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**Industry
Wage Survey**
**Flour and Other
Grain Mill Products**
May 1972
Bulletin 1803
U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
1973



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**U.S. DEPARTMENT OF LABOR
Peter J. Brennan, Secretary**

**BUREAU OF LABOR STATISTICS
Jullus Shiskin, Commissioner**



1973

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Preface

This bulletin summarizes the results of a Bureau of Labor Statistics' survey of wages and related benefits in the flour and other grain mill products industry in May 1972.

A separate release providing information for Buffalo, N.Y. was issued in January 1973.

This study was conducted in the Bureau's Office of Wages and Industrial Relations. Philip M. Doyle of the Division of Occupational Wage Structures prepared the analysis in this bulletin. Assistant Regional Directors for Operations directed field work for the survey.

Other reports available from the Bureau's program of industry wage studies, as well as the addresses of the Bureau's regional offices, are listed at the end of this bulletin.

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Flour and Other Grain Mill Products

Summary

Straight-time earnings of production and related workers in the flour and other grain mill products industry averaged \$3.51 an hour in May 1972.¹ Earnings of all but 5 percent of the 10,928 workers covered by the survey were within a range of \$2 to \$5 an hour; the middle half in the earnings array earned from \$3.09 to \$4.03.

Among the seven regions studied separately, average earnings ranged from less than \$3 an hour in the Southeast (\$2.63) and Southwest (\$2.89) to \$4.28 in the Pacific States.² Workers in the Great Lakes region, 36 percent of the industry's work force, averaged \$3.78 an hour. Earnings levels also varied by size of community, size of establishment, and occupation.

Of jobs selected to represent the industry's wage structure for plant workers, average hourly earnings ranged from \$3.03 for feed packers to \$4.54 for millwrights.³ Material handling laborers, the only occupational group accounting for as much as one-tenth of the work force, averaged \$3.21 an hour.

Paid holidays and paid vacations after qualifying periods of service, as well as various types of health, insurance, and retirement benefits, were provided by establishments employing nearly all of the workers covered by the study. A majority of the workers were in plants granting 9 or 10 paid holidays annually and 1 week of vacation pay after 1 year of service, 2 weeks after 2 years, and at least 3 weeks after 10 years.

Industry Characteristics

In May 1972, the 184 mills within scope of the survey employed 10,928 production and related workers (virtually all men) or 13 percent fewer than in February

¹See appendix A for scope and method of survey. Wage data exclude premium pay for overtime and for work on weekends, holidays, and late shifts.

²For definitions of regions, see appendix A, table A-1, footnote 1.

³See appendix B for job descriptions.

1967, when a similar study was made.⁴ Among the factors contributing to this decline were the increased use of automated equipment, improved materials handling systems as well as a 7 percent decline in the number of mills within scope of the survey and a 6 percent decline in the average number of workers per mill.

The total number of production worker man-hours declined 13 percent over the same 5 year period, while industry output remained virtually constant. These conditions resulted in a 17 percent increase in productivity, as measured by output per production worker man hour.

Per capita consumption of wheat flour (which accounts for a majority of the industry's production) in the United States was 109 pounds in 1972, compared with 112 pounds in 1967⁵ and the peak of 225 pounds reached at the turn of the century.⁶ This downward trend in civilian per capita consumption has partially offset the increase in total consumption of wheat flour that would be expected as population increases. Over the years, the quantity of flour used by bakers has increased, while flour used for family consumption steadily declined.

Wheat flour is produced by grinding the endosperm, which constitutes about four-fifths of the wheat berry. The outer coat of bran and the inner wheat germ are separated from the endosperm by grinding and sifting. After being cleaned and tempered by water which is added, the whole grain is passed through two types of rollers. The break rolls crush the grain into particles of bran, endosperm, and a small amount of flour. The flour sifts into bins, and particles of endosperm are sent through several sets of reduction rolls. After each

⁴Two previous surveys are mentioned in this report. See *Industry Wage Survey: Four and Other Grain Mill Products, February 1967* (BLS Bulletin 1576)(1967); and *Industry Wage Survey: Flour and Other Grain Mill Products, November 1961*, (BLS Bulletin 1337)(1962).

⁵Estimates by the U.S. Department of Agriculture, *National Food Situation* (NFS-145), Aug. 1973, p. 15.

⁶*The Northwestern Miller*, Minneapolis, Minnesota, Aug. 7, 1961, p. 23.

grinding, the resulting material is sifted. Typically, the complete milling process requires fewer than 30 minutes.

Location. The Great Lakes and Middle West regions were the largest in terms of employment, accounting for 36 and 20 percent of the workers, respectively. The Middle Atlantic, Southeast, Southwest, and Pacific regions each accounted for about 10 percent of the workers; the Mountain States employed 4 percent.

Establishments in metropolitan areas accounted for seven-tenths of the work force nationally, and for a majority of the workers in six of the seven regions studied separately.⁷ In the Southeast slightly more than one-half were employed in smaller communities.

Establishment size. Flour and other grain producing mills are relatively small operations in terms of employment. Only 9 of the 184 establishments within scope of the survey had as many as 250 employees, and together, they accounted for three-tenths of the workers. A similar proportion was in mills employing 100-249 workers, and the remaining two-fifths were in plants having fewer than 100 workers.

Unionization. Four-fifths of the industry's production workers were employed in plants operating under labor-management agreements compared with three-fifths in all manufacturing industries combined.⁸ As shown in text table 1, the proportion of workers in unionized flour and other grain mills varied by region, by size of community, and by size of establishment. The major union in the industry is the American Federation of Grain Millers (AFL-CIO).

Method of wage payment. Virtually all workers covered by the study were paid time-rates, typically under formal systems providing single rates for specified occupations (table 7). Only in the Southeast was a substantial proportion of the workers (two-fifths) paid under different system-based primarily on the qualifications of individual employees.

Average hourly earnings

Straight-time earnings of the 10,928 production and related workers covered by the study averaged \$3.51 an

⁷Standard Metropolitan Statistical Areas, as defined by the U.S. Office of Management and Budget through January 1968.

⁸See *Employee Compensation in the Private NonFarm Economy*, 1970, Bulletin 1770 (Bureau of Labor Statistics, 1973).

Text table 1. Percent of workers in flour and other grain mills under labor-management agreements

Region	All plants	Plant location		Plant size	
		Metro-politan areas	Non metro-politan areas	20-99 workers	100 workers or more
United States ¹	80-84	85-89	65-69	65-69	90-94
Middle Atlantic	95+	95+	—	95+	95+
Southeast	45-49	65-69	30-34	30-34	70-74
Southwest	75-79	75-79	80-84	65-69	90-94
Great Lakes	85-89	85-89	85-89	70-74	95+
Middle West	85-89	95+	55-59	80-84	90-94
Mountain	75-79	80-84	—	70-74	95+
Pacific	95+	95+	—	95+	95+

¹Includes data for the New England and Border States regions in addition to those shown separately.

hour in May 1972⁹ (table 1). This level of earnings was 37 percent higher than the \$2.56 recorded for a similar survey in February 1967. The increase was virtually the same as that reported for all nondurable goods manufacturing industries and for the food industry as a whole over the 5-year period.¹⁰

Regionally, May 1972 averages ranged from \$2.63 in the Southeast to \$4.28 in the Pacific States. Workers in the Great Lakes and Middle West regions, 56 percent of the industry's work force, averaged \$3.78 and \$3.44, respectively.

The largest increase in average hourly earnings over the February 1967-May 1972 period was recorded in the Southeast (51 percent), where the effect of a 20 cents per hour rise in the Federal minimum wage was

⁹Straight-time hourly earnings in this bulletin exclude premium pay for overtime and for work on weekends, holidays, and late shifts. Average earnings were calculated by summing individual hourly earnings and dividing by the number of individuals. They differ from gross average hourly earnings in the Bureau's monthly series (\$3.92 in May 1972) in which the sum of the man-hour totals reported by establishments in the industry was divided into the reported payroll totals.

The estimate of production workers within scope of the study is intended only as a general guide to the size and composition of the labor force included in the survey. It differs from the monthly series (19,600) in May 1972 because (1) establishments employing fewer than 20 workers are excluded and (2) lists of establishments must be assembled considerably in advance of data collected to make the survey. Thus, new establishments are omitted as are establishments originally classified in the flour and other grain mills industry but found in other industries when lists were compiled.

¹⁰Based on data from the Bureau's Employment and Earnings series.

apparently the greatest.¹¹ Increases in the remaining regions ranged from 36 percent in the Middle Atlantic and Great Lakes States to 44 percent in the Southwest.

Nationwide, workers in metropolitan areas averaged \$3.67 or 17 percent more than those in smaller communities, where earnings averaged \$3.13 an hour. In the three regions compared, workers in metropolitan areas had higher averages—by 15 percent in the Southeast, 13 percent in the Middle West, and 6 percent in the Great Lakes States (tables 4 and 5). In Buffalo, the only metropolitan area studied separately, workers averaged \$4.30 an hour (table 6).

Workers employed in mills having 100 employees or more averaged \$3.71 an hour—15 percent more than those in smaller establishments. In the four regions compared, the wage advantage of large plants ranged from 5 percent in the Pacific to 15 percent in the Southeast.

Earnings of 95 percent of the workers were within a range of \$2 to \$5 an hour; the middle half earned from \$3.09 to \$4.03 an hour. Regionally, the percent of workers earning less than \$2 an hour varied considerably (table 2). As indicated in the following tabulation, 11 percent of the workers in the Southeast and 14 percent in the Southwest earned less than \$2 an hour, whereas rates below \$2 were rarely found in the other regions.

	<i>Percent of workers earning—</i>		
	<i>Under \$2</i>	<i>Under \$2.10</i>	<i>Under \$2.20</i>
United States	3.7	5.6	6.9
Middle Atlantic	—	—	—
Southeast	11.3	18.9	28.0
Southwest	14.3	19.1	19.3
Great Lakes . . . . .	.4	.6	.7
Middle West . . . . .	.2	.4	.6
Mountain	1.8	3.7	3.7
Pacific	—	—	—

Text table 2. Regional wage levels for selected occupations as percent of nationwide averages

(U.S. averages each occupation = 100)

Occupation	Middle Atlantic	South-east	South-west	Great Lakes
	Bolters	119	83	85	102
Grain elevator operators	114	79	65	101
Janitors, porters, cleaners	113	75	80	105
Laborers, material handling	116	76	87	106
Mechanics, general	—	83	83	108
Millers, flour (second miller)	114	85	85	108
Millwrights	110	79	—	97
Oilers	111	77	87	105
Packers, feed	141	77	80	114
Packers, flour	126	78	84	111
Roll tenders	—	—	90	104
Smutters	121	67	92	100
Truckers, power (forklift)	118	74	79	104
		Middle West	Mountain	Pacific
Bolters		82	103	114
Grain elevator operators		101	103	119
Janitors, porters, cleaners		97	101	115
Laborers, material handling		104	97	126
Mechanics, general		96	106	116
Millers, flour (second miller)		101	103	124
Millwrights		—	—	—
Oilers		95	97	114
Packers, feed		110	110	—
Packers, flour		106	100	126
Roll tenders		102	—	—
Smutters		96	—	115
Truckers, power (forklift)		100	94	113

millwrights (\$4.54) and lowest for feed packers (\$3.03). Material handling laborers, the largest group studied separately, averaged \$3.21 an hour.

Workers in the Pacific and Middle Atlantic States, the highest paid regions, often averaged from 30 to 60 percent more than workers in the same occupation in the Southeast and Southwest, the lowest paid regions studied separately. Flour millers (second millers) in the Pacific and Middle Atlantic regions, for example, averaged about 45 and 35 percent, respectively, more than their counterparts in the Southeast and Southwest.

Occupational averages were usually higher in metropolitan areas than in nonmetropolitan areas and higher in mills having 100 workers or more than in smaller

plants (tables 4 and 5). These relationships were generally the same in the Great Lakes and Middle West, the only regions for which such comparisons could be made.

The extensive use of single-rate wage systems and the high proportion of workers covered by collective bargaining agreements contributed to a relatively narrow range of earnings for workers performing similar tasks in the same area. In the Buffalo area, for example, all flour packers earned between \$4.20 and \$4.30 an hour; all of the bolters between \$4.40 and \$4.60; and more than three-fourths of the grain elevator operators earned \$4 to \$4.30 an hour.

Occupational pay relationships have remained relatively stable since the early 1960's. Among comparable jobs, millwrights had the highest average and feed packers the lowest average when surveyed by the Bureau in 1961, 1967, and 1972. The difference in average earnings between these two groups, however, increased moderately over the period, as millwrights' average earnings exceeded those of feed packers by 43 percent in 1961 and by 50 percent in 1972. Other changes in pay relationships are illustrated in text table 3.

Establishment practices and supplementary wage provisions

Data also were obtained on work schedules, shift practices, and selected supplementary wage benefits, such as paid holidays, vacations, and health, insurance, and retirement plans.

Text table 3. Pay relatives for selected occupations
(Packers, feed = 100)

Occupation	Pay relatives in—		
	May 1972	February 1967	November 1961
Millwrights	150	145	143
Bolters	126	118	118
Millers, flour (second millers)	122	122	121
Smutters	122	119	118
Truckers, power (forklift)	122	123	124
Oilers	117	111	110
Roll tenders	117	118	114
Grain elevator operators	116	114	113
Janitors, porters, cleaners	113	109	108
Packers, flour	107	104	103
Laborers, material handling	106	103	104

Scheduled weekly hours

Work schedules of 40 hours a week were in effect in mills employing two-thirds of the workers in May 1972 (table 8). One-fifth of the workers were scheduled to work 48 hours or more per week, while the remainder had weekly schedules ranging between 40 and 48 hours. Substantial differences in work schedules were noted among regions. In the Mountain States, for example, more than nine-tenths of the employees were scheduled to work 40 hours per week, but in the Southeast region, three-fourths of the workers were on longer schedules, mostly 44 to 48 hours.

Shift provisions and practices

Mills employing more than nine-tenths of the workers had formal provisions for late shifts, usually with pay differentials for such work (table 9). Only one-fourth of the workers, however, were employed on late shifts at the time of the survey (table 10). Most commonly, these workers received 12 cents an hour above day-shift rates for second shift work and 15 to 20 cents for third or other late shifts. Regionally, the proportion of workers employed on late shifts ranged from about one-sixth in the Southeast to three-tenths in the Great Lakes and Pacific States. Differentials for such work varied somewhat by region.

Paid Holidays

Paid holidays were provided by establishments employing virtually all of the production workers covered by the survey (table 11). Establishments granting 9 or 10 paid holidays, annually, accounted for two-thirds or more of the workers in five regions, two-fifths in the Southwest, and one-fifth in the Southeast. In the latter region, most workers received 4 to 6 days.

Paid Vacations

All establishments studied provided paid vacations to their production workers after qualifying periods of service (table 12). Typically, flour mills granted at least 1 week of vacation pay after 1 year of service, 2 weeks after 2 years, and 3 weeks after 10 years. Mills providing at least 4 weeks' vacation pay after 15 years of service and 5 weeks or more after 25 years' employed about one-half of the workers. Vacation provisions varied by region and were usually most liberal in the Pacific States.

Health, insurance, and retirement plans

Life, hospitalization, medical, and surgical insurance for which the employer paid at least part of the cost were available to nearly all of the production workers (table 13). About four-fifths of the workers were provided sickness and accident insurance and major medical insurance; and one-tenth were covered by paid sick leave plans. The incidence of health and insurance plans varied little by region, with some notable exceptions. For example, major medical plans were available to all workers in the Middle Atlantic; four-fifths to nine-tenths in the Mountain, Great Lakes, and Middle West; and about three-fifths in the remaining regions. Basic medical insurance, a benefit available to virtually all workers in six regions, was available to about seven-tenths in the Southeast.

Financing of health and insurance plans, on the other hand, varied considerably. For example, although all workers received hospitalization insurance, the proportion covered by plans paid for entirely by the employer ranged from all in the Middle Atlantic region to one-half in the Southwest and Middle West.

Retirement pension plans (other than Federal social

security), providing regular payments for the remainder of the retiree's life, were available to about four-fifths of the work force. These plans, typically financed wholly by the employer, applied to about half the workers in the Southeast compared with four-fifths or more in the remaining regions. Retirement severance pay plans applied to no more than one twenty-fifth of the workers, primarily in the Southeast and Great Lakes regions.

Other selected benefits

Pay for jury duty and attendance at funerals of specified relatives was available to almost nine-tenths of the production workers (table 14). These benefits were reported by mills employing about four-fifths or more of the workers in all regions except the Southeast, where approximately three-fifths of the workers were covered.

Severance pay for workers who lose their jobs due to a technological change or mill closing was provided to one-half of the workers. Regional proportions varied from one-fourth in the Southeast and Southwest to all of the workers in the Middle Atlantic region.

Table 2. Earnings distribution: All establishments

(Percent distribution of production workers in flour and other grain milling establishments by straight-time hourly earnings,¹ United States and selected regions, May 1972)

Hourly earnings ¹	United States ²	Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific
\$1.60 and under \$1.65 -----	0.2	-	1.5	0.1	0.1	-	0.8	-
\$1.65 and under \$1.70 -----	.1	-	.2	.6	-	-	-	-
\$1.70 and under \$1.75 -----	.3	-	.9	1.4	.1	-	.2	-
\$1.75 and under \$1.80 -----	.5	-	2.0	.9	.1	-	.4	-
\$1.80 and under \$1.85 -----	.4	-	2.1	.4	-	0.2	-	-
\$1.85 and under \$1.90 -----	.3	-	1.5	.2	.1	-	-	-
\$1.90 and under \$1.95 -----	1.4	-	1.8	7.2	-	-	-	-
\$1.95 and under \$2.00 -----	.5	-	1.3	3.5	-	-	.4	-
\$2.00 and under \$2.10 -----	1.9	-	7.6	4.8	.2	.2	1.9	-
\$2.10 and under \$2.20 -----	1.3	-	9.1	.2	.1	.2	-	-
\$2.20 and under \$2.30 -----	1.8	-	7.6	5.2	-	.5	2.3	-
\$2.30 and under \$2.40 -----	1.2	-	5.7	1.9	.5	.2	2.5	-
\$2.40 and under \$2.50 -----	1.0	-	3.4	.3	.9	.1	3.1	-
\$2.50 and under \$2.60 -----	1.4	-	7.4	.4	.6	.6	1.0	0.2
\$2.60 and under \$2.70 -----	1.3	4.7	1.5	.3	1.0	1.6	-	-
\$2.70 and under \$2.80 -----	2.1	2.8	4.7	2.6	.8	3.7	1.0	-
\$2.80 and under \$2.90 -----	2.3	-	1.8	9.5	1.6	2.8	-	-
\$2.90 and under \$3.00 -----	3.4	1.9	7.7	5.1	2.9	3.7	.2	-
\$3.00 and under \$3.10 -----	3.9	2.4	8.2	12.7	1.5	4.1	-	-
\$3.10 and under \$3.20 -----	3.6	.5	8.2	7.8	1.4	6.3	-	-
\$3.20 and under \$3.30 -----	4.5	1.4	4.1	4.8	4.4	8.6	2.1	.1
\$3.30 and under \$3.40 -----	4.5	.9	1.7	12.5	5.4	5.5	.8	-
\$3.40 and under \$3.50 -----	4.9	-	4.3	9.1	4.5	7.2	7.9	-
\$3.50 and under \$3.60 -----	8.6	3.3	1.6	1.6	9.8	20.7	6.3	.5
\$3.60 and under \$3.70 -----	6.3	-	1.0	1.9	7.4	12.7	18.0	.2
\$3.70 and under \$3.80 -----	6.2	.4	1.4	2.5	9.3	7.3	15.9	3.6
\$3.80 and under \$3.90 -----	4.9	6.4	.5	1.7	4.9	6.6	11.3	7.4
\$3.90 and under \$4.00 -----	4.6	7.0	.4	.2	6.5	2.7	6.7	10.6
\$4.00 and under \$4.10 -----	5.7	20.2	.2	-	6.1	1.2	6.7	16.8
\$4.10 and under \$4.20 -----	4.9	8.6	.3	.2	8.0	1.6	4.6	10.0
\$4.20 and under \$4.30 -----	4.9	12.8	.1	.1	8.0	.9	.4	9.5
\$4.30 and under \$4.40 -----	1.9	3.8	.1	.1	2.8	-	1.3	7.2
\$4.40 and under \$4.50 -----	2.6	5.8	-	.1	3.7	.1	1.5	8.7
\$4.50 and under \$4.60 -----	1.4	3.7	.1	-	1.1	.1	-	9.2
\$4.60 and under \$4.70 -----	.6	1.3	-	-	.3	-	1.3	4.3
\$4.70 and under \$4.80 -----	1.3	1.9	-	-	2.7	.2	-	1.1
\$4.80 and under \$4.90 -----	1.2	.9	-	-	2.1	.1	.6	3.8
\$4.90 and under \$5.00 -----	.4	.5	-	-	.1	-	.2	4.1
\$5.00 and over -----	1.5	8.9	.1	.4	1.2	.3	.4	2.6
Total -----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers -----	10,928	846	1,290	1,019	3,929	2,164	478	877
Average hourly earnings ¹ -----	\$3.51	\$4.05	\$2.63	\$2.89	\$3.78	\$3.44	\$3.58	\$4.28

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes data for New England and Border States regions in addition to those shown separately.

NOTE: Because of rounding sums of individual items may not equal 100.

Table 4. Occupational averages: By size of community

(Number and average straight-time hourly earnings¹ of workers in selected occupations in flour and other grain milling establishments in metropolitan and nonmetropolitan areas, United States and selected regions, May 1972)

Occupation	United States ²				Great Lakes				Middle West			
	Metropolitan areas		Nonmetropolitan areas		Metropolitan areas		Nonmetropolitan areas		Metropolitan areas		Nonmetropolitan areas	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Bolters -----	166	\$3.97	30	\$3.06	59	\$4.10	-	-	24	\$3.75	-	-
Grain elevator operators -----	280	3.66	91	3.01	65	3.55	38	\$3.45	41	3.67	19	\$3.31
Janitors, porters, and cleaners -----	724	3.49	222	3.20	295	3.60	127	3.60	170	3.39	46	3.02
Laborers, material handling -----	959	3.36	480	2.91	254	3.53	147	3.18	273	3.41	117	3.22
Mechanics, general -----	385	4.11	173	3.62	158	4.34	71	4.19	91	3.92	38	3.53
Millers, flour (second miller) -----	329	3.89	200	3.35	67	4.33	80	3.66	68	3.91	46	3.44
Millwrights -----	118	4.68	29	3.96	36	4.56	21	4.09	-	-	-	-
Oilers -----	228	3.67	105	3.25	86	3.83	42	3.50	44	3.57	46	3.16
Packers, feed -----	157	3.22	103	2.74	31	3.43	16	3.52	42	3.50	38	3.11
Packers, flour -----	634	3.39	248	2.88	135	3.62	48	3.53	123	3.55	51	3.19
Roll tenders -----	113	3.64	31	3.17	51	3.82	-	-	29	3.60	-	-
Smutters -----	110	3.88	51	3.27	46	3.78	17	3.45	19	3.69	-	-
Truckers, power (forklift) -----	272	3.88	72	2.95	-	-	-	-	43	3.69	-	-

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes data for regions in addition to those shown separately.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

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Table 5. Occupational averages: By size of establishment

(Number and average straight-time hourly earnings¹ of workers in selected occupations in flour and other grain milling establishments by size of establishment, United States and selected regions, May 1972)

Occupation	United States ²				Great Lakes				Middle West			
	Establishments with--								20-99 workers		100 workers or more	
	20-99 workers		100 workers or more		20-99 workers		100 workers or more		20-99 workers		100 workers or more	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Bolters -----	86	\$3.65	110	\$3.97	32	\$3.55	39	\$4.22	-	-	18	\$3.79
Grain elevator operators -----	172	3.20	199	3.75	55	3.28	48	3.79	36	\$3.47	24	3.68
Janitors, porters, and cleaners -----	397	3.23	549	3.56	120	3.54	302	3.62	126	3.24	90	3.43
Laborers, material handling -----	695	3.02	744	3.39	144	3.08	257	3.58	188	3.30	202	3.40
Mechanics, general -----	253	3.69	305	4.18	71	3.97	158	4.44	71	3.68	58	3.95
Millers, flour (second miller) -----	365	3.55	164	4.00	91	3.67	56	4.45	72	3.63	42	3.87
Millwrights -----	37	4.20	110	4.65	16	3.82	41	4.61	-	-	-	-
Oilers -----	168	3.44	165	3.65	46	3.61	82	3.78	53	3.25	37	3.51
Packers, feed -----	163	2.90	97	3.26	23	3.31	24	3.60	59	3.27	21	3.45
Packers, flour -----	426	3.03	456	3.45	73	3.43	110	3.71	81	3.38	93	3.51
Roll tenders -----	66	3.23	78	3.80	20	3.28	43	3.87	-	-	20	3.64
Smutters -----	85	3.57	76	3.83	42	3.63	21	3.81	-	-	19	3.69
Truckers, power (forklift) -----	105	3.36	239	3.83	10	2.81	128	3.93	-	-	-	-

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Includes data for regions in addition to those shown separately.

NOTE: Dashes indicate no data reported or data that do not meet publication criteria.

Table 6. Occupational earnings: Buffalo N.Y.¹

(Number and average straight-time hourly earnings² of workers in selected occupations in flour and other grain milling establishments, May 1972)

Occupation	Number of workers	Average hourly earnings ²	Number of workers receiving straight-time hourly earnings of—														
			\$ 3.80 and under \$ 3.90	\$ 3.90	\$ 4.00	\$ 4.10	\$ 4.20	\$ 4.30	\$ 4.40	\$ 4.50	\$ 4.60	\$ 4.70	\$ 4.80	\$ 4.90	\$ 5.00	\$ 5.10	\$ 5.20
All production workers ³ -----	601	\$ 4.30	21	56	144	67	105	29	40	31	8	16	5	4	73	1	1
Selected production occupations³																	
Bolters-----	12	\$ 4.54	-	-	-	-	-	-	3	9	-	-	-	-	-	-	-
Grain elevator operators-----	82	4.07	14	1	48	11	4	3	1	-	-	-	-	-	-	-	-
Janitors, porters, and cleaners-----	51	3.96	-	46	5	-	-	-	-	-	-	-	-	-	-	-	-
Laborers, material handling-----	66	4.06	-	-	47	19	-	-	-	-	-	-	-	-	-	-	-
Millers, flour(second miller)-----	10	4.52	-	-	-	-	3	3	-	-	-	-	4	-	-	-	-
Millwrights-----	55	5.00	-	-	-	-	-	-	-	1	-	1	-	-	53	-	-
Oilers-----	11	4.14	-	-	3	8	-	-	-	-	-	-	-	-	-	-	-
Packers, feed-----	7	4.27	-	-	-	-	4	3	-	-	-	-	-	-	-	-	-
Packers, flour-----	44	4.23	-	-	-	-	44	-	-	-	-	-	-	-	-	-	-
Smelters-----	15	4.48	-	-	-	-	-	3	9	-	3	-	-	-	-	-	-
Truckers, power (forklift)-----	14	4.35	-	-	-	1	2	6	5	-	-	-	-	-	-	-	-

¹ The Buffalo Standard Metropolitan Statistical Area consists of Erie and Niagara Counties.

² Excludes premium pay for overtime and for work on weekends, holidays, and late shifts. All production workers covered by the study were paid on a time basis.

³ Virtually all production workers were men. Data for selected occupations were limited to men.

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Table 7. Method of wage payment

(Percent of production workers in flour and other grain milling establishments by method of wage payment, United States, selected regions, and area, May 1972)

Method of wage payment ¹	United States ²	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
All workers -----	100	100	100	100	100	100	100	100	100
Time-rated workers -----	99	100	100	100	100	96	100	100	100
Formal plans -----	91	100	59	93	98	96	95	100	100
Single rate -----	85	97	59	87	89	86	95	100	96
Range of rates -----	6	3	-	6	9	10	-	-	4
Individual rates -----	8	-	41	7	2	(³)	5	-	-
Incentive workers -----	1	-	-	-	-	4	-	-	-

¹ See appendix A for definition of method of wage payment.

² Includes data for New England and Border States regions in addition to those shown separately.

³ Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

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Table 8. Scheduled weekly hours

(Percent of production workers in flour and other grain milling establishments by scheduled weekly hours,¹ United States, selected regions, and area, May 1972)

Weekly hours ¹	United States ²	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
All workers -----	100	100	100	100	100	100	100	100	100
40 hours -----	67	83	27	74	69	63	95	80	77
Over 40 and under 44 hours -----	1	-	9	-	-	-	-	-	-
44 hours -----	7	-	29	-	8	-	-	7	-
Over 44 and under 48 hours -----	5	-	18	-	3	-	-	13	-
48 hours -----	16	17	13	11	16	33	3	-	23
Over 48 hours -----	4	-	4	16	3	4	2	-	-

¹ Data relate to the predominant work schedule of full-time day-shift workers in each establishment.

² Includes data for New England and Border States regions in addition to those shown separately.

NOTE: Because of rounding, sums of individual items may not equal 100.

Table 9. Shift differential provisions

(Percent of production workers by shift differential provisions¹ in flour and other grain milling establishments, United States, selected regions, and area, May 1972)

Shift differential	United States ²	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
<u>Second shift</u>									
Workers in establishments having second shift provisions	96.4	100.0	81.0	100.0	97.5	100.0	100.0	100.0	100.0
With shift differential	87.3	80.6	59.1	84.4	97.5	90.2	96.9	100.0	100.0
Uniform cents per hour	85.5	80.6	52.9	84.4	97.5	90.2	96.9	87.2	100.0
Under 5 cents	.8	-	-	-	-	3.9	-	-	-
5 cents	4.2	-	5.1	12.3	3.4	-	9.2	-	-
Over 5 and under 8 cents	.8	-	-	-	2.1	-	-	-	-
8 cents	2.7	-	13.3	11.9	-	-	-	-	-
10 cents	19.8	-	24.5	6.9	35.7	11.0	1.9	12.3	-
11 cents	2.1	-	-	-	5.8	-	-	-	-
12 cents	46.9	61.0	3.9	34.7	42.3	72.6	85.8	64.5	72.4
Over 12 and under 15 cents	3.9	12.1	6.0	18.6	-	2.8	-	-	17.0
15 cents	1.6	-	-	-	2.1	-	-	10.4	-
Over 15 cents	2.8	7.6	-	-	6.1	-	-	-	10.6
Other	1.8	-	6.3	-	-	-	-	12.8	-
With no shift differential	9.1	19.4	21.9	15.6	-	9.8	3.1	-	-
<u>Third or other late shift</u>									
Workers in establishments having third or other late-shift provisions	92.1	100.0	70.5	84.4	93.6	100.0	98.1	100.0	100.0
With shift differential	87.3	100.0	59.1	84.4	93.6	90.2	98.1	100.0	100.0
Uniform cents per hour	85.5	100.0	52.9	84.4	93.6	90.2	98.1	87.2	100.0
Under 10 cents	3.2	-	-	-	3.4	3.9	9.2	-	-
10 cents	8.9	19.4	18.4	17.6	10.0	-	-	-	-
12 cents	6.8	-	9.5	6.9	8.0	11.0	-	-	-
Over 12 and under 15 cents	8.9	-	-	12.9	20.0	2.8	-	-	-
15 cents	12.9	-	15.0	12.4	3.9	33.7	8.2	18.8	-
Over 15 and under 20 cents	3.8	19.6	6.0	-	1.6	5.0	-	-	27.6
20 cents	37.5	61.0	3.9	34.7	39.0	33.9	77.6	61.3	72.4
25 cents	2.7	-	-	-	5.7	-	3.1	7.1	-
Over 25 cents	.8	-	-	-	2.1	-	-	-	-
Other	1.8	-	6.3	-	-	-	-	12.8	-
With no shift differential	4.8	-	11.3	-	-	9.8	-	-	-

¹ Refers to policies of establishments either currently operating late shifts or having provisions covering late shifts.

² Includes data for New England and Border States regions in addition to those shown separately.

NOTE: Because of rounding, sums of individual items may not equal totals.

Table 10: Shift differential practices

(Percent of production workers employed on late shifts in flour and other grain milling establishment by amount of shift differential, United States, selected regions, and area, May 1972)

Shift differential	United States ¹	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	
<u>Second shift</u>									
Workers employed on second shift -----	16.0	14.3	11.9	17.6	18.7	13.5	13.8	20.5	15.6
Receiving shift differential -----	14.8	12.9	7.5	15.5	18.7	12.1	13.2	20.5	15.6
Uniform cents per hour -----	14.6	12.9	7.4	15.5	18.7	12.1	13.2	18.2	15.6
Under 10 cents -----	1.5	-	2.6	6.0	.9	.4	1.7	-	-
10 cents -----	3.1	-	3.1	1.8	5.7	1.5	.4	2.6	-
11 cents -----	.2	-	-	-	.5	-	-	-	-
12 cents -----	8.2	9.8	.8	5.4	9.2	9.8	11.1	13.3	11.3
Over 12 cents -----	1.7	3.1	.9	2.4	2.3	.4	-	2.3	4.3
Other -----	.2	-	.2	-	-	-	-	2.3	-
Receiving no shift differential -----	1.2	1.4	4.3	2.1	-	1.4	.6	-	-
<u>Third or other late shift</u>									
Workers employed on third or other late shift -----	9.6	13.1	6.3	5.7	10.7	11.0	8.2	10.5	14.0
Receiving shift differential -----	9.2	13.1	5.0	5.7	10.7	10.1	8.2	10.5	14.0
Uniform cents per hour -----	9.1	13.1	4.9	5.7	10.7	10.1	8.2	9.7	14.0
Under 10 cents -----	.4	-	-	-	.9	.4	.4	-	-
10 cents and under 15 cents -----	2.4	1.4	1.6	2.4	4.5	1.5	-	-	-
15 cents -----	1.5	-	2.3	1.2	.3	4.2	1.0	1.8	-
16 cents and under 20 cents -----	.5	3.3	.7	-	.2	.6	-	-	4.7
20 cents -----	4.1	8.4	.2	2.2	4.7	3.3	6.1	7.4	9.3
Over 20 cents -----	.2	-	-	-	.3	-	.6	.5	-
Other -----	.1	-	.2	-	-	-	-	.8	-
Receiving no shift differential -----	.4	-	1.2	-	-	.9	-	-	-

¹ Include data for the New England and Border States regions in addition to those shown separately.

NOTE: Because of rounding sums of individual items may not equal totals.

Table 11. Paid holidays

(Percent of production workers in flour and other grain milling establishments with formal provisions for paid holidays, United States, selected regions, and area, May 1972)

Number of paid holidays	United States ¹	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
All workers -----	100	100	100	100	100	100	100	100	100
Workers in establishments providing paid holidays -----	99	100	95	100	100	100	100	100	100
2 days -----	(²)	-	-	-	-	-	2	-	-
4 days -----	(²)	-	20	-	-	-	-	-	-
4 days plus 1 half day -----	(²)	-	2	-	-	-	-	-	-
5 days -----	5	-	12	21	-	-	-	-	-
6 days -----	7	-	26	-	5	9	3	-	-
6 days plus 1 half day -----	(²)	-	-	-	1	-	-	-	-
7 days -----	6	-	13	-	7	11	9	-	-
8 days -----	8	-	-	37	2	14	-	-	-
9 days -----	15	19	18	7	19	20	-	2	-
10 days -----	55	81	4	35	66	46	86	98	100
Workers in establishments providing no paid holidays -----	1	-	5	-	-	-	-	-	-

¹ Include data for the New England and Border States regions in addition to those shown separately.

² Less than 0.5 percent.

NOTE: Because of rounding, sums of individual items may not equal totals.

Table 12. Paid vacations

(Percent of production workers in flour and other grain milling establishments with formal provisions for paid vacations, United States, selected regions, and area, May 1972)

Vacation policy	United States ¹	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
All workers -----	100	100	100	100	100	100	100	100	100
<u>Method of payment</u>									
Workers in establishments providing paid vacations -----	100	100	100	100	100	100	100	100	100
Length-of-time payment -----	99	100	100	100	100	100	100	100	100
Percentage payment -----	(²)	-	-	-	-	-	-	-	-
<u>Amount of vacation pay³</u>									
After 1 year of service:									
1 week -----	51	53	88	83	26	40	12	95	74
Over 1 and under 2 weeks -----	47	47	-	17	72	60	86	-	26
2 weeks -----	2	-	6	-	2	-	2	5	-
After 2 years of service:									
1 week -----	17	-	56	33	8	7	3	2	-
Over 1 and under 2 weeks -----	9	-	9	-	21	-	-	-	-
2 weeks -----	35	53	28	50	20	34	11	98	74
Over 2 and under 3 weeks -----	39	47	-	17	51	60	86	-	26
After 3 years of service:									
1 week -----	11	-	59	9	2	-	3	-	-
Over 1 and under 2 weeks -----	1	-	9	-	1	-	-	-	-
2 weeks -----	41	53	31	74	27	40	11	100	74
Over 2 and under 3 weeks -----	46	47	-	17	71	60	86	-	26
After 5 years of service:									
1 week -----	6	-	31	9	2	-	-	-	-
Over 1 and under 2 weeks -----	1	-	9	-	-	-	-	-	-
2 weeks -----	45	53	46	74	27	40	14	100	74
Over 2 and under 3 weeks -----	48	47	13	17	72	60	86	-	26
After 10 years of service:									
1 week -----	5	-	31	9	-	-	-	-	-
2 weeks -----	11	-	28	19	6	9	5	-	-
Over 2 and under 3 weeks -----	4	-	13	-	4	5	-	-	-
3 weeks -----	36	53	28	55	22	32	9	100	74
Over 3 and under 4 weeks -----	44	47	-	17	68	54	86	-	26
After 15 years of service:									
1 week -----	5	-	31	9	-	-	-	-	-
2 weeks -----	8	-	25	19	2	4	5	-	-
Over 2 and under 3 weeks -----	(²)	-	-	-	1	-	-	-	-
3 weeks -----	18	-	24	37	15	25	9	2	-
Over 3 and under 4 weeks -----	19	19	13	-	28	31	-	-	-
4 weeks -----	21	53	7	18	11	12	-	98	74
Over 4 and under 5 weeks -----	29	28	-	17	43	29	86	-	26
After 20 years of service:									
1 week -----	5	-	31	9	-	-	-	-	-
2 weeks -----	7	-	25	13	2	4	5	-	-
Over 2 and under 3 weeks -----	(²)	-	-	-	1	-	-	-	-
3 weeks -----	8	-	14	7	5	16	-	-	-
Over 3 and under 4 weeks -----	1	-	-	-	-	5	-	-	-
4 weeks -----	16	-	12	37	16	19	9	6	-
Over 4 and under 5 weeks -----	18	19	13	-	28	21	-	-	-
5 weeks -----	16	53	4	18	5	2	-	94	74
Over 5 and under 6 weeks -----	28	28	-	17	43	33	86	-	26

See footnotes at end of table.

Table 12. Paid vacations—Continued

(Percent of production workers in flour and other grain milling establishments with formal provisions for paid vacations, United States, selected regions, and area, May 1972)

Vacation policy	United States ¹	Regions							Area
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	Buffalo
After 25 years of service: ⁴									
1 week -----	5	-	31	9	-	-	-	-	-
2 weeks -----	7	-	25	13	2	4	5	-	-
Over 2 and under 3 weeks -----	(²)	-	-	-	1	-	-	-	-
3 weeks -----	7	-	14	7	5	16	-	-	-
Over 3 and under 4 weeks -----	1	-	-	-	-	5	-	-	-
4 weeks -----	11	-	12	37	10	6	9	-	-
Over 4 and under 5 weeks -----	16	19	13	-	22	21	-	-	-
5 weeks -----	21	53	4	18	11	15	-	100	74
Over 5 and under 6 weeks -----	31	28	-	17	48	33	86	-	26

¹ Includes data for the New England and Border States regions in additions to those shown separately.

² Less than 0.5 percent.

³ Vacation payments such as percent of annual earnings were converted to an equivalent time basis. Periods of service were chosen arbitrarily and do not necessarily reflect the individual establishment provisions for progression. For example the changes in proportions indicated at 10 years may include changes which occurred between 5 and 10 years.

⁴ Vacation provisions were the same after longer periods of service.

NOTE: Because of rounding, sums of individual items may not equal totals.

Table 13. Health, insurance, and retirement plans

(Percent of production workers in flour and other grain milling establishments with specified health, insurance, and retirement plans, ¹United States, selected regions, and area, May 1972)

Type of plan	United States ²	Regions							Area Buffalo
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	
All workers -----	100	100	100	100	100	100	100	100	100
Workers in establishments providing:									
Life insurance -----	98	100	91	100	100	100	100	94	100
Noncontributory plans -----	73	100	57	74	77	63	90	90	100
Accidental death and dismemberment insurance-----	63	53	56	42	70	60	41	88	74
Noncontributory plans -----	44	53	36	35	50	31	31	85	74
Sickness and accident insurance or sick leave or both ³ -----	85	64	66	75	94	91	98	90	77
Sickness and accident insurance -----	80	64	66	75	88	86	86	67	77
Noncontributory plans -----	62	64	44	50	78	54	78	67	77
Sick leave (full pay, no waiting period)-----	4	-	-	-	6	5	3	-	-
Sick leave (partial pay or waiting period)-----	7	-	-	-	2	5	9	63	-
Hospitalization insurance -----	100	100	100	100	100	100	100	100	100
Noncontributory plans -----	70	100	66	50	77	49	81	96	100
Surgical insurance -----	99	100	95	100	100	100	100	100	100
Noncontributory plans -----	69	100	61	50	77	49	81	96	100
Medical insurance -----	96	100	71	100	98	100	100	100	100
Noncontributory plans -----	67	100	43	50	77	49	81	96	100
Major medical insurance -----	77	100	58	63	78	87	88	65	100
Noncontributory plans -----	55	100	31	43	63	45	78	61	100
Retirement plans ⁴ -----	84	100	50	79	89	90	86	100	100
Pensions -----	83	100	50	79	86	90	86	100	100
Noncontributory plans -----	78	100	47	72	78	90	78	86	100
Severance pay -----	2	-	4	-	3	-	-	-	-

¹ Includes only those plans for which the employer pays at least part of the cost and excludes legally required plans such as workmen's compensation and social security. However, plans required by State temporary disability insurance laws are included if the employer contributes more than is legally required or the employees receive benefits in excess of legal requirements. "Noncontributory plans" include only those financed entirely by the employer.

² Includes data for the New England and Border States regions in addition to those shown separately.

³ Unduplicated total of workers in plants having sick leave or sickness and accident insurance shown separately.

⁴ Unduplicated total of workers in plants having pensions and severance pay plans shown separately.

NOTE: Because of rounding, sums of individual items may not equal totals.

Table 14. Other selected benefits

(Percent of production workers in flour and other grain milling establishments with funeral leave pay, jury duty pay, and severance pay, United States, selected regions, and area, May 1972)

Item ¹	United States ²	Regions							Area Buffalo
		Middle Atlantic	Southeast	Southwest	Great Lakes	Middle West	Mountain	Pacific	
Workers in establishments with provisions for:									
Funeral leave pay -----	89	100	64	87	97	84	78	100	100
Jury duty pay -----	86	100	59	87	94	81	78	100	100
Severance pay -----	49	100	28	24	46	46	70	85	100

¹ See appendix A for definition of items.

² Includes data for New England and Border States regions in addition to those shown separately.

Appendix A. Scope and Method of Survey

Scope of survey

The survey included establishments primarily engaged in milling flour or meal from grain, except rice (Industry 2041 as defined in the 1967 edition of the Standard Industrial Classification Manual prepared by the U.S. Office of Management and Budget). Establishments primarily engaged in cleaning and polishing rice and in manufacturing rice flour or meal (SIC 2044), and establishments primarily engaged in manufacturing prepared flour mixes from purchased ingredients (SIC 2045) were excluded. Separate auxiliary units, such as central offices, also were excluded. The establishments studied were selected from those employing 20 workers or more when the universe lists were compiled.

The number of establishments and workers studied by the Bureau, as well as the number estimated to be

within the scope of the survey during the payroll period studied, is shown in table A-1.

Method of Study

Data were obtained by personal visits of the Bureau's field staff. The survey was conducted on a sample basis. To obtain appropriate accuracy at minimum cost, a greater proportion of large than of small establishments was studied. In combining the data, however, all establishments were given their appropriate weight. All estimates are presented, therefore, as relating to all establishments in the industry, excluding only those below the minimum size at the time of reference of the universe data.

Table A1. Estimated number of establishments and workers within scope of survey, and number studied, flour and other grain mill products, May 1972

Region and area ¹	Number of establishments ²		Workers in establishments		
	Within scope of study	Actually studied	Within scope of study		Actually studied
			Total ³	Production workers	Total ³
United States ⁴	184	117	14,865	10,928	11,624
Middle Atlantic	12	7	1,074	846	850
Buffalo ⁵	5	5	764	601	764
Southeast	31	21	1,839	1,290	1,440
Southwest	20	12	1,407	1,019	1,086
Great Lakes	52	29	5,361	3,929	4,108
Middle West	36	21	2,826	2,164	2,009
Mountain	11	11	655	478	655
Pacific	13	10	1,268	877	1,126

¹The regions used in this study include *Middle Atlantic* — New Jersey, New York, and Pennsylvania; *Southeast* — Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, and Tennessee; *Southwest* — Arkansas, Louisiana, Oklahoma, and Texas; *Great Lakes* — Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West* — Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Mountain* — Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; and *Pacific* — California, Nevada, Oregon, and Washington.

²Includes only establishments with 20 workers or more at the time of reference of the universe data.

³Includes executive, professional, office clerical, and other workers excluded from the production worker category.

⁴Includes data for the New England and Border States regions in addition to those shown separately. Alaska and Hawaii were not included in this study.

⁵For definition of area, see footnote 1, table 6.

Establishment definition

An establishment, for purposes of this study, is defined as a single physical location where industrial operations are performed. An establishment is not necessarily identical with the company, which may consist of one or more establishments. In this bulletin the terms "plant," "mill," and "establishment" have been used interchangeably.

Employment

Estimates of the number of workers within scope of the study are intended as a general guide to the size and composition of the labor force included in the survey. The advance planning necessary to make a wage survey requires the use of lists of establishments assembled considerably in advance of the payroll period studied.

Production workers

The term "production workers," as used in this bulletin, includes working foremen and all non-supervisory workers engaged in nonoffice functions. Administrative, executive, professional, and technical personnel, and force-account construction employees, who were utilized as a separate work force on the firm's own properties, were excluded.

Occupations selected for study

The occupational classification was based on a uniform set of job descriptions designed to take account of interestablishment and interarea variations in duties within the same job. (See appendix B for these descriptions.) The occupations were chosen for their numerical importance, their usefulness in collective bargaining, or their representativeness of the entire job scale in the industry. Working supervisors, apprentices, learners, beginners, trainees, and handicapped, part-time, temporary, and probationary workers were not reported in the data for selected occupations, but were included in the data for all production workers.

Wage data

Information on wages relates to straight-time hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. Incentive payments, such as those resulting from piecework or production bonus systems and cost-of-living bonuses,

were included as part of the workers' regular pay; but nonproduction bonus payments, such as Christmas or yearend bonuses, were excluded.

Average (mean) hourly rates or earnings for each occupation or other group of workers, such as production workers, were calculated by weighting each rate (or hourly earnings), by the number of workers receiving the rate, totaling, and dividing by the number of individuals. The hourly earnings of salaried workers were obtained by dividing straight-time salary by normal rather than actual hours.

The median designates position; that is, one-half of the employees surveyed received more than this rate and one-half received less. The middle range is defined by two rates of pay; one-fourth of the employees earned less than the lower of these rates and one-fourth earned more than the higher rate.

Size of community

Tabulations by size of community pertain to metropolitan and nonmetropolitan areas. The term "metropolitan area," as used in this bulletin, refers to the Standard Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through January 1968.

Except in New England, a Standard Metropolitan Statistical Area is defined as a county or group of contiguous counties which contains at least 1 city of 50,000 inhabitants or more. Counties contiguous to the one containing such a city are included in the Standard Metropolitan Statistical Area if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, the city and town are administratively more important than the county and they are the units used in defining Standard Metropolitan Statistical Areas.

Method of wage payment

Tabulations by method of wage payment relate to the number of workers paid under the various time and incentive wage systems. Formal rate structures for time-rated workers provide single rates or a range of rates for individual job categories. In the absence of a formal rate structure, pay rates are determined primarily by the qualifications of the individual worker. A single rate structure is one in which the same rate is paid to all experienced workers in the same job classification. Learners, apprentices, or probationary workers may be paid according to rate schedules which start below the

single rate and permit the workers to achieve the full job rate over a period of time. Individual experienced workers occasionally may be paid more or less than the single rate for special reasons, but such payments are regarded as exceptions. Range of rate plans are those in which the minimum and/or maximum rates paid experienced workers for the same job are specified. Specific rates of individual workers within the range may be determined by merit, length of service, or a combination of various concepts of merit and length of service. Incentive workers are classified under piecework or bonus plans. Piecework is work for which a predetermined rate is paid for each unit of output. Production bonuses are based on production in excess of a quota or for completion of a task in less than standard time.

Scheduled weekly hours

Data on weekly hours refer to the predominant work schedule for full-time production workers employed on the day shift.

Shift provisions and practices

Shift provisions relate to the policies of establishments either currently operating late shifts or having formal provisions covering late shift work. Practices relate to workers employed on late shifts at the time of the survey.

Supplementary wage provisions

Supplementary benefits were treated statistically on the basis that if formal provisions were applicable to half or more of the production workers in an establishment, the benefits were considered applicable to all such workers. Similarly, if fewer than one-half of the workers were covered, the benefit was considered nonexistent in the establishment. Because of length-of-service and other eligibility requirements, the proportion of workers receiving the benefits may be smaller than estimated.

Paid holidays. Paid holiday provisions relate to full-day and half-day holidays provided annually.

Paid vacations. The summary of vacation plans is limited to formal arrangements, excluding informal plans whereby time off with pay is granted at the discretion of the employer or the supervisor. Payments not on a time basis were converted; for example, a payment of 2

percent of annual earnings was considered the equivalent of 1 week's pay. The periods of service for which data are presented were selected as representative of the most common practices, but they do not necessarily reflect individual establishment provisions for progression. For example, the changes in proportions indicated at 10 years of service may include changes which occurred between 5 and 10 years.

Health, insurance, and retirement plans. Data are presented for health, insurance, pension, and retirement severance plans for which all or a part of the cost is borne by the employer, excluding only programs required by law, such as workmen's compensation and social security. Among the plans included are those underwritten by a commercial insurance company and those paid directly by the employer from his current operating funds or from a fund set aside for this purpose.

Death benefits are included as a form of life insurance. Sickness and accident insurance is limited to that type of insurance under which predetermined cash payments are made directly to the insured on a weekly or monthly basis during illness or accident disability. Information is presented for all such plans to which the employer contributes at least part of the cost. However, in New York and New Jersey where temporary disability insurance laws require employer contributions¹ plans are included only if the employer (1) contributes more than is legally required, or (2) provides the employees with benefits which exceed the requirements of the law.

Tabulations of paid sick leave plans are limited to formal plans which provide full pay or a proportion of the worker's pay during absence from work because of illness; informal arrangements have been omitted. Separate tabulations are provided according to (1) plans which provide full pay and no waiting period, and (2) plans providing either partial pay or a waiting period.

Medical insurance refers to plans providing for complete or partial payment of doctors' fees. These plans may be underwritten by a commercial insurance company or a nonprofit organization, or they may be a form of self-insurance.

Major medical insurance, sometimes referred to as extended medical insurance, includes the plans designed to cover employees for sickness or injury involving an expense which exceeds the normal coverage of hospitalization, medical, and surgical plans.

Tabulations of retirement pensions are limited to plans which provide, upon requirement, regular pay-

¹Temporary disability insurance laws in California and Rhode Island do not require employer contributions.

ments for the remainder of the retiree's life. Data are presented separately for retirement severance pay (one payment or a specified number over a period of time) made to employees upon retirement. Establishments providing retirement severance payments and pensions to employees upon retirement were considered as having both retirement pension and retirement severance pay. Establishments having optional plans which provide employees a choice of either retirement severance payments or pensions were considered as having only retirement pension benefits.

Paid funeral and jury-duty leave. Data for paid funeral and jury-duty leave are limited to formal plans which provide at least partial payment for time lost when an employee attends funerals of specified family members or serves as a juror.

Technological severance pay. Data relate to formal provisions for severance pay to workers permanently separated from employment as a result of force reduction arising out of the introduction of new equipment or from department or unit closings.

Appendix B. Occupational Descriptions

The primary purpose of preparing job descriptions for the Bureau's wage surveys is to assist its field staff in classifying into appropriate occupations workers who are employed under a variety of payroll titles and different work arrangements from establishment to establishment and from area to area. This classification permits the grouping of occupational wage rates representing comparable job content. Because of this emphasis on interestablishment and interarea comparability of occupational content, the Bureau's job descriptions may differ significantly from those in individual establishments or those prepared for other purposes. In applying these job descriptions, the Bureau's field staff is instructed to exclude working supervisors, apprentices, learners, beginners, trainees, and handicapped, part-time, temporary, and probationary workers.

Bolter

(Sifter operator)

Sifts ground grain in the sifting machines to remove the broken kernels and lumps to be returned to grinding mills for further processing; adjusts feed slides so machine can take in only as much grain as it will sift.

Grain-elevator operator

Has charge of grain unloading from trucks or railroad cars. Tends elevating machinery, and may do minor repair and maintenance work on elevating machinery. Sees that various grades of grain go to separate bins. Determines where grain is to be stored and is responsible for sending desired grain to mill. May actually do unloading, and may also run grain through original screening or cleaning process which removes large pieces of foreign matter.

Janitor, porter, or cleaner

(Sweeper; charwoman; janitress)

Cleans and keeps in an orderly condition factory working areas and washrooms, or premises of an office or other establishment. Duties involve *a combination of the following*: Sweeping, mopping or scrubbing, and polishing floors; removing chips, trash, and other refuse; dusting equipment, furniture, or fixtures; polishing

metal fixtures or trimmings; providing supplies and minor maintenance services; cleaning lavatories, showers, and restrooms. Workers who specialize in window washing are excluded.

Laborer, material handling

(Loader and unloader; handler and stacker; shelver; trucker; stockman or stock helper; warehouseman or warehouse helper)

A worker employed in a warehouse, manufacturing plant, or other establishment whose duties involve *one or more of the following*: Loading and unloading various materials and merchandise on or from freight cars, trucks, or other transporting devices; unpacking, shelving, or placing materials or merchandise in proper storage location; transporting materials or merchandise by hand truck, car, or wheelbarrow. *Longshoremen, who load and unload ships, are excluded.*

Mechanic, general

Performs the work of two or more maintenance trades rather than specializing in only one trade or one type of maintenance work. Typically, the work of a general mechanic requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

The classification includes workers who regularly perform two or more types of skilled maintenance work

within a section or department of a large establishment, such as pipefitting, millwrighting, welding, machining, machine and equipment repairing, and carpentry, among others. It also includes workers that maintain and repair machines, mechanical and electrical equipment, and/or the structure of a small establishment where specialization in maintenance work is impractical. It *does not*, however, include workers who only make minor repairs or adjustments.

Miller, flour (second miller)

Performs any or all necessary cleaning, grinding, bolting (sifting), and packing jobs in a grain mill. Starts machinery and examines grain at various stages of manufacture to determine degree of fineness. Inspects various mills for proper operation and makes any necessary adjustments.

Millwright

Installs new machines or heavy equipment and dismantles and installs machines or heavy equipment when changes in the plant layout are required. Work involves *most of the following*: Planning and laying out of the work; interpreting blueprints or other specifications; using a variety of handtools and rigging; making standard shop computations relating to stresses, strength of materials, and centers of gravity; aligning and balancing of equipment; selecting standard tools, equipment, and parts to be used; installing and maintaining in good order power transmission equipment such as drives and speed reducers. In general, a millwright normally must have rounded training and experience in the trade acquired through a formal apprenticeship or equivalent training and experience.

Oiler

Lubricates, with oil or grease, the moving parts or wearing surfaces of mechanical equipment of an establishment.

Packer

Tends a machine that sacks and weighs finished products or materials; places empty sack or bag over discharge nozzle or spout of packing machine; starts flow of product or material into sack; shuts off or stops flow of product or material when specified weight or amount has entered the sack (machine may do this automatically). May seal or close sacks by hand or machine. May make adjustments and minor repairs.

For wage study purposes, packers are classified by product, as follows:

- Packer, feed
- Packer, flour

Roll tender

Regulates flow of grain between grinding rollers of a rolling mill. Work includes: Moving rollers together so that grain passing between them will be crushed; starts feeder roll which moves grain out of supply hopper of mill and causes it to fall between rotating grinding rolls.

Smutter

Operates machines which wash and scour grain. May also weigh, temper, and condition grain for grinding. May clean, adjust, and assist in repairing machinery.

Trucker, power

Operates a manually controlled gasoline- or electric-powered truck or tractor to transport goods and materials in a warehouse, manufacturing plant, or other establishment.

For wage studies, workers are classified by type of truck, as follows:

- Trucker, power (forklift)
- Trucker, power (other than forklift)

Industry Wage Studies

The most recent reports for industries included in the Bureau's program of industry wage surveys since January 1960 are listed below. Copies are available from the Superintendent of Documents, U.S. Government

Printing Office, Washington, D.C., 20402, or from any of its regional sales offices, and from the Bureau of Labor Statistics, Washington, D.C. 20212, or from any of its regional offices shown on the inside back cover.

I. Occupational Wage Studies

Manufacturing

	Price
Basic Iron and Steel, 1967. BLS Bulletin 1602	\$0.55
Candy and Other Confectionery Products, 1970. BLS Bulletin 1732 . . . . .	.45
Cigar Manufacturing, 1972. BLS Bulletin 1796 . . . . .	.65
Cigarette Manufacturing, 1971. BLS Bulletin 1748 . . . . .	.30
Cotton and Man-Made Fiber Textiles, 1968. BLS Bulletin 1637	1.00
Fabricated Structural Steel, 1969. BLS Bulletin 1695 . . . . .	.50
Fertilizer Manufacturing, 1971. BLS Bulletin 1763 . . . . .	.75
Fluid Milk Industry, 1964. BLS Bulletin 1464 . . . . .	.30
Footwear, 1971. BLS Bulletin 1792	1.25
Hosiery, 1970. BLS Bulletin 1743 . . . . .	.75
Industrial Chemicals, 1971. BLS Bulletin 1768 . . . . .	.80
Iron and Steel Foundries, 1967. BLS Bulletin 1626	1.00
Leather Tanning and Finishing, 1968. BLS Bulletin 1618 . . . . .	.55
Machinery Manufacturing, 1970-71. BLS Bulletin 1754	1.00
Meat Products, 1969. BLS Bulletin 1677	1.00
Men's and Boys' Separate Trousers, 1971. BLS Bulletin 1752 . . . . .	.60
Men's and Boys' Shirts (Except Work Shirts) and Nightwear, 1971. BLS Bulletin 1794 . . . . .	.95
Men's and Boys' Suits and Coats, 1970. BLS Bulletin 1716	1.00
Miscellaneous Plastics Products, 1969. BLS Bulletin 1690 . . . . .	.60
Motor Vehicles and Parts, 1969. BLS Bulletin 1679 . . . . .	.75
Nonferrous Foundries, 1970. BLS Bulletin 1726 . . . . .	.50
Paints and Varnishes, 1970. BLS Bulletin 1739 . . . . .	.60
Paperboard Containers and Boxes, 1970. BLS Bulletin 1719	1.25
Petroleum Refining, 1971. BLS Bulletin 1741 . . . . .	.50
Pressed or Blown Glass and Glassware, 1970. BLS Bulletin 1713 . . . . .	.50
Pulp, Paper, and Paperboard Mills, 1967. BLS Bulletin 1608 . . . . .	.60
Southern Sawmills and Planing Mills, 1969. BLS Bulletin 1694 . . . . .	.50
Structural Clay Products, 1969. BLS Bulletin 1697 . . . . .	.65
Synthetic Fibers, 1970. BLS Bulletin 1740 . . . . .	.40
Textile Dyeing and Finishing, 1970. BLS Bulletin 1757 . . . . .	.70

I. Occupational Wage Studies—Continued

Manufacturing—Continued

West Coast Sawmilling, 1969. BLS Bulletin 1704	\$0.45
Women's and Misses' Coats and Suits, 1970. BLS Bulletin 1728 . . . . .	.35
Women's and Misses' Dresses, 1971. BLS Bulletin 1783 . . . . .	.65
Wood Household Furniture, Except Upholstered, 1971. BLS Bulletin 1793 . . . . .	.90
Wool Textiles, 1966. BLS Bulletin 1551 . . . . .	.45
Work Clothing 1968. BLS Bulletin 1624 . . . . .	.50

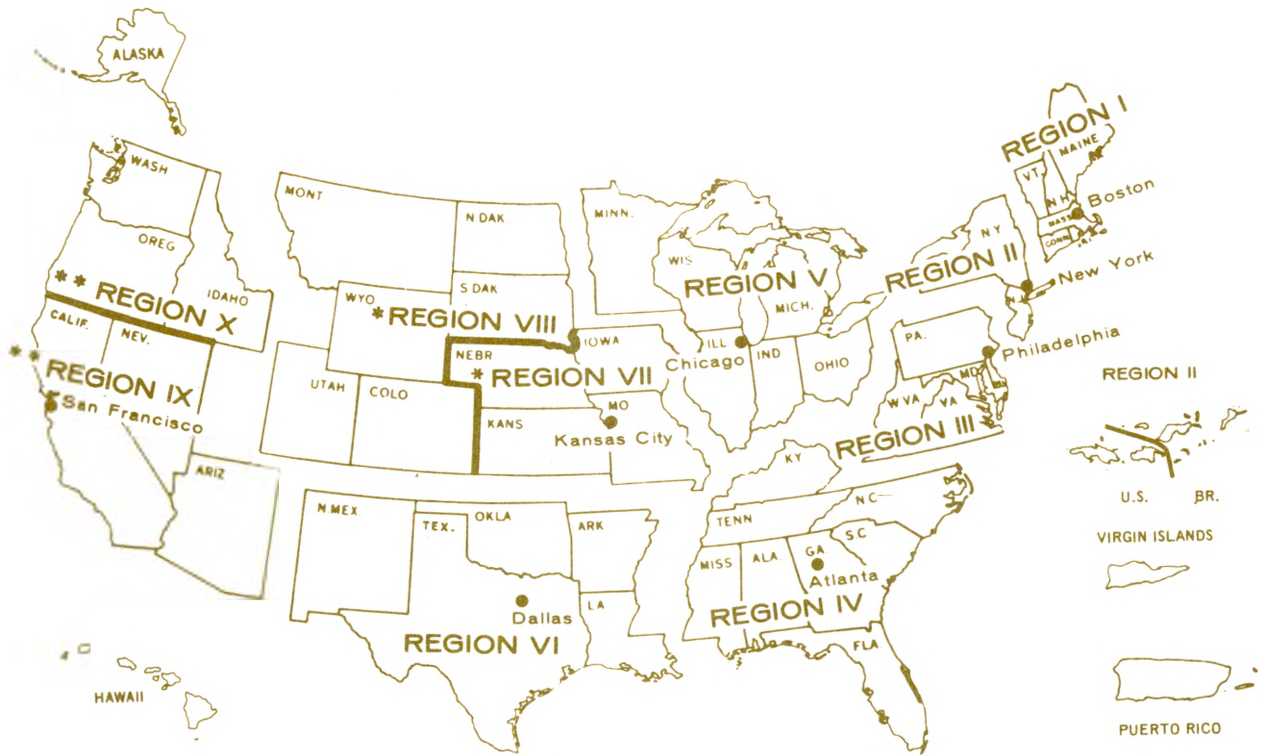
Nonmanufacturing

Auto Dealer Repair Shops, 1969. BLS Bulletin 1689 . . . . .	.50
Banking, 1969. BLS Bulletin 1703 . . . . .	.65
Bituminous Coal Mining, 1967. BLS Bulletin 1583 . . . . .	.50
Communications, 1970. BLS Bulletin 1751 . . . . .	.30
Contract Cleaning Services, 1971. BLS Bulletin 1778 . . . . .	.85
Crude Petroleum and Natural Gas Production, 1967. BLS Bulletin 1566 . . . . .	.30
Educational Institutions: Nonteaching Employees, 1968-69. BLS Bulletin 1671 . . . . .	.50
Electric and Gas Utilities, 1967. BLS Bulletin 1614 . . . . .	.70
Hospitals, 1969. BLS Bulletin 1688	1.00
Laundry and Cleaning Services, 1968. BLS Bulletin 1645 . . . . .	.75
Life Insurance, 1971. BLS Bulletin 1791 . . . . .	.85
Motion Picture Theaters, 1966. BLS Bulletin 1542 . . . . .	.35
Nursing Homes and Related Facilities, 1967-68. BLS Bulletin 1638 . . . . .	.75
Scheduled Airlines, 1970. BLS Bulletin 1734 . . . . .	.45
Wages and Tips in Restaurants and Hotels, 1970. BLS Bulletin 1712 . . . . .	.60

II. Other Industry Wage Studies

Employee Earnings and Hours in Nonmetropolitan Areas of the South and North Central Regions, 1965. BLS Bulletin 1552 . . . . .	.50
Employee Earnings and Hours in Eight Metropolitan Areas of the South, 1965. BLS Bulletin 1533 . . . . .	.40
Employee Earnings and Hours in Retail Trade, June 1966—	
Retail Trade (Overall Summary). BLS Bulletin 1584	1.00
Building Materials, Hardware, and Farm Equipment Dealers. BLS Bulletin 1584-1 . . . . .	.30
General Merchandise Stores. BLS Bulletin 1584-2 . . . . .	.55
Food Stores. BLS Bulletin 1584-3 . . . . .	.60
Automotive Dealers and Gasoline Service Stations. BLS Bulletin 1584-4 . . . . .	.50
Apparel and Accessory Stores. BLS Bulletin 1584-5 . . . . .	.55
Furniture, Home Furnishings, and Household Appliance Stores. BLS Bulletin 1584-650
Miscellaneous Retail Stores. BLS Bulletin 1584-765

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