
UNITED STATES DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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Wage Stabilization in California Airframe Industry, 1943



Bulletin No. 746

[Reprinted from the Monthly Labor Review, June 1943, with additional data]

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LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, June 18, 1943.

The SECRETARY OF LABOR:

I have the honor to transmit herewith a report on wage stabilization in the California airframe industry, 1943, by Theodore W. Reedy, of the Division of Wage Analysis, and N. Arnold Tolles, Chief of the Bureau's Working Conditions and Industrial Relations Branch.

A. F. HINRICHES, *Acting Commissioner.*

HON. FRANCES PERKINS,
Secretary of Labor.



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Bulletin No. 746 of the

United States Bureau of Labor Statistics

[Reprinted from the MONTHLY LABOR REVIEW, June 1943, with additional data]

**WAGE STABILIZATION IN CALIFORNIA AIRFRAME
INDUSTRY, 1943**

Summary

STANDARDIZED wage rates for all types of occupations in the southern California airframe industry were provided in the decision of the National War Labor Board made public on March 3, 1943. The basic hiring rate of 60 cents per hour, with automatic 5-cent increases every 4 weeks up to 75 cents, was left unchanged. A 10-grade job classification was adopted, with a minimum basic wage rate of 75 cents per hour in labor grade X and a maximum of \$1.45 per hour in labor grade I. Additional specialist rates up to \$1.60 per hour were also provided.

Shift differentials of 6 cents per hour on the second shift and 6 cents per hour with 8 hours' pay for 6½ hours' work for the third shift were established for all plants except Consolidated Aircraft, in which the previous differentials of 8 cents for the second and third shift, with 8 hours' pay for 8 hours' work on the third shift, were to be continued unless the Board premiums were substituted by mutual agreement.

The directive order of the Board provided that upon application of the job schedule provided, each classified employee should immediately receive at least the minimum hourly wage rate attached to the labor grade in which his job was classified. It provided further that the job schedule should not operate to cause a decrease in the hourly wage rate of any employee. Application of these directives to the present wage structure will raise average straight-time hourly earnings for some employees in practically every classified occupation. It is estimated that average straight-time hourly earnings for all workers paid by the hour in the southern California airframe industry will be increased by 3 cents per hour—from 85.4 (September 1942) to 88.4 cents.

Wage-Rate History of the Industry Since 1941

Minimum hourly rates for beginners were standardized in 1941, but marked differences persisted in the wage rates paid to the various experienced workers in any given occupation and grade.¹ Throughout 1942 numerous discussions of further standardization took place, in the interest of improving morale and reducing labor turn-over. A wage-stabilization conference, sponsored by the Labor Production Division of the War Production Board, was held in July 1942 without leading to any conclusion. Undetermined at that time was the question as to

¹ See U. S. Bureau of Labor Statistics Bulletin No. 704, or Monthly Labor Review, March 1942 (p. 559).

whether the Government would approve a general wage increase as part of any agreed plan of wage stabilization. In September 1942, the National War Labor Board took jurisdiction over all the West Coast airframe cases² and appointed, as investigator, Paul R. Porter, who had conducted the previous WPB conference. The investigator held a wage hearing in Los Angeles, October 12-17, 1942, and submitted his recommendations to the Board in January 1943.³ After a hearing on these recommendations, the Board issued its order on March 3, 1943.⁴ This order governs the wage scales now paid by all the airframe plants in the southern California area.

Job Description and Evaluation

All the parties involved in the California airframe industry recognized that a well-defined list of occupations was essential to any plan for a uniform wage structure. Furthermore, the opinion prevailed that relative rates of pay should be based on a systematic evaluation of the various jobs. Two alternative sets of job descriptions and evaluation were presented to the Board's investigator. One of these plans had been developed jointly by the International Association of Machinists and the Lockheed-Vega Management. The second plan had been developed through discussions among the representatives of the various companies involved. This second plan, which came to be known as the S. C. A. I. plan,⁵ was adopted by the Board's investigator and later by the Board itself as the initial basis of wage stabilization in the California airframe plants.

The S. C. A. I. system of job descriptions involved a consolidation and redefinition of 1,154 titles of factory occupations which had been used as late as 1941. The total number of titles was reduced to 116. Counting the A, B, and C classes, which were provided for most of these occupations, the total number of responsible factory jobs amounted to 291.

Job evaluation under the S. C. A. I. plan involved a quantitative expression of judgment as to the importance of each of seven factors related to each job: Skill, mentality, equipment and material responsibility, mental application, physical application, job conditions, and unavoidable hazards. The requirements of any job were expressed in terms of a scale of points which varied according to the relative importance of each factor and the degree to which that factor was judged to be involved. The factor of skill carried the greatest weight, with point values based on the length of training and experience that would be required, normally, to qualify a worker for a given job grade. The other factors were evaluated in terms of 5 degrees, with a weight as high as 20 to 100 points for "mentality" and as low as 5 to 45 points for "unavoidable hazards." The theoretical maximum point value of any job under the S. C. A. I. plan was 890, of which 400 points might be attributed to the "skill" requirement. The highest point

¹ Cases Nos. 174, 307, 557, 558, 608, 609, 610, and 673.

² In the matter of West Coast Airframe Companies: Report and recommendations of Paul R. Porter, chairman of wage hearing held at Los Angeles, October 12-17, 1942.

³ In the matter of West Coast Airframe Companies: Directive order of Board, March 3, 1943.

⁴ S. C. A. I.—Southern California Aircraft Industry. Many of the elements of the S. C. A. I. plan had been applied at the North American Aviation plant as a means of carrying out the realignment of wage rates provided in the union agreement of July 1, 1941. The United Automobile Workers of America had accepted the practical application of this evaluation plan at North American, but without approving it as a general basis for wage stabilization.

value actually given has been 655 for service and flight inspectors. The lowest point valuation consists of 125 points for janitors.

Once the factory jobs were evaluated, the employers had a basis for proposing a specific scale of rates. They did not propose individual scales for each of 291 separable jobs, but rather suggested the establishment of 10 rate ranges. The entire list of jobs was grouped into 10 so-called labor grades. All jobs having a point value below 200 were placed in labor grade X. Those evaluated at 600 points or more were assigned to labor grade I. The intermediate grades were established on the basis of 50 evaluation points per grade.

Recommendations of Board's Investigator

The investigator's report to the War Labor Board included four important wage recommendations: (1) No change in the existing wage scales for beginners, (2) a general increase of 5 cents per hour for all classified workers, (3) specific ranges of rates for each of 10 labor grades, and (4) an automatic pay raise of 5 cents per hour every 3 months, for each individual worker, until the maximum rate for his job is reached. Advancement of a worker from one job to another was not to be compulsory but was to be stimulated by a provision for a periodic review of each worker's eligibility for upgrading.

The specific wage scales in the various labor grades, recommended by the Board's investigator, were as follows:

	<i>Minimum rate</i>	<i>Maximum rate</i>	<i>Specialist rate</i>
Grade X.....	\$0. 85	\$0. 85	-----
Grade IX.....	. 85	. 95	-----
Grade VIII.....	. 90	1. 00	-----
Grade VII.....	. 95	1. 05	-----
Grade VI.....	1. 00	1. 10	-----
Grade V.....	1. 05	1. 15	-----
Grade IV.....	1. 10	1. 25	-----
Grade III.....	1. 15	1. 30	\$1. 35
Grade II.....	1. 20	1. 40	1. 45
Grade I.....	1. 30	1. 50	1. 60

The specialist rates were recommended for the purpose of authorizing the payment of higher rates to exceptional individuals, without requiring that all the workers in the labor grade should advance automatically to the specialist rate.

TABLE I.—*Percent of Increase in Wages of Southern California Airframe Employees, Under Recommendations of Board's Investigator, by Grade, as of September 1942*¹

Labor grade	Increase to grade minimum	Immediate in-grade increases	Total immediate increase ²	Increase of all workers to grade maximum
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Grade I.....	5.3	1.6	7.2	18.5
Grade II.....	8.9	.9	9.9	25.5
Grade III.....	8.4	1.2	9.9	20.1
Grade IV.....	10.6	.7	11.8	23.8
Grade V.....	11.9	.5	12.5	21.7
Grade VI.....	13.5	.5	14.2	24.2
Grade VII.....	11.4	.6	12.0	22.7
Grade VIII.....	10.8	.7	11.7	22.6
Grade IX.....	7.7	.8	8.6	19.5
Grade X.....	4.8	1.2	6.5	10.9
All grades.....	9.3	.8	10.3	20.4

¹ Source: Government Exhibit K, In the matter of West Coast Airframe Companies.

² Including the general increase of 5 cents to all workers both above and below the standard maximum rate for the grade.

Had the report of the investigator been adopted by the Board, the wage bill of the California airframe plants would have shown an immediate increase of 10.3 percent above the level in September 1942. Automatic increases up to the maximum rate for each grade would further have raised the wage bill. After approximately 6 months, workers who continued in employment would have been raised by an average of 20.4 percent.

Rates Set by Board

In considering the report of its investigator, the War Labor Board accepted the principle of wage stabilization through rate ranges for each of 10 labor grades. Likewise, the Board approved the proposal to retain the existing rates for workers with less than 3 months' experience. However, the majority of the Board rejected the proposed general increase of 5 cents an hour, the proposed provision for automatic in-grade increases, and the specific scale of rates that had been recommended by the Board's investigator.

Labor grade X was divided into two parts. A flat rate of 75 cents an hour was set for certain of the lowest-rated jobs, such as that of janitor, which did not exist in any of the higher labor grades. A wage from 75 to 80 cents was set for other jobs, such as that of class B anodizer and class C electrical assembler. Labor grade X-B and C thus consisted of jobs in which the worker was subject to upgrading as his experience on the job increased.

The scale of rates finally approved and now in effect is as follows:

	<i>Minimum rate</i>	<i>Maximum rate</i>	<i>Specialist rate</i>
Grade X-A.....	\$0. 75	\$0. 75	-----
Grade X-B and C.....	. 75	. 80	-----
Grade IX.....	. 80	. 90	-----
Grade VIII.....	. 85	. 95	-----
Grade VII.....	. 90	1. 00	-----
Grade VI.....	. 95	1. 05	-----
Grade V.....	1. 00	1. 10	-----
Grade IV.....	1. 05	1. 20	\$1. 30
Grade III.....	1. 10	1. 25	1. 35
Grade II.....	1. 20	1. 35	1. 45
Grade I.....	1. 25	1. 45	1. 60

Individual wage increases up to the established minimum rates were mandatory. In-grade increases, from the minimum to the maximum rate, were not mandatory but were authorized as a reward of individual merit. Specialist rates were provided for not more than 10 percent of the workers in each of the labor grades I to IV and (by special ruling) for class A and B welders.⁶

All the rates established by the order were for work at straight time on the first or daylight shift. Overtime pay is governed by the Fair Labor Standards Act. Extra pay for work on second and third shifts was standardized by a provision for a shift differential of 6 cents per hour for both of the additional shifts and by the further provision that the third shift should receive 8 hours' pay for 6½ hours' work. An exception was recognized in the case of the Consolidated Aircraft plant in San Diego, where the existing 8-cent shift differential was retained.

A retroactive wage adjustment was made by the Board, in view of the extended period of consideration of the aircraft cases. Each

⁶ This exception was made to permit the continued payment of higher-than-usual rates that had been established under some collective agreements.

worker who remained on the pay roll of a single company from July 6, 1942, to the date of the Board's order was allowed a lump sum of \$64.75 in cash or three war bonds of \$25 face value plus \$10 in cash. Special provisions were made for those employees with a shorter period of service (\$1.85 per week or major fraction thereof) and for those terminated because of entry into the armed services (\$2.50 per week or major portion thereof). Since calculation of the total amount of this bonus depends upon length-of-service information which is not available to the Bureau of Labor Statistics, no estimate of this item can be made here.

Effect of Order on Factory Wage Bill

The basic data for estimating the increase in the wage bill and the resulting levels of straight-time average hourly earnings were collected and compiled by the Southern California Airframe Industry Research Committee and were presented as industry exhibits during the recent wage hearings before the National War Labor Board. Calculation of the estimated increase in the wage bill is based upon Government exhibit J-I, in the investigator's report presented to the National War Labor Board, an adaptation of which is shown in table 2.

TABLE 2.—Percentage Distribution of Employees in California Airframe Industry, by Straight-Time Average Hourly Earnings and Grade, as of September 1942¹

Average hourly earnings	Percent of employees receiving specified average hourly earnings in—										All grades
	Grade I	Grade II	Grade III	Grade IV	Grade V	Grade VI	Grade VII	Grade VIII	Grade IX	Grade X	
\$0.750		0.1	0.1	0.2	0.5	7.5	9.6	28.8	36.2	73.4	28.0
\$0.775						.2	.4	1.3	1.7	.6	.9
\$0.800	0.1		.2	.8	2.6	10.5	15.6	25.6	31.8	9.7	18.9
\$0.825			.8	.6	.3	11.6	9.8	11.2	16.5	8.3	10.8
\$0.850		.3	2.8	5.8	11.7	15.1	25.1	15.0	10.3	5.4	13.0
\$0.875	.1	.1	1.0	1.9	9.1	8.1	10.4	4.6	1.1	1.4	4.3
\$0.900	.3	.4	3.3	13.0	18.4	15.9	15.7	8.0	1.7	1.0	7.4
\$0.925		.1	.2	1.9	3.6	4.2	2.1	1.7	.1	.1	1.3
\$0.950	.3	3.8	7.4	13.5	18.6	12.2	6.5	1.9	.3	.1	4.0
\$0.975	.1	.7	3.6	7.7	8.4	2.5	1.4	.5	.1	(?)	1.3
\$1.000	2.7	11.4	12.7	14.8	12.1	5.6	2.3	.6	.1	(?)	2.6
\$1.025	.3	2.0	4.3	6.3	2.8	1.2	.3	.3	(?)		.7
\$1.050	2.5	17.9	13.1	9.6	3.7	1.9	.5	.2	.1		1.5
\$1.075		2.6	1.4	1.5	.5	.7	.2	.1			.3
\$1.100	3.1	14.8	12.0	5.4	3.5	1.1	.1	.2		(?)	1.0
\$1.125	.9	7.3	3.6	2.8	1.0	.8	(?)	(?)			.4
\$1.150	10.9	11.3	9.5	3.9	1.4	.4	(?)	(?)			.8
\$1.175	4.0	5.6	2.1	1.4	.7	.1	(?)	(?)			.3
\$1.200	11.3	6.0	6.0	1.3	.2	.1	(?)	(?)			.5
\$1.225	1.0	.7	.9	.3	.2	(?)					.1
\$1.250	10.9	5.2	4.8	1.9	.2	.1	(?)	(?)			.5
\$1.275	4.4	2.0	1.9	.5	(?)	(?)				(?)	.2
\$1.300	11.8	5.3	5.3	3.4	.5	.1					.6
\$1.325	3.1	.3	1.2	.2	(?)	(?)					.1
\$1.350	12.2	.7	.8	1.0	(?)						.2
\$1.375	.2	.1	.5	.3		(?)					(?)
\$1.400	11.1	.2	.4	(?)		.1	(?)				.2
\$1.425	.4	.3									(?)
\$1.450	.8	.8	.1								(?)
\$1.475	.1										(?)
\$1.500	7.4		(?)	(?)							.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Government exhibit J-1, Porter recommendation.

² Less than a tenth of 1 percent.

The industry has been directed to grant a wage increase to each employee whose base rate is below the minimum rate of the grade in which his job is classified. Thus, in the case of a job classified in labor grade VI, an employee receiving 80 cents per hour base rate would receive an increase of 15 cents per hour to 95 cents, the grade minimum. The information shown in table 2 can be used to calculate the extent of these wage increases.⁷ The results of this calculation are shown in table 3.

The increase in straight-time average hourly earnings of all hourly paid employees, as a result of the application of the Board's order, is estimated to be 3.6 percent.⁸ This amounts to an increase of 3 cents per hour to 88.4 cents, based upon average earnings of 85.4 cents per hour for all workers. Since certain salaried employees, beginners, and workers now being paid the grade minimum or above will receive no wage increase, the percent of increase based upon the pay roll for the entire industry would be somewhat smaller.

TABLE 3.—*Estimated Increase in Straight-Time Average Hourly Earnings of Southern California Airframe Employees¹ Under War Labor Board Order*

[Based upon industry pay roll for September 1942]

Labor grade	Percent of employees within grade	Percent of increase in average hourly earnings
Grade I.....	1.4	2.8
Grade II.....	1.2	6.3
Grade III.....	2.8	4.1
Grade IV.....	4.7	4.7
Grade V.....	2.3	6.7
Grade VI.....	8.5	8.6
Grade VII.....	21.0	4.4
Grade VIII.....	12.1	5.6
Grade IX.....	32.6	1.5
Grade X.....	13.4	.....
All grades.....	100.0	3.6

¹ Includes only shop employees paid by the hour; excludes supervisory personnel.

The greatest increase, 8.6 percent, is found in labor grade VI. In grade X there is no increase, since the minimum basic rate for that grade is 75 cents per hour, and no classified employees now earn less than that rate. Other increases vary from 1.5 to 6.7 percent in the different grades.

Effect of Order on Occupational Straight-Time Average Hourly Earnings

The method of calculating the effect of the award on occupational straight-time average hourly earnings is essentially the same as that used to calculate the wage-bill increase. Given a distribution of employees by average straight-time hourly earnings for each occupation, the problem is simply to obtain a new average for that occupation after increasing the base rate of all employees now below the

⁷ Basic hourly wage rates below 75 cents are classified as beginner rates and are not included. The order has no immediate effect on the wages of employees now working at these rates.

⁸ Based upon the September 1942 pay rolls of all southern California airframe companies, excluding the Ryan Aeronautical Co., San Diego.

minimum of the grade in which the occupation is found to that minimum. Thus, an employee with a straight-time hourly rate of 90 cents engaged in an occupation in grade V (which has a \$1 minimum) would have an increase of 10 cents to raise him to the minimum, which in turn would raise the average for the occupation. Fluctuations in the occupational average as a result of changes in the pattern of employment may be extremely wide. Hence, the adjustment shown in table 4 may be slightly in error in the case of any one occupation, but should be substantially correct in most cases.

TABLE 4.—*Straight-Time Average Hourly Earnings, by Occupation, Based on Order of National War Labor Board (September 1942 Pay Roll)*

Labor grade and occupation	Percent of employees	Hourly earnings, on basis of order	Hourly earnings, September 1942	Hourly earnings, December 1941 (first shift unless otherwise noted)
Grade I	100.0	\$1.317	\$1.28	-----
Inspectors, experimental, grade A.....	1.8	1.264	1.20	-----
Inspectors, outside production, grade A.....	2.4	1.275	1.23	-----
Inspectors, service and flight, grade A.....	7.7	1.279	1.23	\$1.168
Inspectors, tooling, grade A.....	7.8	1.301	1.29	-----
Jig builders, grade A.....	19.2	1.286	1.25	-----
Machinists, general, grade A.....	4.7	1.315	1.30	1.247
Mechanics, experimental, grade A.....	6.4	1.250	1.02	-----
Model builders, grade A.....	1.8	1.313	1.25	-----
Patternmakers, metal and wood, grade A.....	7.0	1.361	1.35	-----
Tool and die makers, grade A.....	41.2	1.351	1.34	1.281
Grade II	100.0	1.222	1.15	-----
Electricians, maintenance, grade A.....	26.2	1.239	1.18	1.169
Form builders, wood, grade A.....	6.4	1.255	1.22	1.213
Heat treaters, steel, grade A.....	2.3	1.229	1.16	-----
Inspectors, final assembly, grade A.....	24.9	1.207	1.14	1.042
Jig borer operators, grade A.....	3.9	1.254	1.23	-----
Mechanics, field and service, grade A.....	18.2	1.210	1.13	1.015
Mechanics, maintenance, grade A.....	18.1	1.211	1.11	1.067
Grade III	100.0	1.146	1.10	-----
Boring-mill operators, grade A.....	1.6	1.243	1.24	-----
Die finishers, grade A.....	1.9	1.101	1.03	-----
Drop-hammer operators, grade A.....	2.2	1.117	1.09	1.003
Duplicating-machine operators, grade A.....	1.1	1.158	1.14	-----
Engine-lathe operators, grade A.....	7.7	1.207	1.20	1.143
Grinder operators, grade A.....	3.4	1.203	1.19	1.190
Inspectors, experimental, grade B.....	1.2	1.110	1.04	-----
Inspectors, machined parts, grade A.....	3.4	1.180	1.17	1.110
Inspectors, outside production, grade B.....	2.6	1.113	1.03	-----
Inspectors, salvage, grade A.....	2.9	1.116	1.06	-----
Inspectors, service and flight, grade B.....	2.3	1.145	1.10	1.172
Inspectors, template, grade A.....	2.1	1.168	1.16	-----
Inspectors, tooling, grade B.....	2.0	1.114	1.06	-----
Jig builders, grade B.....	28.6	1.102	1.02	-----
Milling-machine operators, grade A.....	10.1	1.187	1.18	1.153
Model builders, grade B.....	.9	1.117	1.07	-----
Patternmakers, metal and wood, grade B.....	2.1	1.122	1.07	-----
Patternmakers, plaster, grade A.....	2.8	1.217	1.21	1.226
Planer operators, grade A.....	.4	1.230	1.23	-----
Radial-drill-press operators, grade A.....	2.1	1.101	.91	-----
Screw-machine operators, automatic, grade A.....	.9	1.233	1.23	-----
Shaper operators, grade A.....	1.9	1.189	1.17	1.181
Template makers, grade A.....	2.1	1.123	1.06	1.035
Tool and die makers, grade B.....	7.8	1.113	1.06	1.042
Turret-lathe operators, grade A.....	5.4	1.191	1.18	1.066
Welders, combination, grade A.....	.5	1.300	1.30	-----
Grade IV	100.0	1.090	1.04	-----
Assemblers, general, grade A.....	6.8	1.067	1.03	.992
Assemblers, precision, bench, grade A.....	3.9	1.061	1.01	1.069
Blacksmiths, grade A.....	.1	1.108	1.04	-----
Cabinetmakers, wood, grade A.....	1.4	1.097	1.07	-----
Carpenters, maintenance, grade A.....	3.9	1.095	1.07	1.059
Electricians, maintenance, grade B.....	6.1	1.066	.97	1.051

See footnotes at end of table.

TABLE 4.—*Straight-Time Average Hourly Earnings, by Occupation, Based on Order of National War Labor Board (September 1942 Pay Roll)*—Continued

Labor grade and occupation	Percent of employees	Hourly earnings, on basis of order	Hourly earnings, September 1942	Hourly earnings, December 1941 (first shift unless otherwise noted)
Grade IV—Continued.				
Form builders, wood, grade B.....	2.5	\$1.058	\$0.98	-----
Heat treaters, steel, grade B.....	.6	1.050	.93	-----
Inspectors, detail, grade A.....	2.0	1.067	1.04	1 \$0.904
Inspectors, final assembly, grade B.....	7.5	1.058	.99	.895
Inspectors, general assembly, grade A.....	6.4	1.075	1.05	1.039
Inspectors, precision assembly, grade A.....	1.3	1.071	1.05	-----
Inspectors, shipping, grade A.....	.8	1.064	1.03	-----
Inspectors, welding, grade A.....	.3	1.132	1.13	-----
Installers, armament, grade A.....	.8	1.050	.93	-----
Installers, hydraulic, grade A.....	3.3	1.053	.95	-----
Installers, power-plant, grade A.....	1.8	1.057	.98	1.007
Machinists, bench, grade A.....	1.7	1.088	1.07	1.106
Mechanics, automotive, grade A.....	.5	1.105	1.07	-----
Mechanics, field and service, grade B.....	12.3	1.050	.95	.907
Mechanics, maintenance, grade B.....	8.5	1.055	.97	.951
Metal fitters, grade A.....	3.0	1.078	1.05	1.085
Molders, aircraft, grade A.....	.9	1.072	.98	-----
Pipefitters, maintenance, grade A.....	1.7	1.101	1.08	-----
Plumbers, maintenance, grade A.....	1.7	1.094	1.07	-----
Power-hammer operators, grade A.....	.7	1.073	1.03	-----
Sheet-metal workers, bench, grade A.....	6.5	1.087	1.05	1.047
Sheet-metal workers, maintenance, grade A.....	.6	1.072	1.04	-----
Welders, arc, grade A.....	3.3	1.280	1.28	1.324
Welders, gas, grade A.....	5.3	1.230	1.23	1.245
Welders, maintenance and jig, grade A.....	3.8	1.247	1.24	1.205
Grade V.....				
Crowning-machine operators, grade A.....	100.0	.993	.96	-----
Draw-bench operators, grade A.....	.2	1.000	.97	-----
Draw-bench operators, grade A.....	.2	1.020	1.01	-----
Form-block makers, grade A.....	3.8	1.049	1.03	-----
Heat treaters, aluminum, grade A.....	3.7	1.003	.83	-----
Hydraulic straightening and forming press operators, grade A.....	.6	1.015	.91	-----
Inspectors, receiving, grade A.....	1.9	1.048	1.04	1.041
Installers, controls, grade A.....	9.2	1.008	.95	-----
Installers, electrical, grade A.....	11.2	1.013	.97	-----
Installers, general, grade A.....	43.0	1.303	.92	.966
Painters, aircraft, grade A.....	13.3	1.018	.98	.972
Painters, maintenance, grade A.....	2.9	1.376	1.06	-----
Power-brake operators, grade A.....	3.1	1.014	.97	-----
Sign painters, grade A.....	1.8	1.339	.99	-----
Slotter operators, grade A.....	(*)	1.230	1.23	-----
Upholsterers, grade A.....	3.0	1.033	.97	-----
Welders, aluminum, grade A.....	2.1	1.260	1.26	-----
Grade VI.....				
Boring-mill operators, grade B.....	100.0	.960	.89	-----
Buffers and polishers, grade A.....	.2	1.040	1.04	-----
Craters, grade A.....	.3	.990	.96	-----
Die finishers, grade B.....	.8	.963	.90	-----
Drill-press operators, grade A.....	.4	.950	.85	1.804
Drill-press operators, grade A.....	2.6	.962	.89	.761
Drop-hammer operators, grade B.....	1.9	.972	.94	1.862
Duplicating-machine operators, grade B.....	.2	.988	.97	-----
Electroplaters, grade A.....	.7	.969	.91	-----
Engine-lathe operators, grade B.....	2.3	.986	.97	.854
Grinder operators, grade B.....	1.4	.982	.96	1.979
Hydro-press operators, grade A.....	1.6	.952	.83	1.894
Inspectors, experimental, grade C.....	.2	.975	.93	-----
Inspectors, machined-parts, grade B.....	1.1	1.021	1.01	-----
Inspectors, salvage, grade B.....	.6	.970	.93	-----
Inspectors, service and flight, grade C.....	.1	.985	.95	-----
Inspectors, templates, grade B.....	.5	.955	.93	-----
Inspectors, tooling, grade C.....	.8	.968	.86	-----
Jig builders, grade C.....	23.7	.951	.84	-----
Milling-machine operators, grade B.....	4.6	.991	.97	.901
Model builders, grade C.....	.5	.972	.88	-----
Patternmakers, metal and wood, grade C.....	.5	.955	.85	-----
Patternmakers, plaster, grade B.....	1.0	.991	.97	-----
Planer operators, grade B.....	.3	.970	.94	-----
Power-shear operators, grade A.....	2.0	.959	.88	-----
Punch-press operators, grade A.....	2.2	.972	.92	1.900
Radial-drill-press operators, grade B.....	.7	.953	.83	1.869

See footnotes at end of table.

TABLE 4.—Straight-Time Average Hourly Earnings, by Occupation, Based on Order of National War Labor Board (September 1942 Pay Roll)—Continued

Labor grade and occupation	Percent of employees	Hourly earnings, on basis of order	Hourly earnings, Sept mber 1942	Hourly earnings, December 1941 (first shift unless otherwise noted)
Grade VI—Continued.				
Riveters, grade A.....	31.2	\$0.950	\$0.89	\$0.841
Screw-machine operators, automatic, grade B.....	.7	.964	.89	.....
Shaper operators, grade B.....	1.5	.965	.91	1.989
Small-tool repairmen, grade A.....	1.3	.984	.96	.860
Spot welders, grade A.....	1.9	.956	.91	.....
Template makers, grade B.....	3.7	.959	.93	.850
Tool and die makers, grade C.....	3.2	.958	.87	.918
Truck drivers, grade A.....	3.2	.956	.87	.863
Turret-lathe operators, grade B.....	2.1	.992	.98	.946
Welders, combination, grade B.....	(?)	1.000	.93	.....
Grade VII.				
Assemblers, electric and radio (bench), grade A.....	100.0	.914	.87	.....
Assemblers, general, grade B.....	.8	.939	.93	1.880
Assemblers, precision, bench, grade B.....	28.4	.916	.89	.845
Assemblers, precision, bench, grade B.....	1.9	.906	.85	.890
Blacksmiths, grade B.....	(?)	.958	.93	.....
Boring-machine operators (semi-automatic), grade A.....	.1	.900	.85	.....
Cabinetmakers, wood, grade B.....	.4	.918	.90	.....
Cable splicers, grade A.....	.3	.918	.89	.....
Carpenters, maintenance, grade B.....	1.1	.940	.92	1.019
Crowning-machine operators, grade B.....	(?)	.900	.81	.....
Draw-bench operators, grade B.....	.1	.903	.84	.....
Electricians, maintenance, grade C.....	1.3	.907	.83	.836
Form-block makers, grade B.....	.4	.909	.87	.....
Form builders, wood, grade C.....	.8	.901	.85	.....
Forming-roll operators, (power), grade A.....	.4	.929	.89	.....
Heat treaters, aluminum, grade B.....	.6	.900	.81	.....
Heat treaters, steel, grade C.....	.1	.900	.82	.....
Hydraulic straightening and forming press operators, grade B.....	.3	.900	.81	.....
Inspectors, detail, grade B.....	1.3	.923	.91	.882
Inspectors, final assembly, grade C.....	3.2	.936	.90	.810
Inspectors, general assembly, grade B.....	2.8	.935	.90	.939
Inspectors, precision assembly, grade B.....	.5	.930	.91	1.889
Inspectors, receiving, grade B.....	.5	.916	.88	.....
Inspectors, shipping, grade B.....	.2	.922	.90	.....
Inspectors, welding, grade B.....	.2	.957	.94	.....
Installers, armament, grade B.....	.5	.903	.86	.....
Installers, controls, grade B.....	2.4	.902	.85	1.871
Installers, electrical, grade B.....	3.7	.908	.86	.898
Installers, general, grade B.....	17.6	.902	.83	.834
Installers, hydraulic, grade B.....	2.8	.902	.85	1.955
Installers, power-plant, grade B.....	1.2	.910	.88	.861
Machinists, bench, grade B.....	.8	.927	.92	1.973
Mechanics, automotive, grade B.....	.1	.922	.90	.....
Mechanics, field and service, grade C.....	3.6	.901	.83	.791
Mechanics, maintenance, grade C.....	2.2	.908	.85	.790
Metal fitters, grade B.....	1.7	.911	.89	.863
Millmen, wood, grade A.....	.1	.955	.95	.....
Molders, aircraft, grade B.....	.3	.906	.87	1.886
Painters, aircraft, grade B.....	3.2	.901	.85	.783
Painters, maintenance, grade B.....	.3	.939	.90	1.845
Pipe fitters, maintenance, grade B.....	.3	.938	.92	.....
Plumbers, maintenance, grade B.....	.3	.925	.90	.....
Power-brake operators, grade B.....	.8	.902	.83	1.930
Power-hammer operators, grade B.....	.4	.905	.86	.....
Router operators, grade A.....	1.0	.901	.85	1.858
Saw operators, grade A.....	1.5	.907	.86	.867
Sheet-metal workers, bench, grade B.....	3.8	.925	.91	.904
Sheet-metal workers, maintenance, grade B.....	.2	.927	.89	.....
Slotter operators, grade B.....	(?)	.920	.85	.....
Tool-crib attendants, grade A.....	1.7	.907	.86	.862
Truck-crane operators, grade A.....	.3	.930	.90	.....
Tube benders, bench, grade A.....	1.4	.924	.89	.985
Upholsterers, grade B.....	.7	.906	.81	.....
Welders, aluminum, grade B.....	.3	.968	.96	.....
Welders, arc, grade B.....	.2	1.040	1.04	.....
Welders, gas, grade B.....	.7	1.060	1.06	1.017
Welders, maintenance and jig, grade B.....	.2	1.003	1.00	1.972

See footnotes at end of table.

TABLE 4.—*Straight-Time Average Hourly Earnings, by Occupation, Based on Order of National War Labor Board (September 1942 Pay Roll)*—Continued

Labor grade and occupation	Percent of employees	Hourly earnings, on basis of order	Hourly earnings, September 1942	Hourly earnings, December 1941 (first shift unless otherwise noted)
Grade VIII				
Anodizers, grade A	100.0	\$0.856	\$0.81	
Buffers and polishers, grade B	.7	.887	.87	1 \$0.988
Coverers, fabric, grade A	.4	.854	.81	
Craters, grade B	.7	.858	.80	.783
Die finishers, grade C	2.0	.850	.79	
Drill-press operators, grade B	.5	.871	.83	
Drop-hammer operators, grade C	6.8	.854	.81	.818
Electroplaters, grade B	1.3	.855	.82	1.874
Engine-lathe operators, grade C	.4	.850	.78	1.824
Grinder operators, grade C	2.1	.864	.82	1.818
Inspectors, machined parts, grade C	2.0	.856	.82	1.835
Inspectors, salvaged, grade C	1.5	.885	.86	
Inspectors, templates, grade C	.2	.852	.81	
Milling-machine operators, grade C	.4	.850	.81	
Oilers, maintenance, grade A	5.0	.861	.83	.792
Overhead-crane operators, grade A	.9	.860	.82	1.774
Patternmakers, plaster, grade C	.8	.902	.88	
Plexiglass formers, grade A	1.1	.858	.81	
Power-shear operators, grade A	.3	.870	.84	
Punch-press operators, grade B	2.1	.865	.80	1.876
Riveters, grade B	3.4	.859	.82	.817
Small-tool repairmen, grade B	55.8	.853	.80	.772
Spot welders, grade B	2.4	.861	.82	
Tank cleaners and testers, grade A	2.2	.852	.81	.833
Template makers, grade C	.6	.869	.81	1.861
Turret-lathe operators, grade C	4.7	.852	.80	.774
Welders, combination, grade C	1.7	.866	.83	1.835
	(*)	.900	.90	
Grade IX				
Assemblers, electric and radio (bench), grade B	100.0	.815	.81	
Assemblers, general, grade C	2.7	.823	.81	.773
Assemblers, precision, grade C	57.0	.813	.81	.770
Cabinetmakers, wood, grade C	1.7	.808	.79	.808
Cable splicers, grade B	.1	.824	.80	
Carpenters, maintenance, grade C	.2	.811	.80	
Form-block makers, grade C	.3	.838	.83	1.913
Forming-roll operators (power), grade B	.4	.819	.80	
Heat treaters, aluminum, grade C	.2	.827	.82	1.873
Inspectors, detail, grade C	(*)	.806	.79	
Inspectors, general assembly, grade C	1.3	.816	.79	.767
Inspectors, precision assembly, grade C	1.5	.937	.82	.835
Inspectors, receiving, grade C	.5	.937	.83	
Inspectors, shipping, grade C	.6	.818	.80	
Inspectors, welding, grade C	.2	.915	.80	
Installers, armament, grade C	.1	.962	.86	
Installers, controls, grade C	.1	.915	.79	
Installers, electrical, grade C	.6	.913	.90	.833
Installers, general, grade C	2.6	.914	.80	.768
Installers, hydraulic, grade C	8.2	.904	.80	.759
Installers, power-plant, grade C	1.2	.904	.79	.816
Machinist, bench, grade C	1.1	.911	.80	.803
Mechanics, automotive, grade C	.8	.924	.82	.775
Metal fitters, grade C	.1	.910	.78	
Millman, wood, grade B	2.3	.813	.80	.836
Molders, aircraft, grade C	.1	.838	.83	.916
Molders, aircraft, grade C	.1	.803	.78	
Painters, aircraft, grade C	1.4	.815	.80	.771
Painters, maintenance, grade C	.2	.828	.81	
Pipe fitters, maintenance, grade C	.2	.839	.82	
Planishing-hammer operators, grade A	.2	.837	.83	
Plumbers, maintenance, grade C	.2	.814	.79	
Power-brake operators, grade C	.3	.824	.81	
Profile-cutting torch-machine operator, grade A	.1	.898	.89	
Rivet-header-machine operators, grade A	.1	.870	.87	
Router operators, grade B	.4	.814	.79	
Sandblasters, grade A	.2	.823	.81	
Saw operators, grade B	.2	.805	.79	.810
Sewing-machine operators, grade A	.5	.835	.83	1.841
Sheet-metal workers, bench, grade C	5.6	.821	.80	.806
Sheet-metal workers, maintenance, grade C	.1	.860	.84	
Tool-crib attendants, grade B	2.4	.815	.79	.699
Truckers, power, grade A	1.0	.829	.82	
Tube benders, bench, grade B	1.0	.822	.81	.785

See footnotes at end of table.

TABLE 4.—*Straight-Time Average Hourly Earnings, by Occupation, Based on Order of National War Labor Board (September 1942 Pay Roll)*—Continued

Labor grade and occupation	Percent of employees	Hourly earnings, on basis of order	Hourly earnings, September 1942	Hourly earnings, December 1941 (first shift unless otherwise noted)
Grade IX—Continued.				
Welders, aluminum, grade C.....	0.2	\$0.864	\$0.86	-----
Welders, arc, grade C.....	.2	.850	.85	-----
Welders, gas, grade C.....	.7	.846	.84	\$0.754
Welders, maintenance and jig, grade C.....	.2	.859	.85	-----
Grade X.....				
Anodizers, grade B.....	100.0	.758	.76	-----
Assemblers, electric and radio (bench), grade C.....	2.7	.800	.80	1,821
Buffers and polishers, grade C.....	4.5	.770	.77	-----
Cable splicers, grade C.....	.1	.820	.82	-----
Coverers, fabric, grade B.....	.2	.770	.77	-----
Craters, grade C.....	.6	.810	.81	.722
Craters, grade C.....	.3	.750	.75	1,749
Drill-press operators, grade C.....	3.5	.760	.76	.698
Files and burrs, grade A.....	2.7	.760	.76	-----
Helpers, general, grade A.....	60.7	.750	.75	-----
Janitors, grade A.....	12.4	.760	.76	.734
Laborers, grade A.....	5.0	.770	.77	.713
Parts handlers, grade A.....	.6	.770	.77	-----
Platiglass formers, grade B.....	.1	.770	.77	-----
Power-shear operators, grade C.....	.6	.790	.79	-----
Punch-press operators, grade C.....	1.0	.800	.80	-----
Sandblasters, grade B.....	.2	.810	.81	1,771
Spot welders, grade C.....	1.3	.790 ¹	.79	.780
Truckers, hand, grade A.....	2.6	.790	.79	-----
Tube benders, bench, grade C.....	.9	.750	.75	-----

¹ Covers all shifts; no shift break-down available.
² Less than a tenth of 1 percent.

Comparative Wage Structure

FORMER AIRFRAME RATES

In deciding on wage ranges for the California airframe industry, the National War Labor Board took into account both the spread of existing wages in these airframe plants and the wages paid for similar work by other industries in the area. Charts 1 and 2 show the relationship of the wage scales authorized by the Board to each of these two sets of wage structures.

The comparison of the wage order with the actual wage rates that had been paid in these airframe plants is given in chart 1. The hollow blocks in this chart indicate the rate ranges established by the Board for each of 10 labor grades in the airframe factories. The spread of rates actually paid in September 1942 is indicated by vertical lines. Solid bars are used to indicate that part of the previous spread of rates that had been paid to the middle one-half of the airframe workers in each grade (interquartile range). The areas of these solid bars are drawn in proportion to the relative numbers of classified factory workers employed at jobs in each grade, while the corresponding percentages of factory workers in each grade are shown along the base line of the chart.

The progress made by the Board toward standardizing rates of pay for similar classes of work is indicated by the comparatively narrow rate ranges shown in chart 1, in contrast to the extreme spread of rates previously paid. The new minimum rates were placed above the lowest rates that had been paid, in all cases except labor grades X-A and X-B and C where the former minimum of 75 cents an hour was retained. The new maximum rates, which were permissive rather than mandatory, were placed uniformly below the highest of the former rates paid to individual workers. Individual workers who already received more than the authorized maxima—less than 10 percent of the group in almost every grade—did not have their rates cut as a result of the Board's order.

One of the objects of the Board's wage order was to overcome the internal inequities in the airframe wage structure; by making the relative wage scales in the various labor grades depend largely on the evaluation of each group of jobs. Chart I shows that the previous wage levels had been related only loosely and incompletely to the results of job evaluation. Hence, no uniform relationship could be expected between the new rate ranges and the spread of wage rates formerly paid. Nevertheless, the new rates were made roughly consistent with the rates already paid to significant groups of workers in each grade. Such individual wage increases as were required by the Board's order were the result of the Board's attempt to rationalize the wage structure, rather than any attempt to provide a general wage increase.

A significant result of the new set of minimum rates was to increase the difference in minimum pay between the jobs of high and low skill. Formerly some individuals in every labor grade from X up to II were paid the lowest classified rate of 75 cents. After the Board's order, the minimum rate for labor grade II was 45 cents above that for labor grade X. For the intermediate grades of work, employing the largest numbers of airframe workers (IX, VIII, VII, and VI), the

WAGE RANGES ORDERED FOR CALIFORNIA AIRFRAME PLANTS COMPARED WITH EXISTING CALIFORNIA AIRFRAME WAGES CLASSIFIED FACTORY WORKERS

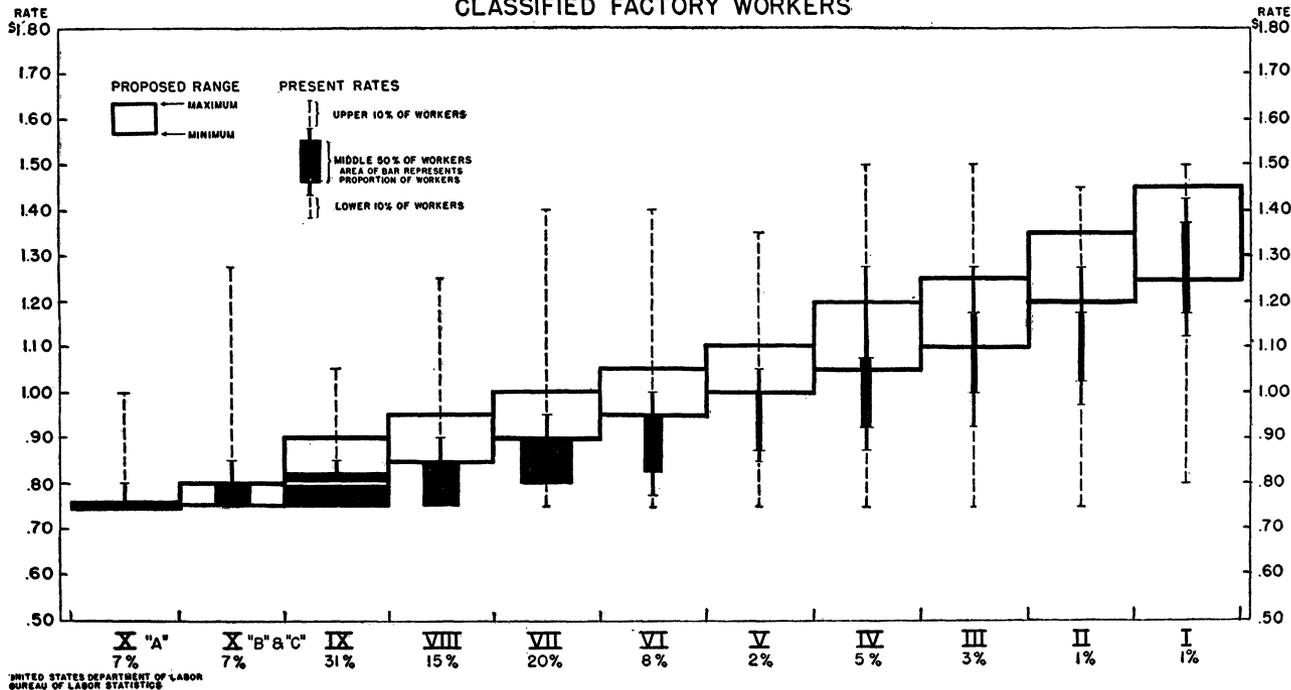


Chart 1

new minimum rates tended to be close to the top of the range that had applied to the mass of the workers in each grade, excluding the highest-paid quarter of them.

RATES IN OTHER INDUSTRIES

The authorized rate ranges for California airframe plants are shown in chart 2, in comparison with certain wage scales for similar work in other California industries. The data from aircraft-parts plants in the Los Angeles area are displayed in chart 2 in a manner similar to the previous display of airframe rates (chart 1). In chart 2, however, the vertical lines and solid bars, relating to the parts industry, refer to the spread of plant averages rather than to the spread of rates paid to individual workers. Special symbols are used to show the appropriate comparisons with the wages of common labor, with those of the first-class mechanics in shipyards, and with the authorized wage scales for civilian workers in naval air stations.

Three comparisons are available with the 75-cent rate for airframe workers in labor grade X-A. This rate lies at the bottom of the authorized wage scale for similar work at naval air stations. However, it is as high as that paid to three-fourths of the workers of a similar type in the aircraft-parts plants⁹ and it compares with an average of 69 cents an hour paid to common labor in July 1942 by the manufacturing industries of Los Angeles, excluding the airframe plants.¹⁰

For certain skilled groups of jobs in airframe plants (labor grades I, III, and IV) several comparisons with wages in other industries are available. The range from \$1.25 to \$1.45 per hour for labor grade I in airframe plants is practically identical with the authorized range for similar work at naval air stations. As compared with wage rates in parts plants, the airframe scale for labor grade I appears to have been rather generous.¹¹

For labor grade III, the wage comparison with aircraft-parts plants is especially significant because of the concentration of parts workers in occupations of this grade, as is indicated by the large area covered by the solid bar in chart 2. Individual aircraft-parts plants pay average rates for occupations in this class that spread from 90 cents to \$1.45 per hour. However, nearly half the parts workers of this grade are to be found in plants with averages within the range of \$1.10 to \$1.25 per hour—the range authorized by the Board for the airframe plants.

In the case of labor grade IV, the Board established a range for airframe plants of \$1.05 to \$1.20 per hour. The minimum of \$1.05 was about the same as the average rate for this class of work in aircraft-parts plants. The authorized maximum of \$1.20 was identical with the established minimum shipyard rate for first-class skilled mechanics, and lay close to the middle of the corresponding range of rates at naval air stations.

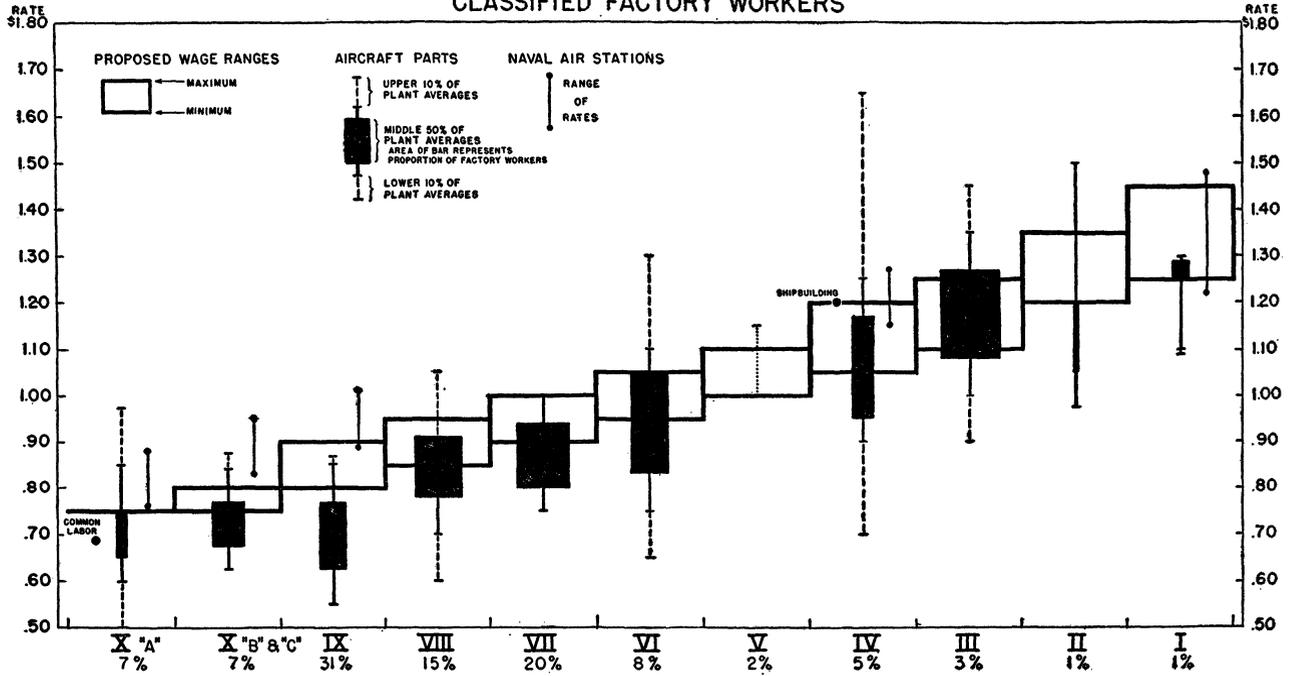
⁹ The aircraft parts data in chart 2 were obtained from the preliminary results of a wage survey by the Bureau of plants in the Los Angeles-San Diego area. For final results of this survey, covering the California industry as a whole, see Monthly Labor Review, April 1943 (pp. 758-767).

¹⁰ See Monthly Labor Review, February 1943 (table 7, p. 327).

¹¹ However, higher rates than those indicated in chart 2 were found elsewhere for aircraft-parts workers corresponding to labor grade I. For example, the final results for California parts plants showed an average rate of \$1.33 for class A tool and die workers and an extreme plant average for this group of \$1.74 (Monthly Labor Review, April 1941, table 5, p. 767).

WAGE RANGES ORDERED FOR CALIFORNIA AIRFRAME PLANTS COMPARED WITH EXISTING WAGES IN OTHER INDUSTRIES

CLASSIFIED FACTORY WORKERS



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Chart 2

In the intermediate labor grades, from IX up to IV, the rate ranges authorized by the Board for airframe plants are somewhat higher than those paid to the bulk of the workers in aircraft-parts plants. No uniform relationships are to be found because the relative wage scales for airframe plants were based on a plan of job evaluation which does not exist in most of the comparative plants.

The rate range for labor grade IX presents an especially interesting example of the need to reconcile divergent considerations when establishing a wage rate. This labor grade accounts by itself for 31 percent of the classified factory workers in the airframe plants. The minimum rate of 80 cents is only 5 cents above the minimum for the lowest grade of experienced workers (grade X) and clearly needs to be at this higher level if evaluation is to be followed. Yet the 80-cent minimum required an immediate wage increase for more than a third of the workers in this grade. Moreover, the 80-cent minimum is higher than the average for this grade of work in the local aircraft-parts plants that employ three-fourths of the workers of this grade. At the same time, the permissive maximum of 90 cents for airframe workers of grade IX is only slightly above the lowest rate paid for similar work at the naval air stations in the same area.

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