9	1.57	72.10	44.2	1.63
April	61.33	40.1	1.53	62.22	40.4	1.54	52.39	40.3	1.30	55.07	40.2	1.37	66.23	42.5	1.56	69.91	43.1	1.62
May	62.22	40.4	1.54	63.09	40.7	1.55	52.12	40.4	1.29	56.43	40.6	1.38	68.31	44.2	1.55	73.42	45.3	1.62
June	63.13	40.7	1.55	63.24	40.8	1.55	52.22	40.8	1.28	57.41	41.6	1.38	68.69	43.7	1.57	75.60	45.6	1.66
July	61.33	39.4	1.56	62.31	40.2	1.55	52.37	40.6	1.29	56.30	40.5	1.39	70.09	44.7	1.57	75.34	45.9	1.64
August	60.35	39.2	1.54	62.00	40.0	1.55	52.22	40.8	1.28	57.10	40.5	1.41	72.63	45.8	1.59	80.63	47.1	1.71
September	63.00	40.3	1.56	64.37	41.0	1.57	54.93	41.3	1.33	59.33	41.2	1.44	78.15	47.7	1.64	90.15	51.2	1.76
Tennessee																		
	State			Chattanooga			Knoxville			Memphis			Nashville			State		
1953: Average	\$56.84	40.6	\$1.40	\$57.49	40.2	\$1.43	\$65.53	40.7	\$1.61	\$64.57	42.2	\$1.53	\$58.18	40.4	\$1.44	\$69.99	41.8	\$1.68
1954: Average	57.71	39.8	1.45	57.48	39.1	1.47	66.47	39.1	1.70	64.06	41.6	1.54	59.20	40.0	1.48	72.04	41.4	1.74
1954: September	58.55	40.1	1.46	59.15	39.7	1.49	67.08	39.0	1.72	65.83	42.2	1.56	59.40	39.6	1.50	72.28	41.3	1.75
October	58.18	40.4	1.44	59.90	40.2	1.49	67.94	39.5	1.72	66.53	43.2	1.54	59.79	40.4	1.48	72.04	41.4	1.74
November	57.86	39.9	1.45	59.60	40.0	1.49	69.65	39.8	1.75	58.65	39.1	1.50	60.79	40.8	1.49	72.98	41.7	1.75
December	59.54	40.5	1.47	60.25	39.9	1.51	68.85	39.8	1.73	69.01	43.4	1.59	60.09	40.6	1.48	73.33	41.9	1.75
1955: January	58.76	39.7	1.43	60.34	39.7	1.52	67.69	38.9	1.74	67.68	42.3	1.60	59.45	39.9	1.49	72.80	41.6	1.75
February	59.30	39.8	1.49	60.25	39.9	1.51	66.99	38.5	1.74	68.53	42.3	1.62	58.80	39.2	1.50	73.39	41.7	1.76
March	59.54	40.3	1.43	60.40	40.0	1.51	68.63	39.9	1.72	69.23	43.0	1.61	61.46	40.7	1.51	74.10	42.1	1.76
April	59.64	40.3	1.48	60.25	39.9	1.51	67.77	39.4	1.72	67.62	42.9	1.58	60.45	40.3	1.50	73.87	41.5	1.78
May	59.98	40.8	1.47	60.85	40.3	1.51	68.06	39.8	1.71	69.50	42.9	1.62	62.02	40.8	1.52	75.36	42.1	1.79
June	60.42	41.1	1.47	61.71	40.6	1.52	69.14	40.2	1.72	70.42	43.2	1.63	61.80	41.2	1.50	74.87	42.3	1.77
July	60.94	40.9	1.49	61.41	40.4	1.52	68.74	40.2	1.71	69.76	42.8	1.63	61.46	40.7	1.51	76.38	42.2	1.81
August	60.86	41.4	1.47	62.42	40.8	1.53	69.08	40.4	1.71	68.16	42.6	1.60	62.32	41.0	1.52	75.84	41.9	1.81
September	61.27	41.4	1.48	62.56	40.1	1.56	70.41	40.7	1.73	63.76	41.4	1.54	63.04	41.2	1.53	78.38	42.6	1.84
Utah																		
	State			Salt Lake City			State			Burlington			Springfield			State		
1953: Average	\$72.39	40.5	\$1.79	\$74.05	41.6	\$1.78	\$62.49	42.8	\$1.46	\$58.86	39.5	\$1.49	\$80.81	45.4	\$1.78	\$55.58	39.7	\$1.40
1954: Average	73.42	39.9	1.84	74.89	40.7	1.84	59.83	40.7	1.47	59.25	39.5	1.50	71.63	40.7	1.76	56.66	39.9	1.42
1954: September	69.70	39.6	1.76	72.83	39.8	1.83	59.26	40.6	1.46	58.82	39.1	1.50	68.47	39.8	1.72	57.10	40.5	1.41
October	69.52	38.2	1.82	72.94	40.3	1.81	59.44	40.9	1.46	59.98	39.9	1.50	67.48	39.5	1.71	56.42	40.3	1.40
November	75.62	41.1	1.84	74.44	40.9	1.82	58.75	40.3	1.46	59.99	40.2	1.49	69.13	39.6	1.75	57.79	40.7	1.42
December	76.14	40.5	1.88	76.73	41.7	1.84	59.26	40.5	1.46	59.51	39.6	1.50	70.25	40.3	1.75	57.92	40.5	1.43
1955: January	75.81	39.9	1.90	74.77	40.2	1.86	59.94	40.9	1.47	59.55	39.4	1.51	70.71	40.8	1.73	57.02	39.6	1.44
February	75.81	39.9	1.90	74.00	40.0	1.85	60.73	41.1	1.48	58.65	39.1	1.50	72.66	41.6	1.74	58.32	39.6	1.44
March	76.78	40.2	1.91	74.96	40.3	1.86	62.20	41.8	1.49	58.80	39.7	1.48	73.28	41.7	1.76	58.90	40.9	1.44
April	77.02	39.7	1.94	75.95	40.4	1.88	62.13	41.7	1.49	58.33	39.1	1.49	73.74	41.8	1.77	58.25	39.9	1.46
May	76.82	39.6	1.94	77.14	40.6	1.90	62.60	41.9	1.49	57.89	39.3	1.47	75.09	42.1	1.78	59.09	40.7	1.45
June	78.18	40.3	1.94	77.90	41.0	1.90	63.97	42.3	1.51	59.87	40.7	1.47	79.18	43.6	1.82	59.45	41.0	1.45
July	73.33	38.8	1.89	77.49	41.0	1.89	64.06	42.2	1.52	57.34	39.6	1.45	79.55	44.1	1.81	60.01	41.1	1.46
August	75.26	39.2	1.92	78.02	41.5	1.88	63.88	42.4	1.51	58.95	41.1	1.44	77.89	43.1	1.81	58.58	40.4	1.45
September	76.73	40.6	1.89	87.27	44.3	1.97	65.68	43.1	1.52	58.84	40.9	1.44	81.55	44.5	1.83	59.30	40.9	1.45
Virginia—Continued																		
	Norfolk—Portsmouth			Richmond			State			Seattle			Spokane			Tacoma		
1953: Average	\$59.28	40.6	\$1.46	\$59.39	40.4	\$1.47	\$78.99	38.8	\$2.04	\$76.45	38.4	\$1.99	\$77.87	39.4	\$1.97	\$76.67	38.5	\$1.99
1954: Average	62.12	40.6	1.53	60.25	39.9	1.51	81.31	39.0	2.09	78.53	38.4	2.04	81.28	39.9	2.04	80.08	38.5	2.05
1954: September	60.70	40.2	1.51	61.31	40.6	1.51	79.10	38.3	2.07	78.42	38.5	2.04	83.21	40.0	2.08	78.62	39.7	1.98
October	61.24	41.1	1.49	60.25	39.9	1.51	82.43	39.5	2.09	79.53	38.6	2.06	82.63	39.8	2.08	81.59	40.1	2.03
November	65.67	41.3	1.59	60.28	39.4	1.53	82.29	38.7	2.13	79.33	38.0	2.09	83.30	39.8	2.09	79.41	37.8	2.10
December	65.57	41.5	1.58	64.06	41.6	1.54	83.45	39.3	2.12	80.38	38.6	2.08	82.62	40.0	2.06	81.22	38.7	2.10
1955: January	64.87	40.8	1.59	60.13	39.3	1.53	85.09	39.6	2.15	81.74	38.8	2.11	87.74	42.1	2.08	82.19	39.3	2.09
February	65.83	41.4	1.59	62.52	40.6	1.54	84.64	39.4	2.15	81.83	38.8	2.11	85.52	40.9	2.09	82.31	39.2	2.10
March	68.53	43.1	1.59	63.40	40.9	1.55	82.52	38.6	2.14	80.66	38.6	2.09	85.19	40.9	2.08	81.93	39.0	2.10
April	67.42	42.4	1.59	64.62	40.9	1.58	83.71	38.8	2.16	80.07	38.0	2.11	86.59	40.9	2.11	81.00	38.6	2.10
May	66.94	42.1	1.59	64.78	41.0	1.58	84.47	39.1	2.16	81.07	38.3	2.12	86.01	40.9	2.12	83.38	39.1	2.13
June	66.36	42.0	1.58	65.73	41.6	1.58	84.87	39.2	2.16	80.83	38.4	2.11	86.89	40.9	2.13	83.62	39.1	2.14
July	67.84	42.4	1.60	66.04	41.8	1.58	84.											

TABLE C-6: Hours and gross earnings of production workers in manufacturing industries for selected States and areas¹—Continued

Year and month	West Virginia						Wisconsin								
	State			Charleston			State			Kenosha			La Crosse		
	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings	Avg. wkly earnings	Avg. wkly hours	Avg. hourly earnings
1953: Average	\$70.84	39.8	\$1.78	\$85.67	40.6	\$2.11	\$74.73	41.9	\$1.78	\$76.92	39.3	\$1.96	\$73.10	39.6	\$1.84
1954: Average	70.64	38.6	1.83	87.91	39.6	2.22	74.79	40.8	1.83	77.98	39.1	1.99	75.58	40.0	1.89
1954: September	70.86	38.3	1.85	89.10	39.6	2.25	73.36	40.5	1.81	80.05	39.9	2.01	76.66	40.1	1.91
October	71.13	39.3	1.81	87.86	39.4	2.23	75.13	40.8	1.84	80.58	40.2	2.01	76.11	40.1	1.90
November	72.25	39.7	1.82	88.09	39.5	2.23	76.57	41.1	1.86	80.58	39.9	2.02	77.15	40.2	1.92
December	72.52	39.2	1.85	90.85	40.2	2.26	77.36	41.3	1.87	82.91	40.4	2.05	83.10	42.1	1.97
1955: January	71.80	38.6	1.86	89.33	39.7	2.25	77.29	41.1	1.88	88.63	41.8	2.12	79.56	40.8	1.95
February	72.34	39.1	1.85	89.60	40.0	2.24	78.03	41.3	1.89	89.36	42.2	2.12	76.56	39.3	1.95
March	72.54	39.0	1.86	91.20	40.0	2.28	79.65	41.8	1.91	96.58	44.3	2.18	76.98	39.5	1.95
April	73.12	39.1	1.87	92.46	40.2	2.30	79.34	41.6	1.91	83.55	40.1	2.08	77.85	39.6	1.96
May	73.87	39.5	1.87	92.34	40.5	2.28	80.64	42.0	1.92	81.35	39.5	2.06	77.67	39.6	1.96
June	74.86	39.4	1.90	93.26	40.2	2.32	80.35	41.9	1.92	78.55	38.2	2.05	76.69	39.6	1.94
July	75.85	38.5	1.97	95.06	40.8	2.33	79.48	42.8	1.86	81.67	39.6	2.06	78.83	40.4	1.95
August	75.45	39.5	1.91	93.33	40.4	2.31	78.14	41.4	1.89	77.85	36.9	2.11	76.61	39.4	1.94
September	77.41	39.7	1.95	93.60	40.0	2.34	81.42	42.0	1.94	94.29	43.5	2.17	80.77	40.1	2.01
	Wisconsin—Continued									Wyoming					
	Madison			Milwaukee			Racine			State			Casper		
1953: Average	\$75.91	40.2	\$1.89	\$81.33	41.4	\$1.96	\$78.59	41.0	\$1.92	\$80.20	40.3	\$1.99	\$92.86	40.2	\$2.31
1954: Average	78.61	40.1	1.96	81.22	40.0	2.03	78.64	39.9	1.97	84.03	40.4	2.08	95.30	38.9	2.45
1954: September	76.05	39.3	1.93	81.59	40.0	2.04	79.15	40.1	1.97	84.66	40.7	2.08	97.23	41.2	2.36
October	80.36	40.6	1.98	81.26	39.9	2.04	79.74	40.2	1.98	81.20	40.2	2.02	95.18	40.5	2.35
November	83.84	41.6	2.01	82.08	40.2	2.04	79.85	40.0	2.00	85.45	42.3	2.02	95.44	40.1	2.38
December	79.82	40.0	2.00	82.50	40.3	2.05	81.72	40.5	2.02	85.90	41.9	2.05	94.80	40.0	2.37
1955: January	77.44	38.8	2.00	82.18	40.0	2.06	82.71	40.8	2.03	82.37	39.6	2.08	95.82	40.6	2.36
February	77.42	38.9	1.99	83.34	40.3	2.07	85.15	41.6	2.05	81.59	39.8	2.05	95.58	40.5	2.36
March	76.47	38.7	1.98	84.84	40.8	2.08	85.41	41.7	2.05	82.01	40.4	2.03	98.49	40.2	2.45
April	77.48	38.9	1.99	84.93	40.7	2.09	84.74	41.5	2.04	83.64	41.2	2.03	100.45	41.0	2.45
May	80.58	40.0	2.01	87.35	41.3	2.11	84.92	41.5	2.05	82.42	40.6	2.03	98.65	40.1	2.46
June	84.18	41.0	2.05	87.80	41.4	2.12	83.72	41.1	2.04	80.95	41.3	1.96	103.17	41.6	2.48
July	82.29	40.2	2.05	87.77	41.2	2.13	80.12	39.7	2.02	84.67	41.3	2.05	103.49	41.9	2.47
August	84.64	40.4	2.10	86.69	40.9	2.12	82.26	40.6	2.03	84.45	41.6	2.03	100.45	41.0	2.45
September	84.43	39.9	2.12	90.12	41.7	2.16	84.46	41.0	2.06	84.87	41.0	2.07	103.49	41.9	2.47

¹ Data for earlier years are available upon request to the Bureau of Labor Statistics or to the cooperating State agency. State agencies also make available more detailed industry data. See table A-7 for address of cooperating State agencies.

² Not comparable with preceding data shown.

³ Revised series; not comparable with data previously published.

D: Consumer and Wholesale Prices

TABLE D-1: Consumer Price Index¹—United States average, all items and commodity groups

[1947-49=100]

Year and month	All items	Total food ²	Total apparel	Housing ³						Transportation	Medical care	Personal care	Reading and recreation	Other goods and services ⁴
				Total ⁵	Rent	Gas and electricity	Solid fuels and fuel oil	House furnishings	Household operation					
1947: Average.....	95.5	95.9	97.1	95.0	94.4	97.6	88.8	97.2	97.2	90.6	94.9	97.6	95.5	96.1
1948: Average.....	102.8	104.1	103.5	101.7	100.7	100.0	104.4	103.2	102.6	100.9	100.9	101.3	100.4	100.5
1949: Average.....	101.8	100.0	99.4	103.3	105.0	102.5	106.8	99.6	100.1	108.5	104.1	101.1	104.1	103.4
1950: Average.....	102.8	101.2	98.1	106.1	108.8	102.7	110.5	100.3	101.2	111.3	106.0	101.1	103.4	105.2
1951: Average.....	111.0	112.6	106.9	112.4	113.1	103.1	116.4	111.2	109.0	118.4	111.1	110.5	106.5	109.7
1952: Average.....	113.5	114.6	105.8	114.6	117.9	104.5	118.7	108.5	111.8	126.2	117.2	111.8	107.0	115.4
1953: Average.....	114.4	112.8	104.8	117.7	124.1	106.6	123.9	107.9	115.3	129.7	121.3	112.8	108.0	118.2
1954: Average.....	114.8	112.6	104.3	119.1	128.5	107.9	123.5	106.1	117.4	128.0	125.2	113.4	107.0	120.1
1952: January.....	113.1	115.0	107.0	113.9	116.0	103.5	117.7	110.2	110.9	122.8	114.7	111.0	107.2	113.2
February.....	112.4	112.6	106.8	114.0	116.4	103.8	117.6	110.0	110.8	123.7	114.8	111.1	106.6	114.4
March.....	112.4	112.7	106.4	114.0	116.7	103.8	117.7	109.4	111.0	124.4	115.7	111.0	106.3	114.8
April.....	112.9	113.9	106.0	114.0	116.9	103.9	117.3	108.7	111.0	124.8	115.9	111.3	106.2	115.2
May.....	113.0	114.3	105.8	114.0	117.4	104.1	115.6	108.3	111.2	125.1	116.1	111.6	106.2	115.8
June.....	113.4	114.6	105.6	114.0	117.6	104.3	115.8	107.7	111.2	126.3	117.8	111.7	106.8	115.7
July.....	114.1	116.3	105.3	114.4	117.9	104.2	118.6	107.6	111.8	126.8	118.0	111.9	107.0	116.0
August.....	114.3	116.6	105.1	114.6	118.2	105.0	119.0	107.6	111.9	127.0	118.1	112.1	107.0	115.9
September.....	114.1	115.4	105.8	114.8	118.3	105.0	119.6	108.1	112.1	127.7	118.8	112.1	107.3	115.9
October.....	114.2	115.0	105.6	115.2	118.8	105.0	121.1	107.9	112.8	128.4	118.9	112.3	107.6	115.8
November.....	114.3	115.0	105.2	115.7	119.5	105.4	121.6	108.0	113.3	128.9	118.9	112.4	107.4	115.8
December.....	114.1	113.8	105.1	116.4	120.7	105.6	123.2	108.2	113.4	128.9	119.3	112.5	108.0	115.9
1953: January.....	113.9	113.1	104.6	116.4	121.1	105.9	123.3	107.7	113.4	129.3	119.4	112.4	107.8	115.9
February.....	113.4	111.5	104.6	116.6	121.5	106.1	123.3	108.0	113.5	129.1	119.3	112.5	107.5	115.8
March.....	113.6	111.7	104.7	116.8	121.7	106.5	124.4	108.0	114.0	129.3	119.5	112.4	107.7	117.5
April.....	113.7	111.5	104.6	117.0	122.1	106.5	123.6	107.8	114.3	129.4	120.2	112.5	107.9	117.9
May.....	114.0	112.1	104.7	117.1	123.0	106.6	121.8	107.6	114.7	129.4	120.7	112.8	108.0	118.0
June.....	114.5	113.7	104.6	117.4	123.3	106.4	121.8	108.0	115.4	129.4	121.1	112.6	107.8	118.0
July.....	114.7	113.8	104.4	117.8	123.8	106.4	123.7	108.1	115.7	129.7	121.5	112.6	107.4	118.4
August.....	115.0	114.1	104.3	118.0	125.1	106.9	123.9	107.4	115.8	130.6	121.8	112.7	107.6	118.3
September.....	115.2	113.8	105.3	118.4	126.0	106.9	124.6	108.1	116.0	130.7	122.6	112.9	107.8	118.5
October.....	115.4	113.6	105.5	118.7	126.8	107.0	125.7	108.1	116.6	130.7	122.8	113.2	108.6	119.7
November.....	115.0	112.0	105.5	118.9	127.3	107.3	125.9	108.3	116.9	130.1	123.3	113.4	108.9	120.2
December.....	114.9	112.3	105.3	118.9	127.6	107.2	125.3	108.1	117.0	128.9	123.6	113.6	108.9	120.3
1954: January.....	115.2	113.1	104.9	118.8	127.8	107.1	125.7	107.2	117.2	130.5	123.7	113.7	108.7	120.3
February.....	115.0	112.6	104.7	118.9	127.9	107.5	126.2	107.2	117.3	129.4	124.1	113.9	108.0	120.2
March.....	114.8	112.1	104.3	119.0	128.0	107.6	125.8	107.2	117.5	129.0	124.4	114.1	108.2	120.1
April.....	114.6	112.4	104.1	118.5	128.2	107.6	123.9	106.1	116.9	129.1	124.9	112.9	106.5	120.2
May.....	115.0	113.3	104.2	118.9	128.3	107.7	120.9	105.9	117.2	129.1	125.1	113.0	106.4	120.1
June.....	115.1	113.8	104.2	118.9	128.3	107.6	120.9	105.8	117.2	128.9	125.1	112.7	106.4	120.1
July.....	115.2	114.6	104.0	119.0	128.5	107.8	121.1	105.7	117.2	126.7	125.2	113.3	107.0	120.3
August.....	115.0	113.9	103.7	119.2	128.6	107.8	121.9	105.4	117.3	126.6	125.5	113.4	106.6	120.2
September.....	114.7	112.4	104.3	119.5	128.8	107.9	122.4	106.0	117.4	126.4	125.7	113.5	106.5	120.1
October.....	114.5	111.8	104.6	119.5	129.0	108.5	123.8	105.6	117.6	125.0	125.9	113.4	106.9	120.1
November.....	114.6	111.1	104.6	119.5	129.2	108.7	124.2	105.4	117.8	127.6	126.1	113.8	106.8	120.0
December.....	114.3	110.4	104.3	119.7	129.4	109.1	125.5	105.4	117.7	127.3	126.3	113.6	106.6	119.9
1955: January.....	114.3	110.6	103.3	119.6	129.5	109.4	126.1	104.6	117.7	127.6	126.5	113.7	106.9	119.9
February.....	114.3	110.8	103.4	119.6	129.7	109.9	126.2	104.8	117.7	127.4	126.8	113.5	106.4	119.8
March.....	114.3	110.8	103.2	119.6	130.0	110.3	126.2	104.6	117.9	127.3	127.0	113.5	106.6	119.8
April.....	114.2	111.2	103.1	119.5	129.9	110.3	125.7	104.5	118.1	125.3	127.3	113.7	106.6	119.8
May.....	114.2	111.1	103.3	119.4	130.3	110.9	122.5	103.7	119.0	125.5	127.5	113.9	106.5	119.9
June.....	114.4	111.3	103.2	119.7	130.4	110.7	122.7	103.8	119.2	125.8	127.6	114.7	106.2	119.9
July.....	114.7	112.1	103.2	119.9	130.4	110.8	123.2	103.6	119.4	125.4	127.9	115.5	106.3	120.3
August.....	114.5	111.2	103.4	120.0	130.5	110.8	123.8	103.2	119.5	125.4	128.0	115.8	106.3	120.4
September.....	114.9	111.6	104.6	120.4	130.5	111.2	125.2	103.6	119.8	125.3	128.2	116.6	106.7	120.6
October.....	114.9	110.8	104.6	120.8	130.8	111.2	126.3	104.4	120.1	126.6	128.7	117.0	106.7	120.6

¹ A major revision was incorporated in the Consumer Price Index beginning January 1953. The revised index, based on 46 cities, has been linked to the previously published "interim adjusted" indexes for 34 cities and rebased on 1947-49=100 to form a continuous series. For the convenience of users, the "All-items" indexes are also shown on the 1935-39=100 base in table D-4.

The revised Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Data for 46 large, medium, and small cities are combined for the United States average.

For a history and description of the index, see: The Consumer Price Index—A Layman's Guide, BLS Bull. 1140; The Consumer Price Index, in the February 1953 Monthly Labor Review; The Interim Adjustment of Consumers' Price Index, in the April 1951 Monthly Labor Review; Interim Adjustment of Consumers' Price Index, BLS Bull. 1039; and the following reports: Consumers' Price Index, Report of a Special Subcommittee of the House Com-

mittee on Education and Labor (1951); and Report of the President's Committee on the Cost of Living (1945).

Mimeographed tables are available upon request showing indexes for the United States and 20 individual cities regularly surveyed by the Bureau for "All Items" and 8 major components from 1947 to date. Indexes are also available from 1913 for "All Items," food, apparel, and rent, for all large cities combined, and from varying dates for individual cities.

² Includes "Food away from home" (restaurant meals and other food bought and eaten away from home); prior to January 1953, prices for this category were estimated to move like prices for "Food at home" but, since that date, have been measured by prices of restaurant meals.

³ Includes "Other shelter."
⁴ Includes tobacco, alcoholic beverages, and "miscellaneous services" (such as legal services, banking fees, and burial services).

TABLE D-2: Consumer Price Index ¹—United States average, food and its subgroups

[1947-49=100]

Year and month	Total food ²	Food at home						Year and month	Total food ²	Food at home					
		Total food at home	Cereals and bakery products	Meats, poultry, and fish	Dairy products	Fruits and vegetables	Other foods ³			Total food at home	Cereals and bakery products	Meats, poultry, and fish	Dairy products	Fruits and vegetables	Other foods ³
1947: Avg.....	95.9	95.9	94.0	93.5	96.7	97.6	100.1	1947: Jan.....	113.1	112.6	121.2	110.2	109.7	110.8	113.5
1948: Avg.....	104.1	104.1	103.4	106.1	106.3	100.5	102.5	1948: Feb.....	112.6	112.0	121.3	109.7	109.0	108.0	114.0
1949: Avg.....	100.0	100.0	102.7	100.5	96.9	101.9	97.5	1949: Mar.....	112.1	111.4	121.2	109.5	108.0	107.8	112.3
1950: Avg.....	101.2	101.2	104.5	104.9	95.9	97.6	101.2	1950: Apr.....	112.4	111.8	121.1	110.5	104.6	110.0	113.6
1951: Avg.....	112.6	112.6	114.0	117.2	107.0	106.7	114.6	1951: May.....	113.3	112.8	121.3	111.0	103.5	114.6	114.5
1952: Avg.....	114.6	114.6	116.8	116.2	111.5	117.2	109.3	1952: June.....	113.8	113.3	121.3	111.1	102.9	117.1	115.2
1953: Avg.....	112.8	112.5	119.1	109.9	109.6	113.5	112.2	1953: July.....	114.6	114.2	121.6	109.7	104.3	120.1	117.3
1954: Avg.....	112.6	111.9	121.9	108.0	106.1	111.9	114.8	1954: Aug.....	113.9	113.3	122.3	107.6	105.1	114.7	119.6
1953: Jan.....	113.1	112.9	117.7	110.9	111.6	116.7	109.7	1953: Sept.....	112.4	111.6	122.6	106.7	105.8	110.5	116.0
Feb.....	111.5	111.1	117.6	107.7	110.7	115.9	107.3	1953: Oct.....	111.8	110.9	122.7	103.9	106.7	111.1	115.7
Mar.....	111.7	111.3	117.7	107.4	110.3	115.5	109.1	1953: Nov.....	111.1	110.1	123.1	103.5	106.6	109.6	113.7
Apr.....	111.5	111.1	118.0	106.8	109.0	115.0	110.4	1953: Dec.....	110.4	109.2	123.3	102.2	106.8	108.4	112.0
May.....	112.1	111.7	118.4	109.2	107.8	115.2	110.3	1955: Jan.....	110.6	109.4	123.4	102.4	106.4	110.6	111.3
June.....	113.7	113.7	118.9	111.3	107.5	121.7	110.9	1955: Feb.....	110.8	109.6	123.8	102.5	106.1	110.7	112.1
July.....	113.8	113.8	119.1	112.0	108.3	118.2	112.3	1955: Mar.....	110.8	109.7	123.9	102.3	105.4	112.0	111.9
Aug.....	114.1	114.1	119.5	114.1	109.1	112.7	114.4	1955: Apr.....	111.2	110.1	123.9	103.0	104.6	117.5	109.4
Sept.....	113.8	113.5	120.3	113.5	109.6	106.6	116.7	1955: May.....	111.1	110.0	123.8	102.1	104.0	120.2	108.4
Oct.....	113.6	113.3	120.4	111.1	110.1	107.7	117.4	1955: June.....	111.3	110.3	124.0	103.8	104.1	119.5	107.7
Nov.....	112.0	111.4	120.6	107.0	110.5	107.4	114.8	1955: July.....	112.1	111.1	124.2	103.7	104.7	121.9	109.2
Dec.....	112.3	111.7	120.9	107.8	110.3	109.2	113.5	1955: Aug.....	111.2	110.0	124.1	102.9	105.7	111.3	112.6
								1955: Sept.....	111.6	110.4	124.0	103.5	106.5	110.2	114.1
								1955: Oct.....	110.8	109.4	123.9	100.9	107.5	108.5	113.9

¹ See footnote 1 to table D-1. Indexes for 18 food subgroups (1935-39=100) from 1923 to December 1952 were published in the March 1953 Monthly Labor Review and in previous issues.

² See footnote 2 to table D-1.

³ Includes eggs, fats and oils, sugar and sweets, beverages (nonalcoholic), and other miscellaneous foods

TABLE D-3: Consumer Price Index ¹—United States average, apparel and its subgroups

[1947-49=100]

Year and month	Total apparel	Men's and boys'	Women's and girls'	Foot-wear	Other apparel ²	Year and month	Total apparel	Men's and boys'	Women's and girls'	Foot-wear	Other apparel ²
1947: Avg.....	97.1	97.3	98.0	94.5	(*)	1947: Jan.....	104.9	107.4	99.8	116.2	90.4
1948: Avg.....	103.5	102.7	103.8	103.2	108.6	1948: Feb.....	104.7	107.4	99.5	116.1	90.4
1949: Avg.....	99.4	100.0	98.1	102.4	93.2	1949: Mar.....	104.3	107.2	99.0	116.1	90.0
1950: Avg.....	98.1	99.5	94.8	104.0	92.0	1950: Apr.....	104.1	107.1	98.4	116.1	90.4
1951: Avg.....	106.9	107.7	102.2	117.7	101.6	1951: May.....	104.2	107.3	98.5	115.9	90.9
1952: Avg.....	105.8	108.2	100.9	115.3	92.1	1952: June.....	104.2	107.0	98.5	116.3	91.0
1953: Avg.....	104.8	107.4	99.7	115.2	92.1	1953: July.....	104.0	106.6	98.2	116.5	90.8
1954: Avg.....	104.3	106.8	98.9	116.4	90.7	1954: Aug.....	103.7	106.4	97.7	116.9	90.7
1953: Jan.....	104.6	107.1	99.7	114.3	92.0	1953: Sept.....	104.3	106.4	99.0	116.5	90.9
Feb.....	104.6	107.3	99.3	114.6	92.3	1953: Oct.....	104.6	106.4	99.6	116.7	91.1
Mar.....	104.7	107.3	99.6	114.5	92.4	1953: Nov.....	104.6	106.5	99.5	117.0	91.2
Apr.....	104.6	107.3	99.4	114.8	92.1	1953: Dec.....	104.3	106.5	99.0	116.9	91.1
May.....	104.7	107.4	99.4	115.1	92.5	1955: Jan.....	103.3	105.5	97.6	116.7	90.5
June.....	104.6	107.2	99.2	115.3	92.3	1955: Feb.....	103.4	105.6	97.7	116.6	90.6
July.....	104.4	107.4	98.9	115.0	92.2	1955: Mar.....	103.2	105.6	97.4	116.7	90.4
Aug.....	104.3	107.3	98.7	115.0	92.0	1955: Apr.....	103.1	105.5	97.1	116.9	90.2
Sept.....	105.3	107.5	100.5	115.3	92.5	1955: May.....	103.3	105.7	97.3	117.4	90.3
Oct.....	105.5	107.6	100.8	115.8	92.3	1955: June.....	103.2	105.6	97.2	117.4	90.1
Nov.....	105.5	107.8	100.7	116.2	91.3	1955: July.....	103.2	105.7	96.9	117.5	90.5
Dec.....	105.3	107.6	100.5	116.1	90.9	1955: Aug.....	103.4	105.5	97.4	117.6	90.5
						1955: Sept.....	104.6	105.8	99.5	118.1	91.0
						1955: Oct.....	104.6	106.0	99.5	118.4	91.0

¹ See footnote 1 to table D-1.

² Includes diapers, yard goods, and an unpriced group of items represented

in the index by the weighted average of prices for all priced items in the total apparel group.

³ Not available.

TABLE D-4: Consumer Price Index ¹—United States average, all items and food

Year	1947-49=100		1935-39=100	Year and month	1947-49=100		1935-39=100	Year and month	1947-49=100		1935-39=100
	All items	Total food ²	All items		All items	Total food ²	All items		All items	Total food ²	All items
1913: Average.....	42.3	39.6	70.7	1946: Average.....	83.4	79.0	139.5	1953: January.....	113.9	113.1	190.4
1914: Average.....	42.9	40.5	71.8	1947: Average.....	95.5	95.9	159.6	February.....	113.4	111.5	189.6
1915: Average.....	43.4	40.0	72.5	1948: Average.....	102.8	104.1	171.9	March.....	113.6	111.7	189.9
1916: Average.....	46.6	45.0	77.9	1949: Average.....	101.8	100.0	170.2	April.....	113.7	111.5	190.1
1917: Average.....	54.8	57.9	91.6	1950: Average.....	102.8	101.2	171.9	May.....	114.0	112.1	190.6
1918: Average.....	64.3	66.5	107.5	1951: Average.....	111.0	112.6	185.6	June.....	114.5	113.7	191.4
1919: Average.....	74.0	74.2	123.8	1952: Average.....	113.5	114.6	189.8	July.....	114.7	113.8	191.8
1920: Average.....	85.7	83.6	143.3	1953: Average.....	114.4	112.8	191.3	August.....	115.0	114.1	192.3
1921: Average.....	76.4	63.5	127.7	1954: Average.....	114.8	112.6	191.9	September.....	115.2	113.8	192.6
1922: Average.....	71.6	59.4	119.7	1951: January.....	108.6	109.9	181.5	October.....	115.4	113.6	192.9
1923: Average.....	72.9	61.4	121.9	February.....	109.9	111.9	183.8	November.....	115.0	112.0	192.3
1924: Average.....	73.1	60.8	122.2	March.....	110.3	112.0	184.5	December.....	114.9	112.3	192.1
1925: Average.....	75.0	65.8	125.4	April.....	110.4	111.7	184.6	1954: January.....	115.2	113.1	192.6
1926: Average.....	75.6	68.0	126.4	May.....	110.9	112.6	185.4	February.....	115.0	112.6	192.3
1927: Average.....	74.2	65.5	124.0	June.....	110.8	112.3	185.2	March.....	114.8	112.1	191.9
1928: Average.....	73.3	64.8	122.6	July.....	110.9	112.7	185.5	April.....	114.6	112.4	191.6
1929: Average.....	73.3	65.6	122.5	August.....	110.9	112.4	185.5	May.....	115.0	113.3	192.3
1930: Average.....	71.4	62.4	119.4	September.....	111.6	112.5	186.6	June.....	115.1	113.8	192.4
1931: Average.....	65.0	51.4	108.7	October.....	112.1	113.5	187.4	July.....	115.2	114.6	192.6
1932: Average.....	58.4	42.8	97.6	November.....	112.8	114.6	188.6	August.....	115.0	113.9	192.3
1933: Average.....	55.3	41.6	92.4	December.....	113.1	115.0	189.1	September.....	114.7	112.4	191.8
1934: Average.....	57.2	46.4	95.7	1952: January.....	113.1	115.0	189.1	October.....	114.5	111.8	191.4
1935: Average.....	58.7	49.7	98.1	February.....	112.4	112.6	187.9	November.....	114.6	111.1	191.6
1936: Average.....	59.3	50.1	99.1	March.....	112.4	112.7	188.0	December.....	114.3	110.4	191.1
1937: Average.....	61.4	52.1	102.7	April.....	112.9	113.9	188.7	1955: January.....	114.3	110.6	191.1
1938: Average.....	60.3	48.4	100.8	May.....	113.0	114.3	189.0	February.....	114.3	110.8	191.1
1939: Average.....	59.4	47.1	99.4	June.....	113.4	114.6	189.6	March.....	114.3	110.8	191.1
1940: Average.....	59.9	47.8	100.2	July.....	114.1	116.3	190.8	April.....	114.2	111.2	190.9
1941: Average.....	62.9	52.2	105.2	August.....	114.3	116.6	191.1	May.....	114.2	111.1	190.9
1942: Average.....	69.7	61.3	116.6	September.....	114.1	115.4	190.8	June.....	114.4	111.3	191.3
1943: Average.....	74.0	68.3	123.7	October.....	114.2	115.0	190.9	July.....	114.7	112.1	191.8
1944: Average.....	75.2	67.4	125.7	November.....	114.3	115.0	191.1	August.....	114.5	111.2	191.4
1945: Average.....	76.9	68.9	128.6	December.....	114.1	113.8	190.7	September.....	114.9	111.6	192.1
								October.....	114.9	110.8	192.1

¹ See footnote 1 to table D-1.
² See footnote 2 to table D-1.

TABLE D-5: Consumer Price Index ¹—All items indexes for selected dates, by city

City	1947-49=100														1935-39=100
	Oct. 1955	Sept. 1955	Aug. 1955	July 1955	June 1955	May 1955	Apr. 1955	Mar. 1955	Feb. 1955	Jan. 1955	Dec. 1954	Nov. 1954	Oct. 1954	June 1950	Revised series Oct. 1955
United States average ²	114.9	114.9	114.5	114.7	114.4	114.2	114.2	114.3	114.3	114.3	114.3	114.6	114.5	101.8	192.1
Atlanta, Ga.....	(3)	117.2	(3)	(3)	116.0	(2)	(3)	115.3	(3)	(3)	115.7	(3)	(3)	(3)	(3)
Baltimore, Md.....	(3)	115.5	(3)	(3)	115.0	(2)	(3)	114.9	(3)	(3)	114.8	(3)	(3)	101.6	(3)
Boston, Mass.....	114.5	(3)	(3)	113.8	(3)	(3)	113.4	(3)	(3)	113.0	(3)	(3)	113.5	102.8	184.3
Chicago, Ill.....	119.0	118.9	118.5	118.2	117.4	117.2	116.9	117.0	117.0	117.0	117.0	117.6	117.1	102.8	202.7
Cincinnati, Ohio.....	(3)	113.7	(3)	(3)	113.7	(2)	(3)	113.4	(3)	(3)	113.3	(3)	(3)	101.2	(3)
Cleveland, Ohio.....	(3)	(3)	116.0	(3)	(3)	115.3	(3)	(3)	114.9	(3)	(3)	115.3	(3)	(3)	(3)
Detroit, Mich.....	116.5	116.9	116.5	116.8	116.7	116.4	116.2	116.3	116.3	116.0	116.2	116.9	116.0	102.8	196.7
Houston, Tex.....	(3)	(3)	115.5	(3)	(3)	115.5	(3)	(3)	115.7	(3)	(3)	116.7	(3)	103.8	(3)
Kansas City, Mo.....	116.2	(3)	(3)	115.9	(3)	(3)	115.2	(3)	(3)	115.3	(3)	(3)	115.7	(3)	187.1
Los Angeles, Calif.....	116.3	116.1	115.5	115.9	115.3	115.4	115.1	114.7	115.4	115.3	115.0	114.8	101.3	194.3	
Minneapolis, Minn.....	116.4	(3)	(3)	117.5	(3)	(3)	117.0	(3)	(3)	116.5	(3)	(3)	116.9	102.1	192.8
New York, N. Y.....	112.4	112.6	111.9	111.9	111.8	111.8	112.3	112.4	112.5	112.3	112.2	112.7	112.6	100.9	186.0
Philadelphia, Pa.....	115.3	115.2	115.8	115.8	115.5	115.5	115.8	115.8	115.7	115.4	115.6	115.9	116.1	101.6	191.9
Pittsburgh, Pa.....	113.8	(3)	(3)	114.0	(3)	(3)	113.8	(3)	(3)	113.8	(3)	(3)	114.3	101.1	193.5
Portland, Ore.....	116.2	(3)	(3)	114.7	(3)	(3)	114.2	(3)	(3)	114.6	(3)	(3)	115.2	(3)	201.3
St. Louis, Mo.....	(3)	116.5	(3)	(3)	115.9	(2)	(3)	115.6	(3)	(3)	115.4	(3)	(3)	101.1	(3)
San Francisco, Calif.....	(3)	115.6	(3)	(3)	115.3	(3)	(3)	115.6	(3)	(3)	115.7	(3)	(3)	100.9	(3)
Seranton, Pa.....	(3)	(3)	111.5	(3)	(3)	111.4	(3)	(3)	111.7	(3)	(3)	112.3	(3)	(3)	(3)
Seattle, Wash.....	(3)	(3)	116.6	(3)	(3)	116.8	(3)	(3)	116.3	(3)	(3)	115.7	(3)	(3)	(3)
Washington, D. C.....	(3)	(3)	113.8	(3)	(3)	113.5	(3)	(3)	113.2	(3)	(3)	113.5	(3)	(3)	(3)

¹ See footnote 1 to table D-1. Indexes are based on time-to-time changes in the cost of goods and services purchased by urban wage-earner and clerical-worker families. They do not indicate whether it costs more to live in one city than in another.

² A average of 46 cities beginning January 1953. See footnote 1 to table D-1.

³ Prior to January 1953, indexes were computed monthly for 9 of these cities and once every 3 months for the remaining 11 cities on a rotating cycle. Beginning in January 1953, indexes are computed monthly for 5 cities and once every 3 months for the 15 remaining cities on a rotating cycle.

TABLE D-6: Consumer Price Index ¹—All items and commodity groups, except food, ² by city
(1947-49=100)

City and cycle of pricing	All items		Personal care		Medical care		Transportation		Reading and recreation		Other goods and services	
	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954
United States average.....	114.9	114.5	117.0	113.4	128.7	125.9	126.6	125.0	106.7	106.9	120.6	120.1
Monthly:												
Chicago, Ill.....	119.0	117.1	121.7	115.0	128.7	126.1	132.4	127.8	114.5	110.5	117.8	118.2
Detroit, Mich.....	116.5	116.0	126.7	119.1	132.7	126.8	122.5	118.1	109.3	109.2	124.4	124.7
Los Angeles, Calif.....	116.3	114.8	118.5	117.5	124.5	122.9	124.5	120.8	96.2	99.3	116.2	114.0
New York, N. Y.....	112.4	112.6	110.6	107.6	126.5	124.1	127.8	129.8	104.2	104.9	121.1	121.3
Philadelphia, Pa.....	115.3	116.1	116.6	117.2	135.5	132.3	131.8	137.4	111.7	113.8	125.1	123.9
Jan., Apr., July, and Oct.:												
Boston, Mass.....	114.5	113.5	114.4	111.8	126.3	124.3	135.9	132.8	106.6	105.2	118.6	118.5
Kansas City, Mo.....	116.2	115.7	121.3	116.6	136.5	136.0	127.1	124.0	115.0	115.2	116.6	117.3
Minneapolis, Minn.....	116.4	116.9	122.3	115.9	148.2	142.0	111.9	118.4	117.1	116.6	126.2	125.6
Pittsburgh, Pa.....	113.8	114.3	115.8	116.6	131.8	126.1	135.5	134.2	98.0	98.3	121.9	120.5
Portland, Oreg.....	116.2	115.2	117.9	110.5	128.8	122.8	126.0	121.6	116.5	116.1	120.4	118.7
Mar., June, Sept., and Dec.:												
Atlanta, Ga.....	117.2	116.3	122.5	115.5	127.6	121.1	122.0	120.0	109.4	108.6	125.0	118.1
Baltimore, Md.....	115.5	115.2	109.5	107.4	134.6	133.4	135.6	135.3	115.8	117.9	123.3	123.1
Cincinnati, Ohio.....	113.7	114.3	115.9	109.3	127.5	124.8	120.5	127.2	99.5	98.3	116.2	117.9
St. Louis, Mo.....	116.5	115.7	118.2	113.8	140.0	136.1	131.0	125.1	91.7	93.3	117.1	113.8
San Francisco, Calif.....	115.6	116.2	110.6	111.8	125.4	123.4	138.4	140.2	106.4	106.1	117.3	115.8
Aug. 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955
Feb., May, Aug., and Nov.:												
Cleveland, Ohio.....	116.0	115.3	121.3	114.7	136.8	129.5	119.5	117.8	115.4	116.8	119.6	120.1
Houston, Tex.....	115.5	116.5	119.8	119.5	125.1	119.9	121.5	123.1	108.7	108.5	118.9	119.1
Scranton, Pa.....	111.5	112.4	121.9	112.1	119.8	119.5	123.8	125.4	120.5	116.5	115.1	116.1
Seattle, Wash.....	116.6	116.2	117.9	117.5	131.4	129.4	126.1	128.5	107.9	109.7	128.2	126.7
Washington, D. C.....	113.8	114.1	111.4	111.1	118.4	118.3	129.1	125.2	106.0	104.9	130.1	130.5
Apparel												
	Total		Men's and boy's		Women's and girls'		Footwear		Other apparel ³			
	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954
United States average.....	104.6	104.6	106.0	106.4	99.5	99.6	118.4	116.7	91.0	91.1		
Monthly:												
Chicago, Ill.....	108.0	106.6	112.2	111.3	100.2	99.1	123.3	119.8	94.8	93.6		
Detroit, Mich.....	101.3	102.7	107.3	108.5	92.9	95.3	113.3	112.4	86.8	87.5		
Los Angeles, Calif.....	104.6	104.8	108.2	108.5	98.0	98.8	120.5	118.9	83.0	82.7		
New York, N. Y.....	104.1	104.1	105.9	105.3	98.4	99.3	117.9	115.4	94.1	94.4		
Philadelphia, Pa.....	105.7	106.4	103.4	104.8	105.0	105.7	112.7	111.1	92.2	93.3		
Jan., Apr., July, and Oct.:												
Boston, Mass.....	102.8	104.2	103.1	103.8	97.9	100.2	113.7	112.8	103.6	104.9		
Kansas City, Mo.....	104.7	104.6	107.3	107.1	99.5	109.1	116.5	114.2	88.0	88.0		
Minneapolis, Minn.....	105.4	106.0	107.1	108.5	101.8	101.9	113.4	113.9	92.5	92.8		
Pittsburgh, Pa.....	102.2	103.7	104.5	106.3	95.5	95.5	115.7	118.4	97.3	98.7		
Portland, Oreg.....	108.0	107.5	110.5	111.2	101.8	100.4	121.6	120.6	95.6	95.4		
Mar., June, Sept., and Dec.:												
Atlanta, Ga.....	110.5	110.3	111.4	112.1	105.5	105.3	124.9	122.5	91.9	92.0		
Baltimore, Md.....	102.3	103.1	100.9	101.4	98.6	100.1	117.8	116.8	94.2	95.1		
Cincinnati, Ohio.....	103.9	104.1	103.7	104.9	98.8	99.7	125.5	122.0	87.9	87.0		
St. Louis, Mo.....	103.9	103.9	106.1	108.0	97.0	96.2	119.7	118.7	95.8	96.0		
San Francisco, Calif.....	104.3	103.1	104.9	105.5	99.9	98.7	120.6	115.1	88.7	87.8		
Aug. 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955	August 1955
Feb., May, Aug., and Nov.:												
Cleveland, Ohio.....	103.4	104.3	108.0	108.5	95.5	97.0	116.8	117.6	92.4	92.7		
Houston, Tex.....	105.7	107.0	102.2	106.7	101.4	101.1	126.7	127.2	90.2	90.4		
Scranton, Pa.....	106.4	105.7	107.2	107.1	101.6	100.5	121.4	120.8	91.3	92.1		
Seattle, Wash.....	106.7	106.1	109.1	108.8	101.0	100.9	122.2	118.5	87.2	86.7		
Washington, D. C.....	101.6	101.7	105.1	104.9	95.4	95.8	115.4	115.4	90.3	90.4		

See footnotes at end of table.

TABLE D-6: Consumer Price Index ¹—All items and commodity groups, except food, ² by city—Con.
(1947-49=100)

	Housing											
	Total housing		Rent		Gas and electricity		Solid fuels and fuel oil		Housefurnishings		Household operation	
	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954	October 1955	October 1954
United States average.....	120.8	119.5	130.8	129.0	111.2	108.5	126.3	123.8	104.4	105.6	120.1	117.6
Monthly:												
Chicago, Ill.....	132.1	128.2	(⁴)	(⁴)	110.3	106.3	131.6	123.0	107.6	108.4	124.0	121.1
Detroit, Mich.....	122.6	122.3	142.4	138.9	114.0	108.8	120.0	119.3	107.9	108.8	114.0	110.2
Los Angeles, Calif.....	127.3	124.3	(⁴)	(⁴)	116.2	109.5	(⁴)	(⁴)	104.0	107.0	125.0	108.1
New York, N. Y.....	116.3	115.9	(⁴)	(⁴)	108.9	108.2	126.6	125.6	104.7	105.5	119.4	118.9
Philadelphia, Pa.....	114.8	114.3	(⁴)	(⁴)	101.8	102.3	121.0	120.0	105.7	109.4	114.0	113.8
Jan., Apr., July, and Oct.:												
Boston, Mass.....	121.8	119.6	(⁴)	(⁴)	112.1	108.4	126.4	124.6	105.3	104.8	117.8	116.7
Kansas City, Mo.....	122.0	120.6	138.4	137.0	122.0	118.0	116.1	112.1	102.4	104.5	125.1	122.5
Minneapolis, Minn.....	121.3	122.1	(⁴)	(⁴)	118.8	110.0	118.8	113.9	99.7	106.6	120.2	121.1
Pittsburgh, Pa.....	116.4	117.0	125.1	123.9	123.4	118.8	119.4	119.7	102.1	105.1	118.9	120.0
Portland, Ore.....	119.6	120.1	(⁴)	(⁴)	107.8	107.8	132.1	128.0	105.0	108.0	114.1	112.0
	Septem-ber 1955	Septem-ber 1954	Septem-ber 1955	Septem-ber 1954	Septem-ber 1955	Septem-ber 1954	Septem-ber 1955	Septem-ber 1954	Septem-ber 1955	Septem-ber 1954	Septem-ber 1955	Septem-ber 1954
Mar., June, Sept., and Dec.:												
Atlanta, Ga.....	125.9	124.1	134.5	131.3	119.6	111.3	123.3	117.7	106.9	109.6	131.1	129.4
Baltimore, Md.....	116.9	114.4	126.7	124.7	99.7	99.6	122.6	121.1	98.2	99.1	111.9	111.1
Cincinnati, Ohio.....	118.4	117.0	(⁴)	(⁴)	119.4	115.2	129.3	123.1	97.4	101.5	127.5	119.7
St. Louis, Mo.....	121.1	119.7	(⁴)	(⁴)	103.8	103.8	139.9	136.8	103.2	102.7	123.5	119.0
San Francisco, Calif.....	116.4	117.5	(⁴)	(⁴)	136.3	130.1	(⁴)	(⁴)	103.4	104.8	110.6	109.0
	August 1955	August 1954	August 1955	August 1954	August 1955	August 1954	August 1955	August 1954	August 1955	August 1954	August 1955	August 1954
Feb., May, Aug., and Nov.:												
Cleveland, Ohio.....	122.9	120.1	144.6	141.6	109.1	106.8	122.4	121.9	100.5	101.9	114.2	110.9
Houston, Tex.....	122.8	124.1	137.6	138.9	106.8	106.5	(⁴)	(⁴)	99.7	101.6	127.0	129.4
Scranton, Pa.....	115.2	115.2	(⁴)	(⁴)	119.4	112.2	125.0	130.3	99.4	99.6	109.9	109.6
Seattle, Wash.....	121.5	119.4	137.7	135.2	88.8	88.5	131.0	127.3	103.7	105.1	114.5	112.3
Washington, D. C.....	116.8	117.0	(⁴)	(⁴)	123.1	115.9	132.0	127.3	101.6	107.1	121.1	117.0

¹ See footnote 1 to table D-1.² See tables D-2, D-4, D-7 and D-8 for food.³ See footnote 2 to table D-3.⁴ Not available.

TABLE D-7: Consumer Price Index ¹—Food and its subgroups, by city

[1947-49=100]

City	Total food ²			Food at home								
				Total food at home			Cereals and bakery products			Meats, poultry, and fish		
	Oct. 1955	Sept. 1955	Oct. 1954	Oct. 1955	Sept. 1955	Oct. 1954	Oct. 1955	Sept. 1955	Oct. 1954	Oct. 1955	Sept. 1955	Oct. 1954
United States average ³	110.8	111.6	111.8	109.4	110.4	110.9	123.9	124.0	122.7	100.9	103.5	103.9
Atlanta, Ga.....	110.1	111.6	111.5	108.5	109.7	110.3	116.6	117.2	117.3	105.3	107.1	107.7
Baltimore, Md.....	111.4	111.1	112.9	109.8	111.0	111.8	121.7	121.9	122.2	101.3	104.0	105.9
Boston, Mass.....	109.9	112.5	110.2	108.0	109.8	108.9	122.1	120.4	119.0	98.1	101.1	100.7
Chicago, Ill.....	109.1	111.0	110.0	107.2	108.9	108.8	118.8	119.3	116.5	95.3	98.9	98.3
Cincinnati, Ohio.....	112.1	112.4	114.1	111.0	111.3	113.5	124.0	124.1	123.9	101.9	104.7	105.9
Cleveland, Ohio.....	109.5	109.6	110.5	108.0	108.1	109.7	118.9	119.4	120.4	98.9	101.3	101.4
Detroit, Mich.....	112.7	113.6	113.8	111.2	112.2	112.5	119.2	119.3	118.0	99.8	102.3	103.1
Houston, Tex.....	109.4	110.2	111.6	108.1	109.1	110.7	117.8	117.8	117.7	99.6	100.5	103.5
Kansas City, Mo.....	107.1	107.2	108.5	105.3	105.7	107.5	120.7	120.9	120.2	96.1	98.7	99.6
Los Angeles, Calif.....	112.4	112.1	112.0	109.4	109.3	110.3	127.8	127.9	126.8	101.7	102.3	105.8
Minneapolis, Minn.....	112.3	112.4	111.8	111.5	111.6	111.4	125.9	126.0	125.0	96.4	99.3	99.0
New York, N. Y.....	110.5	111.9	111.3	109.2	110.9	110.8	128.7	128.8	125.4	101.9	105.0	104.1
Philadelphia, Pa.....	112.8	113.8	114.5	111.6	112.9	113.5	123.0	122.1	120.5	102.3	106.6	104.5
Pittsburgh, Pa.....	111.1	112.3	113.0	110.3	111.7	112.6	125.0	125.1	124.4	99.4	101.2	100.4
Portland, Ore.....	111.9	110.7	111.6	110.4	109.9	111.1	123.9	124.0	124.4	102.6	103.9	107.9
St. Louis, Mo.....	112.8	113.7	115.2	110.5	111.6	113.6	119.0	119.1	118.9	100.9	102.9	104.1
San Francisco, Calif.....	112.7	113.0	113.7	111.8	112.0	113.0	130.6	130.8	131.0	105.7	107.4	108.2
Scranton, Pa.....	107.5	109.1	109.9	107.0	108.8	109.7	119.2	119.6	118.1	98.9	103.1	102.1
Seattle, Wash.....	111.6	111.9	111.4	110.9	111.3	111.0	127.9	128.0	126.0	102.4	103.8	104.9
Washington, D. C.....	111.3	112.7	111.4	109.6	111.3	109.9	122.1	122.0	120.2	97.1	101.1	99.9

City	Food at home—Continued								
	Dairy products			Fruits and vegetables			Other foods at home ⁴		
	Oct. 1955	Sept. 1955	Oct. 1954	Oct. 1955	Sept. 1955	Oct. 1954	Oct. 1955	Sept. 1955	Oct. 1954
United States average.....	107.5	106.5	106.7	108.5	110.2	111.1	113.9	114.1	115.7
Atlanta, Ga.....	108.2	108.3	108.2	111.0	112.8	112.8	105.4	106.3	107.9
Baltimore, Md.....	109.1	109.0	108.9	109.6	111.0	108.4	113.0	113.7	116.1
Boston, Mass.....	114.2	111.6	110.0	103.8	111.3	110.1	108.2	109.4	108.9
Chicago, Ill.....	106.2	106.0	105.5	108.6	111.7	111.1	119.7	119.8	122.4
Cincinnati, Ohio.....	109.1	106.1	108.7	110.0	109.9	112.9	118.8	118.7	122.7
Cleveland, Ohio.....	104.7	101.5	103.7	106.1	104.3	106.7	117.2	117.7	120.4
Detroit, Mich.....	105.5	105.5	103.7	118.0	118.2	119.4	116.5	116.9	118.6
Houston, Tex.....	109.8	109.7	106.3	109.6	113.2	115.9	110.0	110.5	113.9
Kansas City, Mo.....	107.4	104.2	108.5	103.0	103.0	106.2	107.4	107.4	109.2
Los Angeles, Calif.....	103.0	103.0	103.1	107.7	107.9	106.8	113.5	112.3	113.3
Minneapolis, Minn.....	110.9	110.8	102.6	115.2	111.7	116.1	122.7	121.8	125.7
New York, N. Y.....	106.9	105.9	107.4	103.8	107.0	108.8	115.5	116.9	116.6
Philadelphia, Pa.....	111.3	108.9	111.4	113.9	115.5	118.3	113.8	114.3	117.1
Pittsburgh, Pa.....	109.4	109.4	109.9	103.4	108.5	111.3	123.4	123.2	126.2
Portland, Ore.....	108.1	103.2	105.3	107.3	107.5	106.9	115.8	115.3	114.6
St. Louis, Mo.....	100.7	100.9	105.1	118.0	119.5	119.4	120.8	121.4	126.1
San Francisco, Calif.....	105.3	104.8	105.3	112.7	111.3	110.9	112.7	112.9	115.6
Scranton, Pa.....	107.9	107.8	108.7	101.2	103.1	108.4	111.7	112.6	114.0
Seattle, Wash.....	108.1	108.3	105.9	110.9	110.3	110.8	113.3	113.3	113.2
Washington, D. C.....	112.9	112.8	111.7	109.0	112.2	106.8	114.4	114.2	115.6

¹ See footnote 1 to table D-1. Indexes for 56 cities for total food (1935-39=100 or June 1940=100) were published in the March 1953 Monthly Labor Review and in previous issues. See table D-8 for U. S. average prices for 46 cities combined.

² See footnote 2 to table D-1.

³ Average of 46 cities beginning January 1953. See footnote 1 to table D-1.

⁴ See footnote 3 to table D-2.

TABLE D-8: Average retail prices of selected foods

Commodity	Oct. 1955	Sept. 1955	Oct. 1954	Commodity	Oct. 1955	Sept. 1955	Oct. 1955
Cereals and bakery products:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	All fruits and vegetables—Continued			
Flour, wheat.....5 pounds.....	53.4	53.6	53.6	Fresh fruits and vegetables—Continued	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Biscuit mix ¹20 ounces.....	27.1	27.2	27.4	Peaches*.....pound.....		15.3	
Cornmeal ²pound.....	12.6	12.6	12.6	Strawberries*.....pint.....			
Rice ³do.....	17.6	17.8	19.0	Grapes, seedless*.....pound.....	15.4	15.3	22.0
Rolled oats.....20 ounces.....	19.2	19.2	18.6	Watermelons*.....do.....			
Cornflakes ⁴12 ounces.....	22.0	22.0	21.9	Potatoes ¹¹10 pounds.....	44.7	45.0	76.5
Bread.....pound.....	17.8	17.7	17.4	Sweetpotatoes.....pound.....	10.8	12.0	11.4
Soda crackers.....do.....	27.0	27.1	27.2	Onions.....do.....	8.0	7.9	7.3
Vanilla cookies ⁵7 ounces.....	23.7	23.8	23.7	Carrots.....do.....	15.1	14.4	14.0
Meats, poultry, and fish:				Lettuce.....head.....	15.0	18.4	18.6
Beef and veal:				Celery.....pound.....	15.8	16.1	12.8
Round steak ¹pound.....	90.5	91.5	92.0	Cabbage.....do.....	7.6	7.3	6.0
Chuck roast ²do.....	49.3	49.2	51.3	Tomatoes.....do.....	22.8	21.0	19.9
Rib roast ¹do.....	69.6	69.9	70.3	Beans, green.....do.....	20.8	19.9	18.9
Hamburger.....do.....	39.3	39.3	40.2	Canned fruits and vegetables:			
Veal cutlets ¹do.....	110.1	110.5	107.9	Orange juice.....46-ounce can.....	35.0	34.5	36.3
Pork:				Peaches.....No. 2½ can.....	34.9	34.8	32.5
Pork chops, center cut.....do.....	81.0	85.3	80.2	Pineapple ¹²No. 2 can.....	33.2	33.0	38.7
Bacon, sliced.....do.....	66.5	67.2	75.2	Fruit cocktail ¹²No. 303 can.....	26.7	26.7	40.9
Ham, whole ⁴do.....	59.8	62.6	64.6	Corn, cream style.....do.....	17.2	17.1	18.0
Lamb, leg ⁵do.....	68.1	68.4	69.1	Peas, green.....do.....	21.5	21.5	21.4
Other meats:				Tomatoes ¹¹do.....	15.1	15.1	14.7
Frankfurters.....do.....	53.2	53.3	54.7	Baby foods.....4½-5 ounces.....	9.7	9.7	9.8
Luncheon meat, canned.....12 ounces.....	42.5	42.6	49.1	Dried fruits and vegetables:			
Poultry:				Prunes.....pound.....	34.6	34.3	31.5
Frying chickens:				Dried beans.....do.....	17.7	18.1	17.8
Dressed ¹pound.....		46.4	40.5	Other foods at home:			
Ready-to-cook ²do.....	53.3	57.6	51.3	Partially prepared foods:			
Fish:				Vegetable soup.....11-ounce can.....	14.1	14.2	14.3
Ocean perch fillet, frozen ³do.....	42.2	42.7	44.3	Beans with pork.....16-ounce can.....	15.0	15.0	14.5
Haddock, fillet, frozen ⁴do.....	45.6	45.9	49.6	Condiments and sauces:			
Salmon, pink.....16-ounce can.....	58.1	56.5	52.7	Pickles, sweet.....7½ ounces.....	27.2	27.2	29.4
Tuna fish, chunk ⁵6- to 6½-ounce can.....	35.4	35.3	38.8	Catsup, tomato.....14 ounces.....	22.7	22.6	22.2
Dairy products:				Beverages, nonalcoholic:			
Milk, fresh (grocery).....quart.....	22.3	22.1	22.3	Coffee.....pound.....	92.3	90.5	110.0
Milk, fresh (delivered) ¹do.....	23.8	23.4	23.3	Tea bags ¹⁴package of 16.....	24.2	24.2	34.8
Ice cream.....pint.....	28.9	28.9	29.6	Cola drink.....carton, 36 ounces.....	32.4	32.4	32.4
Butter.....pound.....	71.2	71.0	71.5	Fats and oils:			
Cheese, American process.....do.....	57.7	57.7	56.8	Shortening, hydrogenated ¹⁵3-pound can.....	88.8	90.1	35.9
Milk, evaporated.....14½-ounce can.....	13.7	13.7	13.8	Margarine, colored ⁶do.....	28.9	28.9	30.1
All fruits and vegetables:				Lard.....do.....	20.0	20.0	25.9
Frozen fruits and vegetables:				Salad dressing.....pint.....	35.3	35.2	36.3
Strawberries ¹⁰10 ounces.....	30.5	30.5	30.6	Peanut butter.....pound.....	55.6	55.9	49.3
Orange juice concentrate.....6 ounces.....	18.9	18.8	19.0	Sugar and sweets:			
Peas, green.....10 ounces.....	21.3	21.0	19.2	Sugar.....5 pounds.....	52.0	52.0	52.4
Beans, green.....do.....	24.0	24.1	24.2	Corn syrup.....24 ounces.....	23.7	23.7	23.7
Fresh fruits and vegetables:				Grape jelly.....12 ounces.....	26.3	26.3	25.9
Apples.....pound.....	12.3	14.3	12.9	Chocolate bar ¹⁶7½ ounce.....	4.2	4.6	15.1
Bananas.....do.....	17.1	17.2	16.8	Eggs, fresh.....dozen.....	68.2	68.5	59.7
Oranges, size 200.....dozen.....	60.7	59.2	68.9	Miscellaneous foods:			
Lemons.....pound.....	17.5	17.8	18.5	Gelatin, flavored.....3-4 ounces.....	8.5	8.5	8.5
Grapefruit*.....each.....							

¹ 45 cities.⁴ 42 cities.² 39 cities.⁶ 44 cities.³ 33 cities.⁷ 5 cities.⁴ 37 cities.⁵ 35 cities.⁹ Formerly solid pack tuna, 7-oz. can, change effective August 1955.¹⁰ Specification changed from 12 ounces to 10 ounces, effective October 1954.¹¹ Unit changed to 10 pounds, effective January 1955.¹² Formerly No. 2½ can, change effective April 1955.¹³ Specification changed from No. 2 can to No. 303 can, effective October 1954.¹⁴ Formerly bulk tea, ¼ pound, change effective August 1955.¹⁵ Unit changed to 3-pound can, effective August 1955.¹⁶ Specification changed from 1-ounce to 7½-ounce bar, effective January 1955.

*Priced only in season.

NOTE.—The United States average retail food prices appearing in table D-8 are based on prices collected monthly in 46 cities for use in the calculation of the food component of the revised Consumer Price Index. Average retail food prices for each of 20 large cities are published monthly and are available upon request. Prices for the 26 medium-size and small cities are not published on an individual city basis.

TABLE D-9: Indexes of wholesale prices, by group and subgroup of commodities¹

[1947-49=100]

Commodity group	Oct. 1955 ²	Sept. 1955	Aug. 1955	July 1955	June 1955	May 1955	Apr. 1955	Mar. 1955	Feb. 1955	Jan. 1955	Dec. 1954	Nov. 1954	Oct. 1954	June 1950
All commodities.....	111.5	*111.7	110.9	110.5	110.3	109.9	110.5	110.0	110.4	110.1	109.5	110.0	109.7	100.2
Farm products.....	86.7	89.3	88.1	89.5	91.8	91.2	94.2	92.1	93.1	92.5	89.9	93.2	93.1	94.5
Fresh and dried produce.....	92.9	102.1	99.5	98.7	104.7	118.7	120.9	104.4	103.8	105.2	96.9	103.2	101.9	89.8
Grains.....	82.4	81.4	78.6	86.7	90.3	92.4	91.0	92.2	93.1	93.5	92.5	93.5	92.9	89.6
Livestock and poultry.....	71.8	75.5	75.5	79.4	83.1	78.4	84.0	79.9	80.7	79.4	74.0	76.4	77.5	99.8
Plant and animal fibers.....	99.1	100.8	102.9	103.8	103.4	103.4	102.7	102.9	104.3	104.4	105.0	104.5	107.1	107.3
Fluid milk.....	95.2	*93.6	91.8	89.0	87.0	87.4	90.3	90.5	92.0	92.4	93.6	95.1	93.8	81.6
Eggs.....	92.6	103.0	95.4	78.7	74.4	71.5	77.9	82.2	90.1	65.1	64.0	83.5	82.5	70.6
Hay and seeds.....	75.9	75.1	81.6	85.6	88.1	88.7	89.9	93.1	93.2	94.3	93.8	92.0	91.7	87.6
Other farm products.....	143.2	146.2	138.6	137.6	143.2	138.3	142.3	143.0	139.4	156.4	157.7	164.6	159.6	122.4
Processed foods.....	100.2	*101.5	101.9	103.1	103.9	102.1	102.5	101.6	103.2	103.8	103.5	103.8	103.7	96.8
Cereal and bakery products.....	114.8	114.4	115.1	117.6	117.6	118.3	116.8	116.5	116.3	116.9	116.8	116.5	114.5	96.5
Meats, poultry, fish.....	81.7	87.5	86.3	88.5	91.4	85.7	86.0	83.3	86.9	87.6	85.2	86.3	85.8	102.4
Dairy products and ice cream.....	105.0	104.3	106.3	106.0	104.6	104.0	106.9	107.2	107.2	107.0	108.2	108.8	108.7	90.0
Canned, frozen, fruits and vegetables.....	107.4	*106.8	105.0	104.6	104.5	104.1	104.7	104.8	104.4	104.6	106.0	105.5	105.5	98.0
Sugar and confectionery.....	110.1	109.6	110.1	110.7	110.4	110.3	110.8	110.8	112.6	111.3	111.6	112.3	112.0	94.7
Packaged beverage materials.....	183.8	176.6	173.7	171.9	171.9	179.8	180.2	180.4	186.4	203.7	203.4	197.8	206.3	136.9
Animal fats and oils.....	69.7	*63.7	61.6	69.8	69.0	69.5	72.9	68.0	69.2	74.4	77.3	84.8	84.5	63.9
Crude vegetable oils.....	57.6	*56.8	60.7	64.4	68.9	66.9	63.7	63.5	65.1	64.8	65.6	65.1	65.0	67.9
Refined vegetable oils.....	68.0	66.7	70.9	74.9	77.1	73.2	71.1	70.9	73.7	73.9	73.7	73.2	76.4	67.4
Vegetable oil end products.....	79.4	80.1	81.3	83.8	83.7	82.2	82.1	82.1	83.6	84.4	83.5	83.4	84.5	79.2
Other processed foods.....	98.3	98.1	99.5	100.5	101.4	101.2	100.9	100.8	100.7	98.2	98.4	97.8	99.8	106.6
All commodities other than farm and foods.....	119.0	*118.5	117.5	116.5	115.6	115.5	115.7	115.6	115.7	115.2	114.9	114.8	114.5	102.2
Textile products and apparel.....	95.5	*95.4	95.3	95.3	95.2	95.0	95.0	95.3	95.2	95.2	95.2	95.2	95.4	93.3
Cotton products.....	92.8	*92.5	91.7	91.0	90.6	90.3	90.4	90.8	90.6	90.2	89.9	89.9	89.9	90.0
Wool products.....	102.8	*103.0	103.9	105.0	105.5	106.1	106.0	106.1	106.3	106.6	106.7	106.6	108.4	105.3
Synthetic textiles.....	86.4	86.7	86.7	86.8	86.6	86.9	87.2	87.5	86.7	87.3	87.2	86.9	86.1	91.3
Silk products.....	123.7	126.8	128.7	126.8	124.0	123.2	122.8	121.1	122.4	124.1	123.9	127.4	127.0	88.8
Apparel.....	98.7	*98.6	98.6	98.6	98.6	98.0	98.3	98.2	98.2	98.2	98.4	98.4	98.6	92.7
Other textile products.....	71.6	72.1	72.9	74.3	74.4	76.4	76.3	76.6	78.0	77.3	76.9	77.6	80.9	96.3
Hides, skins, and leather products.....	95.3	94.0	93.8	93.7	92.9	92.9	93.2	92.2	92.3	91.9	91.8	92.8	92.4	99.1
Hides and skins.....	62.3	60.9	58.9	58.2	55.7	53.3	56.9	50.7	51.6	49.5	47.4	52.7	49.5	94.3
Leather.....	86.1	85.1	85.0	85.1	83.3	85.0	83.6	82.1	82.2	81.2	81.5	82.0	82.1	98.2
Footwear.....	113.4	111.4	111.4	111.4	111.4	111.4	111.5	111.5	111.5	111.6	111.6	111.7	111.8	102.7
Other leather products.....	96.0	96.0	96.3	96.5	95.0	95.0	95.9	95.7	95.8	95.8	95.9	96.0	96.1	95.2
Fuel, power, and lighting materials.....	108.2	*108.0	107.2	106.4	106.8	107.0	107.4	108.5	108.7	108.5	107.5	107.4	106.9	102.4
Coal.....	108.6	*108.1	107.2	101.5	100.6	100.4	102.3	105.1	105.2	105.2	105.2	105.1	105.1	104.8
Coke.....	138.8	*137.2	137.4	133.4	133.4	133.4	132.4	132.4	132.4	132.4	132.4	132.4	132.4	115.6
Gas.....	107.8	*107.8	106.8	108.9	110.4	111.0	113.1	116.6	116.3	113.0	110.2	107.3	105.8	94.8
Electricity.....	96.5	*95.5	96.6	96.1	97.2	97.8	97.8	99.5	100.1	100.7	100.7	103.0	101.8	101.3
Petroleum and products.....	114.2	114.0	113.0	111.6	111.5	111.5	111.5	111.7	111.7	111.7	110.4	109.5	109.3	103.1
Chemicals and allied products.....	106.5	*106.0	105.9	106.0	106.8	106.8	107.1	106.8	107.1	107.1	107.0	107.0	106.9	92.1
Industrial chemicals.....	118.9	*118.2	118.1	118.2	117.8	117.6	118.0	117.5	117.4	117.3	117.4	117.7	117.6	96.3
Prepared paint.....	115.0	114.8	114.8	114.8	114.8	114.8	114.8	114.0	113.1	112.8	112.8	112.8	112.8	98.0
Paint materials.....	97.4	97.6	97.6	97.1	96.9	97.0	96.2	95.9	96.1	95.8	96.2	96.6	97.2	86.8
Drugs and pharmaceuticals.....	92.3	92.4	92.4	92.8	93.0	93.2	93.2	93.1	93.3	93.6	93.6	93.6	93.6	91.3
Fats and oils, inedible.....	58.4	*55.8	54.6	55.9	53.8	53.2	55.2	55.4	61.0	61.8	59.3	57.8	56.5	48.8
Mixed fertilizer.....	108.5	108.5	108.9	108.9	108.8	108.8	108.8	108.9	109.0	108.8	108.9	109.1	109.2	101.2
Fertilizer materials.....	112.3	112.0	112.1	111.7	111.0	113.1	113.5	113.6	113.5	113.3	113.3	112.2	112.1	98.5
Other chemicals and products.....	104.5	104.0	104.0	103.9	107.6	107.6	107.6	107.6	108.0	107.7	107.9	112.6	107.6	91.1
Rubber and products.....	147.9	*151.7	148.7	143.4	140.3	138.0	138.3	138.0	140.6	136.8	132.0	131.4	128.5	109.5
Crude rubber.....	164.7	176.4	170.3	159.2	149.6	142.4	143.8	142.8	151.3	146.0	137.6	134.1	132.0	129.0
Tires and tubes.....	147.2	147.2	147.2	142.3	142.3	142.3	142.3	142.3	142.4	139.9	134.9	134.9	129.6	106.1
Other rubber products.....	138.3	*141.4	137.1	134.7	132.3	130.4	130.3	130.3	132.0	127.9	125.2	125.4	125.2	103.6
Lumber and wood products.....	125.5	*125.7	125.1	124.1	123.7	123.5	122.4	121.4	121.2	120.3	120.0	119.9	119.8	112.4
Lumber.....	126.9	127.1	126.4	125.1	124.7	124.7	122.9	121.8	121.4	120.0	119.8	119.6	119.5	113.5
Millwork.....	128.2	128.2	128.3	128.3	128.3	129.3	129.3	128.7	129.0	130.4	130.3	130.2	130.2	110.9
Plywood.....	106.1	106.1	105.7	105.7	105.6	105.6	104.8	104.8	104.8	104.8	104.3	104.3	104.3	101.7
Pulp, paper, and allied products.....	122.8	*120.5	119.7	119.0	118.3	117.7	117.4	116.8	116.6	116.3	115.9	116.0	116.3	95.9
Woodpulp.....	114.2	113.8	113.8	113.8	113.8	113.8	113.8	110.0	110.0	109.6	109.6	109.6	109.6	90.6
Wastepaper.....	120.3	129.1	129.1	125.9	104.7	92.7	89.4	89.4	90.2	90.2	85.5	87.3	83.8	79.0
Paper.....	131.2	131.0	130.5	130.7	129.2	128.9	128.0	128.0	128.0	127.5	126.9	126.5	126.5	103.3
Paperboard.....	129.7	*129.5	128.0	126.1	126.0	126.0	126.0	125.7	124.0	124.0	124.1	124.1	124.2	97.2
Converted paper and paperboard.....	118.9	*114.3	113.2	112.3	112.3	111.7	111.5	111.5	111.1	111.1	111.1	111.3	111.9	93.2
Building paper and board.....	132.7	132.7	132.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	129.7	106.3
Metals and metal products.....	142.3	*141.9	139.5	136.7	132.6	132.5	132.9	131.9	131.5	130.1	129.8	129.9	129.7	108.8
Iron and steel.....	145.6	*145.0	144.9	143.1	135.8	135.6	136.4	136.2	135.8	135.8	135.0	135.5	135.0	113.1
Nonferrous metals.....	153.5	*154.2	145.0	139.5	137.8	137.8	138.3	134.3	133.7	127.9	127.6	127.2	127.4	101.8
Metal containers.....	132.8	132.8	132.8	131.4	131.4	131.4	131.6	131.6	131.6	131.6	131.6	131.6	131.6	109.0
Hardware.....	151.3	*147.8	146.1	144.9	144.5	144.4	144.4	144.4	143.3	142.6	142.3	142.0	141.6	111.1
Plumbing equipment.....	129.4	128.1	128.1	123.2	123.2	123.3	123.3	123.0	118.7	118.7	118.7	118.7	118.7	103.2
Heating equipment.....	117.3	117.2	11											

TABLE D-9: Indexes of wholesale prices, by group and subgroup of commodities¹—Continued

Commodity group	[1947-49=100]													
	Oct. 1955 ²	Sept. 1955	Aug. 1955	July 1955	June 1955	May 1955	April 1955	Mar. 1955	Feb. 1955	Jan. 1955	Dec. 1954	Nov. 1954	Oct. 1954	June 1950
Machinery and motive products.....	131.3	*130.0	128.5	127.5	127.1	126.7	126.3	126.1	126.1	125.8	125.7	125.3	124.3	106.3
Agricultural machinery and equipment.....	126.8	*126.3	122.4	121.5	121.5	121.5	121.5	121.5	121.6	121.5	121.2	121.3	122.0	108.3
Construction machinery and equipment.....	141.9	140.5	138.2	134.7	134.7	134.3	134.1	133.8	133.8	133.2	132.6	131.8	131.6	108.1
Metalworking machinery and equipment.....	147.2	146.9	146.7	145.5	142.7	139.5	137.1	136.9	136.6	135.1	134.7	134.0	134.0	108.8
General purpose machinery and equipment.....	138.3	*136.7	134.8	132.7	131.8	131.2	131.0	130.4	130.3	128.6	128.2	128.1	128.1	107.0
Miscellaneous machinery.....	133.0	*132.0	130.2	127.4	127.0	127.1	126.8	126.8	126.4	126.4	126.0	126.0	126.1	105.0
Electrical machinery and equipment.....	130.8	130.6	127.7	126.7	126.5	126.5	126.4	126.4	126.7	126.8	126.8	126.7	125.2	102.1
Motor vehicles.....	124.5	122.0	122.0	122.0	122.0	122.0	121.9	121.5	121.5	121.7	121.7	121.0	118.6	106.7
Furniture and other household durables.....	116.9	116.4	116.0	115.5	115.2	115.1	115.1	115.1	115.4	115.5	115.7	115.6	115.6	103.1
Household furniture.....	115.4	*115.2	114.3	113.1	112.9	113.1	112.8	112.7	112.6	112.5	112.9	112.9	112.8	101.8
Commercial furniture.....	137.1	*136.2	134.3	130.0	129.8	128.6	128.6	128.6	128.6	128.6	128.6	128.6	127.3	106.2
Floor covering.....	128.7	128.0	126.8	126.7	126.2	125.1	125.0	124.4	124.4	124.2	124.0	124.0	124.0	109.1
Household appliances.....	106.1	106.2	106.6	106.5	106.4	106.5	107.3	107.2	108.5	108.7	109.4	109.1	109.5	100.1
Television and radio receivers.....	92.7	92.6	92.1	93.1	93.2	93.3	93.1	93.1	93.2	93.5	(?)	(?)	(?)	(?)
Other household durable goods.....	135.5	134.1	134.1	133.1	132.4	131.9	131.9	132.0	132.0	131.9	131.5	131.5	131.3	106.8
Nonmetallic minerals—structural.....	126.8	*126.4	126.1	125.3	123.7	123.2	122.3	121.9	121.8	122.0	121.8	121.8	121.9	105.4
Flat glass.....	133.0	131.1	131.1	126.0	124.9	124.9	123.9	123.9	123.9	123.9	123.9	123.9	123.9	105.6
Concrete ingredients.....	125.6	125.3	125.3	125.0	124.9	124.7	124.8	124.1	123.9	123.1	122.3	122.1	122.1	105.7
Concrete products.....	120.1	*119.8	118.6	118.3	118.3	118.2	118.2	118.2	117.0	116.7	117.4	117.4	117.8	104.5
Structural clay products.....	144.2	*143.9	142.9	141.3	137.3	137.0	136.8	136.5	136.1	135.8	135.4	135.4	135.4	110.5
Gypsum products.....	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	122.1	102.3
Prepared asphalt roofing.....	144.6	114.6	114.5	110.8	106.7	105.8	98.5	98.8	100.4	106.1	106.1	106.1	106.1	98.9
Other nonmetallic minerals.....	122.8	122.8	122.5	122.5	122.4	121.0	119.2	119.2	119.2	119.2	119.5	119.5	120.8	105.7
Tobacco manufactures and bottled beverages.....	121.7	121.7	121.7	121.6	121.6	121.6	121.6	121.6	121.6	121.4	121.4	121.4	121.5	101.4
Cigarettes.....	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	102.8
Cigars.....	104.2	103.9	103.9	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	103.7	100.6
Other tobacco products.....	122.5	122.5	122.5	121.4	121.4	121.4	121.4	121.4	121.4	121.4	121.4	121.4	121.4	103.3
Alcoholic beverages.....	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.6	114.3	114.3	114.3	114.3	100.9
Nonalcoholic beverages.....	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	100.8
Miscellaneous.....	91.6	90.3	89.8	90.8	89.1	91.3	94.0	95.6	97.1	97.0	98.0	97.0	96.7	96.9
Toys, sporting goods, small arms.....	113.8	113.6	113.4	113.1	113.2	113.2	113.2	113.2	113.1	113.2	112.9	112.8	112.7	104.8
Manufactured animal feeds.....	74.7	72.5	71.7	73.9	70.8	75.0	80.1	83.0	85.8	84.9	86.8	85.0	84.3	93.7
Notions and accessories.....	91.0	91.0	91.0	91.0	92.9	92.9	92.3	92.3	92.3	101.3	101.2	101.2	101.2	88.7
Jewelry, watches, photo equipment.....	104.4	104.3	104.3	103.7	103.0	103.0	103.0	103.1	103.2	103.6	103.5	103.5	103.5	96.6
Other miscellaneous.....	122.3	*122.2	121.5	121.2	121.1	120.8	121.0	120.6	120.6	120.3	121.0	120.9	120.8	105.4

¹ The revised wholesale price index (1947-49=100) is the official index for January 1952 and subsequent months. The official index for December 1951 and previous dates is the former index (1926=100). The revised index has been computed back to January 1947 for purposes of comparison and analysis. Prices are collected from manufacturers and other producers. In some cases they are secured from trade publications or from other Government agencies which collect price quotations in the course of their regular work. For a more detailed description of the index, see A Description of the Revised Wholesale Price Index, Monthly Labor Review, February 1952 (p. 180), or reprint Serial No. R. 2067.

Beginning with the final wholesale price index for January 1955, the index weights are based on an average of the dollar value of primary market transactions in calendar years 1952 and 1953. Previously, the weights were based on the dollar value of transactions in 1947. The weight revision does not affect the comparability of the indexes.

* Preliminary.
 † Not available.
 ‡ Revised.

TABLE D-10: Special wholesale price indexes¹

Commodity group	[1947-49=100]													
	1955								1954				1950	
	Oct. ²	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	June
All foods.....	99.3	101.5	101.4	101.5	102.4	101.6	102.5	100.8	102.5	101.9	101.0	102.7	102.4	95.0
All fish.....	107.6	109.2	111.7	103.5	103.7	98.1	98.7	100.7	101.8	105.7	100.5	102.8	101.8	92.4
Special metals and metal products.....	137.6	*136.7	134.8	132.7	129.8	129.7	130.0	129.2	128.9	128.0	127.7	127.6	127.1	108.3
Metalworking machinery.....	150.0	149.4	149.1	148.0	147.1	144.2	143.0	143.2	142.7	140.7	140.1	140.1	140.2	109.8
Machinery and equipment.....	135.0	*134.3	132.0	130.5	129.8	129.2	128.7	128.6	128.6	128.1	127.9	127.7	127.4	106.1
Total tractors.....	128.8	*127.7	123.9	122.6	122.7	122.5	122.5	122.4	122.4	122.2	121.9	122.0	123.2	107.5
Steel mill products.....	155.7	155.2	155.2	155.0	145.9	145.9	145.9	145.8	145.8	145.7	145.8	145.8	145.8	114.9
Building materials.....	128.7	*128.5	127.4	125.7	124.1	124.1	123.4	122.8	122.5	122.1	122.0	121.9	121.7	107.5
Soaps.....	98.9	97.0	97.0	97.0	97.0	97.0	97.1	98.5	98.9	97.4	96.9	96.4	96.1	80.9
Synthetic detergents.....	91.5	91.5	91.5	91.5	91.5	91.5	91.5	91.5	93.4	93.4	93.4	93.4	93.4	82.9
Refined petroleum products.....	112.8	112.7	111.5	109.9	109.9	109.9	109.8	110.1	109.9	109.9	108.4	107.4	107.2	102.1
East Coast petroleum.....	110.1	109.2	108.3	105.7	105.7	105.7	106.1	106.1	105.5	105.3	105.3	102.9	102.9	98.1
Mid-continent petroleum.....	110.4	110.4	110.4	109.3	109.4	109.7	107.5	107.5	107.5	107.5	105.5	105.2	104.6	101.8
Gulf Coast petroleum.....	117.2	117.2	117.2	115.5	115.5	115.5	117.7	118.5	117.9	116.9	115.9	115.9	109.7	109.7
Pacific Coast petroleum.....	115.1	115.1	107.7	106.3	106.3	105.4	105.4	105.4	106.9	108.1	102.6	102.6	94.1	
Pulp, paper and products, excl. bldg. paper.....	122.6	*120.2	119.4	118.8	118.0	117.4	117.1	116.5	116.4	116.0	115.7	115.8	116.0	95.6
Bituminous coal, domestic sizes.....	115.9	114.6	108.7	106.3	103.6	102.8	102.7	111.8	112.1	112.2	112.2	112.3	112.1	106.8
Lumber and wood products, excl. millwork.....	125.2	*125.4	124.7	123.5	123.1	122.7	121.5	120.5	120.1	118.9	118.6	118.4	118.4	112.6
All commodities except farm products.....	115.7	*115.5	114.7	114.1	113.5	113.1	113.3	113.1	113.4	113.2	112.9	112.8	112.5	101.2

¹ See footnote 1, table D-9.

² Preliminary.

³ Revised.

E: Work Stoppages

TABLE E-1: Work stoppages resulting from labor-management disputes ¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.27
1947-49 (average).....	3,573	-----	2,380,000	-----	39,700,000	.46
1945.....	4,750	-----	3,470,000	-----	38,000,000	.47
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.43
1947.....	3,693	-----	2,170,000	-----	34,600,000	.41
1948.....	3,419	-----	1,960,000	-----	34,100,000	.37
1949.....	3,606	-----	3,030,000	-----	50,500,000	.59
1950.....	4,843	-----	2,410,000	-----	38,800,000	.44
1951.....	4,737	-----	2,220,000	-----	22,900,000	.23
1952.....	5,117	-----	3,540,000	-----	59,100,000	.67
1953.....	5,091	-----	2,400,000	-----	28,300,000	.26
1954.....	3,468	-----	1,530,000	-----	22,600,000	.21
1954: October.....	285	488	164,000	259,000	1,820,000	.21
November.....	220	387	71,000	129,000	1,310,000	.15
December.....	153	293	29,000	78,000	486,000	.06
1955: January ¹	225	325	50,000	80,000	400,000	.05
February ¹	250	380	90,000	125,000	570,000	.07
March ¹	300	450	165,000	220,000	1,600,000	.17
April ¹	325	500	210,000	310,000	2,600,000	.30
May ¹	375	575	170,000	310,000	2,600,000	.29
June ¹	500	700	500,000	650,000	3,400,000	.35
July ¹	425	650	750,000	900,000	3,200,000	.37
August ²	450	650	220,000	380,000	3,000,000	.30
September ²	400	600	240,000	430,000	2,800,000	.31
October ²	400	600	225,000	320,000	2,600,000	.29

¹ All work stoppages known to the Bureau of Labor Statistics and its various cooperating agencies, involving six or more workers and lasting a full day or shift or longer, are included in this report. Figures on "workers involved" and "man-days idle" cover all workers made idle for as long as one

shift in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

F: Building and Construction

TABLE F-1: Expenditures for new construction ¹

[Value of work put in place]

Type of construction	Expenditures (in millions)														1954	1954	1953
	1955											1954					
	Nov. ²	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Total			
Total new construction ³	\$3,569	\$3,903	\$4,048	\$4,055	\$4,020	\$3,881	\$3,604	\$3,282	\$2,990	\$2,699	\$2,814	\$3,092	\$3,329	\$37,577	\$35,271		
Private construction.....	2,584	2,724	2,805	2,814	2,807	2,731	2,545	2,366	2,194	2,003	2,072	2,263	2,358	25,768	23,877		
Residential building (nonfarm).....	1,374	1,455	1,517	1,541	1,570	1,544	1,430	1,319	1,185	1,049	1,122	1,258	1,293	13,496	11,930		
New dwelling units.....	1,245	1,315	1,370	1,390	1,410	1,380	1,270	1,190	1,085	960	1,030	1,150	1,175	12,070	10,555		
Additions and alterations.....	98	109	116	119	127	133	133	106	79	68	71	86	96	1,130	1,108		
Nonhousekeeping ⁴	31	31	31	32	33	31	27	23	21	21	21	22	22	296	267		
Nonresidential building (nonfarm) ⁵	716	730	719	688	666	634	590	562	559	549	542	552	564	6,250	5,680		
Industrial.....	224	220	211	203	196	189	183	184	186	187	186	184	178	2,030	2,229		
Commercial.....	297	311	308	289	277	259	234	213	208	199	188	192	203	2,212	1,791		
Warehouses, office, and loft buildings.....	110	105	101	99	94	90	88	84	82	83	84	87	90	958	739		
Stores, restaurants, and garages.....	187	206	207	190	183	169	146	129	126	116	104	105	113	1,254	1,052		
Other nonresidential building.....	195	199	200	196	193	186	173	165	165	163	168	176	183	2,008	1,660		
Religious.....	67	69	70	68	66	62	58	54	53	53	55	57	59	593	472		
Educational.....	45	45	45	43	41	39	37	40	41	39	42	45	48	529	426		
Social and recreational.....	21	22	22	23	24	24	20	17	16	17	18	19	21	228	163		
Hospital and institutional ⁶	28	30	31	31	31	30	30	28	28	28	28	29	29	337	317		
Miscellaneous.....	34	33	32	31	31	31	28	26	27	26	25	26	26	321	282		
Farm construction.....	95	113	137	150	148	141	131	114	103	95	92	93	106	1,560	1,731		
Public utilities.....	388	415	420	421	407	396	378	357	333	297	302	348	383	4,341	4,416		
Railroad.....	30	32	34	33	31	30	29	28	25	19	20	28	28	353	442		
Telephone and telegraph.....	60	60	65	65	65	60	60	55	55	50	50	51	55	655	615		
Other public ⁷ utilities.....	298	323	321	323	311	306	289	274	253	228	232	269	300	3,333	3,359		
All other private ⁷	11	11	12	14	16	16	14	14	14	13	14	12	12	121	120		
Public construction.....	985	1,179	1,243	1,241	1,213	1,150	1,059	916	796	696	742	829	971	11,809	11,394		
Residential building ⁸	20	21	21	22	21	23	22	22	23	21	22	22	22	336	556		
Nonresidential building (other than military facilities).....	317	351	373	379	386	382	374	361	349	320	342	351	366	4,641	4,346		
Industrial.....	34	42	42	50	63	68	71	71	77	76	90	102	104	1,606	1,771		
Educational.....	200	212	223	223	220	217	211	202	190	178	182	181	185	2,134	1,714		
Hospital and institutional.....	25	28	33	32	32	30	28	28	27	22	25	25	28	365	365		
Other nonresidential.....	58	69	75	74	71	67	64	60	55	44	45	43	49	636	496		
Military facilities ⁹	127	134	131	128	121	119	106	98	82	77	78	88	95	1,030	1,307		
Highways.....	345	475	510	500	480	430	375	270	190	150	155	214	320	3,750	3,160		
Sewer and water.....	89	97	100	105	104	99	96	88	81	70	76	77	83	982	883		
Miscellaneous public service enterprises ¹⁰	24	32	36	36	31	27	20	16	14	11	13	15	16	218	200		
Conservation and development.....	50	54	56	56	56	56	53	48	45	38	45	52	58	704	830		
All other public ¹¹	13	15	16	15	14	14	13	13	12	9	11	10	11	148	112		

¹ Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Business and Defense Services Administration, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for building permit activity (tables F-3, F-4, and F-5) and the data on value of contract awards reported in table F-2.

² Preliminary.

³ Includes major additions and alterations.

⁴ Includes hotels, dormitories, and tourist courts and cabins.

⁵ Expenditures by privately owned public utilities for nonresidential building are included under "Public utilities."

⁶ Includes Federal contributions toward construction of private nonprofit hospital facilities under the National Hospital Program.

⁷ Covers privately owned sewer and water facilities, roads and bridges, and miscellaneous nonbuilding items such as parks and playgrounds.

⁸ Includes nonhousekeeping public residential construction as well as housekeeping units.

⁹ Covers all construction, building as well as nonbuilding (except for production facilities, which are included in public industrial building).

¹⁰ Covers primarily publicly owned airports, electric light and power systems, and local transit facilities.

¹¹ Covers public construction not elsewhere classified, such as parks, playgrounds, and memorials.

TABLE F-2: Contract awards: Public construction, by ownership and type of construction ¹

Ownership and type of construction ²	Value (in millions)														
	1955										1954			1954	1953
	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Total	Total
All public construction.....	\$733.3	\$718.0	\$704.0	\$1,083.9	\$811.1	\$776.3	\$778.0	\$507.0	\$521.6	\$728.4	\$566.1	\$734.2	\$723.5	\$8,293.8	\$8,470.8
Federally owned.....	122.0	55.1	42.3	308.1	114.6	118.0	141.9	78.2	82.5	87.2	92.8	136.4	109.1	1,407.1	2,154.2
Residential building.....	.1	0	1.2	10.4	.8	.1	0	8.3	0	0	(³)	0	.3	3.9	15.0
Nonresidential building.....	61.3	35.2	24.5	226.7	61.7	74.7	100.2	30.0	44.8	33.4	62.9	81.6	55.9	863.8	1,525.2
Educational.....	4.6	.2	.8	.9	.2	1.2	.1	.3	(³)	.1	(³)	3.1	1.3	14.6	13.4
Hospital and institutional.....	3.3	2.6	1.2	40.3	2.9	6.7	5.8	.4	6.8	.4	16.5	8.1	4.2	72.9	29.7
Administrative and general.....	20.4	2.2	.9	7.9	4.7	3.5	4.6	1.9	3.8	1.4	4.1	2.5	4.7	38.7	45.7
Other nonresidential building.....	33.0	30.2	21.6	177.6	53.9	63.3	89.7	27.4	34.2	31.5	42.3	67.9	45.7	737.6	1,436.4
Airfield building.....	1.8	.4	1.2	27.3	9.3	10.4	17.5	4.9	14.8	9.5	7.7	6.4	1.7	89.7	71.9
Industrial.....	15.6	10.1	7.3	86.6	16.1	18.3	48.6	10.5	6.8	10.9	29.0	22.1	23.5	390.3	1,151.9
Troop housing.....	1.5	3.1	.7	11.3	5.7	11.0	6.3	.6	3.7	3.2	.9	29.8	8.5	68.5	60.7
Warehouses.....	2.9	11.0	7.8	25.5	6.3	6.3	7.5	6.3	1.5	2.3	.4	3.0	1.6	82.3	64.7
All other.....	11.2	5.6	4.6	26.9	16.5	17.3	9.8	5.1	7.4	5.6	4.3	6.6	10.4	106.8	87.2
Airfields.....	4.6	3.8	2.7	18.3	9.7	17.9	16.2	10.6	22.3	5.9	7.0	11.9	14.1	152.9	103.9
Conservation and development.....	48.0	6.3	8.7	28.3	26.8	12.4	12.2	20.8	6.1	19.2	16.0	32.2	23.8	199.7	225.5
Highway.....	6.0	4.8	4.5	9.7	4.8	5.4	6.0	2.9	2.8	6.7	2.8	6.0	6.4	62.4	52.9
Electric power utilities.....	.6	1.8	(³)	3.3	5.6	3.2	4.3	3.1	1.3	15.6	1.4	3.6	5.0	66.7	156.8
All other federally owned.....	1.4	3.2	.7	11.4	5.2	4.3	3.0	2.5	5.2	6.4	2.7	1.1	3.6	57.7	74.9
State and locally owned.....	611.3	662.9	661.7	775.8	696.5	658.3	636.1	428.8	439.1	641.2	473.3	597.8	614.4	6,886.7	6,316.6
Residential building.....	17.7	27.5	18.1	19.4	27.2	14.5	16.5	16.6	7.9	9.8	12.1	10.1	28.7	254.6	331.5
Nonresidential building.....	208.2	219.0	284.9	262.1	251.7	246.6	260.7	183.9	224.3	246.7	203.6	225.7	261.4	2,869.4	2,258.7
Educational.....	159.7	146.2	215.7	182.8	186.2	199.7	206.0	137.6	132.1	172.8	153.0	165.6	177.8	2,077.9	1,629.3
Hospital and institutional.....	16.9	14.0	15.5	19.4	26.9	15.7	10.6	12.2	20.3	21.8	16.1	14.7	22.5	245.1	237.3
Administrative and general.....	13.2	35.5	22.5	27.7	18.2	14.0	24.5	15.1	23.0	14.8	12.9	23.0	39.2	253.5	147.8
Other nonresidential building.....	18.4	23.3	31.2	32.2	20.4	17.2	19.6	19.0	43.9	37.3	21.6	22.4	21.9	292.9	244.3
Highway.....	242.1	282.0	255.8	349.7	238.8	268.7	248.3	161.0	121.4	270.2	179.7	244.0	240.9	2,684.6	2,632.8
Sewerage systems.....	65.8	43.2	38.7	49.1	37.4	46.3	44.0	28.1	35.8	33.3	29.3	64.3	37.1	472.7	469.4
Water supply facilities.....	37.0	39.4	26.5	27.3	27.1	26.8	28.2	24.0	27.6	28.9	23.7	26.7	25.5	292.7	282.7
Utilities.....	24.2	40.3	28.0	57.5	102.3	43.8	29.0	8.2	12.7	42.4	15.8	10.5	12.4	197.4	185.3
Electric power.....	9.7	21.1	4.7	36.7	85.0	34.2	2.0	3.9	4.3	27.4	11.6	3.4	3.3	105.3	72.4
Other utilities.....	14.5	19.2	23.3	20.8	17.3	9.6	27.0	4.3	8.4	15.0	4.2	7.1	9.1	92.1	112.9
All other State and locally owned.....	16.3	11.5	9.7	10.7	12.0	11.6	9.4	7.0	9.4	9.9	9.1	16.5	8.4	115.3	126.2

¹ Prepared jointly by the Bureau of Labor Statistics, U. S. Department of Labor and the Business and Defense Services Administration, U. S. Department of Commerce. Includes major force account projects started, principally by TVA and State highway departments.

² Types not shown separately are included in the appropriate "other" category.

³ Less than \$50,000.

TABLE F-3: Building permit activity: Valuation, by private-public ownership, class of construction, and type of building ¹

Class of construction, ownership, and type of building	Valuation (in millions)									
	1955									1954
	Sept.	Aug. ²	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Annual total
All building construction.....	\$1,632.6	\$1,795.1	\$1,653.4	\$1,965.1	\$1,867.1	\$1,841.1	\$1,788.6	\$1,223.1	\$1,126.8	\$16,464.9
Private.....	1,514.6	1,632.2	1,534.7	1,765.4	1,716.4	1,711.1	1,638.8	1,102.9	1,038.7	14,806.8
Public.....	118.1	162.9	118.7	199.7	150.7	130.0	149.8	120.2	88.1	1,658.2
New residential building.....	1,010.3	1,119.9	1,024.5	1,189.4	1,219.1	1,217.4	1,154.0	757.5	711.5	9,990.7
New dwelling units (housekeeping only).....	999.3	1,102.7	1,016.4	1,168.3	1,209.1	1,200.6	1,136.1	743.2	702.6	9,854.5
Privately owned.....	990.3	1,084.5	1,007.5	1,150.1	1,184.0	1,193.5	1,127.9	723.9	699.9	9,695.2
1-family.....	928.2	1,017.5	954.2	1,082.8	1,102.6	1,124.9	1,034.7	673.4	647.9	8,918.3
2-family.....	15.3	18.6	16.8	20.0	20.8	21.7	26.1	15.0	12.8	210.7
3- and 4-family.....	6.9	6.1	6.5	8.2	9.1	9.4	8.3	6.5	6.2	87.6
5-or-more family.....	39.9	42.3	30.1	39.2	51.5	37.5	58.8	29.0	33.0	478.7
Publicly owned.....	9.0	18.2	8.9	18.1	25.1	7.1	8.2	19.3	2.7	159.2
Nonhousekeeping buildings.....	10.9	17.1	8.1	21.1	10.0	16.7	17.9	14.3	8.9	136.2
New nonresidential building.....	477.7	525.8	478.1	595.4	477.8	477.5	489.2	365.1	320.4	5,005.8
Commercial buildings.....	149.4	195.4	178.5	197.2	168.1	156.2	146.9	122.9	106.8	1,591.5
Amusement buildings.....	6.7	7.5	9.8	10.3	12.3	10.2	6.0	12.6	6.2	97.6
Commercial garages.....	5.7	8.5	5.8	5.7	10.9	4.1	3.0	2.7	5.0	60.1
Gasoline and service stations.....	12.7	14.5	11.3	13.4	13.3	13.5	12.2	8.5	8.8	119.9
Office buildings.....	43.1	52.1	61.2	67.7	36.0	44.7	39.2	31.7	29.8	454.6
Stores and other mercantile buildings.....	81.2	112.8	90.4	100.2	95.5	83.7	86.5	67.5	57.1	859.3
Community buildings.....	171.3	172.7	153.6	212.4	174.0	164.8	184.9	130.2	121.3	1,870.5
Educational buildings.....	108.7	106.1	97.4	113.4	115.3	108.4	127.3	85.2	77.4	1,173.6
Institutional buildings.....	30.2	26.3	18.0	49.2	23.9	20.3	25.4	22.9	21.7	335.5
Religious buildings.....	32.3	40.4	38.2	49.8	34.8	36.0	32.2	22.2	22.2	361.5
Garages, private residential.....	23.7	20.9	18.9	20.8	20.4	19.7	13.1	5.5	5.8	166.4
Industrial buildings.....	77.7	68.4	66.7	85.5	65.7	65.8	74.0	49.8	44.7	662.3
Public buildings.....	13.6	29.7	23.9	37.3	18.6	24.9	26.4	16.2	16.6	304.6
Public utilities buildings.....	24.7	23.4	20.3	22.5	15.0	31.5	24.4	28.5	13.2	209.4
All other nonresidential buildings.....	17.3	15.2	16.2	19.7	15.9	14.6	19.5	11.9	11.9	201.1
Additions, alterations, and repairs.....	144.7	149.4	150.8	180.3	170.3	146.3	145.4	100.5	94.9	1,468.4

¹ These statistics on building construction authorized by local building permits measure building activity in all localities having building-permit systems—rural nonfarm as well as urban. Such localities (over 7,000) include about 80 percent of the nonfarm population of the country, according to the 1950 Census. The data cover both federally and nonfederally owned projects. Figures on the amount of construction contracts awarded for Federal projects and for public housing (Federal, State, and local) in permit-issuing places are added to the valuation data (estimated cost entered by builders on building-permit applications) for privately owned projects;

construction undertaken by State and local governments is reported by local officials. No adjustment has been made in the building-permit data to reflect the fact that permit valuations generally understate the actual cost of construction, nor for lapsed permits or the lag between permit issuance or contract-award dates and start of construction. Therefore, they should not be considered as representing the volume of building construction started. Components may not always equal totals because of rounding.

² Revised.

TABLE F-4: Building permit activity: Valuation, by class of construction and geographic region ¹

Class of construction and geographic region	Valuation (in millions)									
	1955									1954
	Sept.	Aug. ²	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Annual total
All building construction ²	\$1,632.6	\$1,795.1	\$1,653.4	\$1,965.1	\$1,867.1	\$1,841.1	\$1,788.6	\$1,223.1	\$1,126.8	\$16,464.9
Northeast.....	356.5	340.6	377.1	458.0	412.5	405.3	386.1	220.8	250.1	3,657.1
North Central.....	559.4	607.2	509.4	626.9	589.0	590.9	501.4	312.8	238.6	4,834.3
South.....	367.6	420.7	381.5	463.7	434.4	414.4	460.0	379.1	341.1	4,133.0
West.....	349.2	426.5	385.4	416.5	431.3	430.5	441.0	310.4	296.9	3,840.4
New dwelling units (housekeeping only).....	999.3	1,102.7	1,016.4	1,168.3	1,209.1	1,200.6	1,136.1	743.2	702.6	9,854.5
Northeast.....	210.7	224.4	237.2	276.2	271.4	263.1	244.9	124.6	141.8	2,157.1
North Central.....	349.0	376.0	315.4	380.6	397.5	384.5	314.1	182.3	142.4	2,905.8
South.....	212.9	238.2	214.1	256.7	263.5	255.6	281.8	227.0	206.3	2,340.3
West.....	226.8	264.2	249.7	254.9	276.7	297.5	295.3	209.3	212.0	2,451.2
New nonresidential buildings.....	477.7	525.8	478.1	595.4	477.8	477.5	489.2	365.1	320.4	5,005.8
Northeast.....	112.3	82.6	106.7	132.9	102.4	106.9	106.2	73.4	86.9	1,145.5
North Central.....	164.7	186.9	145.8	192.6	141.3	163.9	142.9	107.6	74.4	1,489.2
South.....	114.8	132.5	124.0	151.3	124.4	110.1	133.6	113.7	101.1	1,363.1
West.....	85.9	123.8	101.6	118.6	109.7	96.6	106.5	70.5	58.0	1,007.9
Additions, alterations, and repairs.....	144.7	149.4	150.8	180.3	170.3	146.3	145.4	100.5	94.9	1,468.4
Northeast.....	32.6	30.1	32.0	40.9	37.0	33.6	32.8	20.4	19.6	335.9
North Central.....	41.9	41.3	46.0	51.2	48.3	39.3	42.7	22.1	20.6	404.0
South.....	35.5	41.7	40.7	49.3	43.7	39.2	36.9	32.3	31.8	391.2
West.....	34.6	36.3	32.1	38.9	41.3	34.2	33.0	25.6	22.9	337.3

¹ See table F-3, footnote 1.

² Revised.

³ Includes new nonhousekeeping residential building, not shown separately.

TABLE F-5: Building permit activity: Valuation, by metropolitan-nonmetropolitan location and State¹

State and location	Valuation (in millions)									
	1955								1954	
	Aug.	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Annual total
All States.....	\$1,795.1	\$1,653.4	\$1,965.1	\$1,867.1	\$1,841.1	\$1,788.6	\$1,223.1	\$1,126.8	\$1,226.7	\$16,464.9
Metropolitan areas ³	1,434.4	1,322.4	1,578.7	1,481.3	1,464.8	1,434.6	993.7	926.1	1,010.2	13,161.1
Nonmetropolitan areas.....	360.7	331.0	386.4	385.8	376.3	354.0	229.4	200.7	216.5	3,303.8
Alabama.....	13.6	13.4	16.2	15.1	14.3	15.4	14.3	9.9	7.8	135.8
Arizona.....	15.8	11.2	13.3	14.2	15.1	17.2	15.4	12.1	12.5	145.1
Arkansas.....	6.4	4.0	4.4	4.0	6.5	5.2	4.2	4.1	6.1	77.4
California.....	296.6	263.8	283.8	289.7	304.6	308.4	209.9	206.3	222.9	2,571.0
Colorado.....	24.4	27.9	24.1	25.8	26.1	25.9	18.0	23.1	24.2	245.3
Connecticut.....	30.6	31.3	36.8	38.3	39.7	37.8	17.3	17.1	21.4	320.4
Delaware.....	3.6	8.1	6.2	5.3	7.1	6.9	2.3	2.9	1.5	49.6
District of Columbia.....	3.3	4.9	15.0	5.4	2.7	10.0	5.0	2.3	9.5	72.7
Florida.....	76.8	56.8	69.5	59.5	60.9	71.3	61.2	57.2	56.7	649.7
Georgia.....	28.6	28.8	23.7	22.6	19.7	23.6	23.7	24.7	20.1	267.8
Idaho.....	3.2	3.0	4.0	4.0	4.1	3.2	1.7	.7	1.4	30.5
Illinois.....	137.7	109.2	127.7	146.5	131.8	118.6	63.0	49.8	70.2	985.9
Indiana.....	29.7	38.2	38.9	40.4	31.4	39.7	19.8	18.2	20.0	340.8
Iowa.....	16.9	16.2	23.2	18.9	19.4	22.0	5.9	5.5	7.8	141.3
Kansas.....	13.7	12.9	34.1	14.7	17.9	18.1	14.3	9.5	13.8	168.8
Kentucky.....	22.8	17.5	17.7	17.0	15.7	13.4	8.4	10.7	6.6	170.7
Louisiana.....	25.4	19.9	28.6	25.7	25.7	24.5	34.6	27.1	16.3	216.8
Maine.....	2.9	2.4	2.7	2.4	2.9	2.6	1.7	.5	4.7	30.2
Maryland.....	41.3	39.2	62.5	52.3	48.3	40.9	42.3	35.3	30.9	402.5
Massachusetts.....	35.9	46.9	47.1	45.3	42.8	45.2	24.3	20.4	27.7	391.8
Michigan.....	124.3	101.1	117.5	111.3	115.9	92.2	62.2	54.8	69.7	1,007.8
Minnesota.....	45.9	33.7	50.3	44.3	51.7	32.4	16.1	12.8	25.0	358.1
Mississippi.....	4.3	4.0	6.3	4.7	3.6	5.4	4.7	3.3	7.7	62.4
Missouri.....	33.7	30.5	34.9	23.4	33.0	30.9	28.1	19.0	23.5	304.6
Montana.....	4.8	4.8	3.1	6.3	4.4	2.9	.8	1.3	2.9	39.7
Nebraska.....	7.7	7.2	10.6	11.5	19.0	9.8	2.7	3.2	4.5	77.8
Nevada.....	3.8	6.0	7.7	8.3	5.3	7.2	7.5	6.2	8.7	82.0
New Hampshire.....	6.7	6.3	3.4	3.6	5.0	4.2	.8	.9	4.4	27.6
New Jersey.....	64.7	85.2	82.3	79.6	83.1	78.8	44.3	48.9	49.4	686.3
New Mexico.....	7.6	5.9	9.1	8.6	10.3	8.4	5.8	6.8	3.7	72.3
New York.....	116.3	121.6	172.4	154.8	148.6	126.9	81.0	98.4	101.8	1,412.8
North Carolina.....	18.8	18.8	18.8	21.2	18.6	26.0	19.7	15.8	12.9	181.6
North Dakota.....	3.5	3.2	6.1	4.8	5.8	1.2	.3	.3	1.1	29.8
Ohio.....	146.0	111.1	132.6	121.6	116.0	101.0	64.2	50.1	65.8	985.1
Oklahoma.....	14.9	12.9	14.2	12.1	20.1	17.4	11.9	10.4	8.8	137.4
Oregon.....	17.2	16.2	15.9	18.9	14.2	13.4	13.3	8.3	9.7	151.0
Pennsylvania.....	77.6	76.6	107.5	82.7	77.1	85.6	49.3	60.4	44.1	734.3
Rhode Island.....	3.9	3.7	5.4	4.5	5.2	4.3	1.9	3.4	2.1	44.5
South Carolina.....	7.0	6.7	6.4	8.2	6.7	18.7	6.0	6.1	5.9	67.3
South Dakota.....	4.3	4.4	3.5	4.2	5.2	2.6	1.0	1.1	1.8	32.7
Tennessee.....	22.6	20.5	21.9	20.3	21.7	19.0	14.3	18.9	13.2	209.9
Texas.....	87.5	88.1	89.8	97.9	91.6	107.9	90.0	83.8	87.5	946.4
Utah.....	15.0	9.3	16.8	12.9	11.5	14.6	4.2	3.1	4.9	105.1
Vermont.....	2.0	3.2	.6	1.3	.9	.8	.2	.2	.8	9.3
Virginia.....	38.3	32.5	54.9	51.2	45.3	49.1	33.7	26.6	25.9	420.1
Washington.....	36.1	34.3	36.9	40.3	33.4	38.4	33.3	27.9	31.2	375.3
West Virginia.....	5.4	5.4	7.5	12.1	5.8	5.4	2.7	2.1	2.6	65.1
Wisconsin.....	43.9	41.5	47.5	47.3	43.8	33.1	35.2	14.2	23.0	401.6
Wyoming.....	2.0	2.9	1.8	2.2	1.6	1.6	.9	1.1	1.8	23.2

¹ See table F-3, footnote 1.² Revised.³ Comprised of 168 Standard Metropolitan Areas used in 1950 Census.

TABLE F-6: Number of new permanent nonfarm dwelling units started, by ownership and location, and construction cost¹

Period	Number of new dwelling units started									Estimated construction cost (in thousands) ²		
	Total	Privately owned	Publicly owned	Location ³					Total	Privately owned	Publicly owned	
				Metropolitan places	Nonmetropolitan places	North-east	North Central	South				West
1950 ⁴	1,396,000	1,352,200	43,800	1,021,600	374,400	(2)	(2)	(2)	(2)	\$11,788,595	\$11,418,371	\$370,224
1951	1,091,300	1,020,100	71,200	776,800	314,500	(2)	(2)	(2)	(2)	9,800,892	9,186,123	614,769
1952	1,127,000	1,068,500	58,500	794,900	332,100	(2)	(2)	(2)	(2)	10,208,983	9,706,276	502,707
1953	1,103,800	1,068,300	35,500	803,500	300,300	(2)	(2)	(2)	(2)	10,488,003	10,181,185	306,818
1954	1,220,400	1,201,700	18,700	896,900	323,500	243,100	325,800	359,700	291,800	12,478,237	12,309,200	169,037
1953: First quarter	257,100	238,100	19,000	184,400	72,700					2,346,213	2,183,710	162,503
January	72,100	68,200	3,900	51,300	20,800	(2)	(2)	(2)	(2)	641,703	610,344	31,359
February	79,200	73,800	5,400	56,300	22,900	(2)	(2)	(2)	(2)	720,234	674,399	45,835
March	105,800	96,100	9,700	76,800	29,000	(2)	(2)	(2)	(2)	984,276	898,967	85,309
Second quarter	324,300	315,000	9,300	238,100	86,200					3,083,256	3,000,120	83,136
April	111,400	107,400	4,000	80,400	31,000	(2)	(2)	(2)	(2)	1,057,899	1,022,836	35,063
May	108,300	105,600	2,700	81,100	27,200	(2)	(2)	(2)	(2)	1,027,221	1,001,693	25,528
June	104,600	102,000	2,600	76,600	28,000	(2)	(2)	(2)	(2)	998,136	975,591	22,545
Third quarter	285,000	280,700	4,300	207,800	77,200					2,777,607	2,739,268	38,339
July	96,700	96,400	300	71,500	25,200	(2)	(2)	(2)	(2)	941,943	938,871	3,072
August	93,200	92,200	1,000	67,300	25,900	(2)	(2)	(2)	(2)	911,681	902,501	9,180
September	95,100	92,100	3,000	69,000	26,100	(2)	(2)	(2)	(2)	923,983	897,896	26,087
Fourth quarter	237,400	234,500	2,900	173,200	64,200					2,280,927	2,258,087	22,840
October	90,100	90,100	(2)	63,800	26,300	(2)	(2)	(2)	(2)	883,455	882,838	617
November	81,500	79,900	1,600	59,500	22,000	(2)	(2)	(2)	(2)	777,479	764,774	12,705
December	65,800	64,500	1,300	49,900	15,900	(2)	(2)	(2)	(2)	619,993	610,475	9,518
1954: First quarter	236,800	232,200	4,600	174,300	62,500	47,400	52,700	77,600	59,100	2,240,448	2,199,446	41,002
January	66,400	65,100	1,300	49,700	16,700	13,000	13,300	22,500	17,600	618,313	605,951	12,362
February	75,200	73,900	1,300	53,500	21,700	13,300	16,200	26,100	19,600	701,934	690,760	11,174
March	95,200	93,200	2,000	71,100	24,100	21,100	23,200	29,000	21,900	920,201	902,735	17,466
Second quarter	332,700	326,500	6,200	244,000	88,700	67,300	98,400	90,900	76,100	3,454,571	3,398,998	55,573
April	107,700	106,500	1,200	79,400	28,300	21,700	31,100	29,300	25,600	1,106,809	1,095,557	11,252
May	108,500	107,400	1,100	77,100	31,400	21,600	32,900	30,000	24,000	1,137,562	1,128,751	8,811
June	116,500	112,600	3,900	87,500	29,000	24,000	34,400	31,600	26,500	1,210,200	1,174,590	35,610
Third quarter	346,000	339,300	6,700	252,800	93,200	72,500	97,800	99,900	75,800	3,590,366	3,528,471	61,895
July	116,000	112,900	3,100	87,600	28,500	25,300	33,300	32,200	25,200	1,213,311	1,182,830	30,481
August	114,300	113,000	1,300	82,600	31,700	24,800	32,600	31,700	25,200	1,186,019	1,175,766	10,253
September	115,700	113,400	2,300	82,700	33,000	22,400	31,900	36,000	25,400	1,191,036	1,169,875	21,161
Fourth quarter	304,900	303,700	1,200	225,800	79,100	55,900	76,900	91,300	80,800	3,192,852	3,182,385	10,467
October	110,700	110,500	200	80,400	30,300	21,600	30,100	31,800	27,200	1,160,300	1,158,338	1,962
November	103,600	103,300	300	75,700	27,900	19,000	26,800	31,500	26,300	1,083,449	1,080,578	2,871
December	90,600	89,900	700	69,700	20,900	15,300	20,000	28,000	27,300	949,103	943,469	5,634
1955: First quarter	291,300	288,000	3,300	221,800	69,500	53,100	63,400	95,900	78,900	3,076,198	3,043,959	32,239
January	87,600	87,300	300	68,100	19,500	16,000	15,600	30,600	25,400	892,794	890,092	2,702
February	89,900	87,900	2,000	66,900	23,000	13,500	19,700	32,400	24,300	954,570	934,585	19,985
March	113,800	112,800	1,000	86,800	27,000	23,600	28,100	32,900	29,200	1,228,834	1,219,282	9,552
Second quarter	404,400	397,000	7,400	295,400	109,000	89,700	116,600	109,600	88,500	4,416,285	4,349,159	67,126
April	132,000	130,500	1,500	96,800	35,200	28,600	37,300	35,700	30,400	1,434,395	1,421,309	13,086
May	137,600	135,100	2,500	99,700	37,900	30,300	40,000	37,400	29,900	1,502,901	1,479,773	23,128
June	134,800	131,400	3,400	98,900	35,900	30,800	39,300	36,500	28,200	1,478,989	1,448,077	30,912
Third quarter	358,600	355,300	3,300	259,800	98,800					3,926,860	3,894,982	31,878
July ⁷	122,600	121,900	700	88,300	34,300	27,000	35,600	32,700	27,300	1,372,150	1,363,092	9,058
August ⁸	123,000	121,700	1,300	90,600	32,400	(2)	(2)	(2)	(2)	1,325,162	1,314,360	10,802
September ⁸	113,000	111,700	1,300	80,900	32,100	(2)	(2)	(2)	(2)	1,229,548	1,217,530	12,018
Fourth quarter												
October ⁸	107,000	106,600	400	77,200	29,800	(2)	(2)	(2)	(2)	1,198,452	1,193,920	4,532

¹ The data shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing, if permanent.

These estimates are based on (1) monthly building-permit reports (adjusted for lapsed permits and for lag between permit issuance and the start of construction), (2) continuous field surveys in nonpermit-issuing places, and (3) reports of public construction contract awards.

Beginning with January 1954 data, the estimating techniques for the privately owned segment of the housing starts series were revised to combine (1) a monthly reporting system expanded to include almost all building-permit-issuing localities (accounting for nearly 80 percent of total nonfarm population), with (2) a newly designed sample of counties that permits more efficient operations and a greater degree of accuracy than previously. The new series is continuous with statistics for earlier dates except that the urban and rural-nonfarm distribution shown previously is replaced by metropolitan-nonmetropolitan and regional estimates. Data on type of structure (1-family versus rental-type structures) are continued from the old to the new series, and are available on request.

The error in the total private nonfarm estimate due to sampling in the

nonpermit segment is such that for an estimate of 100,000 starts the chances are 19 out of 20 that a complete enumeration of all nonpermit areas would result in a total private nonfarm figure between 98,000 and 102,000. For metropolitan-nonmetropolitan or regional components, the relative error is somewhat larger.

² Data by urban and rural-nonfarm classification for periods before January 1954 are available upon request. Annual metropolitan-nonmetropolitan location data not available before 1950; monthly figures not available before 1953; regional data not available before January 1954.

³ Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

⁴ Housing peak year.

⁵ Less than 50 units.

⁶ Preliminary.

⁷ Revised.

⁸ Not yet available.

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