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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

HUGH S. HANNA, EDITOR

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Early in 1942 the Bureau of Labor Statistics made a survey in the Bridgeport, Conn., defense area to learn to what extent the new privately financed dwelling units were filling the housing needs of war-industry workers. Subsequently, a similar survey was made of the dwelling units vacated by the occupants of the newly built homes and it was found that these so-called "secondary" units were housing proportionately more households of war workers than were the new homes. The cumulative effect of the series of moves resulting from the construction of 100 new homes was additional housing for 55 households with war workers—9 in the new units themselves, 16 in the secondary units, 11 in the tertiary units, and 19 in the series of subsequent units. Page 206.

War and the increase in Federal employment.

An increase in Federal civilian employment from about 1 million in June 1940 to over 2 million in May 1942 was due almost entirely to the new war activities. Of every 100 new civilian positions 57 were in the War Department and 28 in the Navy Department. For every 10 employees placed in positions created after the United States entered the war, it was necessary to hire 18 people, the other 8 being appointed to replace persons retiring or leaving Federal employment for military service or to enter private employment. Page 217.

Effect of war on college enrollment.

The war is causing decreased enrollment of students in the colleges and universities of the United States and is also necessitating changes in curriculums to adjust them to wartime needs. The decline in enrollment for the 1941–42 academic year averaged about 10 percent and a very much greater decline is anticipated for 1942–43. Thus, one New Jersey university reported that 40 percent of the senior class alone had already been accepted by some branch of the armed services. In general the medical and engineering schools were less affected than the law and liberal arts schools. Page 250.

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Straight-time earnings of workers engaged in the primary fabrication of nonferrous metals in August 1941 averaged 79.5 cents per hour. This average was somewhat higher than average earnings in the mining and milling of these metals (74.5 cents) and compared with 79.8 cents in smelting and 78.3 cents in refining. Plants engaging in the alloying, rolling, and drawing of copper, brass, and bronze employed large numbers of skilled workers and paid the highest wages in the industry, averaging 88.7 cents per hour. Page 314.

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The principal health hazards revealed by a survey of the health and working conditions of workers in three nonferrous-metal mines in Utah were exposure to various types of dust, especially silica and lead. Workers at the face, principally

miners and muckers, were exposed to the heaviest dust concentrations. The medical study covered 785 persons, a detailed analysis being made of the findings for 727 workers whose entire working experience in a dusty trade had been in metal mines. Among these workers there were 66 cases diagnosed as first and second stage silicosis, and 42 as border-line cases. The incidence of silicosis increased with the years of exposure, no case being found among workers with less than 5 years' exposure, while there were 52 cases among workers with exposures ranging from 15 to 25 years and over. Acute attacks of lead intoxication were reported for 102 of the 727 metal-mine employees. Page 259.

Disabling sickness among industrial workers.

An increase in the disability rate for sickness and nonindustrial injuries among more than 200,000 male members of industrial sick-benefit associations, group-insurance plans, and company-relief departments was reported in 1941 in a continuing study of the disability experience of these organizations. The rate—101.8 cases per 1,000—was the highest recorded in the 10-year period, 1932–1941. The corresponding rate for 1940 was 96.7. During the fourth quarter of 1941 there was a 35-percent increase in bronchitis as compared with the same quarter in 1940, a 20-percent increase in diseases of the stomach, except cancer, and about a 15-percent increase in appendicitis. The rates for these three causes were the highest recorded for this quarter during the past 10 years. Page 262.

Meaning of Bureau of Labor Statistics cost-of-living index.

There is considerable interest in the meaning and significance of the Bureau of Labor Statistics cost-of-living index. This index measures the degree of change in the cost of living of families of wage earners and lower-salaried workers in urban communities of the United States. It cannot be used to measure the differences in cost of living between communities. Page 268.

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FOR AUGUST 1942

POTENTIAL WAR WORKERS IN AN URBAN AREA

By DALE YODER and HERBERT G. HENEMAN, Jr., *University of Minnesota*

THE Employment Stabilization Research Institute of the University of Minnesota, as a part of a study undertaken to design, test, and demonstrate techniques which can provide more accurate, timely, and extensive labor-market data than have been generally available, has maintained a monthly survey of employment and related conditions in St. Paul, Minn. The survey makes use of a sampling technique whereby information is secured directly from residents of the city. Included in information for the month of March 1942 are data indicating the nature and extent of the potential labor reserve that is available for service in special war industries. That reserve includes only persons not employed nor seeking work, but who are willing and, in their opinions, able to accept such emergency employment. Since St. Paul is in many respects representative of urban areas throughout the United States, information on the size and composition of this labor reserve may have more than local significance.

In March 1942, the population of St. Paul was 294,117, and the total resident labor force amounted to 120,251. Of this number, 111,601 persons were employed, while 8,650 were not working. Of those not working, 7,327 were seeking employment, 300 of them because former employers were unable to obtain materials on account of the war. So-called "priorities unemployment" amounted to approximately 3.5 percent of total unemployment. The employment status as of March 1942 is summarized in table 1.

TABLE 1.—*Population and Labor Force in St. Paul, Minn., March 1942* [1]

Status of labor force	Total	Males	Females
Total population	294,117	139,896	154,221
Total population 14 and over	235,928	112,099	123,829
Total resident labor force	120,251	81,210	39,041
Working during month	111,601	75,409	36,192
Private industry—full time or more	90,344	62,220	28,124
Private industry—part time	8,548	4,579	3,969
Seeking more work	1,119	814	305
Not seeking more work	7,429	3,765	3,664
Government, nonemergency employment	10,165	6,778	3,387
Government, emergency program	2,544	1,832	712
Not working during the month	8,650	5,801	2,849
Not working, has job	1,323	916	407
Not working, seeking job	7,327	4,885	2,442
Not in labor force	115,677	30,889	84,788
In military service	6,615	6,615	0
Not working, not seeking job	109,062	24,274	84,788

[1] All figures below 3,000 are based on relatively small numbers and should be interpreted with caution.

In addition to the employed and unemployed in the normal labor force, there were 25,800 persons available and willing to accept employment to advance the national interest in the war effort. The total labor force of the community was thus approximately 146,000, and the reserve in March was about 21 percent of the normal labor force.

The 25,800 persons in the labor reserve included 5,100 men and 20,700 women. Of the women, 4,900 would be available for employment only if day nurseries were provided to care for dependent children. Some 15,800 women and all the men represent a reserve that could be tapped at once. Sex and age distributions of this immediately available group are shown in table 2, which indicates that, of those who could be called at once, 24.4 percent were males, while 75.6 percent were females. It is notable that one-third of the total was to be found in the 45–64 year age group, although only 12 percent of the males in the reserve were in this group, which included 41 percent of the women. For men, the greatest concentration was in the 14–19 year age group, which included approximately 60 percent of the males. In the case of women who would become available if nursery facilities were provided, there was great concentration in the 25–44 year age group.

TABLE 2.—*Sex and Age Distribution of Labor Reserve Immediately Available in St. Paul, Minn., March 1942*

Age group	Both sexes		Males		Females	
	Number	Percent	Number	Percent	Number	Percent
All groups	20,900	100	5,100	100	15,800	100
14–19 years	5,100	24	3,000	59	2,100	13
20–24 years [1]	1,600	8	600	12	1,000	6
25–44 years	5,800	28	200	4	5,600	36
45–64 years	7,000	33	600	12	6,400	41
65 years and over [1]	1,400	7	700	13	700	4

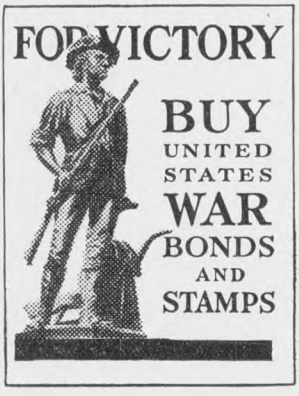
[1] Based on relatively small numbers; should be interpreted with caution.

The method of the sampling survey does not provide an objective appraisal of the interests and aptitudes of those who make up this labor reserve. Inquiry was made, however, and interviewers sought to discover what types of work the members of the potential reserve consider themselves best qualified to perform. Approximately 23 percent of the whole group reported that their training and experience had prepared them for clerical work, while 22 percent indicated that they were best qualified for operative positions in factories. Some 8,300 persons, however, were unable to specify any particular type of work for which they were especially qualified. In general, the men regarded themselves as best prepared for semiskilled factory work, while the women showed greater proportions of clerical workers. It is notable, however, that one-third of both men and women were willing to accept employment at any type of work that might contribute to the war effort. The classification of this labor reserve, according to its occupational preference, is shown in table 3.

TABLE 3.—*Labor Reserve in St. Paul, Minn., by Sex and Occupation Group, March 1942*

Occupation group	Both sexes		Males		Females [1]	
	Number	Percent	Number	Percent	Number	Percent
All groups	25,800	100	5,100	100	20,700	100
Professional	2,400	9	300	6	2,100	10
Clerical	6,000	23	200	4	5,800	28
Operatives	5,700	22	1,200	24	4,500	22
Couldn't specify	8,300	33	2,000	39	6,300	30
All others	3,400	13	1,400	27	2,000	10

[1] Includes those who would be willing to work if nurseries were provided.



OCCUPANCY OF OLD AND NEW HOMES BY BRIDGEPORT WAR WORKERS [1]

Summary

EARLY in 1942 the Bureau of Labor Statistics made a survey in the Bridgeport, Conn., defense area to learn to what extent the new privately financed dwelling units were filling the housing needs of workers in Bridgeport's war industries. At that time it was recognized that the potential housing resources of war workers included the dwelling units vacated by occupants of the new homes. The Bureau therefore made a follow-up survey of the occupancy status of these vacated, or secondary, units in April 1942.

The secondary units were housing proportionately more households with workers in Bridgeport's war industries than were the new homes. In approximately half of the older units some member of the family or a roomer was employed in a plant manufacturing aircraft, aluminum or brass products, ordnance, steel, or machine tools. The comparable proportion in the new units was about 36 percent. This difference was accounted for chiefly by the relatively greater representation of trade and service occupations in the new homes.

Newcomers to Bridgeport moved into the secondary units to a greater extent than into the new homes. Families which had just arrived or had been living in Bridgeport less than 18 months were living in over 40 percent of the older homes and in only 28 percent of the new ones. About half of the households with war workers in the secondary units had moved to Bridgeport within the previous 18 months, as compared with a third of those in the new homes.

The outstanding difference in the occupancy of the secondary and new units was that 83 percent of the occupants of the former were renters as contrasted with only 13 percent of those in the new homes. One reason for this difference is that the older units were predominantly in 2-family houses or apartment buildings, whereas the great majority of the new units were single-family houses, very few of which had been built for rental.

Because of the small number of owner-occupied secondary units and the small number of new units which were rented, it is difficult to compare the purchase price and rents for the two groups. The most commonly reported rent for the secondary units was from $30 to $39, inclusive, about 29 percent of the units being in this range. For over a fourth of the secondary units the monthly rent was less than $30, but no new units were rented for less than $30.

In 5 of every 8 secondary units, the current occupants were paying higher rents than their predecessors for the same housing accommodations. In 2 cases out of 8, the rent was unchanged, and in 1 of every 8 it had been reduced. On the average, rents for all secondary units had been raised 8 percent; however, increases of more than 50 percent were reported.

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[1] This is the second of two articles prepared by Alexander C. Findlay of the Bureau's Division of Construction and Public Employment. The first article appeared in the May 1942 issue (p. 1073).

Household earnings were somewhat lower in the secondary units than in the new ones. The combined earnings of the head of the family and spouse, if the latter was working, were less than $2,500 for 60 percent of the families in the secondary units as contrasted with 56 percent in the new buildings. Almost 17 percent of the occupants of new dwellings reported annual earnings of $3,500 or more, but only 8 percent of the families in the secondary units were in this higher earnings bracket.

For the most part, it seemed that families in the secondary units had rents more in line with their earnings than was the case with renters in the new units. Twenty-five percent of the households in the secondary units, as compared with 40 percent of the families in the few new units which were rented, were spending at least 25 percent of their earnings for rent. For three-fifths of the families which had been renting a dwelling in Bridgeport, moving into the secondary unit resulted in an increase in their expenditures for rent.

It is estimated that before priorities for obtaining scarce building materials were applied to residential construction, it was necessary to build approximately 1.95 new privately financed units in order to provide housing for one household with war workers which had not previously had an unshared dwelling unit in Bridgeport.

In evaluating these facts it should be stressed that they are based on findings in a single critical housing area and it must not be assumed that they are typical of the situation in other areas.

Purpose and Scope of Study

In order to provide the Division of Defense Housing Coordination (now a part of the National Housing Agency) with a measure of the extent to which new homes constructed with private capital were being occupied by war workers, the Bureau of Labor Statistics in cooperation with the Work Projects Administration conducted a survey of the occupancy characteristics of a sample of new privately financed dwelling units in the Bridgeport, Conn. defense area (see May 1942 issue of the Monthly Labor Review).

It was recognized at that time that the dwelling units vacated by the families moving into the new homes would provide a secondary source of housing for war workers. At the request of the National Housing Agency it was therefore decided to make a follow-up survey of these "secondary units" to determine the current occupancy characteristics of the units vacated by families moving into the new homes in the Bridgeport area. It was subsequently decided to make a similar inquiry into the occupancy of the units vacated by the households moving into the secondary units, and a part of the information obtained on these so-called "tertiary units" has been incorporated in the estimates included in the final section of the present article.

Each of the 384 households living in the new dwelling units included in the initial survey supplied its previous address. From these were selected the addresses of all households reported as having previously had exclusive occupancy of another dwelling unit in the Bridgeport area. The elimination of newly formed families and of households having no previous residence in Bridgeport, or households moving into the new homes from hotels, rooms, or accommodations

shared with another family, left a net total of 281 households vacating secondary units in the Bridgeport area, i. e., the cities of Bridgeport and Shelton and the towns of Easton, Fairfield, Milford, Stratford, Trumbull, and Westport.[2] The omission of units shared with another family presumably left out a few potential units of housing for war workers from the secondary survey, but the number of such units is negligible.

Field agents called at each of these 281 addresses during the 4-week period ending April 18, 1942, to determine the current occupancy status of the secondary units. Since 14 units were vacant at the time of the survey, the number of secondary units for which occupancy data was sought was reduced to 267. The current occupants of these units, in turn, supplied addresses which resulted in a net total of 134 tertiary units in the Bridgeport area for which occupancy information was obtained.

Employment and Length of Residence of Occupants

Proportionately more of the secondary units housed workers in Bridgeport's war industries than was the case with the new privately financed units. Approximately half of the secondary units for which employment data were obtained were occupied by households with some member of the family or a roomer working in a war plant, that is, a plant manufacturing aircraft, aluminum, brass, ordnance, steel products, or machine tools.[3] The corresponding proportion in the new homes was about 36 percent.

About the same relative numbers of households in both groups of homes had members employed in other manufacturing industries in Bridgeport. The higher proportion of war workers in secondary than in new units was largely counterbalanced by a smaller group in trade and service occupations. Not only were there fewer households with members engaged in trade and service establishments in the secondary units, but within this group there was a much smaller representation of proprietors in the older units than in the new ones. The increased proportion of households with workers in manufacturing industries and the relatively greater numbers of salaried workers in trade and service establishments indicate that the secondary units were occupied by the wage-earning and salaried groups to a greater extent than were the new units.

More families which had just arrived in Bridgeport moved into the secondary units than into the new ones. Figures in table 1 show that in the older units almost one-fifth of the households reporting length of residence had just come to Bridgeport. The newcomers, together with families living in Bridgeport less than 18 months, represented

[2] About 3 percent of the 281 secondary units were outside the boundaries of the Bridgeport area, but were included in the survey because they were within reasonable commuting distance and could be regarded as a housing resource for Bridgeport workers.

[3] The industrial fields of employed members of the household were classified according to the product or services of the employers in the following groups: (1) Aircraft, aluminum, brass, ordnance, steel, and machine tools; (2) other metal manufacturing; (3) miscellaneous manufacturing; (4) trade and services; and (5) all other industrial fields. This classification was followed regardless of the type of work done by the workers. The listing of the groups represents a descending order of importance in war production. The first group was composed of industries known to be entirely or almost entirely engaged in war production. The second group had a less degree of war production, and so on. The classification would change with additional conversions to war production, but shifts from customary products to war orders during the period between the initial and secondary surveys were not sufficient to change the classification of any establishments. Each dwelling was given the highest industrial rating found among members of the household, which in many cases was not that of the head. Boarders and roomers were included, but their inclusion changed the household classification in only a negligible number of cases in both surveys.

more than two-fifths of all households in the older dwellings, as contrasted with only 28 percent in the new units. About half of the households in the secondary units with workers in war industries had moved to Bridgeport within the previous 18 months.

TABLE 1.—*Industrial Classification and Length of Residence of Occupants of New and Secondary Dwelling Units in Bridgeport Defense Area*

Type of unit, and length of residence of household	Number of households in specified industry groups						
	All households	War industries: Aircraft, aluminum, brass, ordnance, steel, machine tools	Other metal manufacturing	Miscellaneous manufacturing	Trade and services	All other industries	No employed person or unknown
Secondary units,[1] April 1942	267	131	50	22	24	23	17
No prior residence in area	49	24	7	7	6	3	2
Less than 6 months	16	9	1		2	3	1
6 and less than 18 months	42	25	5	5	5	1	1
18 months or more	136	66	31	10	10	14	5
Newly formed family	14	5	6		1	2	
Unknown	10	2					8
New privately financed units, February 1942	384	138	70	30	84	51	11
No prior residence in area	28	13	4	5	3	1	2
Less than 18 months	78	32	6	4	21	14	1
18 months or more	259	88	58	18	57	35	3
Newly formed family	11	3	2	2	3	1	
Unknown	8	2		1			5

[1] Units vacated by households moving into new privately financed units.

Homes Vacated and Change of Tenure

The most striking difference in the occupancy characteristics of the new and secondary units was that the new homes were predominantly owner-occupied, whereas the older units were rented. According to figures in table 2, 83 percent of the secondary units were rented, as compared with less than 13 percent in the new units.

One reason for the greater number of renters in the secondary units was that 70 percent of these units were in two-family houses, flats, or apartments, the majority of which must necessarily be rented. Only 14 percent of the new units, however, were in buildings housing two or more families, and the remainder were single-family units built primarily for immediate sale or on contract for the owner occupants rather than for long-term investments as rental units. More of the secondary units were situated in the city of Bridgeport itself, where apartments were more numerous than was the case with the new units; the latter included a high proportion of detached houses built in the suburban sections of the Bridgeport defense area.

Although home purchasers were in the minority in the secondary units, there was some tendency for families which had previously been renting homes in Bridgeport to buy the units vacated by families moving into the new units. Of the 45 owner-occupied secondary units, 29 had been purchased by families previously renting a house or apartment in Bridgeport. Nineteen of the owner-occupied secondary units had been purchased from the families moving into the new

units; the remaining 26 had been bought from landlords, which would indicate that the current demand for housing was being made the occasion for disposing of units formerly offered for rent. On the other hand, there were 13 secondary units which had formerly been owner-occupied but were currently rented.

In about four-sevenths of the cases, moving into the secondary units meant that the families had moved from another house or apartment which they had had to themselves in Bridgeport. About 18 percent of the households had moved from homes shared with relatives, from furnished rooms, or from hotels and other temporary accommodations. Among the occupants of the new units this proportion was only 15 percent. Also, as has already been mentioned, more of the secondary units were taken by families just moving into the Bridgeport area than was the case among the new units.

TABLE 2.—*Current Tenure and Previous Accommodations of Occupants of New and Secondary Dwelling Units in Bridgeport Defense Area*[1]

Type of unit, and current tenure	Number of households with specified previous housing accommodations in Bridgeport						
	All households	Dwelling unit unshared			Dwelling unit shared, room, hotel, or tourist cabin	No previous dwelling in area	Unknown
		Total	Owned	Rented			
Secondary units,[2] April 1942	267	149	16	133	47	63	8
Owner-occupied	45	39	10	29	3	3	
Rented	215	110	6	104	44	60	1
Unknown	7						7
New privately financed units, February 1942	384	[3] 277	35	241	55	43	9
Owner-occupied	330	[3] 254	33	220	44	28	4
Rented	48	23	2	21	10	15	
Unknown	6				1		5

[1] The figures represent adjustments made in reports on previous accommodations after visits had been made to vacated units.
[2] Units vacated by households moving into new privately financed units.
[3] Includes 1 unit for which previous tenure was unknown.

Size and Income of Households

The average dwelling, whether old or new, was housing a little more than 3 persons. This included roomers who were living with about 9 percent of the families in both groups of homes. The new and secondary units were also about the same size, having approximately 4.9 rooms per dwelling; and both had about 2 occupants for every 3 rooms. However, about 18 percent of the units, old and new, were housing 1 or more persons per room.

There were more employed persons per household in the secondary than in the new units, the averages being 1.48 and 1.33 workers, respectively. An even greater increase took place among workers in war-material plants, offset partially by a reduction in other workers; the average number of war workers increased 53 percent (from 0.43 war worker per new unit to 0.66 per secondary unit), as contrasted with an 11-percent increase in the average number of workers in all occupations. Since about the same proportion of families in both the old and new units reported roomers, it would appear that there were more supplementary earners among families in the secondary units than in the new ones.

The effect of the relatively greater number of supplementary earners in families living in the older units is reflected by the figures on earnings shown in table 3. When the earnings of only the head of the household and his wife (where the latter was working) were compared, it was found that in the secondary units over 60 percent of the families reporting had annual earnings of less than $2,500, as compared with 55 percent in the new units. However, when these earnings were combined with earnings of other members of the family and the income derived from renting rooms (but not the roomers' earnings), the median earnings were higher for the households in secondary than in new units. Also, there were relatively fewer households in the secondary units with earnings below $2,500 than in the new homes, the percentages being 48 and 50, respectively.

Greater differences appeared in the earnings of individual members than in the family earnings of the households in the new and secondary units. A few individuals in the new units reported earning $7,500 a year or more, but all individual earnings reported by occupants of the secondary units were below $7,500. The median earnings of employed individuals for whom such information was obtained were $2,124 in the new units and $1,944 in the secondary units, a difference of $180. The tendency for earnings of individuals in the secondary units to be lower than those in the new units was evident among workers in plants manufacturing war materials, in other metal-products factories, and in miscellaneous manufacturing plants, but the greatest difference was among those in trade and service occupations. The median individual earnings in trade and service establishments were $302 a year higher for persons living in the new units than in the older ones. Had all persons in this field reported their earnings, the difference probably would have been even greater because a relatively large number of proprietors and managers in the new homes were unwilling to reveal their earnings.

TABLE 3.—*Annual Earnings in Households Occupying New and Secondary Dwelling Units in Bridgeport Defense Area*

Annual earnings [1]	Number of individual workers		Number of households			
			Earnings of head and spouse only		Earnings of all family members plus income from rental of rooms	
	New units [2]	Secondary units [3]	New units [2]	Secondary units [3]	New units [2]	Secondary units [3]
Total	503	381	384	267	384	267
None			10	18	7	8
Under $1,500	92	79	19	18	17	15
$1,500–$1,999	93	99	51	49	47	33
$2,000–$2,499	133	84	109	66	101	58
$2,500–$2,999	56	42	46	42	41	45
$3,000–$3,499	28	21	45	27	46	31
$3,500–$3,999	18	3	34	8	38	10
$4,000–$4,999	5	2	12	6	20	16
$5,000–$7,499	7	3	7	4	13	12
$7,500–$9,999	1		1		3	3
$10,000 or more	2		2		2	
Unknown	68	48	48	29	49	36

[1] Earnings of roomers and boarders not included. Pensions and income from investments not included.
[2] Annual earnings as reported in February 1942.
[3] Units vacated by households moving into new privately financed units. Annual earnings as reported in April 1942.

For occupants of both old and new units the annual earnings were based on the earning rates prevailing in the spring of 1942. For industrial workers, particularly, the earnings reflect intensive war production schedules, considerable overtime, and a minimum of lost time. Furthermore, the families would probably have had fewer supplementary earners were it not for the demand for workers in Bridgeport's war industries. The earnings in Bridgeport as reported in the spring of 1942 in many cases are probably higher, therefore, than the families can hope to maintain after the war emergency has passed. This factor, coupled with uncertainty regarding the permanency of residence within the area, undoubtedly influenced many in their choice of housing accommodations available on a rental basis. It must be taken into account in any long-term consideration of earnings in relation to the purchase prices of owner-occupied houses.

Cost of Dwellings

Since comparatively few of the single-family houses among the secondary units were owner-occupied, any comparisons between the selling prices of the old and new units are of limited significance. The median purchase price for the single-family secondary units was

TABLE 4.—*Purchase Price or Rent of New and Secondary Dwelling Units in Bridgeport Defense Area by Type of Dwelling*

Purchase price or monthly rent	Secondary units,[1] April 1942				New privately financed units, February 1942			
	Total	Number of dwelling units in—			Total	Number of dwelling units in—		
		1-family houses	2-family houses	3-or-more-family buildings		1-family houses	2-family houses	3-or-more-family buildings
All tenures	[2] 267	80	90	90	384	329	35	20
Total sold	45	27	14	4	330	315	13	2
Under $3,000	([3])	----	----	----	([3])	1	----	----
$3,000–$3,999	([3])	----	1	----	([3])	5	----	----
$4,000–$4,999	([3])	7	3	----	([3])	39	----	----
$5,000–$5,999	([3])	4	3	----	([3])	113	1	----
$6,000	([3])	1	----	----	([3])	27	----	----
$6,001–$7,499	([3])	10	2	1	([3])	64	2	----
$7,500–$9,999	([3])	3	----	3	([3])	37	4	1
$10,000 or more	([3])	----	2	----	([3])	23	6	1
Unknown	([3])	2	3	----	([3])	6	----	----
Total rented	215	53	76	86	48	9	21	18
For services	1	1	----	----	[4]	----	----	----
Under $20 per month	13	----	5	8	----	----	----	----
$20–$29 per month	45	10	12	23	----	----	----	----
$30–$39 per month	62	13	22	27	3	1	2	----
$40–$49 per month	42	5	17	20	20	2	6	12
$50–$59 per month	34	9	18	7	18	3	9	6
$60–$69 per month	7	6	1	----	5	2	3	----
$70–$79 per month	6	5	----	1	----	----	----	----
$80 and over	4	4	----	----	1	1	----	----
Unknown	1	----	1	----	1	----	1	----
Other or unknown tenure	7	([4])	([4])	([4])	6	5	1	----

[1] Units vacated by households moving into new privately financed units.
[2] Includes 7 units for which type of dwelling was unknown.
[3] The distribution of all types of structure by selling price is not shown because prices for single-family houses are not comparable with those for 2-family or multifamily structures, which represent the cost of the structure rather than the cost per dwelling unit.
[4] Type of dwelling unknown.

$6,500, which was approximately $500 higher than the median for the new units. However, from table 4 it can be seen that the secondary units were concentrated in a much narrower price range than the primary units. None of the older houses cost as much as $10,000, but over 7 percent of the purchasers of the new single-family houses had paid at least $10,000 for them.

Relatively more of the owner-occupied secondary units were in 2-family and multifamily buildings than was the case with the new units, which would indicate a greater tendency on the part of the buyers of the secondary units to purchase income-producing property as well as a place to live. Here again, however, the number of cases is too small to warrant drawing final conclusions.

For over a fourth of the secondary units which were rented, the monthly rent was less than $30 a month. Since the majority of these units were in buildings housing two or more families, it is probable that in many cases the rent included some utilities and services in addition to shelter. The most commonly reported rent was from $30 to $39, inclusive, but almost a fourth of the units rented for $50 or more. All but 2 of those renting for $60 or more were single-family houses. There were too few rental properties among the new units to afford a good comparison of rents for the two groups of units, but none of the new dwellings rented for less than $30 a month. From this it would appear that in Bridgeport families wishing to keep within a rent budget of less than $30 a month had no choice but to live in the older buildings.

PREVIOUS AND CURRENT RENTS FOR IDENTICAL UNITS

In 5 of every 8 secondary units which were rented, the current occupant was paying more than his predecessor for the same unit. For 2 of the 8 units, the rent was unchanged, and for the remaining unit the rent had been reduced. For rental properties as a whole, the median increase was approximately 8 percent, but from table 5 it can be seen that in a few cases rents had been raised at least 50 percent.

The rent increases had been greater in extent in the cheaper units; in none of the houses or apartments renting for $50 or more had the rent been increased as much as 30 percent, but for several of the cheaper units the increase had been at least 30 percent. It also appeared that rents had been increased on relatively more of the single-family houses than on 2–family houses or apartment units, but variations in the amount of increase among units in the 3 types of structures was not great.

That the rents had been raised, many of the tenants were fully aware either because the increase had occurred since they had taken possession or because they had made inquiries of the previous tenant. The wife of a technical worker in one of the war production plants reported that the rent on their house had been raised from $45 to $55 a month and that the landlord had notified her that there would be a larger increase if she rented a room.

This tendency to increase rents had been halted by rent-control activities. In the survey of tertiary units, a few instances were reported in which the rent had been reduced in compliance with orders of the local "fair rent" committee.

TABLE 5.—*Differences in Rents Paid for Secondary Dwelling Units in Bridgeport Defense Area by Former Occupants and Households Living in Units in April 1942*

Monthly rent paid by former occupant, and type of dwelling	Number of rented secondary units [1] with specified ratio of current to previous monthly rent										
	Total rented units	0.80–0.99	1.00	1.01–1.09	1.10–1.19	1.20–1.29	1.30–1.39	1.40–1.49	1.50–1.69	Ratio inapplicable [2]	Unknown
All rents	215	22	50	33	35	36	7	6	6	14	6
Under $20	20	2	5	3	5	3		1		1	
$20–$29	49	3	12	11	6	9	3	2	3		1
$30–$39	66	9	15	13	12	10	2	1	3		
$40–$49	39	4	12	3	5	11	2	2			3
$50–$59	18	2	5	2	4	2					
$60–$69	5		1		3	1					
$70–$79	1	1									
$80 or more	2	1		1							
Unknown	15									13	2
All types of dwellings	215	22	50	33	35	36	7	6	6	14	6
1-family	53	4	8	7	13	7		4	1	5	4
2-family	76	5	21	10	13	14	2	1	3	5	2
3-or-more-family	86	13	21	16	9	15	5	1	2	4	

[1] Units vacated by households moving into new privately financed units.
[2] Includes units formerly owner-occupied but now rented and units for which rent is paid in the form of services.

RENT IN RELATION TO EARNINGS [4]

Three-fourths of the families in the secondary units were spending for rent less than one-fourth of the combined earnings of the head of the household and his wife. However, it can be seen from table 6 that rent was consuming a larger proportion of the earnings of the lower-income families than of those with greater earning capacity. With one exception, in all of the households spending more than one-fourth of the monthly earnings for rent, the combined earnings of the husband and wife were less than $3,000. As has been mentioned previously, the number of owner-occupied secondary units is too small to warrant generalizations with reference to their cost.

TABLE 6.—*Rent in Relation to Earnings of Occupants of Secondary Dwelling Units [1] in Bridgeport Defense Area, April 1942*

Rent as a proportion of monthly earnings	Number of households with specified annual earnings [2]									
	All earnings groups	Under $1,500	$1,500–$1,999	$2,000–$2,499	$2,500–$2,999	$3,000–$3,499	$3,500–$3,999	$4,000–$4,999	$5,000–$7,499	No employed person, or unknown
Total	215	18	43	56	31	24	8	6	3	26
Under 0.15	51	1	4	11	10	16	4	4	1	
0.15–0.19	44	2	15	15	6	3	1	1	1	
0.20–0.24	47	3	9	16	10	5	2	1	1	
0.25–0.29	25	3	8	10	3		1			
0.30–0.34	9	2	3	3	1					
0.35 and over	12	7	4		1					
No employed person	12									12
Unknown	15			1						14

[1] Units vacated by households moving into new privately financed units.
[2] Earnings of head of household and spouse only.

[4] Earnings of head of household and spouse only.

COST IN RELATION TO PREVIOUS RENTS

For almost three-fifths of the families which had previously been renting a house or apartment in Bridgeport, moving into the secondary units meant that they were increasing their monthly expenditure for rent. About 9 percent paid the same rent after they moved as before, and over 32 percent reduced their rent by moving. Although the proportion of households increasing their rental expenditures was somewhat greater for those with some members employed in war-materials plants than for other industrial groups included in table 7, the differences were not great.

TABLE 7.—*Current Rent in Relation to Previous Rent Paid in Bridgeport by Occupants of Secondary Dwelling Units* [1] *in Bridgeport Defense Area, April 1942*

Current rent as multiple of previous rent	Number of households in specified industry groups						
	All households	War industries: Aircraft, aluminum, brass, ordnance, steel, machine tools	Other metal manufacturing	Miscellaneous manufacturing	Trade and service	All other industries	No employed person, or unknown
Total	215	107	42	20	19	21	6
Under 0.50	4	3	1				
0.50–0.74	14	7	4	1	2		
0.75–0.99	28	13	4	2	4	4	1
1.00	13	4	3	2	1	3	
1.01–1.24	31	18	6	2	1	3	1
1.25–1.49	26	16	3	3	1	2	1
1.50–1.74	13	6	4	2	1		
1.75–1.99	8	5	1		1	1	
2.00–2.49	5	4				1	
Ratio inapplicable [2]	66	29	14	7	7	7	2
Unknown	7	2	2	1	1		1

[1] Units vacated by households moving into new privately financed units.
[2] Includes households not previously established in area and those moving from homes owned in Bridgeport.

War Housing Resulting From Private Building

From the initial Bridgeport survey it was found that each 100 new units occupied at the time of the survey represented housing for 26 households which had not previously had exclusive occupancy of a housekeeping dwelling unit in that area. (See table 2.) These were distributed between approximately 9 households with war workers and 17 other households. The other 74 units permitted families living in older houses or apartments in the Bridgeport area to move into new homes.

Of the 74 secondary units vacated by families moving into each 100 new units, 43 percent, or 31 units, provided housing for families not previously having a house or apartment in Bridgeport. The remaining secondary units merely provided different housing for established households. Of the 31 units of additional housing, 16 were occupied by families with war workers and 15 by other families.

When the current occupants of the secondary units moved, they, in turn, released a total of 43 tertiary units per 100 new units. Thirty-seven percent of these, or 16 units, became the homes of families which had not previously had an unshared housekeeping unit in Bridgeport

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and the remaining 27 vacancies enabled households already established in Bridgeport to shift from one unit to another. The 16 units were distributed between 11 households with war workers and 5 without. It is estimated [5] that in the remaining series of moves, made possible by the 27 tertiary units vacated, dwelling units were provided for a total of 19 households with war workers which had not previously had an unshared housekeeping unit in Bridgeport.

The cumulative effect of this entire series of moves was that the construction of each 100 occupied new units resulted in additional housing for 55 households with war workers—9 in the new units themselves, 16 in the secondary units, 11 in the tertiary units, and 19 in the entire series of subsequent units.

Since some units are retained for seasonal occupancy, converted into stores or other nonresidential buildings, demolished, and so on, each move results in some contraction of the supply of available housing. Such contraction is partially offset, of course, by the conversion of single-family houses into multiple units. Adjustments for such changes would reduce the estimates of the number of units made available for households with war workers as a result of the construction of 100 new occupied privately financed units from 55 to 51.3 units.

Building permits for practically all of the new units included in the Bridgeport survey were issued before any of the priority orders restricting the use of scarce building materials in residential construction became effective. On the basis of the estimates outlined above, it would appear that before any such restrictions were in effect it was necessary to build approximately 1.95 new privately financed units in order to provide one unit for a war worker's family which had not previously occupied an unshared dwelling unit in Bridgeport.

If the median cost for new owner-occupied single-family houses in Bridgeport of approximately $5,975 is regarded as representative of the cost for all privately financed units, this would mean that in the Bridgeport area it required an expenditure of roughly $11,650 for each additional unit of privately financed war housing, whether in a new or vacated unit. This is exclusive of much of the cost of utilities and public improvements. Although this includes the cost of additional housing for other households, it provides an indication of the gross expenditure (which could be converted into estimated labor and material requirements) necessary to secure additional housing for one household with war workers.

[5] This estimate is made on the assumption that in the subsequent series of moves the proportions of unit providing additional housing for families not previously having exclusive occupancy of a dwelling unit in Bridgeport and the proportion of such families with war workers was the same as in the tertiary units.

WAR AND THE INCREASE IN FEDERAL EMPLOYMENT [1]

Summary

CIVILIAN employment in the executive branch of the Federal Government passed the 2 million mark in May 1942—a net increase of over a million employees from June 1940. Almost half of the increase occurred after the United States entered the war.

Of every 100 new civilian positions, 57 were in the War Department and 28 in the Navy Department. The newly created war agencies, such as the Selective Service System, the War Production Board, and the Office of Price Administration, accounted for 7 of every 100 new positions; and the remaining 8 were in other Federal agencies having additional duties as a result of the war effort.

For each position created in Washington, D. C., since the summer of 1940, there were between 7 and 8 in the various Federal establishments elsewhere. This brought the total of Federal employees in the Washington area to 256,000, as contrasted with 1,810,000 outside Washington, in May 1942.

The number of new workers placed in Federal positions was even greater than this net increase in employment would indicate. For every 10 employees in positions created in the 6 months following the declaration of war, it was necessary to hire approximately 18 people. The other 8 were appointed to replace persons retiring or leaving Federal employment for military service or to enter private employment.

The Federal Government's monthly pay roll for civilian employees rose from approximately $149,000,000 in June 1940 to almost $337,000,000 in May 1942. In the latter month approximately $44,000,000 was paid to workers in Washington and the remaining $293,000,000 to Federal employees stationed elsewhere.

Total Employment and Pay Rolls

Federal civilian employment [2] more than doubled in a little less than 2 years. In June 1940, when the national defense program was just getting started, there were approximately 1,011,000 employees in the executive branch of the Federal Government. In May 1942 this number had grown to almost 2,067,000—a net addition of over 1,000,000 workers. As can be seen from table 1, nearly half of this increase occurred after war was declared in December 1941. During the "defense" period, additions were made at the rate of over 31,000 employees per month. In the first 6 months of the war this rate was practically trebled, averaging about 87,000 per month.

In addition to filling newly created jobs, the Civil Service Commission had to procure new personnel for jobs vacated by Federal

[1] Prepared by Kathryn R. Murphy, Division of Construction and Public Employment, Bureau of Labor Statistics, and Simon Krixtein, Statistical Division, Civil Service Commission.

[2] Covers full-time, part-time, and temporary employees, force-account workers, and consultants on a fee basis in the executive branch of the Federal Government who were on the pay roll with pay during the periods specified. Only regular employees of such agencies as the WPA, NYA, and CCC have been included. "Dollar-a-year" men and employees who receive no compensation have not been included. Employees in the legislative and judicial branches and persons in the uniformed services have also been excluded.

employees entering military service, retiring, taking jobs outside the Government, etc. To maintain an average of 87,000 net additions per month, it was necessary to make 153,000 placements per month during the 6 months following this country's declaration of war.

Pay rolls rose at a faster rate than employment, the total of $337,000,000 for the month of May 1942 being 126 percent above that for June 1940. This would indicate that the average salary per civilian employee rose about $15 a month, reaching almost $163 in May 1942. This increase in average salaries was outside the Washington area, since the average monthly salary for workers in Washington was slightly lower in May 1942 than in June 1940. Without an occupational comparison it is impossible to interpret these changes precisely. However, it is probable that the increase outside Washington resulted from the large number of workers in the skilled trades employed in Federal navy yards and arsenals for many of whom the basic wage scales were increased after June 1940. Furthermore, some of these workers received overtime pay, which would also raise the monthly average. In Washington, on the other hand, the new workers were predominantly typists, stenographers, and clerical workers who came into the Federal service at salaries which are in the lower brackets of the Federal pay scale.

TABLE 1.—*Civilian Employment and Pay Rolls in Executive Branch of Federal Government, by Month, June 1940–May 1942* [1]

Year and month	Number of employees			Monthly pay roll		
	Entire service	In Washington, D. C., metropolitan area	Outside Washington, D. C., metropolitan area	Entire service	In Washington, D. C., metropolitan area	Outside Washington, D. C., metropolitan area
1940						
June	1,011,066	133,823	877,243	$149,076,667	$23,245,677	$125,830,990
July	1,026,572	138,471	888,101	155,226,773	24,210,509	131,016,264
August	1,039,996	142,899	897,097	159,350,059	24,881,038	134,469,021
September	1,059,984	145,620	914,364	159,798,624	25,214,041	134,584,583
October	1,091,931	149,389	942,542	167,220,383	25,989,457	141,230,926
November	1,114,068	152,538	961,530	168,618,728	26,242,316	142,376,412
December	1,184,344	155,914	1,028,430	183,707,026	27,089,116	156,617,910
1941						
January	1,151,148	158,587	992,561	178,218,064	27,497,060	150,721,004
February	1,173,663	161,527	1,012,136	175,644,562	27,201,377	148,443,185
March	1,202,348	167,081	1,035,267	184,244,306	28,478,887	155,765,419
April	1,251,283	172,876	1,078,407	189,213,464	29,426,672	159,786,792
May	1,306,333	177,328	1,129,005	198,382,389	30,268,124	168,114,265
June	1,370,110	184,236	1,185,874	205,581,047	30,601,662	174,979,385
July	1,391,689	185,182	1,206,507	205,977,306	28,524,770	177,452,536
August	1,444,985	186,931	1,258,054	217,772,054	31,740,104	186,031,950
September	1,487,925	191,588	1,296,337	224,149,668	32,654,962	191,485,706
October	1,511,682	194,265	1,317,417	235,778,998	33,687,155	202,091,843
November	1,545,131	199,283	1,345,848	237,398,486	33,938,499	203,459,987
December	1,670,922	207,214	1,463,708	254,453,319	35,931,301	218,522,018
1942						
January [2]	1,666,039	223,761	1,442,278	269,367,093	38,716,756	230,650,337
February [2]	1,808,700	234,010	1,574,690	274,234,912	39,626,787	234,608,125
March [2]	1,905,964	241,174	1,664,790	300,600,953	41,258,486	259,342,467
April [2]	1,981,061	248,192	1,732,869	317,911,494	42,584,138	275,327,356
May	2,066,873	256,457	1,810,416	336,568,306	43,921,811	292,646,495

[1] Compiled by the Statistical Division, U. S. Civil Service Commission. Excludes public employment offices affiliated with the Social Security Board which were nationalized in January 1942.
[2] Revised.

In the current period of expansion the number of Federal employees increased relatively more outside Washington than inside. In May

1942 there were 7.1 civilian employees outside Washington for each one working in the Washington area, as contrasted with a ratio of 6.6 to 1 in June 1940. The increasingly acute shortage of both office and living quarters in Washington has necessitated moving many long-established offices out of Washington to make room for the growing staffs of the war agencies. Among the newly created war agencies there is also a tendency toward decentralization both for reasons of space and because the effective performance of many of their activities, such as rationing and price control, require local organizations throughout the country.

At the same time that many employees have been moved from Washington, the boundaries of the Washington area have been extended for purposes of reporting to the Civil Service Commission. Because of the lack of suitable building sites and the general congestion in the District of Columbia, the Government has constructed several large office buildings in nearby Maryland and Virginia, and workers in these offices are counted among the employees in the Washington metropolitan area.

Principal War Agencies

The effect of war activities on Federal employment stands out more clearly from the chart on page 221. Total employment increased every month except January of 1941 and 1942, when slight decreases occurred because extra postal employees hired for the Christmas rush were laid off.

At the end of May 1942 the War Department alone had more new civilian employees than all other Federal agencies combined. Civilian employees of this single department numbered over 743,000 in May, or almost 5½ times as many as at the outset of the defense program. Although the War Department's civilian staff has increased proportionately more in Washington than outside in recent months, that agency remains predominantly a field organization with over 93 percent of its employees outside Washington in May 1942. Large numbers were engaged in Federal plants manufacturing ammunition, ordnance, and other war materials and supplies. The Corps of Engineers also had thousands of workers engaged on numerous Army construction projects.

The Navy Department ranked next to the War Department both in number of employees in May 1942 and in the number added since the initiation of the defense program. The 416,000 civilian Navy employees in May represented an increase of over 298,000, or 253 percent, since June 1940. The Navy also is predominantly a field organization with nearly 90 percent of its civilian employees outside Washington in May. Substantial proportions of the Navy workers in Washington are employed in the Washington Navy Yard, and those outside Washington are largely concentrated in areas where the Navy has shipyards, ordnance plants, and supply depots.

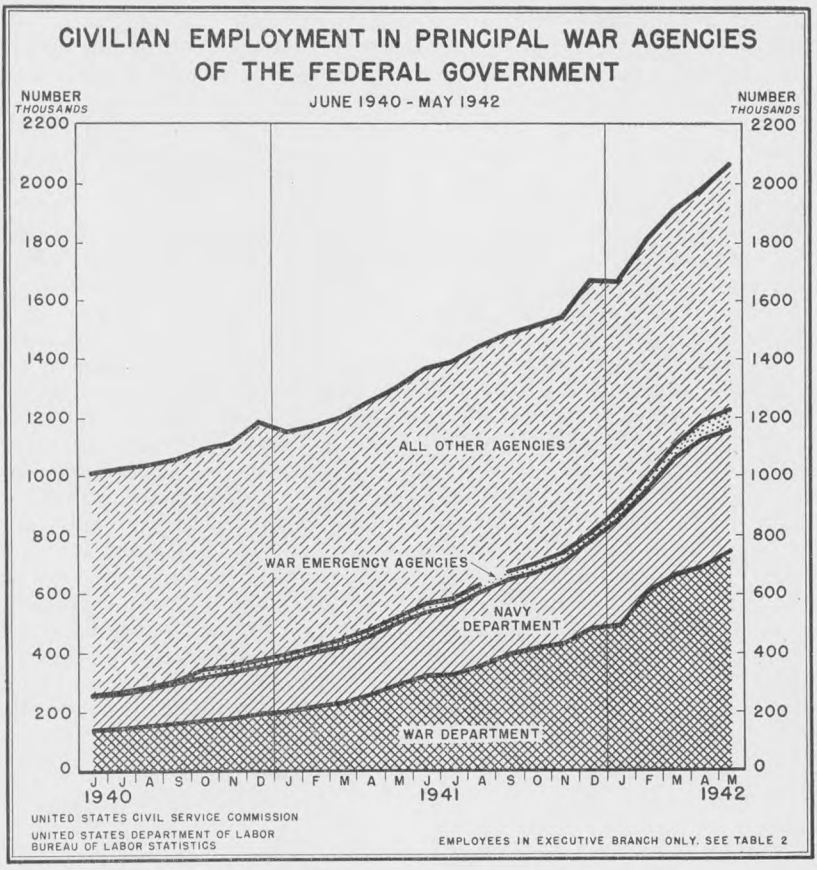
The older Federal agencies, in general, are in varying degrees engaged in war activities, e. g., selling war bonds, estimating food requirements, analyzing the potential supply of labor for war work, and so forth. There are several agencies, however, which have been created in the past 2 years to handle particular phases of the war problems, and employment in such emergency agencies has been segregated in table 2.

TABLE 2.—*Civilian Employment in Principal War Agencies of Executive Branch of Federal Government, by Month, June 1940–May 1942* [1]

Year and month	Number of employees					
	Entire service	In Washington, D. C., metropolitan area	Outside Washington, D. C., metropolitan area	Entire service	In Washington, D. C., metropolitan area	Outside Washington, D. C., metropolitan area
	War Department [2]			Navy Department		
1940						
June	136,841	7,361	129,480	117,981	14,017	103,964
July	140,576	8,236	132,340	126,211	14,666	111,545
August	150,112	9,393	140,719	133,917	15,631	118,286
September	158,758	9,979	148,779	143,014	16,874	126,140
October	170,377	11,424	158,953	152,161	17,454	134,707
November	177,296	12,465	164,831	161,097	18,162	142,935
December	194,348	13,190	181,158	167,724	18,753	148,971
1941						
January	204,147	15,095	189,052	176,231	19,803	156,428
February	219,329	16,721	202,608	182,949	20,600	162,349
March	231,327	18,127	213,200	193,311	21,887	171,424
April	257,532	20,019	237,513	201,107	23,121	177,986
May	292,112	21,620	270,492	211,445	24,296	187,149
June	320,291	23,176	297,115	222,862	25,559	197,303
July	328,219	23,747	304,472	235,467	26,802	208,665
August	358,788	24,713	334,075	253,421	25,804	227,617
September	397,963	25,233	372,730	255,264	27,424	227,840
October	415,044	26,151	388,893	264,594	27,461	237,133
November	431,082	26,539	404,543	281,773	29,538	252,235
December	480,064	28,856	451,208	302,437	31,064	271,373
1942						
January	493,427	34,422	459,005	327,905	36,289	291,616
February	610,421	38,440	571,981	351,680	39,267	312,313
March	665,913	43,127	622,786	376,473	40,764	335,709
April	694,086	46,572	647,514	401,014	42,668	358,346
May	743,254	49,133	694,121	416,015	43,613	372,402
	War emergency agencies [3]			All other agencies		
1940						
June	67	67	0	756,177	112,378	643,799
July	384	378	6	759,401	115,191	644,210
August	514	496	18	755,453	117,379	638,074
September	682	673	9	757,530	118,094	639,436
October	22,042	1,016	21,026	747,351	119,495	627,856
November	21,081	1,037	20,044	754,594	120,874	633,720
December	16,037	1,185	14,852	806,235	122,786	683,449
1941						
January	16,614	1,384	15,230	754,156	122,305	631,851
February	16,561	1,431	15,130	754,824	122,775	632,049
March	17,828	2,393	15,435	759,882	124,674	635,208
April	18,425	3,088	15,337	774,219	126,648	647,571
May	18,906	3,344	15,562	783,870	128,068	655,802
June	20,217	3,858	16,359	806,740	131,643	675,097
July	20,628	4,557	16,071	807,375	130,076	677,299
August	20,952	4,976	15,976	811,824	131,438	680,386
September	22,403	6,509	15,894	812,295	132,422	679,873
October	22,959	7,273	15,686	809,085	133,380	675,705
November	25,776	10,208	15,568	806,500	132,998	673,502
December	25,864	10,152	15,712	862,557	137,142	725,415
1942						
January	29,784	13,227	16,557	814,923	139,823	675,100
February	33,971	14,817	19,154	812,628	141,486	671,142
March	42,107	20,134	21,973	821,471	137,149	684,322
April	62,385	23,266	39,119	823,576	135,686	687,890
May	71,290	24,428	46,862	836,314	139,283	697,031

[1] Compiled by the Statistical Division, U. S. Civil Service Commission.
[2] Figures for January through April 1942 revised.
[3] Includes Office for Emergency Management, Board of Economic Warfare, Office of Censorship, Coordinator of Information, and Selective Service System.

In June 1940 employees of the so-called "war emergency agencies" consisted of fewer than 100 workers, mainly on the staff of the Advisory Commission of the Council of National Defense. Several hundred workers were added during the summer, but employment was at a comparatively low level until October, when over 21,000 workers were employed by the Selective Service System to conduct the registration for the first draft on October 16, 1940. Decreases thereafter in Selective Service employees offset increases in other newly created war agencies, and it was not until September 1941 that emergency war employment returned to the level of the previous October.



Employment in the emergency agencies jumped 12 percent from October to November 1941, chiefly because of expansion in the Office for Emergency Management (which included both the Office of Price Administration and what is now known as the War Production Board). There was little increase from November to December, but since the declaration of war, employment in the emergency agencies nearly trebled, growing from less than 26,000 in December to over 71,000 in May 1942.

Other Agencies

Employment in all other Federal agencies except the War and Navy Departments and the war emergency agencies increased 11 percent between June 1940 and May 1942. Although these agencies have not been grouped among the primary war agencies, many have increased their staffs to perform the war functions assigned to them.

For example, the Federal Communications Commission had over three times as many employees in May 1942 as in June 1940, as a result of its war activities. The commission maintains surveillance of all forms of radio transmission and has highly specialized equipment for locating radio stations used for subversive activities. It was also given funds to establish a Foreign Broadcast Monitoring Service which records, translates, and analyzes broadcasts of foreign origin. The broadcast monitors summarize important programs as they are received, so that significant information may be teletyped to the State Department and other vitally interested agencies. They also prepare a daily report on foreign broadcasts for circulation within the Government.

The staff of the National Advisory Committee for Aeronautics was almost trebled during the war emergency. This Committee supervises and directs research and experiments in aeronautics for the Army and Navy and Civil Aeronautics Authority.

The growing need for vessels for transporting troops and war materials to foreign stations has occasioned a large increase in the employees of the Maritime Commission. Similarly, personnel of the Civil Service Commission was more than doubled to facilitate recruitment of the large numbers of workers needed for war agencies.

Reductions have occurred in the staffs of several Federal agencies since the war program was inaugurated. The largest numbers of employees were released by the Departments of Agriculture and Commerce, the Federal Works Agency, and the National Housing Agency. Although some phases of the work of these agencies were curtailed, all have some war assignments. The National Housing Agency, for example, is responsible for carrying out the extensive program of public housing for war workers. Similarly, the Department of Commerce includes the Civil Aeronautics Administration which conducts the Civilian Pilot Training Program to augment the supply of trained personnel for the military services and otherwise assists the Army and Navy in their air activities.

WARTIME LABOR DIRECTIVES OF MANPOWER COMMISSION

EIGHT directives to "promote the effective mobilization and utilization of the Nation's manpower in the prosecution of the war" were issued on June 22, 1942, by Paul V. McNutt, Chairman of the War Manpower Commission. They apply to Federal agencies concerned with various aspects of manpower, and constitute a program to coordinate information as to manpower supply and to "channel" available manpower where it is needed, i. e., in war industry and agriculture.

The United States Employment Service is required to prepare and maintain lists of essential activities and occupations, as well as lists of occupations in which shortages exist. It is also to refer individuals skilled in critical war occupations to job openings in war production, and make preferential referrals in accordance with relative needs of plants as determined by the War Production Board. The Service has compiled a list of 138 occupations essential to war production in which there is a national shortage of labor. The most serious shortages are in the vital metalworking and industrial machinery trades, and in occupations particularly important in shipbuilding and in aircraft, tool, and ordnance manufacture.

After completing the occupational classification of registrants under the Selective Service Act, the Employment Service is required to request those registrants having "necessary" skills to report at a public employment office, where reasonable efforts will be made to persuade them to transfer to more essential employment. The public employment offices are to submit to the Chairman of the Manpower Commission records of cases in which registrants refuse, without good reason, to transfer. They also must report cases in which employers dissuade or deter registrants from transferring.

The Director of Selective Service is instructed to give temporary deferment to men engaged in essential occupations. Local boards are also requested to afford men reasonable opportunity prior to induction to become engaged in essential activities.

Of the eight orders, five relate to industrial employment, while three relate to agricultural labor and facilities for transportation and living requirements. Summaries of the eight directives follow:

1. List of Essential Activities and Occupations

The United States Employment Service, with the aid of the War Production Board, the War Department, the Navy Department, the Department of Agriculture, and other appropriate departments and agencies, is required to prepare and keep up to date lists of essential activities, the essential occupations, and critical war occupations.

In these orders of the Manpower Commission the following definitions are used:

(*a*) Essential activities include (1) essential war activities, (2) any activity required for the maintenance of essential war activities, and (3) any activity essential to the maintenance of the national safety, health, or interest.

(*b*) Essential war activities include the production, repair, transportation, or maintenance of equipment, supplies, facilities, or materials required in the prosecution of the war.

(*c*) An essential occupation means any occupation, craft, trade, skill, or profession, required in an essential activity, in which an untrained individual is unable to attain reasonable proficiency within less than 6 months of training or experience.

(*d*) A critical war occupation means an essential occupation found by the United States Employment Service to be one with respect to which the number of individuals available and qualified to perform services therein is insufficient for existing or anticipated requirements for essential activities.

2. Information as to Relative Importance of Critical War Products

The War Production Board, with the aid of the War Department, the Navy Department, the Army and Navy Munitions Board, the Maritime Commission, the Department of Agriculture, and other departments and agencies, is required to furnish the War Manpower Commission current information with respect to the relative importance (in connection with the maintenance of the national war supply program) of filling job openings in plants, factories, or other facilities.

3. Placement Priorities

The United States Employment Service is instructed to take such action as may be necessary to assure that—

(*a*) Each local public employment office exerts its maximum efforts, funds, and facilities to expedite the recruitment and placement of all workers required for essential activities in preference to the placement of workers for any other activity; and

(*b*) Referrals are made to job openings for workers required for essential occupations, regardless of the location of the work, for filling job openings under the national war supply program.

The Employment Service is authorized to refuse to make referrals to any plant, factory, or other activity, if any of the following conditions exist:

(*a*) If the wages and conditions of work are not at least as advantageous to a worker referred to a job opening as those prevailing for similar work in similar establishments in the industrial area; or

(*b*) If proper measures have not been taken to reduce or eliminate the need for workers in critical war occupations by effective utilization of the employees in the establishment through training, upgrading, transfers, and job simplification; or

(*c*) If the need for additional workers in critical war occupations can be reduced or eliminated by the transfer of workers employed in nonessential activities.

4. Transfers to Essential Activities

After stating that the national war supply program requires that increased efforts be made to encourage every individual who is unemployed or who is not engaged in an essential activity to accept suit-

able work in an essential activity, the directive instructs the Employment Service to complete an occupational classification of each registrant under the Selective Training and Service Act of 1940, on the basis of his selective service occupational questionnaire.

The Employment Service is further instructed to request each registrant whose occupational questionnaire indicates that (*a*) he is qualified to perform service in an essential occupation and (*b*) he is not utilizing his highest skill in an essential activity, to report to his nearest public employment office. If it is found that he is capable of performing services in an essential occupation and is not doing so, the Employment Service is directed to exert all reasonable efforts to persuade him to transfer to suitable work for which he is needed in an essential activity.

As an additional method of encouraging transfers to essential activities, the Employment Service is required to submit a report to the Chairman of the War Manpower Commission with respect to (*a*) each case in which a registrant, after being offered suitable work in an essential activity, has, without good cause, refused to accept such work, and (*b*) each case in which an employer has sought to prevent an employee from transferring to essential work.

5. Occupational Deferments

The Director of Selective Service is instructed to take necessary action so that (*a*) individuals engaged in essential war work will be temporarily deferred from induction into the armed forces, and (*b*) individuals who are not engaged in essential work but who are qualified in essential occupations will be afforded a reasonable opportunity, prior to induction, to become engaged in such work. The Selective Service System and the United States Employment Service are directed to maintain close collaboration to assure full utilization of the labor market.

6. Recruitment of Essential Agricultural Workers

The United States Employment Service, after consultation with the Department of Agriculture and other departments and agencies, is required to estimate the available number of agricultural workers and the anticipated requirements for such workers. If, with respect to any area, the Employment Service determines that there is a shortage of agricultural workers, it is instructed to take any necessary action to recruit and place the needed workers, including—

(*a*) The establishment and maintenance of agricultural labor recruiting and placement services and facilities;

(*b*) The solicitation of workers in projects of the Work Projects Administration, the National Youth Administration, the Department of Agriculture, and other private or public agencies;

(*c*) The solicitation of qualified agricultural workers in rural and urban centers, youth groups, and educational institutions;

(*d*) The retention for such purposes of qualified agricultural workers who might otherwise be recruited for placement in less essential industrial activities; and

(*e*) The promotion of the cooperative use of agricultural workers and the maximum utilization of transient workers.

The directive order provides, however, that the Employment Service shall not refer agricultural workers to any employment in which the wages or conditions of work are less advantageous than those prevailing for similar work in the locality.

7. Adequate Housing for Transient Essential Agricultural Workers

The Secretary of Agriculture is directed, on the basis of information supplied by the Employment Service and other available data, to prepare and keep up to date information with respect to the availability of adequate housing in areas in which transient workers are required for the production, cultivation, or harvesting of any agricultural commodity essential to the effective prosecution of the war.

If the Secretary determines, after consultation with the Employment Service and other departments or agencies, that existing housing facilities (including permanent or mobile labor-camp facilities) are insufficient to provide adequate shelter for transient agricultural workers in any area, he is required to take necessary action to assure that:

(*a*) All Department of Agriculture labor-camp facilities, existing or hereafter established in the area, are utilized by such workers before they are used by other individuals; and

(*b*) Additional Department of Agriculture labor-camp facilities are established and maintained to provide adequate shelter for the workers.

The Secretary is also instructed to take action which will assure that (*a*) agricultural workers are provided needed transportation facilities, and (*b*) nonlocal agricultural workers and their families, transported or housed pursuant to this directive, are provided needed health and welfare services.

8. Adequate Transportation for Workers in Essential Activities

The United States Employment Service, the Department of Agriculture, and any other department or agency of the Federal Government having information concerning workers transferring to, moving between, or engaged in essential activities, are directed to furnish to the War Manpower Commission, for transmission from time to time to the Office of Defense Transportation, information with respect to each situation or area in which existing or anticipated transportation needs of such workers are not or will not be adequately provided for by existing and readily available transportation facilities. The Office of Defense Transportation is to give careful consideration to the information furnished it in carrying out its functions, particularly as such functions relate to assuring adequate transportation facilities to workers transferring to or moving between essential activities and to workers requiring transportation between their homes and places of employment in essential activities.

ALLOWANCES FOR SERVICEMEN'S DEPENDENTS, 1942

ALLOWANCES for the dependents of enlisted men in the armed forces of the United States are provided under an act approved June 23, 1942 (Public No. 625, 77th Cong.).

This legislation entitles the dependent or dependents of any enlisted man of the fourth, fifth, sixth, or seventh grades in the United States Army, Navy, Marine Corps, or Coast Guard, including the retired and reserve components of these services,[1] to monthly family allowances for any period during which such enlisted man is in the active military or naval service of the United States, on or after June 1, 1942, during any war declared by Congress and during the 6 months immediately subsequent to the close of such war.

The monthly family allowance payable under this act is composed of the Government's contribution to the allowance and a deduction made from the pay of the enlisted man.

Dependents of enlisted men are divided into two classes, Class A including a wife, a child, or divorced wife, and Class B, a parent, grandchild, brother, or sister found by the Secretary of the interested Department (War or Navy) to be dependent upon the enlisted man for a considerable portion of his or her support. However, payment of a monthly allowance to any class B dependent will be discontinued upon request by the enlisted man concerned.

The Government's monthly rate of contribution is to be as follows:

Class A dependents:

$28 for a wife;
$40 for a wife and child and $10 for each additional child;
$20 for 1 child, when the man has no wife;
$30 for 2 children, when the man has no wife and $10 for each additional child;
$20 in addition to any of the above amounts for a former wife divorced.

Class B dependents:

$15 for 1 parent and $5 for each grandchild, brother, or sister—the total contribution not to exceed $50;
$25 for 2 parents and an additional $5 for each grandchild, brother, or sister, the total contribution not to exceed $50;
$5 if the serviceman has no dependent parent, for each class B dependent grandchild, brother, or sister—the total contribution not to exceed $50.

It is also provided that "in any case in which the amount of the Government's contribution to the Class B dependents of any enlisted man would be greater than $50, if there were no limitation upon the aggregate amount of the Government's contribution to such dependents, the amount contributed by the Government to each such dependent shall be reduced in the same proportion as the aggregate amount of the Government's contribution to all such dependents is reduced."

For any month for which a monthly family allowance is paid to the dependent or dependents of a serviceman, his monthly pay is to be reduced by $22 and by $5 additional if the dependents eligible for the allowance include both Class A and Class B dependents. This reduction or charge is to constitute part of the allowance to such serviceman's dependent or dependents.

If the man's dependents are all in Class A or all in Class B the amounts by which his pay is reduced are to be allocated among these dependents in the same proportion in which they share in the Government's contribution.

If 1 or more of the serviceman's dependents are in Class A and 1 or more are in Class B, $22 of his allocation shall be apportioned

[1] Excluding Limited Service Marine Corps Reserve, the Philippine Army, the Philippine Scouts, the Insular Force of the Navy, the Samoan native guard or band of the Navy, or the Samoan reserve force of the Marine Corps.

among his Class A dependents in the same ratio in which they share the total contribution of the Government to Class A dependents and his allocation of $5 shall be apportioned to his Class B dependents in the same ratio as the total contribution of the Government to such dependents.

HIRINGS IN CANADA TO BE THROUGH EMPLOYMENT OFFICES

ON THE recommendation of the Minister of Labor, with the concurrence of the National Selective Service Advisory Board, the Control of Employment Regulations of 1942, were adopted by order in council of the Canadian Government on June 12, 1942. Adoption of the regulations under authority of the War Measures Act and the National Resources Mobilization Act provided the legal basis for the Director of National Selective Service to take measures to require employers to hire employees through the public employment exchanges. Accordingly, on June 16, a Government notice was issued by the Director of National Selective Service, with the concurrence of the National Selective Service Advisory Board and the approval of the Minister of Labor, requiring that no employer should employ persons except by notifying a local employment office of the vacancy to be filled and engaging for that vacancy either a person referred to him for such vacancy by a local office or a person whose engagement for such vacancy is approved by a local office.[1]

The term "employment," as used in the order, covers any service as an employee, including employment under the Government of Canada but excludes the following: Agricultural employment; employment subject to the provisions of the Essential Work (Scientific and Technical Personnel) Regulations of 1942; employment under the Government of any Province; domestic service in a private home; employment of students for work to be done after attendance at day classes or on holidays during the school or college term but not during the long summer vacation; part-time subsidiary employment which is not the employee's principal means of livelihood; or casual or irregular employment for not more than 3 days in any calendar week for the same employer. A "local office" means an employment and claims office of the Unemployment Insurance Commission or any agency designated by the Director of National Selective Service as a local office for the purposes of the order.

The requirement that employees shall be hired by the prescribed procedure does not apply to reemployment (1) within a period of not more than 14 consecutive days immediately following the day of last employment by the same employer; (2) immediately following the end of a period of sickness or disability, if his employment with that employer was terminated by reason of such sickness or disability; (3) on resumption of work on the termination of any stoppage of work by reason of an industrial dispute; (4) in accordance with the terms of a collective agreement providing preference in employment and reemployment according to length of service or seniority; or (5) upon such employee's reinstatement pursuant to other orders and by law after termination of his service in the armed forces.

[1] Canada Gazette, Extra (Ottawa), June 17, 1942.

When an employer finds he will need to engage additional employees or lay off any employees, he is required to notify a local office. An employer who has given the required notice may apply to the national selective service officer for approval of the engagement for that vacancy of a person other than one referred to him by the local office. Subject to instructions from the Director of National Selective Service, the national selective service officer may give or refuse approval, taking into account whether such person is able and available to fill any other known vacancy in which his services might be more essential for the maintenance or increase of the production of munitions of war or other essential supplies. Upon not less than 10 days' notice a national selective service officer may at any time revoke any approval granted by him.

If a national selective service officer refuses or revokes his approval of the engagement of any person by an employer, the person affected, the employer, or the representative of any interested trade-union or similar organization may (within 10 days of such refusal or notice of such revocation) appeal the decision by notice in writing. The appeal must be directed to the divisional registrar of the administrative division in which the affected person would have been or was employed by the employer. The case must be heard and determined forthwith by the National War Services Board in the same administrative division or part of it. The decision reached in any case shall be final and conclusive.

WARTIME REGULATION OF PORT LABOR IN HABANA, CUBA, 1942 [1]

IN ORDER to alleviate wartime irregularity of port work in Habana, the Cuban Government promulgated on May 5, 1942, decree No. 1286, which provides for rotation of employment. Prior to the outbreak of the present war the employment of port workers in the port of Habana was effected on a comparatively regular and steady basis because of the uninterrupted flow of trade throughout the year. Consequently, there was never any need of initiating a system of compulsory employment by rotation similar to that used at ports (particularly those shipping sugar) where shipping is largely of a seasonal nature. As a result of war conditions, however, employment of port workers became sporadic and uncertain, a situation which led to general unrest among the workers.

A secondary consideration leading to the formulation of this decree was the recognition by the Cuban Government that the present war crisis necessitates an absolute minimum of interruption in the handling of exports and imports.

This decree stipulates that beginning June 7, 1942, the employment in the port of Habana of all "itinerant personnel of laborers, stevedores, lightermen, tally clerks, or of any other port or maritime work" shall be effected in rotation, according to compulsory lists. The latter may be either general, as in the cases of stevedores and lightermen, or by working districts, as in the cases of laborers and tally clerks. The lists are to be prepared by a commission, representing the workers and the employers equally, which will be appointed by the Minister of Labor.

[1] From report of LaRue R. Lutkins, United States vice consul at Habana.

Decrees Nos. 276 of January 27, 1934, and 798 of April 13, 1938, recognized the right of workers not to be discharged without just cause on the part of employers. However, as the supreme court has repeatedly held that the port intelligence committees [2] are not empowered to enforce the provisions of these decrees, the present decree emphasizes that workers included in the rotation lists are henceforth to have, with respect to their employers, the rights and obligations assured to all workers by decree No. 798 of 1938.

The decree further provides suitable fines for any infractions of its terms. It states that repeated disregard for orders designed to execute the decree will be considered ground for the Minister of Labor to appoint a "delegate-intervenor" in the guilty company.

The provisions of the law of June 9, 1924, and of decree No. 1469 of 1925, and the rules complementary to the latter, regulating labor in the port of Habana, continue in force insofar as they are not contrary to the present decree.

[2] The law of June 9, 1924, provided for the establishment of intelligence committees in all ports of Cuba where there were workers serving maritime industries. These committees, formed of an equal number of employers and laborers, were empowered to hear and mediate all disputes which might arise between employers and workmen.

BI-RACIAL COOPERATION IN PLACEMENT OF NEGROES

THE magnitude of the war effort has emphasized the increasing need for the utilization of the entire manpower of the Nation. A State-wide plan for bi-racial cooperation in the placement of Negroes in employment, which was adopted in Indiana before the outbreak of war in this country, may perhaps be indicative of an orderly approach to the fuller utilization of Negro manpower in war production.

The Indiana plan for bi-racial cooperation in Negro placement was inaugurated in the early part of 1941. The program was the outgrowth of two factors—the lack of employment of a large proportion of the Negroes in the State, and the interest aroused as the result of the defeat in the State legislature of a bill which had proposed to make it a criminal offense, punishable by a fine, to discriminate between races in the employment of workers. The bi-racial plan was originally sponsored by the State chamber of commerce but has been actively supported by the governor of the State, prominent employers, the State federations of labor, and Negro leaders.

The plan is said to cover every possible aspect of the situation that could be covered by law. It obtains cooperation through furnishing mutual benefits, it does not arouse animosities, and it operates without fanfare and publicity. In operation, the plan has been realistic rather than sentimental, stress being placed at first on the economic waste of idle manpower, with the resulting public burden of taxation for relief, and later, with the Nation at war, on the grim necessity of utilizing the services of all available workers, both white and black, skilled and unskilled. A description of the plan and an appraisal of the initial results are presented in a recent report here reviewed.[1]

Unemployment Among Negroes in Indiana in 1941

The unemployment situation among the Negroes in Indiana in the early part of 1941 was serious, especially in the larger cities of the State. Several thousands of employable colored workers were out of employment. Negroes comprised but 3.5 percent of the total population, but more than 13 percent of the public money being spent on relief and WPA projects was being distributed to the colored population.

A study of the active registration files of the State Employment Security Division as of April 21, 1941, revealed that in the 27 cities of Indiana served by the division, Negro applicants for employment comprised 8.8 percent of the total registrants, though only 7.1 percent

[1] Indiana State Defense Council in cooperation with Indiana State Chamber of Commerce, Pamphlet No. 3: The Indiana Plan of Bi-racial Cooperation, Indianapolis (?), 1942; also, The Problem in May 1941—The Action Toward a Solution, Indianapolis, 1941.

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of the total population (based on the 1930 census). An analysis of the colored job seekers registered with the Indianapolis office of the Employment Security Division as of April 26, 1941, revealed a surprisingly large number classed as skilled, as may be seen from the following table.

Total and Negro Applicants for Employment in Indianapolis, as of April 26, 1941

Occupational division	Males			Females		
	Total	Negro	Percent Negro	Total	Negro	Percent Negro
All occupations	18,890	3,732	19.8	11,650	2,365	20.3
Professional	412	28	6.8	120	20	16.7
Semiprofessional	265	5	1.9	80	2	2.5
Managerial and official	402	0	0	97	0	0
Clerical and kindred	1,252	34	2.7	2,151	29	1.3
Sales and kindred	848	24	2.8	1,599	20	1.3
Domestic service	372	306	82.3	2,317	1,713	73.9
Personal service	1,801	783	43.5	2,243	387	17.3
Protective service	343	19	5.5	13	0	0
Building service	1,287	908	70.6	293	97	33.1
Agriculture and kindred	1,208	48	4.0	7	0	0
Skilled	3,639	289	7.9	261	16	6.1
Semiskilled	3,222	305	9.5	1,013	50	4.9
Unskilled	3,839	983	25.6	1,456	31	2.1

During the period from January 1 to October 31, 1941, Negro workers constituted 9.6 percent of the total placements by the State Employment Security Division. It was reported, however, that a large proportion of the Negro placements were in domestic and service occupations and represented orders for day workers or for workers to fill jobs of comparatively short duration. The Employment Security Division nevertheless noted that there was evidence of the hiring of colored workers by employers who had not before used this type of labor, and that there was a tendency toward the relaxing of employer specifications and requirements. The fact that it would be necessary to utilize qualified and available Negro workers, it was stated, was coming to be recognized by employers.

Outline of Plan

The bi-racial plan now operates on three levels—Federal, State, and local.

On the Federal level, the Executive order of June 25, 1941, on fair employment practices, and the special agency created in the War Production Board to implement that order,[2] apply to the war industries.

On the State level, the plan works through the Indiana State Defense Council (which has a Negro activities coordinator), a 16-member Negro committee appointed by the governor, and a white committee in the Indiana State Chamber of Commerce. The State employment service, also, cooperated while it was a State agency and is continuing the same policy now that it is controlled by the Federal Government. The State Federation of Labor (A. F. of L.) and the State Industrial Union Council (C. I. O.) have gone on record as supporting the program of bi-racial cooperation. All State agencies, the State officers of the A. F. of L. and of the C.I.O., and the bi-racial committee

[2] See Monthly Labor Review for August 1941 (p. 398) for text of order.

have been working as a unit on this problem of placement of unemployed Negroes.

On the community level, local bi-racial committees are formed, which consist of three local representatives from C. I. O. and three from A. F. of L. unions, three local employers, and three local Negro citizens. By April 1942 such local bi-racial committees had been organized in 20 cities.

Both major labor unions and the State chamber of commerce have cooperated in appointing local representatives to the local committees. When particular problems of production and employment arise, special committees of employers who have expert knowledge of the particular problems will be appointed to work with the labor and Negro committee members. For example, should the problem relate to employment in building construction, the employer committee would not be composed of manufacturers but of employers familiar with the problems of building constuction. Appointment of such special committees will also, it is thought, spread the responsibility and draw out ideas that may be useful in other cases.

Operation of State Plan

The State bi-racial committee seeks to coordinate the work of the local committees through the exchange of experience and knowledge as to any developments in individual communities which might prove of benefit to others. It is not, however, the policy of the State committee to dictate to the local committees, as it is realized that local conditions may require further plans that can best be determined by the local committees.

The State committee has informed county school superintendents, in counties having large Negro populations, of the program and has solicited their assistance in increasing the opportunities for Negro youth in the defense training classes sponsored by local school units. Such schools have also been contacted and urged to reexamine their existing training facilities for Negroes and to extend them where needed.

Thus far no concerted campaign has been made to obtain widespread newspaper publicity, though the question of further use of the press is being studied. Addresses by the governor, the civilian defense director, and the negro activities coordinator, before many groups, have called attention to the program and appealed for public support. The radio has also been used as a medium of education.

The local bi-racial committees hold conferences and survey the employment possibilities in their communities. They then decide what is needed to secure additional work for Negroes. The local committee also has the responsibility of considering any existing prejudices against the hiring of colored workers and of taking any action it may deem wise to overcome such prejudices. During local conferences it is proposed that employers who have not employed Negro workers be informed of the success of other employers with such labor and of the availability of colored workers. If vocational training is needed to qualify colored workers for anticipated employment, the educational authorities will be solicited to provide such facilities.

Considered as a whole, the community activity is said to be "a 'door-knocking' program, for personal contacts and conferences between employer, labor, and Negro. In these conferences a frank discussion of the reasons for undertaking the program of voluntary employment for the Negro and the benefits that may be anticipated from voluntary cooperation and participation may be presumed."

Results Up to April 1942

At the initial bi-racial conference held in Indianapolis in June 1941, it was decided that, in view of the great unemployment among the Negroes, immediate placement was most urgent and that emphasis at first would be on finding jobs for them, irrespective of the type of job made available or the skill of the applicant. Afterward a program would be undertaken to obtain jobs for colored workers commensurate with their training and skill.

Even in the first few months of the program, it was reported, several thousand Negro workers were given employment through the efforts of those connected with the plan. It was also stated that, through the careful selection of Negroes recommended for new job opportunities, much good will had been created among both employers and white workers toward the colored workers. Credit for this is given to the local colored defense unemployment committees. Their personal knowledge of the workers in their communities and accurate classification of the skills of such workers enabled them to recommend the most reliable and qualified persons in their racial group.

One of the activities of the local committees was a questionnaire survey of the Negro labor supply, in order to ascertain the number and types of Negro employables available for work in national defense industries. The data gathered revealed hundreds of Negroes possessed of skills needed in war defense work and their number was being daily increased by Negroes enrolled in defense training programs.

Some progress has been made in providing new equipment for vocational training for Negroes. In Indianapolis, for instance, a modern building was recently constructed which was used during the past school year for foundry training along broad lines.

Admittedly, only a beginning has been made. The outstanding achievement, it is felt, is an improvement in the prevailing attitude, through the creation of machinery for grappling with this problem, and this will clear the way for greater gains. Other States, it is reported, have become interested in this Indiana plan for bi-racial cooperation.

EMPLOYMENT OF YOUNG PEOPLE IN GERMANY

THE policy of the German Government regarding the direction of boys and girls leaving school into occupations conforming with national requirements was described in a series of articles appearing in the Reichsarbeitsblatt in October 1941. A summary of these articles was given in the International Labor Review for May 1942.

There has been a great change, it is said, in employment opportunities for young persons since the National-Socialist Party came into power. In 1934 more than 620,000 boys left school, but vacancies were open to only about one-fourth of this number. By 1939 the number of vacancies exceeded the number of boys leaving school, and

in 1941 there were 627,100 vacancies, of which 200,000 remained unfilled. This situation resulted in competition between occupations and establishments for the available juvenile labor, with the result that the boys were able to choose the most popular occupations, particularly in metalworking and in commercial offices. In the opinion of the authorities, if this situation had remained unchecked by State intervention, it would have proved very injurious to the economy of the country. Measures were taken, accordingly, as early as March 1938, to provide for compulsory reporting of all juveniles leaving school, while the employment of apprentices, probationers, and learners was made subject to the approval of the competent employment office. It was also provided that the employment offices could call young people and their parents for consultation as to the choice of an occupation. As a continual decline in the number of boys leaving school was forecast for the next few years—an estimated 440,000 in 1947 as compared with 620,000 in 1934—it was regarded as necessary to plan the allocation of juveniles to different occupations in the interests of the national economy as a whole.

The Juvenile Employment Plan

A plan for the employment of juveniles was worked out and came into full operation in 1941. The plan applies only to boys who do not intend to follow an academic career or to enter the armed forces or the civil service. Any use of direct compulsion under the plan is disclaimed, but the employment offices have the opportunity to influence the boys' choice of occupation through interviews with them and their parents, and the offices do have the power to refuse permission to engage apprentices in a particular occupation if the desired number has been reached, although they do not have the power to force into other specific occupations the juveniles thus set free. The work is done in close collaboration with the schools and the Hitler Youth Movement. The main object of the employment offices, therefore, has been to discourage entrance into occupations for which too many boys were applying, and to persuade them to take employment in less popular groups such as agriculture, mining, the stone and earth, textile, clothing, and building industries, and wholesale and retail trade.

The following table shows the number of boys indicating a preference for employment in each of these occupational groups from 1938 to Easter 1941.

Number of Boys Given Vocational Guidance in Germany, by Occupational Group Chosen

[In thousands]

Year	Agriculture	Mining	Stone and earth	Metalworking	Textiles	Clothing	Building	Commerce and offices	
								Total	Sales assistants
1938	38.7	14.4	4.7	254.6	7.8	15.9	49.2	97.9	8.7
1939	53.9	8.2	4.7	280.3	6.9	14.8	50.6	104.3	8.7
1940	61.1	5.6	3.6	278.0	4.7	13.5	41.9	94.2	7.4
1941	71.2	7.2	3.4	280.1	4.2	17.3	42.3	92.4	13.2

The table shows that the employment offices succeeded to a certain extent in checking the flow toward the metalworking trades and in correcting the drift toward commercial employment, while increasing

numbers were turned to the more unpopular employments. The decline in applications for vacancies in the mining, stone and earth, and textile industries, however, was not checked. There was a satisfactory increase in the number of notifications of vacancies for learners in semiskilled occupations, and although the figures were relatively small, they were taken as an indication that the undertakings were showing an increasing inclination to adapt themselves to the new industrial pattern, which involves the introduction of various new semiskilled occupations.

Employment Policy for Girls

Although the decline in the number of girls leaving school is as great as that of boys and youths, the juvenile employment plan has not been applied to them. The number of vacancies reported for girls in skilled and semiskilled occupations is less than half the number of girls leaving schools (in 1939 the proportion was 221,025 to 535,000). However, there is a problem of finding juvenile recruits among girls for the various occupations, mainly because a large proportion of girls enter occupational life, not through some system of technical training, but by way of work as unskilled "help" or as members of a family group. Technical training is less thoroughly organized for girls than for boys, and such provisions as do exist are applied much less strictly. Entrance into agriculture and domestic service—the two main occupations of women—is generally direct, without any intervening period of training.

Employment among women has fluctuated considerably in the past decade. Their employment was discouraged in the period immediately following the seizure of power by the National-Socialist Party, but this downward trend was reversed with the introduction of the second Four-Year Plan. The war has further disturbed the statistical picture, so that it is difficult to fix any basic figures upon which to build a plan for guiding the flow of girls leaving school into employment.

The principal occupational groups in which girls under 18 were employed, according to the workbooks for 1940, were as follows:

	Number employed
Agriculture (excluding girls working in their own families)	126, 000
Domestic work (excluding girls working in their own families)	368, 000
Commerce and offices	232, 000
Clothing	59, 000
Textiles	30, 000
Miscellaneous unskilled occupations	58, 000
"Workers without any fixed occupation"	233, 000

Such predominantly feminine occupations as teaching, social work, and nursing do not appear on this list, since entry into these occupations normally takes place at a higher age than 18.

Employment preferences expressed by girls leaving school in the same year show that 296,000 preferred employment in commerce and offices as compared with 232,000 actually employed, while only 128,000 preferred domestic work, 53,000 preferred agriculture, and 12,000 preferred textiles. About 90,000 expressed a preference for health and nursing work and education. A total of 128,000 had no specific occupational preference—indicating the uncertain way in which many girls and their parents still face the problem of the choice of an employment.

Although, it is stated, there is still a question in the minds of many girls and their parents, as well as among employers, as to the necessity for technical training, the Ministry of Labor believes that girls as well as boys should not enter gainful employment until they have received vocational training.

The occupations in which women should be employed, according to National-Socialist theory, fall into three categories: First, the conventional feminine occupations of domestic work, nursing, teaching, etc.; second, the typically feminine jobs in trade and industry such as those of saleswomen, stenographers and secretaries, clothing and textile workers, and the food and catering trades; and third, occupations which in normal times are carried on by men but in which women may replace men in wartime. It has not appeared necessary to the authorities, for the present at least, to institute a plan such as that adopted for boys, but it is considered important to make the work as attractive as possible to girls leaving school, and it has been considered necessary, therefore, to institute adequate systems of vocational training. Although the basic problem of providing properly regulated training for these young girls has not yet been solved, the principles applicable to the placing in employment of girls leaving school are the same as those which apply in the case of boys. The ultimate aim of the juvenile employment policy of Germany, in the words of the Minister of Labor, is to see "that every young person in our midst should enter an occupation corresponding to his or her capacities, and should receive an education appropriate to that occupation."

The "Back to the Land" Policy

The authorities are much concerned with the problem of checking the rural exodus and restoring a proper balance between town and country activities. Measures which have been of importance in averting some of the worst features of the movement away from the land since 1933 are the establishment of the National Food Corporation, the Farm Entail Law, and the regulation of the market.

Recent figures on the Hitler Youth Movement's Land Service show that a start has been made in bringing young people of the cities back to the land. About 100,000 young people of both sexes have passed through the Land Service and have given voluntary service of 1 year. In the district embracing the former Polish territory, 80 percent are remaining permanently in the East with the purpose of settling on the land or entering an agricultural occupation. Altogether, nearly 30 percent of the young people who passed through the Service in 1940 have remained on the land—a proportion which is expected to increase in the future. Practical efforts have also been made to solve the other part of the problem—that of retaining rural youth on the land. To this end there is to be a careful regulation of occupational training and occupational organizations to open up interesting jobs with opportunities for advancement.

The important question of the remuneration of agricultural workers, it is said, is still to be solved, but the question is under consideration by the competent authorities, and the Ministry of Labor has stated that they are already discussing what may prove a satisfactory solution. A whole series of other measures is contemplated with a view to rendering life in the country more attractive.

PROGRAM OF INTER-AMERICAN SOCIAL SECURITY CONFERENCE, SEPTEMBER 1942

AN INTER-AMERICAN Committee on Social Security was formed at a preliminary meeting at Lima, Peru, in December 1940. Ten countries were represented at that meeting, and since that time there have been important additions to the committee, notably Canada and Uruguay. As a result of this movement toward inter-American collaboration in the field of social security, a conference has been convened by the Chilean Government, on behalf of the Committee in collaboration with the International Labor Office, to which representatives of all the American countries have been invited. On the invitation of the Chilean Government the conference will be held at Santiago de Chile on September 10–16, 1942. The International Labor Office is in charge of the technical preparations for the conference, which will be attended by Edward J. Phelan, Acting Director of the ILO, and a tripartite delegation from the Governing Body representing Government, management, and labor. The members of this delegation will be: For the Governments, Paul van Zeeland, former Prime Minister of Belgium; for the employers' group, Henry I. Harriman, president of the New England Power Association; and for the workers, Robert J. Watt, international representative of the American Federation of Labor.

The agenda of the Conference, prepared by the Committee, includes the following items: Extension of social insurance coverage to agricultural workers, to the self-employed, and to domestic servants; efficacy and economy of medical and pharmaceutical benefits in health-insurance plans; and administration of cash disability benefits. The following items were added at the request of the Chilean Government and the organizing committee it has created for the conference: Protection of public health through social insurance and social-insurance relations with sanitation and social assistance; organization of a uniform system of vital statistics on etiological bases; and continuity of social welfare, i. e., social insurance as a unit, or financial and benefits system providing for continuity as between the different kinds of insurance institutions; financial system best suited to the scope of insurance.

In announcing the conference in the June 1942 issue of the International Labor Review it is said that "at a time when the war is forcing every country to utilize to the utmost all its manpower and material resources, and when social-security services are being called upon to make a supreme effort to preserve and strengthen the health and industrial capacity of the workers and their families, it is thought that the Inter-American Conference will afford a unique opportunity to develop

immediate, practical collaboration between Governments and the institutions for social insurance and social welfare and to draw up a permanent program of action."

SOCIAL-INSURANCE LAW OF COSTA RICA, 1941

A LAW providing for both compulsory and voluntary insurance for sickness, maternity, disability, old age, unemployment, and death, and for widows' and orphans' benefits was passed in Costa Rica in November 1941. This is the first social-insurance law to be passed in a Central American country.[1]

The system is compulsory for all employed persons under the age of 60, including industrial and agricultural workers, home workers and domestic servants, independent workers and members of the liberal professions, and employees of State institutions, who do not earn more than 3,600 colones a year. Voluntary insurance is open to all persons not compulsorily insured. It was provided that the old-age system should be established within 3 months from the publication of the law, and maternity insurance within 6 months. The other branches of insurance are to be established successively but within a period of 2 years.

Contributions

The system will be financed by the payment of contributions by insured persons, employers, and the State, the State contribution being met out of certain taxes on alcohol and alcoholic products, land, etc. The sum of 100,000 colones was appropriated for starting the social-insurance bank.

For the calculation of contributions and benefits, workers and employees are divided into 12 wage classes, these groups ranging from less than 6 colones weekly to 68–75 colones. The employer is required to contribute 5.5 percent of his pay roll; the workers, 3.5 percent of their wages; and the State, 3 percent. For employees on either a weekly or monthly basis the wage classifications are the same as above, but the employees pay 6 percent and the State 2 percent, while the employers' contribution remains at 5.5 percent. The quotas for public and private [2] employees are the same, with the exception that they are required to pay 1 percent on half of the first salary and on the difference after the first wage increase. This payment is made in 48 monthly installments. Independent workers and the State each pay 6 percent, while voluntarily insured persons and the State each pay 7¼ percent. The workers' contributions are deducted by the employer, who is responsible for the purchase of the necessary stamps.

Benefits

Pensions are payable to insured persons at the age of 60 who have paid at least 1,040 weekly contributions. The pension will be equal to 40 percent of the average salary or income for the last 10 years, increased by 2 percent for each additional 100 contributions, up to a maximum

[1] Report by S. Roger Tyler, Jr., American vice consul, and J. M. Casas, clerk, San José.

[2] Private employees are those persons whose work for an employer is intellectual rather than physical, such as writers, artists, professional men, etc., with salaries not over 3,600 colones.

of 60 percent. The pension will be increased by 1 percent for a husband or wife who is over the age of 60 or an invalid not entitled to a pension, and for each child who is under the age of 14 or an invalid, with the maximum fixed at 10 percent. A reduced pension or return of contributions will be paid to an insured person who has not paid the required number of weekly contributions.

Invalidity pensions amounting to 40 percent of the average wages or salary received by the insured during the previous 10 years will be paid if the disabled person is under 60 years of age and has paid at least 208 weekly contributions.

Maternity benefits include general and specialized medical care, hospital care, cash allowance, pharmaceutical aid, and a milk allowance. The cash allowance amounts to half the salary or average daily wage for the 36 days before and 36 days after childbirth if the insured woman refrains from work during that period. In protracted cases sickness allowances may also be made.

Eventually the system will provide for sickness insurance, payment of funeral expenses, a death benefit, and widow's and orphan's benefits. Sickness benefits will be provided after 8 weeks' contributions during the 120 days previous and will include cash benefits if 16 weekly contributions have been paid in the 6 months prior to the sickness, and general and specialized medical assistance, hospitalization, and pharmaceutical aid will be provided.

Administration

The social-insurance bank will be administered by a board of five directors with four alternates, with representation on the board of insured persons and employers. The funds of the bank will be invested in the construction of hospitals, clinics, and sanatoriums; in workers' dwellings; in the acquisition of land for the establishment of agricultural colonies; in various works of social assistance; and in real estate and mortgage loans.

BRITISH UNEMPLOYMENT-INSURANCE FUND IN 1941

THE debt of the British unemployment-insurance fund was wiped out March 31, 1941, by a payment from the surplus of the fund, leaving a balance in the fund of about £16,500,000. It was estimated at that time that by the end of the year the surplus would amount to as much as £55,000,000, but an increase in receipts during the balance of the year and a reduction in the amount paid for unemployment benefit resulted in a balance at the end of 1941 of nearly £80,000,000 in the general account and of nearly £5,000,000 in the agricultural account, according to the annual report of the Unemployment Insurance Statutory Committee for the calendar year 1941 on the financial condition of the fund.[1] If the war continues, it was estimated that the balance in the general account would be doubled by the end of 1942.

[1] Great Britain. Unemployment Insurance Statutory Committee. Reports on the Financial Condition of the Unemployment Fund (General and Agricultural Accounts) as of December 31, 1941. London, 1942.

Condition of the Fund in 1941

Receipts during 1941 in the general account amounted to £76,600,969, of which all but £986,250 represented insurance contributions by employers, employed persons, and the State. There was a total expenditure of £12,742,788, of which £8,874,000 was expended for unemployment benefit and £3,868,788 for administration, debt service, and minor items. The excess of income over expenditure, therefore, was £63,858,181. The balance on December 31, 1940, was £54,534,577, of which £38,587,007 was subsequently applied in final discharge of the debt of the fund and there was accordingly a net balance on December 31, 1941, of £79,805,751. Receipts in the agricultural account amounted to £1,513,906, of which all but £72,296 represented contributions by employers, employees, and the State. Expenditures amounted to £477,748, of which £294,000 was paid for unemployment benefit and £183,748 for administrative and minor items. The excess of income over expenditure for the year, therefore, was £1,036,158, which together with the balance of £3,858,294 carried forward from December 31,1940, left a balance on December 31, 1941, of £4,894,452.

The following table shows the approximate receipts and payments of the general and agricultural accounts of the unemployment-insurance fund for the years 1940 and 1941. The statement includes figures taken from accounting and other records which have not yet been subjected to examination and audit.

Receipts and Expenditures of British Unemployment-Insurance Fund, Years Ending December 31, 1940 and 1941

Item	General account		Agricultural account	
	1940	1941	1940	1941
Total receipts	£67,103,454	£76,600,969	£1,252,575	£1,513,906
Contributions from—				
Employers and workers	44,721,061	50,413,547	817,032	961,080
Exchequer	22,350,981	25,201,172	408,023	480,530
Interest on investments	15,292	[1] 980,840	27,286	[1] 72,208
Miscellaneous receipts	16,120	5,410	234	88
Total expenditures	33,124,069	12,742,788	791,503	477,748
Unemployment benefit	25,894,000	8,874,000	635,000	294,000
Refunds on contributions in respect of noninsurable employment	19,099	11,204	985	19
Grants toward authorized courses of instruction	365,500	320,500	2,500	3,500
Grants toward traveling expenses of insured persons seeking employment	15,575	14,970	9	30
Administrative expenses	4,370,540	3,024,280	153,009	180,199
Debt service	2,459,385	497,834		
Excess of receipts over payments	33,979,355	63,858,181	461,072	1,036,158
Applied in discharge of debt on March 31, 1941		38,587,007		
Balance on December 31	54,534,577	79,805,751	3,858,294	4,894,452

[1] Includes interest of £863,350 plus £189,692 profit on redemption of £9,089,800 of 1 percent Treasury Bonds, 1939–41, apportioned between general and agricultural accounts.

General Account

Contributions from employers and employed persons in 1941 showed an increase of £5,692,486 over contributions in 1940. This increase was said to be the net result of one cause tending to a decrease, that is, the withdrawal of men into the fighting forces, and of three causes

tending to an increase, namely, the decline of unemployment, new entrants into industry, and the 1940 amendments to the Unemployment Insurance Act which raised contribution rates and brought additional classes into insurance. These changes were in force during only a part of 1940 but during the whole of 1941. During the year no contributions were received from the defense departments, as these contributions in respect of men discharged from the armed forces have been suspended until an assessment can be made. An increase of £2,850,191 is shown in the Exchequer contribution, which is proportionate to the net contributions from other sources.

Expenditure for unemployment benefit in 1940 fell below that of 1939 by more than £17,000,000, and there was a reduction also in the cost of administration, mainly as a result of the reduction of unemployment. Decreases in expenditure in the minor item of refund of contributions paid in error and in grants towards the cost of courses of instruction were the result of wartime changes in regulations and financial arrangements. The charge for debt service of £497,834 represents the part of the half-yearly installment due on March 31, 1941. This is the last installment of this kind unless and until it becomes necessary for the fund to borrow again.

Representations regarding the disposal of the surplus of the fund were made by the British Employers' Confederation and the general council of the Trades-Union Congress, repeating the suggestions made the previous year. The employers recommended a substantial reduction in contributions and the trades-unions an abolition of the 3-day waiting period for the payment of benefits, abolition of the continuity rules, and an all-round increase in benefits including payments to juveniles.

In view of the favorable balance of nearly £80,000,000 in the fund and the prospect of its being doubled during the present year, the committee felt obligated under the law to review the situation. However, the committee reached the same conclusion as in the previous year; that is, that the circumstances under which the balance in the fund has grown are abnormal and "the war, in effect makes impossible any reasonable forecast of the future course of unemployment, beyond the general forecast that any great reduction of unemployment during the war is certain to be followed by a great rise of unemployment after it."

In view of the dislocations attending the war effort, which are intensified with the prolongation of the war, it was not considered possible to make the reasoned comparison between resources and prospective liabilities which are possible in peacetime. Under present conditions the risks against which the unemployment fund is intended to provide have nearly disappeared, but the committee did not feel that it should be assumed from the present excess of income over expenditure that the resources of the fund were greater than its prospective liabilities, because the level of unemployment after the war, whether or not it is controllable, is at present unpredictable. For this reason, therefore, no changes either in the contribution rates or the rates of benefit were recommended.

A further reason for not recommending a change was the appointment by the Government in the past year of an Inter-Departmental Committee to make a survey of existing national schemes of social insurance and allied services, including workmen's compensation, with

special reference to the interrelation of the schemes. It seemed inadvisable, therefore, to make changes in the rates of benefits or contributions which would widen the differences between the different systems.

Agricultural Account

Contributions to the agricultural account by employers and workpeople showed an increase of £144,048 as compared with 1940. This increase was the result of the increased contributions effective in the last 5 months of 1940. There was also an increase in the realization on investments, so there was a total increase of £261,331 in the income of the fund over the 1940 income. The expenditure on benefits was £294,000 as compared with £635,000 in 1940, reflecting both a decrease in the numbers insured and a lower rate of unemployment, which was partially offset by the increase of benefit rates.

Representations by the National Farmers' Union of England and the National Farmers' Union and the Chamber of Agriculture of Scotland did not advocate any changes in contributions and benefits, but the general council of the Trades-Union Congress advocated abolition of the waiting time and continuity rules and an all-round increase of benefits, including juveniles.

The agricultural fund has had a continuing excess of income over expenditure, which has led to the accumulation of a reserve regarded as excessive. In order to adjust the current and prospective income to expenditure, increases in most of the rates of benefit and a reduction of ½d. a week in the contributions of employers and workers were recommended (for ages 18 and over) and put into effect in 1939. A further reduction of ½d. a week for a limited period was recommended and made effective in 1940. This reduction was to cease in July 1942, but as the surplus in the fund was such as to furnish no financial justification for returning to the higher rate of contribution, it was recommended that the ½d. reduction should be continued. This recommendation was adopted by an order of May 2, 1942.

DISCUSSION OF CHILD ENDOWMENT IN GREAT BRITAIN[1]

THE scarcity and high cost of goods in wartime and the changes in relative incomes suggest the use of family allowances as a method of insuring the fair and efficient distribution of wartime rations, and recently there has been a revival in Great Britain of the movement for some simple and uniform scheme of allowances for children. The vote cast by the Labor Party Conference is a sign of the growing support for such a scheme as a measure of social reform. Even the General Council of the Trades-Union Congress, after years of hesitation based on the fear that family allowances would exercise a depressing effect on the wage level, has recently decided to support such allowances, provided that they are not financed by a deduction from wages.

In view of the growing strength of this movement, the Chancellor of the Exchequer issued in June 1942 a "white paper" on the subject. The document does not commit the Government either for or against

[1] Data are from report of Andrew W. Edson, second secretary of U. S. Embassy at London.

children's allowances, but merely summarizes the main arguments on both sides, and submits the various proposals which have been investigated and the amount by which each scheme would benefit families and burden the taxpayer. It shows that an allowance of five shillings a week could be provided for each child under 15 years (or receiving full-time education if over that age) for a gross annual cost of £132,000,000, or £58,000,000 if the first eligible child was excluded, and £23,000,000 if the first two eligible children were excluded. This estimate takes no account of the possible savings which might be secured on other payments, or on income-tax relief. It is noted that a more complicated system, such as a tie-up with the present system of allowances, or the exclusion of families above a certain income level, would not save very much money and would add greatly to the administrative difficulties involved.

SOCIAL ASSISTANCE IN TURKEY

A RECENT official Turkish report describes the developments in the field of public health and social welfare in Turkey, particularly since the beginning of the republican regime in 1923.[1] The role of the Turkish Republic in this field has been to improve the sanitary conditions of the country and to take steps to control all kinds of sickness and other factors harmful to the health of the Nation. To this end the Ministry of Health and of Social Assistance was created. As the accomplishment of the purposes of the new ministry involved long years of planning, its first efforts were directed, while establishing the essential bases of its activity, toward taking the most urgent measures for safeguarding the public health. This involved establishment of more medical schools to train a larger force of physicians, the eventual goal being at least 1 physician for each 2,000 persons, and measures to control various contagious diseases, some of which were endemic in the villages.

Under the republican regime the birth rate is said to have risen remarkably. The general census of 1935 showed that of a population of 16,200,694, 5,067,695, or 31.3 percent, were aged 9 years or under, as compared with 14.2 percent in England on the basis of the 1931 census in that country. The death rate in Turkey varies between 20 and 21 per 1,000 inhabitants and comparison of the birth and mortality rates shows a population increase of about 22 per 1,000 inhabitants. This rate increased by 21.6 per 1,000 between the censuses of 1922 and 1935.

Development of Public Health System

Prior to the establishment of the Republic, physicians could exercise their profession only in the hospitals and medical schools unless special authorization was obtained. However the provision of medical education has always been given an important place, a medical school and insane asylum having been opened as early as the year 1485. Attempts had been made to establish a public health service, but it was not until 1912 that such a service under the Ministry of the Interior was established by law. The first Ministry of Hygiene and

[1] La Santé publique et l'Assistance sociale en Turquie. Ankara, Direction Générale de la Presse, 1941.

Social Assistance was organized following the establishment of the National Government in 1920. The aftermath of the first World War left so many problems that little was done in the line of public health until the proclamation of the Republic in 1923 when the new Ministry of Hygiene was established.

The sanitary and welfare services created under the Republican Government were modeled on the most modern systems in the western countries. Among the laws enacted was one on public hygiene covering sanitary conditions in cities and villages and for the working class, establishing regulations for control of epidemics, malaria and venereal disease, requiring a medical examination before marriage, and providing for scientifically controlled water supplies for cities and villages. The law on narcotics was published in 1928 and modified in 1933 following ratification of the conventions adopted in The Hague in 1912 and in Geneva in 1925 and 1931. Laws were also passed relative to the organization and functions of the Ministry of Hygiene and Social Assistance.

At the time the sanitary service was established in 1923, sanitary officials included only 554 doctors, 69 pharmacists, 560 health officers, 136 midwives, and 4 infirmary nurses. In 1924 a hospital school with 200 beds was established in Istanbul for medical students, and one of 50 beds at Sivas for health officers. By 1939 the number of officials had increased to 1,391 doctors, 143 pharmacists, 1,604 health officers, 529 midwives, and 408 hospital nurses. An important feature of the health service is the appointment of sanitary guards in the villages, chosen from the peasants, to follow up cases of contagious diseases and to fight in every way possible the rooted superstitions of the people. Compulsory vaccination in those regions in which it was considered necessary was one of the first regulations imposed by the health service.

Malaria has always been a scourge in Turkey, but little had been done to control it until the establishment of the Republic. Seventeen regional organizations were formed and dispensaries and hospital facilities for the control of the disease were organized. In these regions medical examinations are required twice a year. In 1925 examinations were given in only 130 quarters and villages and over 25,000 persons were examined, whereas in 1939 more than 2,300,000 persons were examined in 4,490 localities. Swamps have been drained and measures for mosquito control put into effect in the struggle to control the incidence of malaria. Active measures have also been taken to eradicate trachoma and to provide sanitoriums and care for tuberculosis cases, which increased enormously after the last war.

In 1923 when the health services were organized there were only 3 hospitals with 300 beds which were supported by State funds; 45 hospitals with 2,450 beds supported by the provincial administrations; and 6 with 635 beds supported by the cities. In 1939 these figures had increased to 26 hospitals with 4,725 beds operated with State funds, 78 hospitals with 3,911 beds operated with provincial funds, and 21 hospitals with 1,313 beds financed by municipalities. Dispensaries which numbered only 30 with 185 beds in 1923 had increased in the 16 years to 271 with 1,320 beds.

Maternity and Child Care

An increase in the population, which is of vital interest to the country, depends upon both an increase in the birth rate and a reduction in infant mortality. The report, here reviewed, points out that the country had been weighed down with a long succession of both economic and social misfortunes resulting from interminable wars, together with an absence of modern culture in the country areas. It was the first duty of the Republic, therefore, to remedy these conditions. Although the infant-mortality rate has not been lowered to that of other countries, satisfactory results have been attained, considering the special conditions which were encountered and the short space of time which has elapsed. This is shown by the fact that the infant-mortality rate has been lowered to 125–137 per 1,000 births.

Among the measures which have had a favorable effect upon the infant-mortality rate are the control measures against malaria and the social diseases and against the diseases of childhood. The establishment of maternity hospitals has been one of the most important measures, for, in the 14 years between 1926 and 1939, the number of women cared for in these hospitals has increased from 161 to 6,212 and in the clinics from 1,930 to 24,461. In 1939 the number of children cared for in the hospitals and clinics was 1,092 and 48,430, respectively. In addition, many women have been attended by midwives for whom training schools have been established. Those women who have been licensed to exercise their trade only in the villages are required to give their services free during their compulsory service period of 3 years.

Medical care has been furnished to expectant mothers and dispensary care provided for children of primary school age, particularly for teeth, eyes, and ears. Public health centers established in populous areas, although primarily public, social, and sanitary institutions, have also contributed to the reduction in infant mortality through their assistance to mothers and infants. Nurseries and an opportunity to nurse their children have been provided for working mothers, while the law provides that they may not be employed on improper work during the 3 months before childbirth and shall receive either their whole or half of their wages according to their length of service during the 3 weeks before and after childbirth.

Children's allowances are provided by the Government for needy families with more than 6 children; families in comfortable circumstances are given medals instead of allowances.

Among the medico-social institutions for children is a school for deaf mutes which takes children in the primary classes between the ages of 8 and 12, the course of instruction lasting 7 years. These children are under the care of physicians and special instructors. They are taught to read and write and are taught a trade. This school also takes care of blind and abnormal children. At the end of 1939, 92 boys and girls had finished the course of instruction, of whom 81 were deaf mutes and 11 were blind.

In concluding the report, the increase in population of more than 2 millions from 1935 to 1939 is pointed to as a measure of the success of the health measures carried on by the Government, which under favorable circumstances and if order and peace are restored will be expanded to give a still more developed social organization.

Education and Training

FUTURE SUPPLY OF PROFESSIONALLY TRAINED MANPOWER

AT THE request of the National Resources Planning Board and the National Roster of Scientific and Specialized Personnel, the American Council on Education made a survey of the institutions of higher learning in order to estimate the supply of professionally trained manpower that would become available during 1942, or by early January 1943. The results of this survey are presented briefly in a report, given almost in full below, by Dr. C. S. Marsh, vice president of the American Council on Education.

Four questionnaires were sent to the institutions, asking for (1) an estimate of the number of undergraduate students who will be graduated during the year, trained for 103 occupations listed by the Roster; (2) an estimate of the number of graduate students who would become available for full-time employment in the same occupations during the year; (3) an estimate of the shortage or surplus of professional manpower in teaching, research, and administrative staffs of colleges and universities, especially those qualified for certain occupations; (4) a listing of the special facilities of the institutions for instruction in subjects related to war.

The list of 103 occupations had been designated by the National Roster. These occupations were separated into seven areas: Management and administration; agriculture and biology; medicine and related fields; engineering and physical sciences; social sciences; arts and languages; and clergy. While the occupations did not closely parallel the courses of study carried forward in the institutions, administrative heads were able to place most of their students within the established areas.

Nine hundred and twenty-one colleges and universities, professional and technological schools, and teacher-training institutions responded. All are institutions granting baccalaureate or higher degrees. Of this number, 812 supplied usable data. The data provide a fairly accurate estimate of the professionally trained manpower to be released this year by the institutions of higher learning.

In these institutions there will be at least 172,000 young men and women who will become available for employment by January 1943. Of this group, 145,000 will be graduates, and 27,000 postgraduate students. Many of the latter group will hold master's degrees, and some will have their doctorates.

Colleges have accelerated their courses; one technological school is delivering to industry twice its usual number of trained youth in 16 months' less time. The three-term collegiate year is being substituted for the semester system. Vacations are being shortened, and in some schools dropped completely. Graduation exercises are at least 1 month earlier in the majority of institutions.

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Because of these changes, young people are becoming available for employment at a steadier rate during the year. June is still the preferred graduation month, but there will be a more even flow of professionally trained persons from the colleges to industry or to the Government than heretofore. The colleges estimated their students would complete their courses in the following numbers: February or March, 12,000; April or May, 43,000; June or July, 74,000; August or September, 13,000; December 1942 or January 1943, 29,000.

The institutions are reported to be eager to assist with the war effort. Many have night classes in the ESMDT—engineering, science, and management defense training—courses administered by the United States Office of Education. Others have turned over dormitories and classrooms for use as barracks and training centers for Army and Navy fliers. Faculty members have been loaned to the Government and to industry. Laboratories have been turned over to the Government for use in military research. Special courses bearing on actual war problems, i. e., camouflage, explosives, tactics, map making, radio communication, cryptography, and military law, have been organized.

Possible Expansion of Enrollments[1]

Of the colleges and universities reporting, 95 percent can expand their enrollments. Only 35 institutions say they definitely cannot increase enrollments; of these, four are religious institutions, two have sufficient equipment and staff but no housing facilities, and one has already been taken over by the Navy. But a majority of the schools which can expand enrollments cannot expand in the subject fields in which the greatest shortage of manpower is developing. Half could expand in chemistry, but only 16 percent could take additional students in engineering. Twenty-five percent could manage an increase in management and administration (New York University alone, it is said, could undertake the training of 6,000 additional students in this field), but less than 25 percent of the medical schools could undertake immediate expansion.

Yet enrollments are dropping steadily. The decrease ranges from 8 to 25 percent among the various types of institutions. Undergraduates are entering the armed services, and also being attracted by high wages into industry. Moreover, thousands of young men and young women who might have entered college are taking jobs instead, attracted by the same high wages. Enrollments have decreased sharply in the liberal arts colleges, the teacher-training institutions, and the law schools.

Few of the institutions cared to estimate their faculty shortages through 1942. Colleges reported their greatest shortage in qualified personnel among men; of one group of estimated vacancies before 1943, only one-third could be filled by qualified women, in the opinion of the administrative heads of the institutions.

If such counterbalance occurs, it may not serve the best interests of the Nation. Faculty members most needed by industry, for instance, are those engaged in teaching physical sciences. These same teachers are also the most necessary to the institutions who must train the youth demanded by industry. Moreover, research in the

[1] See also article, Effect of the War on College Enrollment, on page 250 of this issue.

military problems is being carried on within the laboratories of many of the institutions. These projects, many of highly secret nature, further draw the skilled scientists out of the teaching field. In some universities, the teaching time of the scientific staffs has been cut in half by the necessary hours spent at research. It cannot therefore be said that the shortage of staffs created by the withdrawal of these faculty members will counterbalance the drop in numbers of music students, for example.

On the other hand, the youth most qualified for higher education in those sciences most necessary to a nation at war are frequently going directly from secondary schools into industry. The Nation, therefore, never has the opportunity to train some of its best talent. Moreover, college students are not only drafted for service in armed forces, but they are tempted away by industrial wages before they have established their competence in chosen professions.

Recommendations for Improvement

The colleges themselves, with the assistance of the Federal Government, can make adjustments that will exercise some control on the direction of students into higher education. The report suggests the following steps:

1. *Standardization of selective-service deferments for training in certain occupations.* In the first World War, only medical and dental students were deferred or excused from military service. In this conflict it may become necessary to defer those in training for many other occupational fields. This is a war of microscopes, and drafting rooms, and test tubes. The report states that to date the selective service boards have been fairly lenient in granting deferments for youth in higher education, but it concludes that no doubt better use of the facilities of colleges and universities could be made if some national policy of occupational-training deferments were stated. To date, fewer than 30 medical students have been drafted; but the drafting of students in other equally needed professions has been more widespread.

2. *Financial aid to qualified youth.* The report urges that youth with high mental ability be financially aided to continue their education, and that the Federal Government provide the funds to the individual youth if necessary. Such financial aid also might be the deciding factor to a youth who is trying to choose between continuing his education and taking an industrial job. If he were assured that he could continue his education he would probably accept the temporary lower scale of living that continuance of higher education offers, as opposed to the affluence of high wages from industry.

3. *Stimulation of secondary-school students to enter fields in which shortages exist.* Since many American colleges draw a majority of their students from neighboring areas within a radius of 100 miles, the report believes that it should not be an impossible task for a college staff to keep a fairly close check on the qualifications, aptitudes, and abilities of the boys and girls in all secondary schools in its area. In this way guidance toward professions in which shortages exist could be started in the early years of secondary education. Probably no more than 10 percent of the secondary schools of the Nation have skilled guidance counselors. Without guidance and stimulation, it is

easy for a talent in chemical research to be submerged under the acceptance by family and student that Johnny will become a lawyer or banker. One college administrator, in listing the facilities of his college, noted that his institution was equipped with both materials and staff for teaching of sciences to far more students than were enrolled. He suggested that it might be possible to open the laboratories to high-school students from neighboring communities, or at least to furnish the staff for teaching laboratory techniques to high-school students. Such an experiment might uncover aptitudes among youth that otherwise would go unnoticed. Through the consequent interest and curiosity, these youth might be stimulated into pursuing higher education.

4. *More careful counseling of woman matriculants.* Although the number of woman students in institutions of higher learning has risen steadily during the century, the survey shows that of the 172,000 graduates who will leave college this year, either as graduates or post-graduates, roughly one-third will be women. The distribution of two man graduates to one woman graduate is not consistent even within the occupational fields, however. Only in medicine and related fields (including nutrition and nursing) is this ratio approximated. In the physical sciences, men outnumber women 5 to 1; in engineering, almost 600 to 1; in the clergy, the ratio is 27 to 1; in management and administration, the ratio drops to 6 to 1; and in agriculture and biology, it is 3 to 1. Only in arts and languages do women outnumber men (2 to 1); in the social sciences the numbers are approximately equal. If women would take up studies in the occupations at present greatly undermanned, a great potential pool of workers would be established.

EFFECT OF THE WAR ON COLLEGE ENROLLMENT

THE war not only is causing decreased enrollments of students in the colleges and universities of the United States, but also is necessitating changes in curriculums to adjust them to wartime needs. Of 73 educational institutions which responded to an inquiry by the Bureau of Labor Statistics,[1] 69 indicated that they had suffered a decline in total enrollment during the academic year of 1941–42. Reports indicated also that a further drop is expected in the next school year.

Not all of the departments of colleges and universities are affected uniformly, some suffering more severely in the matter of registrations than others. Further, decreases in some departments or class years may be offset somewhat by increases in others. Thus an increase in the size of the new freshman classes may conceal large declines among juniors and seniors. Again, most of the colleges covered by the survey offer courses of study for both men and women. In some cases a decrease in the number of male students was almost balanced by an increase in the enrollment of women.

In order to prepare students as fast as possible, courses are being accelerated. In addition, new courses are being offered in many subjects directly related to the war.

[1] The survey was conducted in the Bureau by the Occupational Outlook Division, Emmett H. Welch, chief.

Effect of War Upon Enrollment

Declines in enrollment reported by the colleges and universities ranged from 1 to 20 percent of the total enrollment of the previous academic year and averaged about 10 percent.

Further, most of the responses received indicated that, for several reasons, the losses in registrations which have already been experienced hardly compare with what will happen in the 1942–43 year: (1) Since most military agencies recruiting on the campus for the armed forces allow the men to finish their semester's work after enlisting, the colleges did not show so large a drop in registration in 1941–42 as would have been the case had the men reported immediately for induction. These losses will, however, become evident in the next school year. Thus, one northern New Jersey university reported a decline of 3 percent in registrations during the current academic year, but 40 percent of the senior class alone had already been accepted by some branch of the armed services, their induction merely awaiting their graduation. (2) Many students, though not entering military service, will not return to college for the fall semester. Among these will be students who have been deferred as trainees for work in critical occupations. Others will undoubtedly obtain war jobs this summer, and probably the proportion returning to school in the fall will be much less than is ordinarily the case.

The above observations are supported by the general pattern in the decline in enrollment as indicated by the survey. The present academic year opened in the fall of 1941 with comparatively small declines in college registrations. By the time the second semester began, however, the attack on Pearl Harbor had been made, and most colleges had substantial drop-outs between the fall and spring terms. One southern college, which enjoyed a 10-percent increase in enrollment between the fall of 1940 and the fall of 1941, sustained a 20-percent drop in enrollment in the second semester. Another southern university reported a decline of 17 percent in student enrollment after the Pearl Harbor attack. There is little doubt that the same trend will continue, and will result in large reductions in the college student body this fall.

An indication of the losses in enrollment caused by the operation of the Selective Service System, voluntary enlistment, or drop-outs to take war employment is shown in the following statement covering 1,019 students for whom the cause of leaving school was reported.

Reason for leaving college:	*Number*	*Percent*
Inducted	234	23. 0
Enlisted	493	48. 4
Left for war jobs	292	28. 6
Total	1, 019	100. 0

The above indicates that almost half of the students who left college because of the war entered the armed services by enlisting. Only a little over one-fifth were inducted. There was a definite attempt on the part of the students (aided by faculty advisors) to enlist as privates or obtain commissions in that branch of the service where their work would bear some relation to their training.

It should be pointed out that the number of students going into the armed forces through the process of enlistment will be much higher

by the fall of 1942. It has already been noted that a large number of students are signed up and are merely completing their training before going into active service. This is particularly true in land-grant colleges which have compulsory R. O. T. C. training. Other institutions also have large numbers of students in the Navy's V–5 and V–7 programs, which have attracted many recruits. One Georgia school reported that it was practically an armed camp, with fully three-fourths of its senior class signed up for the Army or Navy.

Almost one-fourth of the 1,019 students who dropped out of school on account of the war did so in order to take jobs in war plants. The effect of war employment on enrollment, however, differed markedly among the various regions of the country. As was to be expected, colleges situated near centers of war industry lost many more students to the factories than did colleges at considerable distances.

The decline in enrollment which practically all of the colleges experienced was not uniformly distributed among the various units in each institution. Although data on this subject were not available in all cases, the various responses indicated that heavy inroads on student registration were taking place in the schools of liberal arts, most graduate faculties, the law schools, and the schools of business administration. The schools of engineering and the medical schools, however, were either holding their own or experiencing comparatively small reductions in their enrollment. Table 1, which shows the enrollment figures for the various departments of a southern university, is fairly typical.

TABLE 1.—*Decrease in Enrollment at a Southern University, Academic Years 1940–41 and 1941–42*

Department	Registrations		Percent of decrease 1940–41 to 1941–42
	1940–41	1941–42	
College	1,753	1,530	12.7
Graduate School	278	263	5.4
Education	94	66	29.9
Engineering	245	229	6.5
Law School	351	240	31.6
Medical School	248	248	----------

TABLE 2.—*Changes in Enrollment at a New England University, Fall of 1940, Fall of 1941, and Spring of 1942*

Department	Registration				
	Fall of 1940	Fall of 1941	Percent of change October 1940 to October 1941	Spring of 1942	Percent of change, October 1940 to spring of 1942
Law School	1,248	807	−35.3	609	−51.2
Graduate School of Arts and Sciences	1,034	802	−22.4	661	−36.1
Engineering School	142	122	−14.1	98	−31.0
Medical and Dental Schools	682	636	−6.7	638	−6.5
Business Administration	866	802	−7.4	985	+13.7
Undergraduate College	3,561	3,554	----------	3,356	−5.8

Table 2 shows similar data for a large New England university, and indicates a greatly accelerated drop in enrollment since the attack on Pearl Harbor. The increase in enrollment shown for the School of Business was caused by the fact that the Navy is using the school's facilities to train a large number of its recruits for work in the Quartermaster Corps.

Adaptation of Courses of Study to War Effort

All the colleges and universities included in the survey indicated that they were adapting their courses of study to meet the new needs occasioned by the war effort.

Acceleration of courses of study.—Practically every institution which was not already operating on the basis of a 48-week year (quarter system) was laying plans for extending its courses to a full-year schedule. Some schools were changing from a semester to a quarter system, and practically all were either starting or extending their summer sessions. In general, the facilities of these various institutions were being made available to all students who wished to complete their courses of study within 3 instead of the usual 4 years. Estimates made by college officials indicate that they expected from one-third to one-half of the student body to take advantage of this plan. It is also interesting to note that some schools were even making their acceleration program compulsory in the more important technical fields of study. Columbia University, for example, is requiring that every student in the Schools of Medicine, Dental and Oral Surgery, and Engineering take advantage of the accelerated program of study.

A few of the technical schools are avoiding any extreme speed-up plan. Thus, after discussion with Army and Navy officials, the Massachusetts Institute of Technology is leaving the first 3 years of study unchanged, in order to allow students to take war employment during the summer.

Curriculum changes.—In general, the program of acceleration is being accompanied by a twofold change in the curriculum. Almost every college is increasing the number of courses given in fields of study which train persons for work in essential industries. This is particularly true in such subjects as engineering, chemistry, physics and mathematics. At the same time, new courses directly related to the war effort are making their appearance. Courses are now being given in various subjects from propaganda warfare to civilian defense.

The Problem of Placement

The effect of the war upon colleges and universities is perhaps most clearly indicated by the complete reversal that has taken place in their placement problem. During the past decade the problem has been one of finding jobs for the students; currently, the problem is one of finding students for the jobs. Almost every college reports a steadily mounting backlog of unfilled orders for students.

In a number of cases the college placement offices are being completely by-passed by both student and employer. Some employers are putting seniors on their pay roll as early as December and then granting them extended leaves of absence to allow them to finish their training. Others have been successful in enticing students away before they

complete their course of study; this is particularly true among the woman students, for whom there is an unprecedented demand.

The greatest demand is for engineers and students with similar technical backgrounds. Teachers are also badly needed. For the nontechnical graduates, the placement picture is not so bright, but comparatively little difficulty is found in placing them.

One group deserves special mention as being an exception in the otherwise bright employment picture. Many universities indicated that students with a nontechnical background who face imminent induction into the armed forces could not obtain employment. Wherever feasible, employers were attempting to get personnel whose draft status ensures that they will remain with the firm for a reasonable time.

Industrial Disputes

RECENT STRIKES

PRELIMINARY estimates indicate a substantial increase in strike activity in June 1942 as compared with May. The number of strikes increased 27 percent to 350, the number of workers involved increased 72 percent to 100,000, and man-days of idleness increased 69 percent to 550,000. In spite of these increases, however, strike activity was still below the level for June a year ago and lower also than the 5-year average for June in the pre-defense period 1935–39, especially as measured in terms of strike idleness. The number of strikes in June 1942 was roughly the same as in June a year ago, although about 20 percent greater than the 1935–39 average for June. But the number of workers involved was only 70 percent as great as in June 1941, although about the same as the 5-year average for June, while the man-days of idleness was only 37 percent as great as in June a year ago and only 29 percent as great as the 5-year June average.

There was also a substantial increase in strikes affecting war work in June as compared with May. The number of strikes affecting war work increased 37 percent, the number of workers involved in such strikes increased 75 percent, and idleness during war strikes increased about 85 percent.

Trend of Strikes, January to June 1942

Month	All strikes [1]			Strikes affecting war work [2]		
	Number of strikes beginning in month	Number of workers involved	Number of man-days idle	Number of strikes beginning in month	Number of workers involved	Number of man-days idle
1942						
January	155	32,500	390,000	27	11,605	46,197
February	190	57,000	425,000	50	24,587	118,700
March	240	65,000	450,000	66	34,957	166,680
April	310	55,000	375,000	91	26,255	173,513
May	275	58,000	325,000	125	44,891	137,330
June	350	100,000	550,000	171	78,627	254,653

[1] Figures are not final but are subject to change as later information is received.

[2] As determined by a Joint Committee of representatives from the War, Navy, and Labor Departments, Maritime Commission, War Labor Board, and War Production Board. The Bureau of Labor Statistics does not participate in the selection of these strikes, but it does furnish the statistics after the Joint Committee determines which strikes affected war work.

The largest strikes in June in terms of number of workers involved were: (1) The strike of over 12,000 workers at the Yellow Truck & Coach Manufacturing Co., Pontiac, Mich., largely over the question of pay for time lost during a short black-out period. This strike lasted only 1 day and part of the time lost was made up over the week end. (2) The strike involving about 5,000 Philadelphia laundry workers on June 9, over the question of wage increases. This strike was settled June 22 on a compromise basis. (3) The strike on June 24 of about

3,500 workers at the Lorain, Ohio, works of National Tube Co. because of delay in settling certain wage-adjustment grievances. The strike was terminated June 27, by agreement for immediate negotiations to settle the wage-adjustment issues. (4) The 1-day strike of more than 3,000 taxicab drivers in Washington, D. C., over proposed changes in city zone rates. The drivers returned to work pending final settlement. (5) The 1-day strike of 3,000 workers at the Massena, N. Y., plant of the Aluminum Co. of America where the workers demanded a wage increase of 10 cents per hour and returned to work pending a decision from the National War Labor Board. (6) The strike from June 1 to 5 involving about 3,000 employees in Holyoke, Mass., paper mills. The issue in this case also was a demand for a wage increase of 10 cents per hour, and the strike was terminated upon agreement to submit the dispute to the Massachusetts State Board of Conciliation and Arbitration for decision.

ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, JUNE 1942

THE United States Conciliation Service, during June 1942 disposed of 1,290 situations involving 913,028 workers (table 1). The services of this agency were requested by the employers, employees, and other interested parties. Of these situations 174 were strikes and lock-outs involving 67,348 workers; 687 were threatened strikes and controversies involving 387,721 workers. Sixty-one disputes were certified during the month to the National War Labor Board, and jurisdiction was assumed by other agencies in 43 others. The remaining 325 situations included investigations, arbitrations, requests for information, consultations, etc.

TABLE 1.—*Situations Disposed of by United States Conciliation Service, June 1942, by Type of Situation*

Type of situation	Number	Workers involved
All situations handled	1,290	913,028
Disputes	861	455,069
Strikes	170	66,944
Threatened strikes	231	125,705
Lockouts	4	404
Controversies	456	262,016
Other situations	325	59,300
Investigations	85	16,699
Technical services	16	4,014
Arbitrations	68	31,955
Requests for verification of union membership	1	371
Requests for information	2	11
Consultations	131	339
Special services of commissioners	15	5,903
Complaints	7	8
Disputes referred to other agencies during negotiations	104	398,659
To National War Labor Board	61	344,170
To National Labor Relations Board	33	48,534
To other Federal agencies	3	1,130
To nongovernmental agencies	3	4,156
To State agencies	4	669

The facilities of the Service were used in 28 major industrial fields, such as building trades and the manufacture of foods, iron and steel, textiles, etc. (table 2), and were utilized by employees and employers in 48 States, the District of Columbia, Alaska, Hawaii, and Puerto Rico (table 3).

TABLE 2.—*Situations Disposed of by United States Conciliation Service, June 1942, by Industries*

Industry	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All industries	965	853,728	325	59,300	1,290	913,028
Agriculture	2	650			2	650
Building trades	64	28,807	39	7,497	103	36,304
Chemicals	32	17,494	8	1,311	40	18,805
Communications	2	5,667	2	28	4	5,695
Domestic and personal	13	6,024	6	423	19	6,447
Electrical equipment	34	16,521	5	545	39	17,066
Food	139	103,369	21	17,618	160	120,987
Furniture and finished lumber	32	5,724	9	1,232	41	6,956
Iron and steel	129	53,404	33	8,006	162	61,410
Leather	10	3,111	28	2,378	38	5,489
Lumber	29	7,625	6	589	35	8,214
Machinery	60	44,385	15	1,741	75	46,126
Maritime	13	15,693	5	591	18	16,284
Mining	8	13,885	2	8	10	13,893
Motion pictures	1	16			1	16
Nonferrous metals	37	23,428	9	252	46	23,680
Paper	16	8,938	4	87	20	9,025
Petroleum	16	6,943	8	859	24	7,802
Printing	7	1,143	4	95	11	1,238
Professional	5	221			5	221
Rubber	8	14,860	3	473	11	15,333
Stone, clay, and glass	47	27,435	6	576	53	28,011
Textile	51	32,503	51	4,978	102	37,481
Tobacco	4	21,410	3	35	7	21,445
Trade	62	11,729	16	562	78	12,291
Transportation	53	38,754	14	6,283	67	45,037
Transportation equipment	48	331,474	12	1,424	60	332,898
Utilities	12	6,620	1	55	13	6,675
Unclassified	31	5,895	15	1,654	46	7,549

TABLE 3.—*Situations Disposed of by United States Conciliation Service, June 1942, by States*

State	Disputes		Other situations		Total	
	Number	Workers involved	Number	Workers involved	Number	Workers involved
All States	965	853,728	325	59,300	1,290	913,028
Alabama	22	21,802	3	206	25	22,008
Alaska	1	132			1	132
Arizona	19	5,459	2	22	21	5,481
Arkansas	4	1,242	2	109	6	1,351
California	92	72,278	16	1,487	108	73,765
Colorado	3	1,128	3	550	6	1,678
Connecticut	8	8,130	5	52	13	8,182
Delaware	3	1,710			3	1,710
District of Columbia	3	1,518	3	276	6	1,794
Florida	21	6,272	5	14	26	6,286
Georgia	2	140	4	1,656	6	1,796
Hawaii	1	78	1	3,000	2	3,078
Idaho	1	3,000			1	3,000
Illinois	65	57,029	23	2,124	88	59,153
Indiana	34	31,105	19	2,660	53	33,765
Iowa	11	4,554	3	330	14	4,884
Kansas	7	713	2	5	9	718
Kentucky	4	6,789	2	31	6	6,820
Louisiana	17	2,699	3	11	20	2,710
Maine	1	56	2	3	3	59
Maryland	15	46,098	4	378	19	46,476
Massachusetts	26	21,231	23	1,866	49	23,097
Michigan	75	242,419	23	1,875	98	244,294
Minnesota	12	1,598	2	7	14	1,605
Mississippi	7	3,330	1	400	8	3,730
Missouri	24	10,858	12	584	36	11,442
Montana	5	95			5	95
Nebraska	10	3,908	2	10	12	3,918
Nevada	2	295	3	9	5	304
New Hampshire	1	120			1	120
New Jersey	38	18,108	11	2,575	49	20,683
New Mexico	5	2,959	1	5	6	2,964
New York	67	43,270	17	2,082	84	45,352
North Carolina	11	7,631	22	915	33	8,546
Ohio	88	61,273	38	8,352	126	69,625
Oklahoma	11	1,719	2	8	13	1,727
Oregon	14	1,782	1	1	15	1,783
Pennsylvania	99	66,292	16	5,953	115	72,245
Puerto Rico	8	24,236			8	24,236
Rhode Island	3	5,515	9	1,923	12	7,438
South Carolina	3	2,014	3	604	6	2,618
South Dakota	2	2,650			2	2,650
Tennessee	29	9,122	5	1,355	34	10,477
Texas	15	1,927	8	2,208	23	4,135
Utah	7	4,307			7	4,307
Vermont			1	150	1	150
Virginia	9	742	9	69	18	811
Washington	30	15,786	4	15,007	34	30,793
West Virginia	12	8,311	4	234	16	8,545
Wisconsin	18	20,298	5	178	23	20,476
Wyoming			1	16	1	16

Health and Industrial Hygiene

HEALTH OF WORKERS IN NONFERROUS-METAL MINES

METAL-MINE workers in Utah are exposed to hazardous amounts of dust, especially the workers at the face. As in other operations exposing workers to dust containing free silica, the percentage of workers developing silicosis increases, among those exposed to large concentrations of dust, with the years of exposure.

The health and working conditions of workers in three nonferrous-metal mines in the three principal metal-mining districts in Utah were the subject of a recent study [1] by the United States Public Health Service. A preliminary survey made with the cooperation of Utah State agencies such as the State Board of Health, the Industrial Commission, industrial organizations, labor groups, and others, in 1937 and 1938, showed the number of workers in various industries in the State who were exposed to materials and conditions which were potentially hazardous to health. The major problems revealed by the preliminary survey were exposure to siliceous dusts, lead and other metallic dusts, fumes, and gases. The principal industries in which these hazards might be present were the coal mines, nonferrous-metal mines, and nonferrous-metal smelters. A study of the hazards in these industries was authorized by the State legislature in 1939, of which the present bulletin represents one phase. The study covered the occupational and medical histories and physical and X-ray examinations of 783 workers in nonferrous-metal mines, a complete oral examination by a dentist, and a series of serological tests. Also, engineering studies of environmental factors which might have a bearing on the health of the workers were made in each mine, including determinations of the nature and concentration of various types of dust, especially silica and lead, ventilation and humidity studies, and exposure to various gases.

In the three representative mines selected for study, the ore and rock varied from limestone containing no detectable free silica to quartzite consisting of more than 99 percent free silica. A majority of the 830 employees in the three mines had worked in various locations, however, so that it was difficult to distinguish between those who had had high or low free-silica exposures. The workers were broadly classified as underground and surface workers, but many of the persons in the latter group spend part of their time in the mine. The occupations also were divided into two broad groups, consisting of those associated with the actual extraction of the ore and those performing the indirect labor required in the mining operations. In

[1] Health and Working Environment of Nonferrous Metal Mine Workers, by Waldemar C. Dreesen and others. Washington, U. S. Public Health Service, 1942.

the three mines, miners and muckers formed 39 percent, 46 percent, and 48 percent, respectively, of the total number of employees. Since the drilling, blasting, and loading of the ore caused the generation of most of the dust, the chief interest of the investigation was in the occupations associated with those operations. The duration of exposure to the dust hazard was determined from the occupational history of each worker. Samples of dust were taken at the breathing level in different working places, or collected in atmospheric dust collectors, and analysis of the samples showed that the free-silica content to which the workers were exposed ranged from 1 percent to 99 percent, the variation being due to the character of the ore deposit being worked, or to the location in the mine.

On the basis of the present and earlier studies it appeared that the average underground worker is exposed to atmospheric dusts containing between 20 and 40 percent free silica. The sources of dust in metal mines are first, the operations of drilling, blasting, ore breaking, mucking, dumping, or transferring; and second, the return of settled dust to the air by timbering, tramming, maintenance, and stray air currents. The largest group of underground workers at the face consists of miners and muckers, and these workers, numbering 376 in the present study, were found to have an average exposure of 23.1 million particles per cubic foot. The highest exposure—37.5 million particles—was found among bin or chute-gate tenders, but this was a numerically unimportant group. Of the 830 persons covered in the study, less than 1 percent were exposed to average dust concentrations higher than 30 million particles per cubic foot; 717, or approximately 86 percent were exposed to between 6 and 30 million particles; and about 12 percent to less than 6 million particles.

Incidence of Silicosis

The medical study included 783 persons, but a detailed analysis was made of the findings for 727 workers whose entire experience in a dusty trade had been in metal mines. The remaining 56 workers had at some time in the past worked for more than 2 years in a dusty trade elsewhere, so that their physical condition at the time of the examination could not be ascribed entirely to experience in the one industry. This group with mixed exposure showed an older age distribution and a higher incidence of silicosis (25.0 percent) than the group which had worked only in metal mines.

Among the 727 mine workers there were 66 cases diagnosed as first- and second-stage silicosis, of which 52 were among underground workers, 1 in a surface worker, 1 in a worker engaged in milling operations, and 12 among workers who had no principal occupation. There were 42 border-line cases of silicosis, 27 of which were among underground workers. Among the underground workers, 43 of the cases of silicosis and 21 of the border-line cases were among workers at the face. Of the 66 cases of first- and second-stage silicosis, none were found among workers with less than 5 years' employment, 4 had had from 5 to 9 years' employment, 10 had been employed from 10 to 14 years, 20 from 15 to 19 years, 11 from 20 to 24 years, and 21, 25 years and over. Among those employed for less than 10 years, no case of silicosis was observed until the average dust concentration was in excess of 18.0 million particles, and it was found that the

combination of a heavy dust concentration and a silica content of 20 to 40 percent resulted in a silicosis incidence of nearly a fourth of the face workers if those with less than 6 years' employment were excluded. The workers affected by silicosis represented 11.2 percent of the face workers (drillers, miners, and muckers), 7.0 percent of the other underground workers, and 0.9 percent of the surface workers. Face workers, only, had cases of silicosis among workers with less than 10 years' work in the mines, while the percentage among face workers and other underground workers having 10 to 19 years' service was 22.1 and 10.3, respectively; 55.0 percent and 23.1 percent among those in the 20- to 29-year group; and 62.5 percent and 25.0 percent in the group 30 years and over. When border-line cases were included, these percentages were considerably increased.

Reinfection pulmonary tuberculosis was found in 18 of the metal-mine workers, of which 14 were minimal and 4 moderately advanced cases. The latter cases were thought to be active; 3 were classed as second-stage silicosis and 1 was considered a border-line case. The 14 minimal cases were quiescent, apparently arrested or healed. Of the 18 persons diagnosed as having reinfection tuberculosis, 3 had border-line, 4 had first-stage, and 5 had second-stage silicosis. Although 8 of the workers with reinfection tuberculosis had worked at the face as machine men, miners, or muckers, in general it did not appear that either primary or reinfection tuberculosis was present in a significantly greater percentage than would be expected in any group of employed workers of the same ages.

Other Occupational Diseases

The occupational disease next most important to silicosis found among the workers in the three mines was lead poisoning. Of the 727 metal-mine employees examined, 102 gave a history of acute episodes of lead intoxication, 19 of which had occurred in the past 4½ years. Slightly more than half of these cases occurred in workers under the age of 40. In recent years the duration of the disability rarely exceeded 2 months and in most instances did not last more than 2 or 3 weeks. Gastrointestinal symptoms (lead constipation and lead colic) predominated, and were associated with the blood changes characteristic of lead poisoning. Incidence of lead concentrations above the so-called threshold limit of intake before clinical lead poisoning ordinarily develops (1.5 milligrams of lead per 10 cubic meters of air) was found to be greatest among the workers at the face.

Complaints of headache were much more frequent among these nonferrous-metal-mine workers than among Utah coal miners and smelter workers, and as they occurred largely among face workers, it was considered that the excess of headaches was due to poor ventilation at the face.

A few cases of mild dermatitis attributable to contact with sulfide ores were found. No other diseases which were associated with the mining occupations were reported.

Recommendations

Among the measures recommended as a result of the study were better methods of ventilation; the use of wet-drilling methods in all mechanical-drilling operations; sprinkling to eliminate the dust in various locations in the mines; maintenance of dust-, fume-, and gas-control equipment at its highest efficiency; and the adoption of safe sanitary practices.

In order to control the incidence of occupational diseases, annual medical examinations including X-ray study of the chest, were recommended, as were frequent examination of persons working in occupations with serious lead exposure, with study of the blood for the presence of abnormal blood cells and with chemical determinations where necessary. In general, close medical supervision of the workers was regarded as essential, with particular care being taken after the absence of an employee on account of illness or injury to determine if the employee is able to work safely and efficiently. It was recommended that silicosis, lead poisoning, and other occupational diseases be reported to the State Board of Health.

DISABLING SICKNESS AMONG INDUSTRIAL WORKERS, 1941

REPORTS on sickness and nonindustrial injuries causing disability lasting more than 1 week, among more than 200,000 male members of industrial sick-benefit associations, group-insurance plans, and company relief departments, show that in 1941 there were 101.8 cases per 1,000 as compared with 96.7 in 1940. During the fourth quarter of 1941 there was a 35-percent increase in the frequency of bronchitis as compared with the corresponding quarter of 1940, a more than 20-percent increase in diseases of the stomach, except cancer, and about a 15-percent increase in appendicitis. The rates for these three causes were the highest for this quarter during the past 10 years. These data are shown in Public Health Reports (Washington), April 17, 1942.

The rates for a number of causes were unusually high in both 1941 and 1940. A comparison of the rates for 1941 with the means of the corresponding rates for the 10 years, 1932–41, shows that pneumonia had increased 42 percent; bronchitis, 33 percent; and appendicitis, 24 percent. The rate from all causes for the year, 101.8, was the highest recorded in the 10 years, being 12 percent in excess of the 10-year mean (90.6).

The following table shows frequency rates for the period 1936–40, and the years 1940 and 1941, by causes.

Frequency of Disabling Sickness and Nonindustrial Injuries Among Male Industrial Employees, by Cause, 1936–40, 1940, and 1941

Cause	Frequency rates (cases[1] per 1,000 males)		
	1936–40	1940	1941
Sickness and nonindustrial injuries[2]	92.1	96.7	101.8
Nonindustrial injuries	11.3	11.8	11.9
Sickness	80.8	84.9	89.9
Respiratory diseases	34.7	37.8	41.2
Influenza and grippe	16.1	17.4	19 0
Bronchitis, acute and chronic	4.7	5.3	5.7
Diseases of the pharynx and tonsils	4.8	4.9	5.5
Pneumonia, all forms	2.9	3.5	3.7
Tuberculosis of the respiratory system	.8	.7	.7
Other respiratory diseases	5.4	6.0	6.6
Nonrespiratory diseases	43.7	45.0	45.6
Digestive diseases	13.8	14.4	15.3
Diseases of the stomach except cancer	3.8	3.9	4.2
Diarrhea and enteritis	1.2	1.3	1.5
Appendicitis	4.5	5.1	5.2
Hernia	1.6	1.5	1.5
Other digestive diseases	2.7	2.6	2.9
Nondigestive diseases	29.9	30.6	30.3
Diseases of the heart and arteries, and nephritis	4.2	4.5	3.9
Other genito-urinary diseases	2.4	2.8	2.4
Neuralgia, neuritis, sciatica	2.3	2.4	2.0
Neurasthenia and the like	1.0	1.1	1.0
Other diseases of the nervous system	1.1	1.0	1.3
Rheumatism, acute and chronic	3.9	4.0	3.8
Diseases of the organs of locomotion, except diseases of the joints	2.9	2.9	2.9
Diseases of the skin	2.9	2.7	2.8
Infectious and parasitic diseases[3]	2.2	1.8	2.5
All other diseases	7.0	7.4	7.7
Ill-defined and unknown causes	2.4	2.1	3.1
Average number of males covered in the record	178,340	202,910	241,304
Number of organizations		26	26

[1] Data cover only cases lasting 8 consecutive calendar days or longer.
[2] Exclusive of disability from the venereal diseases and a few numerically unimportant causes of disability.
[3] Except influenza, respiratory tuberculosis, and the venereal diseases.

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AGE COMPOSITION OF THE POPULATION

DATA on the age composition of the population of the United States become increasingly important as the Nation's war program develops. The economic as well as the military needs of the Nation can best be met if the potential capacity of the whole population, as shown by the numbers of persons of different ages, is known. Data as to the age composition of the population of the United States, by race, nativity, sex, and urban-rural residence, and of the several States, in 1940, have been recently released by the Census Bureau.

TABLE 1.—*Distribution of Population by Sex and Age Groups, 1930 and 1940*

Age group and year	Number			Percent		
	Total	Males	Females	Total	Males	Females
1940						
All ages	131,669,275	66,061,592	65,607,683	100.0	100.0	100.0
Under 5 years	10,541,524	5,354,808	5,186,716	8.0	8.1	7.9
5 to 9 years	10,684,622	5,418,823	5,265,799	8.1	8.2	8.0
10 to 14 years	11,745,935	5,952,329	5,793,606	8.9	9.0	8.8
15 to 19 years	12,333,523	6,180,153	6,153,370	9.4	9.4	9.4
20 to 24 years	11,587,835	5,692,392	5,895,443	8.8	8.6	9.0
25 to 29 years	11,096,638	5,450,662	5,645,976	8.4	8.3	8.6
30 to 34 years	10,242,388	5,070,312	5,172,076	7.8	7.7	7.9
35 to 39 years	9,545,377	4,745,659	4,799,718	7.2	7.2	7.3
40 to 44 years	8,787,843	4,419,135	4,368,708	6.7	6.7	6.7
45 to 49 years	8,255,225	4,209,269	4,045,956	6.3	6.4	6.2
50 to 54 years	7,256,846	3,752,750	3,504,096	5.5	5.7	5.3
55 to 59 years	5,843,865	3,011,364	2,832,501	4.4	4.6	4.3
60 to 64 years	4,728,340	2,397,816	2,330,524	3.6	3.6	3.6
65 to 69 years	3,806,657	1,896,088	1,910,569	2.9	2.9	2.9
70 to 74 years	2,569,532	1,270,967	1,298,565	2.0	1.9	2.0
75 years and over	2,643,125	1,239,065	1,404,060	2.0	1.9	2.1
1930						
All ages	122,775,046	62,137,080	60,637,966	100.0	100.0	100.0
Under 5 years	11,444,390	5,806,174	5,638,216	9.3	9.3	9.3
5 to 9 years	12,607,609	6,381,108	6,226,501	10.3	10.3	10.3
10 to 14 years	12,004,877	6,068,777	5,936,100	9.8	9.8	9.8
15 to 19 years	11,552,115	5,757,825	5,794,290	9.4	9.3	9.6
20 to 24 years	10,870,378	5,336,815	5,533,563	8.9	8.6	9.1
25 to 29 years	9,833,608	4,860,180	4,973,428	8.0	7.8	8.2
30 to 34 years	9,120,421	4,561,786	4,558,635	7.4	7.3	7.5
35 to 39 years	9,208,645	4,679,860	4,528,785	7.5	7.5	7.5
40 to 44 years	7,990,195	4,136,459	3,853,736	6.5	6.7	6.4
45 to 49 years	7,042,279	3,671,924	3,370,355	5.7	5.9	5.6
50 to 54 years	5,975,804	3,131,645	2,844,159	4.9	5.0	4.7
55 to 59 years	4,645,677	2,425,992	2,219,685	3.8	3.9	3.7
60 to 64 years	3,751,221	1,941,508	1,809,713	3.1	3.1	3.0
65 to 69 years	2,770,605	1,417,812	1,352,793	2.3	2.3	2.2
70 to 74 years	1,950,004	991,647	958,357	1.6	1.6	1.6
75 years and over	1,913,196	915,752	997,444	1.6	1.5	1.6
Not reported	94,022	51,816	42,206	.1	.1	.1

The population of the United States, on the average, was an older population in 1940 than in 1930. The median age of the population had increased from 26.5 years in 1930 to 29.0 years in 1940, or 2.5 years. The median age of males was slightly above that of females—29.1 and 29.0 years, respectively—but there was less difference between the sexes than in 1930.

A comparison of 5-year age groups makes evident the aging of the population. Fewer persons were in the three youngest age groups in 1940 than in 1930, notwithstanding the general increase in population. The older groups, beginning with 40 to 44 years, each had a greater proportion of the total population in 1940 than in 1930, and in the three oldest age groups, covering those 65 years and over, the increase in each group was over 30 percent.

Race and Nativity

The oldest race-nativity group, both in 1930 and in 1940, was the foreign-born white population, which had a median age of 51.0 years in 1940 as compared with 43.9 years in 1930. This was an increase of 7.1 years, the highest in all the groups. The native whites came next with a median age of 26.9 years in 1940 as against 23.7 years, an increase of 3.2 years. This group was the only one in which females were, on the average, older than the males, the median age of the two sexes in 1940 being 27.1 and 26.7 years, respectively.

The Negro population had a median age in 1940 of 25.3 years, an increase of 1.8 years during the decade 1930–40. The median age was the same for both males and females. The youngest group in the country was "other races," which included American Indians, Chinese, Japanese, Filipinos, and small numbers of other races. The median age of this group in 1940 was 24.1 years, an advance of only 0.8 year over 1930.

The distribution of the population in 1940 by age and race appears in table 2.

TABLE 2.—*Distribution of Population by Age Group and Race, 1940*

Age group	Native white		Foreign-born white		Negro		Other races	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All ages	106,795,732	100.0	11,419,138	100.0	12,865,518	100.0	588,887	100.0
Under 5 years	9,221,184	8.6	8,321	.1	1,249,080	9.7	62,939	10.7
5 to 9 years	9,307,367	8.7	21,584	.2	1,294,546	10.1	61,125	10.4
10 to 14 years	10,298,944	9.6	53,751	.5	1,330,660	10.3	62,580	10.6
15 to 19 years	10,799,262	10.1	164,785	1.4	1,304,606	10.1	64,870	11.0
20 to 24 years	10,130,640	9.5	209,509	1.8	1,195,227	9.3	52,459	8.9
25 to 29 years	9,479,994	8.9	424,276	3.7	1,145,284	8.9	47,084	8.0
30 to 34 years	8,497,387	8.0	709,091	6.2	992,879	7.7	43,031	7.3
35 to 39 years	7,468,265	7.0	1,048,395	9.2	985,833	7.7	42,884	7.3
40 to 44 years	6,673,013	6.2	1,263,070	11.1	815,096	6.3	36,664	6.2
45 to 49 years	6,028,851	5.6	1,503,905	13.2	692,807	5.4	29,662	5.0
50 to 54 years	5,114,739	4.8	1,565,568	13.7	550,435	4.3	26,104	4.4
55 to 59 years	4,108,095	3.8	1,318,750	11.5	397,219	3.1	19,801	3.4
60 to 64 years	3,347,818	3.1	1,068,875	9.4	295,904	2.3	15,743	2.7
65 to 69 years	2,686,518	2.5	812,528	7.1	296,737	2.3	10,874	1.8
70 to 74 years	1,798,386	1.7	602,159	5.3	162,948	1.3	6,039	1.2
75 years and over	1,835,269	1.7	644,571	5.6	156,257	1.2	7,028	1.0

Urban and Rural Population [1]

The urban population had the highest median age in 1940 of the urban and rural groups. This was 31.0 years, which was 3.3 years above the 27.7 years of the rural-nonfarm population. The rural-farm population had a median age still lower (24.4 years), but its increase of 2.8 years between 1930 and 1940 was more than that of either of the other two groups, which increased 2.6 and 1.9 years, respectively.

A comparison of the numbers of persons in specific age groups in 1930 and 1940 (see table 3) indicates, it is said, that internal migration in the decade had a considerable effect on the age composition of the urban, rural-nonfarm, and rural-farm population. The number of persons in a 5-year age period in 1930 may be compared with the number in the age group 10 years older in 1940. Thus, comparing age groups in 1930 and 1940, it appears that the urban areas had the most pronounced net gains among those who were 10 to 19 years of age in 1930. Rural farms suffered a heavy net loss during the decade of young persons aged 10 to 24 years in 1930. Comparison of age groups 10 to 14, 15 to 19, and 20 to 24 of the rural farm population in 1930, with corresponding groups 10 years older in 1940, shows decreases of 32.8, 39.5, and 25.0 percent, respectively. These large decreases, it is said, cannot be explained entirely by the death rate at these ages and the reclassification of some territory from rural to urban. A more important factor is the emigration from the rural-farm areas.

TABLE 3.—*Urban and Rural Population of the United States by Age Groups, 1930 and 1940*

Age group (years)	Urban			Rural-nonfarm			Rural-farm		
	1940		1930	1940		1930	1940		1930
	Number	Percent	Number	Number	Percent	Number	Number	Percent	Number
All ages	74,423,702	100.0	68,954,823	27,029,385	100.0	23,662,710	30,216,188	100.0	30,157,513
Under 5	5,007,137	6.7	5,626,360	2,522,831	9.3	2,476,604	3,011,556	10.0	3,341,426
5 to 9	5,083,240	6.8	6,211,141	2,446,807	9.1	2,616,776	3,154,575	10.4	3,779,692
10 to 14	5,854,770	7.9	5,949,693	2,503,567	9.3	2,314,237	3,387,598	11.2	3,740,947
15 to 19	6,493,936	8.7	6,015,411	2,483,112	9.2	2,115,735	3,356,475	11.1	3,420,969
20 to 24	6,755,377	9.1	6,420,308	2,319,310	8.6	2,015,829	2,513,148	8.3	2,434,241
25 to 29	6,725,909	9.0	6,171,951	2,299,920	8.5	1,842,579	2,070,809	6.9	1,819,078
30 to 34	6,286,218	8.4	5,773,476	2,132,330	7.9	1,675,439	1,823,840	6.0	1,671,506
35 to 39	5,906,293	7.9	5,773,764	1,896,310	7.0	1,646,899	1,742,774	5.8	1,787,982
40 to 44	5,490,678	7.4	4,932,386	1,647,317	6.1	1,413,587	1,649,848	5.5	1,644,222
45 to 49	5,107,261	6.9	4,222,829	1,502,701	5.6	1,258,059	1,645,263	5.4	1,561,391
50 to 54	4,419,140	5.9	3,491,257	1,313,341	4.9	1,086,558	1,524,365	5.0	1,397,989
55 to 59	3,462,821	4.7	2,656,416	1,084,568	4.0	879,751	1,296,476	4.3	1,109,510
60 to 64	2,758,293	3.7	2,120,260	910,613	3.4	743,107	1,059,434	3.5	887,854
65 to 69	2,152,883	2.9	1,527,724	786,338	2.9	595,216	867,436	2.9	647,665
70 to 74	1,455,824	2.0	1,031,232	561,577	2.1	461,264	552,131	1.8	457,508
75 and over	1,463,922	2.0	964,579	618,743	2.3	501,853	560,460	1.9	446,764
Not reported			66,036			19,217			

[1] Urban population, as defined by the Census Bureau, is in general that residing in cities and other incorporated places having 2,500 inhabitants or more, the remainder being classified as rural. The rural-farm population comprises all persons living on farms in rural territory, without regard to occupation, and the rural-nonfarm population comprises the remaining rural population.

Age Composition, by States

The median age of the population varied in the different States, ranging from 22.2 years in South Carolina to 33.0 years in California, a difference of 11 years. The States with the highest medians were on the Pacific Coast, Oregon and Washington, with median ages of 32.4 and 32.2 years, respectively, coming next to California.

New Mexico and North Carolina had median ages of 23.0 and 23.1 years, respectively, thus having the youngest populations after South Carolina. The southeastern part of the United States, where there were relatively high proportions of rural residents and Negroes, had relatively low median ages.

Cost and Standards of Living

WHAT IS THE COST-OF-LIVING INDEX?

THE Bureau of Labor Statistics has received many questions relating to the construction, interpretation and uses of its cost-of-living indexes. These questions are answered briefly and as simply as possible in the following pages.

What the Index Measures

1. What does the cost-of-living index prepared by the Bureau of Labor Statistics measure?

It is a measure of the change in cost of the goods purchased at retail and services used by families of wage earners and lower-salaried workers in representative cities.

Frequency of Publication

2. How often does the Bureau of Labor Statistics publish its cost-of-living index?

The Bureau of Labor Statistics publishes its cost-of-living index for large cities combined, each month. It is based on food prices obtained monthly in 51 large cities, and on prices of other goods and services obtained monthly in 21 large cities, and every 3 months in 13 additional cities. Special quarterly cost-of-living surveys are also being made for 20 small cities, and certain other cities especially affected by the war program.

Uses of Index

3. What is it used for?

It is widely used by employers and labor groups in considering wage adjustments, by business and labor organizations and government agencies in following the general economic situation and determining policies, and by chambers of commerce and business groups in measuring price changes and sometimes in adjusting business contracts.

Coverage of Index

4. How many separate commodities and services are included in the index?

The index covers price changes for about 200 commodities and services. Counting all the different grades and qualities, about 400

different kinds of prices are collected. In addition, figures on changes in rents are obtained on about 36,000 dwellings quarterly, and about 5,600 dwellings monthly. Altogether, over 145,000 price quotations are used. These prices are grouped under 6 headings: Food; rent; clothing; housefurnishings; fuel, electricity and ice; and miscellaneous goods and services. Separate indexes are computed for each of these groups, and the final cost-of-living index is a composite of the six group indexes.

5. Can prices for only 200 commodities and services effectively measure changes in the total cost of all the things city families buy?

Yes. The commodities and services included in the cost-of-living index are chosen to be representative of every important type of family expenditure. Therefore, it is unnecessary to price all the commodities and services which the typical worker's family buys. For instance, prices of all cotton household textiles change in about the same way as the prices of sheets, towels, and curtains, so that the change in the Bureau's prices for these three articles represents changes in costs for all purchases of this kind. Likewise, prices reported on 11 fresh fruits and vegetables, selected by the Bureau, generally reflect the price movement of all fresh fruits and vegetables.

6. How does the Bureau decide which articles and services to include?

It selects those which are most important in the actual buying of wage earners and clerical workers, as determined by surveys of expenditures of 14,500 families, conducted by the Bureau in 1934–36. The number of articles priced for the index and the emphasis placed on each in the final average is described in greater detail in Serial No. R. 1156 (The Bureau's New Index of Cost of Living), March 15, 1940, and in the Bureau's Bulletin No. 699 (1941).

SOURCE OF PRICES, AND GRADES OF PRODUCTS

7. Where does the Bureau get the prices for its cost-of-living index?

Information on prices and price changes is obtained from stores and service agencies widely patronized by wage earners and lower-salaried workers. For example, in a typical large city prices are collected from 28 independent food stores, 2 food chains, and 132 department stores and service agencies in various parts of the city. Rents are obtained from real-estate agents and private landlords, and in a few cities also from tenants for a representative group of about 1,000 dwellings scattered throughout a typical large city.

8. How do the Bureau's agents know that the merchants quote prices on comparable articles? That is, how can you be sure that reported prices in 2 different months represent the same grade of product?

The Bureau employs specially trained field agents who collect the data in person. They obtain the price on the same article that was priced the previous time. Thus, for example, instead of asking merely for a man's best quality work shirt, agents are instructed to price—

Shirt, work, cotton, chambray (3.90 yards per pound before Sanforizing, construction 70 x 44), Sanforized shrunk. Construction and styling: Full sized, well made, cut full throughout garment; careful seaming, clean workmanship with careful attention to detail, good-quality buttons, collar interlined with chambray or equal grade of fabric, continuous nonrip sleeve facing, triple-stitched seams; 2 plain pockets with or without flaps, or 1 plain pocket with flap and 1

plain pocket without flap; 30 to 31 yards per dozen based on 36-inch fabric and neck bands size scale 14 to 17.

Specify whether with or without union label.

The Bureau prices three grades of work shirts for inclusion in its cost-of-living index. From September 1939 to December 15, 1941 the average prices of these three grades increased 34.1 percent.

ADJUSTMENTS FOR STYLE AND QUALITY CHANGES, EXHAUSTION OF SUPPLIES, ETC.

9. *But what does the agent do if style or models have changed and the merchant no longer carries the goods previously priced?*

The agent obtains information on a new model being sold currently which fits the Bureau's specification as closely as possible. . The price for the new model is then compared with the price for the old model and the difference between them is used as a price change for the computation of the cost-of-living index. Example: The Bureau has priced an electric refrigerator with synthetic exterior finish and porcelain interior finish, which provides 6 to 7 cubic feet of space, freezing equipment for 6 to 8 pounds of ice, 11 to 14 square feet of stationary shelf area, and one vegetable container. When one refrigerator model was discontinued and another substituted, the Bureau priced the same kind of box with whatever standard equipment came with the new model.

10. *If a store no longer carries the brand on which a price series has been reported for some time, what does the Bureau include in its cost-of-living index?*

The store buyer is asked for a price of the brand being carried currently which meets the Bureau's specification. Prices for the preceding pricing period and for the current pricing period are obtained on the new brand. These prices are then used in computing the changes in the index and the substitution does not affect the level of the index. Example: Prices were collected on the X brand of men's cotton broadcloth shorts in a store in Birmingham, Ala., in September 1941. The price was 3 pairs for $1. In December, the store reported that the X brand was no longer carried and that the Y brand was stocked instead. This brand had also been stocked in September. The Y brand was substituted for the X brand and prices for both September and December were obtained. The September price on Y was 3 pairs for $1, the December price, 55 cents per pair. The reason given for the price increase was increased wholesale cost and increased consumer buying.

11. *Does the index show the full extent of price changes to the consumer, when the quality of goods on the market has been lowered in order to maintain the usual price?*

As far as it is possible to do so. The use of careful descriptive specifications in obtaining prices (see question on Grades of Products) avoids treating the price of an article of a poorer quality as comparable with an earlier price for a better grade article. Field agents inspect the article priced and never take for granted that a price reported by a buyer represents an article which is as good as the one priced for the time before. Example: In September 1941 in a store in Birmingham,

Ala., a brand of men's 128 x 68 broadcloth shirts was priced. This brand had been priced for some months previously. In October 1941 the count of broadcloth for this brand was changed to a poorer grade of 112 x 60. The 128 x 68 broadcloth shirt was no longer carried by the store. The price was obtained, therefore, from another store on a shirt of the quality defined in the specifications.

12. *What price data does the Bureau's agent obtain if the supply of a particular article is exhausted and the merchant is no longer able to get stock even though his customers want it?*

First, an attempt is made to secure price information from other stores in the city. If the stocks are becoming exhausted in the city, then the item must be omitted from the list priced. The agent secures information from the retailers as to what their customers are purchasing in place of this article and reports this to the Washington office. The substitute may be an article which has been priced regularly or it may be an entirely new one. If it is entirely new, the Washington office supplies the agent with specifications, and price data are then secured on the new article. The agent records the price of the article being sold which will be just as satisfactory. If the only available substitute is of better quality, selling at a higher price, this increase is used in computing the Bureau's cost-of-living index.

Example 1: *Item disappears from one store.* (See question 10.)

Example 2: *The article disappears completely from market and Bureau has no other set of prices which may be substituted.* All women's silk hose are disappearing from the retailers' stocks as a result of Government regulations with regard to silk. Likewise, the former grades, or "weights" of nylon hosiery are also disappearing. The field agents are being provided with new specifications: (1) For hosiery of the new weights of nylon yarn, both all-nylon and nylon combined with rayon or with cotton; (2) for all-rayon hose and rayon hose combined with cotton, and (3) for cotton hose. Since no comprehensive figures are available on the kinds of hosiery which women in moderate-income families are now buying, the Bureau's agents have been instructed to obtain information on the subject from store buyers so that the Bureau can compute average price changes for hose of different kinds until a survey of current purchasing habits can be made.

Example 3: *The article disappears completely from market and Bureau has other price series which may be substituted.* All-silk and silk-and-rayon slips for women are disappearing as retailers' stocks become exhausted. Prices have been collected regularly for some time on two kinds of all-rayon slips. The all-rayon slips will be used in the index.

13. Does the cost-of-living index take account of shortages and rationing?

Yes. In January 1942 the Bureau of Labor Statistics began to make adjustments in its cost-of-living index as civilian goods disappeared from the market. In calculating changes in the cost of living from December 15, 1941, to January 15, 1942, prices of new automobiles and new tires were dropped, since they were no longer available for purchase by the ordinary civilian. Prices of used automobiles and used tires were then included, with a reduction in their relative importance in the index. Charges for automobile repairs and for

public transportation were given added importance in the index to take account of increased family expenditures for these services. As other goods are rationed or disappear from retail stores, the Bureau makes other such changes in order to keep the goods and services included in its cost-of-living index representative of family purchases in wartime.

ARTICLES PRICED IN VARIOUS CITIES

14. Are the same goods and services priced in every city for which the Bureau prepares a cost-of-living index?

No; there is some variation in the articles of clothing and considerable variation in the kinds of fuel priced and the kinds of houses for which rents are obtained. The emphasis placed on each price in the index for each city depends on the relative importance of that particular article in the actual spending of moderate-income families in that city, as determined by the survey of family expenditures (see question 16).

TAXES

15. Are taxes included in the cost-of-living index?

All taxes which are added to the price of individual commodities or services, such as sales taxes, and gasoline and movie taxes are included. The price used by the Bureau in computing its indexes is the same price you would pay if you were buying the article. Real-estate taxes are not directly included, but when rents are raised because of them, the advance is reflected in the index. Income taxes are not included in the cost-of-living index, as they are deducted from income and as such do not affect the cost of goods and services purchased by consumers.

Relative Importance of Items

16. Does a 10-percent rise in the price of bread have the same effect on the cost-of-living index as a 10-percent rise in the price of cheese?

Obviously, no. More money is spent for bread than for cheese, and bread is therefore given much heavier emphasis or "weight" in preparing the index. For example, a family in Chicago spends, on the average, about 80 cents per week for bread, and a 10-percent increase in the price of bread would therefore increase the family's weekly food expenditures by 8 cents. The same family would spend only 15 cents on cheese per week, and the 10-percent increase in cheese would therefore only amount to about 2 cents. The percentage increase in the price of the two articles is the same, but their effects upon the wage earner's family pocketbook are decidedly different. Each article included receives an emphasis dependent on the importance in the family purchases of that article or of the group of articles which it represents, as in the case of the prices for sheets and towels (see Question 5).

17. Why does the cost-of-living index show only a small rise when I personally know that prices for work shirts, pork chops, and many of the foods we use daily have gone way up in price?

Everybody asks this question when prices are rising. The reason for this impression is usually the fact that people buy food almost

every day and food prices are known to everyone. The Bureau's index shows that food costs rose sharply in 1941 and 1942. At such a time people are likely to forget that many other important costs, such as those of electricity, newspapers, street car fares, and other articles, most of which are bought less often than food, have not gone up so much. These hold the *average* down.

What the Index Does Not Show

18. Does the index cover all increased costs which individual workers are having to meet during the war period?

No. A cost-of-living index can only measure the general change in the particular city of the goods and services *customarily* purchased by workers. It obviously cannot cover every conceivable increased cost which individual families experience. Among the costs which by their very nature cannot be covered in any measure of *average* living costs are the following:

Cost of supporting a family in the home town while the wage earner goes to work at a job too far away to travel back and forth.

Cost of commuting to jobs at distant points.

Higher costs in the defense cities than in the smaller cities and country towns from which many workers have come. Differences in rents and in the cost of utilities are frequently very marked.

The inconvenience caused by the more limited choice of certain goods as the war proceeds and by the complete disappearance of others from the market.

Thus, the index is an *approximate* measure to be used as a *general* guide in a particular wage negotiation or for other purposes.

DOLLAR COSTS NOT SHOWN

19. Does the index show the total dollar cost of living?

No. The purpose of the index is only to measure *percentage changes* in the cost of living. It is published in the form of an index number, taking average dollar cost in 1935–39 as 100.

20. Where can I find the actual dollar costs on which the index is based?

They are not published, since they cannot be used to compare living costs between cities, or to represent the cost of a recommended budget or of the "American standard of living." They represent only the estimated current dollar cost of the goods and services purchased by wage earners and lower-salaried workers in 1934–36. The actual 1934–36 expenditure figures may be found for separate cities in any of the Bureau of Labor Statistics' Bulletins Nos. 636 to 642. These actual dollar-expenditure figures, however, are influenced by incomes, local customs, and many other factors.

NOT FOR COMPARISON BETWEEN CITIES

21. Can the index be used to compare living costs between cities?

No. The average dollar cost in the period 1935–39 of the particular list of goods and services for each city is taken as 100 *for that city only.*

22. Then if the index is 104.7 for New York and 106.7 for Chicago, that doesn't mean that living costs are 2 points higher in Chicago?

No; it means that New York families had to spend $104.70 for every $100 they spent in 1935–39 and Chicago families had to spend $106.70 for every $100 they spent in 1935–39. That is, living costs have been rising faster in Chicago, but it tells us nothing of whether clothing or food or all living costs either now or in 1935–39 were actually higher, in dollars, in New York or in Chicago.

How to Read Index

23. What is meant by taking average dollar costs in 1935–39 as 100?

Some period must be chosen as a standard against which to measure price changes when they are summarized in the form of an index number. This is called the "base period." The average of the 5 years, 1935–39, has been agreed upon by Government agencies as the official base for their new index numbers.

24. Just what does an index number of 110.5 mean?

We might say: "For every $100 spent by city families in the period 1935–39, it cost families $110.50 in December 1941 to buy the same goods and services." Usually we say: "In December 1941 the index stood at 110.5 percent of the 1935–39 average." This means the same thing. The tables issued by the Bureau are in the form of index numbers. They may be interpreted as follows:

In each of these periods	*For the average $100 spent by city families in 1935–39, it was necessary to spend—*
Average 1940	$100.20
1941:	
June	104.60
July	105.30
August	106.20
September	108.10
October	109.30
November	110.20
December	110.50

Thus, for every $100 spent in 1935–39, it was necessary to spend $100.20 on the average in 1940 and $110.50 in December 1941 in order to buy the same things that could be bought for $100 in the years 1935–39.

25. How can I compare living costs now with costs at some date other than the average for 1935–39?

If you want to compare living costs now with, say, a year ago, subtract the lower of the two indexes from the higher and divide the difference by the index for a year ago. This result is then multiplied by 100. If the current index is higher the percentage change is an increase. Thus—

December 1941 = 110.5
minus
December 1940 = 100.7

Difference = 9.8

$9.8 \div 100.7 = 0.097$
$100 \times 0.097 = 9.7$

Therefore, the percent of increase is 9.7 and we say that living costs to moderate-income families were 9.7 percent higher in December 1941 than in December 1940 or that for every $100 spent in December 1940 it was necessary to spend $109.70 in December 1941 to buy the same things.

Comparison of Costs Between Cities

26. But I need to know whether it costs more to live in New York than in Chicago. What figures can I get on that?

An answer to your question must come from a comparison of prices of the same or equivalent articles in New York and in Chicago. The only available figures are those showing the cost of a "maintenance" budget for a 4-person manual worker's family, established by the Works Progress Administration in 1935. These costs have been estimated for more recent dates on the basis of changes in cost of living, as measured by the Bureau's cost-of-living indexes. Mimeographed reports are available, quarterly, showing these dollar figures for each of 33 large cities.

How Much Should A Worker Earn

27. Do these figures show how much a worker should earn?

No. These estimates merely show how much it would cost a family to buy the quantity of food, clothing, etc., set out in the WPA "maintenance" budget. The budget itself is more than enough to keep a family alive from day to day, but is lower than the typical budget of skilled workers at the present time. It provides for "maintenance" but allows little for comforts and hardly the smallest luxuries.

Not a Standard Budget

28. My family income is different from the average. Does the cost-of-living index apply to me?

Yes; in a general way. The index is a good general description of average price changes of goods bought by city families whose incomes are around $2,000 or under. Most of these families buy much the same kinds of things, and their living costs are all affected to some extent by the same price changes. The effect of changes in food costs is more important, however, to families with small incomes, because a larger proportion of their purchases goes to food.

29. Does the Bureau's index measure changes in living costs of people living in boarding houses or rooming houses and not living with their families?

No. No reports are obtained (except for Federal workers in Washington, D. C.) on changes in costs in rooming and boarding houses. These figures are expensive to obtain, and the Bureau has never had an appropriation adequate for this purpose.

City Coverage

30. Has the Bureau increased the number of cities where it makes cost-of-living surveys?

Yes. The Office of Price Administration has supplied funds for surveys in 20 small cities and some other cities not previously covered, where the defense program had brought many new workers to the community.

CITIES INCLUDED

The cities in which the Bureau of Labor Statistics collects data on changes in living costs are listed below. The data available for these cities show changes in the cost of all goods and services purchased by wage earners and lower-salaried workers. Where figures are released quarterly only, the name of the city is followed by (Q); where monthly, by (M).

In some cities for which prices are not obtained for all the goods included in the Bureau's regular indexes, estimates of changes in living costs are computed on the basis of food, fuel, and rental costs. The names of these cities are followed by (*). In other cities, estimates are now available until such time as pricing for all important articles of family spending is begun. The names of these cities are followed by (**).

Cities for Which Prices are Obtained for Bureau of Labor Statistics Cost-of-Living Index

State	City	State	City
Alabama	Birmingham (M).	Nebraska	Falls City (Q).
	Gadsden (Q).		Omaha (Q).**
	Mobile (Q).	Nevada	Las Vegas (Q)
Arizona	Globe (Q).	New Hampshire	Manchester (Q).
Arkansas	Jonesboro (Q).	New Jersey	Newark (Q).**
	Little Rock (Q).*		Vineland (Q).
California	Los Angeles (M).	New York	Buffalo (M).
	San Diego (Q).		New York (M).
	San Francisco (M).		Oswego (Q).
	San Francisco Suburbs (Q).		Rochester (Q).*
Colorado	Denver (M).	North Carolina	Goldsboro (Q).
Connecticut	Bridgeport (Q).	Ohio	Cincinnati (M).
	New Haven (Q).*		Cleveland (M).
	Torrington (Q).		Zanesville (Q).
District of Columbia	Washington (M).	Oklahoma	Stillwater (Q).
Florida	Jacksonville (Q).	Oregon	Portland (Q).
Georgia	Atlanta (Q).	Pennsylvania	Lebanon (Q).
	Savannah (M).		Philadelphia (M).
Illinois	Chicago (M).		Pittsburgh (M).
	Mattoon (Q).		Scranton (Q).
	Peoria (Q).*	South Carolina	Charleston (Q).**
Indiana	Bloomington (Q).		Chester (Q).
	Indianapolis (Q).	South Dakota	Watertown (Q).
	South Bend (Q).	Tennessee	Knoxville (Q).*
Iowa	Clinton (Q).		Memphis (Q).
Kansas	Wichita (Q).**	Texas	Corpus Christi (Q).
Kentucky	Louisville (Q).*		Dallas (Q).*
Louisiana	New Orleans (Q).		Houston (M).
Maine	Portland (Q).	Virginia	Newport News
Maryland	Baltimore (M).		Norfolk (Q).
Massachusetts	Boston (M).		Richmond (Q).
Michigan	Battle Creek (Q).	Washington	Seattle (M).
	Detroit (M).		Walla Walla (Q).
Minnesota	Minneapolis, (M).	West Virginia	Clarksburg (Q).
Mississippi	Vicksburg (Q).	Wisconsin	Milwaukee (Q).
Missouri	Kansas City (M).		Oconto (Q).
	St. Louis (M).		

CITIES NOT INCLUDED

31. *The Bureau does not issue any cost-of-living indexes for my community. Where can I get information on changes in cost of living here?*

It is impossible to extend the cost-of-living studies of the Bureau of Labor Statistics to all the cities in the country. There may, however, be cost-of-living information available from your State or local government or from private agencies. If no satisfactory local index is available, the best thing to do is to use the Bureau's index for the nearest city of about the same size as yours, or to use the

index for all large cities combined, as a general guide, realizing that there will inevitably be some difference in your local situation. Changes in food costs, in rents and in fuel and light vary considerably from city to city. However, changes in prices of clothing, house-furnishings, and miscellaneous goods have been found to follow much the same trends throughout the country.

How to Get the Figures

32. *I don't always see the announcement in the papers of the Bureau's cost-of-living figures. How can I get them regularly?*

Ask to be placed on the Bureau's mailing list for current reports, if you have need for cost-of-living data in connection with the war effort, or with your regular work.

COST OF LIVING IN LARGE CITIES, JUNE 15, 1942

LIVING costs in large cities rose 0.4 percent between June 2 and June 15, after a drop of 0.1 percent in the 2 weeks immediately following the General Maximum Price Regulation. Prices of unregulated goods and services advanced 1.2 percent in the 2-week period from June 2 to June 15, whereas prices of controlled goods declined 0.1 percent. Between May 15 and June 15 uncontrolled prices advanced 2.4 percent, while controlled items declined 0.8 percent. The most important advances were in the prices of uncontrolled foods.

The recent advance brings the Bureau of Labor Statistics cost-of-living index to 116.4 percent of the 1935–39 average, a net increase of 0.3 percent between May 15 and June 15. Costs on June 15, 1942, were 11.3 percent higher than on June 15, 1941.

The cost of living on June 15 was somewhat lower than on March 15 in Norfolk, Birmingham, Mobile, and Seattle, largely because of substantial rent reductions ordered by the Office of Price Administration. Though costs in June were higher in Cleveland and Detroit than in March, they were lower than in May because of rent reductions large enough to offset the increased cost of food. The only other cities surveyed that showed a decline between May and June were Chicago, Savannah, and Houston, in which food prices were essentially stable or declined.

Food.—Prices of foods not under the General Maximum Price Regulation advanced by an average of 4.8 percent between mid-May and mid-June. Controlled food prices on the other hand showed an average decline of 1 percent. Total food costs to city families rose, therefore, 1.3 percent between May 15 and June 15. This increase represents about the same average rate of advance as that which occurred during the 14 months prior to the beginning of general price regulation on May 18.

Fresh fruits and vegetables, lamb, and poultry (none of which except bananas are subject to price control) led the rise in prices. Apple prices advanced 25 percent, cabbage 15 percent, lamb 10 percent, and roasting chickens 9 percent. A drop in prices was reported for fats and oils, beverages, dairy products, and pork, all of which (except dairy products) are under the General Maximum Price Regulation. Cereals and most bakery products, beef, canned fruits and vegetables, and sugar were also slightly lower in price.

The rise of 1.9 percent in the average cost of meats resulted from substantial advances in prices of lamb, roasting chickens, and fresh fish, with only minor change in other meat prices. The increase of 10.4 percent in lamb prices was much larger than any May-to-June advance during the past 20 years. Roasting chickens, which usually decline at this season, rose 8.7 percent. Fresh fish prices continued the advance of the past several months, largely because of labor shortages and the curtailment of fishing areas.

Clothing.—Clothing prices, all regulated, dropped on the average 0.7 percent between May 15 and June 15. All important articles of clothing declined in price, particularly women's shoes and underwear, and men's work clothes. As compared with earlier periods, however, these costs were still 1 or 2 percent above March 15, 1942, 15 to 35 percent above their level in June 1941, and 15 to 50 percent above the September 1939 level. (The General Maximum Price Regulation requires the return of prices to the highest level prevailing in March, not to the March 15 price.)

Housefurnishings.—In spite of the fact that all articles of housefurnishings are subject to price control, their prices rose, on the average, 0.1 percent between May 15 and June 15, as the result of price increases in a few stores in four cities. In some cases these changes were due to a return to the March level after sales in May. In most cities there was no significant change in the prices quoted for housefurnishings. Mattresses showed the largest price decline, 0.9 percent, between May 15 and June 15.

Electric refrigerators, washing machines, vacuum cleaners, sewing machines, and radios were not available to civilian buyers on June 15 in a number of the cities covered by the Bureau's survey. Following the policy inaugurated in January, these goods were eliminated from the comparison of living costs in these cities on May 15 and June 15.

Rents.—Sharp declines in rent required in a few large cities by the Office of Price Administration caused the average for large cities of the country to decline 1.3 percent between May 15 and June 15 to a point 0.4 percent below that of mid-March.

Largest reductions between March 15 and June 15 occurred in Mobile, with a drop of 11.8 percent and in Norfolk 9.0 percent, while between May 15 and June 15 there were rent decreases in Seattle of 9.4 percent, Birmingham 8.9 percent, Cleveland 7.0 percent and Detroit 6.3 percent. In Cleveland the Office of Price Administration had ordered rents reduced to July 1, 1941, level, and in the other cities to the April 1, 1941 level.

Fuel, electricity, and ice.—Prices of coal and fuel oil increased in a number of cities between March 15 and June 15, because of higher transportation costs. Rates for electricity and gas for domestic use declined in a few cities. The most marked change occurred in Cincinnati, where the heat content of gas was increased on May 12.

Other goods and services.—Average costs of other goods and services remained unchanged between May 15 and June 15, at a point 0.7 percent above the March 15 level. Prices for services, particularly barber and beauty shop, and laundry services, were considerably higher in some cities. Laundry services were not regulated by the Office of Price Administration until July 1. There were also advances in prices of newspapers in 8 cities and of admissions to motion pictures

in 12 cities over the quarter. Neither of these is covered by the General Maximum Price Regulation. An increase in gasoline prices has been granted in eastern cities by the Office of Price Administration, because of increased transportation costs.

TABLE 1.—*Percent of Change From May 15, 1942, to June 15, 1942, in Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items*

Area and city	All items	Food	Clothing	Rent	Fuel, electricity and ice	House-furnishings	Miscellaneous
Average: Large cities	+0.3	[1]+1.3	[2]−0.7	[2]−1.3	[3]+0.1	[2]+0.1	([2] [4])
New England:							
Boston	+.4	+1.4	−1.5	([4])	−.1	−.3	+.3
Manchester	([5])	+1.0	([5])	([5])	([4])	([5])	([5])
Portland, Maine	([5])	+1.3	([5])	([5])	+.8	([5])	([5])
Middle Atlantic:							
Buffalo	+.3	+1.7	−1.6	−2.0	+.1	−.2	+1.5
New York	+.8	+2.0	−.8	([4])	−.1	+.9	+.2
Philadelphia	+.2	+.3	+.2	([4])	([4])	−.1	+.5
Pittsburgh	+.9	+2.7	−.4	([4])	([4])	−.7	([4])
Scranton	([5])	+1.7	([5])	([5])	([4])	([5])	([5])
East North Central:							
Chicago	−.2	+.3	−2.2	−.5	+.4	−.7	([4])
Cincinnati	+.8	+1.6	+.1	+.1	+.9	+.2	+.5
Cleveland	−.3	+2.7	−.2	−7.0	+.4	−.3	+.1
Detroit	−.8	+1.7	−.5	−6.3	([4])	([4])	([4])
Indianapolis	([5])	+.6	([5])	([5])	([4])	([5])	([5])
Milwaukee	([5])	+1.8	([5])	([5])	+.1	([5])	([5])
West North Central:							
Kansas City	([4])	+.2	−.4	−.7	+.3	−.9	+.4
Minneapolis	([4])	+.4	−.9	([4])	+.1	−.3	+.1
St. Louis	+.9	+1.7	−.4	+.9	+.3	+.1	+.3
South Atlantic:							
Atlanta	([5])	+1.2	([5])	([5])	+1.5	([5])	([5])
Baltimore	+.8	+1.0	−.2	([4])	([4])	([4])	+.5
Jacksonville	([5])	+1.5	([5])	([5])	+.1	([5])	([5])
Norfolk	([5])	+1.9	([5])	([5])	([4])	([5])	([5])
Richmond	([5])	+1.7	([5])	([5])	+.1	([5])	([5])
Savannah	−.6	−.7	−1.2	−1.1	([4])	+.2	+.2
Washington, D. C	+.7	+2.1	−.3	([4])	([4])	+.3	+.2
East South Central:							
Birmingham	−1.5	+.3	−.5	−8.9	+.5	−.3	+.1
Memphis	([5])	+.5	([5])	([5])	([4])	([5])	([5])
Mobile	([5])	+1.3	([5])	([5])	−.9	([5])	([5])
West South Central:							
Houston	−.4	−.8	−.6	([4])	−.7	([4])	−.1
New Orleans	([5])	−.1	([5])	([5])	([4])	([5])	([5])
Mountain: Denver	+.1	+.7	−1.0	+.1	−.2	−.1	−.1
Pacific:							
Los Angeles	+.4	+1.3	−.6	([4])	([4])	−.1	([4])
Portland, Oreg	([5])	+.1	([5])	([5])	+.4	([5])	([5])
San Francisco	+.3	+.5	−.5	−.2	([4])	−.6	+.7
Seattle	−1.6	−.4	−.1	−9.4	−.1	([4])	([4])

[1] Based on data for 51 cities.
[2] Based on data for 21 cities.
[3] Based on data for 34 cities.
[4] No change.
[5] Monthly data not available.

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TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers by Groups of Items, Apr. 15, 1942, to June 15, 1942*

[Average 1935–39=100; some indexes for April and May revised]

City and date	All items	Food	Clothing	Rent	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Average, large cities:							
April 15	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15	116.4	123.2	125.3	108.5	105.0	122.3	110.9
Atlanta:							
April 15	[1]	120.3	[1]	[1]	108.8	[1]	[1]
May 15	[1]	120.4	[1]	[1]	108.8	[1]	[1]
June 15	115.5	121.8	124.9	106.5	110.4	119.4	111.0
Baltimore:							
April 15	117.3	123.6	126.7	113.7	102.7	127.4	109.7
May 15	118.2	125.8	126.2	113.7	103.8	127.7	110.2
June 15	119.2	127.1	125.9	113.7	103.8	127.7	110.7
Birmingham:							
April 15	118.2	118.9	128.1	131.0	98.5	119.3	111.5
May 15	118.7	120.5	127.1	131.0	99.0	119.5	111.6
June 15	116.9	120.9	126.5	119.4	99.5	119.1	111.7
Boston:							
April 15	112.0	115.3	123.0	104.9	111.9	118.8	107.9
May 15	113.4	118.3	123.6	105.0	112.7	118.6	108.4
June 15	113.9	119.9	121.7	105.0	112.6	118.3	108.7
Buffalo:							
April 15	119.0	122.4	128.7	116.3	103.1	126.0	116.2
May 15	120.5	125.2	129.3	117.9	103.5	126.1	117.1
June 15	120.9	127.3	127.2	115.5	103.6	125.9	118.8
Chicago:							
April 15	115.3	120.0	124.0	112.8	102.7	120.7	110.3
May 15	116.5	121.7	123.1	116.2	103.2	120.5	110.3
June 15	116.3	122.1	120.4	115.6	103.6	119.6	110.3
Cincinnati:							
April 15	115.3	120.7	128.5	104.4	103.1	125.7	110.1
May 15	115.9	122.4	128.1	104.8	102.2	125.5	110.2
June 15	116.8	124.3	128.2	104.9	103.1	125.7	110.7
Cleveland:							
April 15	117.9	122.3	127.2	118.0	111.3	124.0	109.8
May 15	118.8	124.1	127.4	118.4	111.5	124.1	110.4
June 15	118.4	127.4	127.2	110.1	112.0	123.7	110.5
Denver:							
April 15	114.6	120.2	125.3	109.0	99.3	122.3	110.2
May 15	115.6	122.9	124.4	109.0	99.3	122.1	110.8
June 15	115.7	123.7	123.2	109.1	99.1	122.0	110.7
Detroit:							
April 15	118.4	121.0	127.0	119.5	106.5	121.3	113.3
May 15	118.8	122.4	126.4	119.5	106.7	121.0	113.4
June 15	117.9	124.5	125.8	112.0	106.7	121.0	113.4
Houston:							
April 15	115.7	124.6	127.3	108.5	93.7	122.5	109.6
May 15	116.2	125.9	127.5	108.6	93.7	122.5	109.8
June 15	115.7	124.9	126.7	108.6	93.0	122.5	109.7
Indianapolis:							
April 15	[1]	122.8	[1]	[1]	103.1	[1]	[1]
May 15	[1]	125.0	[1]	[1]	103.4	[1]	[1]
June 15	119.2	125.7	125.5	119.4	103.4	125.4	112.3
Jacksonville:							
April 15	[1]	126.1	[1]	[1]	108.1	[1]	[1]
May 15	[1]	127.4	[1]	[1]	107.9	[1]	[1]
June 15	119.9	129.3	124.6	117.9	108.0	121.3	111.1
Kansas City:							
April 15	113.7	117.2	124.4	109.0	105.6	118.4	110.3
May 15	114.1	118.8	123.0	109.4	105.7	118.3	110.3
June 15	114.1	119.0	122.5	108.6	106.0	117.2	110.7
Los Angeles:							
April 15	117.1	125.2	128.0	109.9	94.2	118.8	111.8
May 15	118.1	128.1	128.0	109.9	94.2	118.5	112.1
June 15	118.6	129.8	127.2	109.9	94.2	118.4	112.1
Manchester:							
April 15	[1]	119.5	[1]	[1]	113.5	[1]	[1]
May 15	[1]	124.0	[1]	[1]	114.9	[1]	[1]
June 15	119.1	125.3	127.7	107.5	114.9	121.2	111.9
Memphis:							
April 15	[1]	120.8	[1]	[1]	104.1	[1]	[1]
May 15	[1]	123.5	[1]	[1]	104.1	[1]	[1]
June 15	117.4	124.1	133.0	115.3	104.1	124.4	107.1
Milwaukee:							
April 15	[1]	117.9	[1]	[1]	103.7	[1]	[1]
May 15	[1]	119.8	[1]	[1]	103.8	[1]	[1]
June 15	115.7	122.0	122.6	110.5	103.9	124.6	109.7

[1] Monthly data not available.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers by Groups of Items, Apr. 15, 1942, to June 15, 1942*—Continued

[Average 1935–39=100; some indexes for April and May revised]

City and date	All items	Food	Clothing	Rent	Fuel, electricity and ice	Housefurnishings	Miscellaneous
Minneapolis:							
April 15	114.7	118.0	125.2	109.4	98.4	124.1	113.6
May 15	115.9	120.9	125.6	109.5	98.5	123.8	114.6
June 15	115.9	121.4	124.5	109.5	98.6	123.4	114.7
Mobile:							
April 15	(1)	129.1	(1)	(1)	103.5	(1)	(1)
May 15	(1)	126.8	(1)	(1)	102.9	(1)	(1)
June 15	118.6	128.4	126.7	115.6	102.0	121.4	110.5
New Orleans:							
April 15	(1)	130.0	(1)	(1)	96.1	(1)	(1)
May 15	(1)	129.0	(1)	(1)	96.2	(1)	(1)
June 15	118.3	128.9	128.5	106.8	96.2	125.6	109.3
New York:							
April 15	112.6	116.6	126.6	103.1	103.6	117.4	109.7
May 15	113.3	118.0	126.5	103.1	104.7	117.4	110.1
June 15	114.2	120.4	125.5	103.1	104.6	118.5	110.3
Norfolk:							
April 15	(1)	126.4	(1)	(1)	114.0	(1)	(1)
May 15	(1)	126.1	(1)	(1)	114.0	(1)	(1)
June 15	120.3	128.5	130.9	108.7	114.0	123.9	114.9
Philadelphia:							
April 15	113.8	117.5	126.2	106.8	101.9	121.3	109.9
May 15	114.7	119.4	125.8	106.7	103.5	121.7	110.5
June 15	114.9	119.7	126.0	106.7	103.5	121.6	111.0
Pittsburgh:							
April 15	113.9	117.7	126.5	107.1	106.8	122.4	109.1
May 15	115.8	121.4	126.7	108.8	108.4	122.3	109.7
June 15	116.9	124.7	126.2	108.8	108.4	121.5	109.7
Portland, Maine:							
April 15	(1)	117.6	(1)	(1)	109.0	(1)	(1)
May 15	(1)	121.7	(1)	(1)	109.6	(1)	(1)
June 15	116.8	123.3	126.0	106.2	110.5	120.4	113.1
Portland, Oregon:							
April 15	(1)	129.6	(1)	(1)	109.6	(1)	(1)
May 15	(1)	134.5	(1)	(1)	109.7	(1)	(1)
June 15	122.1	134.6	124.5	117.6	110.1	121.4	112.8
Richmond:							
April 15	(1)	119.2	(1)	(1)	104.4	(1)	(1)
May 15	(1)	120.9	(1)	(1)	104.5	(1)	(1)
June 15	115.8	122.9	131.5	104.3	104.6	127.4	109.5
St. Louis:							
April 15	115.4	123.8	127.5	106.6	105.4	116.5	108.8
May 15	115.6	123.8	127.4	107.5	105.9	116.1	108.9
June 15	116.6	125.9	126.9	108.5	106.2	116.2	109.2
San Francisco:							
April 15	117.0	123.6	128.2	106.1	93.3	120.3	114.1
May 15	117.6	125.5	126.1	106.6	94.0	120.0	114.6
June 15	117.9	126.1	125.5	106.4	94.0	119.3	115.4
Savannah:							
April 15	120.2	128.6	128.2	116.0	106.2	119.9	112.6
May 15	120.9	130.3	128.6	116.3	106.2	119.9	112.9
June 15	120.2	129.4	127.0	115.0	106.2	120.1	113.1
Scranton:							
April 15	(1)	118.5	(1)	(1)	96.5	(1)	(1)
May 15	(1)	121.0	(1)	(1)	99.5	(1)	(1)
June 15	114.3	123.0	127.3	98.1	99.5	123.5	108.4
Seattle:							
April 15	120.4	127.5	129.2	122.8	100.7	119.2	113.1
May 15	121.3	129.9	129.0	122.8	100.7	119.2	113.4
June 15	119.3	129.4	128.9	111.3	100.6	119.2	113.4
Washington, D. C.:							
April 15	113.8	118.0	132.9	100.6	101.0	129.0	112.3
May 15	114.7	120.7	132.4	100.6	102.8	128.7	112.9
June 15	115.5	123.2	132.0	100.6	102.8	129.1	113.1

[1] Monthly data not available.

TABLE 3.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers in Large Cities by Years, 1935–41; by Months, January 1941–June 1942*

[Average 1935-39=100]

Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House-furnishings	Miscellaneous
1935	98.1	100.4	96.8	94.2	100.7	94.8	98.1
1936	99.1	101.3	97.6	96.4	100.2	96.3	98.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1938	100.8	97.8	102.2	104.1	99.9	103.3	101.5
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1940	100.2	96.6	101.7	104.6	99.7	100.5	101.1
1941	105.2	105.5	106.5	105.9	102.5	108.2	104.0
Jan. 15	100.8	97.8	100.7	105.0	100.8	100.1	101.9
Feb. 15	100.8	97.9	100.4	105.1	100.6	100.4	101.9
Mar. 15	101.2	98.4	102.1	105.1	100.7	101.6	101.9
Apr. 15	102.2	100.6	102.4	105.4	101.0	102.4	102.2
May 15	102.9	102.1	102.8	105.7	101.1	103.2	102.5
June 15	104.6	105.9	103.3	105.8	101.4	105.3	103.3
July 15	105.3	106.7	104.8	106.1	102.3	107.4	103.7
Aug. 15	106.2	108.0	106.9	106.3	103.2	108.9	104.0
Sept. 15	108.1	110.7	110.8	106.8	103.7	112.0	105.0
Oct. 15	109.3	111.6	112.6	107.5	104.0	114.4	106.9
Nov. 15	110.2	113.1	113.8	107.8	104.0	115.6	107.4
Dec. 15	110.5	113.1	114.8	108.2	104.1	116.8	107.7
1942:							
Jan. 15	112.0	116.2	116.1	108.4	104.3	118.2	108.5
Feb. 15	112.9	116.8	119.0	108.6	104.4	119.7	109.4
Mar. 15	114.3	118.6	123.6	108.9	104.5	121.2	110.1
Apr. 15	115.1	119.6	126.5	109.2	104.3	121.9	110.6
May 15	116.0	121.6	126.2	109.9	104.9	122.2	110.9
June 15	116.4	123.2	125.3	108.5	105.0	122.3	110.9

PERMANENT PLAN OF GASOLINE RATIONING

THE permanent gasoline-rationing system on the Atlantic Seaboard was inaugurated on July 22, 1942, to take the place of the temporary plan which became effective on May 15, 1942. Motorists were required to register on July 9, 10, and 11, in the public schools, in order to obtain basic "A" books for motor cars, "D" books for motorcycles, or other special books.

The "A" book contains 48 coupons, distributed eight to a page in a six-page booklet. Each coupon is valued at about 4 gallons, but is subject to change as the Eastern oil supply ebbs and flows. The books must last a year, with each page of coupons having a 2-month time limit. It is estimated that the 48 coupons will allow 2,880 miles of driving annually on the basis of 15 miles to the gallon. Of this mileage, 1,800 miles are intended for occupational use and the remaining 1,080 miles for miscellaneous household use.

Supplementary Ration Books

Automobile owners whose occupations necessitate travel of more than 150 miles a month were authorized to obtain "B" books from their local rationing board by filling out special application forms. Such persons must show that they are carrying three or more persons to work as members of a car-sharing club, wherever possible. The "B" book contains 16 coupons, and permits a maximum of 320 miles per month of driving in addition to that provided by the basic "A" book. Thus, a motorist having a "B" book may drive a total of 470 miles a month, but applicants will have their ration adjusted to their individual needs by means of a variable expiration date on the book.

The "C" book is issued to applicants who (1) have met the requirements of the "B" book, (2) have shown need for more than 470 miles a month, and (3) belong to a category of users considered most essential to the war effort. As in the case of the "B" book, an applicant, if he meets these requirements, will be given additional rations to fit his exact needs. The rationing regulations list the following 14 "preferred uses" for which "C" books may be issued if the applicant can show need for more than 470 miles of driving per month:

1. Official Government business.
2. Transportation of United States mail.
3. Public-school officials traveling from school to school.
4. Wholesale newspaper or magazine delivery.
5. Carrying news camera or photographic equipment for dissemination of public information. The applicant must show that his equipment is of the nonportable type.
6. Physicians, surgeons, nurses, veterinarians.
7. Ministers, priests, or rabbis.
8. Transportation of farm products and supplies.
9. Transportation of farm, marine, and transportation workers or commercial fishermen to or between jobs; recruiting or training such workers.
10. Transportation of members of the armed forces to or between posts of duty.
11. Transportation of essential war workers to or between jobs.
12. Construction, repair, or maintenance services; transportation of equipment or materials; specialized services to agricultural, extractive, or industrial establishments.
13. Salesmen of farm or industrial machinery, medical supplies, and foods essential to the war effort.
14. Motorcycle used for delivery or messenger service. (Motorcycles are provided "D" books adjusted to the requirements of motorcycles on a proportionate basis.)

Special Rations

Special rations may be obtained for a period not exceeding 6 months for one or more of the following purposes:

1. To obtain medical treatment or necessary food or supplies.
2. To return an automobile or boat to an owner's residence.
3. To operate a car or boat for demonstration purposes in connection with sale or resale (restricted to 5 gallons per vehicle per month).
4. To transport personnel and equipment on scientific expeditions.
5. To carry persons to and from the polls for the purpose of voting in public elections (including primaries), or for the use of a bona fide candidate for public office for purposes essential to the prosecution of his candidacy.
6. To operate a vehicle for tests or experiments essential to the war effort.

"Service rations" are issued to Government vehicles, busses and trucks used as common carriers, taxis, and other busses or trucks used for special purposes, such as the transportation of students, members of the armed forces, invalids, etc. Such rations, however, may not be issued to a vehicle to be used for sightseeing purposes. Service rations may also be issued to a bus or truck used for carrying on activities necessary to the civilian defense or to the prosecution of the war.

RATIONING OF SUGAR AND GASOLINE IN CANADA

UP TO July 1, 1942, only two commodities had been the subject of strict rationing in Canada. The use of tea and coffee and of sugar was the subject of orders (Nos. 138 and 150) issued by the Wartime Prices and Trade Board, on May 19, 1942, and June 16, 1942, re-

spectively, both under authority conferred by order P. C. 8528 of November 1, 1941. These orders restricted the use of these commodities to fractional parts of their ordinary consumption. In the case of sugar, purchases cannot be made without the presentation of coupons attached to a ration card. A rationing system controlled by the use of coupons was introduced also for gasoline for use in motor vehicles and noncommercial marine engines, by order (O. C. 12) issued by the Oil Controller in the Department of Munitions and Supply, on March 4, 1942, under authority of order P. C. 1195 of February 19, 1941.[1]

The gasoline-rationing order, which became effective April 1, 1942, provided that gasoline dealers could receive supplies only from authorized sources and the total barrel-storage capacity of a dealer could in no case exceed his maximum inventory of barrel storage in 1941. Five gallons was fixed as the basic unit of graded gasoline which could be sold in exchange for a coupon, but the order provided that the controller may vary the unit as circumstances require. The smallest number of units issued per annum is 60. The ration applies to the vehicle and not to the person holding the ration card. Six categories of gasoline users were fixed, and the maximum purchases allowed per annum for different classes within the categories were prescribed. An additional "commercial" category permitted purchases as required. Nine regional control offices were created for the Dominion.

The sugar-rationing order provided that the purchase of sugar for personal or household consumption should be dependent upon the surrender to the merchant of ration coupons representing a quantity of sugar equal to the amount so purchased, and only if such ration coupons are detached by or in the presence of the merchant. The ration card first issued contained five coupons valid for purchases of sugar, each of which represented 1 pound. The coupons were to be valid for periods of approximately 2 weeks each, the first such period to begin July 1, 1942, and the last on August 24, 1942. The order also fixed the proportion of sugar which might be used in the household for canning and preserving. The limit for canning was fixed at one-half pound of sugar for each pound of fruit, that for jelly or jam at three-quarters of a pound for one pound of fruit, or one and one-quarter pounds for each pound of fruit if pectin is used. The order also prescribed the quantities which may be used by institutions, public caterers, and industrial users. Sales of sugar by other than licensed merchants or refiners were prohibited.

[1] Canada Gazette, Extra (Ottawa), February 27 and November 5, 1941, March 17, May 26, and June 19, 1942.

Recreation

VACATION POLICIES IN 1942

IN VIEW of the need for maximum production in the war industries, it seemed apparent that there might be some modification in 1942 of the usual vacation policies in different industries. Accordingly, the National Industrial Conference Board secured information from a number of companies regarding their vacation policies affecting factory employees.[1] In the determination of the vacation policy the attitude of the Government toward this question was of importance. This was clarified by a statement by Donald Nelson issued as a press release of the War Production Board on April 16, 1942, stressing both the importance of vacations and the necessity for planning with reference to them so that there should be no counterbalancing loss in production.

Of the 167 companies furnishing information regarding their vacation policies for factory workers, 128 stated that no change was contemplated in their vacation practice, 36 expected to modify their plans, and 3 had not reached a definite decision. In only 3 cases was it expected that the vacation period would be shortened in 1942. These companies reported that the vacation period would be half the normal vacation with an allowance being paid for the other half.

There are two general types of vacation plans—the uniform type, in which vacations of specified length are given to all employees who have fulfilled the service requirements, and the graduated type, in which the length of the vacation period depends upon length of service. Sixty-one of the companies had uniform plans, in which the vacation period was either 1 or 2 weeks, and 106 companies had graduated plans providing for vacations of varying length, but in no case was the maximum more than 2 weeks.

In 1941, 44 of the companies closed down their plants for the vacation period, but in 1942 only half of this number planned to do so, because of the need for maximum production.

Among the companies having staggered-vacation plans, the tendency is toward extending the period in which vacations may be taken, in order to have fewer employees absent on vacation at any one time and thus to interfere as little as possible with production. Nineteen of the companies spread vacations over the entire year in 1941, and in 1942 the number following this practice had increased to 23. In 41 instances it was reported that vacations which were longer than 1 week would be split.

The question of paying vacation allowances in lieu of giving actual time off, which is an alternative seriously considered by companies producing war material, was brought into prominence by Mr. Nelson's statement in which it was said that, "under no circumstances

[1] Modifications in 1942 vacation policy, by William B. O'Connor (in Conference Board Management Record, New York, May 1942).

can the desire or need for vacations be permitted to excuse any shutdown of any department of any war production plant." Of the 167 companies covered in the survey, 83 planned to pay some or all of their employees for the vacation period to which they would be entitled and have them remain at work, while almost as many stated they did not intend to follow this practice, as they believed that in the long run production would be increased if the employees had the benefit of their vacations.

There was a difference of opinion among companies planning to pay allowances instead of giving vacations, as to whether acceptance of the allowance or continuing at work should be optional or compulsory. Forty-eight of the 83 companies following this plan stated that it would be optional, while the remaining companies felt it would have to be compulsory in order to meet production schedules and maintain continuous operation of the plant. This point does not appear to be generally covered specifically in union agreements, since of the 116 companies reporting on this question, only 22 stated that the agreements contained such provisions.

Only about one-sixth of the companies reported that overtime is included in computing vacation pay, this usually being done when the vacation payment is based on annual earnings or piece-rate earnings for a given period. When the vacation allowance is based on base rates, day rates, or hourly earnings, overtime is rarely included in the computation of the vacation pay. One company offered, as an inducement to employees to forego their vacations, a premium of 5 hours' extra pay for each week to which they were entitled, in addition to their vacation allowance, with the result that 75 percent of those eligible for vacations elected to stay on the job.

The majority of the companies—121 of 166—give the vacation pay before the beginning of the vacation, while in 13 of the companies it is optional with the employee whether he takes it before or after the vacation. Many of the companies which gave vacation allowances in lieu of vacations made a practice of paying the employees before the normal vacation period, while others set aside a specific day upon which to pay all workers who gave up their vacation time.

COMMUNITY RECREATION IN WARTIME

THE annual record of community recreation service for the country in 1941 [1] does not show any striking differences in comparison with the reports for the years immediately preceding, as regards the number of recreation leaders, facilities, or expenditures. However, the particular recreational needs of defense workers and their families received special attention in many areas, and a total of 207 out of the 1,236 agencies that made 1941 yearbook reports had established services especially for the men in uniform. Changes in the programs of these agencies included the construction or remodeling of buildings as service centers for soldiers, in many cities; the turning over of game courts and fields to service men; provision of social-recreation programs for them in

[1] Recreation (New York), June 1942 yearbook number (annual report of the National Recreation Association).

indoor centers; and organization of community-wide service men's recreation activities, sometimes in cooperation with other community groups.

Attention was also given to the recreation needs of defense workers. In order to enable men working on various shifts to take part in sports programs, athletic schedules were adjusted and expanded; recreation facilities were kept open for longer periods; and clubs, social recreation groups, and playground programs were organized for the wives and families of industrial workers.

The effects of the war situation were also felt in other ways. Participation in many community programs was reduced as a result of the large-scale enrollment of young men in the armed forces and in industry, while the lengthening of the workday and workweek also affected participation. Conditioning classes for men of draft age, first-aid courses, and service projects related directly to civilian defense were reported in many instances. In a few cases community-recreation facilities were taken over temporarily for military uses, while many recreation workers were drawn into service in the armed forces, the American Red Cross, defense industries, or Federal agencies. The available leadership personnel from WPA and NYA was reduced as a result of the increasing opportunities for employment, so that in a number of cities it was necessary to curtail the service programs. It was expected that a much greater adjustment of municipal recreation services would be necessary in 1942.

The report of the National Recreation Association for the year covered the activities in 1,164 communities with play leadership or supervised facilities, as compared with 1,116 in 1940. The data included every State in the Union as well as the District of Columbia and the Territory of Hawaii; and 21 Canadian communities also furnished reports. More full-time year-round leaders—3,761—were reported than in any previous year. During 1941, 26,096 leaders were paid from regular funds, establishing a new record, while volunteer workers totaled 35,843. Total expenditures for public recreation during the year amounted to $42,428,096, of which over one-fourth was paid from emergency funds.

Altogether, there were 9,646 outdoor playgrounds under leadership in 1941—a slightly smaller number than in the preceding 3 years, although the number of cities reporting playgrounds was appreciably greater. The reduction in the number of WPA and NYA workers available for leadership was an important factor in this change. More playgrounds were open in summer, when localities customarily employ seasonal workers, but there were fewer year-round and school-year playgrounds. The attendance of participants and spectators at the playgrounds during the period they were under leadership was approximately 300 million. The number of recreation buildings and the number of cities reporting such buildings show increases over the preceding year. The total yearly or seasonal attendance of participants at recreation buildings for white and colored people was about 65,000,000. Indoor recreation centers in buildings not used exclusively or primarily for recreation activities, reported by 460 cities, numbered 3,355. This figure represented a decrease from the preceding year, although the total attendance—more than 23,000,000—was almost as great as in 1940.

Outdoor recreation facilities were expanded in many communities, but there was a falling off in the number of winter-sports facilities reported, probably as a result of the mildness of the last two winters. Large numbers of persons used the recreation facilities and areas, the most popular facilities being swimming centers, picnic centers, archery ranges, outdoor theaters, and ski jumps, but participation fell off at many facilities as compared with the preceding year—for example, in participants at softball and baseball diamonds. This was due, probably, to the large number of young men in military service and to the longer hours of industrial workers.

Wage and Hour Statistics

EARNINGS IN MICHIGAN AND BUFFALO (N. Y.) AIRFRAME PLANTS, MAY 1942 [a]

By Louis M. Solomon and N. Arnold Tolles, *Bureau of Labor Statistics* [1]

Summary

EARNINGS of workers in airframe plants in the Michigan and Buffalo areas in May 1942 were substantially higher than in segments of the industry previously studied by the Bureau of Labor Statistics.[2] Wages paid by old-line aircraft establishments in Buffalo and by converted plants in Michigan were considerably above the east coast and California averages. Earnings in the Michigan plants averaged $1.093, or about 11 cents more than the average for western New York. California workers averaged 83.9 cents in December 1941; east coast workers received earnings averaging 84.1 cents in April 1942. Differences in the composition of the working force in these various regions account for part of the contrast in earnings.

The lowest entrance wage paid by any Michigan establishment to male productive workers was 75 cents per hour. Several plants in the area had effective minima of $1 or more. Plants in the Buffalo area paid entrance rates of 60 and 65 cents. There is a general 60-cent minimum on the east and west coasts.

All establishments, whether in the Michigan or Buffalo area, pay time and a half for hours in excess of 8 a day or 40 a week. Sunday and holiday work is commonly compensated for at double the regular rate. Although all establishments in the area pay second-shift workers either 5 cents or 5 percent above the equivalent basic day rate, the Buffalo plants are more liberal than the Michigan units in payment for third-shift work.

Characteristics of the Industry

The lake cities of Buffalo and Detroit constitute central points in two increasingly important aircraft production areas. Even in World War I, Buffalo was an important source of supply to the air services; today its planes claim an enviable reputation in all the theaters of war. Detroit and its adjacent territory long have been recognized as the

[a] Two areas of the airframe industry are treated in this article for reasons of editorial convenience and not on account of any decision as to the appropriate grouping of airframe plants for official purposes.

[1] The authors are indebted to Toivo Kanninen of the Bureau's Division of Wage Analysis for his assistance in the compilation of the statistical material.

[2] See Monthly Labor Review, issues of March and July 1942, for reports on earlier studies.

source of an almost unlimited stream of goods flowing from highly efficient conveyor lines. It was only natural that, in the face of an immediate need for tremendous quantities of arms, the vast productive equipment of this area should be looked to for the tools of war.

To those unfamiliar with the mechanical processes involved, the conversion of automobile plants to the production of tanks, aircraft, and ordnance seemed an altogether logical and simple development. Actually, of course, such a diversion of facilities and manpower requires a long period of preparation and adjustment. It is noteworthy, therefore, that thousands of former automotive industry workers are actively engaged in the production of military matériel.

This report is concerned with the earnings of the Michigan and Buffalo workers who are producing airframes and frame subassemblies. The airframe plants in these two areas differ in their origin, the Michigan plants having been converted largely from the production of automobiles and the Buffalo plants having been originally designed for aircraft. Nevertheless, each constitutes a homogeneous group in many respects. All of the units for example, are in large metropolitan districts—areas with long histories of heavy-industry production and with adequate reservoirs of skilled workers. All are large employers of labor, although in the case of several of the Michigan plants, the number of wage earners working on aircraft is relatively small. With but one exception, all of the plants have entered into agreements with the United Automobile Workers, a C. I. O. affiliate. Finally, as will be shown later, the wage rates in effect in both areas are substantially above the levels prevailing in other sections of the country.

From the standpoint of product, however, the two States display less uniformity. The majority of the operations in Michigan consist of subassemblies, although a limited amount of final assembly work is performed; the plants in western New York are producing complete aircraft, even to the provision of machine guns and service insignia.

To date, both regions have enjoyed a reasonably adequate labor supply. The automobile plants, still in the process of conversion, have not yet absorbed all of their former workers. The Buffalo plants likewise have had a reserve of former automobile workers to draw upon and have also instituted an effective pre-service training program. Women constitute a fairly large proportion of the total working force in the Michigan plants, accounting for about 10 percent of the total. The number of women appearing on the Buffalo pay rolls is much smaller, representing less than 1 percent of the labor force.

Scope of Report

As noted, this report is the third of a series of articles on earnings in the aircraft industry, the first two of which dealt with earnings of airframe workers in the west and east coast areas respectively. Subsequent reports will present data for airframe employees in the south central region and in the engine and propeller divisions of the industry.

The information on which the report is based was obtained by trained representatives of the Bureau. The necessary data were transcribed directly from pay rolls and other records.

The principal data obtained consist of the average hourly earnings (exclusive of extra overtime compensation) of first-shift workers in a

selected group of occupations. The selected occupations include all key jobs and those which are numerically important occupations. They account for some 75 percent of the total employment. Wage data for one pay-roll period in May 1942 were obtained from the Michigan plants. Information covering a February period was secured for the Buffalo establishments, but a recent check with officials of these plants has disclosed no change in entrance or occupational rates since the schedule date. Hence, the Buffalo data, as well as those for Michigan, may be accepted as reflecting the wage structure in May 1942.

Average Hourly Earnings

FACTORS AFFECTING AVERAGE EARNINGS

The amount of money received by a wage earner is influenced by several variable factors in addition to his basic wage. These factors include such items as the amount of work performed on late shifts for which extra compensation is paid, the number of overtime hours worked at extra rates of pay, and the productivity (if a piece or bonus worker) of the employee himself.

In several of these particulars a pronounced difference is apparent between the Detroit and Buffalo areas. The minimum entrance rate in effect in Michigan for inexperienced male adult workers is 75 cents. This rate, which is found in 5 of the 9 Michigan establishments, is increased automatically in 4 of these plants to 85 cents after 6 months' service and in one to $1.15 after 5 weeks' employment. In one other Michigan company, males hired for productive work receive a minimum of $1.02, which is increased to $1.07 after 30 days. In the 3 remaining plants, new workers are hired at rates 10 cents lower than the going job rate in the occupation, resulting in an effective minimum of about $1 an hour. The entrance rate prevailing in the Buffalo area is much lower. Two of the plants have a minimum of 65 cents which, after 60 days, is advanced to 75 cents. The third Buffalo establishment hires new, inexperienced workers at 60 cents and raises them 5 cents at monthly intervals until a 75-cent rate is attained. An additional 5 cents is paid at the end of 6 months' service.

Shift differentials effective in the Buffalo region are somewhat more liberal than those found in the Michigan area. All of the Buffalo establishments pay second-shift workers 5 cents more than is paid to daylight workers on identical jobs; third-shift employees work only 6½ hours but are paid for 8 hours at second-shift rates. Two of the Michigan plants also pay 5 cents additional to second-shift workers; third-shift workers, however, receive the same rates as those on the second shift. The remaining seven Michigan plants pay second- and third-shift workers 5 percent above basic day rates.

Almost complete uniformity is found in the provisions for compensating for overtime and Sunday work. Workers in all of the establishments receive time and a half for all hours in excess of 8 a day or 40 a week, and for work on Saturday or on the sixth consecutive day. Employees working on Sunday (in one plant, the seventh consecutive day) receive twice their regular rate.

Like airframe plants in other sections, the majority of the north central establishments pay their employees a straight hourly wage.

However, a small proportion of the employees in two Michigan plants are paid on a piece-work basis, and workers in one Buffalo plant receive a production bonus in addition to their basic rate. These premium earnings are included in the wage data here presented.

EARNINGS IN THE MICHIGAN AREA

Earnings in Michigan airframe plants display less dispersion than is typical of other sections of the industry. The average earnings of all first-shift workers in selected occupations varied by only 16.6 cents as between the highest- and lowest-paying establishments. These general averages are influenced by the composition of the labor force, some of the plants being represented by only a few occupations, and other more complete units having nearly all occupations on the pay roll.

As would be expected, employees in the highly skilled occupations earned considerably more than those in the less skilled jobs. Earnings ranged from $1.471, paid to form and model builders, to the 89.2 cents received by laborers (table 1). Over 90 percent of the workers were in occupations averaging $1.00 or more, and about one-seventh (14.1 percent) were in jobs paying $1.25 or more.

Table 1 also shows variation by plant in the wages paid to workers in identical occupations. It should be emphasized that in table 1 the individual plant averages are arranged in descending order and that the data within a single column do not relate to the same establishment. Occupations, likewise, have been arranged in descending order of average earnings. In a few occupations, notably hydraulic installers and electricians, the variation in earnings is relatively small. In most cases, however, the spread in earnings is considerably higher, ranging up to 40 cents and averaging about 20 cents.

TABLE 1.—*Average Straight-Time Hourly Earnings of First-Shift Workers in Michigan Airframe Plants, by Occupation, May 1942*

Occupation	Percent of total employees studied	Average hourly earnings, all plants	Individual plant averages, in descending order of average							
Form and model builders, wood	0.4	$1.471	$1.516	$1.480	$1.470	$1.442	$1.430			
Lay-out men	.4	1.394	1.450	1.400	1.390	1.350				
Pattern makers, wood	.4	1.383	1.510	1.420	1.360					
Tool and die makers	2.4	1.343	1.530	1.430	1.405	1.400	1.365	$1.310	$1.234	
Inspectors—templates, tools, and dies	1.3	1.334	1.550	1.530	1.467	1.450	1.306	1.300	1.280	
Template makers	.4	1.329	1.420	1.400	1.370	1.320	1.270	1.200		
Form block makers, metal and wood	.2	1.328	1.510	1.340	1.248					
Welders, maintenance and jig	.3	1.307	1.400	1.330	1.300	1.273	1.250	1.230		
Jig builders, assembly, metal	2.6	1.279	1.490	1.430	1.380	1.340	1.285	1.260	1.234	$1.200
Inspectors, assembly, final	.6	1.271	1.390	1.250	1.224	1.130				
Working supervisors, productive	4.5	1.261	1.550	1.505	1.400	1.220	1.180	1.180	1.130	
Welders, gas (aluminum and steel)	.6	1.258	1.280	1.270	1.268	1.250	1.230	1.120		
Electricians, maintenance	.9	1.242	1.280	1.240	1.230	1.226	1.220	1.210		
Inspectors, assembly, general	1.6	1.228	1.283	1.250	1.250	1.244	1.226	1.120	1.080	
Small-tool repairmen	.3	1.225	1.270	1.230	1.200	1.139				
Mechanics, maintenance	1.6	1.202	1.300	1.253	1.230	1.216	1.200	1.199	1.050	
Engine-lathe operators	.2	1.193	1.350	1.280	1.250	1.173	1.087			
Inspectors, machined parts	.6	1.170	1.550	1.290	1.221	1.120	1.117	1.080		
Inspectors, detail	1.9	1.168	1.250	1.217	1.186	1.185	1.170	1.133	1.060	
Carpenters, maintenance	.9	1.161	1.180	1.170	1.166	1.150	1.100			
Saw operators	.6	1.147	1.230	1.230	1.140	1.130	1.107	1.080	1.000	
Inspectors, receiving	1.0	1.146	1.250	1.242	1.196	1.111	1.111	1.060	1.030	
Power-brake operators	.8	1.138	1.180	1.180	1.140	1.090	1.080	1.020		

TABLE 1.—*Average Straight-Time Hourly Earnings of First-Shift Workers in Michigan Airframe Plants, by Occupation, May 1942*—Continued

Occupation	Percent of total employees studied	Average hourly earnings, all plants	Individual plant averages, in descending order of average							
Heat treaters (alum., alloy, and steel)	$0.2	$1.136	$1.230	$1.200	$1.080	$1.070	$1.012			
Metal fitters	.4	1.132	1.200	1.160	1.080					
Sheet-metal workers, bench	4.0	1.132	1.270	1.200	1.199	1.080	1.055	$0.980		
Milling-machine operators	1.6	1.121	1.350	1.230	1.190	1.171	1.165	1.084	$1.070	$1.060
Tube benders, bench	.7	1.120	1.180	1.139	1.050	.924				
Installers, controls	.5	1.115	1.170	1.120	1.080	1.070				
Installers, hydraulic	.9	1.114	1.120	1.118	1.080					
Painters, aircraft	.9	1.104	1.230	1.130	1.080	1.052	1.050			
Router operators	.5	1.102	1.130	1.130	1.130	1.100	1.080	1.080	.984	
Riveters	18.3	1.101	1.150	1.118	1.101	1.064	1.005	.980	.950	
Guards and watchmen	2.5	1.101	1.151	1.093	1.093	1.093	1.019	1.007	.993	.978
Spot welders	.8	1.099	1.148	1.090	1.080	1.078	1.060	1.050	1.040	
Installers, general	1.8	1.092	1.145	1.120	1.080	1.070				
Assemblers, precision, bench	.4	1.087	1.140	1.100	1.060	1.020				
Installers, electrical	.7	1.085	1.250	1.080	1.070	1.070	1.054			
Bench machinists	.4	1.068	1.171	1.010						
Power-shear operators	.7	1.068	1.130	1.110	1.100	1.060	1.047	1.030	1.020	
Truckers, power	.9	1.068	1.170	1.100	1.100	1.070	.986	.980	.980	
Punch-press operators	1.7	1.063	1.157	1.090	1.080	1.043	1.030	.942		
Clerical, shipping and receiving	2.3	1.041	1.073	1.060	1.000	.990	.990	.980	.980	
Assemblers, general	16.8	1.037	1.117	1.046	1.035	1.024	1.004	.970	.900	
Hydro-press operators	.2	1.032	1.130	1.130	1.030	.980				
Tool-crib attendants	1.8	1.025	1.100	1.051	1.050	.988	.980	.960	.946	
Drill-press operators	1.2	1.017	1.142	1.111	1.080	1.077	1.050	.978	.930	.925
Clerical, stock and stores	3.8	1.008	1.060	1.030	1.030	.980	.980	.951	.950	
Craters	.9	1.005	1.120	1.025	.956	.950	.920			
Anodizers	.7	.974	1.130	1.030	.986	.980	.949	.930		
Hydro-press loaders (parts handler)	.1	.965	1.030	.980	.820					
Truckers, hand and warehousemen	3.4	.961	1.060	1.030	.980	.970	.930	.900	.850	
Coverers, fabric	.4	.959	1.238	.888						
Assemblers, electrical and radio, bench	1.4	.950	1.109	1.057	.920	.841				
Janitors	2.4	.909	.970	.880	.872	.850	.850	.850	.850	
Laborers	.6	.892	.970	.970	.930	.855	.850			

EARNINGS IN THE BUFFALO AREA

The single average of 98.2 cents, cited earlier as prevailing in the Buffalo region, conceals a considerable variation in earnings from plant to plant, and from one occupation to another. As shown by table 2, which presents occupational averages grouped on the basis of the length of training and experience normally required to achieve competence,[4] earnings in specific occupations ranged from 65.4 cents to $1.307. Considerable variation exists even within a single length-of-training group. Thus in the group of occupations normally requiring 4 years or more of service, average earnings varied from 88.3 cents received by tool and die workers, grade C, to $1.304 paid to grade A workers in the same occupation. Workers in occupations requiring between 3 and 4 years' experience received earnings ranging from 95.1 cents to $1.237. An even greater spread in earnings is apparent in the group of jobs for which 2 to 3 years' experience is necessary, the averages ranging from 88.0 cents to $1.307. Earnings in occupations requiring 1 to 2 years' experience extend from 83.9 cents to $1.244, those in jobs demanding 6 months' to a year's training from 82.8 cents to $1.066, and among occupations calling for less than 6 month's training, from 65.4 to 94.5 cents.

[4] The estimates of required training and experience were prepared by a representative group of western airframe companies. The recent increase in production schedules, however, has necessitated the assignment of workers to tasks normally requiring considerable experience much sooner than is indicated by table 2.

TABLE 2.—*Average Straight-Time Hourly Earnings of First-Shift Workers in Buffalo-Area Airframe Plants, by Length of Training Period and Occupation, June 1942*

Length of training period and occupation	Percent of total employees studied	Average
4 years or more		
Tool and die makers, grade A	1.1	$1.304
Working supervisors, productive	2.5	1.242
Inspectors, assembly, final, grade A	.5	1.218
Pattern makers, wood, grade A	.3	1.206
Grinder operators, grade A	.3	1.180
Jig builders, assembly, metal, grade A	.5	1.163
Sheet-metal workers, bench, grade A	1.5	1.144
Carpenters, maintenance, grade A	.4	1.112
Electricians, maintenance, grade A	.4	1.109
Milling-machine operators, grade A	.7	1.073
Tool and die makers, grade B	1.1	1.049
Tool and die makers, grade C	.8	.883
3 and under 4 years		
Loftsmen	.3	1.237
Assemblers, general, grade A	2.8	1.115
Assemblers, precision, bench, grade A	.8	1.103
Inspectors, receiving, grade A	.3	1.085
Inspectors, assembly, general, grade A	.6	1.034
Jig builders, assembly, metal, grade B	.7	1.024
Lay-out men	.8	1.013
Metal fitters, grade A	.2	.958
Grinder operators, grade B	.4	.951
2 and under 3 years		
Welders, maintenance and jig, grade A	.2	1.307
Painters, aircraft, grade A	.3	1.196
Welders, gas (aluminum and steel), grade A	.6	1.164
Installers, general, grade A	.9	1.155
Punch-press operators, grade A	.7	1.147
Installers, electrical, grade A	.5	1.076
Sheet-metal workers, bench, grade B	2.3	1.025
Welders, arc, grade A	.3	1.008
Assemblers, electrical and radio, bench, grade A	.4	.965
Mechanics, maintenance, grade B	.4	.928
Field and service mechanics, grade B	.2	.918
Inspectors, receiving, grade B	1.0	.913
Inspectors, assembly, precision, grade B	.4	.905
Inspectors, assembly, general, grade B	1.6	.880
1 year and under 2 years		
Drill-press operators, grade A	0.5	$1.039
Painters, aircraft, grade B	.5	1.034
Tube benders, bench, grade A	.3	1.031
Assemblers, general, grade B	7.3	1.020
Riveters, grade A	3.9	1.014
Punch-press operators, grade B	.4	1.011
Installers, hydraulic, grade B	.4	.980
Installers, power plant, grade B	.5	.967
Installers, controls, grade B	.3	.964
Installers, electrical, grade B	1.8	.962
Spot welders, grade B	.3	.946
Milling-machine operators, grade C	.7	.943
Installers, general, grade B	2.5	.939
Tool-crib attendants, grade A	.5	.938
Welders, gas (aluminum and steel), grade B	.4	.929
Clerical, shipping and receiving	.9	.925
Sheet-metal workers, bench, grade C	1.1	.924
Assemblers, precision, bench, grade B	1.0	.913
Inspectors, assembly, general, grade C	1.6	.905
Grinder operators, grade C	.2	.848
Clerical, stock and stores	3.0	.839
6 months and under 1 year		
Spot welders, grade C	.2	1.066
Craters, grade B	.8	1.052
Router operators	.6	1.000
Drill-press operators, grade B	.7	.972
Assemblers, general, grade C	13.8	.969
Assemblers, electrical and radio bench, grade B	.3	.949
Painters, aircraft, grade C	1.3	.932
Riveters, grade B	8.2	.923
Truckers, power	.3	.901
Metal fitters, grade C	.5	.899
Assemblers, precision, bench, grade C	1.1	.891
Tube benders, bench, grade B	.2	.891
Bench machinists, grade C	.3	.875
Installers, general, grade C	1.7	.855
Tool-crib attendants, grade B	.4	.830
Guards and watchmen	1.4	.828
Less than 6 months		
Drill-press operators, grade C	1.0	.935
Helpers, general	1.3	.915
Saw operators, grade B	.3	.894
Laborers	1.4	.849
Janitors	1.4	.796
Assemblers, general, learner	.4	.654
Milling-machine operators, learner	.3	.625

Table 3 presents averages for the 14 occupations found in all 3 Buffalo-area plants. As in table 1, the plant averages are arranged in descending order and the data within a column do not relate to the same establishment. It may be seem that even in this small homogeneous group of plants considerable variation in plant occupational averages exists. Averages for grade A general installers, for example, vary by 21.2 cents as between the high- and low-paying plants. The majority of the differences, however, are somewhat smaller, averaging about 14 cents.

TABLE 3.—*Average Straight-Time Hourly Earnings of First-Shift Workers in Buffalo-Area Airframe Plants, by Length of Training and Selected Occupation, June 1942*

Length of training period and occupation	Average, all plants	Individual plant averages in descending order of average		
3 and under 4 years:				
Assemblers, general, grade A	$1.115	$1.163	$1.105	$1.025
2 and under 3 years:				
Installers, general, grade A	1.155	1.304	1.175	1.092
Inspectors, assembly, general, grade B	.880	.893	.889	.861
1 year and under 2 years:				
Assemblers, general, grade B	1.020	1.120	.895	.889
Riveters, grade A	1.014	1.098	.933	.932
Installers, electrical, grade B	.962	1.027	.870	.844
Installers, general, grade B	.939	1.035	.901	.900
Clerical, stock and stores	.839	.901	.806	.740
6 months and under 1 year:				
Assemblers, general, grade C	.969	.991	.836	.832
Painters, aircraft, grade C	.932	.982	.808	.792
Riveters, grade B	.923	.965	.855	.849
Installers, general, grade C	.855	.909	.838	.832
Guards and watchmen	.828	.852	.808	.805
Less than 6 months:				
Janitors	.796	.817	.808	.767

COMPARISON OF AVERAGE HOURLY EARNINGS BY REGIONS

A clear understanding of the nature and extent of regional wage differentials is of considerable importance in planning a sound stabilization program. Table 4 presents average hourly earnings of first-shift workers by occupation in each of four regions. The Michigan averages include information for all workers found in an occupation. In the other regions averages have been shown both for grade A operators and for all workers in an occupation. The data thus permit a dual comparison between wages in Michigan and those in other areas. This appears necessary because of the unusual wage structure of the Michigan plants.

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TABLE 4.—*Average Straight-Time Hourly Earnings of First-Shift Workers*[1] *in Airframe Plants, by Occupation and Region*

Occupation	Michigan, May 1942	Buffalo, May 1942		East Coast, April 1942		California, December 1941	
		Grade "A" workers	All workers	Grade "A" workers	All workers	Grade "A" workers	All workers
Form and model builders, wood	$1.471	$1.113	$1.048	-------	$0.986	$1.220	$1.101
Lay-out men	1.394	1.013	1.013	$0.926	.926	-------	-------
Pattern makers, wood	1.383	1.206	1.206	1.188	1.011	1.352	1.275
Tool and die makers	1.343	1.304	1.101	1.252	1.145	1.281	1.202
Inspectors—templates, tools and dies	1.334	-------	-------	1.162	1.067	1.216	1.140
Template makers	1.329	-------	.892	-------	.968	-------	.836
Form block makers, metal and wood	1.328	-------	-------	-------	-------	1.076	.987
Welders, maintenance and jig	1.307	1.307	1.307	-------	-------	1.205	1.050
Jig builders, assembly, metal	1.279	1.163	1.063	1.123	.903	1.103	.923
Inspectors, assembly, final	1.271	1.218	1.190	-------	.876	1.042	.932
Working supervisors, productive	1.261	1.242	1.242	1.081	1.081	1.119	1.119
Welders, gas (aluminum and steel)	1.258	1.164	1.070	1.093	.982	1.262	1.124
Electricians, maintenance	1.242	1.109	1.074	1.063	.909	1.169	1.050
Inspectors, assembly, general	1.228	1.034	.915	1.010	.880	1.039	.961
Small-tool repairmen	1.225	-------	-------	-------	-------	.860	.860
Mechanics, maintenance	1.202	1.192	.967	.999	.921	1.067	.932
Engine-lathe operators	1.193	-------	1.050	1.043	.942	1.143	1.007
Inspectors, machined parts	1.170	-------	.978	-------	.909	-------	.999
Inspectors, detail	1.168	-------	.931	-------	.849	-------	.840
Carpenters, maintenance	1.161	1.112	1.066	1.010	.868	1.059	1.015
Saw operators	1.147	-------	.927	.859	.822	.867	.834
Inspectors, receiving	1.146	1.085	.952	-------	.850	1.041	.965
Power-brake operators	1.138	-------	-------	-------	.862	-------	.909
Heat treaters (aluminum alloy and steel)	1.136	-------	-------	-------	.868	-------	.878
Metal fitters	1.132	-------	.932	1.076	.901	1.085	.913
Sheet-metal workers, bench	1.132	1.144	1.040	1.039	.888	1.047	.875
Milling-machine operators	1.121	1.073	1.004	1.135	.938	1.153	.989
Tube benders, bench	1.120	1.031	.977	-------	.901	.985	.902
Installers, controls	1.115	-------	.964	-------	.897	-------	.902
Installers, hydraulic	1.114	-------	1.035	-------	.853	-------	.868
Painters, aircraft	1.104	1.196	.997	.865	.803	.972	.838
Router operators	1.102	1.000	1.000	.835	.835	-------	-------
Riveters	1.101	1.014	.952	.904	.832	.841	.797
Guards and watchmen	1.101	.828	.828	.746	.746	.764	.764
Spot welders	1.099	1.039	1.012	-------	.806	-------	.824
Installers, general	1.092	1.155	.948	.948	.835	.966	.810
Assemblers, precision, bench	1.087	1.103	.955	1.058	.845	1.069	.878
Installers, electrical	1.085	1.076	.978	1.116	.970	-------	.813
Bench machinists	1.068	-------	.913	1.052	.859	-------	.834
Power-shear operators	1.068	-------	1.205	.913	.886	-------	.906
Truckers, power	1.068	.901	.901	-------	-------	.742	.742
Punch-press operators	1.063	1.147	1.096	.911	.850	-------	.851
Clerical, shipping and receiving	1.041	.925	.925	.783	.783	.732	.732
Assemblers, general	1.037	1.115	1.002	.995	.838	.992	.802
Tool-crib attendants	1.025	.938	.892	.841	.793	.862	.727
Drill-press operators	1.017	1.039	.971	.887	.801	.761	.740
Clerical, stock and stores	1.008	.839	.839	.758	.758	.765	.765
Craters	1.005	1.163	1.071	.952	.802	-------	.827
Anodizers	.974	-------	.947	.887	.826	-------	.811
Hydro-press loaders (parts handler)	.965	-------	-------	-------	-------	.754	.754
Truckers, hand and warehousemen	.961	-------	-------	.702	.702	.703	.703
Coverers, fabric	.959	-------	-------	.860	.764	.783	.760
Assemblers, electrical and radio, bench	.950	.965	.957	-------	.905	.880	.802
Janitors	.909	.796	.796	.729	.729	.734	.734
Laborers	.892	.849	.849	.727	.727	.713	.713

[1] Excluding learners.

The Michigan plants, reflecting their automobile origin, offer a contrast to the remainder of the airplane industry in their wage policies. Automobile companies customarily paid a single rate to all workers in an occupation within a plant. For example, all screw-machine operators in automobile company A received the same scale regardless of length of service, individual efficiency, or the precise character of the operation. When company A diverted its facilities to aircraft it continued to pay all screw-machine operators a uniform rate. The old-line aircraft companies, on the other hand, have evolved a fairly elaborate grade structure within an occupation;

workers on progressively more difficult work receiving higher rates than those assigned the simpler tasks. For this reason, no exact comparison of Michigan wage levels with those in other areas is possible.

The Michigan plants, still in the process of conversion, have called first on their most highly skilled former workers to man their machines and assembly lines. Consequently, there is considerable justification for comparing all workers in the Michigan plants with grade A workers in other plants. It should be mentioned, however, that the Michigan averages do include data for some workers who are less skilled than those found in grade A classification elsewhere. A considerable amount of the work performed by Michigan workers, moreover, consists of duties which in other areas are handled by grade B or grade C workers. Hence, for some purposes, a comparison of the Michigan averages with the "all workers" averages in the other regions may be useful.

Data for the Michigan and Buffalo regions are for May 1942; those for the east coast represent April 1942, and may be assumed to be comparable. The California averages, however, are those which prevailed in December 1941 and are estimated to be slightly lower, on the average, than would be disclosed by a May study. However, the small increase in California wages since December 1941 will not seriously impair the validity of the comparison.

As shown by table 4, average earnings in the Michigan establishments were substantially higher than the wage levels found in the other areas. Of the 55 comparisons with grade A workers presented, the Michigan average was the highest in 37, and next to the highest in 15 others. The Buffalo regional averages for grade A workers were the highest found in 16 of the occupations, thus making a total of 53 out of 55 jobs in which either the Michigan or the Buffalo rates were higher than those for grade A workers in the other regions.

Comparisons based upon the all-worker average are even less favorable to the other segments of the industry. It may be seen from table 4 that workers in the Michigan plants, in almost every occupation, received earnings far in excess of those received by comparable workers in other areas.

It will be noted that differences in occupational averages favoring the Michigan and Buffalo areas over the east and west coast regions are somewhat less, on the average, than would be suggested by a comparison of the general regional wage levels. Part of the contrast in regional earnings may be accounted for by differences in the composition of the labor force. Whereas the Buffalo and Michigan plants have enjoyed a relatively adequate supply of skilled workers, the other areas have found it necessary to recruit and train many inexperienced employees. As a consequence, a larger proportion of their workers are at present in the lower skilled occupations. Average earnings of east and west coast workers, weighted by Michigan employment (thereby discounting effects of differences in the occupational pattern) would undoubtedly result in a considerably smaller regional differential.

HOURLY EARNINGS IN SHIPBUILDING ON THE PACIFIC COAST, 1942 [1]

Summary

THE first wage-stabilization agreement in Pacific coast ship-construction yards, which became effective April 1, 1941, appears to have resulted in a series of corrective wage increases during the spring and summer of 1941, and to have restrained wage movements during the following 8 or 9 months.

In the spring of 1942, before the effective date of the current stabilization agreement,[2] straight-time earnings of first-shift workers in Pacific coast ship-construction yards averaged $1.034 per hour. This average is based on a study of selected occupations in which more than 90 percent of the workers were employed. Comparable data for ship-repair yards reveal an average wage of $1.166. Second-shift workers received a premium averaging about 17 percent over the hourly earnings of first-shift workers in similar jobs; third-shift workers received a premium of approximately 31 percent over the earnings of first-shift workers.

As a result of the stabilization agreement, wages for given occupations among the various yards, and among individual workers in the same yard, have attained a high degree of uniformity. Roughly two-fifths of the ship-construction workers studied were paid approximately $1.12 per hour, the stipulated minimum for "skilled mechanics," and another quarter received about 87 cents per hour, the effective minimum for most helpers.

Analysis of actual earnings in the construction yards studied permits identification of 28 fairly distinct occupations in which the minimum for skilled workers is typically $1.12 or more. About nine-tenths of the persons in these occupations are classified as first-class workers.

Shipbuilding in Wartime

The growth of the shipbuilding industry during the past 2 years is one of the most notable features of the Nation's wartime industrial transition. Until shortly before the outbreak of the second World War shipbuilding had declined steadily as a commercial venture. Government subsidies had been resorted to in an attempt to revive the industry. The scope of the program undertaken since the outbreak of the war and the progress which has been made in accomplishing that program are best told in the President's words:

> A little more than a year ago we embarked upon the greatest shipbuilding program in history. No other nation had ever attempted so vast a maritime enterprise. There were those who doubted our ability to succeed. Today I can assure you we will perform a near-miracle of ship production. The nation's shipbuilding capacity has been increased more than 500 percent.[3]

Figures relating to current employment and production in shipbuilding are, of course, military secrets. It is obvious, however, that shipbuilding has become one of the Nation's leading industries. Although the present article deals largely with the industry on the west

[1] Prepared by Willis C. Quant of the Bureau's Division of Wage Analysis. This study was under the joint direction of Victor S. Barila and Edward K. Frazier.

[2] A summary of this agreement was given in the Monthly Labor Review for July 1942 (p. 85).

[3] Statement issued May 22, 1942.

coast, there are large segments of the industry along the Gulf and on the eastern seaboard, and some light vessels are built on the Great Lakes and at other inland points. These segments will be discussed in subsequent articles.

The growing output of the shipyards has resulted in part from changes in technology and in the organization of production. Certain riveting operations, for example, have been replaced by welding. Shipyard lay-outs have been improved. Great progress has been made in standardizing parts; and subcontracting and pre-assembling are practiced extensively. Second- and third-shift operations are universal and on the Pacific coast account for the employment of a substantial proportion of all shipyard workers.

Labor Aspects of Production

Labor has been of particular importance in the shipbuilding program. For one thing, wages constitute an important cost item. It is estimated that from a third to a half of the cost of ships now under construction will be required to pay the wages of shipyard workers.

LABOR SUPPLY

Of greater urgency than the cost problem, however, has been the problem of labor recruitment. Expanding operations have required the employment of scores of thousands of workers, about half of whom have been needed for skilled jobs. Many of these workers have been drawn from other industries. A study of accessions in six eastern yards [4] has revealed that in late 1940 about 37 percent of the skilled workers came from manufacturing industries (including other shipyards), 29 percent came from nonmanufacturing industries, 18 percent came from the ranks of the unemployed, 8 percent came from jobs in which they were self-employed, and about 8 percent came from employees of various Federal, State, and local public agencies.

Attempts to attract additional workers have given rise to substantial wage increases, and in some instances have led to competitive bidding among the yards. These developments were largely responsible for the wage-stabilization agreement described below.

TRAINING PROGRAMS

In addition to the experienced workers who have been brought in from other industries, many thousands of new workers have been trained in the yards themselves for various types of skilled work, particularly welding. Trainees customarily receive journeymen's wages after 2 to 6 months of work at lower pay; it is not uncommon on the Pacific coast, in fact, for trainees to perform duties similar to those of second- or third-class mechanics in other regions. Even during the training period these workers are paid rates that are substantially higher than the effective minimum for most helpers.

Various public agencies have played an important part in the training of new workers for shipbuilding, and private schools have also made a substantial contribution. In addition to the trainees, large numbers of young workers serve formal apprenticeships of extended duration while learning the skills of carpenters, painters, electricians, plumbers, and similar occupations.

[4] Monthly Labor Review, May 1941 (pp. 1142–1145): Characteristics of Recently Hired Shipbuilding Labor, by O. R. Mann. Comparable data for Pacific coast yards as of June 1942 will be available in the near future.

Trend of Wages

Hourly earnings of shipyard workers have followed an upward trend since the outbreak of the war. At first the rise was gradual. Average hourly earnings in the industry as a whole rose from 82.5 cents in September 1939 to 92.1 cents in May 1941, requiring a little more than a year and a half to increase by about 10 cents. During the next 3 months the rate of increase was greatly accelerated, and by August 1941 hourly earnings averaged $1.039. Against this background the subsequent gains seem extremely modest, having amounted to less than 4 cents an hour in a 7-month period. The hourly average for March 1942 was $1.078.

The upward trend of average hourly earnings reflected in the above figures is attributable only in part to general changes in basic wage rates. Among other factors which influenced average hourly earnings during this period were increasing overtime work at premium rates and, presumably, a growing proportion of experienced workers classified in the higher wage brackets.

STABILIZATION PROGRAM

The wage-stabilization program originally sponsored by the Shipbuilding Stabilization Committee of the National Defense Advisory Commission has undoubtedly exercised a substantial influence on shipyard wages. The stabilization agreements which became effective in the various zones during the spring and summer of 1941 explain in part the rapid rise in hourly earnings during that period and also account for the relative stability of wages since August of that year.

The "standardization" of wages in Pacific coast shipyards was embodied in a voluntary agreement between the representatives of the shipbuilders and of the Metal Trades Department of the American Federation of Labor and its affiliates in February 1941. This agreement was subsequently approved by the Navy, the Maritime Commission, and the Office of Production Management, and was ratified by the parties involved. It became effective in April 1941. The agreement applied only to ship construction and did not specifically include ship repair.

The stabilization agreement included numerous provisions regarding hours of work, standardization of shifts, prohibition against strikes or lock-outs, apprenticeship training, etc., but its most important provision was designed to standardize wages. On this point the agreement specified in part: "The basic wage rate of all skilled mechanics on the Pacific coast engaged in the construction of new vessels in the defense program during the period of national emergency as proclaimed by the President of the United States shall be $1.12 per hour * * *."

The stabilization agreement has been in effect for more than a year [5] and its contribution toward an orderly wage situation can scarcely be doubted. In view of the fact that the term "skilled mechanics" was not defined in the agreement, however, there has been some uncer-

[5] The new stabilization agreement for the Pacific coast yards, which became effective in April 1942, established the minimum rate for skilled mechanics at $1.20 per hour and provided for an increase of 8 cents an hour in the wage rates of other workers.

tainty as to how many and which workers would be affected, what wages would be paid to workers other than those designated, and with what uniformity the agreement would be interpreted by the various yards. It is hoped that the present article will help to answer these questions.

Earnings in the Spring of 1942

SCOPE AND METHOD OF STUDY

The wage data presented in the following pages were collected by the Bureau of Labor Statistics in a survey conducted during the spring of 1942. In the interests of national safety it is inadvisable in this report to indicate the numbers of workers included in the survey or the geographical locations of the yards. It may be stated, however, that the data presented were obtained from a representative sample of 17 yards of various sizes, situated in the Pacific Coast States. Employment in the individual yards ranged from less than 100 to well over 10,000. Some of the yards surveyed have been building and repairing ships for a number of years, while others have only recently been placed in production.

The material for the present survey was collected by trained field representatives of the Bureau from pay rolls and other basic records. The representatives also consulted with various yard officials on occupational classifications. The data presented refer only to first-shift (day) workers in certain occupations or occupational groups, selected because of their numerical importance or because they are key jobs. These occupations, however, include over 90 percent of the first-shift workers and are believed to be representative of the industry. The data do not take into consideration earnings from extra compensation for overtime work.

The pay periods studied were scattered throughout the months from November 1941 to April 1942. In all instances, however, the wage data obtained represent earnings in effect in the spring of 1942, as no general wage changes were reported during the period studied.

METHOD OF WAGE PAYMENT

The greater part of the workers in the west coast yards are paid on an hourly basis. In fact, only one of the yards covered by the survey reported any workers paid on a production-bonus or piecework basis. Even that yard limited these methods of pay to relatively few of its workers.

All yards paid overtime rates that were at least equal to the standards established under the Pacific coast agreement—namely, time and a half for work in excess of 8 hours a day or 40 per week, or for work on Saturday, and double time for Sunday or holiday work. Most of the medium-size and large yards were operating on a two- or three-shift basis, with premium pay for work on the late shifts. Calculated on the basis of hourly rates, second-shift workers received a premium of about 17 percent, since they got 8 hours' pay for 7½ hours' work, and a 10-percent bonus in addition. Third-shift workers, who got 8 hours' pay for 7 hours of work and were granted a 15-percent bonus in addition, averaged about 31 percent more per hour than workers on the first shift.

EARNINGS IN CONSTRUCTION YARDS

Among the construction yards studied, first-shift workers in the selected occupations averaged $1.034 per hour at straight time. They thus ranked among the highest paid of American workers. Brief data available regarding the distribution of individual first-shift workers indicate that about 59 percent earned $1.00 per hour or more, while almost 9 percent equaled or exceeded $1.20 per hour. Relatively few workers, mostly laborers, received less than the effective minimum of 87 cents.

The stabilization agreement on the Pacific coast, as interpreted, has resulted in a remarkable uniformity of wage rates for particular occupations. Among construction yards there appears to be no significant variation in occupational rates attributable to particular locality, size of yard, or type of vessel. Within each individual yard, moreover, nearly all workers of the same occupation and grade receive exactly the same wage. Any deviations from the standard are likely to be for "specialists," who receive a premium of a few cents an hour. Because of this uniformity of rates, the averages presented in the accompanying table are particularly representative. In the case of first-class craftsmen, it may be assumed that an overwhelming majority actually received a rate within 2 or 3 cents of the average shown.

Average Hourly Straight-Time Earnings of Day-Shift Workers in Pacific Coast Shipyards, Spring of 1942

Occupation	Construction yards		Repair yards	
	Percent of workers studied	Average hourly earnings [1]	Percent of workers studied	Average hourly earnings [1]
All occupations	100.0	$1.034	100.0	$1.166
Anglesmiths, first class	(2)	[3] 1.267	(2)	(4)
Anglesmiths' helpers	.1	1.000	(2)	(4)
Apprentices	.4	.717	.3	.659
Blacksmiths	.1	1.132		
First class	.1	1.151	.2	[3] 1.264
Other classes	(2)	[3] 1.033		
Blacksmiths' helpers	.1	.873	.4	.983
Boilermakers	.3	1.111		
First class	.3	1.121	3.4	1.250
Other classes	(2)	[3] 1.037		
Boilermakers' helpers	.6	.866	5.7	.970
Bolters, machine, first class	(2)	[3] 1.130		
Bolters, hand, first class	2.4	.871	.3	.984
Burners, acetylene (including gas)	3.5	1.116	2.6	1.244
First class	3.3	1.123	2.4	1.250
Other classes	.2	1.001	.2	[3] 1.155
Carpenters (shipwrights)	3.8	1.121	6.8	1.248
First class	3.7	1.128	6.7	1.250
Other classes	.1	.941	.1	[3] 1.120
Carpenters' helpers	1.5	.870	1.1	.970
Chippers and calkers (including foundry chippers)	3.7	1.100	1.0	1.340
First class	3.0	1.123	.9	1.378
Other classes	.7	1.001	.1	[3] 1.128
Coppersmiths	.2	1.091		
First class	.1	1.167	.1	[3] 1.314
Other classes	.1	.992		
Coppersmiths' helpers	(2)	[3] .870	.3	.970
Crane operators, all types, first class	.9	1.191	.2	[3] 1.307
Draftsmen (senior and junior)	.9	1.116	.1	(4)
Drillers (including reamers and countersinkers)	1.0	1.000	1.3	1.118
First class	1.0	1.000	1.2	1.120
Other classes	(2)	(4)	.1	(4)
Electricians	2.7	1.133		
First class	2.6	1.140	6.7	1.250
Other classes	.1	1.007		

See footnotes at end of table.

Average Hourly Straight-Time Earnings of Day-Shift Workers in Pacific Coast Shipyards, Spring of 1942—Continued

Occupation	Construction yards		Repair yards	
	Percent of workers studied	Average hourly earnings	Percent of workers studied	Average hourly earnings
Electricians' helpers	0.9	$0.871	4.2	$0.970
Foremen (including assistant foremen and quartermen)	1.2	1.421	.3	1.750
Furnacemen, plate and forge shop			.1	[3] 1.133
First class	.3	1.232	(2)	(4)
Other classes			.1	(4)
Helpers, not elsewhere classified	.3	.860		
Joiners (including wood-working machine operators)	1.2	1.123		
First class	1.2	1.123	5.7	1.251
Other classes	(2)	(4)		
Joiners' helpers	.3	.836	1.1	.970
Laborers (excluding tank cleaners and janitors)	5.8	.797	2.4	.890
Layers-out, first class	.4	1.235		
Leaders	6.1	1.263	5.6	1.459
Loftsmen	.6	1.229		
First class	.5	1.254		
Other classes	.1	1.049		
Machinists, shop	2.6	1.120	3.8	1.257
First class	2.4	1.128	3.7	1.259
Other classes	.2	1.009	.1	(4)
Machinists' helpers, shop	1.5	.867	.8	.970
Machinists, outside	1.2	1.122		
First class	1.1	1.127	5.8	1.250
Other classes	.1	1.029		
Machinists' helpers, outside	.6	.870	3.4	.970
Molders, foundry, first class	(2)	1.145		
Painters, brush and spray, first class	2.8	1.123	4.7	1.250
Pattern makers, first class	(2)	[3] 1.489		
Pipe fitters (including plumbers)	3.4	1.118	3.7	1.249
First class	3.3	1.122	3.7	1.250
Other classes	.1	.973	(2)	(4)
Pipe-fitters' helpers (including plumbers' helpers)	3.1	.870	3.5	.970
Plate-shop machine operators	1.6	1.061	.5	1.197
First class	1.0	1.118	.5	1.201
Other classes	.6	.974	(2)	(4)
Plate-shop machine operators' helpers	1.2	.877	.3	1.038
Regulators, first class	.7	1.053	2.2	1.170
Riggers, ship, first class	.2	1.130	2.5	1.250
Riggers, yard and crane, first class	2.0	1.065	.5	1.158
Rivet heaters	.3	1.000	.1	[3] 1.120
Rivet passers	(2)	[3] .896		
Rivet holders-on	.4	1.006	.2	[3] 1.177
Riveters, first class	.3	1.122	.4	1.241
Sheet-metal workers (including tinsmiths)	1.3	1.080	2.6	1.216
First class	.8	1.129	2.0	1.250
Other classes	.5	.993	.6	1.101
Sheet-metal workers' helpers	.9	.872	2.0	.971
Shipfitters	8.1	1.090		
First class	6.0	1.121	1.6	1.250
Other classes	2.1	1.002		
Shipfitters' helpers	10.1	.870	3.0	.970
Stage builders	2.1	1.000	1.1	1.120
Tank cleaners	1.4	.850	1.4	.954
Tool and die makers	.1	1.174		
First class	.1	1.195		
Other classes	(2)	(4)		
Tracers	.2	.831		
Watchmen and guards	.9	.808	1.0	.890
Welders, acetylene (including gas), first class	.1	1.120		
Welders, electric	12.1	1.122	4.7	1.254
First class	11.5	1.127	4.3	1.264
Other classes	.6	1.020	.4	1.142
Welders' helpers, electric	1.5	.869	.3	.970

[1] Excluding earnings resulting from extra rates for overtime work.
[2] Less than a tenth of 1 percent.
[3] Based on rates for less than 10 workers.
[4] Number of workers too small to justify computation of average.

It is evident that the pattern makers, who averaged nearly $1.50 per hour, were the highest-paid workers studied, while the lowest-paid were apprentices (71.7 cents) and laborers (79.7 cents). Two-fifths (41.9 percent) of the workers were in jobs paying about $1.12

(from $1.11 to $1.13 inclusive) and another 25 percent received about 87 cents, the customary rate for helpers. The most common other rate appears to have been $1.00 per hour, paid to first-class drillers, rivet heaters and holders-on, stagebuilders, anglesmiths' helpers, and various other groups.

This table throws light on the interpretation given to the occupational classification under the Pacific Coast Stabilization Agreement. In the first place, it discloses which of the important occupations have been considered to include "mechanics" and justify the minimum rate of $1.12. Of the occupations included in the Bureau's study these appear to number 28. The following occupations are included:

Anglesmiths.
Blacksmiths.
Boilermakers.
Bolters, machine.
Burners, acetylene.
Carpenters (shipwrights).
Chippers and calkers.
Coppersmiths.
Crane operators.
Electricians.
Furnacemen.
Joiners.
Layers-out.
Loftsmen.
Machinists, shop.
Machinists, outside.
Molders, foundry.
Painters, brush and spray.
Pattern makers.
Pipe fitters.
Plate-shop machine operators.
Riggers, ship.
Riveters.
Sheet-metal workers.
Shipfitters.
Tool and die makers.
Welders, acetylene.
Welders, electric.

It has appeared inappropriate to include foremen and "leaders" in this list, but it may be taken for granted that such workers would typically receive more than the minimum rate for the workers under their supervision. The various classes of draftsmen have also been excluded, although many of these workers are paid $1.12 or more. The term "plate-shop machine operators" includes a variety of jobs, of which a few of the less skilled (such as punch and shear operators) receive less than $1.12. It should be noted that the averages for several of the occupations were considerably above the $1.12 minimum; notably those of the anglesmiths, crane operators, furnacemen, layers-out, loftsmen, pattern makers, and tool and die makers. Payment of these workers in excess of the minimum was in some cases stipulated in union agreements and in other cases was voluntary on the part of the yards; it was not obligatory under the stabilization agreement. Workers other than helpers in the 28 occupations combined formed 52 percent of the total number studied.

The table also reveals that the term "first class" has been interpreted rather broadly. It was impracticable in this study for the Bureau's representatives to give more than general guidance in the classification of workers by skill, and the classes used in the Bureau's tabulations are essentially those used by the shipyards themselves. It is significant to note, therefore, that among the workers included in the study some occupations consisted exclusively of first-class workers—for example, crane operators, painters, and riveters—while many of the others were composed largely of first-class workers. Of all the workers included in the 28 specific occupations listed above, 89 percent were classified as "first class" and only 11 percent were in

other classes. These include second- and third-class craftsmen, handymen, and trainees. The Bureau's representatives reported no evidence that second- or third-class journeymen were listed on the pay roll as helpers.

EARNINGS IN SHIP-REPAIR YARDS

Although the stabilization agreement did not provide rates for workers engaged in ship repair on the Pacific coast, the earnings of these workers, as a whole, averaged about 13 cents an hour more ($1.166) than was paid to ship-construction workers. This higher earnings level can be attributed to the negotiations between organized labor and repair-yard operators, which resulted in the establishment of a $1.25 wage scale for first-class mechanics on ship repair, as compared to $1.12 for new construction. Ship-repair workers other than first-class mechanics also were generally paid higher rates than prevailed in construction yards.

The highest-paid workers in the repair yards were the foremen, who averaged $1.75 per hour, and the layers-out, who averaged $1.459. Apprentices (65.9 cents), laborers (89.0 cents), and watchmen and guards (89.0 cents) received the lowest wages. Helpers typically received 97 cents per hour. In repair yards, as in construction yards, large proportions of all "mechanics" were rated as "first class."

EARNINGS IN MANUFACTURE OF MISCELLANEOUS INDUSTRIAL MACHINERY, 1942[1]

Summary

The present article, giving data on earnings in plants manufacturing various types of industrial machinery and equipment is the fifth in the series undertaken by the Bureau of Labor Statistics for the purpose of providing information on the effects of the war on wages in the several branches of the machinery industry.[2]

During the first 4 months of 1942, 19 of the 89 plants included in the survey were producing direct war materials for which many of them were not formerly equipped; the entire output of 4 of the 19 plants consisted of war materials.

Employment in the plants in this industry has virtually doubled since the summer of 1939, and average earnings, which amounted to about 69 cents per hour at that time, had risen to almost 84 cents by the spring of 1942. Since these earnings include overtime pay at premium rates, they are considerably affected by the increase in the industry's workweek, which shows a rise of more than 11 hours since late 1939. Average hourly earnings, exclusive of overtime premiums, are estimated at 67.2 cents in August 1939 and 74.8 cents during the period of the present survey.

Nearly 12 percent of the male workers included in the study were classified in the 8 occupational groups which showed average hourly earnings in excess of $1. Apart from learners, apprentices, and helpers, the only important occupational groups with averages below 60 cents per hour were those of janitors, laborers, and watchmen. No striking regional differences in earnings levels are apparent among the plants in various parts of the North, but the North-South difference found in many industries is also apparent in this industry.

Scope and Method of Survey

This article as noted above summarizes the fifth in a series of studies of the machinery-manufacturing industries designed to provide basic information on the characteristics of the labor force, occupational patterns, and wage structure under a war economy. The establishments included in these studies are classified on the basis of their 1939 product, as reported by the Census of Manufactures. The results of the studies reveal that substantial product changes have taken place during the past two years.

According to the Census of Manufactures there were, in 1939, 579 plants in the industry group "Industrial machinery, not elsewhere classified"; 168 establishments employing 5 workers or less, however, were excluded from the scope of the present survey. The 89 plants from which data were obtained constitute approximately 22 percent of the 411 remaining establishments employing 6 or more workers. The sample plants were selected, insofar as possible, to be representative of the industry with respect to general wage area, size (in terms of number of employees), and corporate affiliation. The data

[1] Prepared in the Division of Wage Analysis by Harold R. Hosea, with the assistance of Odis C. Clark and George E. Votava.

[2] Previous articles in this series appeared in the Monthly Labor Review, issues of May, June, and July 1942.

for a few plants were used with reduced weights in order to avoid overrepresentation of the larger establishments.

The data for the present survey were collected by trained field representatives of the Bureau who visited the plants and analyzed pay rolls and other pertinent records. The detailed wage data on individual employees are limited to day-shift workers in certain occupational groups selected for their numerical importance or because they are key jobs. In general, however, occupational earnings rates were compiled for 80 to 90 percent of the wage earners on first (day) shifts. Most of the earnings data shown in this report are based on a representative pay-roll period during February, March, or April 1942.

Characteristics of the Industry

This industry manufactures a wide variety of products for which no specific categories have been established by the Census of Manufactures. Much of the machinery manufactured in this industrial branch is used for many different purposes, thus making it impossible to classify the plants in special categories such as those for agricultural or mining machinery. Also included are plants whose products are designed for specialized use in a field too limited in size to warrant separate analysis. Typical products are equipment and machinery used in oil refineries, foundries, chemical plants, and pipe mills. Although the products are consequently far from homogeneous, the industry is one of the largest in the machinery group. The technological processes employed in these plants, moreover, have much in common; evidence of this fact is found in the relatively high degree of similarity of the occupational patterns among the plants studied.

Nearly a third of the plants classified by the Census in this industry are in the three States of New Jersey, New York, and Pennsylvania, and about two-fifths of the industry's total workers were employed in this area during 1939. Slightly less than a third of the establishments are in the East North Central States (Illinois, Indiana, Michigan, Ohio, and Wisconsin). The remainder are distributed throughout the country with approximately 10 percent each in the New England, West North Central, Western, and Southern States. The plants and employees included in the present survey are distributed geographically in approximately the same fashion.

PRODUCTION OF WAR MATERIALS

Five of the 89 plants included in this survey were producing materials directly connected with the defense program during the latter part of 1939. By 1941, slightly less than half (40) of these plants were manufacturing war materials; in 16 plants production included articles which, in most cases, they had not produced before. Among these 16 plants, 9 reported 50 percent or more of their 1941 dollar volume of sales as direct war materials. During the first quarter of 1942, more than half (47) of the 89 plants were directly involved in the war effort. Nineteen of these 47 plants were manufacturing direct war materials during this period, and 12 showed 75 percent or more of their sales in this category; 4 were devoting their entire facilities to the production of war materials. Conversion of at least a portion of the facilities of these 19 plants for the manufacture of products for

which they were not formerly equipped was, of course, essential. It appears, however, that, despite the necessity of some technological changes, the changes that were made were not so drastic as to result in major shifts in occupational structure.

THE LABOR FORCE

Distributions by skill class are available for the 8,551 workers for whom detailed earnings data were compiled in the course of the study. Approximately 36 percent may be regarded as skilled employees, with the semiskilled and unskilled workers making up 38 and 26 percent, respectively.

Except for central-office personnel, women constitute scarcely one-half of 1 percent of the employees in the 89 plants studied. All of the 56 women scheduled were working in 6 eastern and midwestern plants; none was found in plants in the West or South. The majority of the women employed were performing light assembly work or were operating punch presses.

About 3.5 percent of the workers in the 89 plants were Negroes, a majority of whom were employed in foundry departments. Negroes were also employed as janitors and general laborers but, as in the other branches of the industry studied by the Bureau, their numbers among other occupations were negligible. There were a few scattered cases of Negroes working as semiskilled machine operators. Negroes constituted, however, almost a third of the 1,281 workers employed in the 9 southern plants studied. Fifteen of the 80 northern plants had some Negro workers, but the total number amounted to less than 0.3 percent of all the employees.

Approximately a fourth (21) of the 89 plants studied were operating under agreements with nationally affiliated unions. About a third of the plants studied in the North Central, Western, and Southern States reported such agreements, but only 4 of the 36 northeastern plants were in this category. Four plants were operating under agreements with independent unions, and 64 plants reported no agreements. As might be expected, union agreements were infrequently found among the small plants; 36 of the 43 with 50 employees or less had no agreements. All but one of the 7 plants employing between 250 and 500 workers were operating under union agreements and 3 of the 6 largest plants (500 workers or more) reported agreements in effect.

METHODS OF WAGE PAYMENT

Incentive methods of wage payment are not in general use in this industry. Many of the establishments operate on a job-shop or special-order basis and find it impractical to conduct the elaborate job analyses and time studies essential to incentive payment. In 15 of the 89 plants studied, incentive systems were in effect, and about half the employees in these plants were paid on this basis. Eight of the 15 employed 100 workers or less each. Virtually all the plants making use of incentive systems are in the East and Midwest. Only 1 western plant reported such a system and none was found in the South. The relative unimportance of piece and bonus rates in these plants is evident from the fact that more than four-fifths of the 8,551 workers for whom detailed earnings data were compiled were paid on a straight-time basis.

Time and a half for all work above 40 hours per week and/or 8 hours per day was paid in all the plants studied. Fourteen plants reported double time paid for any work on Sundays, and one paid two and one-fourth times the regular rate if the Sunday work brought total hours for the week above 40. One establishment paid double time for any work above 11 hours a day. Eleven plants paid double time for holiday work. The remainder reported no special provisions.

Of the 89 plants, 49 were operating but one shift at the time the study was made; 20 were working 2 shifts, 17 reported 3 shifts, and comparable data for the 3 remaining plants were not available.

Thirteen of the 37 plants known to be operating more than 1 shift paid no differential rates for evening or night work (table 1). The most common differential was an additional 5 cents per hour, although a premium of 10 percent of base rates or earnings appeared almost as frequently. Only one of the companies operating 3 shifts paid higher rates for work on the third or night shift than those effective for evening- or second-shift workers.

TABLE 1.—*Scale of Wages for Second and Third Shifts in Plants Manufacturing Miscellaneous Industrial Machinery, February–April 1942*

Type of plant	Number of plants	Differential paid for—	
		Second shift	Third shift
Plants with 1 shift only	49		
Plants with 2 shifts	7	No differential	
	1	2 cents per hour	
	1	2.5 cents per hour, foundry; 5 cents per hour, machine shop.	
	5	5 cents per hour	
	1	10 cents per hour, plus 30-minute paid lunch period.	
	1	5 percent over base rate	
	1	10 percent over base rate	
	1	10 percent over base rate, machine shop.	
	1	8 hours' pay for 7.5 hours' work	
	1	10 hours pay for 9.5 hours' work	
Plants with 3 shifts	6	No differential	No differential.
	1	2.5 cents per hour	2.5 cents per hour.
	1	3 cents per hour for average hourly earnings up to 56 cents per hour; 4 cents for 56–60 cents per hour; 5 cents for 60–75 cents per hour; 7 cents over 90 cents per hour.	Same as second shift.
	1	3 cents per hour	3 cents per hour.
	2	5 cents per hour	5 cents per hour.
	1	6 percent over base rate	6 percent over base rate.
	2	10 percent over base rate	10 percent over base rate.
	1	10 percent over base rate or piece rate	10 percent over base rate or piece rate.
	1	10 percent over base rate between 4 p. m. and 8 a. m.	10 percent between 4 p. m. and 8 a. m.
	1	8 hours' pay for 7.5 hours' work, plus 10 percent over base rate, machine shop; 2.5 cents per hour, foundry.	8 hours' pay for 7 hours' work, plus 15 percent over base rate, machine shop.
	3	Data not available	

Employment, Hours, and Earnings

TREND FROM 1939 TO 1942

Comparable data on employment and earnings for selected periods during 1939–42 are available for 82 of the 89 plants surveyed. As is indicated in table 2, employment in these plants rose from 5,168 in

August 1939 to 10,648 early in 1942—an increase of more than 100 percent. Average hourly earnings, including penalty overtime payments, amounted to 69.1 cents in August 1939 but had risen to 83.9 cents by the time of the Bureau's study. A steady rise in the length of the average workweek, however, tended to inflate the hourly rates because of penalty payments for overtime work. It is estimated that elimination of these amounts would reduce to approximately 75 cents the average hourly earnings figure for the period covered by the survey. Inclusion of the 7 plants for which comparable early data were not available adds approximately 1,000 workers, but the effect on average earnings and hours is negligible.

TABLE 2.—*Employment, Average Hourly Earnings, and Average Weekly Hours in 82 Plants Manufacturing Miscellaneous Industrial Machinery, Specified Periods, 1939–42*

Year and month	Total workers[1]	Average workers per plant	Average hourly earnings	Estimated average hourly earnings exclusive of extra overtime earnings	Average weekly hours
August 1939	5,168	79	$0.691	$0.672	40.0
April 1940	6,392	96	.692	.669	40.9
August 1940	6,104	92	.711	.688	40.9
February 1941	7,509	118	.732	.678	46.0
August 1941	9,248	146	.778	.711	47.6
February–April 1942	10,648	170	.839	.748	51.1

[1] The data for several large companies were used with reduced weight in order to avoid overrepresentation of large plants.

PLANT AVERAGES

Nearly a fourth (21) of the plants studied showed average hourly earnings, including penalty overtime, of 90 cents or above, and 11 averaged $1 or more. At the other extreme, there were 8 plants with averages below 60 cents per hour; 2 of the 8 were in the South.

Plant average hourly earnings in this industry tend to vary directly with size of plant. Average earnings for the 1,206 workers employed in the smallest plants (having fewer than 50 workers) amounted to 77.4 cents per hour, as compared with 92.6 cents for 2,292 workers in plants with 250 to 500 employees. The workers in all plants with 500 or more employees, however, averaged only about 79 cents per hour.

REGIONAL DIFFERENCES

The 5,902 workers employed in plants in the northeastern part of the country earned an average of 85.0 cents per hour, including penalty overtime, during the period of this survey. The earnings of the 4,470 employees in midwestern and western plants were about 2 cents higher. This small difference is not considered to be significant since even minor variations in the characteristics of the plants or in the amount of overtime work would be sufficient to offset it. The North-South difference amounted to more than 10 cents per hour.

OCCUPATIONAL DIFFERENCES

Earnings in 8 occupational groups averaged more than $1 an hour during the period of this survey (table 3). Slightly more than 1,000

male workers were classified in these occupations. Most important numerically were the 343 class A machinists, with an average of $1.004 per hour, and the 172 class A hand welders who were paid $1.014.

TABLE 3.—*Average Hourly Earnings* [1] *of Male Day-Shift Workers in Selected Occupations in Miscellaneous Industrial Machinery Manufacture, February–April, 1942*

Occupation and class	United States		Northern States		Southern States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
All occupations	8,508	$0.756	7,607	$0.769	901	$0.645
Acetylene-burner operators	25	.863	20	.836	5	(2)
Apprentices:						
First year	71	.417	57	.430	14	.361
Second year	33	.608	25	.642	8	.500
Third year	33	.695	26	.686	7	.729
Fourth year	9	.732	9	.732		
Assemblers, bench:						
Class A	59	.918	58	.917	1	(2)
Class B	128	.766	128	.766		
Class C	54	.596	54	.596		
Assemblers, floor:						
Class A	234	.952	222	.948	12	1.008
Class B	297	.794	291	.795	6	.717
Class C	192	.654	189	.654	3	(2)
Balancing-machine operators	3	(2)	3	(2)		
Blacksmiths	35	.829	32	.815	3	(2)
Boring-mill operators:						
Class A	105	1.031	104	1.033	1	(2)
Class B	62	.796	60	.792	2	(2)
Broaching-machine operators	9	.764	9	.764		
Buffers	1	(2)	1	(2)		
Bulldozer operators	4	(2)	4	(2)		
Burrers:						
Class B	30	.658	30	.658		
Class C	44	.652	44	.652		
Carpenters:						
Class A	23	.947	20	.942	3	(2)
Class B	31	.799	29	.793	2	(2)
Class C	18	.655	16	.668	2	(2)
Carpenters, flask	13	.807	11	.836	2	(2)
Casting cleaners	171	.628	145	.656	26	.468
Chippers:						
Class B	60	.660	36	.739	24	.540
Class C	41	.650	41	.650		
Core pasters	4	(2)	4	(2)		
Coremakers	142	.863	116	.872	26	.820
Coremakers' helpers	28	.591	28	.591		
Crane followers	18	.540	18	.640		
Crane operators	82	.763	70	.761	12	.775
Craters	10	.708	10	.708		
Cupola tenders	23	.765	21	.742	2	(2)
Cupola tenders' helpers	26	.615	21	.642	5	(2)
Die setters	7	.929	7	.929		
Drill-press operators:						
Class A	92	.911	92	.911		
Class B	126	.750	114	.761	12	(2)
Class C	73	.584	69	.584	4	(2)
Drop-hammer operators:						
Class A	12	1.094	12	1.094		
Class B	7	.878	7	.878		
Electricians	62	.922	58	.908	4	(2)
Elevator operators	1	(2)	1	(2)		
Firemen, stationary, boiler	21	.675	21	.675		
Flask and pattern carriers	4	(2)	4	(2)		
Foremen, working:						
Class A	111	1.157	99	1.139	12	1.311
Class B	35	.879	35	.879		
Class C	23	.707	23	.707		
Gear cutters:						
Class A	5	.982	5	.982		
Class B	2	(2)	2	(2)		
Grinding-machine operators:						
Class A	71	.948	70	.943	1	(2)
Class B	128	.709	119	.728	9	(2)
Hammersmiths	5	(2)	5	(2)		

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *of Male Day-Shift Workers in Selected Occupations in Miscellaneous Industrial Machinery Manufacture, February–April, 1942*—Con.

Occupation and class	United States		Northern States		Southern States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Heat treaters:						
Class A	10	$0.961	10	$0.961		
Class B	19	.663	19	.663		
Helpers, journeymen's	215	.598	177	.618	38	$0.502
Helpers, machine operators'	224	.589	150	.639	74	.489
Inspectors:						
Class A	74	.933	74	.933		
Class B	62	.741	61	.738	1	(2)
Class C	46	.581	45	.582	1	(2)
Janitors	101	.550	98	.553	3	(2)
Job setters	34	.958	18	.921	16	(2)
Laborers	529	.519	309	.593	220	.416
Laborers, foundry	197	.566	144	.627	53	(2)
Ladle liners	5	(2)	3	(2)	2	(2)
Lathe operators, engine:						
Class A	189	.985	175	.979	14	1.057
Class B	187	.757	181	.759	6	.708
Class C	16	.655	16	.655		
Lathe operators, turret:						
Class A	108	1.006	108	1.006		
Class B	115	.700	108	.707	7	.586
Class C	7	(2)	7	(2)		
Lay-out men:						
Class A	65	.913	62	.909	3	(2)
Class B	18	.773	18	.773		
Learners, journeymen's	96	.581	96	.581		
Learners, machine operators, and other	297	.554	297	.554		
Machinists:						
Class A	343	1.004	251	.992	92	1.037
Class B	23	.814	23	.814		
Metal-saw operators	26	.716	25	.720	1	(2)
Milling-machine operators:						
Class A	95	.968	94	.970	1	(2)
Class B	179	.676	178	.675	1	(2)
Millwrights	39	.817	37	.829	2	(2)
Molders, bench	52	.896	52	.896		
Molders, floor	225	.920	179	.890	46	1.037
Molders' helpers	109	.553	73	.612	36	.436
Molders, machine:						
Class A	51	.869	46	.898	5	(2)
Class B	16	.824	16	.824		
Packers	69	.668	69	.668		
Painters, brush	47	.750	44	.747	3	(2)
Painters, dip	8	(2)	8	(2)		
Painters, spray	45	.692	45	.692		
Pattern makers, metal	8	(2)	8	(2)		
Pattern makers, wood	98	1.075	87	1.067	11	1.137
Pipe fitters	26	.925	26	.925		
Planer operators	72	.938	70	.938	2	(2)
Platers	5	(2)	5	(2)		
Pourers, class B	2	(2)	1	(2)	1	(2)
Power-shear operators	19	.746	19	.746		
Punch-press operators:						
Class A	1	(2)	1	(2)		
Class B	28	.748	28	.748		
Class C	26	.507	26	.507		
Repairmen, machine	47	.816	46	.819	1	(2)
Repairmen, product:						
Class A	1	(2)	1	(2)		
Class B	3	(2)	3	(2)		
Class C	2	(2)	2	(2)		
Riveters, pneumatic	1	(2)	1	(2)		
Sand mixers, hand	9	(2)	9	(2)		
Sand mixers, machine	12	.654	10	.691	2	(2)
Sandblasters	12	.674	11	.681	1	(2)
Screw-machine operators:						
Class A	27	.924	27	.924		
Class B	26	.789	26	.789		
Class C	19	.686	19	.686		
Shake-out men	47	.642	46	.647	1	(2)
Shaper operators	46	.813	45	.815	1	(2)
Sheet-metal workers:						
Class A	19	.970	19	.970		
Class B	24	.868	24	.868		
Class C	13	.591	13	.591		

See footnotes at end of table.

TABLE 3.—*Average Hourly Earnings*[1] *of Male Day-Shift Workers in Selected Occupations in Miscellaneous Industrial Machinery Manufacture, February–April, 1942*—Con.

Occupation and class	United States		Northern States		Southern States	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Stock clerks	280	$0.637	268	$0.640	12	$0.567
Straighteners	9	(2)	9	(2)		
Testers:						
Class A	16	.828	16	.828		
Class B	8	.765	8	.765		
Class C	4	.649	4	.649		
Thread-milling-machine operators	2	(2)	2	(2)		
Time clerks	62	.608	61	.611	1	(2)
Tool and die makers	107	1.043	105	1.042	2	(2)
Tool-grinder operators	5	(2)	5	(2)		
Truckers, hand	46	.615	46	.615		
Truckers, power, inside	5	(2)	5	(2)		
Truck drivers	39	.720	36	.737	3	(2)
Tumbler operators	2	(2)	2	(2)		
Upsetters	4	(2)	4	(2)		
Watchmen	135	.548	124	.561	11	.403
Welders, hand:						
Class A	172	1.014	158	1.016	14	1.000
Class B	91	.772	91	.772		
Welders, machine	14	.773	12	.693	2	(2)
Winders:						
Class A	2	(2)			2	(2)
Class B	1	(2)	1	(2)		
Class C	2	(2)	1	(2)	1	(2)
Woodworkers	25	.640	25	.640		

[1] Averages are based on regular earnings exclusive of penalty overtime payment and/or shift differential payment.

[2] Number of plants and/or workers too small to justify computation of an average; data on numbers of workers are included in such cases to provide additional information on occupational distribution.

More than 1,700 male workers were classified in the 13 occupations (apprentices and learners excepted) which showed average earnings below 60 cents per hour. Almost a third of these workers, however, were classified as helpers. Apart from these groups, the only important occupations with averages below 60 cents were janitors, laborers, and watchmen.

Regional comparisons of occupational rates are possible in only a few cases because of the relatively small numbers of workers in the southern plants. The rates in southern plants are well below the corresponding averages for northern plants in most of the numerically important occupations; in the majority of cases in which the reverse is true, the numbers of workers are too small to make the differences significant. The two important exceptions are the class A machinists and the floor molders. Such apparent anomalies may be the indirect result of the greater competition among employers for the relatively small supply of highly skilled workers in the South.

As already indicated, the employment of women in this industry is negligible. The average hourly earnings of the 43 for whom data are available amounted to 50.7 cents. This average is, of course, heavily weighted by the rate for bench assemblers who received an average of 50.4 cents per hour and constituted the only group containing sufficient numbers to warrant the computation of an average.

EARNINGS IN PRIMARY FABRICATION OF NONFERROUS METALS, 1941 [1]

Summary

STRAIGHT-TIME earnings of workers engaged in the primary fabrication of nonferrous metals in August 1941 averaged 79.5 cents per hour. This average is somewhat higher than average earnings in the mining and milling of these metals (74.5 cents), and compares with 79.8 cents in smelting and 78.3 cents in refining. The distribution of individual earnings in the primary fabrication branches showed remarkable dispersion. Even the wage range which included the greatest concentration of workers, 67.5 cents to 87.5 cents, embraced scarcely more than one-third of the total.

Plants engaged in the alloying, rolling, and drawing of copper, brass, and bronze employed large numbers of skilled workers and paid the highest wages in the industry, averaging 88.7 cents per hour. Plants performing similar operations but working with other nonferrous metals averaged only 74.4 cents. Wages were lowest in the secondary smelting branch, where they averaged 70.1 cents per hour. Foundry wages averaged 72.9 cents, wages in the machined-products branch 74.3 cents, and wages in the die-casting plants 88.5 cents.

Primary fabrication of nonferrous metals is concentrated largely in the eastern part of the United States. The relatively few workers in Southern States received the lowest wages at the time of the Bureau's study (56.9 cents), while those in New England received the highest (87.4 cents).

Total weekly earnings were lowest in the secondary smelting branch ($30.98) and highest in the alloying, rolling and drawing of copper, brass, and bronze ($41.45).

Primary Fabrication Processes

The term "primary fabrication," as employed in this discussion, relates to the manufacture of metal shapes which are destined, for the most part, to be used in further manufacture, either as raw materials or as parts of other products. The industries included in this category perform such operations as the following: alloying, rolling, drawing, forging, extruding, ordinary casting—such as sand casting, permanent mold casting, and die casting—and the manufacture of machined castings, including bearings, bushings, and fittings. Establishments engaged primarily in the secondary smelting and refining of nonferrous metals are also included in this broad segment of the nonferrous-metals industry.

Nonferrous metals are delivered to the fabricating plants in standard forms of slabs, ingots, bars, cakes, and billets. Some of these are customarily melted, preparatory to fabrication; others are preheated. In many instances they are combined with other metals to form alloys appropriate to the purpose for which the end-product will be used. For example, copper and nickel are combined to form

[1] Prepared in the Bureau's Division of Wage Analysis by Harry Ober and Jacob Loft, with the assistance of Abner C. Lakenan. This is the third of a series of articles reporting on the wage structure of the nonferrous-metals industry. The other two articles, dealing respectively with mining and milling, and with smelting and refining, appeared in the June and July issues of the Monthly Labor Review. Additional tabular detail regarding wages in primary fabrication will appear in a bulletin embracing the three articles.

cupro-nickel; arsenic is mixed with copper to form arsenic copper; varying proportions of zinc and lead are combined with copper to form a wide variety of brasses; tin, zinc, lead and aluminum are used in combination with copper to form a variety of bronzes. In addition, such alloys as antifriction-bearing metal, solder, and type metal are produced in this segment of the industry. Some firms engage primarily in alloying, and sell their alloys to foundries and other metal-working establishments. Others do their own alloying, casting, and rolling.

In the production of nonferrous-metal sheets, plates, rods, tubes, and wire, the mill processes characteristic of the iron and steel industry have been adapted. The metal is generally cast into cakes which are preheated in a furnace and then reduced in thickness by successive passes through breakdown rolls and intermediate and finishing rolls, until they are reduced to the required gauge. In the manufacture of wire, bars of nonferrous metal are hot-rolled into rods. The rods are then preheated and removed by conveyors to a roughing mill. After successive passes through the breakdown-, intermediate-, and finishing rolls, the greatly elongated bars emerge and are automatically coiled. Wire is then produced from these rods by drawing them through a series of successively smaller dies. Tubes are produced either by the piercing of heated shapes or by extrusion. At all stages of the process the handling of heated metals, immersion in acid baths, and pickling are characteristic operations.

The other chief method of shaping nonferrous metals involves casting. Castings are produced by a variety of methods, of which sand casting, permanent mold casting, and die casting are the outstanding variants. The processes involved in sand casting include pattern making, sand mixing, core making, melting and pouring, blasting the core and removing the casting from the mold, and finishing. Molding varies considerably with the nature of the castings produced. Large castings, for special parts, are generally made on a unit-production basis. Castings of a standardized character are manufactured by mass-production methods. Depending upon the complexity of the castings and degree of standardization, the division of labor varies considerably from plant to plant. Sand castings may be made by hand or by machine or partially by hand and partially by machine. Many establishments do not make their own patterns, but merely cast according to a pattern supplied them by their customers.

Permanent-mold casting implies a considerable degree of standardization because the mold is generally made of metal for the purpose of duplicating a large number of castings of the same dimensions. In addition, permanent-mold castings generally have a finer grain structure and a smoother surface than sand castings and are relatively free from the blowholes, sand holes, and surface "scabs" that often mar the latter. As a result, considerable labor is eliminated in the finishing of the castings.

The most significant development in casting technique, from the standpoint of mass production of relatively cheap and accurate castings, has been the growth of die casting. One of the important features of castings produced in this manner is the fact that they do not require much machining. Die castings are produced by forcing molten metal under uniform pressure into a steel die. Parts produced by the process of die casting are generally more accurate and

less bulky than could be obtained by either sand- or permanent-mold casting.

Depending upon the type of casting process and the purpose for which the castings are used, various degrees of finishing are involved. Some finishing operations are performed in foundries while others are carried on in the plants which further fabricate the castings. Core knockout, chipping, sawing, grinding, and polishing are normally accomplished with standard tools developed for each purpose. "Gates" and "risers" are removed by hand saws or mechanical presses. Pneumatic chipping hammers are used to remove those that cannot be readily sawed or sheared off. Abrasive wheels, mounted on lathes, are used to rough-grind external surfaces; for large castings, portable air-driven or electrically-driven tools are employed for rough grinding. Tumbling sand castings of 50 pounds or less in rotating barrels is another method of cleaning these products. Sand or steel-grit blasting is also used to remove minor surface roughness from castings. By "pickling" the castings in weak acid solutions, their surfaces are prepared for metal plating.

Some establishments, particularly the group which produces semi-finished castings such as valves, fittings, bearings and bushings, engage in finishing operations which involve considerable machining. In these plants many of the operations, in addition to casting, are common to machine-shop practice. Thus, the range of operations covered in this segment of the industry is very broad and includes most of the metal-working processes.

Characteristics of the Industry

The establishments included in the Bureau's survey of the primary fabrication of nonferrous-metal products fall within a number of Census classifications included under the broad industrial group "Nonferrous metals and their products." As a background for the discussion of earnings in primary fabrication of nonferrous metals, the following Census industrial classifications may be utilized: "alloying"; "rolling and drawing of nonferrous metals (except aluminum)"; "nonferrous metal foundries (except aluminum)"; "nonferrous metal products, not elsewhere classified"; and "secondary smelting and refining of nonferrous metals." Although no extensive coverage of aluminum products was undertaken in this survey, it was not feasible to exclude aluminum in all instances, because many foundries and other fabricating establishments were found to employ considerable proportions of aluminum. Moreover, the survey included a few establishments which engage primarily in the fabrication of aluminum. The processes of the aluminum-fabrication plants are essentially similar to those of plants using other metals, and from the standpoint of wage structure the inclusion of these plants introduces no disturbing element.

There were, in 1939, about 1,500 establishments in the industrial categories covered by the Census. They employed 94,000 wage earners and in terms of "value added by manufacture," their activities were evaluated at $350,000,000. Employment and production rose abruptly after the outbreak of the present war, however, and these figures greatly understate the magnitude of the industry at the present time.

SIZE OF ESTABLISHMENTS

Small establishments predominate in the fabrication of nonferrous metals. Three-fifths of the establishments engaged in the alloying, rolling and drawing of nonferrous metals (except aluminum), in 1939, employed fewer than 50 wage earners each. These small plants, however, contributed only 8 percent of the industry's total production value. Of 600 nonferrous-metal foundries (excluding aluminum), over 93 percent employed 50 wage earners or less in 1939. In contrast with the branch of nonferrous-metal fabrication discussed above, this category of small plants produced 55 percent of the dollar value of the total foundry output in 1939. Almost nine-tenths of the plants fabricating nonferrous-metal products not elsewhere classified (plants manufacturing bearings and bushings, die castings, finished castings, forged and hot-pressed parts, fittings, spun ware, powder, and other products) employed 50 employees or less in 1939, but accounted for only 14 percent of the dollar value of the industry's product. Over three-fourths of secondary smelting and refining establishments employed 50 wage earners or less in 1939, but produced only 27 percent of the industry's dollar value of output. On the other hand, there are few large establishments in any branch of the nonferrous-metals industry (excluding aluminum) which can compare in size with large establishments in the steel and automobile industries.

In all the branches of the nonferrous-metal fabrication reviewed above, the majority of establishments in 1939 were operated under some form of independent management. Less than half of the alloying, rolling, and drawing plants were operated by central administrative offices controlling two or more plants. The corresponding proportions in other branches of nonferrous-metal fabrication were as follows: 23 percent of secondary smelters; 10 percent of plants fabricating nonferrous metal products, not elsewhere classified; and 8 percent of nonferrous metal foundries. The majority of plants in each of the branches were under corporate control in 1939. The proportion of total plants under such control varied from 52 percent of nonferrous-metal foundries to 88 percent in alloying, rolling, and drawing plants.

LOCATION OF THE INDUSTRY

Although the extraction sources of most of the nonferrous metals are in the western part of the United States, the Atlantic coastal plain and the immediate trans-Appalachian regions have long maintained a dominant position in the primary fabrication of nonferrous-metal products. Several factors account for the eastern location of fabricating plants. Among these are the presence of smelters and refineries in the East, the early development of the capital equipment necessary for primary fabrication, and the convenient markets offered by the highly industrialized population centers along the Atlantic Coast. Fully 47 percent of the wage earners engaged in alloying, rolling, and drawing nonferrous metals (except aluminum) were employed in three New England States (Connecticut, Massachusetts, and Rhode Island) in 1939. An additional 27 percent of the labor force in this branch of nonferrous-metal fabrication was employed in the Middle Atlantic States. The East Central States accounted in 1939 for more than half of the wage earners engaged in the secondary smelting and refining of nonferrous metals. An additional 32 percent was employed in the Middle Atlantic States.

THE LABOR FORCE

Labor requirements in the primary fabrication of nonferrous metals, as in other industries, are conditioned by the characteristic processes of the various branches involved. It is feasible to discuss these processes from the standpoint of the sequence of production operations. Thus, in all branches of the industry the yard operations of loading and unloading metal, scrap, and fuel involve hard labor. Frequently such tasks must be accomplished with dispatch in order to make transportation facilities available. Scrap sorting, baling, and cabbaging constitute an important phase of the operations in secondary smelters, as well as in alloying, rolling, and drawing establishments and in foundries. These processes are generally performed by magnetic-machine operators, cabbaging-machine operators, cranemen, crane followers and scrap sorters, and grinding-machine operators.

Both scrap and virgin metal are melted in a variety of furnaces by furnace operators and their helpers. Metal mixers perform the alloying processes under the guidance of trained technicians. Generally the molten metals are cast into some special form for further processing. Preheating of some shapes which require no further chemical treatment is performed by furnace operators and their helpers.

Processing operations vary considerably. They include all forms of casting. Sand casting involves the highly skilled occupations of pattern-making, as well as such other skilled operations as core making, mold making, and pouring. These operations may be performed by one, two, or more persons in a small foundry, or they may be divided into a sequence of specialized operations in larger foundries. In permanent-mold and die-casting work, machine operators and helpers possessing the dexterity and speed characteristic of repetitive mass-production operations are required. In alloying, rolling and drawing plants, machine operators capable of adjusting and operating a variety of specialized machines constitute a large proportion of the labor force. For the most part, these machine operators are comparable with semiskilled machine operators in machinery-manufacturing establishments. The most skilled operations are those involved in rolling, which require considerable experience and training. At various stages during fabrication, the finished and semiprocessed metals require heat-treating and annealing, which are performed by furnace operators and their helpers.

Considerable variation also obtains in finishing operations. These may be performed by all-round finishers, using a variety of grinding and pickling operations, or by specialized workers. The occupational groups involved in this work include grinders, polishers, chippers, oxyacetelene operators, metal sawyers, and burrers. Pickling and plating are frequently specialized operations. In addition, the products moving from one stage of the production process to another must be tested and inspected. Inspectors and testers vary from the most skilled employees, capable of using every metal-measuring instrument in the skilled machinist's kit, to routine inspectors utilizing only one measuring device.

In all stages of the processing, materials must be handled and moved. Material handling and interprocess transportation require considerable numbers of crane operators, hoist operators, motormen, hand truckers, and tow-motor operators. This auxiliary equipment is also used in

substantial proportions in shipping and storing a variety of heavy materials.

In addition to the employees performing the above processes, other workers are engaged in the maintenance of power and plant. Maintenance employees make minor repairs and installations in the processing departments. There are also important maintenance machine shops and tool rooms which make the dies, gauges, and other tools for the mills. These tool-room employees are generally highly skilled men and their experience is transferable from industry to industry.

The labor force in this industry is composed predominantly of male, white employees. Only in recent months have employers found it necessary to fill some occupations with women. Female workers are employed as inspectors in some of the finished-castings plants.

Over nine-tenths (91.7 percent) of the workers in plants surveyed by the Bureau were white, other than Mexican (see table 1.) Negroes formed 7.6 percent of the working force, and were concentrated mainly in plants in the Middle Atlantic and East Central States. Mexicans formed a negligible minority group in the mass of fabrication workers. They were concentrated mainly in the Western States.

TABLE 1.—*Composition of Labor Force in Primary Fabrication of Nonferrous Metals, August 1941*

Region [1]	White, other than Mexican		Mexican		Negro		Other	
	Workers	Percent	Workers	Percent	Workers	Percent	Workers	Percent
All regions	60,496	91.7	489	0.7	5,021	7.6	6	(2)
New England States	11,868	95.8	----	----	516	4.2	----	----
Middle Atlantic States	14,225	92.0	----	----	1,244	8.0	----	----
Border States	3,147	92.0	----	----	274	8.0	----	----
East Central States	26,833	91.9	31	.1	2,331	8.0	1	(2)
West Central States	1,826	76.7	142	6.0	409	17.2	3	0.1
Southern States	507	69.6	----	----	221	30.4	----	----
Western States	2,090	85.8	316	13.0	26	1.1	2	.1

[1] For regional classification, see footnote to table 3.
[2] Less than a tenth of 1 percent.

Unionization of Workers

Several C. I. O. and A. F. of L. unions are engaged in organizational activity in this industry. In the brass-milling branch the International Union of Mine, Mill and Smelter Workers (C. I. O.) has made important organizational gains recently. Some brass mills, notably in the Middle West, have been organized by the International Association of Machinists (A. F. of L.). In the casting industry, unionization is carried on by the International Molders' and Foundrymen's Union (A. F. of L.), by the Die Casters' Union (C. I. O.), and to a more limited extent by the United Automobile Workers (C. I. O.). Other unions active in various branches of the industry include the United Electrical, Radio, and Machine Workers, the United Steel Workers, and the Aluminum Workers of America.

In the primary-fabrication plants covered by the Bureau's survey, over three-fifths (65.6 percent) of the working force was employed in plants covered by union agreements (table 2). Union coverage

ranged from a low of 27.5 percent of the workers in southern plants to 96.1 percent of those in plants in the border States.

TABLE 2.—*Unionization in Primary Fabrication of Nonferrous Metals, August 1941*

Region [1]	All workers		Workers in plants covered by union agreements [2]		Workers in plants not covered by union agreements	
	Number	Percent	Number	Percent	Number	Percent
All regions	66,012	100.0	43,310	65.6	22,702	34.4
New England States	12,384	100.0	6,675	53.9	5,709	46.1
Middle Atlantic States	15,469	100.0	10,057	65.0	5,412	35.0
Border States	3,421	100.0	3,286	96.1	135	3.9
East Central States	29,196	100.0	20,518	70.3	8,678	29.7
West Central States	2,380	100.0	1,035	43.5	1,345	56.5
Southern States	728	100.0	200	27.5	528	72.5
Western States	2,434	100.0	1,539	63.2	895	36.8

[1] For regional classification, see footnote to table 3.
[2] Includes plants covered by agreements with independent unions.

Scope and Method of Survey

The survey of the primary-fabricating branches of the nonferrous-metals industry was made on a sample basis. Approximately one-fourth (based on the 1939 Census) of the plants in the foundry, die-casting, and other machined-products branches and one-half of those engaged in alloying, rolling and drawing and secondary smelting were covered in this survey. This difference in the proportion of plants studied has necessitated the assignment of double weight, in tables relating to earnings, to those branches studied on a 25-percent basis. In order to assure that the sample selected would be representative, careful consideration was given to geographic location, size and corporate affiliation of establishment, type of metal fabricated, and form of processing. Establishments employing fewer than 10 workers, however, were not covered. These small plants accounted for only a small proportion of the total employment in this segment of the industry. The data were collected by trained field representatives of the Bureau for a pay-roll period in August 1941. The information obtained included detailed records of hours worked, total earnings, sex and color designations for each employee, and occupational descriptions.

The sample included 273 production units employing 49,232 wage earners. Over two-fifths of the employees surveyed were employed in the brass-milling industry and a substantial proportion of these (21.1 percent of the total number of workers covered) were in the New England States. Foundries constituted the largest group from the standpoint of the number of plants covered and the second largest from the point of view of employment (table 3).

TABLE 3.—*Sample of Nonferrous-Metal Fabricating Plants Covered by Bureau's Survey, August 1941*

Industry and region [1]	Units	Number of workers	Industry and region [1]	Units	Number of workers
Total	273	49,232	Foundries—Continued.		
			West Central States	5	861
Alloying, rolling and drawing plants	68	28,482	Southern States	9	342
Copper, brass and bronze	28	22,228	Western States	21	723
New England States	12	10,408	Other States	31	1,693
Middle Atlantic States	7	6,460	Secondary smelters	46	3,970
Other States	9	5,360	New England States	3	97
Other metals	40	6,254	Middle Atlantic States	18	1,858
New England States	3	281	East Central States	17	1,368
Middle Atlantic States	13	1,025	Other States	8	647
Border States	6	2,831	Machined-products plants (bearings,		
East Central States	13	1,673	bushings, valves, fittings, etc.)	22	5,684
Other States	5	444	Middle Atlantic States	6	995
Foundries	126	8,691	East Central States	10	4,214
New England States	12	515	Other States	6	475
East Central States	48	4,557	Die-casting plants	11	2,405

[1] The New England region includes Connecticut, Massachusetts, and Rhode Island; the Middle Atlantic region includes Maryland, New Jersey, New York, and Pennsylvania; the border region includes Kentucky, Virginia, and West Virginia; the East Central region includes Illinois, Indiana, Michigan, Ohio, and Wisconsin; the West Central region includes Iowa, Kansas, Minnesota, and Missouri; the Southern region includes Alabama, Georgia, Louisiana, North Carolina, Oklahoma, and Texas; the Western region includes California, Colorado, Montana, Oregon, and Washington.

NOTE: In table 5 and all succeeding tables, the number of workers in the foundry, die-casting, and machined-products branches is doubled to compensate for differences in sampling proportions and to accord these branches their proportionate weight in the industry.

Method of Wage Payment

The predominant method of wage payment in the surveyed nonferrous-metal fabrication plants was based upon straight hourly rates. Over seven-tenths (70.8 percent) of the total working force received time rates (table 4). There was, however, some variation between the various branches of the fabrication industry in this respect. Only 55.5 percent of the workers engaged in alloying, rolling, and drawing copper, brass, and bronze were paid on a time basis. By way of contrast, 95.9 percent of the workers in secondary smelters were paid time rates.

TABLE 4.—*Distribution of Workers in Nonferrous Metal Fabrication Plants, by Method of Wage Payment and Branch of Industry, August 1941*

Branch	All workers		Time workers		Piece workers		Bonus workers	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All branches	66,012	100.0	46,727	70.8	5,769	8.7	13,516	20.5
Alloying, rolling and drawing:								
Copper, brass and bronze	22,228	100.0	12,330	55.5	1,554	7.0	8,344	37.5
Other nonferrous metals	6,254	100.0	5,450	87.2	64	1.0	740	11.8
Foundries	17,382	100.0	14,454	83.2	1,760	10.1	1,168	6.7
Secondary smelters	3,970	100.0	3,807	95.9	19	.5	144	3.6
Machined products	11,368	100.0	7,750	68.1	1,030	9.1	2,588	22.8
Die casting	4,810	100.0	2,936	61.0	1,342	27.9	532	11.1

Of the remaining portion of the working force more than one-quarter (or 8.7 percent of the total) were paid by the piece. In each branch of fabricating, with the exception of die casting, piece pay-

ment was unimportant. In die casting, fully 27.9 percent of the labor force were paid by the piece.

Slightly more than one-fifth (20.5 percent) of the total work force in nonferrous-metal fabrication was paid on an incentive-bonus basis. The greater part of this group was found in those plants which were alloying, rolling, and drawing copper, brass, and bronze products. In this section of nonferrous-metal fabrication, fully 37.5 percent of the workers were paid guaranteed daily rates, with bonus rates offered for production in excess of standard performance. Only 3.6 percent of the workers in secondary smelters, and 6.7 percent of those in foundries, were paid on an incentive-bonus basis.

Hourly Earnings[1]

Excluding overtime payments, average hourly earnings in primary nonferrous-metal fabrication plants amounted to 79.5 cents in August 1941 (table 5). The corresponding averages in the various branches of the industry ranged from 70.1 cents in secondary smelters to 88.7 cents in plants alloying, rolling, and drawing copper, brass and bronze.

TABLE 5.—*Percentage Distribution of Workers in Primary Fabrication of Nonferrous Metals, by Average Hourly Earnings, by Branch and by Region,*[1] *August 1941*

Average hourly earnings	Total	Alloying, rolling, and drawing—		Foundries	Secondary smelters	Machined products	Die-casting
		Copper, brass, and bronze	Other nonferrous metals				
Under 40 cents	1.3	0.1	1.0	2.5	2.9	1.6	0.2
40.0 and under 42.5 cents	1.2	.2	2.3	2.5	1.3	1.0	.5
42.5 and under 45.0 cents	.7	.2	.5	1.3	1.4	1.1	.1
45.0 and under 47.5 cents	1.6	.4	1.9	2.8	2.5	2.0	.5
47.5 and under 50.0 cents	1.0	.3	.4	1.6	.8	2.2	1.0
50.0 and under 52.5 cents	3.1	.7	2.2	5.8	6.5	3.3	1.9
52.5 and under 55.0 cents	1.4	.3	1.6	2.0	2.0	2.7	.9
55.0 and under 57.5 cents	5.1	.7	3.0	9.4	6.0	9.0	2.9
57.5 and under 60.0 cents	4.3	.3	16.2	6.1	4.9	3.2	2.7
60.0 and under 62.5 cents	5.2	1.3	4.6	8.7	4.5	8.8	4.3
62.5 and under 65.0 cents	2.8	.7	6.0	2.5	7.2	3.9	2.5
65.0 and under 67.5 cents	3.9	1.4	3.1	5.0	6.7	6.6	4.2
67.5 and under 70.0 cents	2.7	1.8	3.7	2.0	5.2	3.9	2.8
70.0 and under 72.5 cents	4.2	3.2	4.5	4.4	3.6	5.7	5.2
72.5 and under 75.0 cents	4.4	5.5	8.2	2.2	7.0	3.1	2.5
75.0 and under 77.5 cents	5.9	8.4	4.8	4.3	6.7	3.6	6.9
77.5 and under 80.0 cents	3.6	6.1	3.2	1.5	4.3	2.6	2.5
80.0 and under 82.5 cents	5.7	9.4	2.7	3.4	4.3	3.8	6.3
82.5 and under 85.0 cents	3.9	6.0	4.3	1.2	4.5	2.7	3.1
85.0 and under 87.5 cents	4.4	6.8	3.1	3.1	2.9	3.1	3.8
87.5 and under 90.0 cents	3.6	5.6	2.5	1.7	3.6	3.1	3.3
90.0 and under 92.5 cents	3.9	6.0	3.1	3.0	2.0	2.3	4.4
92.5 and under 95.0 cents	1.5	2.7	1.2	.6	1.3	1.1	.9
95.0 and under 97.5 cents	3.3	4.6	1.5	3.2	.9	2.6	3.6
97.5 and under 102.5 cents	6.3	9.6	4.5	4.9	2.4	4.4	6.7
102.5 and under 107.5 cents	4.0	5.0	1.7	4.0	1.4	3.5	5.5
107.5 and under 112.5 cents	2.7	3.3	2.3	2.4	.8	2.6	3.1
112.5 and under 117.5 cents	2.4	2.3	1.2	3.6	.7	1.9	3.0
117.5 and under 122.5 cents	1.6	2.0	.7	1.5	.2	1.5	3.2
122.5 and under 127.5 cents	1.4	1.2	1.5	1.2	.2	1.7	3.5
127.5 cents and over	2.9	3.9	2.5	1.6	1.3	1.4	8.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	66,012	22,228	6,254	17,382	3,970	11,368	4,810
Average hourly earnings	$0.795	$0.887	$0.744	$0.729	$0.701	$0.743	$0.885
Average hourly earnings (including extra payment for overtime)	.845	.942	.792	.779	.732	.794	.924

[1] For regional classification, see footnote to table 3.

[1] Unless specifically indicated average hourly earnings in all instances exclude overtime payments.

When overtime payments are included, average hourly earnings in all fabrication plants combined are increased by 5.0 cents. The smallest increase resulting from overtime payments is 3.1 cents in secondary smelters, and the largest was 5.5 cents in plants which were alloying, rolling, and drawing copper, brass, and bronze products.

Earlier articles in this series have noted a marked tendency for earnings in the mining and milling and in the smelting and refining of nonferrous metals to concentrate about some point of central tendency. This observation does not hold true for earnings in nonferrous-metal fabrication plants. It is doubtful, in fact, whether many manufacturing industries will show greater dispersion of hourly earnings.

Slightly over one-third (34.8 percent) of the workers in fabrication plants earned 67.5 cents but under 87.5 cents per hour. A little more than half (50.7 percent) of the workers in plants alloying, rolling, and drawing copper, brass, and bronze earned 80.0 cents but under 102.5 cents per hour. In plants which processed other nonferrous metals in similar manner, 51.1 percent of the workers earned 57.5 cents but under 77.5 cents per hour.

Of the workers in nonferrous-metal foundries, 32.0 percent earned 50.0 cents but under 62.5 cents per hour; an additional 24.0 percent received between 65.0 cents and 85.0 cents per hour; and still another (18.1 percent) earned 95.0 cents but under 117.5 cents per hour. Forty-five percent of the workers in secondary smelters earned 62.5 cents but under 82.5 cents per hour. Less than two-fifths (38.2 percent) of the workers in plants which produced machined products received 60.0 cents but under 80.0 cents per hour. In die-casting plants, slightly more than three-tenths (31.2 percent) of the labor force earned 75.0 cents but under 95.0 cents per hour, and an additional 26.3 percent earned 102.5 cents or more per hour.

REGIONAL DIFFERENCES

Straight-time hourly earnings showed wide regional variation. Workers in southern fabrication plants averaged only 56.9 cents per hour, whereas those working in plants in the New England States earned an average of 87.4 cents per hour (table 6).

Over two-fifths (44.6 percent) of the workers in all fabrication plants in the New England States earned 75.0 cents but under 95.0 cents per hour. In the Middle Atlantic States, 41.9 percent of the workers received between 65.0 and 85.0 cents per hour. Only 28.2 percent of the workers in the border States received hourly earnings in this range and an additional 25.4 percent received 57.5 cents but under 60.0 cents per hour.

Less than one-third (31.0 percent) of the labor force in fabrication plants situated in the East Central States earned 70.0 cents but under 90.0 cents per hour. In the West Central States, over two-fifths (42.7 percent) of the workers received 50.0 cents but under 70.0 cents per hour.

TABLE 6.—*Percentage Distribution of Workers in Primary Fabrication of Nonferrous Metals, by Average Hourly Earnings and by Region,*[1] *August 1941*

Average hourly earnings	Total	New England States	Middle Atlantic States	Border States	East Central States	West Central States	Southern States	Western States
Under 40 cents	1.3	0.2	1.0	1.6	1.1	2.3	28.8	1.0
40.0 and under 42.5 cents	1.2	.4	1.2	1.3	1.0	5.8	10.5	.9
42.5 and under 45.0 cents	.7	.1	1.1	1.0	.6	2.6	1.9	.7
45.0 and under 47.5 cents	1.6	.4	2.7	.6	1.2	5.5	8.9	.8
47.5 and under 50.0 cents	1.0	.3	1.5	1.2	1.1	1.9	.3	.3
50.0 and under 52.5 cents	3.1	.9	4.8	1.1	2.9	5.7	8.4	4.7
52.5 and under 55.0 cents	1.4	.4	1.5	1.9	1.6	4.7	.5	.3
55.0 and under 57.5 cents	5.1	1.9	4.0	.3	7.3	5.4	5.2	7.7
57.5 and under 60.0 cents	4.3	1.2	2.5	25.4	3.8	8.9	.8	4.2
60.0 and under 62.5 cents	5.2	2.6	4.2	3.0	6.7	8.2	1.9	9.4
62.5 and under 65.0 cents	2.8	1.1	2.8	3.4	3.5	3.1	-------	2.2
65.0 and under 67.5 cents	3.9	2.6	4.5	2.3	4.4	4.5	3.3	3.4
67.5 and under 70.0 cents	2.7	2.1	3.0	1.3	2.7	2.2	1.1	5.5
70.0 and under 72.5 cents	4.2	4.3	4.2	2.7	4.3	4.0	1.9	5.5
72.5 and under 75.0 cents	4.4	4.7	6.8	7.0	2.8	2.1	.8	5.3
75.0 and under 77.5 cents	5.9	6.1	8.6	3.3	5.0	3.9	1.6	6.6
77.5 and under 80.0 cents	3.6	6.6	4.3	3.2	2.6	.9	1.1	1.3
80.0 and under 82.5 cents	5.7	8.0	6.2	1.8	5.1	4.2	2.5	5.2
82.5 and under 85.0 cents	3.9	4.7	4.3	6.6	3.4	3.0	-------	1.4
85.0 and under 87.5 cents	4.4	6.3	4.3	3.0	4.1	2.8	1.9	3.0
87.5 and under 90.0 cents	3.6	4.8	3.3	2.0	3.7	1.7	1.1	1.5
90.0 and under 92.5 cents	3.9	5.7	3.4	5.4	3.5	1.5	6.6	3.4
92.5 and under 95.0 cents	1.5	2.4	1.4	1.7	1.3	.5	-------	.5
95.0 and under 97.5 cents	3.3	4.3	2.9	1.3	3.3	1.6	1.4	5.3
97.5 and under 102.5 cents	6.3	9.5	5.3	4.2	6.2	3.7	5.8	4.1
102.5 and under 107.5 cents	4.0	4.7	2.8	2.0	4.7	3.7	.5	2.8
107.5 and under 112.5 cents	2.7	3.7	1.5	3.0	3.0	1.3	.5	2.3
112.5 and under 117.5 cents	2.4	2.8	1.6	1.5	2.7	2.5	1.1	3.9
117.5 and under 122.5 cents	1.6	2.0	1.2	.9	1.8	.7	-------	2.1
122.5 and under 127.5 cents	1.4	1.6	1.1	2.0	1.6	.4	1.1	1.0
127.5 cents and over	2.9	3.6	2.0	4.0	3.0	.7	.5	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	66,012	12,384	15,469	3,421	29,196	2,380	728	2,434
Average hourly earnings	$0.795	$0.874	$0.770	$0.764	$0.794	$0.678	$0.569	$0.785
Average hourly earnings (including extra payment for overtime)	$0.845	$0.935	$0.825	$0.830	$0.839	$0.703	$0.604	$0.808

[1] For regional classification, see footnote to table 3.

The distribution of workers' hourly earnings in southern fabrication plants explains the low average noted previously for this region. Over one-fourth (28.8 percent) of the workers in plants in Southern States earned less than 40.0 cents per hour and an additional 36.5 percent received 40.0 cents but under 60.0 cents per hour. In the Western States, almost two-fifths (39.2 percent) of the working force earned 60.0 cents but under 80.0 cents per hour.

OCCUPATIONAL EARNINGS

Almost half of the workers in the plants alloying, rolling, and drawing products of copper, brass, and bronze were found in the New England States. In this area, occupational earnings ranged from a low average of 66.9 cents per hour for learners to a high of 133.4 cents for chief clerks (table 7). Furnace operators received 130.7 cents per hour in this region, 125.3 cents in the Middle Atlantic States, and 135.7 cents in other States. Average hourly earnings for wire-drawing operators ranged from 89.5 cents in the New England States to 107.4 cents in the Middle Atlantic States.

TABLE 7.—*Hourly Earnings, Weekly Hours, and Weekly Earnings in Alloying, Rolling, and Drawing Copper, Brass, and Bronze, by Occupation and by Region,*[1] *August 1941*

Occupation	New England States			Middle Atlantic States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.896	44.7	$42.93	$0.847	44.6	$40.39	$0.917	42.0	$39.86
Annealers and heat treaters	.926	47.1	47.62	.847	44.3	39.98	.899	44.2	41.67
Helpers	.849	44.5	40.84	.772	43.2	35.32	.803	42.6	35.59
Apprentices	.681	44.6	33.60	.653	49.4	35.49	(2)	(2)	(2)
Baling and briquetting operators	.908	45.5	45.72	.816	47.7	42.52	.927	42.0	40.21
Bricklayers	.973	51.8	57.69	(2)	(2)	(2)	.991	42.7	44.26
Carpenters	.950	48.4	50.93	.953	44.9	45.05	.968	46.2	47.77
Catchers	1.101	48.1	58.28	.804	39.9	32.70	.844	38.1	32.23
Chief clerks	1.334	45.8	64.67						
Coilers, sheets	.884	40.6	36.89	.893	44.0	41.65	.945	40.8	39.48
Crane operators	.891	46.0	44.51	.895	46.3	44.83	.950	43.5	41.28
Die setters	.938	40.6	40.28	.965	42.3	42.65	1.007	40.7	41.76
Dummy blockmen	.908	42.8	42.41	(2)	(2)	(2)	.984	40.2	39.84
Electricians	.994	53.9	62.46	1.019	49.1	55.10	1.032	47.6	53.29
Engine-lathe operators	.952	47.2	48.65	.933	48.8	50.56	.780	41.4	34.19
Extrusion-press operators	1.002	42.9	46.22	.954	41.3	40.62	1.154	40.3	46.89
Helpers	.863	43.3	39.71	.669	41.8	29.38	.996	39.4	39.39
Foremen and assistants, working	1.052	48.8	56.45	1.019	46.5	51.25	1.095	44.5	51.38
Furnace operators	1.307	45.0	63.06	1.253	46.6	62.97	1.357	44.9	64.63
Helpers	1.099	42.1	48.48	1.139	47.6	58.87	.982	45.2	47.21
Furnace operators, preheating	.979	40.8	43.06	.929	41.0	39.80	1.066	39.8	43.10
Helpers	(2)	(2)	(2)	.896	43.4	41.12	1.005	41.0	42.39
Gaugers	.908	42.2	39.74	.825	41.6	35.62	.836	41.0	34.95
Grinding-machine operators	.865	45.6	42.11	.756	40.2	30.49	.820	45.4	39.59
Inspectors	.853	45.4	41.28	.825	44.6	39.24	.850	40.8	35.60
Janitors	.741	46.5	38.00	.721	42.9	32.69	.788	41.2	33.73
Laborers	.792	45.2	38.46	.753	43.4	34.65	.807	41.0	33.95
Learners	.669	44.7	32.10	.630	41.0	27.58	.793	41.5	33.81
Loaders and unloaders	.837	45.4	40.50	.723	43.9	33.70	.824	42.3	35.99
Machine repairmen	1.001	49.2	55.30	.959	49.7	53.35	1.057	46.4	52.79
Helpers	.789	49.5	43.93	.790	45.7	39.20	.798	43.3	36.12
Maintenance workers, not elsewhere classified	.939	49.3	52.28	.921	47.5	48.23	.953	45.1	45.76
Helpers	.791	49.9	44.90	.797	46.1	39.96	.833	43.8	38.51
Millwrights	.973	49.6	53.70	.885	45.5	43.95	.989	46.3	49.14
Oilers	.850	48.4	45.66	.806	46.9	41.80	.829	43.9	38.21
Office workers, not elsewhere classified	.772	44.7	36.50	.730	43.5	33.19	.775	40.9	32.33
Other plant workers, not elsewhere classified	.840	43.4	38.51	.789	45.1	38.28	.878	41.2	37.21
Painters	.872	50.7	50.19	.850	48.9	45.76			
Picklers	.880	42.6	39.03	.859	45.6	42.13	.879	39.6	35.44
Pipe fitters	.950	50.8	55.87	1.017	48.6	55.47	.978	49.2	53.49
Pourers	1.159	38.6	47.28	1.350	45.7	65.34	(2)	(2)	(2)
Powerhouse engineers	1.039	50.8	59.08	1.021	43.0	45.37	(2)	(2)	(2)
Powerhouse firemen	.888	45.8	43.19	.872	41.8	37.87	.904	43.8	41.23
Power-press operators	.906	43.3	41.75	.851	46.2	42.43	.850	36.9	31.45
Rod and tube draw bench operators	.925	44.6	43.83	.958	41.3	41.35	.955	40.5	39.06
Helpers	.847	45.9	41.97	.830	39.1	33.66	.746	40.9	31.08
Rod and tube pointing operators	.895	44.8	42.76	.909	41.5	39.30	.892	41.1	37.37
Rod-straightener operators	.882	41.9	38.59	.876	37.9	33.82	.874	39.1	34.18
Rollers, not elsewhere classified	1.002	42.8	44.84	1.015	47.3	52.14	.823	47.5	42.46
Rollers, breakdown and rundown	1.153	41.4	49.98	1.070	45.1	52.10	1.234	41.5	52.57
Rollers, finishing	1.199	40.6	49.05	1.022	45.6	50.06	1.106	42.3	48.43
Rollers, helpers	.811	41.0	34.98	.815	48.0	42.82	.974	41.7	41.76
Saw filers	.832	46.2	41.36	.834	48.3	44.28	.825	41.7	35.80
Saw operators	.891	45.2	43.18	.881	41.1	37.62	.919	41.7	39.40
Helpers	.831	45.8	40.98	.816	41.1	35.60	.839	40.3	34.70
Scalping-machine operators	.872	40.9	37.38	(2)	(2)	(2)	(2)	(2)	(2)
Scrap handlers	.838	45.2	40.51	.817	46.6	41.11	.864	45.6	42.00
Scrapmen, extruding	.982	36.8	37.89	.891	36.8	33.98	1.158	41.8	50.00
Set-up men	.929	45.2	44.67	.972	48.3	52.19	.949	42.3	41.29
Shear operators	.892	45.3	43.84	.874	42.2	38.34	.847	42.4	37.17
Sheet straighteners	.949	42.3	41.36	.871	47.7	45.27	.973	41.4	41.47
Shipping clerks	.872	44.7	41.40	.900	46.8	45.28	.866	42.4	37.77
Helpers	.821	43.6	37.87	.784	41.3	33.73	.805	39.4	32.18
Slitting-machine operators	.944	41.2	40.46	.796	43.0	36.02	.978	37.5	37.52
Stickers	.898	41.3	38.44	.937	43.2	43.20	1.044	44.3	48.85
Store and stock-room keepers	.820	45.4	40.02	.861	42.6	38.87	.887	44.0	41.05
Strand men	.885	38.2	36.48				.964	39.9	38.49
Tinners	.862	41.2	37.65	.923	43.6	42.85	.880	42.2	38.65

See footnotes at end of table.

TABLE 7.—*Hourly Earnings, Weekly Hours, and Weekly Earnings in Alloying, Rolling, and Drawing Copper, Brass, and Bronze, by Occupation and by Region, August 1941*—Continued

Occupation	New England States			Middle Atlantic States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
Tool and die makers	$0.975	46.2	$48.51	$1.031	43.9	$47.49	$1.116	41.9	$48.61
Truckers, hand	.721	43.5	33.23	.814	48.8	43.63	.777	40.7	32.56
Truckers, motor	.883	46.1	44.32	.815	47.3	41.79	.922	41.6	39.59
Tube straighteners	.942	43.6	46.92	.924	37.9	35.49	.985	39.6	40.08
Watchmen	.810	45.8	40.28	.778	42.0	33.76	.733	46.7	35.91
Weighers	.856	44.1	39.85	.833	47.3	42.89	.841	44.0	36.97
Welders and brazers	.914	45.9	46.16	.936	47.8	48.85	.921	45.4	44.88
Wire drawing operators	.895	43.3	40.72	1.074	44.7	50.70	.898	42.9	40.30
Helpers	.783	44.7	37.09	------	------	------	.918	41.5	39.49

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.

More than two-fifths of the workers in plants which processed other nonferrous metals in similar manner were in the border States. In this region, occupational earnings spanned a range from 47.5 cents per hour for office machine operators to 138.4 cents for stickers (table 8). Average hourly earnings for laborers ranged from 60.0 cents in the border States to 64.8 cents in the East Central States. The corresponding range for rollers extended from 63.2 cents in States not classified as to region, to 99.8 cents in the East Central States.

TABLE 8.—*Hourly Earnings, Weekly Hours, and Weekly Earnings in Alloying, Rolling, and Drawing Miscellaneous Nonferrous Metals, by Occupation and Region,*[1] *August 1941*

Occupation	Middle Atlantic States			Border States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.715	43.9	$33.22	$0.774	44.6	$37.70
Annealers	------	------	------	.918	42.5	41.07
Helpers	------	------	------	.692	45.7	34.48
Assemblers and finishers	.620	45.8	30.68	.951	40.8	39.27
Bookkeepers	.796	41.1	33.35	------	------	------
Box makers	(2)	(2)	(2)	.699	39.6	27.71
Carpenters	(2)	(2)	(2)	1.008	41.5	43.15
Catchers	------	------	------	.776	40.5	33.27
Clerical, plant	.672	40.5	27.69	.687	40.1	27.86
Die makers	(2)	(2)	(2)	1.264	47.3	72.04
Electricians	(2)	(2)	(2)	1.131	42.7	51.87
Extrusion-press operators	.725	44.2	33.58	.805	51.7	50.17
Helpers	.523	39.5	21.74	.586	46.4	30.67
Foremen and assistant foremen, process, working	.915	45.7	44.08	1.033	46.6	53.06
Foremen, labor, working	.799	48.9	42.55	.746	46.4	38.06
Furnace operators	.747	47.0	37.58	.691	45.7	36.12
Furnacemen, preheating	(2)	(2)	(2)	1.020	42.8	46.00
Helpers	(2)	(2)	(2)	.761	45.3	37.38
Inspectors	.790	48.6	41.86	.739	42.5	32.84
Janitors	(2)	(2)	(2)	.664	44.9	32.20
Laborers	.623	43.4	28.38	.600	47.5	32.47
Loaders and unloaders	.588	38.6	23.92	.635	47.6	34.49
Machinists' helpers	(2)	(2)	(2)	.795	52.6	51.95

See footnotes at end of table.

TABLE 8.—*Hourly Earnings, Weekly Hours, and Weekly Earnings in Alloying, Rolling, and Drawing Miscellaneous Nonferrous Metals, by Occupation and Region, August 1941*—Continued

Occupation	Middle Atlantic States			Border States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
Maintenance workers, not elsewhere classified	$0.920	44.1	$42.32	$1.102	42.8	$50.01
Helpers	.719	44.6	34.00	.758	40.6	31.39
Mechanics				(2)	(2)	(2)
Melters	(2)	(2)	(2)			
Metallurgists	(2)	(2)	(2)	.736	39.1	28.74
Millwrights				1.079	48.6	61.58
Helpers				.787	43.1	37.19
Miscellaneous plant workers	.691	42.1	30.33	.812	41.7	35.09
Office-machine operators	(2)	(2)	(2)	.475	39.1	18.56
Oilers, plant machinery	(2)	(2)	(2)	.827	49.1	46.78
Other clerical workers	(2)	(2)	(2)	.830	39.5	32.77
Packers	.598	42.4	26.68	.637	48.1	34.66
Pickling and washing				.899	39.4	35.43
Plant-machinery repairmen	1.092	46.7	55.76	1.133	50.4	69.09
Pourers	.655	43.7	30.05	.676	46.5	36.33
Pouring and casting workers, not elsewhere classified	(2)	(2)	(2)	.674	48.7	39.03
Power house workers, not elsewhere classified	(2)	(2)	(2)	.954	41.1	39.65
Press operators, forming, die casting	(2)	(2)	(2)	.871	40.7	36.38
Punch-press operators	.593	44.8	28.67	.686	44.5	33.56
Rollers	.857	47.0	43.57	.881	45.4	44.31
Helpers	.510	49.6	27.81	.601	49.0	34.19
Saw operators	(2)	(2)	(2)	.711	46.9	37.05
Helpers				.615	48.6	34.78
Scalping-machine operators				.860	46.0	43.65
Helpers				.737	45.8	37.14
Scrap handlers				.587	47.1	31.63
Scrap-processing workers, not elsewhere classified	(2)	(2)	(2)	.687	50.5	39.89
Shear operators	.728	39.0	29.46	.787	46.2	40.00
Helpers				.649	44.3	31.57
Shipping clerks	.747	44.4	35.14	(2)	(2)	(2)
Shipping workers	.669	44.7	31.90	.780	47.6	41.66
Slitting- and shearing-machine operators	.653	44.5	30.85	.818	41.2	35.61
Stenographers	.619	38.4	23.84	.532	39.0	20.72
Stickers				1.384	36.0	49.83
Stock clerks	.823	45.9	39.73	.742	42.3	32.28
Straightening workers				.749	41.6	32.50
Tool and die workers, not elsewhere classified	(2)	(2)	(2)	.983	44.1	47.14
Truck drivers	.807	43.0	36.19	(2)	(2)	(2)
Truckers, mechanical	(2)	(2)	(2)	.672	47.7	36.36
Watchmen	.551	43.2	25.56	.698	47.8	36.50

See footnotes at end of table.

TABLE 8.—*Hourly Earnings, Weekly Hours, and Weekly Earnings in Alloying, Rolling, and Drawing Miscellaneous Nonferrous Metals, by Occupation and Region, August 1941*—Continued

Occupation	East Central States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.748	40.2	$30.83	$0.656	41.7	$28.44
Annealers	(2)	(2)	(2)	(2)	(2)	(2)
Helpers				.681	44.5	32.02
Assemblers and finishers	(2)	(2)	(2)	(2)	(2)	(2)
Bookkeepers	(2)	(2)	(2)	(2)	(2)	(2)
Box makers	(2)	(2)	(2)	.557	41.8	23.93
Carpenters	(2)	(2)	(2)	(2)	(2)	(2)
Catchers	.800	46.3	39.69	.630	38.9	24.54
Clerical, plant	.760	40.2	31.12	.592	39.5	23.54
Die makers	(2)	(2)	(2)	(2)	(2)	(2)
Electricians	(2)	(2)	(2)	(2)	(2)	(2)
Extrusion-press operators	.783	43.4	35.61	.732	47.8	37.97
Helpers	(2)	(2)	(2)	(2)	(2)	(2)
Foremen and assistant foremen, process, working	1.025	41.1	44.02	1.038	41.4	43.52
Foremen, labor, working	(2)	(2)	(2)	(2)	(2)	(2)
Furnace operators	.836	41.3	35.14	.749	42.4	32.63
Furnacemen, preheating				(2)	(2)	(2)
Helpers				(2)	(2)	(2)
Inspectors	.779	39.8	31.11	.426	38.3	16.58
Janitors	.625	39.1	24.54	(2)	(2)	(2)
Laborers	.648	38.1	24.85	.600	40.7	25.28
Loaders and unloaders	.695	38.0	27.30	.569	36.5	21.47
Machinists' helpers	(2)	(2)	(2)	(2)	(2)	(2)
Maintenance workers, not elsewhere classified	.788	40.1	32.13	(2)	(2)	(2)
Helpers	.653	41.5	27.64	(2)	(2)	(2)
Mechanics	.946	42.1	40.97	(2)	(2)	(2)
Melters	.732	45.2	35.06	.752	43.1	33.80
Metallurgists	(2)	(2)	(2)	(2)	(2)	(2)
Millwrights	(2)	(2)	(2)			
Helpers	(2)	(2)	(2)			
Miscellaneous plant workers	.701	41.4	30.23	.748	41.7	32.26
Office-machine operators	(2)	(2)	(2)			
Oilers, plant machinery	(2)	(2)	(2)	(2)	(2)	(2)
Other clerical workers	.771	42.3	34.29	(2)	(2)	(2)
Packers	.597	36.2	21.85	.482	35.8	17.27
Pickling and washing	(2)	(2)	(2)	.689	43.7	31.41
Plant-machinery repairmen	.901	42.8	40.28	.824	43.6	37.75
Pourers	.902	45.1	42.57	.697	53.6	41.76
Pouring and casting workers, not elsewhere classified	.783	39.4	31.11	(2)	(2)	(2)
Powerhouse workers, not elsewhere classified	(2)	(2)	(2)	(2)	(2)	(2)
Press operators, forming, die casting	.629	35.3	22.22			
Punch-press operators	.757	38.0	29.71			
Rollers	.998	42.4	43.78	.632	45.0	30.15
Helpers	.812	41.6	34.32	.695	43.0	31.64
Saw operators	(2)	(2)	(2)			
Helpers						
Scalping-machine operators						
Helpers						
Scrap handlers	(2)	(2)	(2)			
Scrap-processing workers, not elsewhere classified	(2)	(2)	(2)	.570	41.8	24.58
Shear operators	(2)	(2)	(2)	(2)	(2)	(2)
Helpers				(2)	(2)	(2)
Shipping clerks	.751	45.4	36.38	(2)	(2)	(2)
Shipping workers	.718	41.1	30.52	.534	39.6	21.46
Slitting- and shearing-machine operator	.785	40.9	32.45	.735	43.1	32.92
Stenographers	.679	38.5	26.17	.656	39.2	25.73
Stickers	.926	46.0	45.13			
Stock clerks				(2)	(2)	(2)
Straightening workers	(2)	(2)	(2)			
Tool and die workers, not elsewhere classified	(2)	(2)	(2)			
Truck drivers	(2)	(2)	(2)	.765	44.8	36.04
Truckers, mechanical	.760	38.6	30.14			
Watchmen	.589	45.1	27.72	(2)	(2)	(2)

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.

Over half of the workers in nonferrous metal foundries were in the East Central States. Occupational earnings in this region ranged from a low average of 45.5 cents per hour for watchmen to a high of 119.5 cents for pattern makers (table 9).

TABLE 9.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Nonferrous-Metal Foundries, by Occupation and Region,*[1] *August 1941*

Occupation	New England States			East Central States			West Central States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.725	45.3	$35.22	$0.743	44.9	$35.65	$0.690	42.6	$30.69
Apprentices	(2)	(2)	(2)	.575	43.5	26.18	(2)	(2)	(2)
Assemblers				.823	46.1	40.49			
Bookkeepers	(2)	(2)	(2)	.783	39.9	31.71	.880	37.4	33.05
Carpenters	(2)	(2)	(2)	.819	39.2	33.72			
Casting cleaners	.619	49.9	34.68	.607	42.1	26.83			
Chippers	(2)	(2)	(2)	.725	51.9	41.71	.684	50.0	37.31
Core cleaners				.615	40.3	25.34	(2)	(2)	(2)
Core-oven tenders				.627	53.3	37.64	(2)	(2)	(2)
Core pasters				.729	49.4	39.01	(2)	(2)	(2)
Coremakers, hand and machine	.932	48.9	49.67	.911	42.1	40.17	.825	41.9	35.71
Helpers	(2)	(2)	(2)	.647	45.4	31.52	.480	39.3	19.03
Crane operators	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Drill-press operators				(2)	(2)	(2)	(2)	(2)	(2)
Engine-lathe operators	(2)	(2)	(2)	(2)	(2)	(2)	.816	40.7	34.70
Filers				.665	48.8	35.86			
Foremen and assistant foremen, working	(2)	(2)	(2)	.993	47.4	51.27	.873	43.9	39.46
Furnace operators	.764	48.1	40.31	.712	47.8	37.02	.615	44.1	28.80
Helpers	.622	48.5	33.36	.623	47.8	32.79	.543	41.6	23.61
Grinder operators	.596	47.4	30.47	.657	44.2	30.81	.555	45.7	27.35
Heat treaters				.711	45.8	35.34			
Inspectors and testers	(2)	(2)	(2)	.684	47.9	35.74	.614	40.0	26.22
Janitors	(2)	(2)	(2)	.673	40.8	28.56	(2)	(2)	(2)
Laborers	.567	43.2	26.06	.602	45.7	29.81	.571	43.1	26.17
Lathe operators, other				.999	36.9	37.19	(2)	(2)	(2)
Learners, not elsewhere classified	(2)	(2)	(2)	.795	37.4	30.32	(2)	(2)	(2)
Machine repairmen	(2)	(2)	(2)	.916	47.6	47.58	(2)	(2)	(2)
Maintenance workers, not elsewhere classified	(2)	(2)	(2)	.821	48.5	43 60	(2)	(2)	(2)
Helpers	(2)	(2)	(2)	.732	43.0	32.88	(2)	(2)	(2)
Millwrights	(2)	(2)	(2)	.698	62.3	51.14			
Molders, apprentices	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Bench	.968	45.7	46.79	.980	42.5	43.09	.858	42.8	38.14
Floor	1.058	42.7	49.33	1.072	39.9	43.38	1.051	45.6	51.06
Hand and machine	.781	44.4	36.79	.908	43.6	42.08	.835	41.8	36.18
Helpers	.593	44.0	27.77	.660	44.4	31.29	.566	42.3	24.90
Learners	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Office clerical workers	(2)	(2)	(2)	.558	39.6	22.35	.661	40.0	26.42
Other foundry workers	.673	50.2	36.93	.732	40.6	30.59	.744	41.8	32.03
Pattern makers, wood and metal	(2)	(2)	(2)	1.195	44.0	55.87	(2)	(2)	(2)
Plant clerical workers	(2)	(2)	(2)	.679	43.0	30.62	.668	40.1	26.90
Polishers and buffers				.663	47.8	34.54			
Pourers	.591	42.7	26.72	.792	38.8	31.35	(2)	(2)	(2)
Helpers	(2)	(2)	(2)	.619	53.0	37.29	(2)	(2)	(2)
Sandblast operators	(2)	(2)	(2)	.773	47.7	40.25	(2)	(2)	(2)
Sand conditioners				.634	49.3	34.17	.514	44.2	24.23
Saw operators	(2)	(2)	(2)	.726	47.3	37.19	(2)	(2)	(2)
Shake-out men	(2)	(2)	(2)	.656	47.1	33.66	.492	46.0	24.22
Shipping workers	(2)	(2)	(2)	.617	45.6	30.77	.715	43.6	32.62
Store and stock keepers	(2)	(2)	(2)	.666	45.0	31.58	(2)	(2)	(2)
Timekeepers	(2)	(2)	(2)	.591	51.4	36.18	(2)	(2)	(2)
Tool and die makers				1.030	47.8	53.32			
Truck and tractor drivers	(2)	(2)	(2)	.732	45.1	35.50	.690	42.2	29.54
Truckers, hand				.611	50.0	34.19	.546	40.7	23.87
Turret-lathe operators				.647	52.5	38.40	.753	41.2	31.78
Watchmen	(2)	(2)	(2)	.455	51.9	26.01	.551	48.5	28.10
Welders				.705	48.9	37.97	(2)	(2)	(2)

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.

TABLE 9.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Nonferrous-Metal Foundries, by Occupation and Region, August 1941*—Continued

Occupation	Southern States			Western States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.582	43.8	$27.04	$0.784	41.0	$33.39	$0.718	48.2	$37.88
Apprentices	(2)	(2)	(2)	.523	39.9	22.36	(2)	(2)	(2)
Assemblers	(2)	(2)	(2)	.572	40.3	23.98	(2)	(2)	(2)
Bookkeepers	(2)	(2)	(2)	(2)	(2)	(2)	.670	40.8	27.75
Carpenters	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Casting cleaners	.418	44.1	19.72	.698	44.1	32.19	.733	43.1	32.94
Chippers	(2)	(2)	(2)	(2)	(2)	(2)	.664	55.1	42.22
Core cleaners							.448	44.3	21.53
Core-oven tenders							(2)	(2)	(2)
Core pasters							.628	48.3	32.73
Coremakers, hand and machine	.832	42.8	37.64	(2)	(2)	(2)	.846	46.0	41.96
Helpers	(2)	(2)	(2)				.569	48.9	30.35
Crane operators							.743	59.5	50.98
Drill-press operators	(2)	(2)	(2)				.704	45.4	33.84
Engine-lathe operators							.734	52.5	42.75
Filers							.559	48.5	29.48
Foremen and assistant foremen, working	(2)	(2)	(2)	1.093	42.5	47.25	.913	54.5	55.65
Furnace operators	.548	48.6	29.34	.840	43.4	38.06	.793	50.9	44.83
Helpers	(2)	(2)	(2)	(2)	(2)	(2)	.718	49.2	38.47
Grinder operators	(2)	(2)	(2)	.610	42.5	27.12	.608	52.0	35.94
Heat treaters				(2)	(2)	(2)			
Inspectors and testers	(2)	(2)	(2)	.708	40.3	29.21	.570	47.0	29.18
Janitors	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Laborers	.415	43.6	19.37	.576	41.4	24.87	.579	48.8	31.49
Lathe operators, other				(2)	(2)	(2)	(2)	(2)	(2)
Learners, not elsewhere classified	.494	47.8	25.66	(2)	(2)	(2)	.518	47.7	26.74
Machine repairmen	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Maintenance workers, not elsewhere classified				(2)	(2)	(2)	.779	47.4	40.38
Helpers							(2)	(2)	(2)
Millwrights							(2)	(2)	(2)
Molders, apprentices				(2)	(2)	(2)	.540	47.3	27.99
Bench	.813	40.5	34.26	1.017	38.9	40.43	.702	44.2	42.23
Floor	.848	41.1	35.76	1.124	44.4	52.20	1.109	45.3	53.61
Hand and machine	.827	44.2	38.49	.974	39.2	38.54	.899	46.5	44.86
Helpers	.413	44.3	19.57	.692	38.4	27.00	.662	50.1	36.67
Learners	(2)	(2)	(2)	(2)	(2)	(2)	.601	52.2	35.55
Office clerical workers	.468	41.2	19.85	(2)	(2)	(2)	.531	40.6	21.85
Other foundry workers	.831	43.7	38.54	.869	43.8	42.02	.784	50.8	44.21
Pattern makers, wood and metal	(2)	(2)	(2)	(2)	(2)	(2)	.919	49.3	49.77
Plant clerical workers	(2)	(2)	(2)	(2)	(2)	(2)	.550	42.7	24.39
Polishers and buffers	(2)	(2)	(2)	.932	35.1	32.76	(2)	(2)	(2)
Pourers	(2)	(2)	(2)	.837	39.4	33.05	(2)	(2)	(2)
Helpers				(2)	(2)	(2)	(2)	(2)	(2)
Sandblast operators	(2)	(2)	(2)				(2)	(2)	(2)
Sand conditioners							.586	43.6	27.09
Saw operators							(2)	(2)	(2)
Shake-out men	(2)	(2)	(2)	(2)	(2)	(2)	.531	48.5	28.45
Shipping workers	(2)	(2)	(2)	.525	46.7	26.43	.665	49.4	36.59
Store and stock keepers	(2)	(2)	(2)				(2)	(2)	(2)
Timekeepers	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Tool and die makers				(2)	(2)	(2)	(2)	(2)	(2)
Truck and tractor drivers	(2)	(2)	(2)	(2)	(2)	(2)	.682	50.0	37.00
Truckers, hand				(2)	(2)	(2)	(2)	(2)	(2)
Turret-lathe operators	(2)	(2)	(2)	.921	40.6	37.66	.818	48.2	42.47
Watchmen	.384	45.3	18.57	(2)	(2)	(2)	.569	46.3	28.76
Welders	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.

In the secondary nonferrous-metal smelters, one of the prominent occupations was that of the furnace operators, who earned an average of 74.0 cents per hour in the Middle Atlantic States, 75.1 cents in the East Central States, and 88.6 cents in other States (table 10). Process laborers, who collect scrap prior to the charging of the furnaces and handle the disposal of slag and dross from the furnaces, averaged 58.9 cents in the Middle Atlantic States and 58.3 cents in the East Central States.

TABLE 10.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Secondary Nonferrous-Metal Smelters, by Occupation and Region,*[1] *August 1941*

Occupation	Middle Atlantic States			East Central States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.692	43.1	$31.45	$0.680	41.6	$29.38	$0.760	41.7	$32.78
Bookkeepers	.748	39.8	29.88	.801	40.7	32.90	(2)	(2)	(2)
Briquetting operators	.637	42.6	28.60	.611	44.0	28.16	(2)	(2)	(2)
Crane operators	(2)	(2)	(2)	.711	39.1	28.49	(2)	(2)	(2)
Extrusion-press operators	.911	44.5	43.24	(2)	(2)	(2)	(2)	(2)	(2)
Foremen and assistants, working	.962	47.6	49.29	.940	42.0	40.61	.941	43.9	43.78
Furnace operators	.740	44.7	34.99	.751	41.1	32.04	.886	43.2	39.93
Helpers	.678	44.9	32.47	.728	41.8	31.56	[3].907	43.9	41.83
Grinding-machine operators	(2)	(2)	(2)	(2)	(2)	(2)	.638	45.7	32.78
Janitors	.635	42.6	27.93	(2)	(2)	(2)	(2)	(2)	(2)
Laborers, general	.685	43.1	31.15	.650	39.5	26.00	(2)	(2)	(2)
Laborers, maintenance	(2)	(2)	(2)	.601	41.5	25.70	(2)	(2)	(2)
Laborers, process	.589	40.4	24.96	.583	41.1	25.18	.561	40.7	23.74
Loaders and unloaders	.662	42.4	29.18	.566	39.1	22.92	.639	34.1	21.96
Maintenance workers, other	.802	45.6	39.72	.902	42.9	40.00	.947	45.5	45.36
Helpers	.694	46.0	34.03	.701	42.5	30.83	(2)	(2)	(2)
Mechanics	.842	44.8	40.42	(2)	(2)	(2)	(2)	(2)	(2)
Metal mixers	.673	44.7	31.80	.719	40.2	29.27	(2)	(2)	(2)
Other clerical workers	.665	40.0	26.99	.647	42.5	28.33	.688	41.3	29.04
Other plant workers	.722	41.0	30.92	.679	42.2	29.47	.870	39.5	34.54
Packers	.688	41.9	29.51				.742	39.3	29.11
Plant clerks	.754	41.4	32.03	.679	40.2	27.56	.742	39.9	29.65
Samplers	(2)	(2)	(2)	.687	39.4	27.67	(2)	(2)	(2)
Scrap handlers	.672	43.5	30.90	.645	44.8	30.48	.604	44.3	28.38
Stenographers	.615	38.6	23.79	.623	38.5	23.99	.711	40.6	29.22
Technicians	.906	44.0	41.50	(2)	(2)	(2)	(2)	(2)	(2)
Technicians' assistants	.663	42.4	28.96	(2)	(2)	(2)	(2)	(2)	(2)
Truck drivers	.696	47.1	36.03	.770	45.0	36.33	(2)	(2)	(2)
Truckers, hand	.724	42.5	32.53	.603	43.4	27.45	(2)	(2)	(2)
Watchmen	.594	48.1	30.31	.512	51.4	29.07	(2)	(2)	(2)
Weighers	.757	42.9	33.84	.682	42.4	30.00	.947	40.7	39.07

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.
[3] Excess in helpers' earnings over those of furnace operators is result of differing returns for nonidentical establishments paying a variety of rates.

Almost three-fourths of the workers in machined-products plants (producing bearings, fittings, valves, etc.) were in the East Central States. In this region, the range in average hourly earnings extended from 46.9 cents for typists to 122.7 cents for tool makers (table 11). Assemblers earned an average of 68.2 cents per hour in this region, which compared with 63.3 cents in the Middle Atlantic States. Screw-machine operators received an average of 88.8 cents per hour in the East Central States, whereas those in other States received 76.3 cents per hour.

TABLE 11.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Machined-Products Plants, by Occupation and Region,*[1] *August 1941*

Occupation	Middle Atlantic States			East Central States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.703	40.7	$30.48	$0.763	45.2	$36.93	$0.749	42.6	$32.89
Annealers	.822	48.2	44.02	.719	48.0	37.53	.833	44.1	37.57
Assemblers	.633	47.3	32.26	.682	43.8	31.89	.633	39.0	24.81
Assistant foremen, working	(2)	(2)	(2)	.913	50.9	51.49	(2)	(2)	(2)
Beginners and learners	.492	38.4	19.84	.579	46.5	29.05	(2)	(2)	(2)
Blanking-press operators	(2)	(2)	(2)	.722	50.2	39.99	.728	37.0	26.97
Boring-machine operators	(2)	(2)	(2)	1.022	35.9	36.72	(2)	(2)	(2)
Brazers				1.011	50.6	56.60			
Buffers	(2)	(2)	(2)	.623	41.0	26.85	1.207	39.5	47.66
Burrers, hand and machine	.539	38.2	21.33	.703	42.2	30.86			
Casting cleaners	(2)	(2)	(2)	.829	40.5	33.75			
Checkers, yard and shipping				.703	47.9	36.76			
Core pasters				.623	38.9	24.95			
Coremakers, hand and machine	.598	43.3	27.12	.775	43.8	35.78	.799	39.8	32.51
Die casting, forging, forming and punching workers, not elsewhere classified	.638	40.0	26.82	.853	50.7	47.85	(2)	(2)	(2)
Die and tool workers, not elsewhere classified	(2)	(2)	(2)	1.023	49.6	55.91			
Draftsmen	(2)	(2)	(2)	.836	43.8	38.13	(2)	(2)	(2)
Drill-press operators	.593	41.5	25.85	.705	44.6	33.70	(2)	(2)	(2)
Electricians	(2)	(2)	(2)	.923	49.7	51.24	(2)	(2)	(2)
Engine-lathe operators	.775	43.5	36.23	1.015	40.4	41.46	.719	44.9	33.91
Flaskmakers	(2)	(2)	(2)	.968	46.0	46.72			
Foremen, working	(2)	(2)	(2)	1.011	48.3	53.33	(2)	(2)	(2)
Furnace operators	.712	45.4	34.61	.912	46.8	46.40	(2)	(2)	(2)
Helpers	(2)	(2)	(2)	.844	40.2	35.06	(2)	(2)	(2)
Grinding-machine operators	.713	43.1	32.53	.827	41.2	36.17	.599	41.5	26.49
Hand truckers	.550	40.4	22.94	.670	45.7	32.91	.552	46.4	27.29
Inspectors	.576	45.8	28.17	.701	44.0	32.74	.613	48.3	31.82
Janitors and custodial workers	(2)	(2)	(2)	.609	46.8	31.41	(2)	(2)	(2)
Laborers, general	.599	49.6	32.83	.657	44.5	31.21	.459	49.7	25.54
Laborers, plant	.563	48.9	30.50	.645	44.1	30.49	.501	43.0	22.76
Laborers, stores, stock and warehouse	(2)	(2)	(2)	.589	47.4	30.29			
Lathe operators, not elsewhere classified	.610	42.2	27.12	.665	44.2	31.58			
Loaders and unloaders	(2)	(2)	(2)	.653	46.5	32.92	.465	55.2	29.50
Machine operators' helpers, not elsewhere classified	(2)	(2)	(2)	.687	47.2	34.99	(2)	(2)	(2)
Maintenance workers, not elsewhere classified	(2)	(2)	(2)	.929	49.4	50.62	(2)	(2)	(2)
Helpers	(2)	(2)	(2)	.589	49.6	33.32	(2)	(2)	(2)
Millwrights	(2)	(2)	(2)	.789	49.5	43.23	(2)	(2)	(2)
Helpers	(2)	(2)	(2)	.723	51.1	41.04	(2)	(2)	(2)
Mold-making workers, not elsewhere classified	(2)	(2)	(2)	.793	39.9	33.51	(2)	(2)	(2)
Molders, bench, hand	.902	35.9	32.79	.909	46.4	45.39	(2)	(2)	(2)
Helpers	.611	36.5	22.39	.545	44.9	26.80	(2)	(2)	(2)
Molders, machine	.798	43.1	36.64	.943	39.8	38.64	.847	41.8	36.05
Helpers				.764	37.6	28.98	(2)	(2)	(2)
Other clerical workers, not elsewhere classified	.649	45.6	31.39	.665	45.2	31.69	(2)	(2)	(2)
Other miscellaneous workers, not elsewhere classified	.701	42.8	31.68	.821	46.8	41.63	.822	44.3	38.19
Packers	.499	44.4	23.65	.559	44.2	26.23	(2)	(2)	(2)
Plant clerks	.592	43.3	26.84	.558	45.2	26.97	.648	39.8	25.78
Platers	(2)	(2)	(2)	.792	44.0	36.95	1.089	40.5	44.55
Helpers	(2)	(2)	(2)	.636	44.4	30.07	.888	38.0	33.81
Polishers	(2)	(2)	(2)	.843	45.1	40.57	1.065	38.0	40.45
Pourers	.696	41.4	30.65	1.041	40.9	42.83	(2)	(2)	(2)
Repairmen, plant	(2)	(2)	(2)	1.003	47.5	51.28	(2)	(2)	(2)
Saw operators, metal				.813	45.7	39.60	(2)	(2)	(2)
Scrap-processing workers, not elsewhere classified	(2)	(2)	(2)	.635	47.1	32.40	(2)	(2)	(2)
Screw-machine operators	(2)	(2)	(2)	.888	45.4	43.23	.763	42.1	33.01
Set-up men	.836	43.1	38.00	1.115	46.9	56.37			
Shake-out men	.690	40.1	29.67	.782	40.6	32.80	.582	43.0	26.59
Shipping clerks	(2)	(2)	(2)	.679	46.6	33.98	(2)	(2)	(2)
Shipping workers				.682	45.5	33.13	(2)	(2)	(2)
Stenographers	.663	41.0	27.67	.584	40.6	23.88	(2)	(2)	(2)

See footnotes at end of table.

TABLE 11.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Machined-Products Plants, by Occupation and Region, August 1941*—Continued

Occupation	Middle Atlantic States			East Central States			Other States		
	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings	Average hourly earnings	Average weekly hours	Average total weekly earnings
Store and stockkeepers				$0.641	47.6	$33.15	(2)	(2)	(2)
Threading-machine operators	(2)	(2)	(2)	.761	48.3	40.79	(2)	(2)	(2)
Helpers	$0.648	42.5	$29.17	.801	46.9	41.49	(2)	(2)	(2)
Tool makers	.986	44.0	45.44	1.227	49.6	67.29	$1.160	40.7	$47.54
Tool-shed attendants	(2)	(2)	(2)	.688	47.9	35.70	(2)	(2)	(2)
Turret-lathe operators	.706	44.3	33.60	.887	45.6	43.65	(2)	(2)	(2)
Typists				.469	41.7	20.10	(2)	(2)	(2)
Watchmen	(2)	(2)	(2)	.618	48.5	32.71	(2)	(2)	(2)
Welding and soldering workers, not elsewhere classified	(2)	(2)	(2)	.649	42.4	28.96	(2)	(2)	(2)

[1] For regional classification, see footnote to table 3.
[2] Number of workers too small to justify computation of average.

Occupational earnings in die-casting plants ranged from a low average of 59.0 cents per hour for process laborers to a high of 128.4 cents for die makers (table 12). The large group of die-casting operators, a key occupation in the technical processes involved in this branch of fabrication, earned an average of 99.8 cents per hour.

TABLE 12.—*Hourly Earnings, Weekly Hours, and Weekly Earnings of Workers in Nonferrous-Metal Die-Casting Plants, by Occupation, August 1941*

Occupation	Average hourly earnings	Average weekly hours	Average total weekly earnings	Occupation	Average hourly earnings	Average weekly hours	Average total weekly earnings
All occupations	$0.885	41.4	$38.30	Loaders and unloaders	$0.732	44.2	$33.87
Apprentices	.676	49.3	37.12	Melters and melters' helpers	.894	42.3	39.25
Beginners and learners	.600	47.0	30.56	Millwrights	.823	46.4	40.75
Cleaners, castings	.837	39.8	34.09	Other clerical workers, not elsewhere classified	.693	41.5	29.49
Clerical, plant	.751	41.4	31.73	Other maintenance workers, not elsewhere classified	.911	47.3	46.89
Die-casting operators	.998	39.9	40.67	Helpers	.725	42.9	33.45
Helpers	.762	36.8	29.37	Other plant workers	.939	40.2	39.53
Die makers	1.284	48.0	67.90	Helpers, not elsewhere classified	.693	39.1	27.54
Die setters	.914	43.5	42.33	Packers	.651	40.9	27.56
Draftsmen	1.104	43.3	49.84	Plant-equipment repairmen	1.046	46.2	52.16
Drill-press operators	.944	36.2	34.55	Punch-press operators	.928	36.2	33.85
Electricians	.950	45.0	46.46	Shipping clerks	.833	44.0	38.69
Filers, castings	.818	38.6	32.08	Stenographers	.671	39.7	26.72
Foremen and assistants, working	1.003	44.4	47.23	Tool makers	1.241	47.7	64.04
Grinding-machine operators	.957	36.2	34.62	Tool-room attendants	.772	46.2	38.09
Inspectors, final	.761	39.0	30.03	Truck drivers	.806	45.3	40.56
Inspectors, rough	.740	39.6	30.03	Truckers, hand	.724	41.8	31.25
Janitors	.706	40.9	30.47	Watchmen	.694	44.5	32.83
Laborers, general	.627	42.7	27.88				
Laborers, process	.590	38.1	22.67				
Lathe operators	1.070	38.8	42.82				

Weekly Hours and Weekly Earnings

Average weekly hours in the primary fabrication of nonferrous metals in August 1941, ranged from 41.4 for die-casting workers to 45.0 for foundry workers. Workers in secondary smelters worked 42.3 hours weekly. In alloying, rolling, and drawing, the plants that processed copper, brass, and bronze reported an average workweek of 44.0 hours, whereas those which processed other nonferrous metals reported 43.0 hours as the average workweek. Workers employed in plants producing machined products worked an average of 44.2 hours weekly. Tables 7–12 present occupational average weekly hours for each surveyed branch of primary nonferrous-metal fabrication. In most cases, the data are classified, in addition, by region.

Average total weekly earnings by branch of the industry varied appreciably. The lowest average was $30.98 for workers in secondary smelters, and the highest was $41.45 for those engaged in alloying, rolling, and drawing copper, brass, and bronze. This latitude in total weekly earnings exceeded that in nonferrous-metal smelting and refining where the lowest average was $30.52 in lead smelting and the highest was $34.70 in copper smelting in August 1941.

EARNINGS IN THE MEN'S COTTON-GARMENT INDUSTRIES, 1939 AND 1941[1]

Summary

EARNINGS of workers in the men's cotton-garment industries averaged 41.3 cents an hour in March 1941. Among the three industries surveyed by the Bureau of Labor Statistics at that time, hourly pay was 40.1 cents in establishments whose major products were cotton pants, overalls, and work shirts, 41.9 cents in shirt and nightwear establishments, and 49.7 cents in plants making washable service apparel.

Average hourly earnings in the North were 18 percent above earnings in the South. Men earned almost 30 percent more than did women, and skilled workers about 60 percent more than semiskilled and about 70 percent more than unskilled workers. Within skill and sex groups, wage differences were wider in the North than in the South.

Between early 1939 and March 1941, hourly earnings in the combined industries increased by about one-eighth. Over the 2-year period the difference in average hourly earnings between the North and South was narrowed from about one-third to one-fifth of the southern average. There was a general tendency for earnings of lower-paid workers to increase more than did those of higher-paid workers in both absolute and proportionate amount.

Characteristics of Industry Group

DEFINITION OF INDUSTRIES

Shirts and work clothing are the principal products of the men's cotton-garment industries. This report covers establishments whose major products are dress and sport shirts of woven or purchased knit fabric; collars and sleeping wear of woven fabric; men's and boys' all-cotton single pants; and professional coats, aprons and other washable service apparel, work shirts, overalls, overall jackets, and coveralls of any material. Establishments manufacturing these products may be grouped into three industries: (1) dress and sport shirts, collars, and nightwear; (2) cotton pants, overalls, and work shirts; and (3) washable service apparel.[2]

Establishments engaged primarily in manufacturing underwear, wash suits, heavy cotton jackets, or oiled cotton garments, are omitted, since the study described here was made at the request of the Administrator of the Fair Labor Standards Act in connection with a proposed minimum-wage order that did not include these products.

[1] This survey was conducted by the Bureau's Division of Wage Analysis. The report was prepared by Lily Mary David with the assistance of Dorothy S. Stone and under the supervision of Frances M. Jones. Information on average weekly earnings and hours of wage earners; earnings and hours of clerical workers; and changes in employment, man hours, production systems and methods of wage payment between 1939 and 1941 in the cotton-garment industries will be included in a forthcoming bulletin on this industry. The bulletin will also contain a section analyzing hours and earnings in establishments which produced single pants other than cotton as a major product.

[2] The three industries do not correspond exactly to the classification used in the Census of Manufactures for 1939 but do include within their scope most of the Census of Manufactures industry subgroup entitled "Men's and boys' furnishings, work and sport garments." Of the industries in this Census subgroup, the study covers in their entirety (1) men's and boys' shirts (except work shirts), collars and nightwear; and (2) work shirts. It covers the greater part of the two remaining industries: Work clothing (except work shirts), sport garments (except leather) and other men's and boys' apparel not elsewhere classified; and trousers (semidress), wash suits, and washable service apparel.

Moreover, at the time of the survey these articles, with the exception of underwear, were subject to a minimum wage 7.5 cents above that in effect for most of the products of the men's cotton-garment industries.

SIZE AND LOCATION OF INDUSTRIES

Between 1,400 and 1,500 establishments were engaged principally in the manufacture of men's dress shirts and nightwear, cotton pants, overalls, work shirts, and washable service apparel in 1939. At that time these establishments employed about 145,000 wage earners, or a fifth of the workers manufacturing all types of cut and sewed garments. The total value of these cotton garments manufactured in 1939 amounted to about $375,000,000. This value includes all such products wherever produced, but excludes receipts for contract work and other products manufactured in cotton-garment establishments.

Almost half of the wage earners employed in the three industries in 1939 were engaged in the manufacture of cotton pants, overalls, and work shirts; a corresponding proportion were in shirt and nightwear, and only about 2 percent in washable-service-apparel establishments. The most important single product was dress shirts, accounting for between 35 and 40 percent of the total value of products within the scope of this survey.

The manufacture of men's cotton garments is widely scattered throughout the country, with a substantial proportion of the industries in the South and in small towns and villages. Other apparel industries demand closer contact with fashion centers or require the higher skills found in the larger labor markets. In contrast, the standardized nature and simpler construction of their product permit cotton-garment establishments to utilize the cheap factory space and the low-wage and relatively unskilled labor of smaller cities and agricultural and mining towns in both northern and southern States.

At least 40 States now manufacture men's cotton garments, and only one State, Pennsylvania, had over 10 percent of the wage earners in the combined industries in 1939. More than three-fifths of the wage earners are in the northern region, which includes the Northeast, Middle West, and West. Practically the entire washable-service-apparel industry and about three-fourths of the wage earners in the shirt and nightwear industry are in this region, principally in the Northeast. Considerable proportions of cotton pants, overalls, and work shirts are manufactured in the Middle West, and a few large work-clothing factories are in the Mountain and Pacific States. The South is the major producer of work clothing, having between 50 and 55 percent of the wage earners in establishments whose principal products are cotton pants, overalls, and work shirts, including almost three-fourths of the workers in the manufacture of work shirts.

With the exception of washable service apparel, all products of these industries are manufactured principally outside large metropolitan areas. A survey made by the Bureau of Labor Statistics in 1939, which covered about half of the workers in these industries, indicated that between one-fifth and one-sixth of the workers were in communities with a population of less than 5,000 and about two-fifths were in communities with a population of less than 25,000. Plants employing only one-sixth of the labor in the industries were in metropolitan areas of 1,000,000 or more. Three-fifths of the employees in

work-shirt establishments were in communities of less than 25,000 in 1939. In contrast, the washable-service-apparel industry, which produces industrial uniforms and service clothing for professional offices, institutions, and businesses, had about four-fifths of its employees in large cities.

ECONOMIC ORGANIZATION

Although a large majority of the establishments in the cotton-garment industries are small, about three-fourths of the industries' wage earners are employed in plants with 100 or more workers, and some establishments employ more than 1,000 persons. The average employment per plant was about 100 in 1939, contrasted with an average of between 40 and 45 wage earners in all establishments manufacturing cut and sewed garments. Southern cotton-garment establishments are generally larger than northern plants. Standardization of the product and emphasis on price rather than on careful workmanship permit cotton-garment plants to obtain such advantages of large-scale production as are possible in the manufacture of apparel.

These advantages are distinctly limited, however, and the cotton-garment industries are like other clothing industries in the ease with which new plants can be established. These facts, together with consumer price consciousness, make the manufacture of all types of men's cotton garments highly competitive. Brand names limit competition to some extent in the manufacture of dress shirts; in the sale of overalls also, competition is somewhat limited by brand names and the use of the union label.

The Labor Force

Ratio of labor to total costs.—Labor cost constitutes a relatively high proportion of total costs in the production of cotton garments. Wages averaged one-fifth of value of product, and salaries and wages together amount to about one-quarter of value. Available data indicate that the ratio of labor cost to value of product is about the same in the three industries.

Skill.—The occupations in the manufacture of cotton garments are largely semiskilled. A relatively small proportion, principally the cutting occupations, require skilled workers. Very few workers are in occupations that are unskilled in the sense of requiring no training or experience for their satisfactory performance. Of the workers in the plants surveyed in 1941, 5 percent were classified as skilled, 91 percent as semiskilled, and 2 percent as unskilled. The remaining 2 percent were learners and handicapped workers engaged in semiskilled occupations. The fact that the industries produce large quantities of standardized articles has made it advantageous to subdivide operations minutely and thus reduce skill requirements below those in most other apparel industries. Stitching operations may be divided among as many as 40 operators, and little hand sewing or careful finishing is required.

Sex and color.—Employees are predominantly white native-born women. Less than 1 percent of the workers in the plants surveyed in 1941 were Negroes, and a corresponding proportion were Mexicans. About 6 out of 7 workers are women; and this ratio showed little variation by industry or by region. In these industries there is less differ-

ence in the occupations of the two sexes than is normally found in the heavy industries. The cutters, markers, and maintenance and shipping workers are predominantly men, while the sewing-machine operators and most of the other occupations in the making department are predominantly women. In some occupations, such as those of working supervisors, bundle workers, and pressers, both men and women are employed in significant number.

Union organization.—Extensive unionization of workers in the cotton-garment industries is of recent origin, although there has been some unionization since the 1890's. The extent of organization varies among the industries, and in each industry it is markedly stronger in the North than in the South. A large part of the dress-shirt and nightwear industry has been organized in the past 10 years by the Amalgamated Clothing Workers of America. The United Garment Workers' Union also has some agreements in shirt factories. Together, these unions have contracts covering perhaps three-quarters of the workers in the shirt and nightwear industry. Both unions also have agreements with washable-service-apparel establishments. Many overall factories are unionized, but organization in cotton-pants and work-shirt plants is relatively weak. The United Garment Workers, the first union to organize on a wide scale in the cotton-clothing trades, is predominant in the work-clothing field, although the Amalgamated Clothing Workers also has membership in cotton-pants, work-shirt, and overall establishments.

Scope and Method of Survey

The Bureau of Labor Statistics made two surveys of hours and earnings in the men's cotton garment industries, covering early spring pay-roll periods of 1939 and 1941, respectively. Representative periods in February and March were covered in 1939. The 1941 pay rolls studied were principally for the month of March.[3] This article summarizes the information obtained from the 1941 survey and describes the changes that occurred between 1939 and 1941 in a group of identical firms covered in both years.

The data for 1941 cover 209 establishments employing 26,239 wage earners and 1,065 clerical workers. This is estimated to be about one-sixth of the workers employed in the industries at the time. The plants for which data are available for both 1939 and 1941 numbered 180, and employed 23,935 wage earners in 1941. The plants in this identical sample were chosen from the larger 1939 sample as being representative of the entire industry, and those surveyed only in 1941 were added to represent new firms in the industries. In selecting the establishments to be covered, care was taken to give adequate representation to type of product, region, size of community, size of plant,[4] union affiliation, type of manufacturer, type of production

[3] Less than 10 percent of the wage earners covered were represented by pay rolls for April, May, or June, 1941.

[4] In order to include a sufficient proportion of large plants and yet to avoid giving such plants an undue influence on the results for the entire sample, only part of the workers in each of several largest plants were scheduled. The workers covered in these establishments were carefully chosen to obtain a balanced representation of all occupations. Except where establishments are classified by size, the number of workers refers to the number for which data on hours and earnings were obtained and not to total employment. Plant-size classifications are based on the average number of wage earners employed over the 12 months preceding the survey. This number includes all artisans, laborers, and working supervisors attached to the plant, but excludes office workers.

Because a relatively small proportion of cotton-garment workers is found in plants with fewer than 20 workers, these small plants were omitted from the survey. An exception was made in the case of separate cutting establishments, however, because such plants typically employ fewer than 20 wage earners.

system, and other factors that may affect wages. As shown in table 1, three-fifths of the workers covered by the study were in the North, where the shirt and nightwear, and washable-service-wear industries are concentrated. Over half the workers in cotton-pants, overall and work-shirt establishments surveyed were in the South,[5] reflecting the greater proportion of such clothing manufactured in that region.

TABLE 1.—*Plants and Workers Included in Survey of Men's Cotton-Garment Industries, by Dominant Plant Product and Region, March 1941*

Industry and product	United States		North		South	
	Plants	Workers	Plants	Workers	Plants	Workers
Total industry group	209	26,239	146	15,872	63	10,367
Dress and sport shirts, collars, and nightwear	87	12,106	71	9,066	16	3,040
Dress and sport shirts and collars	76	10,850	63	8,114	13	2,736
Nightwear	11	1,256	8	952	3	304
Cotton pants, overalls, and work shirts	107	13,240	60	5,913	47	7,327
Cotton pants	53	6,815	29	2,862	24	3,953
Overalls	36	4,043	26	2,561	10	1,482
Work shirts	18	2,382	5	490	13	1,892
Washable service apparel	15	893	15	893		

Trained field representatives of the Bureau obtained the information for the study through transcription from pay-roll records and interviews with representatives of the establishments included in the survey. In analyzing the information, plants were classified by product and the products grouped into three industries: Dress shirts and nightwear; cotton pants, overalls, and work shirts; and washable service apparel. All data for an entire plant were classified by the plant's dominant product, as shown by total value of production during the 9-month period July 1, 1940, to March 31, 1941.

Data were collected on all plant occupations including those of working supervisors and factory clerks, as well as plant and central-office employees subject to the Federal minimum-wage order for this industry group.[6] Data are reported separately for wage earners and for all clerical workers whether employed in plant or office. Hourly and weekly earnings, unless otherwise stated, are based on straight-time rates of pay, with earnings from all higher overtime rates excluded. Except in discussions of the normal work-week, hours relate to actual working time, excluding lunch but including rest periods.[7]

Hourly Earnings

TREND OF EARNINGS, 1937–42

The average hourly wage in cotton-garment factories in the fall of 1941 and the spring of 1942 was the highest in the history of the industries. At the time of the field survey in the early part of 1941, hourly earnings were at least 20 percent above the level to which they had dropped subsequent to the invalidation of the National Industrial

[5] For purposes of the survey, the South is defined to include the following States: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Because of space limitations no attempt is made to discuss differences among States or groups of States within the North or South.

[6] In 1939, information on office employees was not obtained.

[7] Rest periods were included in working time in accordance with the interpretative rulings of the Administrator of the Fair Labor Standards Act. When plant records did not consider rest periods as time worked, the hours reported were adjusted to include them.

Recovery Act.[8] During the year following the 1941 survey, they were further increased by about one-eighth.

Table 2 shows the change in hourly earnings over the period from February 1937 to March 1942, as reported to the Bureau of Labor Statistics by a group of cotton-garment manufacturers. During this time, four successive Federal minimum-wage rates were introduced in the industry under the Fair Labor Standards Act, and during part of the period an increasing volume of work was done under Government contract and hence under the minimum wage rates in effect under the Public Contracts Act. The 25-cent Federal minimum applicable to all manufacturing establishments shipping goods in interstate commerce was introduced in October 1938 and rose automatically to 30 cents an hour a year later. The rates in effect at the time of the 1941 survey—32.5 cents for dress and work shirts, nightwear, cotton pants, and overalls, and 35 cents for washable service apparel—went into effect in July 1940. These rates were raised to 40 cents an hour at the end of September 1941. The minimum wage for single pants other than cotton, made as a minor product in some cotton-garment establishments, was 37.5 cents at the time of the 1941 survey and was raised to 40 cents in September 1941.[9] The date of each of these increases is marked by a sharp rise in average hourly earnings in the combined industries.

TABLE 2.—*Monthly Indexes of Average Hourly Earnings in Men's Cotton-Garment Industries, January 1937–March 1942*

[12-month average, 1937=100]

Month	1937	1938	1939	1940	1941	1942
January	94.3	106.8	101.9	108.6	115.4	129.1
February	93.8	102.3	101.4	106.5	113.3	127.8
March	95.3	100.8	101.[illegible]	107.0	113.9	128.6
April	96.7	99.1	100.7	107.7	115.2	.....
May	98.4	98.3	101.9	107.9	116.5	.....
June	100.7	99.1	101.9	108.1	118.6	.....
July	102.8	98.3	101.6	109.9	120.4	.....
August	103.6	97.0	101.6	113.1	121.2	.....
September	103.1	97.3	101.9	112.5	122.8	.....
October	104.1	97.6	102.7	113.3	129.1	.....
November	104.1	101.1	107.1	113.9	129.6	.....
December	106.3	102.6	107.8	115.2	127.8	.....

Aside from the general Federal minima just referred to, a 37.5-cent minimum hourly wage was mandatory during this period for the production, under Government contract, of the major products of these industries. Furthermore, early in 1941 a 40-cent minimum became effective for the production, under Government contract, of all-wool trousers. These rates had a growing influence in the cotton-garment industries as the volume of Government contracts for clothing for the armed forces increased.

The wage increases occurring during this period may be traced not only to the direct and indirect effects of Federal minimum-wage rates

[8] February and March of 1941 witnessed substantial increases in the industries' employment and a coincident but temporary slight recession in average earnings. Because the earnings of new workers are normally lower than those of the rest of the labor force, it is not unnatural for an expansion in employment to be accompanied by reduced average earnings for the entire labor force, in the absence of compensating increases in wage rates.

[9] The data in table 2 may cover some establishments whose major product was single pants other than cotton.

but also to such factors as the influence of unions and the necessity of attracting workers. The increasing amount of overtime during the past year has also contributed slightly to the increased earnings shown in table 2, as these indexes include both straight-time and overtime pay.

WAGE STRUCTURE IN MARCH 1941

Wage earners in cotton-garment factories surveyed by the Bureau of Labor Statistics had average earnings of 41.3 cents an hour in March of 1941 (table 3). Establishments whose major products were cotton pants, overalls, and work shirts reported hourly earnings of 40.1 cents; plants manufacturing shirts and nightwear had average hourly earnings of 41.9 cents. Earnings in establishments making washable service apparel, averaging 49.7 cents, were considerably above the level for the other two industries. Overall factories in the work-clothing industry paid higher average wages (44.0 cents) than any product branch of the industry group except washable service apparel. Work-shirt factories paid the lowest average wage (35.8 cents).

TABLE 3.—*Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Dominant Plant Product and Region, March 1941*

Industry and product	United States	North	South
Total industry group	$0.413	$0.439	$0.371
Dress and sport shirts, collars, and nightwear	.419	.431	.384
Dress and sport shirts and collars	.423	.435	.387
Nightwear	.387	.397	.358
Cotton pants, overalls, and work shirts	.401	.443	.366
Cotton pants	.392	.419	.373
Overalls	.440	.482	.369
Work shirts	.358	.392	.349
Washable service apparel	.497	.497	(1)

[1] No plants making washable service apparel in the South were surveyed, since practically all plants in this industry are situated in the North.

The average wage for each industry covers a small proportion of workers with high hourly earnings and a heavy concentration of workers at low earnings levels, notably at the effective minimum-wage rates. Although earnings ranged from less than 30 cents to more than $1.625 an hour, between 55 and 60 percent of the workers earned 37.5 cents or less, and more than 70 percent earned less than 42.5 cents. Between 20 and 25 percent of the workers in the three industries combined were paid exactly 32.5 cents, the minimum wage for all the major products of these establishments except washable service apparel; 13 percent earned exactly 37.5 cents, which was not only the minimum wage for single pants other than cotton (a minor product of many cotton-garment establishments), but was also the minimum for production on Government contracts. The distribution of earnings in each industry is shown in table 4.

TABLE 4.—*Percentage Distribution of Workers in Men's Cotton-Garment Industries, by Average Hourly Earnings, Industry, and Region, March 1941*

Average hourly earnings (in cents)	Total industry group			Dress and sport shirts, collars, and nightwear			Cotton pants, overalls, and work shirts			Washable service apparel, North
	United States	North	South	United States	North	South	United States	North	South	
Under 30.0	1.7	1.5	2.2	1.9	1.6	2.7	1.7	1.4	2.0	0.2
30.0 and under 32.5	.9	1.1	.7	1.4	1.7	.6	.6	.3	.8	.1
Exactly 32.5	22.6	14.1	35.6	19.9	15.6	33.2	26.7	14.5	36.7	.1
32.6 and under 35.0	8.6	5.7	13.0	7.8	5.9	13.5	9.8	6.2	12.7	.4
Exactly 35.0	3.8	5.0	1.9	4.6	5.1	2.9	2.5	3.7	1.5	11.6
35.1 and under 37.5	6.4	6.4	6.4	7.6	7.2	8.8	5.2	5.0	5.4	7.8
Exactly 37.5	13.0	11.4	15.5	9.0	9.7	7.1	17.3	15.1	19.0	4.9
37.6 and under 40.0	6.9	7.0	6.6	7.4	7.3	7.8	6.3	6.4	6.1	8.0
40.0 and under 42.5	7.3	8.9	4.7	7.6	8.4	5.4	6.7	9.6	4.4	10.0
42.5 and under 47.5	9.5	11.5	6.4	10.7	12.7	5.0	8.0	9.3	6.9	14.3
47.5 and under 52.5	6.4	8.8	2.8	7.8	9.1	3.9	4.8	7.8	2.3	12.8
52.5 and under 57.5	3.9	5.6	1.3	5.1	5.8	2.9	2.5	5.0	.6	8.3
57.5 and under 62.5	2.8	4.0	1.0	2.9	3.0	2.5	2.6	5.3	.4	5.0
62.5 and under 67.5	1.8	2.5	.6	1.7	1.9	1.1	1.7	3.2	.5	4.5
67.5 and under 72.5	1.2	1.7	.5	1.2	1.2	1.1	1.1	2.2	.2	2.9
72.5 and under 77.5	.9	1.3	.4	1.0	1.1	.7	.7	1.4	.2	2.6
77.5 and under 82.5	.5	.8	.1	.5	.7	(1)	.4	.8	.1	1.2
82.5 and under 87.5	.3	.5	.1	.4	.4	.1	.2	.5	.1	1.2
87.5 and under 92.5	.5	.7	.2	.4	.4	.3	.5	1.0	.1	1.2
92.5 and under 97.5	.3	.4	(1)	.2	.2	.1	.3	.6	(1)	.6
97.5 and under 102.5	.2	.3	(1)	.2	.2	.1	.2	.3	(1)	1.0
102.5 and under 112.5	.2	.3	(1)	.2	.3	(1)	.1	.2	-------	.8
112.5 and under 122.5	.1	.2	(1)	.2	.2	.1	.1	.1	-------	.1
122.5 and under 132.5	.1	.1	(1)	.1	.1	-------	(1)	.1	(1)	.2
132.5 and over	.1	.2	(1)	.2	.2	.1	(1)	(1)	-------	.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of plants	209	146	63	87	71	16	107	60	47	15
Number of workers	26,239	15,872	10,367	12,106	9,066	3,040	13,240	5,913	7,327	893
Average hourly earnings	$0.413	$0.439	$0.371	$0.419	$0.431	$0.384	$0.401	$0.443	$0.366	$0.497

[1] Less than a tenth of 1 percent.

Regional Differences

Hourly earnings were distinctly higher in the North than in the South. The average for the combined industries in the North was 43.9 cents, 18 percent above the 37.1-cent average for the South. The regional difference in the shirt and nightwear industry was 12 percent of the southern average, and in cotton pants, overall, and work-shirt factories it was 21 percent. In the North, average earnings in the work-clothing industry were slightly above those in the shirt and nightwear industry, but a reverse relationship existed in the South. No regional comparison of wages in washable-service-apparel establishments can be made, as this industry is situated almost entirely in the North.

Considering separately the products that comprise the industries, the regional difference in average hourly earnings was smallest in the case of nightwear, where the northern wage was only 11 percent above that for the South. The greatest difference was found in overall establishments, where the northern average was 31 percent above southern earnings. Whereas northern overall plants had average hourly earnings second only to the washable-service-apparel industry, earnings in southern overall plants were exceeded by earnings in both dress-shirt and pants factories. It will be observed that the product division (work shirts) that paid the lowest wages in the North (39.2 cents) nevertheless had higher average earnings than were paid by southern dress-shirt factories, which paid the highest average wages (38.7 cents) in the southern region.

That the southern plants constitute a more homogeneous wage area than do the more widespread northern establishments may be inferred from the wider variation of individual workers' earnings in the latter region. In the North, earnings of half the workers were included in a range of 7.5 cents; in the South half of the workers' earnings were within a 2.5-cent range. This characteristic of the pattern of northern earnings is reflected also in the extent of variation in average earnings among plants. Excluding separate cutting establishments, plant average hourly earnings ranged from 32.7 to 61.8 cents in the North, as compared with a range of from 30.9 to 56.8 cents in the South. The greatest concentration of plant average hourly earnings in the North was between 42.5 and 47.5 cents, plants in this group employing a fourth of the northern workers. In contrast, almost two-fifths of the southern workers were employed in plants with hourly earnings averaging between 35.0 and 37.5 cents.

Difference by Size of City

It has been pointed out that many of the cotton-garment factories have located in small towns. Arrangement of the plants by size of city reveals a clear but not invariable tendency for average hourly earnings to increase with population. This tendency is apparent in the combined industries and in each industry considered separately, but is less pronounced in the South than in the North (table 5).

TABLE 5.—*Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Size of City and Region, March 1941*

Size of city (population)	United States			North			South		
	Number of plants	Number of workers	Average hourly earnings	Number of plants	Number of workers	Average hourly earnings	Number of plants	Number of workers	Average hourly earnings
All cities	209	26,239	$0.413	146	15,872	$0.439	63	10,367	$0.371
Under 2,500	26	2,706	.366	15	1,328	.374	11	1,378	.359
2,500 and under 10,000	41	6,169	.377	21	2,433	.411	20	3,736	.355
10,000 and under 50,000	43	7,543	.394	26	4,714	.415	17	2,829	.358
50,000 and under 100,000	15	2,228	.426	10	1,340	.464	5	888	.370
100,000 and under 250,000	16	1,970	.447	15	1,859	.453	1	111	(1)
250,000 and under 500,000	17	2,872	.490	10	1,604	.516	7	1,268	.459
500,000 and under 1,000,000	14	1,039	.418	12	882	.425	2	157	(1)
1,000,000 and over	37	1,712	.504	37	1,712	.504			

[1] An average is not computed for fewer than 3 plants.

Variation by Unionization

Plants that were working under union agreements had average hourly earnings of 46.5 cents, 22 percent above the average of 38.1 cents reported by nonunion plants. About this same difference between union and nonunion wages was found in both the dress-shirt and nightwear industry and the cotton-pants, overall, and work-shirt industry; in washable service apparel, however, earnings in nonunion establishments were 2 percent above the level in union plants. In the North, factories with union agreements reported earnings 15 percent above those in unorganized plants. The number of unionized southern plants was too small to warrant comparison.

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Variation by Sex, Skill, and Occupation

The average hourly earnings of the major occupational groups in the industries are shown in table 6. Among these occupations, earnings ranged from 37.8 cents for examiners and inspectors to 72.9 cents for machine adjusters. Except for skilled workers and stock and shipping clerks and order fillers, the average earnings of all occupational groups ranged between 37.8 and 49.0 cents. Earnings of women in the lowest-paid stitching operation averaged 36.7 cents and in the highest-paid stitching operation, 42.8 cents an hour. The average for all stitchers, both men and women, was 39.9 cents. Marked regional differences exist among all occupational groups but they tend to be wider for the higher than for the lower skills.

TABLE 6.—*Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Skill, Occupational Group, Sex, and Industry, All Regions, March 1941*

Skill, occupational group, and sex	Number of workers	Average hourly earnings			
		Total industry group	Dress and sport shirts, collars, and nightwear	Cotton pants, overalls, and work shirts	Washable service apparel
All workers	26,239	$0.413	$0.419	$0.401	$0.497
Male	3,653	.509	.539	.476	.650
Female	22,586	.396	.400	.386	.467
Skilled workers	1,190	.640	.697	.578	.790
Male	870	.698	.762	.626	.841
Female	320	.480	.496	.458	(1)
Cutters and markers	548	.687	.790	.594	.791
Male	543	.688	.792	.596	.792
Machine adjusters, male	138	.729	.725	.730	(1)
Working supervisors	458	.560	.596	.512	(1)
Male	143	.735	.783	.646	(1)
Female	315	.479	.496	.459	(1)
Miscellaneous occupations, maintenance and service, male	46	.604	.616	(1)	
Semiskilled workers	23,879	.404	.410	.394	.473
Male	2,335	.460	.482	.440	.541
Female	21,544	.397	.402	.388	.466
Bundle workers	346	.379	.377	.377	(1)
Male	189	.392	.417	.382	(1)
Female	157	.364	.358	.357	(1)
Buttonhole and button sewing and riveting machine operators	1,364	.393	.402	.384	.459
Male	54	.451	(1)	.436	(1)
Female	1,310	.391	.399	.381	.459
Creasers and crimpers	87	.395	.398	.394	
Male	28	.410	(1)	(1)	
Female	59	.389	(1)	.383	
Cutters, small parts	125	.490	.517	.451	(1)
Male	105	.513	.539	.481	(1)
Examiners and inspectors	1,959	.378	.384	.370	.403
Male	94	.378	(1)	.379	
Female	1,865	.378	.384	.369	.403
Fitters	111	.421	.430	.393	
Female	97	.415	.422	(1)	
Packers, boxers, and folders	669	.395	.393	.397	(1)
Male	152	.406	.405	.405	(1)
Female	517	.391	.391	.393	(1)
Pressers, off, pants	296	.486	(1)	.487	
Male	253	.503	(1)	.505	
Female	43	.377		.377	
Pressers, other	1,975	.442	.451	.395	(1)
Male	384	.490	.531	.414	
Female	1,591	.430	.436	.380	(1)
Stitchers	15,419	.399	.401	.392	.480
Male	223	.482	.531	.451	.572
Female	15,196	.398	.400	.391	.476
Back makers, shirts	294	.392	.401	.351	

See footnotes at end of table.

TABLE 6.—*Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Skill, Occupational Group, Sex, and Industry, All Regions, March 1941*—Continued

Skill, occupational group, and sex	Number of workers	Average hourly earnings			
		Total industry group	Dress and sport shirts, collars, and nightwear	Cotton pants, overalls, and work shirts	Washable service apparel
Semiskilled workers—Continued.					
Stitchers—Continued.					
Female—Continued.					
Back makers, overalls	51	$0.426	----------	$0.426	----------
Bar tackers	595	.394	$0.380	.394	(1)
Coat makers	224	.425	----------	.409	$0.540
Collar makers and setters, shirts	1,570	.402	.414	.360	----------
Collar makers and setters, other	105	.428	----------	.408	.485
Facing stitchers	341	.398	.391	.381	.464
Fellers	641	.397	.391	.402	----------
Fly makers and setters	590	.394	.402	.391	(1)
Front makers, shirts and nightwear	352	.402	.408	.387	----------
Hemmers	968	.395	.392	.393	(1)
Label sewers	265	.384	.390	.374	(1)
Lining stitchers	151	.367	----------	.367	----------
Pocket makers and setters, shirts	847	.387	.398	.359	----------
Pocket makers and setters, other	1,827	.398	(1)	.395	.498
Seamers and joiners	1,407	.406	.404	.397	.485
Sergers	297	.380	(1)	.380	(1)
Sleeve makers and setters	2,005	.391	.398	.370	.452
Trimmings and small-parts makers	322	.418	.473	.405	.432
Waistband setters	397	.396	(1)	.395	----------
Miscellaneous stitchers	1,947	.403	.384	.400	.471
Stock and shipping clerks and order fillers	282	.523	.541	.501	(1)
Male	264	.532	.557	.506	(1)
Turners, parts	282	.409	.419	.356	----------
Female	260	.402	.410	.357	----------
Miscellaneous occupations, cutting room	509	.397	.401	.385	(1)
Male	389	.403	.410	.388	(1)
Female	120	.376	.380	.368	(1)
Miscellaneous occupations, maintenance and service, male	154	.465	.461	.466	(1)
Miscellaneous occupations, making department	301	.387	.400	.374	(1)
Female	291	.382	.388	.373	(1)
Unskilled workers	639	.379	.382	.373	.422
Male	431	.380	.379	.377	(1)
Female	208	.379	.386	.356	(1)
Handicapped workers	68	.273	.275	(1)	(1)
Female	67	.273	.275	(1)	(1)
Learners	463	.260	.260	.259	(1)
Female	447	.260	.260	.259	(1)

[1] Number of workers too small to justify computation of average.

Earnings of men employed in the cotton-garment industries averaged 50.9 cents an hour, compared with 39.6 cents for women. Substantial differences are observed in both the northern and the southern regions, where the earnings of men were respectively 35 percent and 17 percent above the average for woman workers (table 7). These differences were due principally to differences in occupation, but were apparent to some extent in earnings of men and women in the same occupation.

Skilled workers earned almost 60 percent more than semiskilled and about 70 percent more than unskilled workers. Learners and handicapped workers, who could be paid at subminimum rates, earned about 30 percent less than unskilled workers. A comparison of earnings for identical skill groups in the two regions shows earnings in the North to be 22.2 cents (44 percent) higher than in the South for skilled workers, 6.2 cents (17 percent) for semiskilled, and 3.6 cents (10 percent) for unskilled workers.

TABLE 7.—*Regional Variations in Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Skill, Occupational Group, Sex, and Industry, March 1941*

Skill, occupational group, and sex	North				South		
	Total industry group	Dress and sport, shirts, collars, and nightwear	Cotton pants, overalls, and work shirts	Washable service apparel	Total industry group	Dress and sport shirts, collars, and nightwear	Cotton pants, overalls, and work shirts
All workers	$0.439	$0.431	$0.443	$0.497	$0.371	$0.384	$0.366
Male	.564	.567	.545	.650	.423	.444	.415
Female	.417	.409	.423	.467	.363	.376	.357
Skilled workers	.732	.755	.686	.790	.510	.541	.498
Male	.793	.815	.748	.841	.551	.602	.532
Female	.538	.544	.514	(1)	.417	.403	.422
Cutters and markers	.795	.838	.739	.791	.503	.593	.479
Male	.795	.838	.739	.792	.504	.595	.481
Machine adjusters, male	.813	.796	.835	(1)	.637	(1)	.652
Working supervisors	.628	.643	.570	(1)	.471	.459	.474
Male	.787	.780	.708	(1)	.634	(1)	.605
Female	.535	.544	.514	(1)	.417	.399	.424
Miscellaneous occupations, maintenance and service, male	(1)	(1)	(1)	-------	.532	(1)	(1)
Semiskilled workers	.428	.419	.434	.473	.366	.380	.361
Male	.505	.505	.502	.541	.386	.399	.383
Female	.419	.410	.425	.466	.364	.379	.358
Bundle workers	.389	.372	.409	(1)	.364	.394	.354
Male	.420	.407	.430	(1)	.367	(1)	.355
Female	.367	.358	(1)	(1)	.354	(1)	(1)
Buttonhole and button sewing and riveting machine operators	.419	.411	.426	.459	.356	.371	.351
Male	.477	(1)	(1)	(1)	(1)	-------	(1)
Female	.416	.408	.423	.459	.356	.371	.350
Creasers and crimpers	.420	(1)	(1)	-------	.380	(1)	.369
Male	(1)	(1)	(1)	-------	(1)	(1)	(1)
Female	.410	(1)	(1)	-------	.371	(1)	.349
Cutters, small parts	.530	.555	(1)	(1)	.397	(1)	(1)
Male	.556	.583	(1)	(1)	.408	(1)	(1)
Examiners and inspectors	.392	.388	.398	.403	.358	.372	.351
Male	.403	(1)	(1)	-------	.360	(1)	.360
Female	.391	.388	.396	.403	.358	.372	.350
Fitters	.424	.427	(1)	-------	.413	(1)	(1)
Female	.425	.428	(1)	-------	.390	(1)	(1)
Packers, boxers ,and folders	.409	.405	.419	(1)	.376	.358	.387
Male	.430	.410	.456	(1)	.371	(1)	.369
Female	.402	.404	.389	(1)	.377	.356	.394
Pressers, off, pants	.568	(1)	.574	-------	.387	-------	.387
Male	.591	(1)	.600	-------	.396	-------	.396
Female	(1)	-------	(1)	-------	(1)	-------	(1)
Pressers, other	.465	.468	.436	(1)	.391	.402	.365
Male	.533	.558	.447	-------	.368	.333	.383
Female	.447	.448	.424	(1)	.395	.408	.355
Stitchers	.423	.409	.431	.480	.363	.374	.359
Male	.521	.535	.498	.572	.387	(1)	.388
Female	.422	.408	.429	.476	.363	.374	.359
Back makers, shirts	.403	.405	(1)	-------	.371	.388	.338
Back makers, overalls	.492	-------	.492	-------	(1)	-------	(1)
Bar tackers	.434	.392	.438	(1)	.354	(1)	.354
Coat makers	.457	-------	.438	.540	.362	-------	.362
Collar makers and setters, shirts	.422	.427	.392	-------	.366	.382	.341
Collar makers and setters, other	.474	-------	.463	.485	.378	-------	.378
Facing stitchers	.411	.395	.419	.464	.362	(1)	.365
Fellers	.421	.400	.453	-------	.369	.367	.370
Flymakers and setters	.434	.416	.437	(1)	.348	(1)	.348
Front makers, shirts and nightwear	.420	.416	.440	-------	.366	.383	.347
Hemmers	.419	.401	.441	(1)	.358	.365	.354
Label sewers	.398	.398	.398	(1)	.358	.361	.356
Lining stitchers	.436	-------	.436	-------	.339	-------	.339
Pocket makers and setters, shirts	.403	.403	.401	-------	.357	.381	.334
Pocket makers and setters, other	.443	(1)	.440	.498	.352	-------	.352
Seamers and joiners	.433	.414	.431	.485	.353	.374	.347
Sergers	.418	(1)	.417	(1)	.350	(1)	.350
Sleeve makers and setters	.412	.410	.418	.452	.360	.372	.344
Trimmings and small-parts makers	.453	.500	.445	.432	.353	(1)	.355
Waistband setters	.433	(1)	.433	-------	.354	-------	.354
Miscellaneous stitchers	.404	.384	.400	.471	.400	.383	.401
Stock and shipping clerks and order fillers	.552	.551	.544	(1)	.450	(1)	.437
Male	.565	.573	.551	(1)	.452	(1)	.439

See footnotes at end of table.

TABLE 7.—*Regional Variations in Average Hourly Earnings of Workers in Men's Cotton-Garment Industries, by Skill, Occupational Group, Sex, and Industry March 1941*—Con.

Skill, occupational group, and sex	North				South		
	Total industry group	Dress and sport shirts, collars, and nightwear	Cotton pants, overalls, and work shirts	Washable service apparel	Total industry group	Dress and sport shirts, collars, and nightwear	Cotton pants, overalls, and work shirts
Semiskilled workers—Continued.							
Turners, parts	$0.423	$0.429	(1)	------	$0.374	$0.383	$0.361
Female	.412	.418	(1)	------	.376	.383	.364
Miscellanoues occupations, cutting room	.419	.413	$0.426	(1)	.367	.375	.361
Male	.431	.426	.429	(1)	.365	.370	.362
Female	.379	.377	(1)	(1)	.372	.384	(1)
Miscellaneous occupations, maintenance and service, male	.510	.509	.506	(1)	.411	.401	.424
Miscellaneous occupations, making department	.404	.408	.392	(1)	.361	.377	.356
Female	.397	.392	.391	(1)	.360	.377	.355
Unskilled workers	.394	.390	.398	$0.422	.358	.361	.356
Male	.399	.394	.400	(1)	.354	.344	.359
Female	.385	.383	(1)	(1)	.369	.394	.347
Handicapped workers	.275	(1)	(1)	(1)	.272	(1)	(1)
Female	.273	(1)	(1)	(1)	.272	(1)	(1)
Learners	.267	.265	.270	(1)	.250	.251	.250
Female	.268	.265	.271	(1)	.250	.251	.250

[1] Number of workers too small to justify computation of average.

CHANGES IN EARNINGS OF WAGE EARNERS, FEBRUARY–MARCH 1939 TO MARCH 1941

At the time of the 1939 survey of earnings, the legal minimum wage for experienced, nonhandicapped workers in the cotton-garment industries was 25 cents an hour. When the 1941 survey was made the minimum was 35 cents for washable service apparel and 32.5 cents for the other products covered. Over the intervening period the volume of public contracts, for which a 37.5- or 40-cent minimum wage was fixed, increased greatly. In March 1941, plants employing 30 percent of the workers surveyed were working on such contracts. This increase in Government contracts, combined with the general increase in employment and national income, resulted in a marked expansion of cotton-garment production in the spring of 1941, as compared with 1939 levels.

Data for 180 firms covered in both the 1939 and 1941 surveys indicate some of the changes that occurred over the intervening period.[10]

Between the early months of 1939 and March 1941 average hourly earnings in identical plants in the combined industries increased by about one-eighth (table 8). In 1939, almost two-fifths of the industries' workers were paid less than 30 cents an hour and about half earned less than 32.5 cents; the corresponding proportions in 1941 were 1.8 percent and 2.4 percent. In the latter year, three-fifths of the workers earned between 32.5 and 40 cents contrasted with about one-fourth of the workers in 1939 (chart 1).

[10] The slight differences between the earnings reported here for 1941 and those shown earlier are explained by differences in the number of plants covered by the two sets of data.

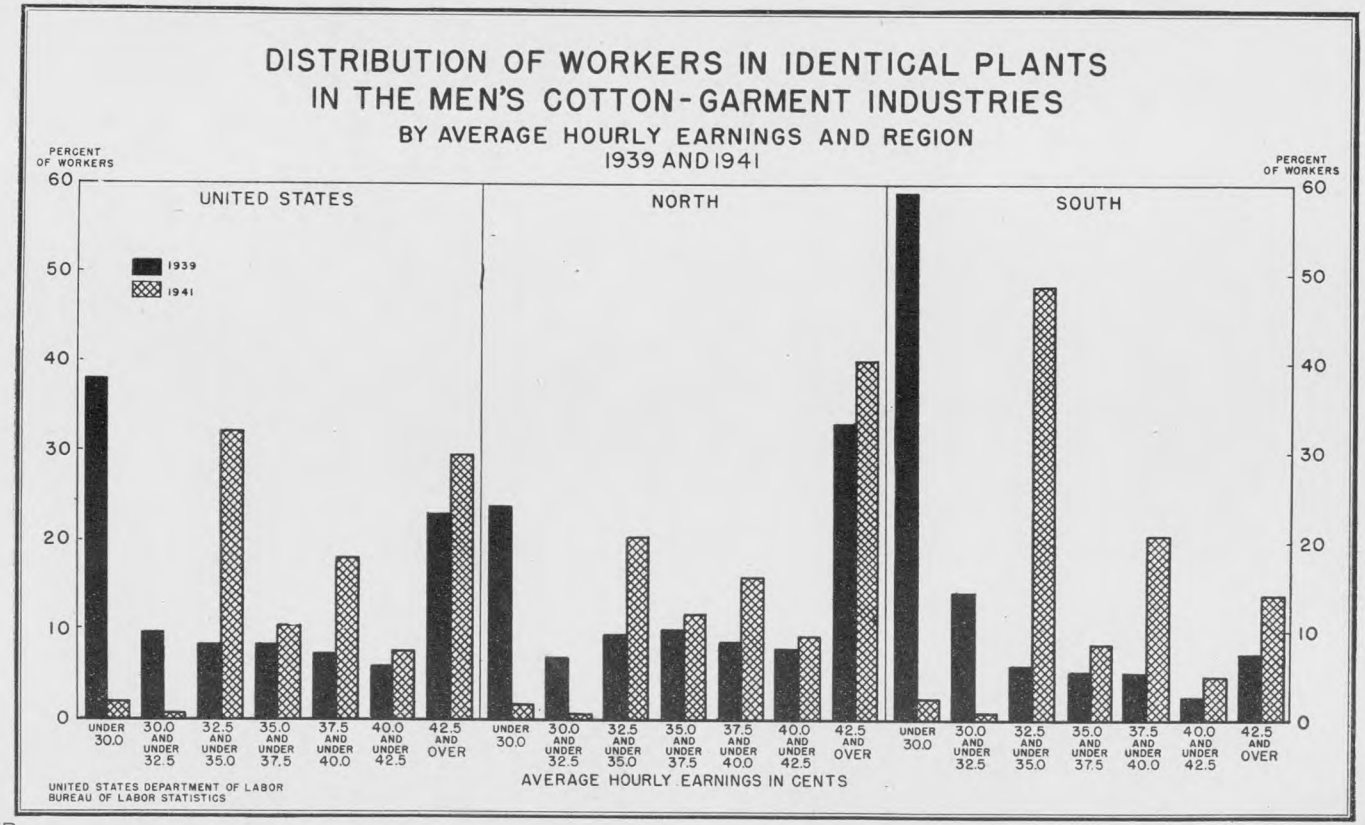

TABLE 8.—*Average Hourly Earnings in Identical Plants in Men's Cotton-Garment Industries, by Industry and Region, 1939 and 1941*

Industry	United States		North		South	
	1939	1941	1939	1941	1939	1941
	Average hourly earnings					
Total industry group	$0.367	$0.414	$0.407	$0.443	$0.307	$0.372
Dress and sport shirts, collars, and nightwear	.369	.419	.391	.431	.313	.386
Cotton pants, overalls, and work shirts	.354	.403	.418	.451	.305	.366
Washable service apparel	.514	.509	.514	.509	----	----
	Number of workers					
Total industry group	21,721	23,935	13,124	14,194	8,597	9,741
Dress and sport shirts, collars, and nightwear	10,711	11,190	7,810	8,300	2,901	2,890
Cotton pants, overalls, and work shirts	10,373	11,953	4,677	5,102	5,696	6,851
Washable service apparel	637	792	637	792	----	----

Wages advanced, however, only in the shirt and work-clothing industries, where the increases averaged between 13 and 14 percent. In the washable-service-apparel industry average wages in the small number of plants surveyed actually declined slightly, due to the absence of important wage increases and to the expansion of employment, which reduced the ratio of higher-paid workers to the total labor force.

The necessity for advancing the wages of so large a segment of the industries' workers in order to conform to the 7.5-cent increase in the legal minimum wage resulted in a general narrowing of existing wage differences. Earnings in the northern plants advanced 3.6 cents (9 percent), compared with an increase of 6.5 cents (21 percent) in the South. The regional difference was thus narrowed from 10 cents, or a third of the 1939 southern average, to 7.1 cents or less than one-fifth of the 1941 average for that region. In both regions changes in minimum-wage rates resulted in large shifts of workers from the lowest wage classes of 32.5 cents or less to earnings classifications between 32.5 and 40 cents. Even in the North, a quarter of the workers earned less than 30 cents in 1939 contrasted with only 1.5 percent in 1941 (table 9). Whereas less than one-third of the workers in the northern region earned between 32.5 and 40 cents an hour in 1939, half of them fell in this wage classification in 1941. In the South, three-fifths of the workers earned less than 30 cents and almost three-fourths less than 32.5 cents in 1939, compared with 2.2 and 2.9 percent in 1941. The proportion of southern workers paid between 32.5 and 35 cents increased from 6 to about 50 percent, and the proportion with wages between 32.5 and 40 cents increased from 16 to more than 75 percent.

At the same time that wage levels were raised generally, the wage differences among establishments were reduced. Plants with relatively high earnings levels in 1939 had much smaller wage increases (both absolute and proportionate) than did the low-wage plants. Table 10 shows the wage changes in plants with different wage levels.

TABLE 9.—*Percentage Distribution of Workers in Identical Plants in Men's Cotton-Garment Industries, by Average Hourly Earnings and Region, 1939 and 1941*

Average hourly earnings	United States		North		South	
	1939	1941	1939	1941	1939	1941
Under 30.0 cents	38.0	1.8	24.0	1.5	59.4	2.2
30.0 and under 32.5 cents	9.8	.6	6.8	.5	14.2	.7
32.5 and under 35.0 cents	8.1	32.1	9.5	20.6	6.0	48.8
35.0 and under 37.5 cents	8.1	10.4	10.0	11.7	5.2	8.5
37.5 and under 40.0 cents	7.2	18.0	8.6	16.0	5.2	20.9
40.0 and under 42.5 cents	5.8	7.5	7.9	9.3	2.5	4.8
42.5 and under 47.5 cents	7.5	9.8	10.1	12.0	3.5	6.6
47.5 and under 52.5 cents	5.0	6.6	7.1	9.2	1.8	2.9
52.5 and under 57.5 cents	3.0	4.1	4.5	5.9	.8	1.3
57.5 and under 62.5 cents	2.1	3.0	3.2	4.2	.5	1.1
62.5 and under 67.5 cents	1.5	1.8	2.3	2.6	.3	.7
67.5 and under 72.5 cents	1.0	1.2	1.5	1.7	.3	.5
72.5 and under 77.5 cents	.7	.9	1.1	1.3	.1	.4
77.5 and under 82.5 cents	.4	.5	.7	.8	.1	.1
82.5 and under 87.5 cents	.3	.3	.5	.5	(1)	.1
87.5 and under 92.5 cents	.5	.5	.7	.7	.1	.2
92.5 and under 100.0 cents	.3	.3	.4	.5	(1)	.1
100.0 cents and over	.7	.6	1.1	1.0	(1)	.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of plants	180	180	124	124	56	56
Number of workers	21,721	23,935	13,124	14,194	8,597	9,741
Average hourly earnings	$0.367	$0.414	$0.407	$0.443	$0.307	$0.372

[1] Less than a tenth of 1 percent.

TABLE 10.—*Changes in Average Hourly Earnings in Identical Plants in Men's Cotton-Garment Industries, 1939 and 1941, by Region and Group of Plants With Specified Wage Levels in 1939*

Region and 1939 plant average hourly earnings class	Number of plants	Average hourly earnings		
		1939	1941	Percentage change 1939–41
United States, all classes	180	$0.367	$0.414	+12.8
North, all classes	124	.407	.443	+8.8
Under 30.0 cents	13	.284	.358	+26.1
30.0 and under 32.5 cents	8	.318	.379	+19.2
32.5 and under 35.0 cents	11	.336	.386	+14.9
35.0 and under 37.5 cents	9	.356	.411	+15.4
37.5 and under 40.0 cents	19	.388	.421	+8.5
40.0 and under 42.5 cents	9	.411	.437	+6.3
42.5 and under 47.5 cents	20	.447	.468	+4.7
47.5 and under 52.5 cents	10	.499	.519	+4.0
52.5 cents and over	25	.586	.575	−1.9
South, all classes	56	.307	.372	+21.2
Under 30.0 cents	32	.276	.352	+27.5
30.0 and under 32.5 cents	14	.311	.360	+15.8
32.5 cents and over	10	.382	.436	+14.1

A decrease of 2 percent was reported for establishments with average hourly wages of 52.5 cents or over, apparently because of changes in the occupational structure of some of these plants. There were cases in which cutting plants in that wage classification took on additional functions requiring lower-paid labor, whereas the expansion of employment in other plants reduced plant averages. In establishments with lower wage levels, the effect of the minimum-wage rates offset the tendency for average earnings to be reduced as additional workers were added.

Earnings of men rose 3.2 cents or 7 percent. Women's earnings advanced by 4.9 cents or 14 percent. Wage differences by skill likewise were reduced, the earnings of skilled workers advancing only 2 percent contrasted with an increase of 13 percent for workers of all degrees of skill combined.

WAGE-RATE CHANGES IN UNITED STATES INDUSTRIES

THE following table gives information concerning wage-rate adjustments occurring during the month ending May 15, 1942, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to the Bureau of Labor Statistics.

As the Bureau's survey does not cover all establishments in an industry and furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During the Month Ending May 15, 1942 [1]

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
All manufacturing	34,440	1,294	8,337,009	351,551	8.3
Durable goods	13,035	505	4,777,141	146,777	8.7
Nondurable goods	21,405	789	3,559,868	204,774	8.1
Iron and steel and their products, not including machinery	2,622	95	1,121,491	25,329	8.6
Blast furnaces, steel works, and rolling mills	353	4	601,090	1,298	5.1
Bolts, nuts, washers, and rivets	69	5	19,381	2,991	10.2
Forgings, iron and steel	96	5	23,606	484	7.1
Cast-iron pipe	64	6	20,265	3,858	7.1
Cutlery	112	4	16,598	412	6.0
Hardware	157	9	37,822	739	7.8
Plumbers' supplies	105	3	21,612	444	11.3
Stamped and enameled ware	282	11	49,845	779	7.4
Steam and hot-water heating apparatus and steam fittings	114	6	46,366	1,135	10.5
Stoves	258	5	35,062	68	8.6
Structural and ornamental metalwork	295	5	37,493	619	6.3
Tools (not including edge tools, machine tools, files, and saws)	126	3	19,433	619	10.3
Wirework	168	10	20,890	3,324	8.1
Metal doors and shutters	27	3	6,626	583	6.9
Screw-machine products	88	9	32,674	614	10.0
Machinery, not including transportation equipment	3,934	201	1,396,602	75,004	9.2
Agricultural implements (including tractors)	119	10	69,424	5,723	5.4
Cash registers, adding machines, etc	33	3	25,423	12,557	8.0
Electrical machinery, apparatus, and supplies	629	33	(2)	10,433	7.7
Engines, turbines, water wheels, and windmills	88	6	(2)	1,774	15.6
Foundry and machine-shop products	2,229	105	416,258	19,140	10.5
Machine tools	154	7	(2)	14,258	7.5
Radios and phonographs	87	7	56,985	2,174	13.5
Textile machinery and parts	125	3	28,358	199	8.7
Machine-tool accessories	149	11	(2)	1,543	11.8
Pumps	106	11	39,874	1,714	9.9
Metalworking machinery	73	3	22,973	1,540	10.2

See footnotes at end of table.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During the Month Ending May 15, 1942—Continued

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Transportation equipment	902	29	1,367,810	21,576	8.4
Aircraft	143	7	(2)	14,559	8.5
Automobiles	372	8	313,717	2,115	7.1
Cars, electric and steam-railroad	74	3	(2)	2,005	10.4
Shipbuilding	269	6	(2)	435	5.7
Motorcycles, bicycles, and parts	23	4	8,540	2,446	8.3
Nonferrous metals and their products	1,168	38	299,291	8,426	5.8
Brass, bronze, and copper products	386	15	(2)	4,106	5.1
Jewelry	204	3	15,442	18	7.8
Lighting equipment	86	3	9,682	615	7.5
Electroplating	48	5	2,580	314	7.8
Sheet-metal work	150	4	12,045	161	8.4
Lumber and allied products	2,830	93	358,077	12,672	8.4
Furniture	757	17	109,251	2,281	11.1
Lumber:					
Millwork	555	22	38,264	1,367	10.4
Sawmills	738	30	141,029	7,119	7.3
Wood turned and shaped	102	4	8,061	348	6.8
Wooden boxes, other than cigar	146	8	15,366	566	8.4
Mattresses and bed springs	204	3	11,979	295	6.5
Stone, clay, and glass products	1,579	49	233,870	3,770	9.0
Brick, tile, and terra cotta	494	19	40,532	1,318	9.0
Cement	133	5	24,250	711	8.0
Marble, granite, slate, and other products	233	6	4,534	87	8.4
Pottery	126	4	34,604	898	10.1
Concrete products	106	4	2,890	45	14.1
Lime	92	3	6,452	170	9.0
Textiles and their products	6,768	344	1,422,750	113,906	8.3
Fabrics	3,360	159	1,020,129	74,479	6.7
Cotton goods	813	46	457,907	39,442	5.4
Cotton smallwares	126	7	16,008	879	6.3
Dyeing and finishing textiles	214	15	56,867	4,788	10.7
Hosiery	523	17	104,058	3,811	8.6
Knitted outerwear	222	8	19,980	567	13.0
Silk and rayon goods	462	24	80,555	5,655	6.3
Woolen and worsted goods	425	22	167,342	14,078	7.9
Cordage and twine	65	9	14,686	2,804	6.3
Wearing apparel	3,408	185	402,621	39,427	11.5
Clothing, men's	1,107	134	161,828	30,818	11.9
Clothing, women's	1,224	18	93,673	958	9.9
Shirts and collars	264	17	56,250	4,997	9.2
Gloves and mittens, cloth or cloth and leather	44	9	7,973	1,980	12.0
Leather and its manufactures	1,115	57	255,568	18,192	4.9
Boots and shoes	505	24	176,117	12,671	4.3
Leather	187	23	40,313	4,564	5.3
Boot and shoe cut stock and findings	128	5	10,405	116	7.6
Food and kindred products	5,303	152	496,792	15,602	8.3
Baking	1,018	32	82,427	1,931	8.9
Beverages	612	21	46,938	2,177	8.6
Butter	312	7	6,765	120	7.3
Canning and preserving	1,064	38	68,627	6,405	7.7
Confectionery	278	6	35,137	1,828	8.7
Flour	338	5	15,176	351	5.0
Ice cream	264	5	10,644	75	6.9
Slaughtering and meat packing	323	5	139,855	112	10.1
Sugar, beet	73	5	4,254	333	10.0
Condensed and evaporated milk	111	6	8,362	134	9.1
Alcoholic beverages	87	3	13,281	467	13.7
Feeds, prepared	109	6	4,846	334	10.0
Tobacco manufactures	221	6	68,100	3,229	9.7
Cigars and cigarettes	179	4	57,413	2,850	9.9

See footnotes at end of table.

Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During the Month Ending May 15, 1942—Continued

Group and industry	Establishments		Employees		Average percentage change in wage rates of employees having increases
	Total number covered	Number reporting increases	Total number covered	Number receiving increases	
Paper and printing	3,935	97	398,654	20,554	7.7
Boxes, paper	679	13	48,994	1,146	7.7
Paper and pulp	435	36	140,985	13,948	8.5
Book and job printing	1,488	21	76,308	1,102	7.3
Newspapers and periodicals	715	7	61,618	289	5.7
Paper bags	33	6	8,400	2,603	5.5
Paper goods, n. e. c.	153	8	24,938	715	5.7
Lithographing	90	4	8,072	628	5.3
Chemical, petroleum, and coal products	2,266	69	447,615	10,354	8.1
Petroleum refining	184	3	80,891	518	7.2
Chemicals	263	16	86,632	4,937	8.2
Druggists' preparations	98	8	17,567	2,198	7.1
Fertilizers	345	6	16,897	195	11.5
Paints and varnishes	490	11	24,510	384	7.4
Compressed and liquefied gases	77	3	3,035	63	8.0
Grease and tallow	24	3	660	44	7.0
Rubber products	277	10	128,699	4,955	7.9
Rubber goods, other	225	10	49,262	4,955	7.9
Miscellaneous	1,520	54	341,690	17,982	9.6
Fabricated plastic and wood-pulp products	74	4	17,599	745	14.5
Buttons	58	3	7,236	634	7.9
Instruments—professional, scientific and commercial	67	5	[2]	5,399	7.8
Photographic apparatus	35	3	27,197	2,329	13.9
Surgical and orthopedic appliances	50	4	11,052	802	9.0
Nonmanufacturing (except building construction)	[3] 90,440	393	[3] 3,114,800	22,583	7.5
Metalliferous mining	[3] 510	12	[3] 85,800	292	7.6
Quarrying and nonmetallic mining	[3] 1,120	25	[3] 42,800	525	11.9
Crude petroleum	[3] 490	9	[3] 38,900	2,581	5.5
Public utilities:					
Electric light and power	[3] 2,570	37	231,800	2,415	4.3
Manufactured gas	[3] 140	6	[3] 29,100	5,068	4.5
Street railways and busses	[3] 350	13	[3] 137,800	5,090	10.1
Trade:					
Wholesale trade	[3] 14,540	123	[3] 342,200	2,246	7.3
Retail trade	[3] 50,600	132	[3] 1,053,600	1,005	9.9
Hotels (year-round)	[3] 1,870	17	[3] 140,900	587	10.4
Laundries	[3] 1,290	8	[3] 85,800	315	13.4
Dyeing and cleaning	[3] 830	8	[3] 19,400	133	9.1

[1] Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "all manufacturing," and in the various industry groups. No decreases reported.
[2] Included in group totals but not available for publication separately.
[3] Approximate—based on previous month's sample.

PAY RATES OF TVA EMPLOYEES, 1942

A REVISED schedule of pay rates was issued by the Tennessee Valley Authority, effective January 1, 1942. The rates were set with the intention of giving "due and adequate recognition to intelligence, skill, training, experience, and responsibility required." For the employees paid by the hour they range from 50 cents an hour for unclassified laborers to $1.75 for equipment foremen and the highest class of supervising foremen in the skilled trades. Among the employees paid by the year the rates range from $1,140 for unclassified laborers to $2,800 for dredge-pump operators and lead burners.

The new scale set for each of the classifications of work is given in the accompanying table.

Rates of Pay on Construction, Maintenance, and Operation Work in TVA, as of January 1, 1942[1]

CONSTRUCTION, AND TEMPORARY OPERATING AND MAINTENANCE WORK

Classification	Wage rate
	Per hour
Apprentices, all trades:	
First period	$0.650
Second period	.800
Third period	.950
Fourth period	1.100
Armature winder	1.500
Asbestos worker, heat insulation	1.375
Asbestos worker improver	.775
Automotive-grader operator	1.250
Ax filer	.625
Blacksmith	1.375
Helper	.775
Blacksmith welder	1.500
Helper	.775
Boilermaker	1.500
Helper	1.000
Boilermaker welder	1.500
Helper	.775
Bolt-threading-machine operator	.775
Bricklayer	1.500
Bulldozer operator	1.250
Cableway head tower engineman	1.000
Cableway operator	1.500
Cableway signalman	1.500
Carpenter, form and finish	1.250
Carry-all operator	1.250
Cement finisher	1.375
Cement-pump operator	.850
Helper	.625
Cement scoopman	.750
Central compressor-plant operator	1.250
Central mixing-plant foreman	1.500
Chuck tender, tunnel	1.000
Clerical, first-aid laborer, land clearance	.625
Concrete-mixer operator:	
Less than 1 yard	1.000
1 yard and over	1.250
Concrete placing foreman	1.250
Concrete puddler	.600
Conveyor operator	.750
Core-drill foreman	1.250
Helper	.750
Core-drill operator	1.125
Crane-car operator	1.000
Crane operator, powerhouse or live boom	1.500
Crushing-plant foreman	1.375
Helper	.750
Operator	1.000
Deckhand	.625
Derrick operator, live boom	1.500
Dragline operator	1.500
Dredge booster-pump operator	1.000
Drill-bit grinder	.775
Drill-sharpener operator	1.375
Electrician	1.500
Electrician welder	1.500
Helper	.775
Elevating-grader operator	1.375
Equipment foreman	1.750
Excavation foreman	1.250
Fireman, stationary boilers, locomotive cranes, etc	$0.900
Flagman	.850
Foreman, skilled supervising trades—	
With $1.500 rate	1.750
With $1.375 rate	1.625
With $1.250 rate	1.500
With $1.125 rate	1.375
Form stripper	.850
Gas and Diesel mechanic	1.375
Helper	.775
Glazier	1.250
Grade checker	.625
Grade foreman	1.250
Groundman, line crew	.775
Groundman trainee	.650
Hoist operator:	
1 drum	1.000
2 drums	1.250
Hydraulic-monitor operator	.750
Jackhammer operator, drilling or chipping	.750
Labor foreman	1.250
Labor subforeman	.850
Laborer, unclassified	.500
Larvicidal-boat operator	.625
Lather, tie-on installation	1.500
Lineman	1.500
Loading-machine operator	.750
Locomotive fireman	.900
Locomotive operator:	
20 tons and over	1.250
Less than 20 tons	1.000
Machinist	1.375
Helper	.775
Machinist welder	1.500
Helper	.775
Marble setter	1.500
Marine engineer:	
50 tons and over	1.250
Less than 50 tons	1.125
Marine pilot:	
50 tons and over	1.250
Less than 50 tons	1.125
Millwright	1.250
Helper	.775
Mortar mixer	.750
Motorboat operator:	
Inboard	.750
Outboard	.625
Mucking-machine operator	1.500
Oiler	.900
Ornamental-iron worker	1.500
Other skilled building trades	1.125
Outside machinist	1.375
Helper	.775
Painter	1.250
Pan-scraper operator (turnapull type)	1.500
Paving-kettle man	.625
Pile-driver operator	1.500
Plasterer	1.500
Plumber	1.500
Helper	.775
Portable-compressor operator	1.000
Portable-crusher—	
Feeder	$0.600
Foreman	1.125
Operator	.750
Powder foreman	1.250
Powderman	1.000
Helper	.625
Power-grader operator	1.250
Power-shovel operator	1.500
Primary-crusher operator	1.125
Pump operator	1.000
Reclaiming-tunnel operator	.750
Refrigeration-plant foreman	1.250
Refrigeration-plant operator	1.000
Reinforcing-steel worker, bending, placing, tying	1.375
Road-roller operator:	
Bituminous	1.250
Earth	1.000
Roofer	1.125
Sand-classifier operator	.850
Saw filer	1.250
Sewer foreman	1.250
Sewer layer	.625
Shaft-and-tunnel—	
Foreman	1.250
Laborer	.600
Miner	.750
Sheet-metal worker	1.375
Helper	.775
Sheet-metal worker welder	1.500
Helper	.775
Sign painter	1.250
Steamfitter	1.500
Helper	.775
Steamfitter welder	1.500
Helper	.775
Stonemason	1.500
Structural-steel worker	1.500
Structural-steel worker welder	1.500
Helper	.775
Subforeman, skilled supervising trades—	
With $1.500 rate	1.600
With $1.375 rate	1.475
With $1.250 rate	1.350
With $1.125 rate	1.225
Switchman	1.000
Teamster:	
1 or 2 draft animals	.500
More than 2 draft animals	.625
Tender	.625
Terrazzo worker	1.500
Tile setter	1.500
Timber cross-cut-saw filer, land clearance	1.000
Timberjack, land clearance	.750
Timber rigger, land clearance	.750
Tool dresser	1.375
Track walker	.625
Tractor operator:	
Under 50 h. p.	1.000
50 h. p. and over	1.250
Transportation foreman	1.250

[1] Certain qualifications and directions for the guidance of TVA officials, in classifying workers, are omitted here.

Rates of Pay on Construction, Maintenance, and Operation Work in TVA, as of January 1, 1942—Continued

CONSTRUCTION, AND TEMPORARY OPERATING AND MAINTENANCE WORK—Con.

Classification	Wage rate
	Per hour
Trenching-machine operator	$1.250
Helper	.625
Truck operator:	
Under 3½ tons (including dump trucks under 3 cu. yds., struck measure)	.650
3½ up to 7½ tons (including dump trucks 3 cu. yds. up to 6 cu. yds., struck measure)	.850
Truck operator—Con.	
7½ tons and over (including dump trucks 6 cu. yds. and over, struck measure)	$1.000
Tractor or crawler type	1.000
Special equipment [2]	1.000
Fuel delivery	.850
Power-system construction, special equipment	1.000
Tunnel laborer	.600
Tunnel mechanic	$1.250
Tunnel miner	1.250
Vibrator operator	.750
Wagon-drill operator	.900
Helper	.625
Watchman	.500
Waterproofer, roofing	1.125
Well drill, 6 inches and over:	
Foreman	1.250
Operator	1.125
Helper	.750
Yard conductor	1.125

REGULAR OPERATING AND MAINTENANCE WORK

[Does not include operating work in Department of Chemical Engineering]

Classification	Per year
Airplane mechanic	$2,300
Apprentices, all trades:	
First period	1,260
Second period	1,440
Third period	1,620
Fourth period	1,800
Fifth period, line and substation maintenance only	2,000
Armature winder	2,300
Ash-car operator	1,320
Ash-drag operator	1,230
Ash-drag and pump operator	1,320
Assistant coal and ash foreman	1,800
Assistant operator:	
Pulverized-fuel boiler	1,800
Stoker boiler	1,800
Substation	1,800
Switchboard	2,000
Turbine, hydro	1,800
Turbine, steam	1,800
Water plant	1,620
Blacksmith	2,300
Helper	1,440
Blacksmith welder	2,300
Helper	1,440
Boiler-feed-pump operator	1,620
Boiler-room helper	1,170
Boilermaker	2,300
Helper	1,440
Boilermaker welder	2,300
Helper	1,440
Building-maintenance mechanic	2,300
Helper	1,440
Canvas and leather worker	2,200
Carpenter, form and finish	2,100
Cement finisher	2,100
Coal and ash foreman	2,200
Coal-crusher operator	1,230
Coal-drag operator	1,320
Condenser operator	1,800
Conveyor operator	1,230
Crane operator	2,100
Deckhand	1,230
Dragline operator, malaria control	$2,100
Dredge mate	2,200
Dredge-pump operator	2,800
Electric-locomotive operator, under 20 tons	1,620
Electrician	2,300
Electrician welder	2,300
Helper	1,440
Fan and heater operator	1,440
Fireman, small steam-electric plant	1,440
Flume-gate operator	1,320
Foreman, skilled supervising trades—	
With $2,100 rate	2,500
With $2,300 rate	2,600
Foreman:	
Small oil-electric plant	2,000
Small steam-electric plant	2,200
Garage attendant (wash, gas, etc.)	1,230
Gas and Diesel mechanic	2,300
Helper	1,440
Gate operator	1,440
Groundman, line maintenance	1,440
Industrial-yard conductor	2,100
Junior shift engineer, steam-electric generating plant	2,300
Junior operator:	
Condenser	1,620
Stoker boiler	2,000
Turbine, hydro	2,000
Turbine, steam	2,000
Water plant	1,440
Junior water tender	1,440
Labor foreman	1,800
Labor subforeman	1,620
Laborer, unclassified	1,140
Lead burner	2,800
Helper	1,440
Lineman	2,300
Locomotive-crane fireman	1,320
Locomotive-crane operator	2,100
Locomotive fireman	1,440
Locomotive operator, 20 tons and over	$2,100
Machinist	2,300
Helper	1,440
Machinist welder	2,300
Helper	1,440
Malaria-control foreman	1,620
Marine engineer:	
50 tons and over	2,000
Less than 50 tons	1,800
Marine pilot:	
50 tons and over	2,000
Less than 50 tons	1,800
Motorboat operator:	
Inboard	1,440
Outboard	1,230
Millwright	2,300
Helper	1,440
Oiler	1,440
Operator:	
Small oil-electric plant	1,800
Small steam-electric plant	2,000
Outside machinist	2,300
Helper	1,440
Painter	2,100
Plasterer	2,300
Plumber	2,300
Helper	1,440
Principal water-plant operator	2,300
Pulverized-fuel boiler operator	2,200
Pump operator, condenser room	1,440
Senior coal and ash foreman	2,400
Senior operator:	
Coal drag	1,440
Condenser	2,000
Stoker boiler	2,300
Substation	2,200
Turbine, hydro	2,300
Water plant	2,000
Senior labor foreman	2,000
Service man	2,300
Sheet-metal worker	2,300
Helper	1,440

[2] Includes all trucks with special equipment (such as winch trucks, refrigerator trucks, trailer trucks, etc.) regardless of size of truck, except power-system construction trucks.

Rates of Pay on Construction, Maintenance, and Operation Work in TVA, as of January 1, 1942—Continued

REGULAR OPERATING AND MAINTENANCE WORK—Continued

Classification	Wage rate
	Per year
Sheet-metal worker welder	$2,300
Helper	1,440
Shift engineer, steam-electric generating plant	2,500
Sign painter	2,100
Stationary-boiler fireman	1,320
Steam-plant maintenance foreman	2,600
Steamfitter	2,300
Helper	1,440
Steamfitter welder	2,300
Helper	1,440
Stoker-boiler operator	2,200
Student operator, generating-plant:	
First period	1,260
Second period	1,440
Third period	1,620
Fourth period	1,800
Structural-steel worker	2,300
Structural-steel worker welder	2,300
Helper	1,440
Substation operator	$2,000
Switchboard operator	2,200
Switchboard operator, small hydro plant	2,300
Switchman	1,620
Tender	1,230
Tractor operator	1,440
Truck operator:	
Under 3½ tons (including dump trucks under 3 cu. yds., struck measure)	1,230
3½ up to 7½ tons (including dump trucks 3 cu. yds. up to 6 cu. yds., struck measure)	1,320
7½ tons and over (including dump trucks 6 cu. yds. and over, struck measure)	1,440
Truck operator—Con.	
Special equipment [2]	$1,440
Power-system maintenance, special equipment	1,620
Turbine auxiliary attendant, hydro	1,440
Turbine operator:	
Hydro	2,200
Steam	2,200
Under water-plant operator	1,320
Water-plant operator	1,800
Water tender	1,620
Weigh-larry operator	1,320
Wiper	1,230

REGULAR OPERATING WORK, DEPARTMENT OF CHEMICAL ENGINEERING

	Per year
Acid-chamber operator, phosphate plant	$1,440
Acid operator	1,800
Acid-plant shift foreman	2,200
Acid pumper and adjuster	1,440
Ammonium-nitrate shift foreman	2,200
Assistant electric-furnace operator	1,620
Bagger and weigher	1,230
Bag hanger	1,170
Bag sewer, machine	1,230
Bagging foreman	1,800
Bagging and shipping foreman	2,290
Battery locomotive operator	1,320
Blast-furnace operator	1,800
Burden weigher	1,440
Helper	1,230
Burner operator, blast furnace	1,440
Clay-mixer operator	1,170
Continuous-mixer operator	1,230
Conveyor laborer	1,170
Conveyor operator	1,230
Dryer fireman	1,440
Helper	1,230
Electric furnace—	
Head tapper	1,320
Operator	1,800
Electric furnace—Con.	
Tapper	$1,230
Top laborer	1,170
Fertilizer trucker	1,170
Hostler	1,620
Hydrator operator	1,320
Industrial-yard conductor	2,100
Keeper	1,230
Helper	1,170
Kiln operator	1,800
Helper	1,320
Labor foreman	1,800
Labor subforeman	1,620
Laborer, unclassified	1,140
Loading checker	1,320
Locomotive-crane fireman	1,320
Locomotive-crane operator	2,100
Locomotive fireman	1,440
Locomotive operator, 20 tons and over	2,100
Metaphosphate-furnace operator	1,620
Metaphosphate-furnace tapper	1,230
Metaphosphate top laborer	1,170
Monorail operator	1,320
Nitric-acid shift foreman	2,200
Oiler	1,440
Phosphorus operator	1,620
Porter	$1,170
Power-shovel operator	2,100
Process steam plant—	
Foreman	2,200
Helper	1,320
Operator	1,800
Processing and manufacturing shift foreman	2,200
Pulverizer operator	1,440
Regulator operator:	
Furnaces and burners	1,440
No. 1 metaphosphate	1,320
Relief operating laborer	1,170
Relief operator	1,230
Do	1,320
Do	1,440
Do	1,620
Do	1,800
Storage-shed helper	1,440
Stove tender	1,320
Substation operator	2,000
Switchman	1,620
Tapping-floor laborer	1,170
Tapping-floor operator	1,800
Track foreman	1,800
Track walker	1,230
Truck operator, under 3½ tons (including dump trucks under 3 cu. yds., struck measure)	1,230
Tructractor operator	1,440

[2] Includes all trucks with special equipment (such as winch trucks, refrigerator trucks, trailer trucks, etc.) regardless of size of truck except power-system maintenance trucks.

SALARIES OF LIBRARY EMPLOYEES, 1941

Public Libraries

IN selected cities of over 200,000 population in the United States and Canada, salaries of chief librarians ranged from $2,880 to $11,700 on

November 1, 1941, according to statistics published in the American Library Association Bulletin (Chicago) for April 1942. Salaries of department heads ranged from $1,020 to $4,100, and of professional assistants, from $900 to $3,500.

Over one-half of the libraries reporting to the American Library Association gave salary increases in 1941, and slightly under one-half reported they were giving increases for the current fiscal year. In some libraries, however, the advances were not general for all classes of employees. Four libraries made no restoration of depression salary cuts and two others had made only partial restoration.

Summary data on salaries of five classes of public-library employees are given in table 1, for each of four population groups.

TABLE 1.—*Summary of Public-Library Salary Statistics for 5 Classes of Employees as of November 1, 1941*

Libraries serving population of—	Chief librarian	Assistant chief librarian	Department heads		Branch and subbranch librarians [1]		Professional assistants [2]	
			Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
More than 200,000:								
High	$11,700	$8,400	$3,400	$4,100	$2,520	$3,800	$1,824	$3,500
Median	6,000	3,000	2,020	2,790	1,534	2,000	1,200	1,880
Low	2,880	2,100	1,020	1,524	900	1,044	900	1,224
100,000 to 199,999:								
High	6,500	3,150	2,400	2,600	2,220	2,220	1,500	2,200
Median	3,600	2,340	1,560	2,100	1,380	1,690	1,200	1,500
Low	2,160	1,620	1,080	1,288	600	900	840	1,140
35,000 to 99,999:								
High	5,324	3,100	2,700	3,040	2,410	2,800	1,800	2,280
Median	3,300	2,250	1,620	1,935	1,500	1,620	1,260	1,600
Low	1,980	1,440	780	1,020	1,020	1,020	900	1,150
10,000 to 34,999:								
High	4,400	2,220	2,200	2,220	2,160	----	1,620	1,620
Median	2,100	1,500	1,620	1,700	1,250	----	1,140	1,380
Low	1,030	800	870	1,200	720	----	600	1,100

[1] Where only one salary is shown for any one classification, it is included in the minimum column.
[2] Excludes department heads; first assistants in departments, divisions, and branches; catalogers; and children's librarians.

Table 2 shows salaries of department heads, branch and subbranch librarians, and catalogers, on November 1, 1941, in public libraries of cities of over 200,000 population.

TABLE 2.—*Salaries for Specified Occupations in Public Libraries in Cities of Over 200,000 Population, in Effect November 1, 1941*

City	Department heads		Branch and subbranch librarians		Catalogers [1]	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
United States and Canada:						
High	$3,400	$4,100	$2,520	$3,800	$1,980	$2,900
Median	2,020	2,790	1,534	2,000	1,440	1,800
Low	1,020	1,524	900	1,044	984	1,104
United States						
Akron, Ohio	2,580	2,640	1,680	2,000	1,620	----
Atlanta, Ga.[2]	2,100	2,100	1,200	1,800	1,440	1,440
Birmingham, Ala.[3]	1,020	2,700	900	1,800	----	----
Buffalo, N. Y.	2,500	3,100	1,700	2,300	----	----
Chicago, Ill.	2,700	3,480	1,680	3,420	1,680	2,880
Cincinnati, Ohio [2]	2,000	3,200	1,400	1,880	1,350	1,700
Cleveland, Ohio [4]	2,800	4,100	2,500	3,400	1,620	2,900

See footnotes at end of table.

TABLE 2.—*Salaries for Specified Occupations in Public Libraries in Cities of Over 200,000 Population, in Effect November 1, 1941*—Continued

City	Department heads		Branch and sub-branch librarians		Catalogers [1]	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Columbus, Ohio	$1,980	$2,820	$1,500	$1,980	$1,080	$1,500
Dallas, Tex	1,500	1,800	1,080	1,380	1,200	------
Dayton, Ohio [5]	2,040	3,120	1,080	2,520	1,980	2,280
Denver, Colo	1,800	2,500	1,200	1,560	1,020	1,560
Detroit, Mich	2,700	3,600	2,520	3,000	------	------
Houston, Tex	1,800	2,100	960	1,560	1,380	------
Indianapolis, Ind	1,956	3,000	1,440	2,946	1,140	1,620
Kansas City, Mo	1,824	2,592	1,767	2,220	1,463	1,653
Los Angeles, Calif. (city)	2,400	3,120	1,980	2,700	1,560	1,920
Los Angeles, Calif. (county) [6]	------	------	1,080	1,824	1,500	1,908
Louisville, Ky.[2]	1,980	2,340	1,500	1,800	------	------
Minneapolis, Minn.[4]	2,600	3,000	2,100	2,500	1,500	1,800
New Orleans, La	1,374	1,524	924	1,044	984	1,104
New York City	1,620	3,600	1,800	2,820	1,320	2,220
N. Y. P. L. circulation department [7]	2,400	3,600	2,160	2,820	1,380	2,220
Brooklyn	1,620	3,600	2,100	2,820	1,400	2,220
Queens	2,195	3,600	1,800	2,820	1,320	1,980
Newark, N. J	1,500	3,700	1,900	3,100	1,900	2,200
Oakland, Calif	2,100	2,400	1,620	1,800	1,740	------
Oklahoma City, Okla	1,500	2,100	1,200	1,440	1,440	------
Omaha, Nebr	1,510	2,200	1,290	1,680	1,270	1,280
Philadelphia, Pa	2,000	2,475	1,350	1,800	1,350	1,500
Pittsburgh, Pa	1,732	4,000	1,800	2,100	([8])	1,800
Old City	3,000	4,000	1,800	2,100	1,380	1,800
Allegheny [9]	1,732	2,310	2,079	------	([8])	------
Portland, Oreg.[2]	2,340	2,760	1,500	1,980	1,500	1,800
Providence, R. I	1,260	2,600	1,508	1,976	1,300	2,100
Elmwood P. L.[9]	1,260	1,500	------	------	2,100	------
Providence P. L	1,820	2,600	1,508	1,976	1,300	1,508
Rochester, N. Y	1,860	3,360	[10] 1,680	2,300	1,500	------
St. Louis, Mo	1,710	3,600	1,440	2,190	1,440	2,160
St. Paul, Minn	------	------	1,876	2,029	1,737	1,737
San Antonio, Tex	1,884	1,884	1,080	1,500	------	------
San Diego, Calif	2,304	2,304	1,680	1,932	1,824	1,824
San Francisco, Calif	2,220	3,000	1,680	2,220	1,680	2,040
Seattle, Wash	2,280	2,880	1,680	2,340	1,560	1,860
Syracuse, N. Y	1,500	2,200	1,500	1,800	1,300	------
Toledo, Ohio	2,100	2,700	1,320	2,200	1,140	1,620
Washington, D. C	3,400	3,800	1,800	3,800	1,800	2,100
Youngstown, Ohio [3]	2,220	3,000	1,080	1,800	1,500	------
Canada						
Vancouver, B. C	2,160	2,400	1,800	------	1,680	------
Winnipeg, Manitoba	1,920	1,920	1,560	1,560	1,260	------

[1] Excludes department heads. [2] Serves city and county. [3] Serves city and part of county.
[4] Excludes statistics for county department.
[5] Provides extension service to all residents of county not served by a local library.
[6] Serves part of county.
[7] Serves 3 boroughs—Bronx, Manhattan, and Richmond. [8] Not reported.
[9] Omitted from high, median, and low, as population served is less than 200,000.
[10] Includes 2 acting branch librarians at $1,680 each; other branch librarians' salaries begin at $1,860.

College and School Libraries [1]

In libraries of the larger colleges and universities, salaries of chief librarians or library directors on May 1, 1941, as reported to the American Library Association, ranged from $1,800 to $10,000. However, salaries of chief librarians, as well as of certain other employees, were not reported by a number of institutions covered by the survey, including Columbia, Harvard, and Yale Universities. Department heads received from $1,100 to $4,000, and professional assistants in the order and catalog departments, respectively, from $720 to $2,500 and $1,022 to $3,250.

[1] American Library Association Bulletin, Chicago, February 1942, p. 120.

Salaries of chief librarians and certain assistants in college and school libraries on May 1, 1941, are shown in table 3, by type of organization.

TABLE 3.—*Salaries in University, College, and School Libraries as of May 1, 1941*

Library and salary classification	Salaries of—				
	Chief librarian or director	Professional assistants [1]		Subprofessional assistants	
		Minimum	Maximum	Minimum	Maximum
College and university, group I: [2]					
High	$10,000	$3,000	$3,500	$1,440	$1,800
Median	4,500			995½	1,260
Low	1,800	660	850	540	840
College and university, group II: [3]					
High	5,230	1,800	2,320	[4] 1,320	[4] 1,300
Median	2,700	1,300	1,600	[4] 850	[4] 930
Low	1,412	800	900	[4] 400	[4] 840
Teachers' college and normal school:					
High	3,750	2,400	2,400		
Median	2,409	1,200	1,740		
Low	1,400	1,100	1,260		

Library and salary classification	Salaries of—						
	Library supervisor	Librarians in charge		Teacher-librarians in charge [5]		Assistants [6]	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Secondary school:							
High	$4,500	$3,200	$4,600	$3,072	$3,000	$2,016	$3,600
Median	2,638	1,447½	2,226	1,616½	1,837	1,100	1,879½
Low	1,376	800	1,263	1,110	1,350	600	720

[1] Excludes associate or assistant chief librarians and departments heads.
[2] Institutions having enrollments of 1,000 or more undergraduate students during third week of fall term.
[3] Institutions having enrollments of fewer than 1,000 undergraduate students.
[4] Includes clerical assistants.
[5] Where only one salary is shown for any one classification, it is included in the minimum column.
[6] Includes professional, clerical, and "other" assistants.

Table 4 gives salary figures for four classes of employees in the larger college and university libraries as of May 1, 1941, by individual library.

TABLE 4.—*Salaries in the Larger University and College Libraries, in Effect May 1, 1941*

Library	Chief librarian	Department heads		Order department—professional assistants [1]		Catalog department—professional assistants	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
All libraries:							
High	$10,000	$3,000	$4,000	$2,100	$2,500	$2,148	$3,250
Median	4,500	1,800	2,430	1,332	1,700	1,347½	1,900
Low	1,800	1,100	1,560	720	1,200	1,022	1,500
Arizona	[2] 3,990	1,600	2,025	1,500		1,313	
Arkansas	(3)	1,500	2,050	1,200	1,400	1,500	1,600
Baylor	3,600			1,200		1,200	
Brown	[4] 6,000	1,900	2,400	1,200	1,400	1,200	2,185
California (Berkeley)	6,000	2,400	3,300	1,500	2,500	1,500	2,700
California (Los Angeles)	5,700	2,700	3,000	1,740	1,980	1,500	2,700

See footnotes at end of table.

TABLE 4.—*Salaries in the Larger University and College Libraries, in Effect May 1, 1941*—Continued

Library	Chief librarian	Department heads		Order department—professional assistants		Catalog department—professional assistants	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Chicago	$8,750	$1,500	$2,700	$1,440	$1,920	$1,296	$2,184
Cincinnati	4,807	2,137	2,424	1,167	1,361	1,167	1,750
Colgate	3,700	1,900	2,000				
Colorado State	3,600						
Columbia	[2]						
Dartmouth	6,300	1,320	2,250	1,200		1,200	1,800
Duke	[3]	[3]	[3]	[3]		[3]	[3]
Georgia	4,000	1,300	1,560			1,200	1,500
Harvard [5]	[3]	[3]	[3]	1,200	2,460	1,140	2,400
Illinois	[3]	3,000	3,600	1,400	2,500	1,400	2,800
Iowa		1,500	2,600	1,200	1,380	1,404	2,100
Iowa State	5,700	1,620	2,400	1,400	1,440	1,400	2,100
Joint university libraries [6]	6,000	1,200	2,200			1,020	1,740
Kansas	4,000	1,100	2,175			1,200	
Louisiana	6,000	1,900	3,000	1,080	1,200	1,200	2,200
Michigan	10,000	2,500	3,000	1,200	2,300	1,380	2,400
Michigan State	[7] 4,500	1,500	2,400	1,450		1,650	1,900
Missouri	4,500	2,000	2,400	1,000	1,600	1,600	1,800
Mount Holyoke	[3]	[3]	[3]	[3]		[3]	[3]
New York	[3]	1,600	3,000	1,800	2,200	1,600	2,100
North Carolina	[3]	1,611	2,076	1,445	1,547	1,122	1,683
North Dakota	2,050	1,500	1,560				
Oberlin	[4] 7,500	2,600	2,700	2,100		1,680	2,100
Oklahoma	3,804	1,200	2,508	720		1,392	1,800
Oregon	[9] 4,122	1,500	2,854	1,332	1,500	1,300	1,800
Oregon State	[10] 4,683	[11] 2,150	[11] 2,700	[11] 1,500	[11] 1,700	1,400	1,800
Pennsylvania	[12] 5,000	1,800	3,000	1,200	1,200	1,440	2,160
Pennsylvania State	5,000	1,800	2,100	1,300		1,200	1,700
Pittsburgh	[3]	[3]	[3]	[3]		[3]	[3]
Princeton	[2]	3,000	4,000	1,500	2,500	1,200	2,300
Rochester	[3]	1,800	2,800			2,000	2,100
Smith	[3]			[3]	[3]	[3]	[3]
South Dakota State	2,400					1,320	1,500
Southern Methodist	2,700	1,620	1,700	1,080		1,200	
Syracuse		1,980	1,980	1,200	1,740	1,200	1,860
University libraries	[13] 5,700	1,980	1,980	1,200	1,740	1,200	1,860
N. Y. State College of Forestry	2,370						
Temple	[3]	1,700	2,000	1,600		1,500	1,600
Texas	5,500	1,200	2,400	1,300	1,300	1,300	1,800
Vassar	4,500	2,000	3,000			1,700	1,900
Virginia	6,000	1,800	3,600	1,500		1,375	1,500
Virginia State	[14] 2,600	1,140	1,650				
Wake Forest	[15] 1,800	[16] 1,400					
Washington (St. Louis)	[3]	[3]	[3]			[3]	[3]
Washington (Seattle)	4,740	2,160	2,460	1,380	1,980	1,440	1,860
Wayne	4,200	3,000	3,600				
Wellesley	[3]	[3]	[3]			[3]	[3]
Wyoming	3,036	1,920	2,292			2,148	
Yale [17]	[3]	[3]	[3]	1,450	2,500	1,250	3,250

[1] Includes accession and acquisition departments.
[2] Plus 1 consulting librarian at $1,700.
[3] Salary confidential or not for publication.
[4] Part of salary paid as professor of bibliography.
[5] Includes main collection of Harvard College Library and 14 special libraries.
[6] Includes libraries in George Peabody College for Teachers, Scarritt College for Christian Workers, and Vanderbilt University.
[7] Plus $67 for summer session.
[8] Director of libraries at $10,000; also 6 librarians of individual libraries at $1,800 to $6,000.
[9] Plus director of libraries, Oregon State System of Higher Education, who is paid one-eighth of salary by University of Oregon.
[10] Receives one-eighth of salary as director of libraries, Oregon State System of Higher Education.
[11] Head of order department and one professional assistant in order department have one-half of salary paid by University of Oregon and one-half by Oregon State College.
[12] Plus one director of libraries at one-half time.
[13] Includes $2,850 as director and professor of library school, plus $500 for summer session.
[14] Part of salary paid as teacher of library science.
[15] Plus $250 for summer session.
[16] Plus $200 for summer session.
[17] Central library only.

UNION WAGES ON GOVERNMENT-CONTRACT PRINTING IN ARGENTINA[1]

PAYMENT of specified minimum wages agreed upon by employer and worker associations in the graphic arts in Argentina is required in contracts for printing, binding, and similar work by the Government agencies in the Federal Capital, according to a decree of November 12, 1941, issued by the Ministry of the Interior. Work to which this decree applies include typography, presswork, lithography, photoengraving, and binding. Government offices having the work done must see that their inspectors verify the payment of the minimum wages specified. Fines are specified for infractions of this legislation, whether by failure to pay the specified minimum wages or to notify the Government offices of the place and exact time of payment of wages. The obligations imposed upon the contractors are extended also to subcontractors; the contractors are to be held responsible for offenses committed by the subcontractors.

Minimum wages specified are for an 8-hour day, unless otherwise indicated in the schedule. Except for operators of certain rotary presses for color printing (for which the highest wage is 2.40 pesos [2] per hour), the hourly rates vary from 30 centavos for certain unskilled work to 2 pesos for highly skilled operations in various types of work in graphic arts. Except where there is specific agreement to the contrary, apprentices in any division are to receive 25 centavos for the first half year, and an increase of 5 centavos each half year until the sixth half year, when they are to receive a minimum of 50 centavos.

HOURLY WAGE RATES IN GERMANY, END OF 1941

AVERAGE hourly wage rates in certain important industries in Germany in December 1941 are given in the Reichsarbeitsblatt (the official publication of the German Ministry of Labor) for March 15, 1942. This table is reproduced almost in full below. These rates relate only to persons in the upper age groups, and cover only workers within the pre-war boundaries of the country.

The wage rates given, it is understood, are those fixed by the Labor Trustees and express the gross money wages—i. e., without deductions for taxes, social insurance, and other contributions and payments. The exact amount of such deductions in December 1941 (the period covered by the table) is not known, but as early as 1938 they totaled at least 13 percent of wages on the average,[3] and at present constitute, it is unofficially computed, between one-quarter and one-third of total wage income for German workers. For non-German workers the deductions in most cases are much greater.

The wage rates in the table are expressed in pfennigs, there being 100 pfennigs to the mark. The exchange value of the mark in international transactions was quoted as 40 cents in United States currency in 1941, but the mark's value in domestic circulation is obscure. Its domestic purchasing value would depend on the retail prices of consumer goods, and recent information on such prices is not available.

[1] Argentina, Boletín Oficial (Buenos Aires), February 28, 1942, pp. 1-3.
[2] Official exchange rate of Argentine peso (100 centavos) 1941-April 1942=29.77 cents.
[3] See Monthly Labor Review April 1939 (p. 920).

Average Hourly Wage Rates in the Upper Age Groups in Germany, December 1941

Industry	Average hourly wage rates (in pfennigs)				
	Males			Females	
	Skilled workers	Semi-skilled workers	Helpers	Skilled and semi-skilled workers	Helpers
All industries	80.8	70.2	63.9	51.9	44.5
Hard-coal mining	95.5		60.5		
Lignite (brown coal) mining	75.8	71.0	67.+		
Metalworking	79.4	72.0	62.4		46.9
Chemicals	88.0	72.1			47.5
Building trades	84.4		67.7		
Paper making	75.9		57.3		38.6
Paper products	92.9	83.8	69.0	52.7	43.0
Printing trades	96.1		79.7		48.8
Woodworking	79.6	66.7	61.2		
Ceramics	70.8		58.9	43.4	36.1
Textiles	65.6	65.6	54.9	51.5	40.8
Worsted-yarn spinning	72.1	72.1	56.5	46.5	40.6
Woolens	63.4	63.4	54.9	53.8	41.9
Cotton	65.2	65.2	54.1	53.4	40.7
Linen	61.1	61.1	51.0	46.8	37.9
Silk	58.4	58.4	54.5	51.4	41.9
Clothing	74.1			48.4	
Tailoring, men's	74.0				
Tailoring, women's				50.9	
Outer clothing, men's	73.8			50.5	
Outer clothing, women's				54.9	
Work clothes				41.8	
Shoes	79.2	79.2		59.9	
Brewing	105.1		92.9		59.8
Confectionery	80.8		69.1		46.1
Railways	85.4	75.7	72.8		
Post office	80.1	74.2	67.0		
Durable (capital) goods	84.4		64.5		
Nondurable (consumption) goods	73.9		61.8		
All industries and trades	79.7	69.8	63.3	51.9	44.5
Transportation and communications	84.7	75.5	71.9		

PRODUCTION BONUS IN BRITISH BUILDING AND CIVIL ENGINEERING

PAYMENT by results, insofar as practicable and desirable, in the building and civil-engineering industries is required on projects that are subject to the British Essential Work (Building and Civil Engineering) Order of 1941. This practice was put into effect by the Government at the beginning of July 1941 for certain operations in building and civil engineering. The system was extended in October in view of the satisfactory results and the notable increase in output, and certain additions to and changes in the scheme have since been authorized, based on recommendations made by a joint advisory panel composed of representatives of employer and employee organizations. A memorandum issued recently by the Ministry of Works and Buildings describing the system of wage payments by results for these particular industries is summarized in the British Ministry of Labor Gazette for May.

Bonuses are paid in addition to time rates of pay and are calculated on an hourly basis but ascertained weekly. Under the plan each worker receives the weekly bonus he has earned and is also entitled to payment at regular time rates for not less than 8 hours each weekday

and 4 hours for each Saturday during which he is capable of and available for work. Calculation of the bonus is normally made by crews and this principle is to be applied to the maximum possible extent. The bonuses have been arrived at in relation to specified circumstances and, where the circumstances on individual projects differ from those specified, variations of detail are permissible. However, no variation is permitted in the principles laid down for distributing the bonus among the members of the crew.

Assurances that were given by the Government when the scheme was first introduced are quoted in the memorandum. Provision is made that any agreement reached by negotiation between employers and employees which would be more effective in attaining the object which the Government's scheme is designed to achieve will be considered. In the interim, departures from the scheme will not be recognized by the Government. Although certain departures from the scheme are prohibited, such as the payment of a bonus without reference to a measurable volume of work, it is intended to be as flexible as possible. In branches of the industry in which employees were previously paid solely on a time-rate basis, wage payment by results will constitute a recognized "change of practice" and as such will operate only for the war period unless and insofar as it may be continued by joint agreement. In no case will a worker receive less pay under the present scheme than he would receive for the same time worked under existing agreements or under the guaranteed-pay provisions of the essential-work order.

Application is limited to projects scheduled under the essential-work order for these industries. On these projects there may be no departures from the principles of the scheme and no unauthorized methods of bonusing permitted, regardless of whether agreement is reached with the operatives on the project. This ruling does not prejudice the rights of civil-engineering employers and operatives to make arrangements for bonus payments for civil-engineering operations outside the jurisdiction of the scheme. However, any such agreed arrangements must be in general conformity with the principles established under the scheme. No building operations may introduce bonus systems except those subject to the scheme.

Builders and contractors operating on projects not scheduled under the essential-work order must observe the terms and conditions of employment fixed by joint agreement in the industry or by arbitration, in order to hold certificates of registration under the defense regulations. It is illegal to operate without such certificates. Therefore, contractors on nonscheduled projects may not operate bonus-payment schemes unless they are in accordance with the terms and conditions of the industry. In the civil-engineering industry payment of bonuses is permissible in accordance with the national agreement for that industry. No such provision exists in the national agreement for the building industry.

WAGES IN SWITZERLAND, 1941

WAGES in three of the principal cities of Switzerland increased considerably between the end of October 1939 and October 1941. A report of the wages fixed by collective agreement or municipal regu-

lation in 21 occupations in Zurich, Berne, and Basel, published in the December 1941 issue of La Vie Économique, official organ of the Federal Department of Public Economy in Switzerland, shows that from 1939 to 1940 the average increase was 3.5 percent, and from 1940 to 1941, 6.3 percent, or a total of approximately 10 percent in the 2 years following the outbreak of the war in Europe. The detailed wage tables show both minimum and maximum rates in some cases, rates for each year of apprenticeship in some of the trades, and the wages of unmarried workers and of married workers without children or with two children. Wages are graded in these latter cases according to family responsibility, the increase in weekly wages in the same occupation for married workers with children over those of unmarried workers ranging in general from 1 franc [1] to 5 francs per week.

Wage rates in effect in Zurich at the end of October in each of the years 1939 to 1941, are shown for different occupations in the following table. In general, the rates in Berne were the same as those in Zurich, while the rates in Basel were slightly lower.

Wages Fixed by Collective Agreement or Municipal Regulation in Zurich, Switzerland, at the End of October 1939, 1940, and 1941

Occupation	Period	Rate of wages, including cost-of-living bonus			Index (1939=100)	
		1939	1940	1941	1940	1941
		Francs	*Francs*	*Francs*		
Bakers [1]—minimum	Week	85.00	87.31	94.23	102.7	110.9
maximum	do	94.00	96.31	[1] 103.23	102.5	109.8
Masons—average	Hour	1.69	1.78	1.89	105.3	111.8
Carpenters—minimum	do	1.71	1.80	1.91	105.3	111.7
Painters—do	do	1.70	1.75	1.90	102.9	111.8
Cabinetmakers—average	do	1.86	1.91	2.05	102.7	110.2
Upholsterers—do	do	1.86	1.91	2.08	102.7	111.8
Building laborers—do	do	1.35	1.44	1.55	106.7	114.8
Printing, hand compositors [2]—minimum	Week	91.00	96.00	100.00	105.5	109.9
Printing-machine operators [2]—do	do	101.00	106.00	110.00	105.0	108.9
Bookbinders [3]—do	Hour	1.65	1.75	1.82	106.1	110.3
Bookbinders' assistants [2]—do	do	1.05	1.13	1.20	107.6	114.3
Locksmiths—do	do	-------	1.55	1.70	-------	-------
Tinsmiths—do	do	1.75	1.81	1.95	103.4	111.4
Electricians—do	do	1.75	1.80	1.95	102.9	111.4
Steam fitters—do	do	1.78	1.84	1.93	103.4	108.4
Electrical fitters:						
Municipal enterprises [3]—maximum	Month	480.30	480.30	507.30	100.0	105.6
Assistants (municipal enterprises)—do	do	396.85	396.85	423.85	100.0	106.8
Tramway and bus conductors [3]—do	do	480.30	480.30	507.30	100.0	105.6
Bus drivers [3]—do	do	494.20	494.20	521.20	100.0	105.5
Railroad workers, maintenance [3]—do	do	352.25	352.25	[4] 370.65	100.0	105.2
Chauffeurs	Week	89.50	93.50	97.50	104.5	108.9
Drivers	do	80.00	84.00	88.00	105.0	110.0

[1] An autumn allowance of 60 francs is paid plus 10 francs for each child.
[2] Married worker.
[3] Married worker with 2 children.
[4] Workers earning 4,500 francs per year or less receive an autumn allowance of 200 francs and a children's allowance of 20 francs; for workers receiving more than 4,500 francs a reduced bonus is paid; unmarried workers receive half the allowance of married workers.

[1] Average exchange rate of franc in June 1941=23.2 cents.

WAGES AND COST OF LIVING IN URUGUAY [1]

Wages

ACCORDING to wage estimates made by the Ministry of Agriculture of Uruguay, permanent agricultural laborers in Uruguay in 1942 received for unskilled labor an average of 20 to 25 Uruguayan pesos [2] per month, and for casual labor from 0.80 to 1.20 pesos per day, together with food and shelter of an estimated value of 17 to 25 pesos per month in each case. Wages varied considerably according to location and employer.

The cash wages paid in various agricultural occupations were as follows:

	Cash wages (pesos)
Sheep ranches:	
Unskilled workers:	
Permanent, per month	20. 00
Casual, per day	0. 80– 1. 00
Skilled and semiskilled workers (sheep shearing):	
Shearers, per sheep	. 04
Shearers' helpers, per day	1. 50
Fleece gatherers, do	1. 00– 1. 20
Balers, do	1. 50
Cereals and linseed:	
Unskilled workers:	
Permanent, per month	20. 00–25. 00
Casual, per day	1. 00– 1. 20
Harvest crews: [1]	
Machine operators, do	4. 00
Grain sackers, do	3. 00– 3. 50
Helpers, do	2. 00

[1] Estimated.

In the above occupations food and shelter of an estimated value of 17 to 25 pesos per month are provided. Labor employed by the wool dealers in sorting, skirting, and baling wool for export is often remunerated on a piece-work basis at rates somewhat higher than those for shearing. Harvesting of cereals and linseed are often contracted for at a certain rate per hectare [3] or per 100 kilos [4] of product.

In the meat-packing industry unskilled labor received 34 to 45 centésimos per hour, and skilled labor from 55 centésimos to 1.89 pesos, but generally from 55 to 98 centésimos; in the leather industry, unskilled laborers received 60 to 90 pesos per month, and skilled workers, 120 pesos.

Wages in meat-packing establishments and in the manufacture of leather on January 1, 1942, were as follows:

	Wages (pesos)
Meat packing:	
Unskilled workers:	
Mechanics, semiskilled, per hour	0. 45
Laborers, semiskilled, do	. 37
Laborers, unskilled, do	. 34
Skilled workers:	
Floormen, backers, rumpers, do	1. 62–1. 89
Headers and sawyers, do	. 82– . 98
Other skilled killing-floor labor, do	. 57– . 60
Meat boners, do	. 67
Meat trimmers, do	. 43
Mechanics, do	. 55

[1] Data are from reports of Eugene A. Gilmore, Jr., senior economic analyst at the United States Embassy in Montevideo, Uruguay.
[2] Controlled exchange rate of Uruguayan peso (100 centésimos) in 1941=65.8 cents.
[3] Hectare=2.47 acres.
[4] Kilo=2.20 pounds.

		Cash wages (pesos)
Leather:		
Unskilled workers:		
Common laborers	per month	60. 00
Semiskilled operators	do	80. 00–90. 00
Skilled workers:		
Splitters	do	120. 00

In the meat-packing industry, all labor, except certain highly skilled groups on piece work, receive an incentive bonus, which adds approximately 10 percent to their earnings. Sales of meat below cost to employees provide an estimated subsidy of from 3 to 5 pesos per month per worker.

Income and Cost of Living

In April 1940, the Ministry of Industries and Labor made a study of family budgets of 2,279 workers' families in the food products and the tobacco industries. Packing-house employees are the largest single group in this classification. Workers engaged in the manufacture of glycerine, a part of the soap industry, are included in a similar budget study of chemicals.

The average monthly income of the families was as follows:

	Packing-house workers (pesos)	*Chemical workers (pesos)*
Average monthly family income	70. 51	75. 73
Average monthly wage of head of family	54. 46	36. 53

Some idea of the trend of living costs may be found in the highest and lowest monthly index numbers of cost of living of workers' families in Montevideo during each of the last 3 years, using 1933 as the base or 100.

	Month	*Index*
Year 1939:		
Highest	December	112. 1
Lowest	March	103. 6
Year 1940:		
Highest	December	114. 4
Lowest	September	111. 7
Year 1941:		
Highest	June	114. 1
Lowest	July	108. 4

It is to be noted that the index did not fall below 111.7 after November 1939 until July 1941; the change in index numbers corresponds roughly with the demands for additional wages. After a sudden drop from June to July 1941, there was a steady rise in the index to its level of 113.7 in November 1941, the last month reported.

Wage and Hour Regulation

WAGE DETERMINATIONS UNDER PUBLIC CONTRACTS ACT [1]

67.5-Cent Wage in Women's Hat and Cap Industry

UNDER a determination made by the Secretary of Labor, employees engaged on public contracts in the women's hat and cap industry are entitled to receive 67.5 cents an hour or $27 for a week of 40 hours on and after July 11, 1942. The prevailing minimum rate is the same as was established for the men's hat and cap industry by determinations issued on July 28, 1937, and on January 24, 1938,[2] and applies to the manufacture or furnishing of women's hats and caps of design and construction similar to those covered in the determinations for the men's industry.

40-Cent Minimum for Shoe Industry

The definition of the shoe industry adopted by the Wage and Hour Division under the Fair Labor Standards Act of 1938 has been applied in letting Government contracts under the Public Contracts Act of 1936, and the 40-cent hourly rate of pay became effective on July 11, 1942, on all contracts let for products of the shoe manufacturing and allied industries. By the terms of an earlier determination, effective January 5, 1938, made by the Secretary of Labor under the Walsh-Healey Act, 40 cents an hour was also specified as the prevailing minimum, but only the men's welt shoe industry was covered.[3]

40-Cent Rate for Cotton-Garment and Allied Industries

A determination issued by the Secretary of Labor provides for a 40-cent minimum hourly rate of pay in the cotton-garment and allied industries on Government contracts, bids for which are solicited or negotiations otherwise commenced on or after July 20, 1942. The 40-cent rate conforms with the minimum established under the Fair Labor Standards Act and supersedes the 37.5-cent minimum fixed by previous determination and amendments under the Public Contracts Act in 1937 and 1938.[4]

40-Cent Minimum Wage for Textile Industry

As of June 24, 1942, a minimum wage of 40 cents an hour or $16 a week became effective for work performed on Government contracts in the textile industry under the Public Contracts Act. The previous minimum wage determination for the industry under that law was 37.5 cents hourly, effective November 17, 1941. Forty cents an hour was established as the minimum rate under the Fair Labor Standards Act on April 20, 1942.

[1] U. S. Department of Labor. Division of Public Contracts. Press releases Nos. 210, 311, and 329 of 1942.
[2] See Monthly Labor Review, issue of October 1940 (p. 811). [3] Idem, p. 811. [4] Idem, p. 809.

Labor Turn-Over

LABOR TURN-OVER IN MANUFACTURING, MAY 1942

A FURTHER rise in quit rates in manufacturing industries in May 1942 continued the unbroken succession of increases which began in December 1941 and raised the May average (3.77 per hundred workers) above all preceding levels since the Bureau of Labor Statistics began compiling these data in 1930. Voluntary separations increased, partly because of the prevailing job opportunities offering higher wages or more desirable working conditions. Inadequate housing and transportation facilities were also factors accounting for the increased numbers of workers voluntarily leaving jobs to secure other employment. Lay-offs increased slightly from April to May, the rate remaining high in those industries affected by priorities or facing material shortages, such as rubber boots and shoes, tires, furniture, lighting equipment, hardware, stamped and enameled ware, agricultural implements, stoves, and textile machinery. The discharge rate for May (0.38 per hundred) was above all preceding levels since June 1930 and indicated that an increased number of the newly employed factory workers were not proving satisfactory in the positions assigned. The miscellaneous separation rate, which includes military separations, was also at the highest level on record, the rate reaching nearly 1 per hundred factory workers employed in May. Total accessions and separations each showed an increase over the month interval. As in preceding months, accessions exceeded separations, new hirings constituting the major portion of the increase in the former.

Table 1 shows the turn-over rates for all factory wage earners combined and table 2 presents data for the separate industries in which sizable numbers of workers are employed and the release of the data is not restricted. Quit rates for a number of the selected war industries for which complete data have been withdrawn from public release are shown in table 3.

The Bureau of Labor Statistics' monthly survey of labor turn-over for May covered approximately 8,900 manufacturing establishments employing more than 4,450,000 workers.

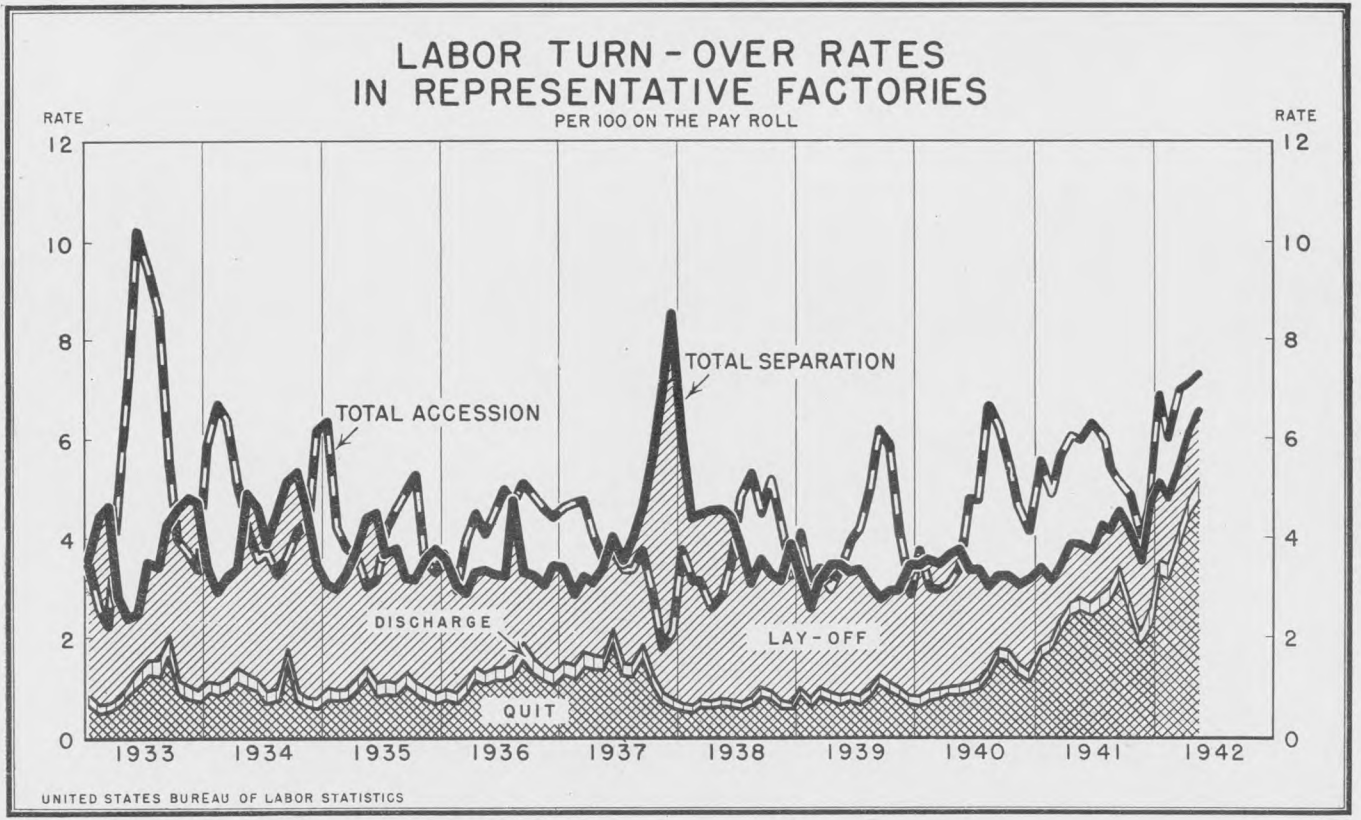

TABLE 1.—*Monthly Labor Turn-Over Rates of Factory Workers in Representative Establishments in 135 Industries* [1]

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
Separations:													
Quits:													
1942	2.36	2.41	3.02	3.59	3.77								
1941	1.31	1.33	1.70	2.08	2.20	2.06	2.25	2.46	2.81	2.11	1.57	1.75	1.97
Discharges:													
1942	.30	.29	.33	.35	.38								
1941	.18	.19	.21	.25	.24	.26	.29	.30	.31	.28	.24	.29	.25
Lay-offs: [2]													
1942	1.61	[4] 1.39	1.19	1.31	1.43								
1941	1.61	1.20	1.06	1.19	1.08	1.03	1.40	1.13	1.16	1.41	1.44	2.15	1.32
Miscellaneous separations: [3]													
1942	.83	.73	.82	.87	.96								
1941	.31	.43	.43	.37	.34	.36	.30	.25	.25	.33	.26	.52	.35
Total:													
1942	5.10	[4] 4.82	5.36	6.12	6.54								
1941	3.41	3.15	3.40	3.89	3.86	3.71	4.24	4.14	4.53	4.13	3.51	4.71	3.89
Accessions:													
Rehirings:													
1942	1.41	[4] 1.03	1.18	1.11	1.07								
1941	1.45	1.08	1.24	1.04	.92	.90	1.04	1.11	.87	.86	.79	.94	1.02
New hirings:													
1942	5.46	4.99	5.81	6.01	6.22								
1941	4.09	3.84	4.38	5.00	5.03	5.41	4.96	4.32	4.29	4.01	3.12	3.82	4.36
Total:													
1942	6.87	[4] 6.02	6.99	7.12	7.29								
1941	5.54	4.92	5.62	6.04	5.95	6.31	6.00	5.43	5.16	4.87	3.91	4.76	5.38

[1] The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees. It should be noted that turn-over rates are not directly comparable to the "employment and pay-roll" reports issued by the Bureau of Labor Statistics. Turn-over rates are based on data for the entire month, while employment and pay-roll indexes refer only to the pay period ending nearest the middle of the month. Certain seasonal industries, such as canning and preserving, are not covered by the labor turn-over survey. Finally, the coverage of the labor turn-over sample is not as extensive as that of the employment sample, which includes a greater number of small plants.

[2] Including temporary, indeterminate, and permanent lay-offs.

[3] Military separations included.

[4] Revised.

TABLE 2.—*Monthly Turn-Over Rates (Per 100 Employees) of Factory Workers in 42 Manufacturing Industries* [1]

Industry	Month	Separation rates					Accession rates		
		Quit	Discharge	Layoff	Miscellaneous separation [2]	Total separation	Rehiring	New hiring	Total accession
Agricultural implements	May 1942	2.33	0.34	1.12	1.10	4.89	0.31	4.84	5.15
	Apr. 1942	2.37	.26	.61	1.26	4.50	.65	4.04	4.69
	May 1941	1.48	.22	.56	.43	2.69	1.46	3.60	5.06
Automobiles and bodies	May 1942	1.88	.20	1.75	1.26	5.09	4.00	4.09	8.09
	Apr. 1942	1.84	.16	3.18	.95	6.13	3.02	4.56	7.58
	May 1941	1.98	.11	1.09	.49	3.67	1.29	2.09	3.38
Automobile parts and equipment.	May 1942	2.41	.52	1.22	.93	5.08	1.23	5.89	7.12
	Apr. 1942	2.72	.55	1.70	.92	5.89	.92	6.87	7.79
	May 1941	2.32	.40	1.57	.36	4.65	1.30	5.29	6.59
Boots and shoes	May 1942	3.77	.28	1.16	.72	5.93	.73	4.00	4.73
	Apr. 1942	3.13	.26	.99	.63	5.01	.80	3.88	4.68
	May 1941	1.94	.14	2.57	.27	4.92	.61	3.04	3.65
Boxes, paper	May 1942	4.75	.64	.99	.83	7.21	.78	4.38	5.16
	Apr. 1942	4.11	.33	1.33	.73	6.50	.91	4.49	5.40
	May 1941	2.56	.36	.83	.23	3.98	.73	6.03	6.76
Brick, tile, and terra cotta	May 1942	3.67	.25	1.15	.58	5.65	.99	5.57	6.56
	Apr. 1942	4.10	.30	1.07	.45	5.92	1.67	6.08	7.75
	May 1941	2.13	.15	2.08	.25	4.61	1.90	5.70	7.60
Cast-iron pipe	May 1942	1.87	.24	.67	.59	3.37	1.21	2.29	3.50
	Apr. 1942	1.61	.29	.61	.39	2.90	.35	2.48	2.83
	May 1941	1.78	.43	.09	.38	2.68	1.21	3.63	4.84
Cement	May 1942	2.59	.21	.69	.55	4.04	.99	4.47	5.46
	Apr. 1942	2.37	.16	.16	.73	3.42	1.85	4.33	6.18
	May 1941	.68	.12	.63	.31	1.74	.39	4.79	5.18
Chemicals	May 1942	2.79	.51	1.32	1.03	5.65	.31	5.16	5.47
	Apr. 1942	3.07	.44	.70	.89	5.10	.46	5.28	5.74
	May 1941	1.62	.32	.68	.48	3.10	.41	4.12	4.53
Cigars and cigarettes	May 1942	5.65	.18	.38	.23	6.44	.77	4.18	4.95
	Apr. 1942	4.80	.13	.53	.29	5.75	.94	3.27	4.21
	May 1941	2.67	.12	.23	.21	3.23	.74	3.46	4.20
Cotton manufacturing	May 1942	5.92	.42	.84	.59	7.77	1.53	6.63	8.16
	Apr. 1942	5.78	.38	.75	.58	7.49	1.25	6.74	7.99
	May 1941	3.91	.31	.77	.36	5.35	1.13	5.69	6.82
Dyeing and finishing textiles	May 1942	5.55	.56	.71	.76	7.58	1.20	6.22	7.42
	Apr. 1942	5.40	.68	1.37	.86	8.31	1.33	6.65	7.98
	May 1941	3.46	.27	.86	.50	5.09	.79	3.81	4.60
Flour	May 1942	4.23	.34	.72	.70	5.99	.47	5.73	6.20
	Apr. 1942	4.41	.43	.98	.52	6.34	.51	5.59	6.10
	May 1941	1.96	.15	1.04	.28	3.43	.43	3.83	4.26
Foundries and machine shops	May 1942	3.80	.55	1.21	.86	6.42	.75	6.96	7.71
	Apr. 1942	3.59	.50	1.23	.90	6.22	.62	6.84	7.46
	May 1941	2.64	.48	.63	.33	4.08	.45	6.43	6.88
Furniture	May 1942	5.97	.44	2.49	.80	9.70	1.22	7.62	8.84
	Apr. 1942	6.36	.44	3.59	.87	11.26	1.36	5.80	7.16
	May 1941	3.50	.48	.61	.51	5.10	1.15	6.57	7.72
Glass	May 1942	2.89	.38	1.56	.99	5.82	1.10	3.89	4.99
	Apr. 1942	2.77	.21	1.69	.98	5.65	1.21	3.60	4.81
	May 1941	1.77	.18	1.09	.34	3.38	.54	3.47	4.01
Hardware	May 1942	5.29	.37	1.36	.66	7.68	.56	5.08	5.64
	Apr. 1942	5.74	.48	1.76	.81	8.79	.41	4.92	5.33
	May 1941	3.77	.25	.51	.30	4.83	.71	5.56	6.27
Iron and steel	May 1942	2.51	.15	.45	1.13	4.24	.56	3.82	4.38
	Apr. 1942	2.29	.16	.34	1.04	3.83	.54	3.80	4.34
	May 1941	1.00	.11	.28	.37	1.76	.67	3.20	3.87
Knit goods	May 1942	4.74	.24	1.05	.36	6.39	.74	3.60	4.34
	Apr. 1942	3.89	.19	1.27	.38	5.73	.74	3.69	4.43
	May 1941	2.19	.27	1.13	.17	3.76	.92	3.10	4.02
Leather	May 1942	3.25	.22	1.17	.58	5.22	.36	3.41	3.77
	Apr. 1942	2.54	.22	1.10	.66	4.52	.52	3.23	3.75
	May 1941	1.23	.23	1.43	.34	3.23	.55	3.03	3.58
Lighting equipment	May 1942	4.55	.23	9.12	1.19	15.09	1.42	8.46	9.88
	Apr. 1942	3.12	.20	8.50	.68	12.50	1.01	6.59	7.60
	May 1941	2.83	.15	.46	.10	3.54	.25	4.66	4.91
Men's clothing	May 1942	3.56	.30	2.08	.24	6.18	.75	3.66	4.41
	Apr. 1942	3.16	.27	.88	.23	4.54	.95	3.66	4.61
	May 1941	1.89	.20	1.50	.20	3.79	1.32	3.63	4.95
Paints and varnishes	May 1942	3.55	.32	1.24	.90	6.01	.39	4.11	4.50
	Apr. 1942	3.44	.29	1.90	1.96	7.59	.39	3.28	3.67
	May 1941	1.76	.32	.42	.21	2.71	.90	4.77	5.67
Paper and pulp	May 1942	3.99	.33	.90	.87	6.09	.47	4.99	5.46
	Apr. 1942	3.61	.42	.86	.94	5.83	.49	5.06	5.55
	May 1941	1.31	.17	.62	.29	2.39	.28	3.52	3.80

[1] No individual industry data shown unless reports cover at least 25 percent of industrial employment.
[2] Military separations included.

TABLE 2.—*Monthly Turn-Over Rates (Per 100 Employees) of Factory Workers in 42 Manufacturing Industries*—Continued

Industry	Month	Separation rates					Accession rates		
		Quit	Discharge	Layoff	Miscellaneous separation	Total separation	Rehiring	New hiring	Total accession
Petroleum refining	May 1942	1.10	0.15	0.54	0.71	2.50	0.16	2.49	2.65
	Apr. 1942	.82	.11	.47	.73	2.13	.19	2.49	2.68
	May 1941	.35	.07	.46	.27	1.15	.40	2.31	2.71
Planing mills	May 1942	7.22	.68	1.07	1.17	10.14	1.95	8.78	10.73
	Apr. 1942	7.33	.65	2.64	1.05	11.67	1.00	8.80	9.80
	May 1941	2.87	.31	1.01	.34	4.53	1.79	5.18	6.97
Printing: Book and job	May 1942	3.23	.17	2.54	.56	6.50	1.42	3.44	4.86
	Apr. 1942	3.41	.24	2.42	.73	6.80	1.47	3.72	5.19
	May 1941	1.79	.32	2.60	.27	4.98	1.49	3.46	4.95
Printing: Newspapers and periodicals	May 1942	.86	.24	.90	.59	2.59	.66	1.38	2.04
	Apr. 1942	.85	.23	1.08	.41	2.57	.82	1.70	2.52
	May 1941	.40	.08	1.36	.15	1.99	.68	.93	1.61
Radios and phonographs	May 1942	3.37	.46	2.05	.75	6.63	.56	7.23	7.79
	Apr. 1942	3.51	.38	3.79	.72	8.40	1.61	6.58	8.19
	May 1941	2.66	.16	1.07	.25	4.14	2.56	6.50	9.06
Rayon and allied products	May 1942	1.67	.22	.29	.64	2.82	.20	3.03	3.23
	Apr. 1942	1.15	.20	.82	.68	2.85	.72	2.66	3.38
	May 1941	1.29	.13	.16	.19	1.77	.67	3.31	3.98
Rubber boots and shoes	May 1942	4.07	.38	4.77	.80	10.02	.88	4.70	5.58
	Apr. 1942	3.66	.16	.87	.95	5.64	1.10	5.09	6.19
	May 1941	2.42	.15	.07	.37	3.01	.74	7.15	7.89
Rubber tires	May 1942	2.24	.13	1.82	.81	5.00	1.70	8.08	9.78
	Apr. 1942	1.71	.08	2.51	.76	5.06	1.42	4.32	5.74
	May 1941	1.45	.08	.48	.24	2.25	.62	5.08	5.70
Sawmills	May 1942	8.25	.63	1.26	1.00	11.14	1.35	9.15	10.50
	Apr. 1942	7.46	.47	1.40	1.06	10.39	1.94	8.54	10.48
	May 1941	2.30	.25	1.46	.33	4.34	1.51	4.63	6.14
Silk and rayon goods	May 1942	5.35	.43	1.06	1.13	7.97	.94	6.08	7.02
	Apr. 1942	5.29	.39	1.07	1.02	7.77	1.21	6.49	7.70
	May 1941	3.90	.26	1.11	.25	5.52	1.34	4.21	5.55
Slaughtering and meat packing	May 1942	3.63	.46	4.43	1.33	9.85	4.93	8.80	13.73
	Apr. 1942	3.18	.34	4.55	1.35	9.42	6.24	6.53	12.77
	May 1941	1.63	.21	4.48	.47	6.79	6.65	6.83	13.48
Stamped and enameled ware	May 1942	5.47	.50	2.74	.98	9.69	1.52	6.14	7.66
	Apr. 1942	5.17	.56	2.67	1.35	9.75	1.27	8.10	9.37
	May 1941	3.38	.52	.99	.39	5.28	2.01	9.00	11.01
Steam and hot water heating apparatus	May 1942	2.33	.27	.59	1.11	4.30	.37	4.28	4.65
	Apr. 1942	4.02	.54	1.02	1.32	6.90	.67	5.61	6.28
	May 1941	3.44	.31	.75	.45	4.95	.26	4.59	4.85
Stoves	May 1942	5.13	.44	3.80	.84	10.21	1.91	4.40	6.31
	Apr. 1942	4.89	.15	4.48	.72	10.24	2.05	4.45	6.50
	May 1941	3.05	.41	.97	.49	4.92	.19	7.96	8.15
Structural and ornamental metalwork	May 1942	4.14	.64	2.46	.80	8.04	.91	8.18	9.09
	Apr. 1942	4.39	.72	1.42	.93	7.46	.82	7.52	8.34
	May 1941	1.95	.21	1.31	.46	3.93	.69	4.85	5.54
Textile machinery	May 1942	3.20	.20	1.59	.85	5.84	.28	4.45	4.73
	Apr. 1942	4.04	.20	.31	1.17	5.72	.32	5.40	5.72
	May 1941	2.38	.29	.14	.33	3.14	.13	4.18	4.31
Tools (not including edge tools, machine tools, files, and saws)	May 1942	4.59	.60	.45	.89	6.53	.35	5.02	5.37
	Apr. 1942	4.81	.64	.26	.57	6.28	.16	6.64	6.80
	May 1941	2.71	.33	.23	.31	3.58	1.18	4.89	6.07
Woolen and worsted goods	May 1942	4.74	.23	1.01	.77	6.75	1.51	4.87	6.38
	Apr. 1942	4.88	.20	.66	.91	6.65	1.72	6.25	7.97
	May 1941	3.30	.21	.86	.21	4.58	1.45	4.45	5.90

TABLE 3.—*Monthly Quit Rates (Per 100 Employees) in Selected War Industries*

Industry	Quit rates		
	May 1942	April 1942	May 1941
Aircraft	4.06	3.79	2.59
Aluminum	3.48	3.14	2.43
Brass, bronze, and copper products	3.41	3.48	3.09
Electrical machinery	2.26	2.34	1.66
Engines and turbines	1.71	2.07	2.68
Machines tools	3.17	3.50	2.22
Shipbuilding	5.20	4.29	2.38

Building Operations

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, JUNE 1942 [1]

BUILDING-permit valuations dropped 57 percent between June 1941 and June 1942. Although the June decrease continued the downward trend started in March 1942, it represented a sharper reduction than had occurred in the preceding months. The dollar volume of Federal projects decreased 62 percent, as compared with a 54-percent decline in all other building construction.

The reduced volume of Federal contracts was almost entirely responsible for the 28-percent decrease in permit valuations between May and June 1942, the reduction in non-Federal construction being negligible over this period. It should be borne in mind, however, that building-permit valuations cover building construction within city limits only, and a large part of the Federal building program consisted of war housing and military and industrial facilities outside city limits.

Comparison of June 1942 with June 1941 and May 1942

The volume of building construction in 2,330 identical cities with populations of 500 and over which reported to the Bureau of Labor Statistics in May and June 1942 and June 1941 is summarized in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,330 Identical Cities, June 1942*

Class of construction	Number of buildings			Permit valuation		
	June 1942	Percentage of change from—		June 1942	Percentage of change from—	
		May 1942	June 1941		May 1942	June 1941
All construction	53,650	−21.2	−40.2	$137,506,326	−27.6	−56.5
New residential	11,753	−47.5	−64.6	48,913,788	−36.6	−68.2
New nonresidential	7,835	−15.5	−45.2	66,292,941	−26.8	−46.5
Additions, alterations, and repairs	34,062	−6.5	−19.4	22,299,597	−.1	−42.6

The number of new dwelling units for which permits were issued and the permit valuation of such new housekeeping residential construction in the 2,330 cities reporting in June 1942 are presented in table 2. Percentage changes between June 1942 and May 1942 and June 1941 are also shown.

[1] More detailed information by geographic divisions and population groups is contained in a separate mimeographed release entitled "Building Construction, June 1942," copies of which will be furnished upon request.

TABLE 2.—*Number and Permit Valuation of New Dwelling Units in 2,330 Identical Cities, June 1942, by Source of Funds and Type of Dwelling*

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	June 1942	Percentage change from—		June 1942	Percentage change from—	
		May 1942	June 1941		May 1942	June 1941
All dwellings	14,743	−39.2	−63.3	$48,876,288	−36.4	−67.8
Privately financed	11,287	+3.5	−64.9	37,441,056	+3.6	−70.2
1-family	7,369	−15.0	−71.5	25,160,133	−16.1	−76.7
2-family [1]	1,106	+23.0	−44.3	3,137,685	+23.3	−42.2
Multifamily [2]	2,812	+110.3	−34.8	9,143,238	+153.4	−25.3
Publicly financed	3,456	−74.1	−57.1	11,435,232	−71.9	−55.8

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Comparison of First Half of 1941 and 1942

Permit valuations reported in the first 6 months of 1941 and 1942 are compared in table 3.

TABLE 3.—*Permit Valuation of Building Construction, by Class of Construction, First 6 Months of 1941 and 1942* [1]

Class of construction	Permit valuation		
	First 6 months of—		Percent of change
	1942	1941	
All construction	$1,145,841,020	$1,484,982,919	−22.8
New residential	517,133,791	749,175,910	−31.0
New nonresidential	482,007,325	550,083,065	−12.4
Additions, alterations, and repairs	146,699,904	185,723,944	−21.0

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.

The number and permit valuation of new dwelling units for which permits were issued in the first 6 months of 1942 are compared with similar data for the corresponding months of 1941 in table 4.

TABLE 4.—*Number and Permit Valuation of New Dwelling Units, by Source of Funds and Type of Dwelling, First 6 Months of 1941 and 1942* [1]

Source of funds and type of dwelling	Number of dwelling units			Permit valuation		
	First 6 months of—		Percent of change	First 6 months of—		Percent of change
	1942	1941		1942	1941	
All dwellings	152,755	200,236	−23.7	$512,967,972	$740,212,719	−30.7
Privately financed	106,872	168,595	−36.6	360,681,120	639,887,453	−43.6
1-family	77,626	128,797	−39.7	282,658,306	527,765,428	−46.4
2-family [2]	8,967	10,927	−17.9	23,266,042	28,032,600	−17.0
Multifamily [3]	20,279	28,871	−29.8	54,756,772	84,089,425	−34.9
Publicly financed	45,883	31,641	+45.0	152,286,852	100,325,266	+51.8

[1] Based on reports from cities with a population of 500 and over, the cities being identical for any given month of both years.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.

Construction From Public Funds, June 1942

The value of contracts awarded and force-account work started during May and June 1942 and June 1941 on all construction projects financed wholly or partially from Federal funds is shown in table 5. This table includes other types of construction as well as building construction, both inside and outside 2,330 reporting cities.

TABLE 5.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, May and June 1942 and June 1941* [1]

Federal agency	Contracts awarded and force-account work started		
	June 1942	May 1942 [2]	June 1941 [2]
Total	$826,241,175	$904,535,137	$498,534,700
War Public Works	394,275	2,160,687	[3]
Federal agency projects under WPA	0	0	2,775,553
Regular Federal appropriations [4]	756,610,145	779,288,394	462,273,042
Federal Public Housing Authority [5]	69,236,755	123,086,056	[6] 33,486,105

[1] Preliminary; subject to revision.
[2] Revised.
[3] Program not started until October 1941.
[4] Exclusive of contracts awarded for public housing.
[5] Includes contracts awarded for all public housing projects.
[6] Includes $14,394,277 for contracts awarded on USHA projects and $19,091,828 for contracts awarded from regular Federal appropriations.

The value of all contracts awarded for public buildings and highway construction to be financed wholly from State funds, as reported by the State governments for May and June 1942 and June 1941, was as follows:

	Public buildings	*Highway construction*
June 1942	$272,041	$10,200,159
May 1942	327,824	8,631,402
June 1941	2,339,634	12,878,214

Coverage of Building Permit Statistics

Building-permit data are collected by the Bureau of Labor Statistics directly from local building officials, except in the States of Illinois, Massachusetts, New Jersey, New York, North Carolina, and Pennsylvania, where State departments of labor collect and forward the data to the Bureau. Reports are obtained each month from more than 2,500 places having a population of 500 or more in 1940, from which are selected those for cities which also reported in the preceding month and in the corresponding month of the previous year. The resulting tabulations of identical cities cover practically all cities with a population of 50,000 or more; the completeness of the coverage of cities in the remaining population groups decreases with the size of city.

In addition, the Bureau receives notifications of the value of construction contracts awarded by Federal and State Governments. Federal and State building construction in the 2,330 reporting cities totaled $38,540,000 in June 1942, as contrasted with $87,635,000 in the previous month and $101,131,000 in June 1941.

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The permit-valuation figures represent estimates of construction costs made by prospective builders when applying for permits to build, in the case of privately financed construction, and the value of contracts awarded, in the case of construction financed with Federal or State funds. No land costs are included. Only building construction within the corporate limits of the reporting cities is included in tabulations.

FOOD PRICES IN JUNE 1942

RETAIL costs of food advanced 1.3 percent between May 12 and June 16, as prices of many foods not subject to price-control regulations continued to rise. The advance in food costs resulted from price increases larger than those usually reported at this season, for fresh fruits and vegetables, lamb, and poultry. A drop in prices was reported for fats and oils, beverages, dairy products, and pork. Cereals and bakery products, beef, canned fruits and vegetables, and sugar were also slightly lower.

The index of food costs on June 16 was 123.2 percent of the 1935–39 average, 4 percent above the March 17 level, and 16 percent higher than a year ago. It should be noted that prices for March 17 were not necessarily the highest prices reached in March and, therefore, do not represent the ceiling levels. On June 16, average prices of 51 of the 65 foods priced were higher than on March 17 and all but 2 were above the levels of a year ago.

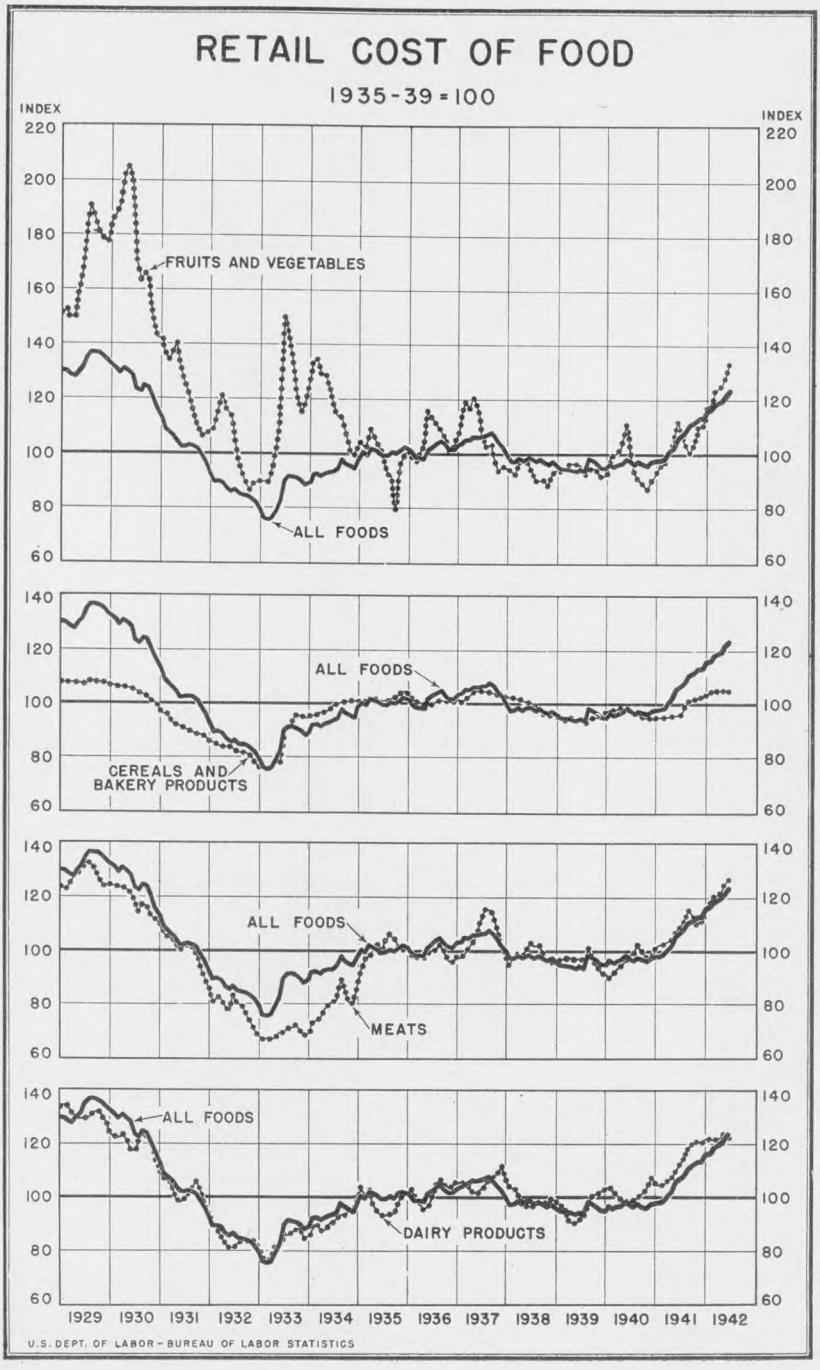
The percentage changes in retail costs of food on June 16, 1942, compared with costs 1 month ago, 1 year ago, and in August 1939, are presented in table 1.

TABLE 1.—*Changes in Retail Costs of Food in 51 Large Cities Combined, by Commodity Groups*

Commodity group	Percent of change, June 16, 1942, compared with—			Commodity group	Percent of change, June 16, 1942, compared with—		
	May 12, 1942	June 17, 1941	Aug. 15, 1939		May 12, 1942	June 17, 1941	Aug. 15, 1939
All foods	+1.3	+16.3	+31.8	Dairy products	−1.0	+11.3	+31.1
				Eggs	+3.7	+14.7	+32.0
Cereals and bakery products	−.1	+9.6	+12.5	Fruit and vegetables	+3.9	+19.3	+44.7
Meats	+1.9	+18.5	+32.3	Fresh	+5.1	+17.3	+47.2
Beef and veal	−.6	+15.0	+23.8	Canned	−.3	+27.1	+33.5
Pork	−1.1	+20.8	+38.5	Dried	+.9	+26.0	+46.6
Lamb	+10.4	+14.9	+32.1	Beverages	−1.6	+24.2	+29.2
Chickens	+8.7	+16.7	+30.3	Fats and oils	−2.0	+29.7	+42.0
Fish, fresh and canned	+4.9	+33.6	+58.9	Sugar	−.3	+18.0	+32.5

Details by Commodity Groups

Indexes of retail costs of food by commodity groups are presented in table 2 for April, May, and June 1942, June 1941, August 1939, and June 1929. The accompanying charts show the trend in the costs of all foods January 1913 to June 1942, inclusive, and for each major commodity group for the period January 1929 to June 1942, inclusive.



Among the 54 foods included in the index, 33 are subject to price-control regulations and 21 are exempt at the present time. The average increase for uncontrolled foods was 4.8 percent between May 12 and June 16, whereas foods subject to control declined by an average of 1 percent. Of the 33 foods subject to control, 4 increased, 19 decreased, and 10 showed no change. For the foods not subject to control, 13 increased, 6 decreased, and 2 remained unchanged. All foods included in the index are above the level of June 1941 and only 9 of the 54 are below March 17, 1942.

TABLE 2.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, in Specified Months*

[1935-39=100]

Commodity group	1942			1941	1939	1929
	June 16 [2]	May 12	April 14	June 17	August 15	June 15
All foods	123.2	121.6	119.6	105.9	93.5	131.3
Cereals and bakery products	105.1	[4] 105.2	105.1	95.9	93.4	107.1
Meats	126.6	124.3	121.5	106.8	95.7	129.4
Beef and veal	123.3	124.1	120.6	107.2	99.6	[3]
Pork	121.9	123.2	120.5	100.9	88.0	[3]
Lamb	130.5	118.2	108.0	113.6	98.8	[3]
Chickens	123.3	113.4	112.2	105.7	94.6	[3]
Fish, fresh and canned	158.3	150.9	156.8	118.5	99.6	[3]
Dairy products	122.1	123.3	122.3	109.7	93.1	129.0
Eggs	119.7	115.4	111.3	104.4	90.7	121.8
Fruits and vegetables	133.7	[4] 128.7	125.6	112.1	92.4	168.6
Fresh	136.6	[4] 130.0	126.2	116.5	92.8	173.1
Canned	122.3	122.7	122.0	96.2	91.6	126.0
Dried	132.4	[4] 131.2	130.6	105.1	90.3	168.9
Beverages	122.6	124.6	122.7	98.7	94.9	165.5
Fats and oils	120.0	122.4	119.9	92.5	84.5	127.5
Sugar	126.7	127.1	128.1	107.4	95.6	110.8

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.
[3] Not available.
[4] Revised.

Cereals and bakery products.—The average retail price of white bread was unchanged during the month, with slight increases in 4 cities and minor decreases in 6 cities. Whole-wheat bread and vanilla cookies, both subject to control, rose 1.1 percent and 0.4 percent, respectively. White flour decreased slightly and other foods in the group remained unchanged at the May level.

Meats.—All meats not subject to price-control regulations moved up between May 12 and June 16, the increases ranging from 4.8 percent for fresh and frozen fish to 11.4 percent for lamb rib chops. On June 16, the average price of lamb rib chops was 22.7 percent above the level of March 17, 1942. Pork declined 1.1 percent during the month as a result of decreases of 2.1 percent for chops, 1.2 percent for salt pork, and minor decreases for bacon and whole ham. Round steak dropped 1.8 percent, contributing to a decrease of 0.6 percent for beef and veal combined.

Dairy products.—A seasonal decline of 3.1 percent in the average price of butter and a slight decrease for cheese resulted in a 1-percent drop in the index of dairy products. The average prices of fresh and evaporated milk were unchanged.

Eggs.—Eggs continued the usual seasonal advance, with an increase of 3.7 percent during the month, reaching a point 6.8 percent above the March 17, 1942, level and 32 percent above June 1941.

Fruits and vegetables.—The index for the group moved up 3.9 percent between May 12 and June 16, to a level 19.3 percent above March 17 and 44.7 percent above June 1941. Fresh apples rose 25 percent (51 percent above March), oranges 15 percent, cabbage 15 percent, lettuce 13 percent, and potatoes 9 percent. Declines were reported for fresh green beans (23.9 percent), and onions (26.5 percent). Bananas, which are subject to control, were 12.5 percent lower than in May. Canned fruits and vegetables declined slightly as the effects of control regulations were felt. Dried navy beans continued to decline, while prunes maintained the advance begun in August 1941.

Beverages.—The cost of beverages declined 1.6 percent as coffee moved downward 1.7 percent and tea 1.3 percent. The group in June 1941 was 29.2 percent above the same month of 1941.

Fats and oils.—The prices of fats and oils moved downward 2 percent as the effects of price control were reflected in declines of 5 percent for lard, 3.8 percent for hydrogenated shortening, 3.3 percent for peanut butter, and smaller decreases in the average prices of shortening in cartons and salad dressing.

Sugar.—Sugar prices declined 0.3 percent, with 25 cities reporting decreases and 16 showing increases.

Average prices of 65 foods in 51 cities combined are shown in table 3 for June and May 1942 and June 1941.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May and June 1942 and June 1941*

Article		1942		1941
		June 16 [1]	May 12	June 17
Cereals and bakery products:				
Cereals:		*Cents*	*Cents*	*Cents*
Flour, wheat	10 pounds	51.2	51.6	45.1
Macaroni	pound	14.2	14.2	13.8
Wheat cereal [2]	28-oz. pkg.	24.1	24.1	23.4
Corn flakes	8 ounces	7.2	7.2	7.0
Corn meal	pound	4.7	4.7	4.3
Rice [2]	do	12.2	12.3	8.7
Rolled oats [2]	do	8.6	8.6	7.1
Bakery products:				
Bread, white	do	8.7	8.7	7.9
Bread, whole-wheat	do	9.6	9.5	8.7
Bread, rye	do	9.7	9.7	9.0
Vanilla cookies	do	27.8	[3] 27.7	25.5
Soda crackers	do	16.4	[3] 16.4	14.8
Meats:				
Beef:				
Round steak	do	43.4	44.2	38.0
Rib roast	do	33.8	34.0	30.1
Chuck roast	do	29.1	28.9	24.2
Veal:				
Cutlets	do	53.8	53.6	45.8
Pork:				
Chops	do	42.3	43.2	34.8
Bacon, sliced	do	39.1	39.3	34.4
Ham, sliced [2]	do	58.9	58.8	49.4
Ham, whole	do	37.7	37.8	30.5
Salt pork	do	23.7	24.0	19.0
Lamb:				
Leg	do	37.0	33.8	31.7
Rib chops	do	46.0	41.3	40.6
Poultry:				
Roasting chickens	do	39.3	36.1	33.8

See footnotes at end of table.

TABLE 3.—*Average Retail Prices of 65 Foods in 51 Large Cities Combined, May and June 1942 and June 1941*—Continued

Article		1942		1941
		June 16 [1]	May 12	June 17
Meats—Continued.				
Fish:		*Cents*	*Cents*	*Cents*
Fresh—frozen		[4]	[4]	[4]
Salmon, pink	16-oz. can	21.6	21.8	17.1
Salmon, red [2]	do	40.1	40.0	28.1
Dairy products:				
Butter	pound	44.3	45.7	42.0
Cheese	do	33.9	34.0	28.7
Milk—fresh (delivered)	quart	14.9	14.9	13.1
Milk, fresh (store)	do	13.5	13.5	12.0
Milk, fresh (delivered and store) [2]	do	14.4	14.4	12.7
Milk, evaporated	14½-oz. can	8.7	8.7	7.7
Eggs	dozen	42.4	40.9	36.9
Fruits and vegetables:				
Fresh:				
Apples	pound	9.4	7.5	6.5
Bananas	do	10.5	12.0	7.3
Oranges	dozen	36.2	31.4	28.9
Grapefruit [2]	each	7.5	6.3	[5]
Beans, green	pound	10.2	13.4	10.5
Cabbage	do	5.2	4.5	4.3
Carrots	bunch	6.9	6.6	5.9
Lettuce	head	10.4	9.2	10.2
Onions	pound	5.0	6.8	9.2
Potatoes	15 pounds	57.8	[3] 53.0	45.2
Spinach	pound	7.4	[3] 7.4	5.9
Sweetpotatoes	do	5.9	5.4	5.8
Canned:				
Peaches	No. 2½ can	23.3	23.3	17.5
Pineapple	do	27.0	27.1	21.2
Grapefruit juice [2]	No. 2 can	10.1	9.8	[5]
Beans, green [2]	do	13.8	14.0	10.7
Corn	do	13.0	13.0	11.4
Peas	do	15.7	15.8	13.6
Tomatoes	do	12.0	12.1	8.9
Dried:				
Prunes	pound	12.4	12.3	9.7
Navy beans	do	8.9	9.0	7.3
Beverages and chocolate:				
Coffee	do	28.4	28.9	22.9
Tea	¼ pound	22.1	22.4	18.0
Cocoa [2]	8-oz. can	[6]	10.2	9.1
Fats and oils:				
Lard	pound	17.0	17.9	12.9
Shortening, other than lard:				
In cartons	do	19.5	19.8	14.1
In other containers	do	25.6	26.6	19.9
Salad dressing	pint	25.2	25.4	[3] 21.0
Oleomargarine	pound	22.4	22.4	16.4
Peanut butter	do	26.0	26.9	17.9
Sugar and sweets:				
Sugar	do	6.8	6.9	5.8
Corn sirup [2]	24 ounces	14.8	14.8	13.7
Molasses [2]	18 ounces	14.5	14.5	13.4

[1] Preliminary.
[2] Not included in index.
[3] Revised.
[4] Composite prices not computed.
[5] Priced first time on Oct. 14, 1941.
[6] Not available.

Details by Regions and Cities

Retail food costs moved upward in 46 cities and declined in 5 between May 12 and June 16. The largest increases were in Rochester (3.2 percent), Pittsburgh and Cleveland (2.7 percent), and Bridgeport (2.2 percent). Cities reporting decreases of 0.5 percent or more were Houston (0.8 percent) and Savannah (0.7 percent), while minor decreases were reported in Seattle, Charleston, S. C., and New Orleans. Decreases in prices for fruits and vegetables were responsible

for lower costs in 4 of these cities, while the decline in Houston was largely due to a 2.9 percent decrease in meats. Food costs in all cities are above June 1941 levels, the amount of increase varying from 12.8 percent in New York City to 22.1 percent in Portland, Oreg., for cities included in the index.

Indexes of food costs by cities are presented in table 4 for June and May 1942 and June 1941.

TABLE 4.—*Indexes of the Average Retail Cost of All Foods, by Cities,*[1] *May and June 1942 and June 1941*

[1935–39=100]

Region and city	1942		1941	Region and city	1942		1941
	June 16 (2)	May 12	June 17		June 16 (2)	May 12	June 17
United States	123.2	121.6	105.9	West North Central—Continued.			
New England:				St. Louis	125.9	123.8	107.2
Boston	119.9	118.3	102.6	St. Paul	119.2	118.7	104.3
Bridgeport	124.0	121.3	106.6	South Atlantic:			
Fall River	122.6	120.8	106.0	Atlanta	121.8	120.4	103.4
Manchester	125.3	124.0	104.6	Baltimore	127.1	125.8	108.7
New Haven	122.3	120.6	105.8	Charleston, S. C	122.9	123.2	103.5
Portland, Maine	123.3	[4] 121.7	104.2	Jacksonville	129.3	127.4	107.6
Providence	122.8	122.1	104.5	Norfolk [3]	128.5	126.1	107.0
Middle Atlantic:				Richmond	122.9	120.9	102.9
Buffalo	127.3	125.2	110.1	Savannah	129.4	130.3	108.9
Newark	122.3	120.9	106.9	Washington, D. C	123.2	[4] 120.7	104.8
New York	120.4	118.0	106.7	East South Central:			
Philadelphia	119.7	119.4	103.3	Birmingham	120.9	120.5	103.0
Pittsburgh	124.7	121.4	107.3	Louisville	123.2	122.6	107.2
Rochester	126.2	122.3	108.6	Memphis	124.1	123.5	103.3
Scranton	123.0	121.0	105.2	Mobile	128.4	126.8	106.6
East North Central:				West South Central:			
Chicago	122.1	121.7	105.8	Dallas	117.8	116.8	97.7
Cincinnati	124.3	122.4	104.8	Houston	124.9	125.9	106.4
Cleveland	127.4	124.1	107.8	Little Rock	123.3	123.2	101.9
Columbus, Ohio	120.3	118.6	102.9	New Orleans	128.9	129.0	108.6
Detroit	124.5	[4] 122.4	107.0	Mountain:			
Indianapolis	125.7	[4] 125.0	106.5	Butte	123.5	121.5	106.1
Milwaukee	122.0	119.8	106.5	Denver	123.7	122.9	103.0
Peoria	129.8	129.0	108.2	Salt Lake City	126.8	124.2	107.2
Springfield, Ill	128.4	128.0	105.6	Pacific:			
West North Central:				Los Angeles	129.8	[4] 128.1	107.7
Kansas City	119.0	118.8	101.3	Portland, Oreg	134.6	134.5	110.2
Minneapolis	121.4	120.9	107.4	San Francisco	126.1	125.5	107.1
Omaha	120.8	119.9	104.6	Seattle	129.4	129.9	109.7

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time to time comparisons rather than place to place comparisons.

[2] Preliminary.

[3] Includes Portsmouth and Newport News.

[4] Revised.

Average Annual Indexes of Retail Food Costs, 1913 to 1941

Annual average indexes of food costs for the years 1913 to 1941, inclusive, and monthly indexes for January 1941 to June 1942, inclusive, are shown in table 5.

TABLE 5.—*Indexes of Retail Food Costs in 51 Large Cities Combined, by Years, From 1913 to 1941, and by Months, January 1941 to June 1942*

[1935–39=100]

Year	All-foods index	Year	All-foods index	Year and month	All-foods index	Year and month	All-foods index
1913	79.9	1926	137.4	1939	95.2	September	110.7
1914	81.8	1927	132.3	1940	96.6	October	111.6
1915	80.9	1928	130.8	1941	105.5	November	113.1
1916	90.8	1929	132.5			December	113.1
1917	116.9	1930	126.0	*1941*		*1942*	
1918	134.4	1931	103.9	January	97.8		
1919	149.8	1932	86.5	February	97.9	January	116.2
1920	168.8	1933	84.1	March	98.4	February	116.8
1921	128.3	1934	93.7	April	100.6	March	118.6
1922	119.9	1935	100.4	May	102.1	April	119.6
1923	124.0	1936	101.3	June	105.9	May	121.6
1924	122.8	1937	105.3	July	106.7	June	123.2
1925	132.9	1938	97.8	August	108.0		

ELECTRICITY AND GAS

Price Changes Between March and June 1942

RESIDENTIAL rates are secured from 51 cities for electricity and from 50 cities for gas. These rates are used in the computation of net monthly bills for the amounts of consumption which have been selected as representative of average use throughout the country.

Prices of electricity are based upon the use of 25 kilowatt-hours for lighting and small energy-consuming appliances; 100 kilowatt-hours for greater use of lighting and small appliances, and an electric refrigerator; and 250 kilowatt-hours for a still greater use of lighting, a larger number of small appliances, an electric refrigerator, and an electric range.

Prices of gas are based upon the use of 10.6 therms for a range; 19.6 therms for range and manual-type water heater; 30.6 therms for range and automatic storage or instantaneous water heater; and 40.6 therms for range, automatic water heater, and gas refrigerator.

Quarterly reports published in March, June, and September, show changes for the preceding 3 months. The December report presents prices effective on the 15th of December and a summary of all changes during the year.

ELECTRICITY

Rate reductions between March and June 1942 occurred in the following two cities:

Houston: Lower rates were reported for all electricity in excess of the first 75 kilowatt-hours used monthly. Decreases amounted to 3.0 percent for bills based on the use of 100 kilowatt-hours and 7.7 percent for 250 kilowatt-hours.

New York: Rates in the Borough of Richmond were lowered for the 30 kilowatt-hours used per month in excess of the 12 covered by the initial charge or minimum bill. Reductions ranged from 1.1 percent for 250 kilowatt-hours to 2.0 percent for 25 kilowatt-hours.

GAS

Changes in costs of gas reported for 9 cities between March and June 1942 were due either to rate changes, adjustments for fuel costs, changes in the heating value of the gas served, or a combination of these causes. Costs increased in 5 of these cities. Manufactured gas was served in 4 cities, natural gas in 4, and mixed manufactured and natural gas in 1. Following is a list of the cities together with a description of the changes:

Manufactured Gas

Fall River: A new rate schedule with increases for the first 1,500 cubic feet advanced costs most to small consumers. The increases ranged from 14.6 percent for 10.6 therms to 4.8 percent for 40.6 therms.

Providence: A general increase of 3 percent resulted from an adjustment under the fuel clause for higher prices of bituminous coal.

Boston: An advance of about 1 percent to customers in Cambridge was due to adjustments covering increased fuel costs.

New York: The regular seasonal reduction for the use of more than 3,000 cubic feet per month was again made available to customers in The Bronx, Brooklyn, Manhattan, and Queens.

Natural Gas

Pittsburgh: Higher costs of gas for about 10 percent of the domestic customers followed the introduction of a new rate schedule by one of the companies serving the city. The sharp increases ranging from 39.0 percent for 10.6 therms to 80.4 percent for 19.6 therms were due to higher rates for the first 10,000 cubic feet. Rates were lowered for additional gas used during the month.

San Francisco: A new rate schedule and a reduction in the heating value of the gas advanced costs less than 1 percent. The new rate schedule was based on gas of a specified heating value, and a stated price per barrel of fuel oil, with provisions for adjustments in rates covering deviations from the established standards.

Dallas: A new rate schedule lowered costs for all customers using more than 1,000 cubic feet of gas per month. The decreases ranged from 3.8 percent for 19.6 therms to 8.2 percent for 40.6 therms, with greater reductions for customers using larger amounts.

Houston: An increase in the heating value of gas served by one company lowered costs about 1⅓ percent to their customers—approximately 70 percent of all domestic customers in the city.

Mixed Manufactured and Natural Gas

Cincinnati: Lower costs for gas were due to an increase in the British thermal unit content. The reduction was about 8 percent over the average of the 12 preceding months, during which gas served for 8 months was of greater heating value than in the 4 summer months.

Wholesale Prices

WHOLESALE PRICES IN JUNE 1942[1]

THE first significant reaction in the upward movement of wholesale commodity prices in nearly 2 years occurred during June when the Bureau of Labor Statistics index of prices of 889 series in primary markets [2] dropped 0.2 percent. Weakening prices for grains and their products, for cotton, for cattle and meats, and for sheep and goatskins largely accounted for the decline. The all-commodity index fell slightly below the 16-year peak level reached in May to 98.6 percent of the 1926 average. In the past year, prices for these 889 commodities rose 13 percent and in June 1942 were more than 31 percent above the pre-war level of August 1939.

The fluctuations in the 10 major commodity group indexes were relatively narrow. Fuel and lighting materials advanced 0.5 percent and foods rose 0.4 percent. Four groups declined—hides and leather products, 0.5 percent; textile products, 0.4 percent; miscellaneous commodities, 0.3 percent; and chemicals and allied products, 0.1 percent. The indexes for farm products, metals and metal products, building materials, and housefurnishing goods remained unchanged from their May levels.

Prices for a large number of commodities, particularly agricultural products and certain imported commodities including drugs, chemicals, and essential fats and oils, have risen sharply in the past year. Fruits and vegetables advanced 44 percent; industrial fats and oils, nearly 35 percent; drugs and pharmaceuticals, 29 percent; and meats and livestock, more than 25 percent. On the other hand, prices for rubber and metals, many of which were regulated by the Government, early in 1941 advanced only about 1 percent, and average prices for petroleum products in June 1942 were slightly below their June 1941 level.

Primary market prices for nearly all commodities have risen sharply since August 1939. Among the outstanding increases are 167 percent for fats and oils, 104 percent for cattle feed, 80 percent for fruits and vegetables, more than 70 percent for grains, livestock, and cotton goods, over 60 percent for drugs and pharmaceuticals, and above 50 percent for meats and hides and skins.

The index for raw materials rose slightly because of minor increases in prices for coal and gravel. At 99.8 percent of the 1926 average,

[1] During the period of rapid changes caused by price controls, materials allocation, and rationing, the Bureau of Labor Statistics will attempt promptly to report changing prices. Indexes, however, must be considered as preliminary and subject to such adjustment and revision as required by late and more complete reports.

[2] The Bureau of Labor Statistics' wholesale price data for the most part represent prices prevailing in the "first commercial transaction." They are prices quoted in primary markets, at principal distribution points.

More detailed information on wholesale prices is given in the June Wholesale Price pamphlet, which will be furnished upon request.

the raw materials group index was 19 percent higher in June 1942 than at the same month of 1941 and 50 percent higher than in August 1939. Average prices for semimanufactured commodities declined fractionally in June but were still approximately 25 percent above the pre-war level. Contrasted with increases in farm product prices of 27 percent during the past year and 71 percent since August 1939, the index for "All commodities other than farm products and foods," largely industrial commodities, was about 8 percent higher than in June 1941 and only 19 percent higher than in August 1939.

In the farm products group a break in the grain and livestock and cotton markets was offset by seasonally higher prices for fresh fruits and vegetables, causing the index to remain unchanged at 104.4 percent of the 1926 average. Quotations for rye and oats dropped 10 percent; wheat, 4 percent; and barley, nearly 3 percent. Prices for most livestock, except hogs and lambs, declined. Lower prices were also reported for peanuts, seeds, hay, and wool.

Average wholesale prices for foods rose 0.4 percent to the highest point since late in 1929. Marked increases in prices for both fresh and processed fruits and vegetables together with higher prices for lamb, eggs, lard, oleo oil, and vinegar largely accounted for the increase. Prices were lower for butter, cereal products, bananas, canned apricots, spinach, and stringbeans, and for most meats, and for peanut butter, pepper, and vegetable oils.

Quotations for Brazilian goatskins dropped nearly 10 percent and shearling sheepskins were down 2.3 percent. Minor price reductions were also reported for men's and women's shoes.

There was comparatively little activity in the textile markets during June. Prices for certain cotton materials, particularly percale shirting and sateen, were lower, while drills and ducks advanced slightly. Prices for clothing such as men's suits and cotton hosiery and underwear dropped during June.

Higher prices were reported for both anthracite and bituminous coal in some areas. Quotations were advanced also for Pennsylvania fuel oil and for gasoline at refineries in the California, North Texas, and Oklahoma sections.

The movement in prices for building materials was mixed during June. Some types of lumber, particularly maple flooring, Douglas fir lath and timber, sap gum, white oak, and northern pine advanced, while red oak, yellow poplar, sugar and Ponderosa pine declined. In addition lower prices were reported for linseed oil, turpentine, shellac, and for plasterboard and sand.

Except for higher prices for ergot and stearic acid and lower prices for pine oil and certain fertilizer materials, chemical markets were comparatively steady in June.

In the miscellaneous commodity group, prices were lower for boxboard, for soap, and for cattle feed.

Percentage comparisons of the June 1942 level of wholesale prices with May 1942, June 1941, and August 1939, with corresponding index numbers, are given in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, June 1942, with Comparisons for May 1942, June 1941 and August 1939*

[1926=100]

Group and subgroup	June 1942	May 1942	Per-cent of change	June 1941	Per-cent of change	August 1939	Per-cent of change
All commodities	[1] 98.6	[1] 98.8	−0.2	87.1	+13.2	75.0	+31.5
Farm products	104.4	104.4	0	82.1	+27.2	61.0	+71.1
Grains	88.8	92.2	−3.7	75.9	+17.0	51.5	+72.4
Livestock and poultry	116.9	117.6	−.6	93.0	+25.7	66.0	+77.1
Other farm products	100.5	99.0	+1.5	76.6	+31.2	60.1	+67.2
Foods	99.3	98.9	+.4	83.1	+19.5	67.2	+47.8
Dairy products	92.0	93.5	−1.6	84.3	+9.1	67.9	+35.5
Cereal products	87.2	89.0	−2.0	79.8	+9.3	71.9	+21.3
Fruits and vegetables	105.4	96.7	+9.0	73.0	+44.4	58.5	+80.2
Meats	113.9	114.8	−.8	90.8	+25.4	73.7	+54.5
Other foods	91.0	90.6	+.4	79.5	+14.5	60.3	+50.9
Hides and leather products	118.2	118.8	−.5	107.8	+9.6	92.7	+27.5
Shoes	126.4	126.6	−.2	111.7	+13.2	100.8	+25.4
Hides and skins	118.5	121.4	−2.4	112.4	+5.4	77.2	+53.5
Leather	101.3	101.3	0	97.9	+3.5	84.0	+20.6
Other leather products	115.2	115.2	0	102.1	+12.8	97.1	+18.6
Textile products	97.6	98.0	−.4	84.5	+15.5	67.8	+44.0
Clothing	109.1	109.6	−.5	91.6	+19.1	81.5	+33.9
Cotton goods	112.7	112.9	−.2	94.6	+19.1	65.5	+72.1
Hosiery and underwear	70.0	71.9	−2.6	61.9	+13.1	61.5	+13.8
Rayon	30.3	30.3	0	29.5	+2.7	28.5	+6.3
Silk	[2]	[2]	-------	51.2	-------	44.3	-------
Woolen and worsted goods	111.0	111.0	0	94.6	+17.3	75.5	+47.0
Other textile products	98.2	98.3	−.1	94.1	+4.4	63.7	+54.2
Fuel and lighting materials	78.4	78.0	+.5	77.9	+.6	72.6	+8.0
Anthracite	85.7	85.3	+.5	81.0	+5.8	72.1	+18.9
Bituminous coal	109.2	108.5	+.6	103.7	+5.3	96.0	+13.8
Coke	122.1	122.1	0	122.2	−.1	104.2	+17.2
Electricity	[2]	[2]	-------	67.2	-------	75.8	-------
Gas	[2]	79.9	-------	81.0	-------	86.7	-------
Petroleum and products	59.8	59.1	+1.2	59.9	−.2	51.7	+15.7
Metals and metal products	[1] 103.9	[1] 103.9	0	98.3	+5.7	93.2	+11.5
Agricultural implements	96.9	96.9	0	92.4	+4.9	93.5	+3.6
Farm machinery	98.0	98.0	0	93.5	+4.8	94.7	+3.5
Iron and steel	97.2	97.2	0	96.5	+.7	95.1	+2.2
Motor vehicles	[1] 112.8	[1] 112.8	0	100.3	+12.5	92.5	+21.9
Nonferrous metals	85.6	85.6	0	84.5	+1.3	74.6	+14.7
Plumbing and heating	98.5	98.5	0	83.1	+18.5	79.3	+24.2
Building materials	110.1	110.1	0	101.0	+9.0	89.6	+22.9
Brick and tile	98.1	98.0	+.1	92.5	+6.1	90.5	+8.4
Cement	94.2	94.2	0	91.9	+2.5	91.3	+3.2
Lumber	131.7	131.5	+.2	117.6	+12.0	90.1	+46.2
Paint and paint materials	100.3	100.6	−.3	90.3	+11.1	82.1	+22.2
Plumbing and heating	98.5	98.5	0	83.1	+18.5	79.3	+24.2
Structural steel	107.3	107.3	0	107.3	0	107.3	0
Other building materials	103.8	103.8	0	96.9	+7.1	89.5	+16.0
Chemicals and allied products	97.2	97.3	−.1	83.8	+16.0	74.2	+31.0
Chemicals	96.5	96.5	0	87.2	+10.7	83.8	+15.2
Drugs and pharmaceuticals	129.1	129.1	0	99.9	+29.2	77.1	+67.4
Fertilizer materials	78.4	79.0	−.8	69.9	+12.2	65.5	+19.7
Mixed fertilizers	82.8	82.8	0	73.8	+12.2	73.1	+13.3
Oils and fats	108.5	108.6	−.1	80.6	+34.6	40.6	+167.2
Housefurnishing goods	102.9	102.9	0	93.1	+10.5	85.6	+20.2
Furnishings	108.1	108.1	0	99.0	+9.2	90.0	+20.1
Furniture	97.4	97.5	−.1	87.0	+12.0	81.1	+20.1
Miscellaneous	90.2	90.5	−.3	80.6	+11.9	73.3	+23.1
Automobile tires and tubes	73.0	73.0	0	58.8	+24.1	60.5	+20.7
Cattle feed	140.0	140.4	−.3	88.9	+57.5	68.4	+104.7
Paper and pulp	101.6	102.8	−1.2	98.0	+3.7	80.0	+27.0
Rubber, crude	46.3	46.3	0	45.6	+1.5	34.9	+32.7
Other miscellaneous	93.3	93.5	−.2	87.4	+6.8	81.3	+14.8
Raw materials	99.8	99.7	+.1	83.6	+19.4	66.5	+50.1
Semimanufactured articles	92.8	92.9	−.1	87.6	+5.9	74.5	+24.6
Manufactured products	[1] 98.6	[1] 99.0	−.4	88.6	+11.3	79.1	+24.7
All commodities other than farm products	[1] 97.1	[1] 97.4	−.3	88.0	+10.3	77.9	+24.6
All commodities other than farm products and foods	[1] 95.6	[1] 95.7	−.1	88.6	+7.9	80.1	+19.4

[1] Preliminary.
[2] Data not yet available.

Index Numbers by Commodity Groups, 1926 to June 1942

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1941, inclusive, and by months from June 1941 to June 1942, inclusive, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
By years:											
1926	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
1940	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	78.6
1941	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.6	94.3	82.0	87.3
By months:											
1941:											
June	82.1	83.1	107.8	84.5	77.9	98.3	101.0	83.8	93.1	80.6	87.1
July	85.8	84.7	109.4	86.2	78.5	98.5	103.1	85.2	94.4	82.0	88.8
August	87.4	87.2	110.2	88.3	79.0	98.6	105.5	86.0	95.4	83.7	90.3
September	91.0	89.5	111.3	89.7	79.2	98.6	106.4	87.4	97.2	85.1	91.8
October	90.0	88.9	112.6	90.9	79.6	103.1	107.3	89.7	99.5	86.4	92.4
November	90.6	89.3	114.1	91.1	78.8	103.3	107.5	89.8	100.6	87.3	92.5
December	94.7	90.5	114.8	91.8	78.4	103.3	107.8	91.3	101.1	87.6	93.6
1942:											
January	100.8	93.7	114.9	93.6	78.2	103.5	109.3	96.0	102.4	89.3	96.0
February	101.3	94.6	115.3	95.2	78.0	103.6	110.1	97.0	102.5	89.3	96.7
March	102.8	96.1	116.7	96.6	77.7	103.8	110.5	97.1	102.6	89.7	97.6
April	104.5	98.7	119.2	97.7	77.7	103.8	110.2	97.1	102.8	90.3	98.7
May	104.4	98.9	118.8	98.0	78.0	[1] 103.9	110.1	97.3	102.9	90.5	[1] 98.8
June	104.4	99.3	118.2	97.6	78.4	[1] 103.9	110.1	97.2	102.9	90.2	[1] 98.6

[1] Preliminary.

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

Year	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1926	100.0	100.0	100.0	100.0	100.0
1929	97.5	93.9	94.5	93.3	91.6
1932	55.1	59.3	70.3	68.3	70.2
1933	56.5	65.4	70.5	69.0	71.2
1936	79.9	75.9	82.0	80.7	79.6
1937	84.8	85.3	87.2	86.2	85.3
1938	72.0	75.4	82.2	80.6	81.7
1939	70.2	77.0	80.4	79.5	81.3
1940	71.9	79.1	81.6	80.8	83.0
1941	83.5	86.9	89.1	88.3	89.0

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
1941:					
June	83.6	87.6	88.6	88.0	88.6
July	86.1	87.9	90.1	89.3	89.7
August	87.6	89.5	91.5	90.7	90.8
September	90.0	90.3	92.8	91.9	91.6
October	89.7	89.9	93.9	92.8	93.4
November	90.2	89.7	93.8	92.7	93.5
December	92.3	90.1	94.6	93.3	93.7
1942:					
January	96.1	91.7	96.4	94.8	94.6
February	97.0	92.0	97.0	95.5	94.9
March	98.2	92.3	97.8	96.2	95.2
April	100.0	92.8	98.7	97.2	95.6
May	99.7	92.9	[1] 99.0	[1] 97.4	[1] 95.7
June	99.8	92.8	[1] 98.6	[1] 97.1	[1] 95.6

[1] Preliminary

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was given in Serial No. R. 1434—Wholesale Prices, December and Year 1941.

Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during May and June are shown by the index numbers in table 4.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, May and June 1942*

[1926=100]

Commodity group	June 27	June 20	June 13	June 6	May 30	May 23	May 16	May 9	May 2
All commodities	[1] 98.4	[1] 98.1	[1] 98.4	[1] 98.7	[1] 98.8	[1] 98.7	[1] 98.5	98.6	98.7
Farm products	104.6	104.5	104.3	105.6	106.0	104.8	104.3	104.0	104.8
Foods	99.3	98.4	99.5	99.7	99.4	99.1	98.2	99.3	99.9
Hides and leather products	118.9	118.9	118.9	118.8	119.0	119.2	119.8	120.2	120.0
Textile products	97.3	97.3	97.2	97.2	97.2	97.2	97.3	97.3	97.2
Fuel and lighting materials	79.2	79.0	78.9	78.9	78.9	78.9	78.8	78.7	78.6
Metals and metal products	[1] 104.0	[1] 104.0	[1] 104.0	[1] 104.0	[1] 104.0	[1] 104.0	[1] 104.0	103.9	103.9
Building materials	110.0	109.9	109.9	109.9	109.9	110.0	110.1	110.0	108.7
Chemicals and allied products	97.2	97.2	97.2	97.2	97.3	97.3	97.3	97.3	97.1
Housefurnishing goods	104.5	104.5	104.5	104.5	104.5	104.6	104.6	104.6	104.6
Miscellaneous	90.0	90.0	89.9	90.0	90.1	90.2	90.2	89.9	89.6
Raw materials	99.6	98.7	99.6	100.4	100.6	99.8	98.9	99.5	100.1
Semimanufactured articles	92.8	92.6	92.8	92.7	92.7	92.8	92.8	92.6	92.5
Manufactured products	[1] 98.8	[1] 98.8	[1] 98.8	[1] 98.9	[1] 99.1	[1] 99.2	[1] 99.3	99.3	99.1
All commodities other than farm products	[1] 97.1	[1] 96.7	[1] 97.1	[1] 97.2	[1] 97.3	[1] 97.4	[1] 97.2	97.4	97.3
All commodities other than farm products and foods	[1] 96.0	[1] 95.9	[1] 95.9	[1] 95.9	[1] 95.9	[1] 95.9	[1] 95.9	95.8	95.6

[1] Preliminary.

Trend of Employment and Unemployment

SUMMARY OF REPORTS OF EMPLOYMENT FOR JUNE 1942

TOTAL civil nonagricultural employment in June was estimated to be 41,479,000, a gain of 170,000 over May and 2,000,000 over June of last year. The highest level prior to May 1942 was 41,080,000 in December 1941. These figures do not include work-relief personnel of the WPA, NYA, and CCC, nor the uniformed Army, Navy, Marine and Coast Guard personnel, and they are based on preliminary June and revised May reports.

Among the major groups comprising total civil nonagricultural employment, gains over the month were shown by Federal, State, and local government; manufacturing; transportation and public utilities; and finance, service, and miscellaneous. Partially offsetting these gains were contraseasonal employment losses in trade, mining, and contract construction. The decline of 85,000 in trade employment was accounted for in part by Government restrictions affecting, directly or indirectly, the sale of many civilian items such as automobiles, tires, electrical appliances, gasoline, lumber, and plumbing and heating equipment. The decrease in construction employment was due to recessions in private construction because of priority restrictions, employment on Government projects having shown a substantial increase. In the mining group, declines in coal and metal mining offset small increases in the quarrying and crude-petroleum producing industries.

The increase of about 1,000,000 in manufacturing employment since June of last year constituted more than one-half of the gain in nonagricultural employment over this period. All of the other major groups except trade and mining also showed gains over the interval, the largest being in Federal, State, and local government services; transportation and public utilities; and contract construction. In trade there was a decline of 279,000 over the year due to the impact of the war program, and in mining a decline of 25,000 due to reductions in anthracite mining and crude-oil production.

Contraction in emergency personnel on work-relief programs during June amounted to 173,500, with the decreases distributed as follows: WPA 88,200; NYA 73,800; and CCC 11,500.

Industrial and Business Employment

Increases in employment between mid-May and mid-June were reported by 84 of the 157 manufacturing and 6 of the 16 nonmanufacturing industries surveyed by the Bureau of Labor Statistics. Payroll increases were reported by 98 of the manufacturing and 11 of the nonmanufacturing industries.

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Despite declines in many manufacturing industries due to curtailed civilian production, factory wage-earner employment as a whole showed a contraseasonal gain of 1.0 percent between May and June, and weekly wages an increase of 2.3 percent, or $8,568,000. Typical changes for this time of year are decreases of 0.8 percent in employment and 0.7 percent in pay rolls. The durable-goods group of manufacturing industries reported an increase of 2.2 percent (130,900) in the number of wage earners and a gain of 3.5 percent ($8,304,000) in weekly wage disbursements, reflecting continued expansion in factories manufacturing war goods. The nondurable-goods group, however, showed a reduction of 0.3 percent, or 14,200, in the number of wage earners, and an increase of 0.2 percent, or $264,000, in weekly wages.

The automobile industry again showed an employment gain (4.2 percent or 14,500 workers), as plants, converted to the war effort, continued to step up production. Many other industries engaged in war manufactures continued to show substantial employment gains over the month interval. Among them were shipbuilding, aircraft, foundries and machine shops, engines, electrical machinery, machine tools, ammunition, explosives, and machine-tool accessories. Industries showing gains of a seasonal nature were canning (26.2 percent), butter (6.3 percent), ice cream (7.9 percent), and cigars and cigarettes (1.9 percent). The carpet and rug industry showed a gain of 3.8 percent, reflecting conversion of looms and other facilities to production of materials for the Government. The increase of 4.5 percent in the tire industry also reflected increased production on Government orders.

Employment declines due chiefly to material shortages, priority allocations, and freeze orders were reported by such industries as cast-iron pipe, plumbers' supplies, stoves, tin cans and other tinware, radios and phonographs, typewriters and parts, electric- and steam-railroad cars, jewelry, beverages, confectionery, and paints and varnishes. Substantial reductions in number of workers due primarily to seasonal factors were also reported by firms manufacturing women's clothing; cottonseed oil, cake, and meal; and fertilizers. The June indexes of factory employment and pay rolls (139.1 and 197.7 percent, respectively, of the 1923–25 averages) exceeded all previous levels and were 8.8 percent and 29.9 percent, respectively, higher than a year ago. As stated in previous reports, pay rolls have expanded much more sharply than employment, chiefly because of increased working hours, overtime premiums, wage-rate increases and increased employment in industries in which the wage scale is relatively high.

Employment in wholesale trade fell off 1.7 percent, the fifth successive decline since January and the largest June curtailment in 14 years. While substantial increases were reported by wholesale establishments handling food products, general merchandise, and leather and leather goods, most other lines reported declines. Among the latter were automotive, electrical, lumber and building material, and plumbing and heating lines, reflecting the effect on sales of Government restrictions on the manufacture of civilian goods and the construction of buildings for civilian use, as well as the direct limitation of sales of automobiles, tires, oil burners, and other products. Assemblers and country buyers reported a seasonal employment loss of 10.9 percent.

Retail-trade employment, also affected by Government restrictions, showed a contraseasonal employment decline of 1.6 percent. This was

the largest June percentage decrease of the past 13 years, with but one exception, June 1930, when an equal decline was reported. The reduction since June 1941 was 5.4 percent. Among the individual retail lines showing large percentage declines over the month were electrical appliance dealers (8.4 percent), automobile dealers (6.2 percent), and tire and battery shops (4.4 percent). Substantial decreases were also reported by department, apparel, and furniture and housefurnishing stores, as well as by lumber dealers. A few of the less important retail lines reported slight seasonal increases.

Employment in anthracite mining declined seasonally by 4.8 percent and in bituminous-coal mining 0.8 percent. Pay rolls, however, advanced 9.1 and 6.1 percent, respectively, due in part to vacation pay received by miners. A substantial decrease in gold and silver mining accounted largely for the slight employment decrease in metal mining as a whole. A comparison with a year ago, however, showed an employment increase of 3.8 percent in metal-mining employment coupled with a pay-roll gain of 19.1 percent. Employment showed a small less-than-seasonal gain over the month in quarries and nonmetallic mines and virtually no change in crude-petroleum production. Among the service industries, year-round hotels reported a small seasonal employment decline and laundries and dyeing and cleaning establishments less than seasonal gains. Insurance firms reported employment at about the same level as in May, while brokerage firms reported a substantial reduction in number of workers.

Electric light and power companies reported about the same number of workers in June as in the preceding month, while telephone and telegraph companies increased their personnel by nearly 1.0 percent, and street railways and busses by 1.4 percent. With but two exceptions the latter industry has shown employment gains each month since February 1941, reflecting the increased demand for public transportation due to the war program. The gain in this industry since June a year ago was 7.0 percent.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment increase of 1.7 percent between May and June, the total number employed in June being 1,292,595. Corresponding pay-roll figures for June were not available when this report was prepared. For May they were $240,480,894, an increase of $6,560,779 since April.

Hours and earnings.—Average hours worked per week by manufacturing wage earners were 42.6 in June, a gain of 0.1 percent since May. The corresponding average hourly earnings were 84.0 cents, an increase of 1.1 percent over the preceding month. The average weekly earnings of factory wage earners (both full- and part-time combined) were $37.99, again of 1.3 percent since May. Fourteen of the sixteen nonmanufacturing industries regularly surveyed reported increases in average weekly earnings. Of the 14 nonmanufacturing industries for which man-hour information is available 12 showed increases in average hours worked per week, and 12 showed gains in average hourly earnings.

Wage-rate increases averaging 8.3 percent, and affecting 315,776 factory wage earners, were reported by 1,157 establishments out of a reporting sample of approximately 35,000 plants with about 8,500,000 workers. The largest number of workers affected were in the following industries: Firearms, woolen and worsted goods, pumps, sawmills,

and hosiery. About 35,000, or 1.0 percent, of the total number of workers covered in the Bureau's survey of nonmanufacturing industries also received wage-rate increases. The largest number of workers affected were employed by public utilities and insurance companies.

Employment and pay-roll indexes and average weekly earnings for May and June 1942 and June 1941 are given, where available, in table 1 for all manufacturing industries combined, selected nonmanufacturing industries, water transportation, and class I steam railroads.

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries June and May 1942 and June 1941*

[Preliminary]

Industry	Employment index			Pay-roll index			Average weekly earnings		
	June 1942	May 1942	June 1941	June 1942	May 1942	June 1941	June 1942	May 1942	June 1941
	(*1923–25=100*)			(*1923–25=100*)					
All manufacturing industries combined	139.1	137.7	127.9	197.7	193.2	152.2	$37.99	$37.43	$31.88
	(*1935–39=100*)			(*1935–39=100*)					
Class I steam railroads [1]	126.7	124.5	113.3	(2)	(2)	(2)	(2)	(2)	(2)
	(*1929=100*)			(*1929=100*)					
Coal mining:									
Anthracite	45.8	48.2	49.2	56.2	51.5	51.2	40.18	35.05	34.20
Bituminous	92.3	93.0	88.1	129.8	122.3	107.2	36.95	34.55	32.37
Metalliferous mining	81.8	82.2	78.9	101.6	100.8	85.3	38.80	38.34	34.07
Quarrying and nonmetallic mining	52.0	51.7	51.9	65.5	63.0	55.7	31.86	30.79	27.19
Crude-petroleum production	58.1	58.1	61.5	62.0	62.0	59.9	38.98	39.01	35.67
Public utilities:									
Telephone and telegraph	92.4	91.7	86.3	126.2	125.0	113.0	33.38	33.34	32.02
Electric light and power	87.9	88.0	93.5	114.2	113.4	111.4	39.31	39.01	36.44
Street railways and busses	74.0	72.9	69.1	89.6	86.8	76.2	39.46	38.77	35.91
Trade:									
Wholesale	89.7	91.2	93.8	90.8	91.7	88.4	35.46	35.20	32.57
Retail	92.5	94.0	97.8	93.4	94.0	95.2	23.36	23.08	22.31
Hotels (year-round) [3]	95.2	96.1	95.0	95.7	95.4	87.4	17.34	17.14	15.86
Laundries	114.2	113.7	112.0	114.7	113.8	102.5	21.06	20.98	19.09
Dyeing and cleaning	129.8	127.6	122.7	117.5	113.1	98.4	25.38	24.85	22.27
Brokerage [4]	−3.0	−3.8	−14.5	−3.4	−3.8	−12.3	40.64	40.84	39.32
Insurance [4]	−.2	−.7	−.3	−[5]	+.2	+4.4	37.78	37.73	37.65
Building Construction [4]	−4.4	−.2	−18.1	−1.7	+5.0	−.1	42.28	41.75	35.15
Water transportation [6]	74.3	74.1	80.3	+4.3	+9.2	+45.1	(2)	(2)	(2)

[1] Preliminary: source—Interstate Commerce Commission.
[2] Not available.
[3] Cash payments only; the additional value of board, room, and tips cannot be computed.
[4] Indexes of employment and pay rolls not available. Percentage changes from May to June 1942, April to May 1942, and June 1941 to June 1942 substituted.
[5] Less than a tenth of 1 percent.
[6] Based on estimates prepared by the U. S. Maritime Commission covering steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll data include war bonuses and value of subsistence and lodging. Pay-roll indexes on 1929 base not available. Percentage changes from May to June 1942, April to May 1942, and June 1941 to June 1942 substituted.

Public Employment

Employment in the Federal executive service increased 107,000 persons during June: 13,000 inside the District of Columbia and 94,000 outside. During June, total employment in the Federal executive service was 2,196,000 and pay rolls were $362,913,000.

Federally financed construction required increased employment and pay rolls of 50,100 persons and $18,630,000 since May. During the month ending June 15, all construction programs, including housing, PWA, RFC, and war public works, as well as regular Federal

construction, required 1,621,000 workers; of these, however, only 244,000 (15 percent) were hired directly by the Federal Government. The others were employed by contractors or subcontractors.

War construction, not including housing, employed 65,600 additional workers during June, reaching a total of 1,471,000 persons and constituting 91 percent of the total number employed on Federally financed construction. Expansion during June was concentrated mainly on the construction of ships, nonresidential buildings, and public roads. Decreases were reported for airport construction due to the completion of several projects.

Contraction of work-relief programs during June affected a total of 176,000 persons. For the WPA the usual seasonal pattern of curtailed operations toward the close of the fiscal year was evident in the decline of 88,200 persons (11 percent), and for the NYA, the close of the school year was reflected in the decrease of 76,800 persons on the student-work program. Of the 14,000 persons dropped from the CCC, 11,600 were enrollees and the rest supervisors, educational advisers, and nurses and other technicians on the supervisory staff. During the past year all work-relief programs have dropped a total of 1,308,000 names from the rolls.

A summary of employment and pay-roll data in the regular Federal services and on construction and work-relief projects financed wholly or partially from Federal funds is given in table 2.

TABLE 2.—*Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds, June 1941 and May and June 1942*

[Subject to revision]

Class	Employment			Pay rolls		
	June 1942	May 1942	June 1941	June 1942	May 1942	June 1941
Federal services:						
Executive [1]	2,196,046	2,089,249	1,370,110	$362,912,762	$339,294,332	$205,581,047
Judicial	2,645	2,653	2,526	689,736	639,382	645,257
Legislative	6,474	6,464	6,132	1,384,436	1,380,037	1,336,535
Construction projects:						
Financed from regular Federal appropriations [2]	1,531,825	1,470,920	668,537	285,604,047	266,355,258	101,507,001
War	1,414,188	1,341,235	516,205	265,105,548	244,324,408	84,177,197
Other	117,637	129,685	152,332	20,498,499	22,030,850	17,329,804
Public housing [3]	30,300	33,766	97,280	4,949,618	5,257,994	11,854,031
War public works	6,615	4,423	(4)	800,057	462,646	(4)
Financed by PWA	243	249	9,507	29,860	28,929	1,056,578
Financed by RFC [5]	51,662	61,176	9,362	9,239,051	9,887,958	1,522,123
War	49,922	59,488	7,227	8,843,886	9,529,712	1,232,888
Other	1,740	1,688	2,135	395,165	358,246	289,235
Work Projects Administration projects	697,819	786,007	1,417,110	47,151,333	51,518,506	81,546,281
War	285,146	294,054	400,382	19,710,736	19,850,273	(6)
Other	412,673	491,953	1,016,728	27,440,597	31,668,233	(6)
National Youth Administration	327,000	400,753	750,518	5,973,000	6,408,888	10,715,168
Student-work program	140,000	216,753	358,004	985,000	1,565,888	2,602,449
Out-of-school work program	187,000	184,000	392,514	4,988,000	4,843,000	8,112,719
Civilian Conservation Corps	69,541	83,575	235,024	3,860,062	4,688,535	11,277,971

[1] Includes force-account employees also included under construction projects, and supervisory and technical employees also included under CCC. Employment and pay rolls for public employment offices affiliated with the Social Security Board which were nationalized in January 1942, are included for the first time in the May and June 1942 figures.

[2] Includes ship construction.

[3] Includes all Federal housing projects including those formerly under the United States Housing Authority.

[4] Program not in operation.

[5] Includes employees and pay roll of the RFC Mortgage Co.

[6] Break-down not available.

For the regular Federal services, data for the legislative, judicial, and force-account employees are reported to the Bureau of Labor Statistics by the respective offices, while data for the executive-service employees are reported through the Civil Service Commission. The Bureau of Labor Statistics receives monthly reports on employment and pay rolls for the various construction projects financed wholly or partially by Federal funds directly from the contractors and subcontractors, and for the work-relief programs from the respective agencies.

DETAILED REPORTS FOR INDUSTRIAL AND BUSINESS EMPLOYMENT, MAY 1942

Estimates of Nonagricultural Employment

IN table 1 are given estimates of nonagricultural employment by major groups. The figures for "Total civil nonagricultural employment" and "Civil employees in nonagricultural establishments" are based on the number of nonagricultural "gainful workers," shown by the 1930 Census of Occupations (less the number who were unemployed for 1 week or more at the time of the census) and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies. The estimates for the individual industry groups are based in large part on industrial censuses and on the above-mentioned regular reports of employers.

Estimates of "Employees in nonagricultural establishments" by States are given each month in a mimeographed release on employment and pay rolls.

TABLE 1.—*Estimates of Total Nonagricultural Employment, by Major Groups*
[In thousands]

Employment groups	May 1942 (preliminary)	April 1942	Change, April to May 1942	May 1941	Change, May 1941 to May 1942
Total civil nonagricultural employment [1]	41,208	40,880	+328	38,902	+2,306
Employees in nonagricultural establishments [2]	35,065	34,737	+328	32,759	+2,306
Manufacturing	13,028	12,951	+77	11,886	+1,142
Mining	862	861	+1	869	−7
Contract construction [3]	2,020	1,928	+92	1,782	+238
Transportation and public utilities	3,383	3,343	+40	3,185	+198
Trade	6,673	6,679	−6	6,753	−80
Finance, service, and miscellaneous	4,304	4,266	+38	4,235	+69
Federal, State, and local Government	4,795	4,709	+86	4,049	+746

[1] Excludes employees on WPA and NYA projects and enrollees in CCC camps. Includes proprietors, firm members, self-employed persons, casual workers, and domestic servants. Includes allowance for adjustment of factory and trade totals to preliminary 1939 census figures.
[2] Excludes all of the groups omitted from "Total civil nonagricultural employment" as well as proprietors, firm members, self-employed persons, casual workers, and domestic servants.
[3] Includes employees of construction contractors only. Does not include "force account" construction workers, that is those employed directly by other classes of employers.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the

Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission, and those on class I steam railroads are compiled by the Interstate Commerce Commission.

The employment, pay-roll, hours, and earnings figures for manufacturing, mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, brokerage, insurance, and hotels relate to all employees except corporation officers and executives, and for trade they relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for public utilities, and 90 percent for mining.

The general manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country, and more than 65 percent of the wage earners in the 90 industries covered.

Date for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in table 2 are computed by dividing the weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply information on man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a slightly smaller number of reporting firms. Because of variation in the size and composition of the reporting sample, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown.

EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND EARNINGS

Employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings for March, April, and May, 1942, where available, are presented in table 2. The February and March figures, where given, may differ in some cases from those previously published because of revisions necessitated primarily by the inclusion of late reports. Indexes of employment and pay rolls are given in table 3 for 55 additional manufacturing industries, for the months of March, April, and May, 1942. These indexes are based on 1939 as 100 and are available in mimeographed form for the period from January 1939 to January 1941, inclusive.

In table 4 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from May 1941 to May 1942, inclusive. The chart on page 398 indicates the trend of factory employment and pay rolls from January 1919 to May 1942.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

Indexes are based on 3-year average, 1923–25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 Census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 Census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request.]

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942 (cents)	April 1942 (cents)	March 1942 (cents)
All manufacturing [2]	**137.1**	**136.1**	**135.1**	**191.8**	**186.7**	**182.9**	**$37.40**	**$36.60**	**$36.11**	**42.6**	**42.4**	**42.5**	**83.1**	**81.9**	**80.9**
Durable goods [2]	**152.5**	**149.9**	**147.5**	**232.3**	**224.0**	**217.3**	**43.33**	**42.51**	**41.94**	**45.0**	**44.7**	**44.7**	**92.3**	**91.0**	**89.9**
Nondurable goods [2]	**122.4**	**123.0**	**123.2**	**146.5**	**144.9**	**144.3**	**28.34**	**27.84**	**27.68**	**39.7**	**39.7**	**39.8**	**72.2**	**71.4**	**70.7**
Durable goods															
Iron and steel and their products, not including machinery	**134.8**	**135.3**	**135.7**	**183.7**	**181.3**	**181.1**	**39.62**	**38.97**	**38.89**	**42.6**	**42.2**	**42.6**	**93.3**	**92.6**	**91.6**
Blast furnaces, steel works, and rolling mills	151.5	150.9	150.0	196.6	192.9	193.5	40.91	40.22	40.67	40.9	40.4	41.1	100.0	99.6	99.0
Bolts, nuts, washers and rivets [3]	[3] 173.7	172.1	169.8	292.2	284.8	275.6	40.31	39.68	38.85	45.7	45.8	45.4	88.2	86.6	85.5
Cast-iron pipe	97.5	98.0	98.0	133.0	130.0	126.3	32.70	31.82	30.92	43.1	42.6	42.1	75.5	74.5	73.0
Cutlery (not including silver and plated cutlery) and edge tools	128.4	131.6	136.4	179.3	179.2	181.4	36.52	35.62	34.66	45.7	46.2	45.8	80.5	78.0	76.3
Forgings, iron and steel [3]	129.2	128.1	125.1	241.4	237.8	221.4	51.05	50.43	47.95	49.4	49.3	48.1	102.4	102.1	99.9
Hardware	89.4	92.3	94.8	135.2	136.1	136.8	36.78	35.89	35.11	46.4	45.9	46.0	79.3	78.3	76.5
Plumbers' supplies [4]	77.8	80.9	89.0	90.9	92.5	102.1	33.62	33.00	33.12	40.0	39.5	40.1	84.0	83.5	82.4
Stamped and enameled ware	204.1	206.4	211.5	310.3	305.0	308.7	35.66	34.51	34.13	44.1	43.8	43.8	81.2	79.6	78.5
Steam and hot-water heating apparatus and steam fittings	120.3	121.6	123.2	173.9	174.2	173.0	43.23	42.81	41.85	46.7	46.5	46.4	92.2	92.3	90.4
Stoves	87.2	90.4	91.8	100.6	105.8	104.9	32.64	33.09	32.35	40.5	41.0	41.0	80.6	80.8	79.2
Structural and ornamental metalwork	115.6	114.0	110.4	149.2	145.6	140.0	41.14	40.85	40.65	45.7	45.7	45.3	90.3	89.4	89.9
Tin cans and other tinware	107.9	111.2	115.9	141.3	145.4	150.0	29.36	29.21	28.97	40.2	40.0	40.5	73.8	73.8	72.0
Tools (not including edge tools, machine tools, files, and saws) [3]	154.0	154.7	155.0	241.2	237.7	234.5	38.87	38.24	37.67	47.6	47.6	47.3	81.7	80.4	79.7
Wirework	151.9	155.3	161.3	241.2	234.6	234.9	38.32	36.71	35.41	45.3	44.7	43.9	84.9	82.3	80.8
Machinery, not including transportation equipment	**200.5**	**197.7**	**193.9**	**326.4**	**315.3**	**307.1**	**45.15**	**44.25**	**43.82**	**47.7**	**47.5**	**47.8**	**93.7**	**92.4**	**91.3**
Agricultural implements (including tractors) [3]	166.9	167.4	169.1	259.1	249.6	249.9	42.55	40.93	40.61	43.2	42.9	42.7	98.6	95.5	95.0
Cash registers, adding machines, and calculating machines	179.1	174.9	176.8	292.6	262.4	261.3	51.10	46.71	46.03	46.0	47.2	47.0	105.8	99.6	98.4
Electrical machinery, apparatus, and supplies	(5)	(5)	(5)	(5)	(5)	(5)	42.21	41.80	41.52	48.6	45.8	45.8	91.8	91.3	90.6
Engines, turbines, water wheels, and windmills	(5)	(5)	(5)	(5)	(5)	(5)	53.96	53.62	54.43	48.2	48.1	48.7	112.7	112.2	112.5

See footnotes at end of table.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942 (cents)	April 1942 (cents)	March 1942 (cents)
Durable goods—Continued															
Machinery—Continued															
Foundry and machine-shop products	162.8	160.3	157.3	242.7	234.9	227.3	$43.90	$43.49	$42.90	48.3	48.2	48.6	90.9	90.0	88.1
Machine tools	(5)	(5)	(5)	(5)	(5)	(5)	52.24	50.79	51.43	54.1	53.9	54.6	96.5	94.4	94.3
Radios and phonographs [6]	196.4	208.9	210.4	283.3	292.2	290.7	35.33	34.31	33.88	45.0	44.6	44.8	78.5	77.0	75.7
Textile machinery and parts	109.0	110.8	110.5	157.9	157.5	157.2	40.13	39.55	39.40	49.4	48.9	49.0	81.3	80.5	80.2
Typewriters and parts	114.9	125.7	147.1	160.5	171.0	212.6	34.24	33.35	35.43	42.0	42.8	45.2	81.3	77.7	78.4
Transportation equipment [3 7]	**251.7**	**237.2**	**224.8**	**401.8**	**376.8**	**350.8**	**50.03**	**49.63**	**48.95**	**46.9**	**47.0**	**46.6**	**106.7**	**105.5**	**105.1**
Aircraft [3]	(5)	(5)	(5)	(5)	(5)	(5)	45.81	45.63	45.03	47.5	47.3	47.8	97.8	96.5	95.0
Automobiles [3]	87.6	84.1	86.2	136.2	131.3	132.1	50.08	50.29	49.34	43.7	44.2	43.5	114.2	113.3	113.6
Cars, electric- and steam-railroad	(5)	(5)	(5)	(5)	(5)	(5)	43.47	42.15	41.38	43.4	43.1	42.9	100.2	97.7	96.5
Locomotives [9]	(5)	(5)	(5)	(5)	(5)	(5)	50.47	50.91	50.56	48.3	49.1	49.1	104.5	103.8	103.0
Shipbuilding	(5)	(5)	(5)	(5)	(5)	(5)	53.67	53.30	52.35	48.8	49.2	48.4	109.0	108.0	107.8
Nonferrous metals and their products	**144.5**	**144.3**	**147.4**	**210.5**	**208.0**	**208.2**	**40.57**	**39.90**	**39.16**	**44.0**	**44.2**	**44.1**	**91.1**	**89.7**	**88.4**
Aluminum manufactures [10]	(5)	(5)	(5)	(5)	(5)	(5)	41.32	41.44	40.31	44.9	45.0	44.7	92.0	92.1	90.4
Brass, bronze, and copper products	(5)	(5)	(5)	(5)	(5)	(5)	44.63	44.46	43.77	44.7	45.4	45.3	99.9	98.4	87.0
Clocks and watches and time-recording devices	114.2	111.9	111.0	177.1	167.6	160.1	34.49	33.18	32.05	44.7	44.5	43.8	76.6	74.7	73.2
Jewelry [3]	95.9	99.6	105.9	108.1	108.9	114.0	30.06	29.32	28.86	43.2	42.2	43.7	69.9	68.9	66.4
Lighting equipment	87.1	91.9	98.9	99.5	106.2	109.1	35.74	36.20	34.32	43.0	44.2	42.1	83.2	81.9	81.6
Silverware and plated ware	65.8	66.0	77.7	81.1	79.8	95.4	35.93	35.25	35.77	44.0	44.1	45.2	82.7	80.8	79.9
Smelting and refining—copper, lead, and zinc	100.8	101.5	101.4	130.2	126.8	127.6	36.39	35.21	35.48	40.6	40.0	40.1	89.4	88.0	88.5
Lumber and allied products	**73.3**	**73.4**	**74.1**	**90.7**	**87.7**	**86.7**	**26.67**	**25.67**	**25.33**	**41.2**	**40.4**	**40.5**	**64.6**	**63.3**	**62.0**
Furniture	96.2	97.2	101.1	116.2	113.9	116.2	28.47	27.64	27.11	42.1	41.5	41.4	68.1	67.1	65.9
Lumber:															
Millwork	70.2	70.4	70.5	71.0	69.8	67.9	28.25	27.65	26.74	42.4	42.1	41.6	66.8	65.6	64.1
Sawmills	64.8	64.6	64.2	78.7	75.0	72.9	25.10	23.96	23.47	40.4	39.5	39.5	62.1	60.7	59.4
Stone, clay, and glass products	**94.3**	**95.4**	**94.3**	**105.7**	**104.9**	**103.7**	**30.58**	**30.00**	**30.02**	**39.0**	**38.8**	**39.0**	**77.1**	**76.7**	**76.2**
Brick, tile, and terra cotta	70.6	70.4	68.3	72.4	71.2	68.6	27.10	26.71	26.52	38.8	38.9	38.9	70.1	68.9	68.5
Cement	82.3	79.9	77.9	95.1	91.0	88.5	32.67	32.22	32.15	40.5	40.4	40.7	80.6	79.7	79.0
Glass	123.6	125.6	126.1	166.6	164.6	165.3	32.99	32.08	32.10	38.9	38.5	38.9	83.5	83.4	82.6
Marble, granite, slate, and other products	33.9	39.7	38.7	28.8	32.9	30.5	30.04	29.29	27.83	40.2	38.3	37.7	71.9	77.4	74.4
Pottery	118.4	119.6	119.9	134.4	134.4	137.1	28.79	28.46	29.01	38.2	38.2	38.5	75.1	73.9	74.1

Nondurable goods															
Textiles and their products	**111.8**	**113.1**	**113.5**	**128.5**	**128.9**	**129.2**	**23.74**	**23.39**	**23.25**	**39.0**	**39.1**	**39.1**	**60.4**	**59.9**	**59.6**
Fabrics	104.8	105.3	105.0	120.0	126.8	124.8	23.75	23.22	22.90	40.3	40.1	40.1	59.2	58.3	57.6
Carpets and rugs	67.4	70.6	77.1	76.9	76.2	81.2	31.64	29.93	29.19	40.5	38.8	38.0	78.3	77.2	77.0
Cotton goods	114.4	114.1	113.2	153.4	148.6	146.4	21.73	21.07	20.92	41.1	41.0	41.0	53.0	51.5	51.1
Cotton small wares	110.7	111.8	111.1	159.8	156.2	148.0	28.33	27.28	26.08	43.8	43.6	43.3	64.7	62.9	60.5
Dyeing and finishing textiles	134.6	138.2	138.3	150.4	157.0	151.7	27.18	27.78	26.66	41.4	42.7	41.8	66.0	65.0	63.7
Hats, fur-felt	58.3	68.3	71.6	59.1	65.9	73.1	27.89	26.75	28.21	32.7	31.5	34.2	84.5	83.8	82.3
Hosiery	122.1	125.3	128.5	149.2	149.2	154.2	21.49	20.96	21.05	36.3	35.7	36.5	59.3	59.1	58.0
Knitted outerwear	81.0	82.2	80.1	86.1	85.8	82.9	21.95	21.48	21.25	38.8	38.6	38.5	55.9	54.7	54.4
Knitted underwear	88.6	88.9	88.0	110.3	110.7	107.0	20.89	20.92	20.52	39.4	39.8	39.4	52.3	52.1	51.5
Knitted cloth [3]	155.0	156.2	153.7	170.7	171.3	164.1	25.46	25.28	24.66	41.3	41.3	41.1	60.9	60.2	59.3
Silk and rayon goods	63.5	63.0	62.3	70.8	70.5	67.8	23.28	23.40	22.74	40.4	40.5	40.5	57.5	57.8	56.1
Woolen and worsted goods	105.5	104.1	103.0	132.0	127.0	122.8	28.97	28.31	27.63	40.6	40.0	39.5	71.5	71.0	70.0
Wearing apparel [3]	122.7	126.0	127.6	119.5	125.2	129.9	23.70	23.85	24.23	36.4	37.0	37.2	62.7	63.2	63.5
Clothing, men's [3]	121.9	123.4	123.4	121.7	121.2	122.8	25.28	25.04	25.29	36.8	37.2	37.7	68.9	67.1	67.0
Clothing, women's	160.9	166.2	169.5	140.5	152.5	162.6	23.87	25.09	26.12	36.6	37.0	37.1	60.8	63.8	65.5
Corsets and allied garments	112.6	116.2	116.9	150.7	159.1	161.1	22.20	22.70	22.85	38.3	39.4	40.0	57.9	57.7	56.9
Men's furnishings	112.3	113.5	115.0	140.1	139.0	140.5	18.70	18.36	18.34	36.0	35.2	35.6	51.8	51.6	50.7
Millinery	65.6	78.6	86.2	44.7	66.4	82.7	20.83	25.80	29.29	27.5	32.4	34.4	71.5	72.5	73.5
Shirts and collars	131.1	132.5	132.9	158.2	159.1	152.0	19.13	19.06	18.16	37.1	37.5	37.1	51.8	51.2	49.2
Leather and its manufactures	**98.7**	**100.5**	**101.9**	**112.6**	**115.7**	**117.2**	**26.34**	**26.57**	**26.55**	**38.6**	**39.3**	**40.0**	**68.2**	**67.8**	**66.3**
Boots and shoes	95.7	97.4	98.6	106.7	110.4	112.2	24.84	25.21	25.32	38.0	38.8	39.7	65.0	64.9	63.3
Leather [3]	94.0	95.8	97.7	122.9	123.6	123.8	32.88	32.46	31.88	40.8	41.0	40.9	80.5	79.1	77.9
Food and kindred products	**135.5**	**132.8**	**131.7**	**150.3**	**152.9**	**150.5**	**30.01**	**29.18**	**28.94**	**40.9**	**40.4**	**40.7**	**74.1**	**73.2**	**72.3**
Baking	150.8	149.6	150.3	166.2	160.2	160.6	30.59	29.52	29.48	42.4	41.8	42.2	71.7	70.6	69.8
Beverages	316.7	298.1	289.1	444.5	395.8	377.8	41.12	38.89	38.27	42.7	41.3	40.9	97.0	95.1	94.4
Butter	118.6	111.4	102.8	119.2	109.4	102.5	26.06	25.63	25.99	46.2	45.5	46.3	55.6	55.3	55.4
Canning and preserving	105.8	103.6	97.3	120.4	117.2	109.2	21.71	21.52	21.35	35.9	35.8	36.6	61.6	61.3	59.5
Confectionery	82.8	87.9	92.6	97.3	103.0	108.9	22.55	22.52	22.55	38.3	38.9	40.0	59.2	58.3	56.9
Flour	77.1	77.7	78.7	87.6	85.5	86.7	30.42	29.38	29.44	43.7	42.9	43.0	68.7	67.6	67.5
Ice cream	86.9	77.9	71.6	82.2	73.9	69.2	32.21	32.11	32.60	46.0	45.6	46.1	69.5	70.0	70.2
Slaughtering and meat packing	138.2	134.0	134.0	169.9	162.3	159.7	31.96	31.49	31.04	39.9	39.5	39.2	80.2	80.0	79.1
Sugar, beet	50.1	46.0	41.6	67.2	60.7	56.1	35.02	34.52	35.28	39.7	38.7	40.2	89.9	90.9	91.8
Sugar refining, cane	93.0	49.0	91.9	89.5	91.3	86.3	27.26	27.53	26.58	37.4	38.0	36.6	72.9	72.4	72.7
Tobacco manufactures	**62.7**	**64.4**	**65.4**	**73.3**	**73.8**	**70.6**	**21.25**	**20.90**	**19.72**	**37.7**	**37.6**	**36.6**	**56.5**	**55.4**	**53.7**
Chewing and smoking tobacco and snuff	51.3	51.9	52.4	71.3	73.1	70.3	22.49	22.79	21.74	36.9	38.1	36.6	61.4	60.3	59.8
Cigars and cigarettes	64.1	65.9	67.0	73.4	73.8	70.5	21.02	20.55	19.35	37.7	37.5	36.6	56.0	54.9	53.1
Paper and printing	**119.4**	**121.1**	**121.9**	**132.0**	**133.2**	**134.8**	**33.61**	**33.42**	**33.68**	**39.5**	**39.6**	**40.1**	**87.6**	**86.8**	**86.2**
Boxes, paper	126.7	131.4	133.8	169.2	173.2	176.4	26.45	26.22	26.20	40.0	40.1	40.6	66.5	65.7	65.0
Paper and pulp	128.4	129.8	129.7	171.0	172.1	175.6	32.97	32.84	33.50	42.5	42.7	43.6	77.7	76.9	76.9
Printing and publishing:															
Book and job	97.9	99.6	100.9	94.6	96.3	97.6	33.59	33.74	33.70	39.1	39.4	39.6	86.8	86.2	85.7
Newspapers and periodicals	114.1	114.6	115.0	114.1	114.0	113.9	40.41	40.17	40.16	36.0	35.8	36.2	111.4	110.8	110.3

See footnotes at end of table.

TABLE 2.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

MANUFACTURING—Continued

Industry	Employment index			Pay-roll index			Average weekly earnings [1]			Average hours worked per week [1]			Average hourly earnings [1]		
	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942	May 1942 (cents)	April 1942 (cents)	March 1942 (cents)
Chemical petroleum and coal products	**157.1**	**158.8**	**158.5**	**225.7**	**222.8**	**219.4**	**$37.86**	**$37.03**	**$38.64**	**41.0**	**40.9**	**40.7**	**91.7**	**90.0**	**88.9**
Petroleum refining	131.9	131.6	130.8	179.3	178.2	179.6	42.07	41.97	42.57	38.5	38.2	38.7	109.8	110.3	110.4
Other than petroleum refining	163.2	165.4	165.2	240.0	236.5	231.6	36.56	35.51	34.87	41.8	41.6	41.3	86.7	84.4	83.0
Chemicals	193.5	193.2	192.5	302.6	293.2	287.8	40.95	39.90	39.40	41.4	41.0	41.0	98.8	97.3	96.2
Cottonseed—oil, cake, and meal [3]	67.5	79.7	94.9	69.7	85.5	98.8	16.58	17.21	16.71	43.0	44.2	43.6	38.3	38.8	38.2
Druggists' preparations [6]	156.7	156.6	155.8	205.6	203.2	199.6	29.42	29.06	28.72	40.4	40.4	40.2	73.2	72.0	71.8
Explosives	(5)	(5)	(5)	(3)	(5)	(3)	45.69	44.67	43.68	46.2	46.0	44.9	98.9	97.1	97.3
Fertilizers [3]	125.8	155.9	166.0	148.4	180.5	176.1	20.95	20.31	18.86	39.6	40.8	39.5	52.9	49.8	47.8
Paints and varnishes	136.2	138.7	140.7	176.5	177.1	179.3	36.03	35.34	35.25	42.0	41.8	42.1	85.4	84.7	83.9
Rayon and allied products	312.1	310.4	313.2	391.4	388.2	394.4	32.13	31.93	32.15	39.8	39.5	39.6	80.5	80.9	81.2
Soap	86.7	91.8	92.6	130.4	136.9	137.3	35.51	35.18	34.99	41.0	40.9	41.1	86.7	86.1	85.2
Rubber products [6]	**95.5**	**95.2**	**98.9**	**136.7**	**130.3**	**132.4**	**38.69**	**36.80**	**36.12**	**42.3**	**41.0**	**40.6**	**92.3**	**91.0**	**90.1**
Rubber boots and shoes	73.3	73.5	75.0	101.9	92.5	99.3	31.53	28.53	30.03	41.9	38.2	40.9	75.2	74.7	73.4
Rubber tires and inner tubes [6]	75.8	74.1	74.2	112.6	105.4	106.4	43.34	41.90	41.75	39.7	38.7	38.4	109.6	108.5	109.3
Rubber goods, other	155.9	159.4	172.1	229.5	224.8	229.1	35.94	34.48	32.27	45.5	44.3	42.3	79.4	78.2	76.7

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

Coal mining:															
Anthracite [11 12]	48.2	47.8	48.4	51.5	44.7	50.9	$35.05	$30.57	$34.43	34.8	30.5	34.6	99.3	99.5	98.9
Bituminous [11]	93.0	93.6	93.8	122.3	118.5	116.9	34.55	33.46	33.20	32.8	31.8	31.6	106.4	105.8	106.2
Metalliferous mining [13]	**82.2**	**81.9**	**81.9**	**100.8**	**99.1**	**99.1**	**38.34**	**37.93**	**38.37**	**43.9**	**43.5**	**44.4**	**87.9**	**87.3**	**86.5**
Quarrying and nonmetallic mining	**51.7**	**50.3**	**47.7**	**63.0**	**58.1**	**54.4**	**30.79**	**29.28**	**29.13**	**43.5**	**42.6**	**42.3**	**70.9**	**69.3**	**69.3**
Crude-petroleum production [14]	**58.1**	**58.8**	**59.7**	**62.0**	**63.2**	**62.6**	**39.01**	**39.34**	**38.20**	**39.0**	**39.0**	**37.6**	**99.0**	**98.2**	**99.1**
Public utilities:															
Telephone and telegraph [15 16]	91.7	91.2	90.5	125.0	122.2	121.8	33.34	32.73	32.91	40.2	39.9	39.9	83.5	82.4	82.8
Electric light and power [15 16]	88.0	88.9	89.6	113.4	113.5	113.5	39.01	38.82	38.43	40.4	40.3	39.6	96.9	96.1	96.8
Street railways and busses [15 16 17]	72.9	72.1	71.2	86.8	84.4	84.7	38.77	38.25	38.86	47.7	47.3	48.3	80.4	79.6	79.5
Trade:															
Wholesale [15 18]	91.2	92.7	93.9	91.7	92.2	93.9	35.20	34.57	34.93	41.4	41.2	41.5	84.5	84.3	84.3
Retail [15 16]	94.0	94.3	94.4	94.0	93.6	93.7	23.08	23.00	23.04	41.5	41.7	42.2	60.5	60.2	59.6
Food [16]	114.8	113.5	113.7	116.2	113.2	113.0	26.13	25.84	25.49	41.2	41.3	41.3	60.5	60.1	59.5
General merchandising [15 16]	109.5	108.6	105.9	108.5	108.0	105.2	19.45	19.48	19.45	37.7	37.8	38.1	51.4	51.2	50.7
Apparel [16]	93.2	94.8	92.7	92.2	94.1	92.2	22.91	23.11	23.32	37.4	37.4	37.6	61.7	61.8	61.8
Furniture [16]	66.5	68.6	70.2	69.5	71.2	72.6	32.15	31.90	31.84	44.5	44.4	44.4	75.4	76.8	76.0
Automotive [16]	57.3	59.9	63.4	60.7	62.5	65.7	32.08	31.13	30.84	47.6	47.5	47.7	67.0	66.3	64.9
Lumber [16]	72.9	72.8	72.2	83.0	79.1	76.3	31.31	30.18	29.27	43.1	42.8	42.3	73.4	72.0	70.8

Hotels (year-round) [11 13 19]	96.1	95.2	93.5	95.4	93.5	91.6	17.14	16.91	16.87	45.2	45.4	45.6	37.5	36.9	36.7
Laundries [11]	113.7	110.3	107.9	113.8	108.6	104.3	20.98	20.59	20.16	43.5	43.4	43.2	48.5	47.8	47.1
Dyeing and cleaning [11]	127.6	121.3	113.8	113.1	105.7	92.7	24.85	24.20	22.67	44.5	44.5	43.2	56.4	55.9	54.0
Brokerage [13 20 21]	−3.8	−4.0	−2.4	−3.8	−3.3	−2.1	40.84	40.66	40.20	(22)	(22)	(22)	(22)	(22)	(22)
Insurance [13 20]	−.7	−.4	−.1	+.2	−.6	−.5	37.73	38.10	38.33	(22)	(22)	(22)	(22)	(22)	(22)
Building construction [20]	−.2	+5.4	+1.8	+5.0	+7.7	+5.4	41.75	39.10	38.29	36.7	35.4	35.0	113.7	110.5	109.4
Water transportation [23]	74.1	73.6	75.7	+9.2	+13.5	+2.4	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)
Class 1 steam railroads [24]	124.5	121.5	116.7	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)	(22)

[1] A bulletin giving averages by years, 1932 to 1940, inclusive, and by months, January 1932 to November 1941, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] See tables 9, 10, and 11 in the December 1940 issue of "Employment and Pay Rolls," for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-goods groups.

[3] Revisions in the following industries and groups have been made as indicated:

Bolts, nuts, washers, and rivets.—January and February 1942 employment indexes to 170.8, 170.9; pay-roll indexes to 261.7, 270.5; average weekly earnings to $36.69, $37.87; December 1941, January and February 1942 average weekly hours to 44.2, 43.3 and 44.7; average hourly earnings to 83.2, 84.8 and 84.7 cents.

Forgings, iron and steel.—February 1942 employment and pay-roll indexes to 123.1 and 215.5; average weekly earnings, hours and hourly earnings to $47.50, 48.1 hours and 99.1 cents.

Tools (not including edge tools).—January 1942 employment index to 151.6; January and February 1942 pay-roll indexes to 220.5 and 224.6; December 1941 January and February 1942 average weekly earnings, hours, and hourly earnings to $35.12, $36.35, and $36.57; 46.2, 46.0 and 46.9 hours; 76.1, 79.1 and 78.0 cents.

Agricultural implements.—January and February 1942 average hours and average hourly earnings to 41.5 and 42.6 hours; 92.6 and 93.8 cents.

Transportation equipment group.—February employment index to 216.0; January and February 1942 pay-roll indexes to 329.9 and 337.2.

Aircraft.—January 1942 and February 1942 employment indexes to 11181.5, 12204.6; pay-roll indexes to 17872.4, 18707.1; average weekly and hourly earnings to $46.78, $44.81; and 96.1 and 94.6 cents. February average weekly hours to 47.8.

Jewelry.—February 1942 average hours and hourly earnings to 40.4 hours and 65.1 cents.

Knitted cloth.—February 1942 employment and pay-roll indexes to 150.4 and 157.0; average weekly and hourly earnings to $24.01 and 59.2 cents.

Wearing apparel.—February 1942 pay-roll index to 125.3.

Clothing, men's.—February 1942 pay-roll index to 116.7; average weekly earnings, hours, and hourly earnings to $24.34, 36.7 hours, and 66.3 cents.

Leather.—January 1942 average weekly hours to 40.6; January and February 1942 average hourly earnings to 76.8 and 77.3 cents.

Cottonseed oil, cake and meal.—February 1942 employment and pay-roll indexes to 104.9 and 109.7; average weekly earnings and hours to $16.82 and 44.8 hours.

Fertilizers.—February 1942 employment and pay-roll indexes 153.3 and 154.9; average weekly and hourly earnings to $18.11 and 47.0 cents.

[4] See table 7 in the April 1941 issue of "Employment and Pay Rolls" for revised figures from January 1940 to March 1941.

[5] Included in total group and indexes, but not available for publication separately.

[6] Because of changes in the composition of the reporting sample, hours and earnings are not comparable with those previously published as indicated:

Radios and phonographs.—Average hourly earnings (comparable February 75.4 cents).

Druggists' preparations.—Average hours and average hourly earnings.

Rubber-products group.—Average hourly earnings.

Rubber tires and tubes.—Average hours and average hourly earnings.

[7] Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of "Employment and Pay Rolls."

[8] The indexes for "Automobiles" have been adjusted to 1933 Census figures, but not to later Census figures because of problems involving integrated industries.

[9] See footnote 7 in Table 5 of October 1941 "Employment and Pay Rolls" for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in locomotives, August 1940 to July 1941, inclusive.

[10] See table 8 in March 1941 "Employment and Pay Rolls" pamphlet for revised figures from January 1935 to December 1940, and footnote 11, table 2 in June 1942 Monthly Labor Review for revised figures from January 1941 to December 1941.

[11] Indexes adjusted to 1935 Census. Comparable series back to January 1929 presented in January 1938 issue of pamphlet.

[12] See table 7 of October 1940 "Employment and Pay Rolls" for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

[13] See table 7 of February 1941 pamphlet for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

[14] Does not include well-drilling or rig-building.

[15] Average weekly earnings, hourly earnings, and hours not comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[16] Retail-trade indexes adjusted to 1935 Census and public-utility indexes to 1937 Census. Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940, with but one exception, retail furniture, which has been revised since publication of July 1940 pamphlet, back to January 1936. Comparable series for earlier months available upon request.

[17] Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[18] Indexes adjusted to 1933 Census. Comparable series in November 1934 and subsequent issues of "Employment and Pay Rolls."

[19] Cash payments only; additional value of board, room, and tips cannot be computed.

[20] Indexes of employment and pay rolls not available; percentage changes from preceding month substituted.

[21] See note 18 in table 9 in the July 1941 issue of "Employment and Pay Rolls" for revised average weekly earnings in the brokerage industry from January 1939 to January 1941.

[22] Not available.

[23] Based on estimates prepared by the United States Maritime Commission covering employment on steam and motor merchant vessels of 1,000 gross tons or over in deep-sea trades only. Pay-roll indexes not available. Percentage changes from preceding month substituted.

[24] Preliminary—Source: Interstate Commerce Commission.

TABLE 3.—*Indexes of Employment and Pay Rolls in 55 Additional Manufacturing Industries*

[12-month average 1939=100]

Industry	Employment			Pay rolls		
	May 1942	April 1942	March 1942	May 1942	April 1942	March 1942
Iron and steel group:						
Metal doors and shutters	140.6	133.2	137.5	224.1	195.6	202.0
Firearms	(1)	(1)	(1)	(1)	(1)	(1)
Screw-machine products	298.1	288.5	242.5	489.5	470.1	391.1
Wire drawing	139.8	138.7	138.9	190.8	185.7	181.7
Wrought pipe not made in rolling mills	177.9	175.5	161.6	288.4	273.7	242.2
Steel barrels, kegs, and drums	131.5	138.2	145.2	196.0	207.8	221.2
Machinery group:						
Machine-tool accessories	(1)	(1)	(1)	(1)	(1)	(1)
Pumps [2]	258.9	253.1	245.9	491.1	474.3	453.2
Refrigerators and refrigerating apparatus	90.0	110.6	112.5	124.6	151.8	152.4
Sewing machines	135.2	139.4	139.2	229.4	239.0	250.3
Washington machines, wringers, and driers	104.8	108.3	107.6	154.8	153.3	151.7
Transportation equipment group:						
Motorcycles, bicycles, and parts [2]	131.9	129.6	147.5	202.3	189.8	210.1
Nonferrous-metals group:						
Sheet-metal work [2]	150.3	152.6	150.2	218.0	222.4	216.0
Smelting and refining of scrap metal	170.9	167.5	164.6	240.0	230.2	219.3
Lumber group:						
Caskets and morticians' goods	96.8	99.4	102.5	123.1	123.2	129.0
Wood preserving	117.5	117.1	116.9	174.8	169.1	163.4
Wood turned and shaped	112.9	113.2	118.6	153.5	151.5	157.7
Wooden boxes, other than cigar	125.4	124.0	125.7	185.7	178.7	176.5
Mattresses and bedsprings	113.9	122.1	118.5	142.0	169.6	152.0
Stone, clay, and glass products group:						
Abrasive wheels	204.5	201.3	197.9	313.1	290.1	277.2
Asbestos products	136.6	134.7	134.5	203.3	189.3	184.4
Lime	118.7	118.6	117.1	171.2	164.7	159.9
Gypsum	110.0	110.6	108.7	146.7	134.3	135.7
Glass products made from purchased glass	122.2	125.5	128.9	150.2	150.0	155.5
Wallboard and plaster, except gypsum	127.6	125.3	127.5	163.5	153.5	142.1
Textiles:						
Textile bags	119.8	123.6	129.8	143.5	145.4	153.4
Cordage and twine	141.0	142.4	139.3	210.7	201.2	194.5
Curtains, draperies, and bedspreads	99.6	103.5	103.7	136.2	144.4	142.1
House furnishings, other	126.9	120.8	115.3	163.2	152.4	143.1
Jute goods, except felt	109.4	117.6	116.9	161.8	152.8	159.8
Handkerchiefs	94.6	95.4	97.0	129.7	126.3	127.0
Leather group:						
Boot and shoe cut stock and findings	98.1	102.3	108.2	129.7	133.2	138.7
Leather gloves and mittens	146.7	144.0	141.5	194.7	189.1	185.2
Trunks and suitcases	177.4	169.4	176.1	210.9	199.7	200.6
Food group:						
Cereal preparations	111.3	114.2	120.7	144.6	152.3	161.0
Condensed and evaporated milk	146.0	137.2	133.4	188.2	170.2	161.4
Feeds, prepared	115.3	114.2	117.9	151.8	143.7	144.4
Paper and printing group:						
Paper bags	123.5	131.9	130.4	163.9	168.7	172.9
Envelopes	117.1	118.5	117.6	133.9	137.7	135.5
Paper goods, not elsewhere classified	123.5	123.9	124.2	147.5	147.0	147.1
Bookbinding	107.1	107.7	109.2	139.1	141.4	143.3
Lithographing	94.0	96.0	98.1	104.9	106.3	107.9
Chemical, petroleum, and coal products:						
Ammunition	(1)	(1)	(1)	(1)	(1)	(1)
Compressed and liquefied gases	157.8	155.7	154.4	213.6	208.8	203.4
Perfumes and cosmetics	100.8	102.2	100.8	118.9	117.4	116.1
Coke-oven products	123.2	123.4	122.0	160.5	157.9	159.7
Paving materials	80.6	88.3	88.1	112.9	116.1	113.3
Roofing materials	124.9	122.5	123.3	172.2	157.0	150.9
Miscellaneous group:						
Chemical fire extinguishers	(1)	(1)	(1)	(1)	(1)	(1)
Buttons	123.0	122.0	122.2	178.2	173.4	171.3
Instruments, professional, scientific, and commercial	(1)	(1)	(1)	(1)	(1)	(1)
Optical goods	(1)	(1)	(1)	(1)	(1)	(1)
Photographic apparatus	132.6	130.9	131.0	186.1	177.9	175.7
Pianos, organs, and parts	96.6	100.4	108.1	126.2	123.6	127.6
Toys, games, and playground equipment	121.1	121.7	122.4	161.3	157.9	157.7

[1] Not available for publication separately.

[2] Revisions of employment and pay-roll indexes in the following industries have been made as indicated: Motorcycles—January and February 1942 employment to 141.7 and 146.4; pay roll to 188.8 and 204.3. Revisions of indexes in the manufacture of pumps and in sheet-metal work are as follows:

	1941												1942	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
Pumps:														
Employment	138.4	147.3	156.7	164.8	173.2	182.4	187.6	194.1	197.2	202.5	208.3	215.3	224.0	233.4
Pay roll	166.5	185.8	201.7	217.1	241.4	266.2	258.5	284.6	299.3	309.7	321.5	354.4	389.0	417.0
Sheet-metal work:														
Employment	131.0	136.8	139.6	141.7	141.5	143.4	147.7	149.5	150.3	149.7	145.8	145.8	145.4	147.8
Pay roll	145.7	150.8	154.6	159.0	170.1	179.9	181.8	189.9	190.5	192.9	183.3	196.1	197.4	210.2

TABLE 4.—*Indexes of Employment and Pay Rolls in Selected Manufacturing [1] and Nonmanufacturing [2] Industries, May 1941 to May 1942*

Industry	1941									1942				
	Av.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
	Employment													
Manufacturing														
All industries	127.7	124.9	127.9	130.6	133.1	135.2	135.4	134.8	134.2	132.5	133.8	135.1	136.1	137.1
Durable goods [3]	134.0	131.3	135.1	137.6	138.7	142.1	144.0	144.6	144.2	143.3	145.1	147.5	149.9	152.5
Nondurable goods [4]	121.6	118.8	121.1	123.9	127.7	128.7	127.3	125.4	124.8	122.1	123.0	123.2	123.0	122.4
Nonmanufacturing														
Anthracite mining [5]	49.7	48.6	49.2	49.3	50.0	50.0	50.3	50.2	49.1	49.0	48.8	48.4	47.8	48.2
Bituminous-coal mining [5]	86.2	87.9	88.1	90.3	92.6	94.2	95.3	95.1	95.5	95.1	94.5	93.8	93.6	93.0
Metalliferous mining [6]	77.6	77.1	78.9	79.0	79.9	79.4	79.7	79.5	80.2	80.7	81.0	81.9	81.9	82.2
Quarrying and nonmetallic mining	49.8	51.0	51.9	52.7	53.9	54.2	54.1	52.6	50.9	46.8	46.7	47.7	50.3	51.7
Crude-petroleum production	61.0	60.3	61.5	62.1	62.2	61.8	61.6	60.9	61.1	61.3	60.6	59.7	58.8	58.1
Telephone and telegraph [7]	86.3	84.6	86.3	88.3	89.6	90.3	90.6	90.1	90.0	90.4	90.3	90.5	91.2	91.7
Electric light and power [7]	92.7	92.2	93.5	94.6	95.2	94.9	94.1	93.4	93.1	92.0	90.5	89.6	88.9	88.0
Street railways and busses [7 8]	69.3	68.9	69.1	69.5	69.7	70.3	70.3	70.2	70.6	70.4	70.7	71.2	72.1	72.9
Wholesale trade	94.0	92.2	93.8	94.2	95.8	95.6	96.3	96.3	96.3	94.9	94.3	93.9	92.7	91.2
Retail trade [7]	98.0	96.1	97.8	96.7	96.9	100.0	101.0	103.0	113.0	95.4	94.0	94.4	94.3	94.0
Year-round hotels [5]	95.0	96.3	95.0	94.5	94.5	95.7	96.2	96.1	95.3	94.2	94.1	93.5	95.2	96.0
Laundries [5]	108.5	108.3	112.0	115.8	114.6	113.0	111.2	108.9	108.4	108.8	107.6	107.9	110.3	113.7
Dyeing and cleaning [5]	115.1	120.6	122.7	121.7	118.9	121.5	121.2	117.2	113.3	109.8	109.5	113.8	121.3	127.6
	Pay rolls													
Manufacturing														
All industries	148.8	144.1	152.2	152.7	158.1	162.6	167.0	165.4	169.9	173.5	178.3	182.9	186.7	191.8
Durable goods [3]	167.8	163.1	173.9	172.2	177.6	183.3	191.4	190.3	195.4	204.3	210.6	217.3	224.0	232.3
Nondurable goods [4]	127.6	122.9	127.9	130.7	136.3	139.5	139.6	137.4	141.3	139.0	142.1	144.3	144.9	146.5
Nonmanufacturing														
Anthracite mining [5]	41.4	33.4	51.2	34.8	51.1	49.6	49.2	41.8	35.9	39.4	49.6	50.9	44.7	51.5
Bituminous-coal mining [5]	99.6	103.4	107.2	105.4	117.3	115.5	122.6	116.4	119.9	117.1	118.2	116.9	118.5	122.3
Metalliferous mining [6]	81.9	81.5	85.3	79.3	85.4	85.9	88.3	89.8	93.7	94.3	98.4	99.1	99.1	100.8
Quarrying and nonmetallic mining	51.8	53.2	55.7	55.5	59.3	60.5	61.5	57.5	55.8	48.9	52.0	54.4	58.1	62.0
Crude-petroleum production	60.5	58.6	59.9	61.4	61.5	64.4	64.4	64.2	64.6	64.8	64.8	62.6	63.2	63.2
Telephone and telegraph [7]	112.7	110.5	113.0	115.7	116.4	117.3	117.0	118.3	122.9	120.9	120.9	121.8	122.2	125.0
Electric light and power [7]	111.2	109.6	111.4	113.5	115.1	115.0	115.7	115.2	115.2	114.6	113.7	113.5	113.5	113.4
Street railways and busses [7 8]	75.4	72.7	76.2	75.8	78.6	78.1	78.4	78.5	80.0	80.5	83.7	84.7	84.4	86.8
Wholesale trade	87.1	84.6	88.4	88.0	89.8	90.9	92.0	91.6	92.8	91.8	93.7	93.9	92.2	91.7
Retail trade [7]	93.4	91.5	95.2	94.0	94.0	95.8	97.3	98.5	107.8	94.6	93.9	93.7	93.6	94.0
Year-round hotels [5]	88.5	87.9	87.4	87.6	88.2	90.0	91.9	93.2	93.3	91.5	92.6	91.6	93.5	95.4
Laundries [7]	99.3	98.7	102.5	106.7	104.7	105.2	103.4	101.9	102.6	103.8	102.5	104.3	108.6	113.8
Dyeing and cleaning [5]	90.4	96.1	98.4	96.4	92.1	99.5	98.5	93 0	88.3	86.5	85.6	92.7	105.7	113.1

[1] 3-year average 1923–25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 "Employment and Pay Rolls" for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

[2] 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of "Employment and Pay Rolls" or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

[3] Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

[4] Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

[5] Indexes have been adjusted to the 1935 Census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of the pamphlet. See also table 7 of October 1949 pamphlet for revised figures for anthracite mining, February to September 1940.

[6] See table 7 of February 1941 pamphlet for revised indexes January 1938 to January 1941.

[7] Retail-trade indexes adjusted to 1935 Census and public utility indexes to 1937 Census. Not comparable with indexes published in "Employment and Pay Rolls" pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.

[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

UNEMPLOYMENT IN JUNE 1942

THE number of unemployed persons in the United States increased by 200,000 between May and June 1942 according to returns from the sample Monthly Report of Unemployment. Employment increased by 1,700,000 and the size of the labor force was reported 1,900,000 higher.

TABLE 1.—*Estimated Civilian Labor Force, Employment, and Unemployment, by Months, April 1940 to June 1942*

Month	Estimated number (millions of persons)								
	1942 [1]			1941 [1]			1940 [1]		
	Labor force	Employed	Unemployed	Labor force	Employed	Unemployed	Labor force	Employed	Unemployed
January	53.2	48.9	4.3	53.0	45.3	7.7	[2]	[2]	[2]
February	53.4	49.4	4.0	52.9	45.7	7.2	[2]	[2]	[2]
March	54.5	50.9	3.6	52.7	45.8	6.9	[2]	[2]	[2]
April	53.7	50.7	3.0	53.5	46.8	6.7	53.9	45.1	8.8
May	54.2	51.6	2.6	54.2	48.5	5.7	54.7	46.3	8.4
June	56.1	53.3	2.8	56.2	50.2	6.0	56.2	47.6	8.6
July				56.6	50.9	5.7	56.9	47.6	9.3
August				56.4	51.0	5.4	56.6	47.7	8.9
September				54.8	50.3	4.5	54.9	47.9	7.0
October				54.1	50.2	3.9	54.4	47.0	7.4
November				54.1	50.2	3.9	53.7	46.3	7.4
December				54.0	50.2	3.8	53.4	46.3	7.1

[1] Includes persons on public emergency projects.
[2] Not available.

The changes recorded in the three categories of labor force, employment and unemployment during June 1942 can be traced almost entirely to persons in the youngest age group and may be attributed to the influx into the labor market of students seeking employment after the close of the school term. Thus, the size of labor force increased by 2,100,000 among persons 14 to 24 years of age, but declined by 200,000 among persons 25 years of age and over. Similarly, the June increase in unemployment (the first of the current year) was confined solely to the younger workers. Unemployment went up by 400,000 among persons 14 to 24 years of age, but declined by 200,000 among workers 25 years of age and over.

Table 2 which follows presents the revised figures on labor force, employment, and unemployment, classified by age groups as released by the Work Projects Administration.

TABLE 2.—*Estimated Civilian Labor Force, Employment, and Unemployment, by Age Groups, April 1940 to June 1942* [1]

Month and year	Labor force				Employment				Unemployment [2]			
	All persons	14–24 years	25–54 years	55 years and over	All persons	14–24 years	25–54 years	55 years and over	All persons	14–24 years	25–54 years	55 years and over
	Estimated number (millions of persons)											
1940												
April	53.9	12.1	34.0	7.8	45.1	8.9	29.5	6.7	8.8	3.2	4.5	1.1
May	54.7	12.6	34.1	8.0	46.3	9.6	29.9	6.8	8.4	3.0	4.2	1.2
June	56.2	14.2	34.1	7.9	47.6	10.6	30.2	6.8	8.6	3.6	3.9	1.1
July	56.9	15.1	34.0	7.8	47.6	10.9	29.9	6.8	9.3	4.2	4.1	1.0
August	56.6	14.8	34.0	7.8	47.7	10.9	30.1	6.7	8.9	3.9	3.9	1.1
September	54.9	12.8	34.2	7.9	47.9	10.2	30.8	6.9	7.0	2.6	3.4	1.0
October	54.4	12.5	34.0	7.9	47.0	9.9	30.4	6.7	7.4	2.6	3.6	1.2
November	53.7	12.2	33.7	7.8	46.3	9.6	30.0	6.7	7.4	2.6	3.7	1.1
December	53.4	11.9	33.7	7.8	46.3	9.5	30.0	6.8	7.1	2.4	3.7	1.0
1941												
January	53.0	11.7	33.6	7.7	45.3	8.9	29.8	6.6	7.7	2.8	3.8	1.1
February	52.9	11.6	33.6	7.7	45.7	9.1	30.0	6.6	7.2	2.5	3.6	1.1
March	52.7	11.5	33.5	7.7	45.8	9.1	30.1	6.6	6.9	2.4	3.4	1.1
April	53.5	12.0	33.6	7.9	46.8	9.7	30.2	6.9	6.7	2.3	3.4	1.0
May	54.2	12.4	33.8	8.0	48.5	10.4	31.0	7.1	5.7	2.0	2.8	.9
June	56.2	14.3	33.6	8.3	50.2	11.9	30.9	7.4	6.0	2.4	2.7	.9
July	56.6	14.9	33.5	8.2	50.9	12.5	31.0	7.4	5.7	2.4	2.5	.8
August	56.4	14.6	33.5	8.3	51.0	12.3	31.3	7.4	5.4	2.3	2.2	.9
September	54.8	12.6	33.8	8.4	50.3	11.0	31.7	7.6	4.5	1.6	2.1	.8
October	54.1	12.0	34.0	8.1	50.2	10.7	32.1	7.4	3.9	1.3	1.9	.7
November	54.1	11.9	34.3	7.9	50.2	10.6	32.2	7.4	3.9	1.3	2.1	.5
December	54.0	11.7	34.3	8.0	50.2	10.6	32.4	7.2	3.8	1.1	1.9	.8
1942												
January	53.2	11.2	34.1	7.9	48.9	9.9	31.9	7.1	4.3	1.3	2.2	.8
February	53.4	11.3	34.0	8.1	49.4	10.1	32.0	7.3	4.0	1.2	2.0	.8
March	54.5	11.8	34.5	8.2	50.9	10.7	32.8	7.4	3.6	1.1	1.7	.8
April	53.7	11.5	34.0	8.2	50.7	10.7	32.5	7.5	3.0	.8	1.5	.7
May	54.2	11.8	33.9	8.5	51.6	11.1	32.6	7.9	2.6	.7	1.3	.6
June	56.1	13.9	33.6	8.6	53.3	12.8	32.4	8.1	2.8	1.1	1.2	.5

[1] All data exclude persons in institutions.
[2] Includes persons on public emergency work projects.

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Recent Publications of Labor Interest

AUGUST 1942

Agriculture and Agricultural Labor

Agricultural labor in the United States, 1938–June 1941. A selected list of references compiled by John M. McNeill and Josiah C. Folsom. Washington, U. S. Bureau of Agricultural Economics, 1942. 268 pp.; mimeographed. (Agricultural economics bibliography No. 95.)

Farm labor supply. By Kendrick Lee. Washington, Editorial Research Reports, 1013 Thirteenth Street NW., 1942. 14 pp. (Vol. 1, 1942, No. 10.)

Industrial and rural workers on FSA homesteads. Washington, U. S. Bureau of Labor Statistics, 1942. 24 pp. (Serial No. R. 1455, reprint from February 1942 Monthly Labor Review.)

Labor under the farm security program. Washington, U. S. Bureau of Labor Statistics, 1942. 20 pp. (Serial No. R. 1454, reprint from December 1941 Monthly Labor Review.)

Men and machines in the North Dakota harvest. By Robert M. Cullum, Josiah C. Folsom, Donald G. Hay. Washington, U. S. Bureau of Agricultural Economics and U. S. Farm Security Administration cooperating, 1942. 62 pp., bibliography, maps, illus.; mimeographed.

A summary of findings of a field survey made in 1938. The object of this survey was to obtain information regarding the effects of mechanization on labor requirements, wages, and the economic and social status of harvest laborers.

The resident laborer on the sugar cane farm. By Harold Hoffsommer. University, Louisiana State University and Agricultural and Mechanical College, Agricultural Experiment Stations, 1941. 50 pp., illus. (Louisiana bull. No. 334.)

The resident laborer is distinguished on the one hand from the sharecropper and the ordinary tenant and on the other hand from the seasonal worker. Resident laborers form by far the largest type of labor on sugar-cane farms. A study of 242 resident laborer families indicated that in 1936 about three-fourths of the families received gross cash incomes from all sources ranging from $250 to $500. About 7 out of 10 of the families produced commodities for home consumption averaging about $40 in value. All the resident laborer families studied received some perquisites, particularly the use of a house, the estimated average value of perquisites being $39. The bulletin contains detailed information on living conditions and community relations.

Reconstruction and the land: An approach to farming in the national interest. By Sir A. Daniel Hall. London, Macmillan & Co., Ltd., 1941. 287 pp.

Proposals for change in the farming industry of Great Britain, including a plan for larger holdings and mechanization. State farming is not recommended, but in the opinion of the writer only the Government can provide the required capital.

Child Labor and Child Welfare

Child labor and inadequate family income. By Savilla Millis Simons. Washington, U. S. Children's Bureau, 1942. 18 pp.; mimeographed.

Preliminary report on a study of the work and welfare of children of agricultural workers in Hidalgo County, Texas.

EDITOR'S NOTE.—The Bureau of Labor Statistics does not distribute the publications to which reference is made in this list, except those issued by the Bureau itself. For all others, please write to the respective publishing agencies mentioned.

Children bear the promise of a better world; our Nation does not need their toil. Washington, U. S. Children's Bureau, 1942. 9 pp. (Defense of children series, No. 9.)

Child labor in Arizona cotton fields. By Edwin E. Vallon. (In The Child, U. S. Children's Bureau, Washington, April 1942, pp. 271–275; also reprinted.)

Proceedings of first meeting of U. S. Children's Bureau Commission on Children in Wartime, March 16–18, 1942. Washington, U. S. Children's Bureau, 1942. Various paging; mimeographed.

Collection of the reports and papers presented at the meeting, which dealt with child labor as well as child-welfare matters.

Occupational hazards to young workers: Report No. 3, The coal-mining industry. Washington, U. S. Children's Bureau, 1942. 55 pp. (Publication No. 275.)

A survey of the characteristics of the coal-mining industry, mining processes and occupations, accident and health hazards, and minimum-age standards, together with the conclusions based on the investigation.

Cooperative Movement

Statistics of farmers' marketing and purchasing cooperatives, 1940–1941 marketing season. By R. H. Elsworth and Grace Wanstall. Washington, U. S. Farm Credit Administration, Cooperative Research and Service Division, 1942. 33 pp. (Miscellaneous report No. 50.)

The problem of cooperative medicine. By V. J. Tereshtenko. New York, U. S. Cooperative Project (63 Vesey Street, 9th floor), 1942. 80 pp.; multilithed. (Studies in field of cooperative medicine, Part 1.)

Revision of a previous report on the same subject, based on the research material of the Cooperative Project, New York City.

La cooperación, su porvenir está en las Américas. By A. Fabra Ribas. Buenos Aires, Instituto del Libro, 1941. 237 pp., illus.

An account of the beginning and development of the cooperative movement and a presentation of the economic principles underlying it, followed by discussion and some statistics of the present-day cooperative movement in the United States, Latin America, Canada, China, Japan, India, and a number of European countries.

El cooperativismo. Montevideo, Museo Social Uruguayo, 1941. 42 pp. (Anales, No. 2.)

The pamphlet includes an address by Aurelio Pastori on the advantages, development, and future of the cooperative movement, citing brief world, American, and Uruguayan statistics of cooperatives, and summarizing the Uruguayan legislation on cooperatives.

Informes de los Departamentos de Empresas de Servicio Público, Contabilidad y Control y Sociedades Cooperativas. Bogotá, Colombia, Ministerio de la Economía Nacional, 1940. 103 pp.

Volume V of the 1940 yearbook of the Ministry of National Economy of Colombia, including a historical account of the development of the cooperative movement in that country, a summary of legislation dealing with the subject through July 19, 1940, discussion of problems and needs of cooperatives, and statistics of the cooperative movement from 1933 to 1939.

Cooperatives stand the test. By Abraham Revusky. (In Jewish Frontier, New York, March 1942, pp. 15–17.)

Examination of the role of cooperatives in Palestine under the severe conditions entailed by the war.

Quarante-troisième rapport annuel du Comité directeur de l'Union suisse des paysans et du Secrétariat des paysans suisses, 1940. Brugg, Secrétariat des paysans suisses, 1941. 150 pp.

Contains data on operations of the various types of agricultural cooperatives the federations of which are affiliated with the Swiss Farmers' Union.

Economic and Social Problems

Democracy and free enterprise. By Thurman W. Arnold. Norman, Okla., University of Oklahoma Press, 1942. 81 pp. (Baxter memorial lectures, delivered at University of Omaha.)

The author criticizes what he terms "the anti-productive ideas" of entrenched business and labor groups and states that farmers have been compelled to adopt the same philosophy. The anti-productive ideas are defined as fixed prices, low turn-over, restricted production, and monopoly control. The program of anti-trust enforcement during the war is described.

Economic peace aims—a basis for discussion. By Oswald Dutch. London, Edward Arnold & Co., 1941. 280 pp.

A plan for immediate action at the close of hostilities.

Prices, wages and inflation. (In International Juridical Association Monthly Bulletin, New York, February 1942, pp. 81, 83–92.)

Detailed analysis with footnote references to a wide variety of information. There is emphasis on methods of checking inflation without a further lowering of the already inadequate levels of living of workers with comparatively small earnings.

[*Recent social changes.* Edited by William F. Ogburn.] (In American Journal of Sociology, Chicago, May 1942, pp. 803–980.)

This symposium on social changes concerns mainly the period 1930 to 1940. Changes that took place during the decade are summarized in the first article, "Our times," by William F. Ogburn; in "The Negro," Charles S. Johnson shows the effects of the depression, the New Deal, and the war emergency upon the Negro population; R. Clyde White, in "Low-income classes," discusses the economic status and social-security measures for their benefit; in "Labor," Royal E. Montgomery analyzes the effects of the depression and of a changing Government policy upon labor.

A survey of industrial development in Great Britain planned since the commencement of the war. By P. W. S. Andrews. (In Oxford Economic Papers, June 1941, pp. 55–71.)

A substitute for the annual surveys of industrial development made by the British Board of Trade in peace times. The present survey is less comprehensive, however, and does not show the volume of employment needed to carry out industrial development.

Europe, Russia, and the future. By G. D. H. Cole. London, Victor Gollancz, Ltd., 1941. 186 pp.

An appeal for concerted efforts by the British and Russians and exiles from the countries occupied by Germany to cooperate in working out plans for reorganizing Europe after the war on a democratic basis. The author describes the Russian system as having a basic and vital element of democracy in the sense of equality prevailing in that country.

Education and Training

Apprenticeship and the UAW-CIO. Detroit, UAW-CIO, International Education Department, 1941. 31 pp., illus.

The pamphlet covers bona fide apprenticeship programs and not the various refresher and short-term training courses which are being carried on as part of the national defense training effort. It outlines past apprenticeship practices and gives the union's policy on apprenticeship.

Employee training. By Alfred M. Cooper. New York, McGraw-Hill Book Co., Inc., 1942. 311 pp.

Presents information on special training methods for employees of industrial and commercial organizations.

Materials and methods for vocational training. By Warren E. Hill and Claude H. Ewing. New York and London, McGraw-Hill Book Co., Inc., 1942. 171 pp., diagrams, illus.

The State and the preservice preparation of teachers of vocational education (Federally aided programs). Washington, U. S. Office of Education, 1941. 138 pp. (Vocational Division bull. No. 219.)

The bulletin deals with the administration and organization of State programs for training teachers of vocational education under the provisions of the Smith-Hughes and the George-Deen Acts.

Vocational training in wartime: A handbook outlining joint action by educators and businessmen to expedite job training essential to war production. Washington, Chamber of Commerce of the United States and American Association of School Administrators, 1942. 35 pp.

Pre-aviation-cadet training in high schools. Washington, U. S. Office of Education, 1942. 17 pp. (Leaflet No. 62.)

Outlines the courses for high-school students who can qualify physically and mentally for aviation training.

Employment Services

Doors to jobs: A study of the organization of the labor market in California. By Emily H. Huntington. Berkeley, University of California Press, 1942. 454 pp.

The study, started in 1938 when there was much unemployment, was undertaken to determine the extent to which there were centers for the exchange of jobs and workers and the effectiveness and future prospects of these agencies. Although the data are limited to California it is believed that in general the findings would be true for most other states.

Proceedings of 29th annual convention of International Association of Public Employment Services, Denver, Colo., June 2–5, 1941. Washington (general secretary, Charles L. Hodge, U. S. Railroad Retirement Board, Room 313, 1406 G Street NW.), [1941?]. 154 pp.

War roles of United States Employment Service. (In Employment Security Review, U. S. Bureau of Employment Security, Washington, April 1942, pp. 3–15.)

Health and Industrial Hygiene

American Public Health Association year book, 1941–1942. New York, American Public Health Association, 1942. 178 pp.

The section on industrial hygiene contains reports of committees on industrial anthrax, lead poisoning, pneumoconiosis, ventilation and atmospheric pollution, and volatile solvents.

National health services and preventive methods for improving national health. By Janet Campbell, M. D., and H. M. Vernon, M. D. London, British Association for Labor Legislation, [1941?]. 46 pp.

This pamphlet is one of a series of contributions to the planning for peace which is being prepared by the Association. It is stated that if Great Britain is to have a real national health policy there must be an extension of national health insurance, a reorganization of the hospital system, and a change in the position of the medical profession in the community.

The aromatic amino and nitro compounds, their toxicity and potential dangers—a review of the literature. By W. F. Von Oettingen. Washington, U. S. Public Health Service, 1941. 221 pp., charts. (Public health bull. No. 271.)

Mule spinners cancer: Epithelioma of the skin in cotton spinners. By E. M. Brockbank, M. D. London, H. K. Lewis & Co., Ltd., 1941. 36 pp., illus.

Contains the author's conclusions on the causes of the disease and on measures for its prevention.

Potential health hazards of the leather industry. By W. J. McConnell, J. Wm. Fehnel, and John J. Ferry. (In Journal of Industrial Hygiene and Toxicology, Baltimore, May 1942, pp. 93–108.)

A study of health hazards in 62 leather plants making different kinds of leather products. Manufacturing processes are described and the health hazards, either real or potential, in the various processes are discussed.

Self-contained oxygen breathing apparatus—a handbook for miners. By G. W. Grove. Washington, U. S. Bureau of Mines, 1941. 234 pp., diagrams, illus.

Industrial Accidents and Accident Prevention

Industrial injury statistics, by States [1940]. Washington, U. S. Bureau of Labor Statistics, 1942. 67 pp. (Bull. No. 700.)

Twelfth annual statistical report of industrial accidents reported to North Carolina Industrial Commission, year ending June 30, 1941. Raleigh, [1942?]. 12 pp.; mimeographed.

Annual report of Explosives Division, U. S. Bureau of Mines, fiscal year 1941. By Wilbert J. Huff. Washington, 1942. 36 pp., charts, illus.; mimeographed.

Reviews the work of the explosives division during the fiscal year ending June 30, 1941, and summarizes results of its studies.

Nineteenth annual report of Safety in Mines Research Board [Great Britain] including a report of matters dealt with by Health Advisory Committee, 1940. London, Mines Department, 1942. 36 pp., diagrams, illus.

Ordnance safety manual: Regulations governing manufacture, storage, loading, and handling of military explosives and ammunition at establishments of the Ordnance Department, United States Army. Washington, U. S. Army, Ordnance Department, 1941. 221 pp., chart. (O. O. form No. 7224.)

Rules relating to protection of persons employed in erection, repair, and demolition of buildings or structures. Albany, New York Department of Labor, Board of Standards and Appeals, 1942. 72 pp. (Industrial code rule No. 23, effective February 1, 1942.)

Industrial Relations

Employee relations in the public service. Chicago, Civil Service Assembly of the United States and Canada, 1942. 246 pp., bibliography.

Appraisal of present personnel policies in public services. The different chapters deal with employee relations and the public administrator, organization of government employees, the government as an employer, governmental policies regarding employee organization, and the role of the personnel agency in employee relations.

The employer and his labor relations. By John H. Mariano. New York, National Public & Labor Relations Service Bureau, Inc., 1941. 259 pp.

Experiment in industrial relations enters upon fourth year at Nunn-Bush Shoe Co. (In Manufacturers News, Chicago, February 1942, pp. 19, 20; chart.)

An account of the results of the guaranteed annual-wage plan of this company, and of the plan for participation by the workers in the management of the company, which was inaugurated in 1939.

Industrial relations in Germany, 1914–1939. Compiled by Waldo Chamberlin. Stanford University, Calif., Stanford University Press, 1942. 403 pp.

Annotated bibliography of industrial-relations material in the Stanford University Libraries, particularly in the Hoover Library on War, Revolution, and Peace.

Industry Reports

The needle trades. By Joel Seidman. New York and Toronto, Farrar & Rinehart, Inc., 1942. xviii, 356 pp. (Labor in 20th century America.)

History of an industry which has been transformed largely by labor organizations from being the most labor-exploited industry into one with high standards of efficiency, organization, and collective bargaining. The volume covers the so-called needle-trades industries, which include men's and women's clothing and the millinery, cap, and fur industry.

Trends in the New York clothing industry. A study undertaken for the Mayor's Business Advisory Committee and the Committee of Fifteen, by Leonard A. Drake and Carrie Glasser. New York, Institute of Public Administration, 1942. 181 pp., bibliography, charts.

The study covers factory-made men's, women's, and children's clothing produced from purchased fabrics. It analyzes the position of New York City in the competitive clothing field, as shown by assembled data on employment, pay rolls, hourly and annual earnings, and production and labor costs, and makes recommendations as to measures for fostering the New York industry.

A history of the straw hat industry. By John G. Dony. Luton (England), Gibbs, Bamforth & Co., Ltd., 1942. 219 pp., bibliography, charts, illus.

Traces the development of the British straw-plaiting and straw-hat industries from the seventeenth century to the present. Deals particularly with social conditions in the last 50 years and competition between the hat-making regions.

The lumber industry in Washington. By Wm. Ray Melton. Olympia, Secretary of State, 1941. 114 pp., bibliography, diagrams, illus.

Revised edition of a study published in 1938 by the National Youth Administration of the State of Washington. Recent statistical information is included. The volume contains illustrated descriptions of processes in the various branches of the industry, definitions of occupations, and estimates of average wages by occupation.

Grass on the slag heaps: The story of the Welsh miners. By Eli Ginsberg. New York and London, Harper & Bros., 1942. 228 pp., map, bibliography.

A study of one of the worst of the distressed coal areas in the period between World Wars I and II when unemployment prevailed, and of the measures taken by individuals and the Government to remove workers to other areas and to bring new industries into Wales.

The Mexican oil industry since expropriation. By Arthur W. Macmahon and W. R. Dittmar. (In Political Science Quarterly, New York, March 1942, pp. 28–50; June 1942, pp. 161–188.)

The second part of this article dealing with the Mexican petroleum industry has a section on labor costs and controversies.

Labor and Social Legislation

California workmen's compensation insurance and safety laws and laws relating to rights of employees, 1941. Sacramento, Supervisor of Documents, 1941. 150 and 12 pp.

Labor laws of North Carolina, 1941. Raleigh, North Carolina Department of Labor, [1942?]. 60 pp.

Southern workers outside the legislative pale. Edited by H. C. Nixon for the Southern School for Workers, Inc., New York. New York, American Labor Education Service, Inc., 1942. 35 pp.

A study of groups of workers not covered by such legislative measures as the National Labor Relations Act, the Fair Labor Standards Act, the social-security laws, and the national farm program. Comparatively large proportions of workers in the South are not able to obtain the benefits of these laws. Thus, the total labor force covered by unemployment compensation in the more highly industrialized States is nearly double that for the semi-industrial Southeast. The report includes a section on race differentials, and one on the poll tax.

Labor and social security legislation in Latin America. By Charles Henry Lee. (In Notre Dame Lawyer, Notre Dame, Ind., March 1942, pp. 189–215.)

Analysis of certain labor and social-welfare provisions of constitutions, labor codes, or other legislation.

Medical Care

How to organize group health plans. By Martin W. Brown, Katharine G. Clark, Perry R. Taylor. New York, Joint Committee of Twentieth Century Fund and Good Will Fund; and Medical Administration Service, Inc., 1942. 72 pp.

Types of prepayment plans, general principles of membership, financial aspects, and legal problems of operating group medical plans are discussed.

A bulletin on "Business procedures" of prepayment plans for medical care, by Perry R. Taylor, was published in 1941 as one of this series of reports on such plans.

Organization and administration of group medical practice. By Dean A. Clark, M. D., and Katherine G. Clark. New York, Joint Committee of Twentieth Century Fund and Good Will Fund; and Medical Administration Service, Inc., 1941. 109 pp.

Description of the methods of operation of group clinics based on the experience of a group of university and charitable clinics, private reference clinics, private prepayment groups, cooperative prepayment groups, and industrial prepayment groups.

Nursing; A community health service. By Amelia Howe Grant. Philadelphia, W. B. Saunders Co., 1942. 277 pp.

The development of public-health work during the past fifty years and the role of the nurse in this work are outlined. The various official and nonofficial agencies carrying on public-health work are described as well as the training requirements and special phases of public-health nursing. The book is designed for the use of graduate nurses and students.

Price-Control and Other Control Measures

The enforcement of the food control law, 1918. By Enoch Needham. Washington, U. S. Bureau of Labor Statistics, 1942. 54 pp.; mimeographed.

Stabilization of food prices at the retail level, 1917–1918. By Calman R. Winegarden. Washington, U. S. Bureau of Labor Statistics, 1942. 56 pp.; mimeographed.

Control of the sugar market during World War I. By Enoch Needham. Washington, U. S. Bureau of Labor Statistics, 1942. 32 pp.; mimeographed.

Paint and varnish—conservation of finished product and control of raw materials, 1917–1918. By J. Donald Edwards. Washington, U. S. Bureau of Labor Statistics, 1942. 58 pp.; mimeographed.

Price control: The war against inflation. By Erik T. H. Kjellstrom and others. New Brunswick, N. J., Rutgers University Press, 1942. 171 pp., charts.

Each of the four authors discusses price control in a separate country, the four countries being Sweden, Canada, Great Britain, and Switzerland. The price problems of Sweden and Switzerland are described as determined largely by forces outside of these countries. Price control in the four countries is characterized by efforts to maintain and control the flow of supplies of goods and services and by policies designed to control the demand for goods and services through the flow of income. The most extensive effort at the direct fixing of prices and especially of wages has been attempted in Canada, which early in the war experienced an acute shortage of facilities for production.

Winning the war. Edited by John A. Krout. New York, Academy of Political Science, May 1942. 100 pp. (Proceedings, Vol. 20, No. 1.)

One of the papers is on "Price and wage control in Canada." There is a background of information regarding the Canadian situation, and policies formulated during the period of the present war relating both to price control and the regulation of wages and salaries are conveniently summarized. There is a discussion of "Labor's view of wage policies from now on" in the United States by the secretary of the C. I. O.

Relief Measures and Statistics

Federal and State aid, 1941. Washington, U. S. Bureau of the Census, 1942. 51 pp., chart; mimeographed. (State and local government special study No. 19.)

Statistical report of the amounts paid by the Federal Government to State and local governments and by the States to local governments in support of specified functions such as public assistance, education, agriculture, public health, employment security, etc., in 1941.

Report of the President of the United States to the Congress showing status of funds and operations under Emergency Relief Appropriation Acts for fiscal years 1935 to 1942, inclusive, as of December 31, 1941. Washington, [U. S. Treasury], 1942. 511 pp., charts.

Second annual report of Federal Works Agency, fiscal year ended June 30, 1941. Washington, [1942?]. 473 pp., charts, illus.

Describes the work and accomplishments during the year ended June 30, 1941, of the Federal Works Agency and its constituent administrations, viz., Public Buildings Administration, Public Roads Administration, Public Works Administration, United States Housing Authority, and Work Projects Administration.

Report on progress of the WPA program, June 30, 1941. Washington, U. S. Work Projects Administration, 1942. 144 pp., charts, illus.

Gives data on national defense work, vocational training, work projects, and other activities of the WPA, together with statistics of persons assisted, including the number employed on WPA projects and their earnings.

Direct and work relief and Federal work programs in Allegheny County [Pennsylvania], 1920–41. By Ralph C. Fletcher, Katharine A. Biehl, Joseph L. Zarefsky. Pittsburgh, Federation of Social Agencies of Pittsburgh and Allegheny County, Bureau of Social Research, 1942. 53 pp., bibliography, maps, charts. (Social research monograph No. 5.)

This monograph brings together the available data on all types of assistance and work programs carried out in the county during the two decades covered by the report.

Unemployment Insurance

A study of intermittent industry in Kentucky. Frankfort, Unemployment Compensation Commission, Committee to Study Intermittent Industry, 1941. 40 pp.; mimeographed.

The study deals with the incidence of unemployment compensation benefits in intermittent industries of the State as compared with other types of industries.

Proposals for reorganization of unemployment compensation and the employment service. By William Haber. (In Social Service Review, Chicago, March 1942, pp. 37–56.)

An argument for the federalization of the present State unemployment-insurance systems.

Standards and procedures for administration of benefits for partial unemployment. Washington, U. S. Social Security Board, Bureau of Employment Security, 1941. 38 pp.; processed. (Employment security memorandum No. 15.)

Revised minimum standards of procedures to be followed by State agencies in the payment of benefits for partial unemployment, and the findings of a study of State experience in the payment of such benefits.

Message of Governor of New York recommending amendments to unemployment insurance law and transmitting a report of the Industrial Commissioner and report of the Unemployment Insurance Advisory Council. Albany, 1942. 43 pp. (Legislative doc., 1942, No. 50.)

The recommendations of the Governor included extension of the unemployment benefit period from 13 to 20 weeks, payment of benefits to the partially unemployed, reduction of the waiting period from 3 to 2 weeks, and increase in the maximum weekly benefit rate from $15 to $18.

Report of New York State Unemployment Insurance Advisory Council for year 1941. New York City, 1942. 36 pp.; mimeographed.

The report deals exclusively with proposals for changes in the New York State Unemployment Insurance Act and consists of the majority report by the three public representatives and the three employer representatives and the minority report by the three employee representatives. The majority of the committee recommended the broadening of the benefit structure conditioned upon an employee contribution.

Wages and Hours of Labor

Wartime wage rates. By Ernest J. Holcomb. (In Land Policy Review, U. S. Bureau of Agricultural Economics, Washington, May 1942, pp. 33–37.)

It is pointed out that farm wages have lagged behind wages of industrial workers and that farmers' incomes have recently risen more rapidly than farm wage rates and more rapidly than the prices of commodities farmers buy. The chief problems from the farmer's point of view are in certain areas surrounding new industrial plants. It is stated that in some areas farmers will find it necessary to make permanent adjustments to the new wage levels. These adjustments should include provisions for increased security of workers, better housing facilities, and greater continuity of employment.

Wage adjustments to cost of living under union agreements. Washington, U. S. Bureau of Labor Statistics, 1942. 22 pp.; multilithed. (Industrial relations problems arising under war production, memorandum No. 3.)

Merchant marine statistics, 1941. Washington, U. S. Bureau of Marine Inspection and Navigation, 1941. 191 pp. (Report series No. 12.)
Includes a tabulation of wages of seamen on United States steam and motor cargo vessels of 5,000 gross tons and over, 1935-41.

The wartime wages and cost of living bonus order [Canada], P. C. 8253 of October 24, 1941, as amended; interpretative rulings by the National War Labor Board. Ottawa, National War Labor Board, 1942. 21 pp. (Bull. No. 2.)

La capacidad de trabajar es la verdadera riqueza del individuo [Costa Rica]. By Ruben Yglesias H. (In Su Seguridad, Contraloría General de la República, San José, Costa Rica, May 2, 1942, pp. 33–36.)
Gives data on salaries and wages for various types of work in Costa Rica in 1940.

Case studies in training and multiple-shift operation. By R. W. Owens and others. New York, American Management Association, 1942. 43 pp. (Production series No. 132.)
Seven papers dealing, respectively, with night-shift control, transfer of responsibility at shift change, supervision in continuous operation, compensation in multiple-shift operation, relieving supervisors of training responsibilities, selection and training of inspectors, and using experienced operators to train.

The history of the shorter workday. Prepared by Labor Research Association. New York, International Publishers Co., Inc., 1942. 64 pp.
A survey of efforts from 1791 to the present to reduce hours of work. Rising productivity of labor is described as the basis of reductions achieved by organized labor. The need for reductions in the past is linked to requirements of health and safety and participation in family, social, and civic life. Maintenance of past gains is not inconsistent, it is indicated, with utmost effort by workers in the battle of production.

War Conditions and Policies

Legal aspects of the Selective Service Act. (In Indiana Law Journal, Indianapolis, April 1942, pp. 271–373.)
This issue of the Indiana Law Journal is devoted almost entirely to the legal aspects of the Selective Service Act. The subjects discussed which are of particular interest to labor include appeal procedure, the Soldiers' and Sailors' Civil Relief Act, occupational deferments, reemployment, and mobilization of manpower. A bibliography on selective service is included.

Non-Government sources of information on national defense. Washington, U. S. Office of Education, [1942?]. 44 pp.; processed. (Educational and national defense series, pamphlet No. 3—preliminary edition.)

Selected bibliography of bibliographies on subjects related to national defense. By Clarence P. Dunbar. Baton Rouge, Louisiana State University, Bureau of Educational Research, 1942. 29 pp.; mimeographed. (Bibliography series, No. 2.)

Psychological effects of war on citizen and soldier. By R. D. Gillespie, M. D. New York, W. W. Norton & Co., Inc., 1942. 251 pp., bibliography.

Report of Department of Mines and Resources, Canada, including report of soldier settlement of Canada, for fiscal year ended March 31, 1941. Ottawa, 1941. 244 pp.

An outline of wartime financial control in the United Kingdom. By W. F. Crick. London, Macmillan & Co., Ltd., 1941. 59 pp.
Discusses the control of capital, credit, and purchasing power, and presents methods of conserving capital.

White-Collar Workers

Cost-of-living salary plans for municipal employees. By J. M. Leonard and Rosina Mohaupt. Detroit, Mich., Detroit Bureau of Governmental Research, Inc., 1942. 51 pp.; mimeographed. (Report No. 162.)
The report gives details of and evaluates the cost-of-living salary-adjustment plans for St. Paul municipal employees and for teachers in the Fordson School District of Dearborn, Mich., and the Detroit salary policy for city employees;

statistics of operation of the St. Paul plan; and a statistical comparison of actual salaries paid Detroit city employees with those that would have been paid under the St. Paul plan. Other methods of adjusting wages and salaries are discussed and variations in procedure are suggested.

Office work in Houston, 1940. Washington, U. S. Women's Bureau, 1942. 58 pp., charts. (Bull. No. 188–1.)

Similar studies were made for Kansas City (Kans. and Mo.), Los Angeles, Philadelphia, and Richmond (Va.). Separate reports will be published for each of these cities.

Court decisions on teacher tenure reported in 1941. Washington, National Education Association of the United States, Committee on Tenure, 1942. 31 pp.

Teacher personnel procedures: Employment conditions in service. Washington, National Education Association of the United States, Research Division, May 1942. 33 pp. (Research bull., Vol. XX, No. 3.)

The bulletin deals with salaries, health services and sick leave, termination of service, and other employment conditions.

Women in Industry

Women for defense. By Margaret Culkin Banning. New York, Duell, Sloan & Pearce, 1942. 243 pp.

Describes the part women played in the first World War, their adjustment and progress during the period following the end of the war, the part they are taking in the present war and their future role therein, and what is being done in other countries by the women of those nations.

Women in slacks speed plane production. By Don Wharton. (In Aviation, New York, June 1942, pp. 74–5, 249–50.)

An account of the work women are doing in airplane factories, describing how they are speeding up production.

Women in war production. Report to House of Representatives Committee Investigating National Defense Migration, by Thelma McKelvey. Washington, U. S. War Production Board, Labor Division, 1942. 69 pp.; mimeographed.

This report covers the potential supply of women for war work, statistics on employment of women, types of war work in which they can be employed, training programs, and the Government program for increasing the use of women as war workers.

Woman domestic workers in Washington, D. C., 1940. By Grace Fox. Washington, U. S. Bureau of Labor Statistics, 1942. 22 pp. (Serial No. R. 1437, reprint from February 1942 Monthly Labor Review.)

Women personnel executives. By Marion E. Owens. (In Personnel Journal, New York, March 1942, pp. 298–316.)

A study of the duties, training, and education of woman personnel executives in industry. Data were obtained from woman personnel executives in 53 representative service, retail, and manufacturing firms, which employed from 300 to 63,000 workers.

Informe sobre condiciones de las mujeres y de los menores en Guadalajara, Jal., Tepic, Nay., y Mazatlán, Sinaloa. (In Trabajo y Previsión Social, Secretaría del Trabajo y Previsión Social, México, D. F., January 1942, pp. 35–42.)

Report on working conditions of women and minors in one municipality in each of 3 Mexican States, including information on union affiliation and dues; wages, hours, and paid vacations; maternity aid; degree of danger involved in employment; and vocational and other education.

General Reports

O Ministério do Trabalho no Estado Novo [*Brazil*]. Rio de Janeiro, Ministério do Trabalho, Indústria, e Comércio, 1941. 317 pp.

Report by the Brazilian Minister of Labor, Industry, and Commerce on the activities of his ministry for the period 1938–40. The portion covering the social-insurance institutes and funds is especially detailed.

Report of Department of Labor of Canada for fiscal year ending March 31, 1941. Ottawa, 1941. 144 pp.

Treats activities of the Canadian Department of Labor in administering the fair-wages policy of the Government, and various legislative measures, including the Conciliation and Labor Act, Industrial Disputes Investigation Act, Unemployment and Agricultural Assistance Act, and Youth Training Act.

Finanzas, bancos y cajas sociales, año 1940 [*Chile*]. Santiago, Dirección General de Estadística, 1941. 151 pp.

The section of this report devoted to social welfare in Chile contains statistics, through 1940, of social insurance, employment and wages by industry, employment service, labor organizations, industrial disputes, consumers' cooperatives, industrial accidents, and activities of labor courts and of the Low-Cost Housing Fund.

Germany's labor problems. (In Foreign Commerce Weekly, U. S. Department of Commerce, Washington, May 16, 1942, pp. 4, 5, 38.)

Shortage of labor, transfer of workers from one employment to another in which their services are needed more, and recruiting of labor, are discussed.

Compendio estadístico [*Mexico*]. México, D. F., Secretaría de la Economía Nacional, Dirección General de Estadística, 1941. 117 pp.

This statistical abstract of Mexico includes data, mainly through 1940, on workers' organizations, industrial accidents, unemployment, average hours and wages of workers in specified industries, cost of living, retail prices of articles of prime necessity, production, agricultural colonization, collective farming, and cooperatives, and on industrial employment according to censuses of 1935 and 1940.

Situación de los países Americanos en 1941. México, D. F., Confederación de Trabajadores de América Latina, 1941. 28 pp.; processed.

The summary section of this statistical publication gives information on population and currency during varying periods from 1935 to 1941, inclusive, for each of the Latin American Republics, the United States, and Canada; data for specified countries concerning gainfully employed population, annual family income, average hourly wages for certain occupations, strikes, and cost of living. Much additional information of labor interest is included. All monetary data are in terms of United States currency.

Statistical report on prices, wage rates and hours of labor, unemployment, industrial accidents, etc., in New Zealand for the year 1939. Wellington, Census and Statistics Department, 1941. 154 pp.

Estudio social sanitario de un distrito de Caracas. By José María Bengoa. (In Revista de Sanidad y Asistencia Social, Ministerio de Sanidad y Asistencia Social, Caracas, Venezuela, February 1942, pp. 5–50; charts.)

Social survey of a workers' district of 718 families (2,795 persons) in Caracas, Venezuela, giving data on occupational distribution, wages, housing accommodations and rentals, nutrition, and cost of food.

Industrialization of the Western Pacific. By Kate L. Mitchell. New York, Institute of Pacific Relations, International Secretariat, 1942. 317 pp.

The book covers the industrial development and resources of the countries of the Western Pacific and India. It was completed just prior to the outbreak of war in this area and includes data on wartime industrial development in China, Japan, Australia, New Zealand, and India. The volume constitutes part 3 of an economic survey of the Pacific area.

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