

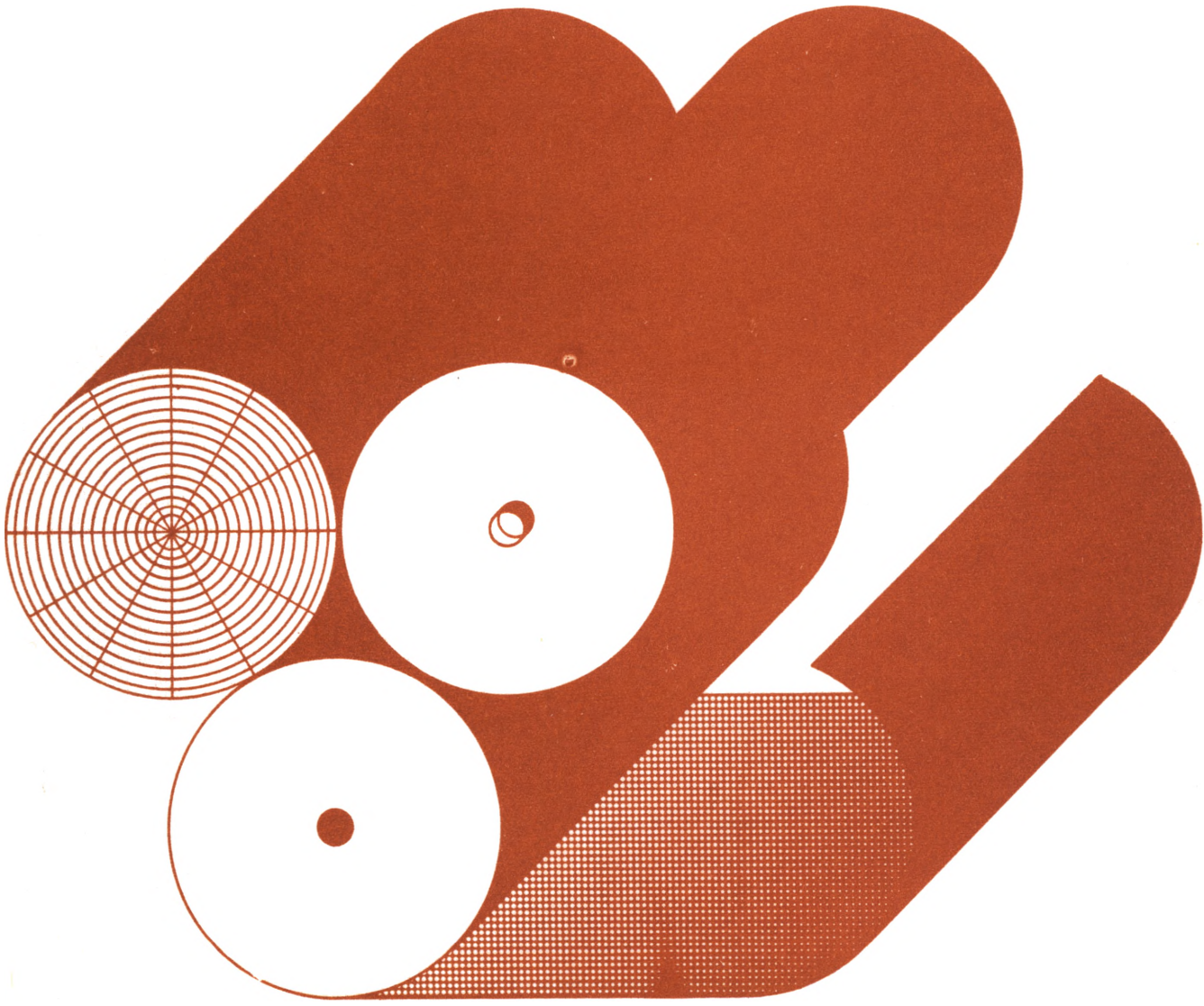
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Industry Wage Survey: Pulp, Paper, and Paperboard Mills Summer 1977



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U.S. Department of Labor
Ray Marshall, Secretary

Bureau of Labor Statistics
Janet L. Norwood
Acting Commissioner
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Preface

This bulletin summarizes the results of a Bureau of Labor Statistics survey of wages and supplementary benefits in pulp, paper, and paperboard mills in the summer of 1977. A similar study was conducted in November 1972.

The 1977 study was conducted in the Bureau's Office of Wages and Industrial Relations. James N. Houff of the Division of Occupational Wage Structures prepared the analysis in this bulletin. Field work for the survey was directed by the Assistant Regional Commissioners for Operations.

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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Pulp, Paper, and Paperboard Mills, Summer 1977

Summary

Straight-time earnings of 147,906 production and related workers in pulp, paper, and paperboard mills averaged \$6.54 an hour in the summer of 1977.¹ Earnings of about 90 percent of these workers were within a range of \$4.60 to \$8.80 an hour; the middle 50 percent earned from \$5.60 to \$7.38.

Among the six regions studied separately, average earnings ranged from \$5.67 an hour in New England to \$7.93 in the Pacific States.² Earnings in the Southeast, the largest region, with about 30 percent of the industry's production work force, averaged \$6.80 an hour. Earnings levels also varied by size of community, size of establishment, and occupation within each region.

Workers in paper mills, about two-thirds of those covered by the study, averaged \$6.47 an hour; this compared with \$6.59 in paperboard mills, where just over one-fourth of the workers were employed, and \$7.23 in separate pulp mills. A portion of these differences resulted from the way workers were distributed in regions with disparate pay levels.

Of the jobs selected to represent the industries' wage structures, worker skills, and manufacturing operations, average wage rates ranged from \$5.48 an hour for janitors to \$8.48 for general mechanics.³ Averages for machine room (papermaking) occupations ranged from \$5.96 an hour for fifth hands to \$7.72 for paper-machine tenders. Occupational averages also varied by region, type of mill, type of pulpmaking process or grade of paper or paperboard produced and, in the machine room, by width of machine.⁴

Paid holidays and paid vacations after qualifying periods of service, as well as various types of health, insurance, and retirement benefit plans, were provided to virtually all of the workers. A majority of the workers were in mills providing at least 10 paid holidays annually and 5 weeks or more of vacation after 20 years of service.

¹See appendix B for scope and method of survey. Wage data presented in this report exclude premium pay for overtime and for work on weekends, holidays, and late shifts.

Data for an estimated 22,851 workers employed in the converted paper products departments of mills covered by the study are excluded from the regular earnings tabulations and are presented separately in table 6. The inclusion of these workers would reduce the nationwide average cited above by an estimated 8 cents an hour.

²For definition of regions, see appendix B, table B-1, footnote 1.

³See appendix C for job descriptions.

⁴Machine speed, although not covered in this study, also influenced some wage rates.

Industry characteristics

Employment. In the summer of 1977, the 386 mills within the scope of the survey (those with at least 100 workers) employed 170,757 production workers, including 22,851 in converted paper products departments of paper and paperboard mills. Nationwide, employment in pulp, paper, and paperboard mills was basically unchanged since a similar survey in November 1972; the proportions in each type of mill also remained relatively constant.⁵ Paper mills employed almost 70 percent of the production workers in the summer of 1977; about 25 percent worked in paperboard mills. Separate pulp mills, which were all owned by paper or paperboard companies, employed the remaining 5 percent of the work force. Integrated paper or paperboard mills, those that manufacture at least part of their own pulp requirements in pulpmaking departments of the mill, employed 70 percent of the workers in all paper and paperboard mills.

Processes and products. The most commonly used pulpmaking process was the sulphate process. About two-thirds of the 121,000 workers in pulp mills and integrated paper and paperboard mills worked in mills that used the sulphate process. Slightly over one-seventh were in mills primarily using the sulphite process, and another one-tenth were in mills manufacturing groundwood pulp. (These processes are described later in this section.)

Almost seven-eighths of the nearly 163,000 workers in all paper and paperboard mills worked in mills which used wood pulp as the primary raw material; virtually all of the remaining workers were in mills which principally used waste paper or reclaimed fibers.

Fine grades of paper, which include writing and book papers, were the predominant output of establishments employing slightly over one-third of the paper and paperboard mill employees; establishments producing sanitary tissue stock or container board accounted for another third, in equal proportions; and those producing coarse (kraft) paper, boxboard, and newsprint, most of the remainder.

Pulpmaking is the process of separating cellulose fibers from wood by chemical or mechanical means. The selection of the pulpmaking process is based primarily on the type of wood available and the grade of paper to be produced.

⁵See *Industry Wage Survey: Pulp, Paper, and Paperboard Mills, November 1972*, Bulletin 1844 (Bureau of Labor Statistics, 1975).

Pulp is produced mechanically in the groundwood process by pressing logs against a grindstone. The same process carried out in a steam-heated chamber produces defibrated pulp, used principally in the manufacture of hardboards and insulating board.

The more common chemical processes—sulphate, sulphite, and soda—require logs cut into chips, which are sometimes purchased from separate firms. These chips are “cooked” in a digester—a vat several stories high—to remove impurities from the wood through the combined action of chemicals, steam, and pressure. Sulphate pulp, also known as kraft, is made from a variety of woods to produce papers in which strength is of prime importance. Sulphite pulp is made primarily from soft wood, such as spruce and hemlock; soda pulp is made principally from hardwoods. After mixing with water, the pulp is further refined and may be bleached before use.

Pulp solution (mostly water) is turned into paper by machines that are among the largest in American industry. Two types of papermaking machines are in general use today. One type is the cylinder machine for building board and container board. The more common type is the Fourdrinier machine, in which the pulp solution is poured onto a vibrating and moving screen. As the water drains, pulp fibers adhere to one another to form a sheet of paper. The newly formed paper is pressed to squeeze out more water and then is passed through a dryer.

The paper may be further treated to achieve specified characteristics. By passing it through a series of rolls (calendering), a glossy finish is imparted; by glazing it with coating mixtures, the moisture resistance and printing quality of the final product are improved. The paper or paperboard may be shipped to other plants for fabrication, or it may be made into boxes, bags, etc., by converting departments of the mill. About one-half of the paper mills and nearly three-tenths of the paperboard mills studied had onsite converting departments.

Productivity. Output per production worker employee-hour was 8 percent higher in 1977 than in 1972.⁶ Output in 1977 was about 4 percent above that in 1972 while production workers’ hours were down 4 percent. In 1972, output per production worker hour had been 32 percent above its 1967 level. Among factors contributing to this advance in productivity were the introduction of more efficient pulp and papermaking equipment and improved material handling systems.

⁶*Productivity Indexes for Selected Industries, 1978 Edition, Bulletin 2002, pp. 59, 60 (Bureau of Labor Statistics, 1978).*

Location. The Southeast, with nearly three-tenths of the industries’ work force, and the Great Lakes States, with slightly less than one-fourth, were the regions with the largest numbers of employees. New England and the Pacific States each employed one-eighth, and the Middle Atlantic and Southwest regions each employed about one-tenth. Although paper mill employment was widely distributed over the six regions studied separately, workers in pulp and paperboard mills tended to be heavily concentrated in only a few regions.

Three-fifths of the pulp mill workers were found in the Southeast and an additional one-fourth were in the Pacific States. No other region had as much as one-tenth. Employment in paperboard mills was centered in the Southeast (nearly 45 percent of the total), with another 42 percent divided evenly among the Southwest, Great Lakes, and Pacific States.

Within regions, the distribution of workers among the three types of mills varied substantially. Paper mills, for example, employed the largest proportion of the work force in each of the regions, ranging from slightly over one-half in the Southeast and Southwest to nine-tenths in New England. Paperboard mills, on the other hand, employed one-seventh of the workers in the Great Lakes and about two-fifths of those in the Southeast and Southwest. Employment in separate pulp mills was significant in only two regions: One-tenth of the workers in the Pacific States and in the Southeast worked in separate pulp mills.

For the Nation as a whole, just under half of the workers in paper and paperboard mills and one-fourth of the workers in pulp mills were in metropolitan areas (text table 1).⁷ At the regional level, the Middle Atlantic had a large majority of workers in metropolitan areas, while the other five regions typically were at or somewhat below the national proportion.

⁷Standard Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through February 1974.

Text table 1. Percent of production workers in metropolitan areas, by region and type of mill

Region	All mills	Pulp mills	Paper mills	Paper-board mills
United States ¹	47	27	48	48
New England	42	—	34	—
Middle Atlantic	90	(²)	88	100
Southeast	42	20	49	37
Southwest	47	—	44	49
Great Lakes	46	—	44	60
Pacific	46	33	45	53

¹Includes data for regions in addition to those shown separately.

²No workers reported in separate pulp mills.

NOTE: Dashes indicate that data do not meet publication criteria.

Establishment size. Nearly nine-tenths of the workers were in mills employing at least 250 workers each; nearly half were in mills that had 1,000 workers or more. Paper mills, as the following tabulation illustrates, tended to be the largest of the three types of mills studied.

	Percent of production workers in —			
	All mills	Pulp mills	Paper mills	Paper- board mills
Total	100	100	100	100
100 to 249 workers. . . .	10	7	8	17
250 to 999 workers. . . .	44	52	41	53
1,000 workers or more.	45	41	51	29

Regionally, mills tended to be largest in the Southeast and smallest in the Middle Atlantic and New England. Paper mills in the Southeast employed an average of 1,000 workers—nearly twice the average in any other region. Paperboard mills, however, were somewhat smaller, on average, in the Southeast than in the Southwest (455 compared with 532 production workers).

Unionization. Nearly all of the workers covered by the study were in mills operating under labor-management agreements—compared with two-thirds in all manufacturing industries combined. ⁸The major union in all regions, except the Pacific States, was the United Paperworkers International Union (AFL-CIO), which resulted from a 1972 merger between the United Papermakers and Paperworkers and the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers. In the Pacific States, most mills had agreements with the Association of Western Pulp and Paperworkers (independent).

Sex. Data by sex were available for 93 percent of the production workers in pulp, paper, and paperboard mills, exclusive of their converted paper products departments. Men made up 98 percent of these workers. With few exceptions (e.g., pulp and paper testers, janitors, and most finishing jobs), all workers in the occupations studied separately were men. In converted paper products departments, men made up nearly four-fifths of the production workers identified separately by sex (94 percent).

Method of wage payment. Nearly all of the workers in the survey were paid time rates, usually under formal plans providing single rates for individual occupations

⁸See *Employee Compensation in the Private Nonfarm Economy, 1974 Bulletin 1963* (Bureau of Labor Statistics, 1977), table 18, establishments with 100 or more employees.

(table 25). A number of collective bargaining agreements in the paper industries provided for periodic adjustment of wage rates for specific machine room jobs based on the average speed or output of papermaking machines during a previous time period. Width of machine, type of process, and grade of product were also important determinants of wage rates in pulp, paper, and paperboard mills. Only 3 percent of the work force was paid on an incentive basis.

Average hourly earnings

Straight-time earnings of the 147,906 production workers covered by the survey averaged \$6.54 an hour in the summer of 1977 (table 1).⁹ Workers in paper mills averaged \$6.47 an hour; those in paperboard mills averaged \$6.59. These averages were about 10 percent less than the \$7.23 earned by workers in separate pulp mills.¹⁰ The higher nationwide average for workers in separate pulp mills resulted largely from the influence of the relatively high-paying Southeast and Pacific States, in which nearly nine-tenths of the 8,000 workers in separate pulp mills were employed.

Nationally, the level of earnings for production workers in the three types of mills in the summer of 1977 was 58 percent higher than the \$4.13 average recorded in the November 1972 survey.¹¹ This increase was substantially more than the 47-percent rise in average hourly earnings recorded for all nondurable goods manufacturing and the 45-percent increase in

⁹Excludes the 22,851 workers in converted paper products departments.

¹⁰Straight-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 (average of \$6.85 in pulp and paper mills and \$7.00 in paperboard mills during July-September 1977) in which the sums of the employee-hour totals reported by establishments in the industries were 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 average (215,100) during July-September 1977 because (1) establishments employing fewer than 100 workers are excluded and (2) lists of establishments must be assembled considerably in advance of data collection to make the survey. Thus, new establishments and establishments originally classified in the pulp, paper, and paperboard mills industries but found to be in other industries at the time of the survey are omitted. Pulp, paper, and paperboard mills classified incorrectly in other industries at the time the lists were compiled are also omitted.

¹¹The establishment sample in the 1977 survey was selected from those employing 100 workers or more rather than 50 workers or more (November 1972). The raised employment cutoff should have little effect on the wage trend, however, since only 3 percent of the industries' employees were in mills in the 50-99 employment-size class.

consumer prices over the same period.¹² Most of the wage increase in the paper industries between 1972 and 1977—approximately 10 percent a year—was due primarily to wage rate changes granted through collective bargaining agreements; about 97 percent of the workers at the time of the 1977 survey were covered by such agreements.

Regionally, average earnings of all production workers ranged from \$5.67 an hour in New England to \$7.93 in the Pacific States—a wage spread of nearly 40 percent. Workers in the Southeast, three-tenths of the production work force, averaged \$6.80. Regional variations in all workers' pay reflect, in part, differences in the distribution of employment by type of mill, size of mill, and size of area (metropolitan or non-metropolitan area). Nationwide, average earnings were highest in mills employing at least 1,000 workers (\$6.72) and lowest in those with less than 250 workers (\$5.76). This earnings advantage, however, was not consistent among regions. In the Pacific States, for example, the spread of earnings for the three size classes was only 4 percent, \$7.68 to \$7.98. In the numerically important Southeast, on the other hand, workers averaged \$6.88 an hour in mills with 250 to 999 employees and \$5.44 an hour in mills with less than 250 workers—a wage difference of 26 percent.

Workers in nonmetropolitan areas averaged \$6.69 an hour compared to \$6.37 for those in metropolitan areas. A similar relationship was also found in the five regions for which direct comparisons could be made.

The above discussion illustrates how certain establishment characteristics, such as employment size and mill location, are associated with pay levels. The survey results did not indicate the independent effect of wage-determining characteristics on earnings. Appendix A, however, presents a brief technical note on results of a multiple regression in which the singular effects of some characteristics were isolated to a measurable degree. In some cases, there were dissimilarities between earnings differentials derived from published averages and those generated by multiple regression techniques. Production workers in establishments with at least 1,000 employees, for example, averaged 96 cents an hour more than those in establishments with 100 to 249 workers, but apparently less than two-thirds (61 cents) of this differential can be attributed solely to establishment size (appendix tables A-1 and A-2).

Nearly nine-tenths of the production workers earned between \$4.60 and \$8.80 an hour (table 2). Earnings of the middle 50 percent of the workers were between \$5.60 and \$7.38 an hour. Earnings distributions,

¹²Eased on November 1972 and September 1977 data from the Bureau's *Employment and Earnings* and Consumer Price Index series.

however, varied by type of mill. As text table 2 shows, for example, nearly one-third of the pulp mill workers earned at least \$8 an hour, compared with one-eighth of the paper mill employees and one-fifth of the paperboard workers. (See tables 3, 4, and 5 for regional patterns.)

The 22,851 workers in converted paper products departments averaged \$5.93 an hour (table 6)—about 9 percent below the average for all other production workers in the survey. Regionally, average earnings were highest in the Pacific region (\$7.06) and lowest in New England (\$5.03). Workers in the Great Lakes region, one-third of all employees in those departments, averaged \$5.81 an hour.

Occupational earnings

The occupations selected to represent the wage structure, skills, and manufacturing operations of the paper industries made up nearly one-half of the work force in the summer of 1977 (table 7). Among these jobs, nationwide averages ranged from \$5.48 an hour for janitors to \$8.48 for general mechanics.

For occupations in which comparisons could be made, workers in the Pacific States were typically the highest paid. Their averages often exceeded by 35 to 50 percent those of their counterparts in New England and the Middle Atlantic States, the lowest paying regions studied separately. Paper testers, for example, averaged \$7.59 an hour in the Pacific region, compared with \$5.57 in the Middle Atlantic States and \$5.38 in New England—differentials of 36 and 41 percent, respectively.

Occupational averages also varied considerably by type of pulpmaking process and grade of paper or paperboard produced. In the Southeast region, for example, paper-machine tenders manufacturing coarse (kraft) paper averaged \$8.96 an hour compared with \$6.52 for those making special industrial paper. Where comparisons were possible for numerically important occupations in other regions, wages commonly averaged somewhat higher for employees producing coarse (kraft) paper or container board than for those producing special industrial paper or boxboard. As text

Text table 2. Percent distribution of production workers by earnings and type of mill

Hourly earnings	All mills	Pulp mills	Paper mills	Paperboard mills
Total	100.0	100.0	100.0	100.0
Under \$4.50	2.5	0.8	1.8	4.4
\$4.50 and under \$5	5.5	1.6	5.2	6.8
\$5 and under \$6	32.3	18.9	34.7	29.0
\$6 and under \$7	27.3	25.8	29.4	23.5
\$7 and under \$8	16.4	20.5	16.6	15.8
\$8 and under \$10	14.5	29.4	11.0	19.5
\$10 and over	1.2	2.8	1.1	.9

Text table 3. Average hourly earnings of production workers in selected occupations in pulp, paper, and paperboard mills, United States and selected regions

Department and occupation	Average hourly earnings ¹			Department and occupation	Average hourly earnings ¹		
	United States ²	South-east	Great Lakes		United States ²	South-east	Great Lakes
Pulpmaking:				Machine room — Continued			
Bleach-plant operators ³	\$7.55	\$7.99	\$6.46	Backtenders ³	\$7.09	\$7.83	\$6.58
Sulphate process	7.93	8.30	6.90	Fine grades	6.77	7.65	6.63
Sulphite process	7.57	—	6.55	Sanitary tissue	7.38	7.72	7.03
Pulp testers ³	6.21	6.14	5.95	Coarse (kraft)	7.85	8.30	6.02
Sulphate process	6.25	6.12	6.25	Special industrial	6.20	5.98	—
Sulphite process	6.46	—	6.22	Container board	7.89	8.12	6.30
				Boxboard	6.79	7.64	6.06
Stock preparation:				Finishing roll:			
Beater-operator helpers ³	5.96	6.59	5.89	Rewinder operators ³	6.04	6.25	6.01
Fine grades	5.84	6.64	6.01	Fine grades	6.06	6.32	6.15
Coarse (kraft)	6.40	6.95	5.57	Sanitary tissue	6.07	6.24	6.21
Boxboard	5.59	6.29	5.64				
Hydrapulper operators ³	5.75	5.42	5.79	Finishing, sheet:			
Fine grades	5.82	—	5.91	Cutters, guillotine type ³ (cut			
Container board	6.08	5.58	5.86	and trim)	5.96	5.59	5.98
Boxboard	5.18	5.07	5.77	Fine grades	6.12	6.29	6.02
				Boxboard	5.43	5.96	5.55
Machine room:				Cutters, rotary or sheet ³	5.98	6.58	6.02
Paper-machine tenders ³	7.72	8.57	7.14	Fine grades	5.99	6.54	6.11
Fine grades	7.33	8.31	7.20	Boxboard	5.60	6.47	—
Sanitary tissue	8.18	8.84	7.70	Laboratory:			
Coarse (kraft)	8.53	8.96	6.44	Paper testers ³	6.12	6.31	5.94
Special industrial	6.75	6.52	—	Fine grades	5.99	6.43	6.04
Container board	8.66	8.95	6.80	Container board	6.54	6.32	—
Boxboard	7.39	8.30	6.50	Boxboard	6.17	6.62	5.36

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

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

³Includes data for types of pulp, paper, or paperboard not shown separately.

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

table 3 illustrates, however, differentials by grade of product were generally much smaller in the stock preparation and finishing departments than in the machine room. In addition, an examination of union contract provisions and individual establishment data from the survey revealed that, within the same mill, a given occupation could be paid at a different rate depending on the product.

Continuous digester cooks, the highest paid of the pulpmaking occupations studied, averaged \$8.07 an hour—about 2 percent more than cooks who operated batch digesters (\$7.89). Averages for cooks' helpers were more widely separated; helpers on continuous digesters averaged \$7.20 an hour compared with \$6.67 for helpers on batch digesters. Grinder operators and pulp testers averaged \$6.21 an hour and were the lowest paid of the pulpmaking jobs studied.

About one-tenth of the workers studied were employed in machine room (papermaking) jobs, for which averages ranged from \$5.96 an hour for fifth hands to \$7.72 for paper-machine tenders. The width of the machinery operated greatly influenced individual wage rates (table 11)¹³. Paper-machine ten-

ders making fine grades of paper, for example, averaged \$9.05 an hour on machines 201 inches to 300 inches wide, in contrast to the \$6.35 an hour averaged by those operating machinery less than 101 inches wide. Within size classes, averages also varied by grade of paper produced.

Millwrights, the most numerous of the maintenance occupations studied, averaged \$7.62 an hour. Electricians averaged \$7.81; pipefitters, \$7.74; maintenance machinists, \$7.55; and power truckers, mostly forklift operators, \$5.93.

Those occupations permitting comparisons among all three types of mills usually averaged highest in separate pulp mills and lowest in paper mills (tables 8, 9, and 10). Workers in pulp mills frequently averaged 10 to 15 percent more than their counterparts in paper mills and 4 to 11 percent more than those in paperboard mills. When comparisons were made among stock preparation, papermaking, and sheet finishing department jobs common to paper and paperboard mills, however, paper mill employees usually held at least a 2-percent advantage.

Occupational averages usually were somewhat higher in nonmetropolitan areas than in larger communities and higher in mills that employed at least 1,000

¹³See footnote 4.

workers than in smaller mills (tables 12 and 13). However, no consistent relationship between size of mill and average earnings was found when comparisons were limited to the same community size group (table 14).

Earnings of individual workers in the occupations shown in tables 15 to 24 tended to be concentrated within narrow ranges for a majority of the workers, especially when comparisons were limited to individual regions. In the Pacific region, for example, earnings for a majority of the beater-operator helpers (fine grades), fourth hands (fine grades), and janitors fell within a 20-cent range. Wage ranges were not as concentrated in the other regions, but in most of the jobs more than half of the workers were found within a range of no more than \$1.00. Extensive collective bargaining agreement coverage and the widespread use of single-rate wage systems were among the factors contributing to the comparatively narrow range of earnings for workers performing similar tasks.

Establishment practices and supplementary wage provisions

Data were also obtained on work schedules, shift practices, and selected supplementary wage benefits, such as paid holidays, paid vacations, and health, insurance, and retirement plans.¹⁴

Scheduled weekly hours. Work schedules of 40 hours a week were in effect in mills employing nearly one-half of the workers in the summer of 1977 (table 26). Just over one-third of the workers were scheduled for 42 hours a week, and about one-tenth had a 48-hour workweek schedule. Regionally, work schedules varied considerably. For example, 40-hour weeks applied to nearly two-thirds of the workers in the Pacific States but to slightly less than one-fifth of the workers in New England.

Shift differential practices. To maintain operations 24 hours a day, virtually all of the mills studied had rotating shifts whereby workers periodically changed from day to evening to night schedules.¹⁵

Nearly seven-tenths of the industries' production

¹⁴Data on establishment practices and supplementary wage provisions relate to all production workers, including those in converted paper products departments.

For an estimate of the relative importance of employer expenditures for employee fringe benefits in total compensation, see *Employee Compensation and Payroll Hours: Pulp and Paper Manufacturing, 1971*, Report 427 (Bureau of Labor Statistics, 1973).

¹⁵Some mills operated a 4-shift workday. In these situations, two shifts—6 a.m. to 12 noon and 12 noon to 6 p.m.—fit the survey definition of day shift, i.e., a work period in which half or more of the work hours fall between 8 a.m. and 4 p.m.

workers were assigned to this type of shift, usually changing schedules every 7 days. Virtually all of the workers employed on evening and night rotating shifts were paid differentials, commonly 10 to 12 cents per hour on the evening shift and 15 to 22 cents per hour on the night shift¹⁶ (table 27). Rotating shifts were most common in the stock preparation department, machine room, and converting departments in paper and paper-board mills and in the pulpmaking department of pulp mills. On the other hand, employees in woodyards, wood preparation departments, and maintenance departments of all types of mills were usually assigned to fixed shifts. Fixed shifts, operated by nearly all establishments, generally provided differentials of 10 to 12 cents per hour for evening schedules and 15 to 20 cents per hour for night schedules. Differentials for both rotating and fixed shifts, however, varied widely by region.

Paid holidays. All establishments provided paid holidays to production workers (table 28). Mills granting at least 10 full days annually employed seven-eighths of the workers. Regionally, typical holiday provisions were 9 or 10 days in New England, 10 or 11 days in the Middle Atlantic, Southeast, Southwest, and Great Lakes regions, and 12 days in the Pacific States.

Paid vacations. All mills provided paid vacations after qualifying periods of service (table 29). Nearly all the production workers were in mills granting at least 1 week of vacation pay after 1 year of service, 2 weeks after 3 years, and 3 weeks after 10 years. Provisions for at least 4 weeks of vacation after 15 years applied to nearly 95 percent of the workers; 75 percent were under plans providing at least 5 weeks after 20 years and 6 weeks after 30 years' service. Vacation provisions varied by region.

Health, insurance, and retirement plans. Life, hospitalization, basic medical, and surgical insurance, for which the employer paid at least part of the cost, covered all of the production workers (table 30). Sickness and accident and major medical insurance each applied to more than nine-tenths of the workers; accidental death and dismemberment to seven-eighths; dental insurance to one-third; long-term disability insurance to one-sixth; and paid sick leave to less than one-tenth. The incidence of health and insurance plans varied little by region, with some notable exceptions. Dental insurance, for example, was provided to all workers in the Pacific States, but to only one-eighth or less in the New England, Southeast, and Southwest regions.

¹⁶A few mills paid the same differential to all workers on rotating shifts, regardless of the schedule worked.

Health and insurance plans financed *solely* by the employer were provided to at least seven-tenths of all production workers with the benefit coverage.

Retirement pension plans (other than Federal social security), providing regular payments for the remainder of the retiree's life, were available to virtually all of the work force. These plans were usually financed wholly by the employer. Retirement severance pay plans were found in only two regions. These plans covered 9 percent of the work force in the Middle Atlantic region and 2 percent in New England.

Other selected benefits. Pay for jury duty and for attending funerals of specified relatives were available to nearly all of the production workers in most of the regions studied (table 31). In the Great Lakes and Pacific regions, however, slightly less than seven-eighths of the workers were covered by jury-duty pay.

Severance pay provisions for loss of jobs due to a technological change or plant closing covered just over one-third of the workers; the proportion varied from under one-tenth of the workers in the Middle Atlantic region to two-thirds in the Pacific States.

Table 1. Average hourly earnings: By selected characteristics—all mills

(Number and average straight-time hourly earnings¹ of production workers in pulp, paper, and paperboard mills by selected characteristics, United States and selected regions, summer 1977)

Characteristic	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
All production workers	147,906	\$6.54	18,752	\$5.67	15,869	\$5.71	44,820	\$6.80	14,763	\$6.93	31,840	\$6.11	17,719	\$7.93
Men	134,881	6.55	18,346	5.68	14,562	5.68	37,478	6.82	14,381	6.95	30,694	6.13	15,314	8.08
Type of mill: ³														
Pulp mills	8,016	7.23	-	-	-	-	4,840	7.09	-	-	-	-	2,192	7.86
Paper mills	98,860	6.47	17,196	5.72	12,684	5.85	20,473	6.83	8,020	7.00	27,208	6.16	10,983	7.98
Paperboard mills	41,030	6.59	-	-	3,185	5.16	19,507	6.69	6,384	6.78	4,494	5.81	4,544	7.87
Size of community:														
Metropolitan areas ⁴	67,565	6.37	6,756	\$5.52	14,084	5.75	17,881	6.65	6,773	6.86	14,599	6.04	7,379	7.84
Nonmetropolitan areas	80,341	6.69	11,996	5.75	-	-	26,939	6.90	7,990	6.98	17,241	6.16	10,340	8.00
Size of mill:														
100-249 workers	15,648	5.76	3,797	5.28	1,968	\$5.29	1,764	5.44	-	-	4,653	5.77	1,559	7.68
250-999 workers	66,949	6.56	7,192	5.52	10,593	5.66	16,447	6.88	4,777	\$7.23	15,795	6.00	10,180	7.95
1,000 or more workers	65,309	6.72	7,763	5.99	-	-	26,609	6.84	8,774	6.88	11,392	6.38	5,980	7.98

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

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

³ For the purpose of this study, data for pulp mills are limited to workers in separate pulpmaking establishments; data for paper and paperboard mills include workers in pulpmaking departments of these mills.

⁴ Standard Metropolitan Statistical areas as defined by the U.S. Office of Management and Budget through February 1974.

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

Table 2. Earnings distribution: All mills

(Percent distribution of production workers by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²		New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
	Total	Men						
Number of workers	147,906	134,881	18,752	15,869	44,820	14,763	31,840	17,719
Average hourly earnings ¹	\$6.54	\$6.55	\$5.67	\$5.71	\$6.80	\$6.93	\$6.11	\$7.93
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.00	0.6	0.6	1.6	0.1	0.5	1.0	0.3	-
\$4.00 and under \$4.10 .....	.2	.2	.5	-	.2	(³)	.1	-
\$4.10 and under \$4.20 .....	.4	.4	1.4	.5	.3	.3	.3	-
\$4.20 and under \$4.30 .....	.3	.4	1.1	.1	.2	.3	.3	-
\$4.30 and under \$4.40 .....	.4	.4	1.0	.8	.4	.3	.2	-
\$4.40 and under \$4.50 .....	.6	.6	1.6	1.8	1.1	.3	.5	-
\$4.50 and under \$4.60 .....	.9	.9	3.5	2.8	.2	.2	.3	-
\$4.60 and under \$4.70	1.0	1.1	3.2	3.0	.3	.4	.6	-
\$4.70 and under \$4.80	1.0	1.0	2.8	3.0	.3	.1	.7	-
\$4.80 and under \$4.90	1.0	1.1	2.6	4.3	.2	.3	.6	-
\$4.90 and under \$5.00	1.6	1.6	3.8	6.2	.4	.4	1.0	-
\$5.00 and under \$5.20	4.8	5.0	12.0	10.1	2.8	2.3	4.6	-
\$5.20 and under \$5.40	4.8	5.0	8.9	8.1	3.9	2.4	5.3	0.5
\$5.40 and under \$5.60	7.2	6.8	8.4	14.1	6.7	5.2	9.0	.3
\$5.60 and under \$5.80	7.9	7.5	9.4	9.5	7.7	7.6	11.0	.9
\$5.80 and under \$6.00	7.6	7.6	6.3	8.4	6.8	8.2	13.5	.4
\$6.00 and under \$6.20	7.4	7.5	7.5	4.6	7.5	7.2	13.2	.6
\$6.20 and under \$6.40	5.8	6.0	5.4	5.9	6.1	7.4	8.5	.5
\$6.40 and under \$6.60	5.7	5.7	4.2	2.8	6.0	4.8	6.6	8.5
\$6.60 and under \$6.80	4.7	4.6	3.7	2.1	4.6	5.4	6.0	4.9
\$6.80 and under \$7.00	3.9	3.9	1.9	1.9	3.7	3.2	3.9	9.4
\$7.00 and under \$7.20	3.7	3.6	1.0	1.3	4.0	3.9	3.6	6.8
\$7.20 and under \$7.40	3.8	3.9	1.9	1.6	4.2	3.9	2.0	9.5
\$7.40 and under \$7.60	4.0	4.2	2.8	.9	4.7	2.5	3.4	8.5
\$7.60 and under \$7.80	2.7	2.8	.3	1.1	2.9	3.3	2.0	6.6
\$7.80 and under \$8.00	2.2	2.2	.9	1.5	2.4	2.8	1.0	5.2
\$8.00 and under \$8.40	6.3	5.7	1.6	2.1	11.4	12.9	1.0	6.3
\$8.40 and under \$8.80	3.0	3.1	.2	.6	6.4	4.0	.2	3.9
\$8.80 and under \$9.20	1.8	1.8	.1	.6	2.6	3.5	(³)	4.3
\$9.20 and under \$9.60	2.2	2.4	.2	.2	1.6	2.9	.1	11.4
\$9.60 and under \$10.00	1.2	1.3	.1	.1	.2	.6	.1	6.4
\$10.00 and over	1.2	1.2	.1	.1	.5	2.6		5.3

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

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

³ Less than 0.05 percent.

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

Table 3. Earnings distribution: Pulp mills(Percent distribution of production workers by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	Southeast	Pacific	Hourly earnings	United States ²	Southeast	Pacific
Number of workers	8,016	4,840	2,192				
Average hourly earnings ¹	\$7.23	\$7.09	\$7.86				
Total	100.0	100.0	100.0				
Under \$5.00	2.3	-	-	\$7.00 and under \$7.20	6.4	6.5	7.5
\$5.00 and under \$5.20	1.1	0.3	-	\$7.20 and under \$7.40	4.2	2.7	9.4
\$5.20 and under \$5.40	1.4	.4	-	\$7.40 and under \$7.60	3.5	2.5	6.8
\$5.40 and under \$5.60	3.8	5.6	-	\$7.60 and under \$7.80	3.4	1.8	5.4
\$5.60 and under \$5.80	9.1	11.0	7.4	\$7.80 and under \$8.00	3.0	2.1	5.3
\$5.80 and under \$6.00	3.5	4.0	1.4				
\$6.00 and under \$6.20	5.8	7.8	1.1	\$8.00 and under \$8.20	2.6	2.5	3.6
\$6.20 and under \$6.40	4.3	5.4	1.6	\$8.20 and under \$8.40	8.0	10.7	5.5
\$6.40 and under \$6.60	6.9	8.0	5.3	\$8.40 and under \$8.60	3.5	4.2	3.4
\$6.60 and under \$6.80	4.4	6.1	1.7	\$8.60 and under \$8.80	6.6	10.5	.8
\$6.80 and under \$7.00	4.4	3.7	7.2	\$8.80 and under \$9.00	1.2	1.6	.9
				\$9.00 and under \$9.20	1.4	1.7	1.4
				\$9.20 and under \$9.40 .....	.4	.2	.8
				\$9.40 and under \$9.60	3.7	.6	12.2
				\$9.60 and under \$9.80 .....	.8	-	3.1
				\$9.80 and under \$10.00	1.2	.1	4.3
				\$10.00 and over	2.8	(³)	4.1

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.² Includes data for regions in addition to those shown separately.³ Less than 0.05 percent.

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

Table 4. Earnings distribution: Paper mills

(Percent distribution of production workers by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²		New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
	Total	Men						
Number of workers	98,860	92,278	17,196	12,684	20,473	8,020	27,208	10,983
Average hourly earnings ¹	\$6.47	\$6.48	\$5.72	\$5.85	\$6.83	\$7.00	\$6.16	\$7.98
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.50	1.8	1.8	6.3	2.0	0.8	1.5	0.8	-
\$4.50 and under \$4.60 .....	.8	.8	3.0	1.3	(³)	.3	.3	-
\$4.60 and under \$4.70	1.0	1.0	3.2	2.2	(³)	.4	.3	-
\$4.70 and under \$4.80 .....	.7	.7	2.4	1.5	(³)	.1	.2	-
\$4.80 and under \$4.90	1.1	1.1	2.4	3.7	(³)	.3	.6	-
\$4.90 and under \$5.00	1.6	1.5	3.7	5.4	-	.4	.6	-
\$5.00 and under \$5.20	5.0	5.1	11.4	8.7	2.1	2.4	4.1	-
\$5.20 and under \$5.40	5.1	5.2	8.4	8.1	2.8	3.0	5.4	-
\$5.40 and under \$5.60	7.7	7.3	8.2	14.3	7.6	3.6	8.9	-
\$5.60 and under \$5.80	8.6	8.4	9.9	10.8	7.5	8.6	11.3	-
\$5.80 and under \$6.00	8.3	8.4	6.7	9.2	7.5	7.1	13.8	-
\$6.00 and under \$6.20	8.2	8.3	7.9	5.4	8.3	6.0	13.7	0.1
\$6.20 and under \$6.40	6.4	6.5	5.8	7.2	7.0	7.0	8.8	-
\$6.40 and under \$6.60	6.0	6.0	4.6	3.3	6.6	5.5	6.9	8.2
\$6.60 and under \$6.80	4.8	4.7	4.0	2.6	5.0	5.3	6.3	4.8
\$6.80 and under \$7.00	4.0	3.9	2.0	2.1	4.1	3.6	3.8	10.4
\$7.00 and under \$7.20	3.7	3.6	1.1	1.6	3.6	4.7	3.7	7.1
\$7.20 and under \$7.40	3.8	3.9	2.1	1.9	5.4	3.4	2.3	10.3
\$7.40 and under \$7.60	4.2	4.3	3.1	1.1	5.4	2.3	3.3	10.0
\$7.60 and under \$7.80	2.8	2.9	.3	1.4	3.9	3.6	2.2	7.0
\$7.80 and under \$8.00	2.1	2.1	.9	1.9	2.1	3.5	1.1	5.6
\$8.00 and under \$8.40	4.9	4.7	1.7	2.6	11.2	11.7	1.1	6.0
\$8.40 and under \$8.80	1.7	1.8	.2	.3	3.4	5.0	.2	4.2
\$8.80 and under \$9.20	1.3	1.4	.1	.7	2.4	4.1	(³)	3.2
\$9.20 and under \$9.60	2.2	2.3	.2	.3	1.9	3.8	.1	12.4
\$9.60 and under \$10.00 .....	.9	1.0	.1	.1	.3	.7	.1	5.6
\$10.00 and over	1.1	1.2	.2	.1	1.0	2.1	-	5.2

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

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

³ Less than 0.05 percent.

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

Table 5. Earnings distribution: Paperboard mills

(Percent distribution of production workers by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²		Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
	Total	Men					
Number of workers	41,030	36,868	3,185	19,507	6,384	4,494	4,544
Average hourly earnings ¹	\$6.59	\$6.58	\$5.16	\$6.69	\$6.78	\$5.81	\$7.87
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.00	1.1	1.2	-	0.6	2.2	0.9	-
\$4.00 and under \$4.10 .....	.3	.3	-	.4	(³)	.2	-
\$4.10 and under \$4.20 .....	.7	.7	-	.7	.3	1.6	-
\$4.20 and under \$4.30 .....	.7	.7	0.5	.5	.2	2.0	-
\$4.30 and under \$4.40 .....	.9	1.0	2.5	.8	.3	1.2	-
\$4.40 and under \$4.50 .....	.7	.8	5.1	.2	.2	1.3	-
\$4.50 and under \$4.60	1.1	1.3	8.5	.4	(³)	.1	-
\$4.60 and under \$4.70	1.2	1.4	6.2	.6	.4	2.6	-
\$4.70 and under \$4.80	1.7	1.9	8.9	.7	.2	3.3	-
\$4.80 and under \$4.90	1.1	1.2	6.7	.5	.2	1.2	-
\$4.90 and under \$5.00	1.7	1.9	9.4	1.0	.4	3.2	-
\$5.00 and under \$5.20	5.0	5.2	15.5	4.1	2.4	7.8	-
\$5.20 and under \$5.40	4.8	4.8	7.9	6.0	1.3	4.7	1.8
\$5.40 and under \$5.60	6.7	6.4	13.3	6.0	7.5	10.1	1.0
\$5.60 and under \$5.80	5.9	5.7	4.3	7.0	6.7	9.2	.1
\$5.80 and under \$6.00	6.6	6.5	5.0	6.8	9.9	11.1	.9
\$6.00 and under \$6.20	6.0	5.9	1.4	6.5	8.7	9.6	1.6
\$6.20 and under \$6.40	4.8	4.8	.7	5.3	7.9	6.7	1.3
\$6.40 and under \$6.60	4.7	4.3	.7	4.9	3.8	4.8	10.7
\$6.60 and under \$6.80	4.3	4.2	.1	3.9	5.4	4.4	6.5
\$6.80 and under \$7.00	3.7	3.6	1.0	3.2	2.7	5.0	8.0
\$7.00 and under \$7.20	3.4	3.3	.1	3.9	2.9	3.2	5.6
\$7.20 and under \$7.40	3.7	3.7	.3	3.4	4.8	.4	7.6
\$7.40 and under \$7.60	3.8	3.9	-	4.5	2.9	3.7	5.8
\$7.60 and under \$7.80	2.4	2.4	-	2.2	3.0	.4	6.2
\$7.80 and under \$8.00	2.5	2.1	-	2.8	1.6	.4	4.3
\$8.00 and under \$8.40	8.5	8.1	-	11.2	15.1	.8	5.5
\$8.40 and under \$8.80	4.6	4.9	1.7	7.4	2.9	-	3.1
\$8.80 and under \$9.20	2.7	2.8	-	2.8	2.9	.1	7.9
\$9.20 and under \$9.60	1.9	2.1	-	1.5	1.6	-	8.1
\$9.60 and under \$10.00	1.8	1.9	-	.2	.5	-	7.8
\$10.00 and over .....	.9	1.0	-	(³)	1.3	-	6.0

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

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

³ Less than 0.05 percent.

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

Table 6. Earnings distribution: Paper and paperboard mills—Converted paper products departments¹

(Percent distribution of production workers by average straight-time hourly earnings,² United States and selected regions, summer 1977)

Hourly earnings	United States ³		New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
	Total	Men						
Number of workers	22,851	16,674	2,628	2,434	5,501	882	7,678	3,659
Average hourly earnings ²	\$5.93	\$5.94	\$5.03	\$5.67	\$5.97	\$5.41	\$5.81	\$7.06
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.00	0.8	1.0	2.1	0.1	1.9	-	0.1	0.4
\$4.00 and under \$4.10	2.3	.9	13.1	-	.1	17.5	-	.5
\$4.10 and under \$4.20 .....	.4	.6	.6	-	.3	4.5	.3	-
\$4.20 and under \$4.30 .....	.2	.2	1.3	-	-	.9	.1	.1
\$4.30 and under \$4.40 .....	.6	.8	.5	1.4	(⁴)	11.1	-	-
\$4.40 and under \$4.50	1.2	1.4	6.5	3.5	.1	-	(⁴)	.2
\$4.50 and under \$4.60	1.8	1.0	4.9	10.6	.1	.5	.2	.1
\$4.60 and under \$4.70	1.0	1.2	1.0	6.1	-	-	.6	-
\$4.70 and under \$4.80	1.2	1.3	6.4	.9	(⁴)	-	1.2	-
\$4.80 and under \$4.90	1.4	1.0	3.7	.2	(⁴)	.7	2.8	-
\$4.90 and under \$5.00	1.8	2.4	10.3	.8	(⁴)	.5	1.5	-
\$5.00 and under \$5.20	6.4	6.9	15.7	3.9	3.8	3.4	9.2	.4
\$5.20 and under \$5.40	7.5	6.3	9.1	13.8	11.1	.9	6.9	.1
\$5.40 and under \$5.60	7.1	7.8	8.9	7.2	7.8	3.3	9.4	.8
\$5.60 and under \$5.80	11.4	12.6	3.6	9.8	20.3	20.9	11.2	3.0
\$5.80 and under \$6.00	12.9	12.0	4.1	6.2	14.2	4.3	24.2	.7
\$6.00 and under \$6.20	8.9	10.1	2.5	4.8	12.7	9.9	13.4	.8
\$6.20 and under \$6.40	6.6	6.7	2.9	13.3	9.7	4.2	6.8	.4
\$6.40 and under \$6.60	5.1	4.8	.4	3.4	2.2	2.7	4.9	15.0
\$6.60 and under \$6.80	5.1	4.7	.4	1.5	1.7	4.6	2.6	19.8
\$6.80 and under \$7.00	5.1	5.0	(⁴)	5.0	4.2	4.6	1.2	18.7
\$7.00 and under \$7.20	2.7	2.9	1.0	.6	2.5	4.8	1.5	7.7
\$7.20 and under \$7.40	2.4	2.5	.1	2.8	3.1	.8	.6	7.2
\$7.40 and under \$7.60	1.7	1.8	-	1.5	1.7	-	.8	5.5
\$7.60 and under \$7.80 .....	.9	.6	-	2.3	.1	-	.3	3.3
\$7.80 and under \$8.00 .....	.5	.5	.2	.2	.1	-	(⁴)	2.2
\$8.00 and under \$8.20 .....	.7	.8	-	-	(⁴)	-	-	4.4
\$8.20 and under \$8.40 .....	.8	1.0	.6	-	1.7	-	.1	1.8
\$8.40 and under \$8.60 .....	.3	.3	-	-	.2	-	-	1.7
\$8.60 and under \$8.80 .....	.3	.2	-	-	.4	-	-	1.1
\$8.80 and under \$9.00 .....	.1	.1	-	-	(⁴)	-	-	.4
\$9.00 and over .....	.6	.4	.2	-	-	-	-	3.5

¹ Earnings data for workers in these departments are excluded from tables 1 through 5.

² Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

³ Includes data for regions in addition to those shown separately.

⁴ Less than 0.05 percent.

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

Table 7. Occupational averages: All mills

 (Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PULP														
Woodyard and wood preparation:														
Crane operators	988	\$7.46	65	\$6.45	34	\$6.04	574	\$7.79	124	\$7.88	142	\$6.51	25	\$7.81
Barkers, drum	250	6.07	25	5.00	15	5.58	122	6.09	34	6.55	28	5.76	10	7.59
Barkers, hydraulic	36	6.79	-	-	-	-	-	-	-	-	-	-	21	7.59
Sawyers	228	6.40	17	5.67	-	-	105	6.16	37	6.48	25	5.77	37	7.69
Chipper operators	327	6.22	38	5.39	8	5.63	159	6.27	29	6.65	64	5.95	21	7.40
Knife grinders	125	6.74	9	5.76	9	6.01	55	6.72	18	6.63	15	6.44	18	8.10
Pulpmaking:														
Cooks, batch digester	516	7.89	22	6.35	19	5.98	215	8.17	69	7.93	87	6.83	84	9.05
Sulphate process	363	8.14	12	6.24	11	5.92	188	8.23	61	8.22	19	7.43	52	8.91
Sulphite process	108	7.80	-	-	-	-	-	-	-	-	58	6.88	32	9.27
Soda process	26	6.12	-	-	-	-	12	7.00	-	-	-	-	-	-
Cooks, continuous digester	357	8.07	30	5.94	30	6.78	84	8.31	44	9.05	31	6.57	114	8.89
Sulphate process	232	8.37	22	5.86	14	7.30	76	8.44	28	9.31	-	-	72	8.92
Sulphite process	49	7.39	-	-	-	-	-	-	-	-	-	-	18	9.11
Soda process	16	8.65	-	-	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	551	6.67	21	5.62	20	6.13	272	6.68	67	6.63	83	6.23	76	7.50
Sulphate process	381	6.84	10	5.66	12	6.53	227	6.79	59	6.91	21	6.57	40	7.46
Sulphite process	113	6.65	-	-	-	-	-	-	-	-	58	6.16	36	7.54
Soda process	38	5.58	-	-	-	-	30	5.84	-	-	-	-	-	-
Cook helpers, first, continuous digester	246	7.20	16	5.68	11	5.42	68	7.27	49	7.60	23	5.86	71	7.70
Sulphate process	187	7.35	12	5.46	-	-	60	7.38	41	7.45	-	-	55	7.82
Sulphite process	32	6.75	-	-	-	-	-	-	-	-	-	-	16	7.30
Soda process	12	7.50	-	-	-	-	-	-	-	-	-	-	-	-
Grinder operators	475	6.21	-	-	41	5.32	72	6.62	-	-	174	5.66	-	-
Blow-pit operators (sulphite)	76	6.57	-	-	-	-	-	-	-	-	27	5.92	31	7.37
Washer operators (sulphate)	343	7.29	21	5.57	12	5.51	152	7.54	36	7.28	31	6.39	75	7.82
Screen tenders	364	6.80	34	5.70	27	5.23	122	7.02	21	6.85	61	5.99	87	7.91
Sulphate process	175	7.03	10	5.01	-	-	85	7.07	16	6.57	-	-	40	7.92
Sulphite process	69	7.23	-	-	-	-	-	-	-	-	19	6.02	39	7.96
Soda process	17	6.19	-	-	-	-	17	6.19	-	-	-	-	-	-
Groundwood process	61	6.77	-	-	-	-	12	7.71	-	-	14	5.85	-	-
Bleach-plant operators	522	7.55	40	5.37	37	6.01	156	7.99	53	8.07	96	6.46	116	8.72
Sulphate process	302	7.93	26	5.31	15	5.89	120	8.30	41	8.50	19	6.90	57	8.71
Sulphite process	122	7.57	-	-	-	-	-	-	-	-	41	6.55	56	8.66
Soda process	41	6.71	-	-	-	-	-	-	-	-	-	-	-	-
Groundwood process	12	6.10	-	-	-	-	-	-	-	-	-	-	-	-
Wet-machine operators	177	6.33	27	5.15	-	-	-	-	-	-	98	5.97	32	8.02
Sulphate process	87	6.34	-	-	-	-	-	-	-	-	-	-	-	-
Sulphite process	70	6.36	-	-	-	-	-	-	-	-	46	6.20	-	-
Groundwood process	10	6.87	-	-	-	-	-	-	-	-	-	-	-	-
Pulp testers	777	6.21	56	5.29	59	5.43	272	6.14	115	6.13	135	5.95	114	7.43
Sulphate process	485	6.25	31	5.07	13	5.49	233	6.12	91	6.23	38	6.25	53	7.47
Sulphite process	104	6.46	-	-	-	-	-	-	-	-	18	6.22	33	7.33
Soda process	39	5.95	-	-	-	-	11	5.82	-	-	-	-	-	-
Semi-chemical process	32	5.78	-	-	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:														
Acid makers (sulphite)	99	7.39	-	-	-	-	-	-	-	-	42	6.16	48	8.37
Evaporator operators (sulphate)	337	7.53	13	5.28	-	-	178	7.61	60	8.02	25	6.37	36	8.33
Recovery operators (sulphate)	518	8.09	27	5.74	15	5.76	202	8.26	72	8.17	57	6.78	117	8.97
Recovery helpers, first (sulphate)	594	6.94	25	5.32	16	5.43	259	6.92	112	7.00	45	6.28	109	7.66
Caustic operators (causticisers) (sulphate)	371	7.46	15	5.12	-	-	186	7.51	72	7.63	22	6.19	56	8.14

See footnotes at end of table.

Table 7. Occupational averages: All mills—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PULP—Continued														
Lime-kiln operators (sulphate)	299	\$7.14	16	\$4.97	13	\$6.12	156	\$7.06	28	\$7.04	11	\$6.51	67	\$8.05
PAPER AND PAPERBOARD														
Stock preparation:														
Head stock preparers, group I	640	7.08	177	5.99	56	5.92	159	7.96	47	7.59	121	6.77	76	8.71
Newsprint and groundwood	31	8.03	12	6.76	-	-	16	8.62	-	-	-	-	-	-
Fine grades	345	6.79	130	5.96	28	6.07	58	7.48	-	-	89	6.93	28	8.88
Sanitary tissue	50	7.05	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	61	7.45	-	-	-	-	16	7.78	-	-	-	-	-	-
Special industrial	21	6.19	-	-	-	-	-	-	-	-	-	-	-	-
Container board	50	8.09	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	48	7.42	-	-	-	-	40	8.04	-	-	-	-	-	-
Head stock preparers, group II	1,240	6.50	191	5.61	241	5.83	155	7.45	74	7.28	409	6.32	144	7.80
Newsprint and groundwood	64	7.09	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	452	6.45	99	5.65	104	6.25	-	-	-	-	185	6.53	-	-
Sanitary tissue	112	6.70	28	5.65	16	6.26	-	-	-	-	48	6.79	-	-
Coarse (Kraft)	68	6.65	-	-	-	-	16	7.47	-	-	-	-	-	-
Container board	153	7.05	-	-	-	-	44	7.78	14	8.36	55	5.93	36	7.48
Boxboard	232	6.28	21	5.41	47	5.18	73	7.23	26	6.39	35	5.97	-	-
Beater-operator helpers	1,965	5.96	323	5.10	323	5.26	361	6.59	128	6.01	583	5.89	180	7.49
Newsprint and groundwood	78	5.95	-	-	-	-	-	-	10	7.12	-	-	-	-
Fine grades	871	5.84	197	5.06	174	5.36	89	6.64	20	5.98	319	6.01	56	7.68
Sanitary tissue	142	6.18	41	5.24	-	-	-	-	-	-	40	6.17	24	7.53
Coarse (Kraft)	182	6.40	-	-	-	-	63	6.96	18	5.70	69	5.57	32	7.54
Special industrial	36	5.68	-	-	-	-	-	-	-	-	-	-	-	-
Container board	186	6.62	-	-	-	-	88	6.62	-	-	36	5.33	-	-
Boxboard	325	5.59	-	-	85	5.05	74	6.29	60	5.44	63	5.64	-	-
Hydrapulper operators	1,462	5.75	164	5.22	199	5.28	216	5.42	78	5.12	531	5.79	221	7.17
Newsprint and groundwood	52	6.28	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	531	5.82	87	5.16	90	5.48	-	-	24	5.45	232	5.91	77	7.00
Sanitary tissue	190	6.14	26	5.23	44	5.51	12	6.02	-	-	73	6.16	31	7.80
Coarse (Kraft)	132	5.93	-	-	-	-	30	6.01	-	-	-	-	-	-
Special industrial	61	5.23	-	-	-	-	-	-	-	-	-	-	-	-
Container board	187	6.08	-	-	-	-	58	5.58	-	-	59	5.86	44	7.33
Boxboard	244	5.18	-	-	71	4.84	46	5.07	-	-	54	5.77	-	-
Machine room:														
Paper-machine tenders	3,921	7.72	650	6.52	654	6.53	740	8.57	299	8.77	1,052	7.14	442	10.36
Newsprint and groundwood	169	9.55	52	7.02	-	-	45	10.48	36	10.07	-	-	-	-
Fine grades	1,527	7.33	386	6.69	296	6.66	120	8.31	53	8.39	532	7.20	112	10.14
Sanitary tissue	592	8.18	63	6.27	132	7.38	69	8.84	-	-	212	7.70	92	10.83
Coarse (Kraft)	382	8.53	-	-	-	-	121	8.96	76	8.49	77	6.44	78	10.37
Special industrial	214	6.75	54	6.01	-	-	66	6.52	-	-	-	-	-	-
Container board	432	8.66	-	-	-	-	180	8.95	48	9.20	91	6.80	76	10.07
Boxboard	358	7.39	33	5.64	58	5.82	129	8.30	52	7.97	38	6.50	36	9.41
Backtenders	3,906	7.09	667	6.02	644	6.07	731	7.83	307	7.99	1,034	6.58	439	9.45
Newsprint and groundwood	170	8.92	54	6.79	-	-	44	9.74	36	9.35	-	-	-	-
Fine grades	1,515	6.77	389	6.16	288	6.24	126	7.65	53	7.65	519	6.63	112	9.27
Sanitary tissue	593	7.38	72	5.81	130	6.68	67	7.72	-	-	212	7.03	92	9.90
Coarse (Kraft)	389	7.85	-	-	-	-	112	8.30	88	7.82	78	6.02	79	9.48
Special industrial	214	6.20	55	5.42	-	-	65	5.98	-	-	-	-	-	-
Container board	427	7.89	-	-	-	-	179	8.12	48	8.27	91	6.30	72	9.20
Boxboard	351	6.79	33	5.18	58	5.36	128	7.64	52	7.35	32	6.06	36	8.35
Third hands	3,658	6.54	577	5.61	592	5.58	670	7.41	294	7.24	1,033	6.10	411	8.35
Newsprint and groundwood	168	7.87	52	6.12	-	-	44	8.61	36	8.22	-	-	-	-
Fine grades	1,389	6.25	331	5.75	276	5.80	91	7.39	44	6.63	511	6.16	108	8.29
Sanitary tissue	527	6.73	61	5.47	96	5.95	60	7.33	-	-	215	6.46	75	8.80
Coarse (Kraft)	378	7.26	-	-	-	-	118	7.66	84	7.18	66	5.80	80	8.33
Special industrial	155	6.17	-	-	-	-	37	6.79	-	-	-	-	-	-

See footnotes at end of table.

Table 7. Occupational averages: All mills—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued														
Container board	417	\$7.22	-	-	-	-	179	\$7.50	48	\$7.62	91	\$5.97	64	\$8.05
Boxboard	356	6.28	33	\$4.78	58	\$5.09	130	7.05	52	6.72	38	5.66	36	7.52
Fourth hands	3,223	6.13	417	5.32	464	5.37	663	6.62	275	6.52	963	5.81	383	7.51
Newsprint and groundwood	168	6.89	52	5.57	-	-	44	7.50	36	7.16	-	-	-	-
Fine grades	1,235	5.91	255	5.40	241	5.50	83	6.82	45	6.06	494	5.86	109	7.47
Sanitary tissue	394	6.31	44	4.88	51	5.84	60	6.57	-	-	151	6.02	68	7.79
Coarse (Kraft)	386	6.66	-	-	-	-	120	6.90	72	6.62	66	5.55	98	7.36
Special industrial	102	6.04	-	-	-	-	33	6.14	-	-	-	-	-	-
Container board	380	6.53	-	-	-	-	168	6.65	40	6.78	87	5.84	48	7.35
Boxboard	359	5.86	-	-	-	-	148	6.17	52	6.07	63	5.67	20	7.16
Fifth hands	2,357	5.96	267	5.40	271	5.41	633	6.21	275	5.97	533	5.65	294	7.16
Newsprint and groundwood	156	6.63	40	5.57	-	-	44	7.11	36	6.57	-	-	-	-
Fine grades	825	5.84	165	5.53	182	5.45	93	6.24	27	6.15	270	5.71	80	7.21
Sanitary tissue	199	6.01	32	4.83	-	-	-	-	-	-	-	-	38	7.19
Coarse (Kraft)	353	6.28	-	-	-	-	121	6.34	76	6.12	57	5.30	82	7.09
Special industrial	58	6.06	-	-	-	-	-	-	-	-	-	-	-	-
Container board	370	6.19	-	-	-	-	183	6.12	40	6.22	58	5.75	50	7.05
Boxboard	324	5.46	-	-	-	-	139	5.92	66	5.18	56	5.59	12	6.93
Finishing, roll:														
Calender operators	722	6.50	180	6.14	75	6.20	53	6.22	-	-	309	6.49	37	8.04
Newsprint and groundwood	11	6.54	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	617	6.61	134	6.22	64	6.26	43	6.62	-	-	283	6.57	37	8.04
Coarse (Kraft)	10	5.84	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	29	5.22	-	-	-	-	-	-	-	-	-	-	-	-
Calender helpers	690	5.83	128	5.61	85	5.50	59	5.60	-	-	319	5.73	39	7.39
Newsprint and groundwood	11	6.27	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	569	5.93	83	5.76	74	5.49	44	6.11	-	-	273	5.76	39	7.39
Special industrial	31	4.72	-	-	-	-	-	-	-	-	-	-	-	-
Coater operators (off-machine)	381	6.62	84	6.43	35	5.64	38	6.89	-	-	199	6.62	10	9.15
Fine grades	289	6.77	59	6.70	25	5.69	11	8.36	-	-	174	6.71	-	-
Boxboard	47	6.26	-	-	-	-	-	-	-	-	20	5.97	-	-
Coater operator helpers	324	6.05	81	5.71	34	5.17	27	6.39	-	-	149	6.21	9	8.01
Fine grades	235	6.20	43	5.86	16	5.24	-	-	-	-	136	6.24	-	-
Boxboard	32	5.75	-	-	-	-	-	-	-	-	-	-	-	-
Rewinder operators	2,092	6.04	327	5.57	331	5.65	300	6.25	69	6.60	863	6.01	157	7.25
Newsprint and groundwood	49	6.27	-	-	-	-	15	7.26	-	-	-	-	-	-
Fine grades	1,047	6.06	201	5.65	177	5.54	119	6.32	31	7.11	432	6.15	58	7.30
Sanitary tissue	394	6.07	-	-	82	5.91	-	-	-	-	-	-	-	-
Coarse (Kraft)	248	5.96	-	-	-	-	16	6.29	10	6.32	186	5.68	-	-
Special industrial	102	5.67	-	-	-	-	-	-	-	-	-	-	-	-
Container board	39	6.59	-	-	-	-	10	6.44	12	6.12	-	-	-	-
Boxboard	65	5.99	-	-	-	-	33	6.17	-	-	7	6.15	-	-
Rewinder helpers	1,242	5.66	210	5.28	264	5.23	130	5.77	64	5.93	408	5.73	118	6.83
Newsprint and groundwood	33	6.24	-	-	-	-	11	6.45	-	-	-	-	-	-
Fine grades	711	5.67	136	5.37	148	5.25	41	5.74	44	6.07	264	5.86	38	6.92
Sanitary tissue	110	5.32	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	141	5.78	-	-	-	-	12	5.83	-	-	93	5.46	-	-
Container board	52	6.01	-	-	-	-	-	-	10	5.77	-	-	-	-
Boxboard	42	5.60	-	-	-	-	21	5.66	-	-	6	5.99	-	-
Finishing, sheet:														
Cutters, guillotine type (cut and trim)	921	5.96	82	5.32	186	5.83	133	5.59	31	6.70	395	5.98	72	7.29
Fine grades	658	6.12	70	5.35	127	6.27	41	6.29	-	-	343	6.02	35	7.47
Sanitary tissue	14	6.40	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	40	6.12	-	-	-	-	16	6.33	-	-	-	-	-	-
Boxboard	112	5.43	-	-	59	4.86	32	5.96	-	-	7	5.55	-	-
Cutters, rotary or sheet	1,445	5.98	308	5.11	204	5.57	224	6.58	26	6.16	526	6.02	121	7.53

Table 7. Occupational averages: All mills—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued														
Fine grades	1,060	\$5.99	217	\$5.22	186	\$5.56	79	\$6.54	-	-	436	\$6.11	89	\$7.52
Coarse (Kraft)	45	6.23	-	-	-	-	15	6.64	-	-	-	-	-	-
Special industrial	35	5.98	-	-	-	-	-	-	-	-	-	-	-	-
Container board	36	6.47	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	192	5.60	-	-	-	-	45	6.47	-	-	-	-	-	-
Laboratory:														
Paper testers	2,365	6.12	321	5.38	302	5.57	599	6.31	236	\$6.23	582	5.94	244	7.59
Newsprint and groundwood	91	6.50	24	5.63	-	-	29	6.88	10	6.32	-	-	-	-
Fine grades	976	5.99	205	5.43	173	5.59	111	6.43	39	6.13	357	6.04	64	7.61
Sanitary tissue	206	6.24	21	4.92	41	5.74	51	6.56	-	-	58	6.13	31	7.37
Coarse (Kraft)	201	6.46	-	-	-	-	77	6.42	55	6.59	-	-	28	7.68
Special industrial	117	5.13	22	5.16	-	-	-	-	-	-	26	5.30	-	-
Container board	344	6.54	-	-	-	-	154	6.32	57	6.30	-	-	61	7.53
Boxboard	288	6.17	-	-	-	-	120	6.62	60	5.89	38	5.36	-	-
MISCELLANEOUS														
Electricians, maintenance	3,677	7.81	417	6.57	336	6.59	1,228	8.06	340	8.30	724	6.98	496	9.65
Boiler tenders	1,521	6.65	275	5.90	206	5.73	337	7.17	81	6.94	438	6.43	146	8.49
Janitors	1,826	5.48	236	4.83	262	5.08	431	5.45	67	5.24	566	5.50	223	6.63
Machinists, maintenance	1,576	7.55	243	6.43	159	6.75	478	7.83	117	8.16	315	6.97	193	9.50
Mechanics, general	3,523	8.48	310	6.13	195	5.79	1,429	8.70	978	9.18	108	6.75	314	9.77
Milwrights, pulp and paper	6,858	7.62	818	6.39	595	6.54	2,190	7.93	497	7.99	1,593	6.92	864	9.59
Oilers	1,641	6.64	171	5.75	151	5.63	526	6.86	196	6.87	352	6.05	194	8.16
Pipefitters, maintenance	3,299	7.74	366	6.50	259	6.61	1,152	7.97	326	8.12	650	6.96	402	9.61
Truckers, power	6,601	5.93	661	5.05	897	5.42	1,415	6.03	417	5.88	2,146	5.76	894	7.37
Forklift	4,705	5.91	478	4.93	625	5.29	1,177	6.01	298	5.99	1,365	5.70	678	7.35
Other than forklift	1,896	5.98	183	5.34	272	5.70	238	6.12	119	5.62	781	5.85	216	7.41

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 that no data were reported or that data did not meet publication criteria.

Table 8. Occupational averages: Pulp mills

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		Southeast		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PULP						
Woodyard and wood preparation:						
Crane operators	123	\$8.13	111	\$8.17	-	-
Barkers, drum	10	6.76	-	-	-	-
Chipper operators	32	6.89	-	-	-	-
Knife grinders	19	7.15	12	6.92	-	-
Pulpmaking:						
Cooks, batch digester	40	8.71	32	8.76	-	-
Sulphate process	28	8.77	20	8.89	-	-
Cooks, continuous digester	37	8.20	-	-	22	\$9.08
Sulphate process	16	7.59	-	-	-	-
Sulphite process	17	8.65	-	-	14	9.09
Cook helpers, first, batch digester	23	7.42	19	7.25	-	-
Sulphate process	15	7.62	-	-	-	-
Cook helpers, first, continuous digester	36	6.72	-	-	20	7.34
Sulphite process	28	6.69	-	-	16	7.30
Screen tenders	23	7.69	-	-	-	-
Sulphite process	23	7.69	-	-	-	-
Bleach-plant operators	84	8.29	26	8.83	39	8.67
Sulphate process	40	8.28	-	-	-	-
Sulphite process	41	8.16	-	-	28	8.22
Pulp testers	97	6.66	44	6.43	33	7.35
Sulphate process	47	6.42	24	6.40	-	-
Sulphite process	42	6.73	-	-	18	7.18
Recovery, caustic, and acid making:						
Acid makers (sulphite)	24	7.94	-	-	-	-
Evaporator operators (sulphate)	19	7.68	-	-	-	-
Recovery operators (sulphate)	44	8.78	20	9.12	12	8.96
Recovery helpers, first (sulphate)	48	7.33	20	7.77	-	-
Caustic operators (causticisers) (sulphate)	28	8.14	-	-	-	-
Lime-kiln operators (sulphate)	17	7.43	-	-	-	-
MISCELLANEOUS						
Electricians, maintenance	237	8.68	144	8.44	78	9.71
Boiler tenders	57	7.26	24	7.83	17	8.20
Janitors	90	6.06	48	5.78	-	-
Machinists, maintenance	60	8.45	42	8.36	13	9.63
Mechanics, general	227	9.38	-	-	-	-
Milwrights, pulp and paper	408	8.56	239	8.45	129	9.67
Oilers	70	7.73	45	7.54	25	8.09
Pipefitters, maintenance	243	8.46	149	8.44	69	9.63
Truckers, power	209	6.43	124	6.42	52	7.33
Forklift	162	6.42	86	6.43	44	7.36
Other than forklift	47	6.50	38	6.38	-	-

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 that no data were reported or that data did not meet publication criteria.

Table 9. Occupational averages: Paper mills

 (Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PULP														
Woodyard and wood preparation:														
Crane operators	512	\$7.22	65	\$6.45	34	\$6.04	205	\$7.80	74	\$7.73	96	\$6.39	-	-
Barkers, drum	175	6.02	25	5.00	15	5.58	62	6.30	28	6.45	28	5.76	-	-
Barkers, hydraulic	14	6.46	-	-	-	-	-	-	-	-	-	-	7	\$7.93
Sawyers	109	6.35	17	5.67	-	-	30	6.30	-	-	25	5.77	15	7.92
Chipper operators	187	6.19	38	5.39	8	5.63	71	6.29	17	6.99	34	5.87	11	7.59
Knife grinders	73	6.62	8	5.84	9	6.01	22	6.77	10	6.70	13	6.34	-	-
Pulpmaking:														
Cooks, batch digester	285	7.60	22	6.35	19	5.98	80	7.92	33	7.64	67	6.87	56	8.98
Sulphate process	179	7.91	12	6.24	11	5.92	72	8.10	25	8.25	19	7.43	32	8.78
Sulphite process	68	7.82	-	-	-	-	-	-	-	-	38	6.99	24	9.23
Soda process	22	5.70	-	-	-	-	-	-	-	-	-	-	-	-
Cooks, continuous digester	184	7.98	22	6.18	30	6.78	40	8.10	32	9.00	12	6.62	44	9.02
Sulphate process	140	8.28	14	6.19	14	7.30	36	8.32	24	9.12	-	-	40	9.00
Sulphite process	16	6.90	-	-	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	321	6.57	21	5.62	20	6.13	122	6.56	23	6.12	63	6.26	64	7.44
Sulphate process	198	6.82	10	5.66	12	6.53	100	6.80	15	6.92	21	6.57	32	7.39
Sulphite process	77	6.71	-	-	-	-	-	-	-	-	38	6.17	32	7.50
Soda process	30	5.22	-	-	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, continuous digester	119	7.04	16	5.68	11	5.42	32	6.88	21	7.62	-	-	-	-
Sulphate process	104	7.12	12	5.46	-	-	28	7.03	17	7.59	-	-	-	-
Grinder operators	453	6.25	-	-	23	5.79	72	6.62	-	-	174	5.66	-	-
Blow-pit operators (sulphite)	52	6.30	-	-	-	-	-	-	-	-	27	5.92	15	7.49
Washer operators (sulphate)	197	7.11	17	5.74	12	5.51	48	7.45	28	7.36	31	6.39	53	7.84
Screen tenders	249	6.69	34	5.70	15	5.55	69	6.97	-	-	61	5.99	53	7.97
Sulphate process	107	6.97	10	5.01	-	-	44	7.12	-	-	-	-	29	7.97
Sulphite process	38	6.85	-	-	-	-	-	-	-	-	19	6.02	16	8.13
Groundwood process	61	6.77	-	-	-	-	12	7.71	-	-	14	5.85	-	-
Bleach-plant operators	358	7.16	32	5.44	37	6.01	94	7.60	29	7.70	93	6.46	61	8.76
Sulphate process	186	7.63	18	5.40	15	5.89	68	8.07	17	8.49	19	6.90	37	8.52
Sulphite process	77	7.19	-	-	-	-	-	-	-	-	38	6.57	24	9.14
Soda process	38	6.44	-	-	-	-	-	-	-	-	-	-	-	-
Groundwood process	12	6.10	-	-	-	-	-	-	-	-	-	-	-	-
Wet-machine operators	166	6.19	27	5.15	-	-	-	-	-	-	95	5.95	28	7.76
Sulphate process	83	6.24	-	-	-	-	-	-	-	-	-	-	-	-
Sulphite process	63	6.14	-	-	-	-	-	-	-	-	43	6.18	-	-
Groundwood process	10	6.87	-	-	-	-	-	-	-	-	-	-	-	-
Pulp testers	500	6.06	52	5.33	59	5.43	138	6.13	63	6.17	123	5.92	53	7.38
Sulphate process	270	6.15	27	5.12	13	5.49	123	6.14	39	6.44	38	6.25	18	7.21
Sulphite process	62	6.27	-	-	-	-	-	-	-	-	14	6.25	15	7.52
Soda process	31	5.69	-	-	-	-	-	-	-	-	-	-	-	-
Semi-chemical process	24	5.63	-	-	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:														
Acid makers (sulphite)	55	6.91	-	-	-	-	-	-	-	-	38	6.16	16	8.78
Evaporator operators (sulphate)	187	7.43	13	5.28	-	-	66	7.61	36	8.25	22	6.36	29	8.33
Recovery operators (sulphate)	294	7.99	23	5.77	15	5.76	94	8.13	36	8.43	37	6.79	77	9.09
Recovery helpers, first (sulphate)	295	6.88	21	5.29	16	5.43	101	6.94	48	6.79	25	6.32	68	7.80
Caustic operators (causticisers) (sulphate)	177	7.38	15	5.12	-	-	60	7.67	40	7.92	22	6.19	28	8.28
Lime-kiln operators (sulphate)	150	7.02	12	4.89	13	6.12	59	6.97	12	6.99	11	6.51	43	8.10

See footnotes at end of table.

Table 9. Occupational averages: Paper mills—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD														
Stock preparation:														
Head stock preparers, group I	538	\$6.96	173	\$6.01	48	\$5.84	111	\$7.88	35	\$7.32	111	\$6.70	56	\$9.17
Newsprint and groundwood	30	8.01	12	6.76	-	-	16	8.62	-	-	-	-	-	-
Fine grades	340	6.76	130	5.96	28	6.07	54	7.36	-	-	89	6.93	28	8.88
Sanitary tissue	46	7.21	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	61	7.45	-	-	-	-	16	7.78	-	-	-	-	-	-
Special industrial	19	5.94	-	-	-	-	-	-	-	-	-	-	-	-
Head stock preparers, group II	774	6.60	162	5.62	128	6.30	42	7.49	40	7.67	302	6.51	84	8.07
Newsprint and groundwood	64	7.09	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	452	6.45	99	5.65	104	6.25	-	-	-	-	185	6.53	-	-
Sanitary tissue	108	6.60	28	5.65	16	6.26	-	-	-	-	48	6.79	-	-
Coarse (Kraft)	68	6.65	-	-	-	-	16	7.47	-	-	-	-	-	-
Boxboard	12	7.89	-	-	-	-	-	-	-	-	-	-	-	-
Beater-operator helpers	1,405	6.00	304	5.08	190	5.44	211	6.68	40	6.05	484	5.96	156	7.59
Newsprint and groundwood	76	5.92	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	863	5.83	197	5.06	174	5.36	85	6.58	-	-	319	6.01	56	7.68
Sanitary tissue	141	6.19	40	5.26	-	-	-	-	-	-	40	6.17	24	7.53
Coarse (Kraft)	178	6.41	-	-	-	-	63	6.95	14	5.61	69	5.57	32	7.54
Container board	14	7.20	-	-	-	-	-	-	-	-	-	-	-	-
Hydrapulper operators	947	5.90	152	5.25	128	5.52	67	5.79	48	5.21	381	5.92	141	7.19
Newsprint and groundwood	48	6.32	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	531	5.82	87	5.16	80	5.48	-	-	24	5.45	232	5.91	77	7.00
Sanitary tissue	182	6.09	26	5.23	44	5.51	12	6.02	-	-	73	6.16	23	8.00
Coarse (Kraft)	132	5.93	-	-	-	-	30	6.01	-	-	-	-	-	-
Container board	13	5.54	-	-	-	-	-	-	-	-	-	-	-	-
Machine room:														
Paper-machine tenders	2,931	7.75	605	6.58	476	6.85	384	8.85	197	8.93	906	7.24	319	10.54
Newsprint and groundwood	161	9.56	52	7.02	-	-	45	10.48	28	10.27	-	-	-	-
Fine grades	1,516	7.31	386	6.69	296	6.66	113	8.22	49	8.26	532	7.20	112	10.14
Sanitary tissue	581	8.18	59	6.28	132	7.38	69	8.84	-	-	212	7.70	85	10.98
Coarse (Kraft)	370	8.51	-	-	-	-	117	8.95	72	8.52	77	6.44	74	10.37
Special industrial	154	6.96	54	6.01	-	-	-	-	-	-	-	-	-	-
Container board	36	8.33	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	20	9.17	-	-	-	-	12	9.03	-	-	-	-	-	-
Backtenders	2,924	7.12	622	6.08	466	6.36	377	8.08	201	8.12	894	6.66	320	9.63
Newsprint and groundwood	162	8.93	54	6.79	-	-	44	9.74	28	9.52	-	-	-	-
Fine grades	1,503	6.75	389	6.16	288	6.24	118	7.57	49	7.52	519	6.63	112	9.27
Sanitary tissue	583	7.38	68	5.82	130	6.68	67	7.72	-	-	212	7.03	86	10.01
Coarse (Kraft)	372	7.84	-	-	-	-	108	8.29	80	7.86	78	6.02	74	9.50
Special industrial	155	6.38	55	5.42	-	-	-	-	-	-	-	-	-	-
Container board	36	7.57	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	20	8.40	-	-	-	-	12	8.34	-	-	-	-	-	-
Third hands	2,694	6.57	532	5.67	414	5.85	342	7.58	188	7.35	867	6.20	307	8.49
Newsprint and groundwood	160	7.89	52	6.12	-	-	44	8.61	28	8.40	-	-	-	-
Fine grades	1,377	6.23	331	5.75	276	5.80	83	7.33	40	6.46	511	6.16	108	8.29
Sanitary tissue	523	6.75	57	5.49	96	5.95	60	7.33	-	-	215	6.46	75	8.80
Coarse (Kraft)	362	7.25	-	-	-	-	114	7.64	76	7.24	66	5.80	76	8.33
Special industrial	124	6.09	-	-	-	-	-	-	-	-	-	-	-	-
Container board	34	7.16	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	20	7.71	-	-	-	-	12	7.68	-	-	-	-	-	-
Fourth hands	2,316	6.16	393	5.33	304	5.59	330	6.86	181	6.64	796	5.86	288	7.57
Newsprint and groundwood	160	6.90	52	5.57	-	-	44	7.50	28	7.33	-	-	-	-
Fine grades	1,219	5.90	255	5.40	241	5.50	71	6.78	41	5.93	494	5.86	109	7.47
Sanitary tissue	390	6.32	40	4.86	51	5.84	60	6.57	-	-	151	6.02	68	7.79
Coarse (Kraft)	351	6.60	-	-	-	-	116	6.90	68	6.65	66	5.55	71	7.37
Special industrial	75	6.10	-	-	-	-	-	-	-	-	-	-	-	-
Container board	36	6.40	-	-	-	-	-	-	-	-	-	-	-	-

Table 9. Occupational averages: Paper mills—Continued

 (Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued														
Boxboard	20	\$6.97	-	-	-	-	12	\$6.85	-	-	-	-	-	-
Fifth hands	1,598	6.03	260	\$5.42	231	\$5.50	313	6.38	163	\$6.26	399	\$5.71	208	\$7.21
Newsprint and groundwood	148	6.65	40	5.57	-	-	44	7.11	28	6.68	-	-	-	-
Fine grades	812	5.83	165	5.53	182	5.45	84	6.22	-	-	270	5.71	80	7.21
Sanitary tissue	195	6.03	28	4.86	-	-	-	-	-	-	-	-	38	7.19
Coarse (Kraft)	317	6.25	-	-	-	-	117	6.33	68	6.17	57	5.30	58	7.14
Special industrial	47	6.02	-	-	-	-	-	-	-	-	-	-	-	-
Container board	35	5.95	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	20	6.46	-	-	-	-	12	6.27	-	-	-	-	-	-
Finishing, roll:														
Calender operators	704	6.52	180	6.14	75	6.20	43	6.62	-	-	309	6.49	37	8.04
Newsprint and groundwood	11	6.54	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	617	6.61	134	6.22	64	6.26	43	6.62	-	-	283	6.57	37	8.04
Coarse (Kraft)	10	5.84	-	-	-	-	-	-	-	-	-	-	-	-
Calender helpers	675	5.87	128	5.61	85	5.50	44	6.11	-	-	319	5.73	39	7.39
Newsprint and groundwood	11	6.27	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	569	5.93	83	5.76	74	5.49	44	6.11	-	-	273	5.76	39	7.39
Coater operators (off-machine)	339	6.66	84	6.43	25	5.69	31	7.03	-	-	179	6.69	-	-
Fine grades	289	6.77	59	6.70	25	5.69	11	8.36	-	-	174	6.71	-	-
Coater operator helpers	292	6.06	81	5.71	16	5.24	23	6.26	-	-	143	6.22	-	-
Fine grades	235	6.20	43	5.86	16	5.24	-	-	-	-	136	6.24	-	-
Rewinder operators	1,971	6.04	321	5.58	323	5.67	264	6.25	39	7.02	842	6.03	152	7.25
Newsprint and groundwood	49	6.27	-	-	-	-	15	7.26	-	-	-	-	-	-
Fine grades	1,045	6.06	201	5.65	177	5.54	119	6.32	29	7.18	432	6.15	58	7.30
Sanitary tissue	394	6.07	-	-	82	5.91	-	-	-	-	-	-	-	-
Coarse (Kraft)	244	5.97	-	-	-	-	16	6.29	-	-	186	5.68	-	-
Rewinder helpers	1,147	5.65	210	5.28	256	5.24	83	5.75	44	6.07	398	5.73	116	6.83
Newsprint and groundwood	33	6.24	-	-	-	-	11	6.45	-	-	-	-	-	-
Fine grades	711	5.67	136	5.37	148	5.25	41	5.74	44	6.07	264	5.86	38	6.92
Sanitary tissue	110	5.32	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	137	5.80	-	-	-	-	12	5.83	-	-	93	5.46	-	-
Finishing, sheet:														
Cutters, guillotine type (cut and trim)	738	6.12	82	5.32	127	6.27	62	6.04	-	-	363	6.00	64	7.35
Fine grades	636	6.10	70	5.35	127	6.27	25	6.18	-	-	343	6.02	35	7.47
Sanitary tissue	14	6.40	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	40	6.12	-	-	-	-	16	6.33	-	-	-	-	-	-
Cutters, rotary or sheet	1,214	6.02	236	5.20	186	5.56	161	6.59	-	-	476	6.08	102	7.51
Fine grades	1,044	5.98	217	5.22	186	5.56	63	6.49	-	-	436	6.11	89	7.52
Coarse (Kraft)	40	6.17	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	35	5.98	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory:														
Paper testers	1,663	6.10	311	5.38	236	5.63	312	6.36	109	6.50	492	5.98	168	7.63
Newsprint and groundwood	87	6.51	24	5.63	-	-	29	6.68	-	-	-	-	-	-
Fine grades	969	5.98	205	5.43	173	5.59	107	6.41	36	6.13	357	6.04	64	7.61
Sanitary tissue	206	6.24	21	4.92	41	5.74	51	6.56	-	-	58	6.13	31	7.37
Coarse (Kraft)	189	6.48	-	-	-	-	73	6.43	47	6.69	-	-	28	7.68
Special industrial	80	5.32	22	5.16	-	-	-	-	-	-	26	5.30	-	-
Container board	20	7.35	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	26	6.36	-	-	-	-	22	6.27	-	-	-	-	-	-
MISCELLANEOUS														
Electricians, maintenance	2,359	7.63	378	6.69	287	6.77	535	7.93	195	8.59	623	7.04	270	9.65
Boiler tenders	965	6.69	228	6.04	120	5.91	151	7.20	51	6.99	310	6.53	93	8.60
Janitors	1,326	5.51	212	4.87	216	5.16	225	5.48	32	5.47	469	5.59	159	6.67
Machinists, maintenance	1,145	7.43	232	6.48	154	6.78	278	7.70	63	8.26	269	7.05	126	9.54
Mechanics, general	2,003	8.30	290	6.17	138	5.95	613	8.81	558	8.96	94	6.77	284	9.80
Millwrights, pulp and paper	4,451	7.49	750	6.48	425	6.93	1,026	7.83	229	8.28	1,324	7.02	478	9.54

See footnotes at end of table.

Table 9. Occupational averages: Paper mills—Continued(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
MISCELLANEOUS—Continued														
Oilers	1,103	\$6.57	157	\$5.83	126	\$5.75	259	\$7.06	123	\$7.08	298	\$6.09	117	\$7.97
Pipefitters, maintenance	2,123	7.47	319	6.67	253	6.61	534	7.83	174	8.19	566	6.95	180	9.57
Truckers, power	4,996	5.96	577	5.13	668	5.48	860	6.07	274	5.85	1,840	5.83	665	7.39
Forklift	3,448	5.95	396	5.02	454	5.28	722	6.04	219	5.98	1,117	5.79	507	7.38
Other than forklift	1,548	5.98	181	5.35	214	5.90	138	6.21	55	5.30	723	5.88	158	7.43

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 that no data were reported or that data did not meet publication criteria.

Table 10. Occupational averages: Paperboard mills

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	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
PULP												
Woodyard and wood preparation:												
Crane operators	353	\$7.57	-	-	258	\$7.61	43	\$8.11	-	-	-	-
Barkers, drum	65	6.07	-	-	56	5.88	-	-	-	-	-	-
Barkers, hydraulic	15	6.61	-	-	-	-	-	-	-	-	-	-
Sawyers	80	6.41	-	-	48	6.07	22	6.55	-	-	10	\$7.71
Chipper operators	108	6.09	-	-	64	6.03	12	6.17	-	-	-	-
Knife grinders	33	6.76	-	-	21	6.54	8	6.55	-	-	-	-
Pulpmaking:												
Cooks, batch digester	191	8.16	-	-	103	8.19	36	8.21	-	-	24	9.07
Sulphate process	156	8.28	-	-	96	8.19	36	8.21	-	-	16	8.90
Cooks, continuous digester	136	8.16	-	-	44	8.49	-	-	-	-	48	8.68
Sulphate process	76	8.68	-	-	40	8.55	-	-	-	-	28	8.73
Sulphite process	16	6.57	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	207	6.75	-	-	131	6.71	44	6.90	-	-	-	-
Sulphate process	168	6.80	-	-	116	6.72	44	6.90	-	-	-	-
Cook helpers, first, continuous digester	91	7.60	-	-	36	7.62	-	-	-	-	19	7.68
Sulphate process	75	7.72	-	-	32	7.68	-	-	-	-	19	7.68
Washer operators (sulphate)	134	7.57	-	-	96	7.52	-	-	-	-	22	7.77
Screen tenders	92	6.89	-	-	45	7.06	12	6.39	-	-	-	-
Sulphate process	68	7.11	-	-	41	7.01	12	6.39	-	-	-	-
Bleach-plant operators	80	8.50	-	-	36	8.41	20	8.33	-	-	-	-
Sulphate process	76	8.48	-	-	36	8.41	20	8.33	-	-	-	-
Pulp testers	180	6.38	-	-	90	6.02	44	6.05	-	-	28	7.65
Sulphate process	168	6.38	-	-	86	6.00	44	6.05	-	-	28	7.65
Recovery, caustic, and acid making:												
Acid makers (sulphite)	20	8.02	-	-	-	-	-	-	-	-	20	8.02
Evaporator operators (sulphate)	131	7.64	-	-	96	7.55	24	7.67	-	-	-	-
Recovery operators (sulphate)	180	8.09	-	-	88	8.22	32	7.58	-	-	28	8.66
Recovery helpers, first (sulphate)	251	6.93	-	-	138	6.79	52	7.24	-	-	33	7.32
Caustic operators (causticisers) (sulphate)	166	7.43	-	-	110	7.36	28	7.12	-	-	20	7.88
Lime-kiln operators (sulphate)	132	7.23	-	-	92	7.05	16	7.08	-	-	16	7.96
PAPER AND PAPERBOARD												
Stock preparation:												
Head stock preparers, group I	98	7.83	-	-	48	8.15	12	8.35	-	-	-	-
Container board	50	8.09	-	-	40	8.04	-	-	-	-	-	-
Boxboard	40	7.30	-	-	-	-	7	8.37	-	-	-	-
Head stock preparers, group II	458	6.30	113	\$5.31	105	7.39	34	6.84	107	\$5.79	60	7.42
Container board	148	7.06	-	-	44	7.78	12	8.35	52	5.92	36	7.48
Boxboard	212	6.12	47	5.18	61	7.10	-	-	35	5.97	-	-
Beater-operator helpers	551	5.86	133	5.00	142	6.41	88	5.99	99	5.53	-	-
Container board	172	6.57	-	-	76	6.54	-	-	36	5.33	-	-
Boxboard	311	5.53	85	5.05	60	6.14	60	5.44	63	5.64	-	-
Hydrapulper operators	515	5.47	71	4.84	149	5.26	30	4.96	150	5.45	80	7.13
Container board	174	6.12	-	-	58	5.58	-	-	56	5.85	44	7.33
Boxboard	240	5.18	71	4.84	42	5.04	-	-	54	5.77	-	-
Machine room:												
Paper-machine tenders	970	7.61	-	-	340	8.24	102	8.46	146	6.54	123	9.89
Coarse (Kraft)	12	9.28	-	-	-	-	-	-	-	-	-	-
Special industrial	60	6.21	-	-	54	5.93	-	-	-	-	-	-
Container board	396	8.69	-	-	172	8.96	32	8.97	88	6.80	76	10.07
Boxboard	322	7.20	58	5.82	101	8.08	48	7.86	38	6.50	32	9.41
Backtenders	962	6.98	-	-	338	7.52	106	7.75	140	6.06	119	8.97
Coarse (Kraft)	17	8.19	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 10. Occupational averages: Paperboard mills—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	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
PAPER AND PAPERBOARD—Continued												
Special industrial	59	\$5.72	-	-	53	\$5.44	-	-	-	-	-	-
Container board	391	7.92	-	-	171	8.12	32	\$8.13	88	\$6.30	72	\$9.20
Boxboard	315	6.60	58	\$5.36	100	7.42	48	7.24	32	6.06	32	8.36
Third hands	944	6.42	-	-	312	7.21	106	7.05	166	5.57	104	7.92
Coarse (Kraft)	16	7.36	-	-	-	-	-	-	-	-	-	-
Container board	383	7.22	-	-	171	7.50	32	7.41	88	5.97	64	8.05
Boxboard	320	6.12	58	5.09	102	6.86	48	6.63	38	5.66	32	7.50
Fourth hands	887	6.02	-	-	317	6.34	94	6.31	167	5.59	95	7.33
Container board	344	6.55	-	-	160	6.64	24	6.61	84	5.83	48	7.35
Boxboard	323	5.72	-	-	120	5.97	48	5.98	63	5.67	-	-
Fifth hands	739	5.79	40	4.91	304	6.00	112	5.55	134	5.45	86	7.03
Special industrial	11	6.21	-	-	-	-	-	-	-	-	-	-
Container board	335	6.22	-	-	175	6.11	24	6.12	58	5.75	50	7.05
Boxboard	288	5.33	-	-	111	5.78	62	5.09	56	5.59	-	-
Finishing, roll:												
Coater operators (off-machine)	42	6.30	-	-	-	-	-	-	20	5.97	-	-
Boxboard	39	6.17	-	-	-	-	-	-	20	5.97	-	-
Coater operator helpers	32	5.92	-	-	-	-	-	-	-	-	-	-
Rewinder operators	121	5.99	-	-	36	6.26	30	6.06	21	5.15	-	-
Container board	39	6.59	-	-	10	6.44	12	6.12	-	-	-	-
Boxboard	57	5.97	-	-	25	6.19	-	-	7	6.15	-	-
Rewinder helpers	95	5.79	-	-	47	5.80	20	5.62	10	5.63	-	-
Container board	52	6.01	-	-	-	-	10	5.77	-	-	-	-
Boxboard	38	5.58	-	-	17	5.63	-	-	6	5.99	-	-
Finishing, sheet:												
Cutters, guillotine type												
(cut and trim)	183	5.34	59	4.86	71	5.20	12	6.69	-	-	-	-
Boxboard	105	5.32	59	4.86	25	5.65	-	-	7	5.55	-	-
Cutters, rotary or sheet	231	5.76	-	-	63	6.56	9	5.48	50	5.49	-	-
Container board	24	6.43	-	-	-	-	-	-	-	-	-	-
Boxboard	186	5.57	-	-	39	6.43	-	-	-	-	-	-
Laboratory:												
Paper testers	694	6.15	66	5.36	279	6.24	127	6.00	90	5.71	76	7.51
Container board	324	6.49	-	-	147	6.33	53	6.15	-	-	52	7.49
Boxboard	254	6.13	-	-	90	6.69	56	5.82	38	5.36	-	-
MISCELLANEOUS												
Electricians, maintenance	1,081	8.02	49	5.54	549	8.10	145	7.91	98	6.59	148	9.62
Boiler tenders	499	6.52	86	5.48	162	7.06	30	6.86	124	6.18	36	8.33
Janitors	410	5.24	46	4.72	158	5.31	35	5.03	92	5.05	-	-
Machinists, maintenance	371	7.78	-	-	158	7.92	54	8.04	44	6.45	54	9.39
Mechanics, general	1,293	8.61	-	-	758	8.59	297	9.23	-	-	-	-
Millwrights, pulp and paper	1,999	7.71	-	-	925	7.90	268	7.75	263	6.42	257	9.63
Oilers	468	6.63	25	5.07	222	6.49	73	6.51	54	5.83	52	8.61
Pipefitters, maintenance	933	8.17	-	-	469	7.98	152	8.04	82	6.95	153	9.66
Truckers, power	1,396	5.78	229	5.23	431	5.84	135	5.92	303	5.32	177	7.29
Forklift	1,095	5.74	171	5.31	369	5.85	71	5.95	246	5.28	127	7.24
Other than forklift	301	5.90	-	-	62	5.77	64	5.90	57	5.52	50	7.41

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 that no data were reported or that data did not meet publication criteria.

Table 11. Occupational averages: Paper and paperboard mills—machine-room occupations by width of machine

(Number and average straight-time hourly earnings¹ of workers in selected machine-room occupations, United States and selected regions, summer 1977)

Occupation and machine width (in inches)	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
Paper-machine tenders, 100 or less	805	\$6.33	211	\$5.91	266	\$5.79	111	\$6.90	-	-	131	\$6.54	53	\$9.36
Fine grades	260	6.35	117	6.07	49	5.89	-	-	-	-	45	6.91	-	-
Sanitary tissue	119	7.36	-	-	40	6.39	-	-	-	-	24	7.32	-	-
Coarse (Kraft)	49	6.48	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	100	6.08	-	-	-	-	-	-	-	-	-	-	-	-
Container board	28	6.92	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	79	6.29	-	-	29	5.38	-	-	-	-	-	-	-	-
Paper-machine tenders, 101 to 150	1,454	6.93	280	6.22	251	6.49	97	6.97	70	\$7.59	641	6.97	96	9.42
Fine grades	738	6.86	156	6.19	180	6.58	-	-	-	-	326	6.99	36	9.29
Sanitary tissue	206	7.44	30	6.88	40	6.55	-	-	-	-	120	7.58	-	-
Coarse (Kraft)	97	7.31	-	-	-	-	-	-	12	8.71	51	6.54	-	-
Special industrial	96	7.00	-	-	-	-	25	5.99	-	-	-	-	-	-
Container board	83	7.14	-	-	-	-	-	-	-	-	43	6.49	-	-
Boxboard	147	6.43	24	5.68	-	-	-	-	-	-	35	6.46	-	-
Paper-machine tenders, 151 to 200	771	8.68	75	7.32	104	7.79	106	8.71	68	8.99	193	7.55	193	10.56
Fine grades	305	7.97	63	7.50	48	6.79	-	-	-	-	122	7.47	56	10.55
Sanitary tissue	160	9.18	-	-	-	-	-	-	-	-	28	7.97	37	11.45
Coarse (Kraft)	107	9.09	-	-	-	-	16	8.16	28	8.87	-	-	40	10.09
Container board	127	9.08	-	-	-	-	-	-	-	-	-	-	52	10.17
Boxboard	46	9.05	-	-	-	-	28	9.35	14	9.06	-	-	-	-
Paper-machine tenders, 201 to 300	818	9.42	76	8.27	26	8.77	380	9.30	125	9.64	87	8.39	100	11.38
Newsprint and groundwood	116	10.36	20	8.56	-	-	28	10.46	32	10.07	-	-	-	-
Fine grades	204	9.05	46	8.59	15	8.66	47	9.29	25	9.53	39	8.39	-	-
Sanitary tissue	98	9.07	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	121	9.74	-	-	-	-	81	9.35	16	9.18	-	-	24	11.43
Container board	186	9.29	-	-	-	-	138	9.00	28	9.58	-	-	-	-
Boxboard	83	9.24	-	-	-	-	60	9.36	20	9.18	-	-	-	-
Paper-machine tenders, 301 and over	73	9.64	-	-	-	-	46	9.69	12	10.11	-	-	-	-
Newsprint and groundwood	25	10.05	-	-	-	-	17	10.51	-	-	-	-	-	-
Fine grades	20	10.09	-	-	-	-	-	-	-	-	-	-	-	-
Backtenders, 100 or less	798	5.79	218	5.42	264	5.43	98	6.06	-	-	133	6.02	52	8.38
Fine grades	264	5.81	116	5.44	49	5.53	-	-	-	-	46	6.33	-	-
Sanitary tissue	104	6.49	-	-	38	5.88	-	-	-	-	24	6.64	-	-
Coarse (Kraft)	49	6.02	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	99	5.60	-	-	-	-	-	-	-	-	-	-	-	-
Container board	28	6.42	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	79	5.69	-	-	29	5.12	-	-	-	-	-	-	-	-
Backtenders, 101 to 150	1,441	6.37	285	5.70	241	6.01	94	6.43	75	6.89	635	6.42	92	8.67
Fine grades	732	6.35	159	5.70	170	6.14	-	-	-	-	326	6.44	36	8.53
Sanitary tissue	212	6.75	36	6.27	40	5.90	-	-	-	-	120	6.90	-	-
Coarse (Kraft)	100	6.73	-	-	-	-	-	-	16	7.56	51	6.08	-	-
Special industrial	97	6.41	-	-	-	-	25	5.45	-	-	-	-	-	-
Container board	77	6.45	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	140	5.92	24	5.23	-	-	-	-	-	-	43	6.01	-	-
Backtenders, 151 to 200	775	7.95	79	6.77	104	7.04	110	7.91	72	8.26	184	7.02	194	9.61
Fine grades	298	7.36	64	6.96	48	6.22	-	-	-	-	113	6.97	56	9.64
Sanitary tissue	167	8.24	-	-	-	-	28	7.58	-	-	28	7.35	37	10.35
Coarse (Kraft)	110	8.40	-	-	-	-	14	7.86	32	8.18	-	-	41	9.24
Container board	128	8.29	-	-	-	-	-	-	-	-	-	-	52	9.21
Boxboard	46	8.20	-	-	-	-	28	8.38	14	8.40	-	-	-	-
Backtenders, 201 to 300	813	8.68	77	7.90	27	8.27	378	8.50	124	8.84	82	7.74	101	10.41
Newsprint and groundwood	117	9.69	21	8.29	-	-	28	9.79	32	9.38	-	-	-	-
Fine grades	200	8.42	46	8.21	16	8.32	48	8.54	24	8.73	34	7.74	-	-
Sanitary tissue	95	8.22	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	122	8.94	-	-	-	-	78	8.50	20	8.85	-	-	24	10.45
Container board	186	8.41	-	-	-	-	138	8.16	28	8.60	-	-	-	-
Boxboard	83	8.54	-	-	-	-	60	8.69	20	8.46	-	-	-	-
Backtenders, 301 and over	79	8.69	-	-	-	-	51	8.60	12	9.13	-	-	-	-

See footnotes at end of table.

Table 11. Occupational averages: Paper and paperboard mills—machine-room occupations by width of machine—Continued

(Number and average straight-time hourly earnings¹ of workers in selected machine-room occupations, United States and selected regions, summer 1977)

Occupation and machine width (in inches)	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings
Newsprint and groundwood	24	\$9.25	-	-	-	-	16	\$9.64	-	-	-	-	-	-
Fine grades	21	9.40	-	-	-	-	-	-	-	-	-	-	-	-
Third hands, 100 or less	661	5.37	172	\$5.10	232	\$5.08	49	5.72	-	-	134	\$5.52	42	\$7.65
Fine grades	194	5.41	95	5.17	36	5.27	-	-	-	-	47	5.93	-	-
Sanitary tissue	74	6.03	-	-	-	-	-	-	-	-	24	6.14	-	-
Coarse (Kraft)	37	5.69	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	55	5.49	-	-	-	-	-	-	-	-	-	-	-	-
Container board	28	6.03	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	78	5.36	-	-	29	4.93	-	-	-	-	-	-	-	-
Third hands, 101 to 150	1,371	5.97	246	5.29	239	5.63	82	6.42	74	\$6.34	625	6.01	88	7.81
Fine grades	677	5.91	123	5.25	169	5.73	-	-	-	-	311	6.02	32	7.81
Sanitary tissue	205	6.29	32	5.78	36	5.59	-	-	-	-	121	6.41	-	-
Coarse (Kraft)	101	6.32	-	-	-	-	-	-	16	7.18	51	5.73	-	-
Special industrial	82	6.27	-	-	-	-	-	-	-	-	-	-	-	-
Container board	78	6.11	-	-	-	-	-	-	-	-	43	5.76	-	-
Boxboard	145	5.53	24	4.84	-	-	-	-	-	-	35	5.64	-	-
Third hands, 151 to 200	744	7.17	75	6.25	88	6.12	107	7.30	68	7.65	185	6.47	189	8.41
Fine grades	300	6.68	63	6.39	52	5.76	-	-	-	-	112	6.42	56	8.49
Sanitary tissue	142	7.39	-	-	-	-	-	-	-	-	30	6.77	35	8.89
Coarse (Kraft)	109	7.56	-	-	-	-	16	6.98	28	7.61	-	-	-	-
Container board	121	7.44	-	-	-	-	-	-	-	-	-	-	48	8.07
Boxboard	46	7.53	-	-	-	-	28	7.67	14	7.68	-	-	-	-
Third hands, 201 to 300	803	7.78	76	6.96	26	7.21	380	7.83	116	7.94	89	6.84	92	9.05
Newsprint and groundwood	116	8.46	20	7.20	-	-	28	8.73	32	8.25	-	-	-	-
Fine grades	198	7.39	46	7.19	15	7.24	48	7.79	16	7.57	41	6.82	-	-
Sanitary tissue	90	7.29	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	123	8.17	-	-	-	-	79	7.97	20	8.02	-	-	24	8.95
Container board	182	7.71	-	-	-	-	138	7.57	28	7.87	-	-	-	-
Boxboard	84	7.77	-	-	-	-	61	7.90	20	7.75	-	-	-	-
Third hands, 301 and over	79	7.74	-	-	-	-	52	7.72	12	8.15	-	-	-	-
Newsprint and groundwood	24	8.08	-	-	-	-	16	8.42	-	-	-	-	-	-
Fine grades	20	8.36	-	-	-	-	-	-	-	-	-	-	-	-
Fourth hands, 100 or less	417	5.12	62	4.94	174	4.97	57	5.01	-	-	83	5.36	-	-
Fine grades	110	5.24	-	-	24	5.20	-	-	-	-	35	5.71	-	-
Sanitary tissue	24	5.80	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	28	5.32	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	23	5.81	-	-	-	-	-	-	-	-	-	-	-	-
Container board	14	6.29	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	83	4.81	-	-	-	-	-	-	-	-	-	-	-	-
Fourth hands, 101 to 150	1,225	5.65	186	4.93	178	5.41	71	6.02	70	5.73	636	5.71	72	7.20
Fine grades	597	5.59	91	4.87	146	5.42	-	-	-	-	304	5.71	28	7.23
Sanitary tissue	174	5.83	25	4.90	-	-	-	-	-	-	109	6.04	-	-
Coarse (Kraft)	95	5.93	-	-	-	-	-	-	12	6.52	51	5.51	-	-
Special industrial	61	5.85	-	-	-	-	-	-	-	-	-	-	-	-
Container board	78	5.75	-	-	-	-	-	-	-	-	43	5.49	-	-
Boxboard	144	5.56	-	-	-	-	-	-	-	-	63	5.67	-	-
Fourth hands, 151 to 200	748	6.56	85	5.61	79	5.76	99	6.54	68	6.84	196	6.14	197	7.52
Fine grades	311	6.19	75	5.67	52	5.46	-	-	-	-	115	6.13	61	7.57
Sanitary tissue	131	6.84	-	-	-	-	-	-	-	-	30	6.29	37	7.82
Coarse (Kraft)	130	6.90	-	-	-	-	16	6.36	28	6.78	-	-	63	7.30
Container board	104	6.65	-	-	-	-	11	6.15	-	-	-	-	28	7.40
Boxboard	46	6.72	-	-	-	-	28	6.77	14	6.93	-	-	-	-
Fourth hands, 201 to 300	754	6.96	76	6.13	26	6.31	384	6.97	109	7.05	48	6.57	95	7.78
Newsprint and groundwood	116	7.36	20	6.37	-	-	28	7.71	32	7.21	-	-	-	-
Fine grades	197	6.67	46	6.28	15	6.34	55	6.95	17	6.81	40	6.38	-	-
Sanitary tissue	49	6.96	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	125	7.22	-	-	-	-	81	7.14	20	7.06	-	-	24	7.63
Container board	176	6.83	-	-	-	-	136	6.67	20	7.07	-	-	-	-

Table 11. Occupational averages: Paper and paperboard mills—machine-room occupations by width of machine—Continued

(Number and average straight-time hourly earnings¹ of workers in selected machine-room occupations, United States and selected regions, summer 1977)

Occupation and machine width (in inches)	United States ²		New England		Middle Atlantic		Southeast		Southwest		Great Lakes		Pacific	
	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings
Boxboard	83	\$6.98	-	-	-	-	60	\$7.09	20	\$6.95	-	-	-	-
Fourth hands, 301 and over	79	6.75	-	-	-	-	52	6.75	12	7.09	-	-	-	-
Newsprint and groundwood	24	6.89	-	-	-	-	16	7.14	-	-	-	-	-	-
Fine grades	20	7.27	-	-	-	-	-	-	-	-	-	-	-	-
Fifth hands, 100 or less	189	4.73	17	\$4.80	-	-	37	5.11	-	-	49	\$4.93	-	-
Fine grades	24	5.34	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	18	4.51	-	-	-	-	-	-	-	-	-	-	-	-
Container board	16	6.11	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	63	4.13	-	-	-	-	-	-	-	-	-	-	-	-
Fifth hands, 101 to 150	720	5.46	85	4.89	125	\$5.23	79	5.83	79	5.10	312	5.60	28	\$6.92
Fine grades	330	5.44	40	4.69	105	5.29	-	-	-	-	146	5.54	-	-
Sanitary tissue	66	5.64	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	74	5.70	-	-	-	-	-	-	16	5.95	-	-	-	-
Special industrial	32	5.92	-	-	-	-	-	-	-	-	-	-	-	-
Container board	59	5.66	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	135	5.18	-	-	-	-	-	-	-	-	56	5.59	-	-
Fifth hands, 151 to 200	636	6.23	74	5.47	74	5.56	91	6.04	68	6.27	134	5.84	171	7.13
Fine grades	253	5.97	63	5.56	45	5.27	-	-	-	-	85	5.87	52	7.23
Sanitary tissue	79	6.46	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	127	6.50	-	-	-	-	17	6.03	28	6.27	-	-	57	7.02
Container board	105	6.28	-	-	-	-	-	-	-	-	-	-	28	7.08
Boxboard	46	6.24	-	-	-	-	28	6.20	14	6.44	-	-	-	-
Fifth hands, 201 to 300	740	6.48	83	5.90	26	6.42	382	6.42	108	6.48	38	6.30	87	7.31
Newsprint and groundwood	116	6.89	20	5.97	-	-	28	7.38	32	6.61	-	-	-	-
Fine grades	194	6.32	53	6.10	-	-	53	6.36	16	6.24	30	6.09	-	-
Sanitary tissue	34	6.11	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	126	6.64	-	-	-	-	81	6.48	20	6.51	-	-	25	7.25
Container board	182	6.31	-	-	-	-	140	6.15	20	6.47	-	-	-	-
Boxboard	80	6.55	-	-	-	-	60	6.59	20	6.43	-	-	-	-
Fifth hands, 301 and over	72	6.38	-	-	-	-	44	6.30	12	6.44	-	-	-	-
Newsprint and groundwood	24	6.43	-	-	-	-	16	6.65	-	-	-	-	-	-
Fine grades	24	6.58	-	-	-	-	-	-	-	-	-	-	-	-

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 that no data were reported or that data did not meet publication criteria.

Table 12. Occupational averages: All mills by size of community

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²				New England				Middle Atlantic		Southeast			
	Metropolitan areas		Nonmetropolitan areas		Metropolitan areas		Nonmetropolitan areas		Metropolitan 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	Number of workers	Average hourly earnings
PULP														
Woodyard and wood preparation:														
Crane operators	320	\$7.48	668	\$7.45	-	-	62	\$6.50	31	\$6.12	150	\$7.92	424	\$7.74
Barkers, drum	101	6.07	149	6.06	-	-	23	5.00	14	5.58	65	5.99	57	6.20
Barkers, hydraulic	7	7.95	29	6.51	-	-	-	-	-	-	-	-	-	-
Sawyers	40	6.61	188	6.36	-	-	17	5.67	-	-	9	5.55	96	6.21
Chipper operators	116	6.33	211	6.17	-	-	35	5.39	7	5.70	54	6.30	105	6.26
Knife grinders	46	6.82	79	6.69	-	-	9	5.76	8	6.08	19	6.84	36	6.65
Pulpmaking:														
Cooks, batch digester	196	7.75	320	7.98	-	-	14	6.45	15	6.01	72	8.04	143	8.24
Sulphate process	120	7.86	243	8.27	-	-	-	-	-	-	56	8.08	132	8.29
Sulphite process	60	7.83	48	7.77	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	18	5.63	-	-	-	-	-	-	-	-	-	-
Cooks, continuous digester	113	8.45	244	7.90	-	-	30	5.94	26	6.98	28	8.91	56	8.00
Sulphate process	86	8.78	146	8.13	-	-	22	5.86	-	-	28	8.91	48	8.17
Sulphite process	19	6.90	30	7.71	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	12	8.04	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	229	6.71	322	6.64	-	-	15	5.69	20	6.13	96	6.77	176	6.63
Sulphate process	145	6.78	236	6.88	-	-	-	-	12	6.53	76	6.78	151	6.79
Sulphite process	64	6.73	49	6.54	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, continuous digester	68	7.26	178	7.18	-	-	16	5.68	-	-	20	8.20	48	6.88
Sulphate process	45	7.56	142	7.28	-	-	12	5.46	-	-	20	8.20	40	6.97
Sulphite process	-	-	16	7.20	-	-	-	-	-	-	-	-	-	-
Grinder operators	72	6.01	403	6.25	-	-	-	-	40	5.32	-	-	52	6.47
Blow-pit operators (sulphite)	27	6.51	49	6.59	-	-	-	-	-	-	-	-	-	-
Washer operators (sulphate)	90	7.31	253	7.28	-	-	19	5.50	-	-	44	7.37	108	7.60
Screen tenders	123	6.88	241	6.76	-	-	34	5.70	27	5.23	48	7.31	74	6.84
Sulphate process	52	7.18	123	6.96	-	-	10	5.01	-	-	32	7.19	53	6.99
Sulphite process	31	7.40	38	7.10	-	-	-	-	-	-	-	-	-	-
Groundwood process	20	6.77	41	6.78	-	-	-	-	-	-	-	-	-	-
Bleach-plant operators	163	7.65	359	7.50	-	-	36	5.29	29	6.14	38	8.26	118	7.91
Sulphate process	84	8.19	218	7.83	-	-	22	5.16	-	-	28	8.47	92	8.24
Sulphite process	57	7.34	65	7.78	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	37	6.77	-	-	-	-	-	-	-	-	-	-
Wet-machine operators	68	6.87	109	5.99	-	-	24	5.04	-	-	-	-	-	-
Sulphate process	-	-	67	5.91	-	-	-	-	-	-	-	-	-	-
Sulphite process	44	6.55	26	6.04	-	-	-	-	-	-	-	-	-	-
Groundwood process	-	-	10	6.87	-	-	-	-	-	-	-	-	-	-
Pulp testers	245	6.21	532	6.21	-	-	52	5.29	51	5.47	93	6.32	179	6.05
Sulphate process	123	6.34	362	6.23	-	-	27	5.04	-	-	66	6.23	167	6.07
Sulphite process	57	6.26	47	6.69	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	32	5.90	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:														
Acid makers (sulphite)	48	7.59	51	7.19	-	-	-	-	-	-	-	-	-	-
Evaporator operators (sulphate)	107	7.64	230	7.47	-	-	11	5.23	-	-	62	7.68	116	7.57
Recovery operators (sulphate)	179	8.18	339	8.04	-	-	23	5.57	-	-	60	8.35	142	8.23
Recovery helpers, first (sulphate)	229	6.97	365	6.92	-	-	17	4.93	-	-	85	7.07	174	6.85
Caustic operators (causticisers) (sulphate)	122	7.48	249	7.45	-	-	12	4.95	-	-	59	7.47	127	7.53
Lime-kiln operators (sulphate)	100	7.21	199	7.10	-	-	12	4.78	-	-	59	7.05	97	7.07

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²				New England				Middle Atlantic		Southeast			
	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	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD														
Stock preparation:														
Head stock preparers, group I	351	\$6.81	289	\$7.41	106	\$6.03	71	\$5.92	52	\$5.90	43	\$7.99	116	\$7.95
Newsprint and groundwood	9	8.16	22	7.97	-	-	-	-	-	-	-	-	12	8.46
Fine grades	199	6.48	146	7.22	102	5.99	28	5.86	24	6.05	10	7.53	48	7.47
Sanitary tissue	30	6.58	20	7.74	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	34	6.62	27	8.49	-	-	-	-	-	-	-	-	12	7.60
Special industrial	-	-	21	6.19	-	-	-	-	-	-	-	-	-	-
Container board	26	8.21	24	7.96	-	-	-	-	-	-	16	8.18	24	7.96
Boxboard	39	7.21	9	8.37	-	-	-	-	-	-	-	-	-	-
Head stock preparers, group II	715	6.18	525	6.93	101	5.74	90	5.46	237	5.83	59	6.97	96	7.75
Newsprint and groundwood	-	-	48	6.87	-	-	-	-	-	-	-	-	-	-
Fine grades	247	6.15	205	6.81	65	5.77	34	5.41	100	6.26	-	-	-	-
Sanitary tissue	60	6.80	52	6.59	-	-	24	5.42	16	6.26	-	-	-	-
Coarse (Kraft)	-	-	30	7.08	-	-	-	-	-	-	-	-	-	-
Container board	52	6.64	101	7.27	-	-	-	-	-	-	-	-	40	7.90
Boxboard	167	5.85	65	7.38	21	5.41	-	-	47	5.18	41	6.82	32	7.76
Beater-operator helpers	1,102	5.75	863	6.24	176	5.20	147	4.98	315	5.25	150	6.22	211	6.85
Newsprint and groundwood	14	6.90	64	5.74	-	-	-	-	-	-	-	-	-	-
Fine grades	503	5.55	368	6.24	146	5.07	51	5.04	166	5.34	-	-	69	6.92
Sanitary tissue	57	6.24	85	6.14	-	-	33	4.87	-	-	-	-	-	-
Coarse (Kraft)	83	6.50	99	6.32	-	-	-	-	-	-	-	-	28	6.90
Container board	62	6.53	124	6.66	-	-	-	-	-	-	24	6.51	64	6.67
Boxboard	261	5.37	64	6.51	-	-	-	-	85	5.05	50	5.93	24	7.06
Hydrapulper operators	764	5.60	698	5.90	71	5.43	93	5.06	179	5.25	105	5.17	111	5.66
Newsprint and groundwood	16	6.53	36	6.16	-	-	-	-	-	-	-	-	-	-
Fine grades	231	5.75	300	5.88	51	5.46	36	4.74	60	5.47	-	-	-	-
Sanitary tissue	108	6.28	82	5.95	-	-	18	4.87	44	5.51	-	-	-	-
Coarse (Kraft)	72	5.42	60	6.54	-	-	-	-	-	-	22	5.95	-	-
Special industrial	-	-	31	5.77	-	-	-	-	-	-	-	-	-	-
Container board	68	6.33	119	5.93	-	-	-	-	-	-	-	-	50	5.57
Boxboard	195	5.18	49	5.18	-	-	-	-	71	4.84	33	4.93	13	5.43
Machine room:														
Paper-machine tenders	2,040	7.30	1,881	8.18	291	6.34	359	6.67	602	6.53	286	8.20	454	8.81
Newsprint and groundwood	53	9.46	116	9.60	-	-	40	6.84	-	-	-	-	36	10.29
Fine grades	786	6.92	741	7.76	221	6.31	165	7.20	244	6.68	-	-	108	8.21
Sanitary tissue	352	8.06	240	8.35	-	-	55	5.88	132	7.38	-	-	40	8.74
Coarse (Kraft)	182	8.24	200	8.79	-	-	-	-	-	-	73	8.98	48	8.94
Special industrial	115	6.49	99	7.05	-	-	-	-	-	-	-	-	-	-
Container board	140	8.79	292	8.60	-	-	-	-	-	-	48	9.14	132	8.88
Boxboard	244	6.84	114	8.58	33	5.64	-	-	58	5.82	69	7.48	60	9.23
Backtenders	2,023	6.71	1,883	7.50	293	5.78	374	6.21	592	6.06	289	7.52	442	8.03
Newsprint and groundwood	52	8.83	118	8.96	-	-	42	6.64	-	-	-	-	36	9.58
Fine grades	777	6.40	738	7.16	223	5.74	166	6.74	236	6.27	-	-	114	7.56
Sanitary tissue	356	7.35	237	7.42	-	-	64	5.52	130	6.68	-	-	32	7.41
Coarse (Kraft)	182	7.52	207	8.15	-	-	-	-	-	-	72	8.21	40	8.46
Special industrial	115	6.04	99	6.39	-	-	-	-	-	-	-	-	-	-
Container board	136	7.99	291	7.84	-	-	-	-	-	-	48	8.30	131	8.05
Boxboard	237	6.27	114	7.86	33	5.18	-	-	58	5.36	68	6.95	60	8.42
Third hands	1,853	6.25	1,805	6.83	221	5.47	356	5.70	548	5.58	261	7.33	409	7.47
Newsprint and groundwood	52	7.76	116	7.92	-	-	40	5.99	-	-	-	-	36	8.52
Fine grades	695	6.01	694	6.49	165	5.45	166	6.04	232	5.84	-	-	78	7.32
Sanitary tissue	315	6.65	212	6.85	-	-	53	5.21	96	5.95	-	-	-	-
Coarse (Kraft)	168	7.17	210	7.32	-	-	-	-	-	-	70	7.76	48	7.50
Special industrial	65	6.58	90	5.88	-	-	-	-	-	-	-	-	-	-
Container board	128	7.32	289	7.17	-	-	-	-	-	-	48	7.74	131	7.41

Table 12. Occupational averages: All mills by size of community—Continued

 (Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²				New England				Middle Atlantic		Southeast			
	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	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued														
Boxboard	241	\$5.82	115	\$7.25	33	\$4.78	-	-	58	\$5.09	69	\$6.44	61	\$7.74
Fourth hands	1,590	5.92	1,633	6.32	137	5.36	280	\$5.30	416	5.37	290	6.45	373	6.75
Newsprint and groundwood	52	6.75	116	6.95	-	-	40	5.49	-	-	-	-	36	7.47
Fine grades	611	5.75	624	6.07	103	5.28	152	5.47	193	5.52	23	6.44	60	6.97
Sanitary tissue	215	6.30	179	6.32	-	-	34	4.58	51	5.84	-	-	-	-
Coarse (Kraft)	162	6.58	224	6.71	-	-	-	-	-	-	72	7.02	48	6.74
Special industrial	-	-	78	5.69	-	-	-	-	-	-	-	-	-	-
Container board	144	6.61	236	6.49	-	-	-	-	-	-	48	6.75	120	6.61
Boxboard	233	5.49	126	6.53	-	-	-	-	-	-	88	5.66	60	6.92
Fifth hands	1,119	5.76	1,238	6.14	64	5.49	203	5.37	259	5.41	272	6.11	361	6.28
Newsprint and groundwood	52	6.39	104	6.74	-	-	28	5.54	-	-	-	-	36	7.13
Fine grades	389	5.71	436	5.96	39	5.51	126	5.53	170	5.45	24	6.05	69	6.30
Sanitary tissue	105	5.99	94	6.03	-	-	22	4.49	-	-	-	-	-	-
Coarse (Kraft)	161	6.09	192	6.44	-	-	-	-	-	-	73	6.42	48	6.21
Special industrial	-	-	42	5.87	-	-	-	-	-	-	-	-	-	-
Container board	136	6.24	234	6.16	-	-	-	-	-	-	48	6.24	135	6.08
Boxboard	204	5.23	120	5.87	-	-	-	-	-	-	79	5.64	60	6.28
Finishing, roll:														
Calender operators	227	6.24	495	6.62	45	5.96	135	6.20	75	6.20	21	5.63	32	6.62
Fine grades	192	6.39	425	6.71	31	6.08	103	6.26	64	6.26	-	-	32	6.62
Coarse (Kraft)	-	-	10	5.84	-	-	-	-	-	-	-	-	-	-
Special industrial	29	5.22	-	-	-	-	-	-	-	-	-	-	-	-
Calender helpers	256	5.56	434	5.98	36	5.58	92	5.62	85	5.50	33	4.94	26	6.43
Fine grades	219	5.68	350	6.09	25	5.69	58	5.78	74	5.49	-	-	26	6.43
Special industrial	31	4.72	-	-	-	-	-	-	-	-	-	-	-	-
Coater operators (off-machine)	194	6.32	187	6.93	-	-	36	6.18	35	5.64	12	5.94	26	7.33
Fine grades	165	6.44	124	7.20	-	-	15	6.90	25	5.69	-	-	-	-
Boxboard	20	5.67	27	6.71	-	-	-	-	-	-	-	-	-	-
Coater operator helpers	133	5.69	191	6.30	48	5.76	-	-	34	5.17	-	-	23	6.79
Fine grades	87	5.86	148	6.39	31	5.79	-	-	16	5.24	-	-	-	-
Rewinder operators	1,072	5.90	1,020	6.19	125	5.57	202	5.57	311	5.68	83	5.76	217	6.44
Newsprint and groundwood	-	-	31	6.56	-	-	-	-	-	-	-	-	13	7.44
Fine grades	483	5.85	564	6.24	85	5.60	116	5.68	157	5.56	-	-	-	-
Sanitary tissue	240	6.03	154	6.14	-	-	-	-	82	5.91	-	-	-	-
Coarse (Kraft)	-	-	135	6.03	-	-	-	-	-	-	14	6.25	-	-
Container board	17	6.22	22	6.88	-	-	-	-	-	-	-	-	6	6.36
Boxboard	39	5.81	26	6.25	-	-	-	-	-	-	14	6.17	19	6.18
Rewinder helpers	662	5.52	580	5.83	98	5.24	112	5.32	245	5.24	61	5.57	69	5.94
Newsprint and groundwood	10	6.33	23	6.21	-	-	-	-	-	-	-	-	-	-
Fine grades	366	5.50	345	5.86	69	5.29	67	5.46	129	5.27	-	-	-	-
Sanitary tissue	-	-	42	5.56	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	78	5.88	-	-	-	-	-	-	10	5.81	-	-
Container board	15	5.91	37	6.05	-	-	-	-	-	-	-	-	-	-
Boxboard	25	5.40	17	5.90	-	-	-	-	-	-	-	-	15	5.83
Finishing, sheet:														
Cutters, guillotine type														
(cut and trim)	530	5.88	391	6.07	46	5.63	36	4.93	170	5.82	90	5.21	43	6.38
Fine grades	329	6.19	329	6.05	46	5.63	24	4.81	111	6.32	-	-	-	-
Coarse (Kraft)	23	6.05	17	6.20	-	-	-	-	-	-	-	-	-	-
Boxboard	101	5.38	11	5.87	-	-	-	-	59	4.86	28	5.87	-	-
Cutters, rotary or sheet	818	5.80	627	6.22	223	5.22	85	4.83	188	5.55	98	6.45	126	6.69
Fine grades	575	5.84	485	6.17	151	5.40	66	4.79	170	5.55	-	-	55	6.72
Sanitary tissue	-	-	7	5.58	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	28	6.11	17	6.42	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	15	4.66	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²				New England				Middle Atlantic		Southeast			
	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	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued														
Container board	-	-	25	\$6.69	-	-	-	-	-	-	-	-	-	-
Boxboard	146	\$5.13	46	7.12	-	-	-	-	-	-	15	\$5.58	-	-
Laboratory:														
Paper testers	1,144	6.01	1,221	6.22	133	\$5.54	188	\$5.27	272	\$5.58	265	6.29	334	\$6.32
Newsprint and groundwood	26	6.58	65	6.46	-	-	21	5.58	-	-	-	-	20	6.58
Fine grades	472	5.81	504	6.15	112	5.54	93	5.30	143	5.59	23	6.36	88	6.45
Sanitary tissue	123	6.36	83	6.05	-	-	19	4.78	41	5.74	-	-	-	-
Coarse (Kraft)	62	6.78	139	6.31	-	-	-	-	-	-	38	6.44	39	6.41
Special industrial	71	5.06	46	5.24	-	-	-	-	-	-	-	-	-	-
Container board	120	6.70	224	6.45	-	-	-	-	-	-	48	6.54	106	6.23
Boxboard	174	5.97	114	6.47	-	-	-	-	-	-	-	-	59	6.41
MISCELLANEOUS														
Electricians, maintenance	1,594	7.61	2,083	7.96	116	6.58	301	6.57	305	6.65	488	8.05	740	8.08
Boiler tenders	745	6.45	776	6.85	113	5.75	162	6.00	194	5.73	113	7.04	224	7.24
Janitors	899	5.37	927	5.57	130	4.81	106	4.85	236	5.12	131	5.33	300	5.50
Machinists, maintenance	719	7.58	857	7.52	40	6.42	203	6.44	150	6.80	242	7.71	236	7.95
Mechanics, general	1,155	7.96	2,368	8.73	-	-	175	5.86	195	5.79	244	8.08	1,185	8.83
Millwrights, pulp and paper	2,986	7.34	3,872	7.84	185	5.93	633	6.52	576	6.56	896	7.88	1,294	7.96
Oilers	637	6.37	1,004	6.81	36	5.56	135	5.80	132	5.63	194	6.65	332	6.98
Pipefitters, maintenance	1,317	7.56	1,982	7.86	86	6.22	280	6.58	216	6.74	452	8.01	700	7.95
Truckers, power	3,420	5.93	3,181	5.93	251	5.14	410	4.99	750	5.46	555	5.89	860	6.11
Forklift	2,759	5.89	1,946	5.95	220	5.15	258	4.75	560	5.30	493	5.87	684	6.10
Other than forklift	661	6.12	1,235	5.91	-	-	152	5.40	-	-	62	6.06	176	6.15

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southwest				Great Lakes				Pacific			
	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
PULP												
Woodyard and wood preparation:												
Crane operators	61	\$8.07	63	\$7.69	-	-	77	\$6.42	-	-	15	\$7.95
Barkers, drum	14	6.79	20	6.38	-	-	25	5.78	-	-	-	-
Barkers, hydraulic	-	-	-	-	-	-	-	-	7	\$7.95	14	7.41
Sawyers	17	6.39	-	-	-	-	25	5.77	-	-	24	7.66
Chipper operators	20	6.88	9	6.16	-	-	39	5.92	7	7.25	14	7.48
Knife grinders	6	6.70	12	6.60	-	-	10	6.47	8	7.87	10	8.28
Pulpmaking:												
Cooks, batch digester	29	8.15	40	7.78	36	\$6.87	51	6.80	36	8.81	48	9.22
Sulphate process	29	8.15	32	8.29	-	-	19	7.43	20	8.19	32	9.35
Sulphite process	-	-	-	-	36	6.87	22	6.91	16	9.59	16	8.95
Soda process	-	-	-	-	-	-	-	-	-	-	-	-
Cooks, continuous digester	24	9.46	20	8.55	-	-	-	-	28	8.97	86	8.86
Sulphate process	20	9.26	-	-	-	-	-	-	-	-	48	8.93
Sulphite process	-	-	-	-	-	-	-	-	-	-	14	9.02
Soda process	-	-	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	-	-	36	6.43	36	6.17	47	6.27	40	7.41	36	7.60
Sulphate process	-	-	28	6.95	-	-	21	6.57	20	7.20	20	7.72
Sulphite process	-	-	-	-	36	6.17	22	6.13	-	-	16	7.45
Cook helpers, first, continuous digester	17	7.62	-	-	-	-	-	-	-	-	59	7.74
Sulphate process	13	7.21	-	-	-	-	-	-	-	-	47	7.87
Sulphite process	-	-	-	-	-	-	-	-	-	-	-	-
Grinder operators	-	-	-	-	-	-	170	5.67	-	-	-	-
Blow-pit operators (sulphite)	-	-	-	-	-	-	19	5.56	-	-	24	7.45
Washer operators (sulphate)	16	7.53	20	7.09	-	-	27	6.43	20	7.61	55	7.90
Screen tenders	13	7.00	-	-	12	6.10	49	5.97	23	8.25	64	7.79
Sulphate process	-	-	-	-	-	-	-	-	-	-	32	7.75
Sulphite process	-	-	-	-	-	-	11	5.83	15	8.04	24	7.90
Groundwood process	-	-	-	-	-	-	-	-	-	-	-	-
Bleach-plant operators	21	8.81	32	7.58	31	6.47	65	6.45	40	8.65	76	8.76
Sulphate process	21	8.81	20	8.18	-	-	15	6.97	20	8.54	37	8.79
Sulphite process	-	-	-	-	19	6.52	22	6.58	20	8.76	36	8.60
Soda process	-	-	-	-	-	-	-	-	-	-	-	-
Wet-machine operators	-	-	-	-	-	-	65	5.89	28	8.01	-	-
Sulphate process	-	-	-	-	-	-	-	-	-	-	-	-
Sulphite process	-	-	-	-	-	-	15	6.30	-	-	-	-
Groundwood process	-	-	-	-	-	-	-	-	-	-	-	-
Pulp testers	32	6.45	83	6.01	33	5.74	102	6.01	32	7.41	82	7.45
Sulphate process	32	6.45	59	6.11	-	-	34	6.30	12	7.27	41	7.53
Sulphite process	-	-	-	-	13	6.10	-	-	-	-	25	7.29
Soda process	-	-	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:												
Acid makers (sulphite)	-	-	-	-	20	6.38	22	5.95	20	8.59	28	8.22
Evaporator operators (sulphate)	-	-	32	7.82	-	-	18	6.44	-	-	32	8.34
Recovery operators (sulphate)	32	8.72	40	7.73	-	-	29	6.90	52	8.71	65	9.18
Recovery helpers, first (sulphate)	64	6.92	48	7.11	-	-	25	6.32	48	7.40	61	7.86
Caustic operators (causticisers) (sulphate)	36	7.70	36	7.56	-	-	14	6.27	-	-	44	8.13
Lime-kiln operators (sulphate)	-	-	20	6.96	-	-	11	6.51	24	7.89	43	8.14

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southwest				Great Lakes				Pacific			
	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
PAPER AND PAPERBOARD												
Stock preparation:												
Head stock preparers, group I	31	\$6.74	16	\$9.22	62	\$6.57	59	\$6.97	57	\$8.50	19	\$9.35
Newsprint and groundwood	-	-	-	-	40	6.70	49	7.12	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-	-	-
Head stock preparers, group II	26	6.65	48	7.63	221	6.15	188	6.52	68	7.33	76	8.22
Newsprint and groundwood	-	-	-	-	74	6.26	111	6.71	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	10	7.52	-	-	23	6.13	12	7.70	-	-
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	21	5.82	-	-	-	-	-	-
Beater-operator helpers	76	5.56	52	6.67	288	6.00	295	5.78	88	7.37	92	7.60
Newsprint and groundwood	-	-	-	-	159	6.08	160	5.94	-	-	52	7.66
Fine grades	-	-	-	-	24	6.17	-	-	-	-	24	7.53
Sanitary tissue	-	-	10	6.74	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	39	5.71	-	-	-	-	-	-
Hydrapulper operators	50	4.86	28	5.58	268	5.66	263	5.92	88	7.29	133	7.09
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	88	5.80	144	5.97	-	-	61	6.91
Sanitary tissue	-	-	-	-	32	6.24	41	6.09	20	8.12	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	36	5.96	23	5.69	-	-	-	-
Boxboard	-	-	-	-	30	5.64	-	-	-	-	-	-
Machine room:												
Paper-machine tenders	127	8.47	172	8.99	533	7.00	519	7.29	195	9.92	247	10.70
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	28	7.92	232	6.82	300	7.49	52	9.67	60	10.54
Sanitary tissue	-	-	-	-	-	-	68	7.64	39	10.76	53	10.89
Coarse (Kraft)	40	8.06	36	8.98	41	5.87	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	20	9.82	28	8.75	40	7.11	51	6.56	-	-	44	10.33
Boxboard	26	6.96	-	-	24	6.64	-	-	-	-	-	-
Backtenders	127	7.59	180	8.28	525	6.47	509	6.69	191	9.08	248	9.73
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	28	7.30	229	6.31	290	6.88	52	8.87	60	9.60
Sanitary tissue	-	-	-	-	-	-	68	6.93	39	9.89	53	9.91
Coarse (Kraft)	40	7.05	48	8.45	42	5.61	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	20	8.67	28	7.98	40	6.62	51	6.05	28	8.96	44	9.36
Boxboard	26	6.40	-	-	18	6.18	-	-	-	-	-	-
Third hands	126	6.95	168	7.46	526	6.01	507	6.19	168	8.07	243	8.54
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	213	5.93	298	6.33	48	8.03	60	8.49
Sanitary tissue	-	-	-	-	147	6.48	68	6.40	28	8.90	47	8.74
Coarse (Kraft)	40	6.63	44	7.67	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	20	8.12	28	7.27	40	6.23	51	5.77	-	-	44	8.21

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southwest				Great Lakes				Pacific			
	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
PAPER AND PAPERBOARD—Continued												
Boxboard	26	\$5.82	-	-	24	\$5.63	-	-	-	-	-	-
Fourth hands	119	6.25	156	\$6.73	485	5.74	478	\$5.88	143	\$7.37	240	\$7.59
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	223	5.67	271	6.02	44	7.38	65	7.53
Sanitary tissue	-	-	-	-	95	6.10	56	5.89	23	7.82	45	7.78
Coarse (Kraft)	32	6.15	40	7.00	-	-	-	-	-	-	74	7.37
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	20	7.10	20	6.46	48	5.94	-	-	28	7.18	-	-
Boxboard	26	5.21	-	-	37	5.61	-	-	-	-	-	-
Fifth hands	131	5.52	144	6.38	281	5.56	252	5.75	98	7.05	196	7.21
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	109	5.70	161	5.71	-	-	56	7.23
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	20	7.28
Coarse (Kraft)	32	5.73	44	6.40	-	-	-	-	-	-	62	7.07
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	20	6.45	20	5.98	40	5.68	-	-	28	6.90	-	-
Boxboard	-	-	-	-	48	5.61	-	-	-	-	-	-
Finishing, roll:												
Calender operators	-	-	-	-	62	6.20	247	6.56	-	-	29	8.04
Fine grades	-	-	-	-	62	6.20	221	6.67	-	-	29	8.04
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Calender helpers	-	-	-	-	78	5.53	241	5.80	-	-	31	7.30
Fine grades	-	-	-	-	78	5.53	195	5.85	-	-	31	7.30
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Coater operators (off-machine)	-	-	-	-	-	-	107	6.80	-	-	10	9.15
Fine grades	-	-	-	-	-	-	89	6.99	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-	-	-
Coater operator helpers	-	-	-	-	27	5.91	122	6.27	-	-	9	8.01
Fine grades	-	-	-	-	20	5.93	116	6.30	-	-	-	-
Rewinder operators	34	6.64	35	6.57	446	5.93	417	6.10	-	-	87	7.28
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	182	5.96	250	6.29	-	-	39	7.27
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	10	6.32	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-	-	-
Rewinder helpers	43	6.03	21	5.72	161	5.57	247	5.84	-	-	64	6.94
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	95	5.58	169	6.02	-	-	21	6.99
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	6	5.99	-	-	-	-	-	-
Finishing, sheet:												
Cutters, guillotine type (cut and trim)	-	-	12	6.80	156	5.88	239	6.05	49	7.31	-	-
Fine grades	-	-	-	-	113	5.91	230	6.07	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-	-	-
Cutters, rotary or sheet	25	6.17	-	-	227	5.87	299	6.14	-	-	64	7.70
Fine grades	-	-	-	-	169	6.04	267	6.16	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 12. Occupational averages: All mills by size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southwest				Great Lakes				Pacific			
	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
PAPER AND PAPERBOARD—Continued												
Container board	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-	-	-
Laboratory:												
Paper testers	97	\$6.11	139	\$6.31	273	\$5.84	309	\$6.02	101	\$7.48	143	\$7.67
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	27	6.10	166	5.91	191	6.15	-	-	48	7.65
Sanitary tissue	-	-	-	-	17	5.96	-	-	-	-	-	-
Coarse (Kraft)	-	-	43	6.41	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-	-	-
Container board	23	6.63	34	6.08	-	-	-	-	25	7.40	36	7.62
Boxboard	38	5.46	22	6.63	28	5.46	-	-	-	-	-	-
MISCELLANEOUS												
Electricians, maintenance	149	8.46	191	8.17	359	6.92	365	7.05	175	9.47	321	9.75
Boiler tenders	30	6.60	51	7.14	222	6.52	216	6.33	69	8.47	77	8.51
Janitors	25	5.15	42	5.28	278	5.46	288	5.54	98	6.63	125	6.63
Machinists, maintenance	46	8.23	71	8.12	130	6.85	185	7.05	110	9.40	83	9.64
Mechanics, general	455	9.17	523	9.19	47	6.39	61	7.03	79	9.52	-	-
Millwrights, pulp and paper	173	7.86	324	8.06	875	6.84	718	7.02	277	9.38	587	9.68
Oilers	80	6.76	116	6.94	128	5.97	224	6.09	66	7.80	128	8.34
Pipefitters, maintenance	146	8.17	180	8.08	291	6.80	359	7.08	124	9.39	278	9.71
Truckers, power	206	5.87	211	5.90	1,111	5.77	1,035	5.74	545	7.36	349	7.38
Forklift	178	5.87	120	6.15	846	5.69	519	5.71	460	7.35	218	7.35
Other than forklift	28	5.82	91	5.56	265	6.02	516	5.77	85	7.41	131	7.42

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 that no data were reported or that data did not meet publication criteria.

Table 13. Occupational averages: All mills by size of mill

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²						New England						Middle Atlantic			
	Establishments with—															
	100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PULP																
Woodyard and wood preparation:																
Crane operators	-	-	440	\$7.32	482	\$7.67	-	-	23	\$5.98	42	\$6.71	-	-	29	\$6.10
Barkers, drum	-	-	138	6.01	109	6.08	-	-	14	4.62	11	5.47	-	-	15	5.58
Barkers, hydraulic	-	-	20	6.84	16	6.73	-	-	-	-	-	-	-	-	-	-
Sawyers	-	-	92	6.25	133	6.48	-	-	-	-	-	-	-	-	-	-
Chipper operators	-	-	140	6.17	160	6.27	-	-	-	-	22	5.75	-	-	8	5.63
Knife grinders	-	-	56	6.76	69	6.73	-	-	-	-	-	-	-	-	-	-
Pulpmaking:																
Cooks, batch digester	62	\$7.23	231	7.88	223	8.09	-	-	-	-	14	6.70	-	-	19	5.98
Sulphate process	24	8.58	166	8.11	173	8.10	-	-	-	-	-	-	-	-	11	5.92
Sulphite process	-	-	42	7.70	42	8.39	-	-	-	-	-	-	-	-	-	-
Cooks, continuous digester	31	7.43	224	8.29	102	7.78	-	-	20	5.58	-	-	-	-	26	6.77
Sulphate process	-	-	154	8.67	78	7.76	-	-	-	-	-	-	-	-	14	7.30
Sulphite process	19	6.56	26	7.73	-	-	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	12	8.45	-	-	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	40	6.26	229	6.61	282	6.78	-	-	-	-	15	5.90	-	-	20	6.13
Sulphate process	-	-	164	6.74	205	6.88	-	-	-	-	-	-	-	-	12	6.53
Sulphite process	-	-	38	6.51	55	6.93	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, continuous digester	-	-	153	7.46	77	6.90	-	-	-	-	-	-	-	-	-	-
Sulphate process	-	-	117	7.62	70	6.90	-	-	-	-	-	-	-	-	-	-
Sulphite process	-	-	16	7.30	-	-	-	-	-	-	-	-	-	-	-	-
Grinder operators	-	-	273	5.98	186	6.51	-	-	-	-	-	-	-	-	41	5.32
Blow-pit operators (sulphite)	-	-	55	6.60	21	6.48	-	-	-	-	-	-	-	-	-	-
Washer operators (sulphate)	-	-	181	7.28	145	7.37	-	-	-	-	-	-	-	-	12	5.51
Screen tenders	-	-	188	6.76	160	6.97	-	-	21	5.63	13	5.82	-	-	15	5.55
Sulphate process	-	-	76	7.25	99	6.85	-	-	-	-	-	-	-	-	-	-
Sulphite process	-	-	38	7.01	31	7.50	-	-	-	-	-	-	-	-	-	-
Groundwood process	-	-	40	6.40	17	7.37	-	-	-	-	-	-	-	-	-	-
Bleach-plant operators	31	7.02	233	7.39	258	7.76	-	-	23	5.14	17	5.70	-	-	31	5.78
Sulphate process	-	-	119	7.77	175	8.00	-	-	-	-	14	5.65	-	-	15	5.89
Sulphite process	-	-	76	7.46	39	7.81	-	-	-	-	-	-	-	-	-	-
Wet-machine operators	18	5.72	77	6.88	82	5.94	-	-	-	-	-	-	-	-	-	-
Sulphate process	-	-	51	6.95	-	-	-	-	-	-	-	-	-	-	-	-
Sulphite process	-	-	20	6.68	-	-	-	-	-	-	-	-	-	-	-	-
Pulp testers	41	6.12	429	6.25	307	6.16	-	-	24	5.45	32	5.17	-	-	55	5.42
Sulphate process	-	-	233	6.40	239	6.09	-	-	-	-	27	5.12	-	-	13	5.49
Sulphite process	12	6.43	67	6.37	25	6.69	-	-	-	-	-	-	-	-	-	-
Soda process	-	-	12	6.36	-	-	-	-	-	-	-	-	-	-	-	-
Semi-chemical process	-	-	28	5.79	-	-	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:																
Acid makers (sulphite)	-	-	50	7.11	33	7.81	-	-	-	-	-	-	-	-	-	-
Evaporator operators (sulphate)	-	-	171	7.63	155	7.42	-	-	-	-	9	5.57	-	-	-	-
Recovery operators (sulphate)	44	7.18	253	8.28	221	8.05	-	-	-	-	15	6.23	-	-	15	5.76
Recovery helpers, first (sulphate)	-	-	292	7.03	270	6.91	-	-	-	-	-	-	-	-	16	5.43
Caustic operators (causticisers) (sulphate)	20	7.51	210	7.50	141	7.40	-	-	-	-	11	5.42	-	-	-	-
Lime-kiln operators (sulphate)	-	-	184	7.13	115	7.14	-	-	-	-	-	-	-	-	13	6.12

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²						New England						Middle Atlantic			
	Establishments with—															
	100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD																
Stock preparation:																
Head stock preparers, group I	146	\$6.25	304	\$7.01	190	\$7.84	87	\$5.84	62	\$5.73	-	-	-	-	48	\$5.70
Newsprint and groundwood	-	-	14	7.51	13	8.25	-	-	-	-	-	-	-	-	-	-
Fine grades	81	6.20	156	6.70	108	7.37	60	5.74	-	-	-	-	-	24	6.05	
Sanitary tissue	-	-	32	6.24	18	8.47	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	42	7.51	13	8.63	-	-	-	-	-	-	-	-	-	-
Container board	-	-	40	8.03	10	8.34	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	14	6.74	18	8.21	-	-	-	-	-	-	-	-	-	-
Head stock preparers, group II	330	5.79	624	6.52	286	7.26	77	5.58	96	5.57	18	\$5.91	54	\$5.40	163	5.84
Newsprint and groundwood	-	-	40	6.69	12	7.88	-	-	-	-	-	-	-	-	-	-
Fine grades	124	5.88	235	6.50	93	7.07	48	5.62	41	5.58	-	-	-	53	6.29	
Sanitary tissue	-	-	52	6.39	60	6.98	-	-	20	5.62	-	-	-	16	6.26	
Coarse (Kraft)	-	-	18	7.26	20	7.28	-	-	-	-	-	-	-	-	-	-
Container board	36	5.83	98	7.52	-	-	-	-	-	-	-	-	-	-	-	-
Boxboard	96	5.50	88	6.26	48	7.88	21	5.41	-	-	-	-	27	5.11	-	-
Beater-operator helpers	423	5.28	932	5.88	610	6.57	141	5.07	147	4.98	35	5.77	-	-	208	5.12
Newsprint and groundwood	-	-	-	-	22	6.72	-	-	-	-	-	-	-	-	-	-
Fine grades	215	5.19	395	5.86	261	6.37	96	4.94	76	4.96	25	5.85	-	-	75	5.34
Sanitary tissue	-	-	71	6.03	71	6.32	-	-	35	5.19	-	-	-	-	-	-
Coarse (Kraft)	-	-	54	6.73	104	6.38	-	-	-	-	-	-	-	-	-	-
Container board	-	-	132	6.68	42	6.92	-	-	-	-	-	-	-	-	-	-
Boxboard	83	4.89	182	5.45	60	7.02	-	-	-	-	-	-	-	-	85	5.05
Hydrapulper operators	399	5.30	729	5.87	334	6.01	54	5.10	74	5.13	-	-	-	-	130	5.45
Newsprint and groundwood	-	-	24	6.30	16	6.03	-	-	-	-	-	-	-	-	-	-
Fine grades	96	5.83	304	5.83	131	5.81	-	-	40	5.29	14	5.23	-	-	68	5.45
Sanitary tissue	-	-	125	6.02	65	6.36	-	-	22	5.13	-	-	-	-	44	5.51
Coarse (Kraft)	-	-	37	5.36	65	6.44	-	-	-	-	-	-	-	-	-	-
Container board	52	6.11	96	6.28	39	5.55	-	-	-	-	-	-	-	-	-	-
Boxboard	126	4.81	101	5.59	17	5.51	-	-	-	-	-	-	-	-	-	-
Machine room:																
Paper-machine tenders	699	6.42	1,900	7.67	1,322	8.48	218	5.95	237	6.33	195	7.40	96	5.80	466	6.39
Newsprint and groundwood	-	-	84	9.25	72	9.72	-	-	40	6.84	-	-	-	-	-	-
Fine grades	247	6.48	768	7.20	512	7.93	123	6.00	128	6.32	135	7.67	-	-	215	6.70
Sanitary tissue	-	-	276	7.68	312	8.59	-	-	48	6.11	-	-	-	-	88	6.45
Coarse (Kraft)	49	6.38	141	8.89	192	8.81	-	-	-	-	-	-	-	-	-	-
Special industrial	101	5.43	53	6.96	60	8.78	-	-	-	-	-	-	-	-	-	-
Container board	68	7.81	292	8.88	72	8.58	-	-	-	-	-	-	-	-	-	-
Boxboard	126	5.94	138	7.52	94	9.15	33	5.64	-	-	-	-	27	5.38	31	6.21
Backtenders	693	5.87	1,877	7.03	1,336	7.81	218	5.35	244	5.90	205	6.89	90	5.44	466	5.96
Newsprint and groundwood	-	-	86	8.61	72	9.13	-	-	42	6.64	-	-	-	-	-	-
Fine grades	241	5.88	774	6.66	500	7.36	123	5.37	133	5.86	133	7.20	-	-	217	6.28
Sanitary tissue	-	-	261	6.83	328	7.79	-	-	48	5.61	-	-	-	-	86	5.90
Coarse (Kraft)	50	6.00	138	8.24	201	8.05	-	-	-	-	-	-	-	-	-	-
Special industrial	101	5.07	52	6.29	61	7.99	-	-	-	-	-	-	-	-	-	-
Container board	68	7.17	287	8.05	72	7.91	-	-	-	-	-	-	-	-	-	-
Boxboard	126	5.40	131	6.93	94	8.44	33	5.18	-	-	-	-	27	5.02	31	5.65
Third hands	649	5.57	1,764	6.49	1,245	7.12	209	5.04	167	5.54	201	6.27	84	5.22	436	5.53
Newsprint and groundwood	-	-	84	7.56	72	8.09	-	-	40	5.99	-	-	-	-	-	-
Fine grades	229	5.52	715	6.21	445	6.69	114	5.08	78	5.46	139	6.46	-	-	201	5.84
Sanitary tissue	-	-	225	6.31	298	7.03	-	-	42	5.33	-	-	-	-	72	5.58
Coarse (Kraft)	-	-	143	7.45	197	7.36	-	-	-	-	-	-	-	-	-	-
Special industrial	63	5.15	-	-	60	7.34	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²						New England						Middle Atlantic			
	Establishments with—															
	100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued																
Container board	68	\$6.58	279	\$7.33	70	\$7.37	-	-	-	-	-	-	-	-	-	-
Boxboard	123	5.10	138	6.35	95	7.72	33	\$4.78	-	-	-	27	\$4.83	31	\$5.31	-
Fourth hands	428	5.43	1,665	6.06	1,130	6.49	74	4.94	152	\$5.20	191	\$5.56	63	5.08	330	5.32
Newsprint and groundwood	-	-	84	6.57	72	7.13	-	-	40	5.49	-	-	-	-	-	-
Fine grades	142	5.47	659	5.86	434	6.14	45	4.93	70	5.16	140	5.66	-	-	166	5.49
Sanitary tissue	-	-	171	6.02	219	6.51	-	-	38	5.00	-	-	-	-	-	-
Coarse (Kraft)	-	-	159	6.85	189	6.68	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	52	6.63	-	-	-	-	-	-	-	-	-	-
Container board	60	6.05	258	6.64	62	6.57	-	-	-	-	-	-	-	-	-	-
Boxboard	92	4.78	173	5.82	94	6.98	-	-	-	-	-	-	-	-	22	5.26
Fifth hands	281	5.13	1,184	5.99	892	6.18	-	-	120	5.18	144	5.60	-	-	192	5.33
Newsprint and groundwood	-	-	72	6.44	72	6.73	-	-	28	5.54	-	-	-	-	-	-
Fine grades	42	5.68	453	5.77	330	5.95	-	-	56	5.22	109	5.68	-	-	128	5.46
Sanitary tissue	-	-	82	5.78	113	6.11	-	-	32	4.83	-	-	-	-	-	-
Coarse (Kraft)	44	5.38	152	6.47	157	6.36	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	41	6.11	-	-	-	-	-	-	-	-	-	-
Container board	60	5.87	233	6.32	77	6.06	-	-	-	-	-	-	-	-	-	-
Boxboard	87	4.02	143	5.70	94	6.45	-	-	-	-	-	-	-	-	-	-
Finishing, roll:																
Calender operators	108	5.91	367	6.43	247	6.87	69	5.84	-	-	51	6.61	-	-	66	6.28
Fine grades	59	6.13	324	6.47	234	6.92	-	-	-	-	42	6.76	-	-	64	6.26
Calender helpers	85	5.29	383	5.75	222	6.16	48	5.27	29	5.63	51	5.91	-	-	76	5.51
Fine grades	31	5.77	331	5.76	207	6.22	21	5.19	-	-	40	6.04	-	-	74	5.49
Coater operators (off-machine)	-	-	128	6.35	223	6.90	-	-	18	6.53	-	-	-	-	32	5.63
Fine grades	-	-	92	6.61	195	6.85	-	-	18	6.53	-	-	-	-	22	5.68
Boxboard	-	-	34	5.72	-	-	-	-	-	-	-	-	-	-	-	-
Coater operator helpers	-	-	136	5.97	156	6.26	-	-	25	6.04	34	5.69	-	-	31	5.14
Fine grades	-	-	110	6.13	123	6.26	-	-	25	6.04	-	-	-	-	13	5.19
Rewinder operators	335	5.62	794	5.98	963	6.24	91	5.48	136	5.34	100	5.96	-	-	225	5.49
Newsprint and groundwood	-	-	10	6.21	25	6.59	-	-	-	-	-	-	-	-	-	-
Fine grades	73	5.79	513	5.95	461	6.23	-	-	73	5.40	85	6.01	-	-	152	5.55
Sanitary tissue	-	-	134	5.79	260	6.21	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	25	6.73	-	-	-	-	-	-	-	-	-	-	-	-
Container board	-	-	24	7.08	11	6.01	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	27	6.02	31	6.25	-	-	-	-	-	-	-	-	-	-
Rewinder helpers	168	5.55	619	5.59	455	5.80	-	-	120	5.14	65	5.51	-	-	197	5.19
Newsprint and groundwood	-	-	-	-	11	5.65	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	396	5.59	300	5.74	-	-	74	5.27	61	5.51	-	-	129	5.24
Sanitary tissue	-	-	99	5.29	-	-	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	23	6.33	69	5.77	-	-	-	-	-	-	-	-	-	-
Container board	-	-	39	6.20	9	5.56	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	16	5.37	22	5.85	-	-	-	-	-	-	-	-	-	-
Finishing, sheet:																
Cutters, guillotine type (cut and trim)	254	5.40	383	6.00	284	6.42	39	5.58	26	4.74	17	5.62	65	4.89	92	6.15
Fine grades	103	5.94	335	6.00	220	6.38	33	5.65	24	4.78	13	5.64	-	-	80	6.28
Coarse (Kraft)	-	-	-	-	26	6.27	-	-	-	-	-	-	-	-	-	-
Boxboard	68	5.07	28	5.50	16	6.86	-	-	-	-	-	-	47	4.75	12	5.31
Cutters, rotary or sheet	348	5.44	547	5.87	550	6.44	201	5.12	82	4.92	25	5.62	-	-	119	5.54
Fine grades	229	5.68	430	5.88	401	6.29	117	5.31	76	4.95	24	5.62	-	-	101	5.54
Coarse (Kraft)	-	-	-	-	20	6.34	-	-	-	-	-	-	-	-	-	-
Container board	-	-	16	7.07	-	-	-	-	-	-	-	-	-	-	-	-

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	United States ²						New England						Middle Atlantic			
	Establishments with—															
	100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers		1,000 workers or more		100-249 workers		250-999 workers	
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings
PAPER AND PAPERBOARD—Continued																
Boxboard	76	\$4.79	62	\$5.31	54	\$7.09	-	-	-	-	-	-	-	-	-	-
Laboratory:																
Paper testers	376	5.54	1,136	6.17	853	6.31	79	\$5.28	126	\$5.37	116	\$5.47	51	\$5.50	214	\$5.49
Newsprint and groundwood	16	6.84	47	6.48	28	6.33	-	-	21	5.58	-	-	-	-	-	-
Fine grades	129	5.74	508	6.00	339	6.05	39	5.25	84	5.44	82	5.51	-	-	116	5.57
Sanitary tissue	-	-	74	5.56	132	6.61	-	-	-	-	-	-	-	-	28	5.19
Coarse (Kraft)	-	-	83	6.88	110	6.12	-	-	-	-	-	-	-	-	-	-
Special industrial	80	4.77	22	5.79	15	6.10	-	-	-	-	-	-	-	-	-	-
Container board	58	6.32	207	6.66	79	6.40	-	-	-	-	-	-	-	-	-	-
Boxboard	30	4.44	131	6.18	127	6.57	-	-	-	-	-	-	-	-	-	-
MISCELLANEOUS																
Electricians, maintenance	271	6.91	1,649	7.81	1,757	7.95	51	5.73	200	6.53	166	6.88	35	5.81	233	6.52
Boiler tenders	368	6.00	703	6.67	450	7.16	134	5.73	86	5.82	55	6.42	51	5.33	140	5.81
Janitors	188	4.72	841	5.50	797	5.63	54	4.68	102	4.82	80	4.94	23	4.69	168	5.04
Machinists, maintenance	96	7.00	704	7.44	776	7.71	9	5.54	130	6.19	104	6.81	-	-	105	6.47
Mechanics, general	534	7.23	2,393	8.87	596	8.04	94	5.87	111	5.91	-	-	138	5.80	-	-
Milwrights, pulp and paper	609	6.81	2,863	7.55	3,386	7.83	132	5.68	312	6.13	374	6.86	-	-	491	6.37
Oilers	122	5.75	786	6.61	733	6.81	21	5.12	71	5.59	79	6.05	-	-	109	5.55
Pipefitters, maintenance	140	7.22	1,444	7.72	1,715	7.80	33	5.40	143	6.42	190	6.75	-	-	205	6.55
Truckers, power	698	5.27	2,718	5.81	3,185	6.19	131	4.68	302	5.03	228	5.28	131	5.38	517	5.19
Forklift	603	5.25	2,093	5.80	2,009	6.23	126	4.66	266	4.95	86	5.27	119	5.43	445	5.21
Other than forklift	95	5.35	625	5.85	1,176	6.10	-	-	36	5.59	142	5.29	-	-	72	5.06

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southeast				Southwest			
	Establishments with—				Establishments with—			
	250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PULP								
Woodyard and wood preparation:								
Crane operators	258	\$7.56	306	\$7.98	55	\$8.12	59	\$7.88
Barkers, drum	58	6.14	64	6.05	12	6.80	22	6.42
Barkers, hydraulic	-	-	-	-	-	-	-	-
Sawyers	33	5.87	72	6.29	-	-	32	6.40
Chipper operators	68	6.13	90	6.37	-	-	19	6.17
Knife grinders	20	6.62	35	6.77	8	6.82	10	6.49
Pulpmaking:								
Cooks, batch digester	103	8.26	108	8.08	12	8.37	33	7.98
Sulphate process	88	8.23	100	8.22	12	8.37	33	7.98
Sulphite process	-	-	-	-	-	-	-	-
Cooks, continuous digester	40	8.89	40	7.77	28	9.57	16	8.14
Sulphate process	36	9.19	40	7.77	24	9.42	-	-
Sulphite process	-	-	-	-	-	-	-	-
Soda process	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	126	6.67	146	6.69	-	-	43	6.81
Sulphate process	107	6.62	120	6.94	-	-	43	6.81
Sulphite process	-	-	-	-	-	-	-	-
Cook helpers, first, continuous digester	36	7.61	28	6.86	21	7.85	-	-
Sulphate process	32	7.83	28	6.86	17	7.60	-	-
Sulphite process	-	-	-	-	-	-	-	-
Grinder operators	-	-	48	6.38	-	-	-	-
Blow-pit operators (sulphite)	-	-	-	-	-	-	-	-
Washer operators (sulphate)	80	7.45	72	7.64	12	6.97	16	7.23
Screen tenders	44	7.01	74	6.98	-	-	21	6.85
Sulphate process	28	7.04	57	7.08	-	-	16	6.57
Sulphite process	-	-	-	-	-	-	-	-
Groundwood process	-	-	-	-	-	-	-	-
Bleach-plant operators	30	8.64	122	7.82	-	-	37	8.38
Sulphate process	24	8.64	96	8.21	-	-	33	8.35
Sulphite process	-	-	-	-	-	-	-	-
Wet-machine operators	-	-	-	-	-	-	-	-
Sulphate process	-	-	-	-	-	-	-	-
Sulphite process	-	-	-	-	-	-	-	-
Pulp testers	132	6.16	132	6.10	27	6.16	72	6.17
Sulphate process	108	6.13	125	6.11	27	6.16	56	6.23
Sulphite process	-	-	-	-	-	-	-	-
Soda process	-	-	-	-	-	-	-	-
Semi-chemical process	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:								
Acid makers (sulphite)	-	-	-	-	-	-	-	-
Evaporator operators (sulphate)	88	7.64	90	7.58	-	-	24	7.62
Recovery operators (sulphate)	90	8.21	112	8.31	20	8.83	36	8.22
Recovery helpers, first (sulphate)	121	6.97	138	6.88	36	6.81	68	7.19
Caustic operators (causticisers) (sulphate)	103	7.34	83	7.74	28	8.06	28	7.41
Lime-kiln operators (sulphate)	93	7.00	63	7.14	-	-	20	7.18

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southeast				Southwest			
	Establishments with—							
	250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD								
Stock preparation:								
Head stock preparers, group I	52	\$8.20	103	\$7.80	28	\$7.24	19	\$8.09
Newsprint and groundwood	-	-	-	-	-	-	-	-
Fine grades	-	-	58	7.48	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-
Container board	32	7.94	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	7	8.37
Head stock preparers, group II	73	7.49	70	7.65	16	8.84	36	7.94
Newsprint and groundwood	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-
Container board	32	7.92	-	-	10	9.13	-	-
Boxboard	29	7.13	32	7.76	-	-	-	-
Beater-operator helpers	118	6.40	231	6.75	24	6.67	68	6.91
Newsprint and groundwood	-	-	-	-	-	-	-	-
Fine grades	-	-	77	6.63	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	16	6.76	47	7.01	14	5.61	-	-
Container board	56	6.43	32	6.96	-	-	-	-
Boxboard	-	-	28	7.04	-	-	32	7.00
Hydrapulper operators	81	5.51	89	5.68	-	-	36	5.95
Newsprint and groundwood	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-
Sanitary tissue	-	-	12	6.02	-	-	-	-
Coarse (Kraft)	-	-	20	5.98	-	-	-	-
Container board	32	5.71	-	-	-	-	-	-
Boxboard	-	-	13	5.43	-	-	-	-
Machine room:								
Paper-machine tenders	280	8.76	393	8.90	108	9.11	145	9.08
Newsprint and groundwood	-	-	36	10.30	-	-	-	-
Fine grades	-	-	108	8.12	-	-	29	9.16
Sanitary tissue	-	-	53	8.80	-	-	-	-
Coarse (Kraft)	-	-	80	9.18	60	8.41	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	128	8.93	48	9.00	24	9.65	-	-
Boxboard	57	8.51	48	9.13	-	-	38	9.05
Backtenders	262	7.93	403	8.16	108	8.18	153	8.36
Newsprint and groundwood	-	-	36	9.61	-	-	-	-
Fine grades	-	-	114	7.49	-	-	29	8.32
Sanitary tissue	-	-	59	7.92	-	-	-	-
Coarse (Kraft)	-	-	78	8.39	64	7.74	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	127	8.07	48	8.28	24	8.55	-	-
Boxboard	56	7.76	48	8.45	-	-	38	8.35
Third hands	262	7.28	371	7.66	108	7.53	140	7.52
Newsprint and groundwood	-	-	36	8.54	-	-	-	-
Fine grades	-	-	79	7.30	-	-	-	-
Sanitary tissue	-	-	60	7.33	-	-	-	-
Coarse (Kraft)	39	7.26	79	7.85	64	7.17	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	127	7.47	48	7.64	24	8.00	-	-
Boxboard	57	7.10	49	7.73	-	-	38	7.66

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southeast				Southwest			
	Establishments with—							
	250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD—Continued								
Fourth hands	274	\$6.36	354	\$6.92	100	\$6.78	137	\$6.79
Newsprint and groundwood	-	-	36	7.52	-	-	-	-
Fine grades	-	-	71	6.79	-	-	-	-
Sanitary tissue	-	-	60	6.57	-	-	-	-
Coarse (Kraft)	39	6.60	81	7.05	56	6.61	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	126	6.61	38	6.87	24	7.03	-	-
Boxboard	76	5.91	48	6.97	-	-	38	6.91
Fifth hands	249	6.04	352	6.38	100	6.24	139	6.26
Newsprint and groundwood	-	-	36	7.20	-	-	-	-
Fine grades	-	-	81	6.22	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	40	6.18	81	6.41	56	6.14	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	125	6.10	54	6.21	24	6.39	-	-
Boxboard	67	5.78	48	6.38	-	-	38	6.43
Finishing, roll:								
Calender operators	-	-	35	6.42	-	-	-	-
Fine grades	-	-	35	6.42	-	-	-	-
Calender helpers	-	-	26	5.85	-	-	-	-
Fine grades	-	-	26	5.85	-	-	-	-
Coater operators (off-machine)	11	7.22	23	7.12	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-
Coater operator helpers	-	-	-	-	-	-	-	-
Fine grades	-	-	-	-	-	-	-	-
Rewinder operators	50	6.81	236	6.24	16	6.70	53	6.58
Newsprint and groundwood	-	-	11	7.54	-	-	-	-
Fine grades	-	-	106	6.27	-	-	23	7.11
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	16	6.29	-	-	-	-
Container board	7	6.50	-	-	-	-	-	-
Boxboard	-	-	19	6.18	-	-	-	-
Rewinder helpers	37	5.94	81	5.72	-	-	52	5.90
Newsprint and groundwood	-	-	-	-	-	-	-	-
Fine grades	-	-	32	5.61	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	12	5.83	-	-	-	-
Container board	-	-	-	-	-	-	-	-
Boxboard	-	-	15	5.83	-	-	-	-
Finishing, sheet:								
Cutters, guillotine type (cut and trim)	-	-	71	6.36	-	-	31	6.70
Fine grades	-	-	38	6.25	-	-	-	-
Coarse (Kraft)	-	-	16	6.33	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-
Cutters, rotary or sheet	34	6.42	186	6.68	-	-	-	-
Fine grades	-	-	75	6.53	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-
Boxboard	-	-	36	6.89	-	-	-	-
Laboratory:								
Paper testers	226	6.58	323	6.38	69	6.59	127	6.25

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Southeast				Southwest			
	Establishments with—				Establishments with—			
	250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD—Continued								
Newsprint and groundwood	-	-	17	\$6.52	-	-	-	-
Fine grades	-	-	95	6.26	-	-	-	-
Sanitary tissue	-	-	51	6.56	-	-	-	-
Coarse (Kraft)	-	-	49	6.29	35	\$6.66	-	-
Special industrial	-	-	-	-	-	-	-	-
Container board	111	\$6.30	-	-	16	6.90	-	-
Boxboard	-	-	61	6.36	-	-	46	\$6.40
MISCELLANEOUS								
Electricians, maintenance	396	8.05	817	8.08	77	9.00	233	8.19
Boiler tenders	124	7.33	201	7.18	20	7.21	47	7.35
Janitors	129	5.49	280	5.53	-	-	48	5.56
Machinists, maintenance	143	7.94	329	7.82	27	8.24	88	8.14
Mechanics, general	1,196	8.81	164	7.87	625	9.31	-	-
Millwrights, pulp and paper	665	8.02	1,473	7.96	111	8.24	344	8.07
Oilers	215	6.89	292	6.93	62	6.72	128	7.02
Pipefitters, maintenance	357	7.98	786	7.96	73	8.14	237	8.13
Truckers, power	373	5.97	983	6.10	109	5.66	266	6.11
Forklift	329	5.97	789	6.08	100	5.70	180	6.21
Other than forklift	44	6.03	194	6.14	-	-	86	5.90

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

 (Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Great Lakes						Pacific			
	Establishments with—						Establishments with—			
	100-249 workers		250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PULP										
Woodyard and wood preparation:										
Crane operators	-	-	52	\$6.18	44	\$6.64	11	\$7.89	14	\$7.75
Barkers, drum	-	-	21	5.56	7	6.36	-	-	-	-
Barkers, hydraulic	-	-	-	-	-	-	10	7.75	11	7.44
Sawyers	-	-	21	5.68	-	-	18	7.57	16	7.83
Chipper operators	-	-	25	5.86	17	5.99	13	7.45	8	7.32
Knife grinders	-	-	8	6.34	7	6.56	11	8.00	7	8.25
Pulpmaking:										
Cooks, batch digester	-	-	33	6.78	28	7.42	44	8.69	36	9.38
Sulphate process	-	-	-	-	12	7.50	32	8.64	-	-
Sulphite process	-	-	22	6.72	16	7.36	-	-	20	9.53
Cooks, continuous digester	-	-	-	-	-	-	78	8.99	-	-
Sulphate process	-	-	-	-	-	-	52	9.09	-	-
Sulphite process	-	-	-	-	-	-	14	9.09	-	-
Soda process	-	-	-	-	-	-	-	-	-	-
Cook helpers, first, batch digester	-	-	33	6.06	30	6.47	28	7.27	44	7.57
Sulphate process	-	-	-	-	14	6.63	20	7.28	-	-
Sulphite process	-	-	22	6.04	16	6.34	-	-	28	7.62
Cook helpers, first, continuous digester	-	-	-	-	-	-	64	7.75	-	-
Sulphate process	-	-	-	-	-	-	48	7.90	-	-
Sulphite process	-	-	-	-	-	-	16	7.30	-	-
Grinder operators	-	-	146	5.59	-	-	-	-	-	-
Blow-pit operators (sulphite)	-	-	27	5.92	-	-	-	-	11	7.36
Washer operators (sulphate)	-	-	11	6.42	20	6.37	48	7.74	-	-
Screen tenders	-	-	45	5.89	16	6.29	55	7.86	32	8.00
Sulphate process	-	-	-	-	-	-	32	7.90	-	-
Sulphite process	-	-	15	5.98	-	-	-	-	24	8.00
Groundwood process	-	-	14	5.85	-	-	-	-	-	-
Bleach-plant operators	-	-	53	6.30	32	6.78	72	8.65	40	8.73
Sulphate process	-	-	11	6.94	-	-	33	8.65	20	8.57
Sulphite process	-	-	22	6.39	16	6.82	36	8.53	20	8.89
Wet-machine operators	-	-	24	6.22	65	5.92	-	-	-	-
Sulphate process	-	-	9	6.70	-	-	-	-	-	-
Sulphite process	-	-	15	5.94	-	-	-	-	-	-
Pulp testers	-	-	91	5.91	32	6.15	82	7.40	31	7.52
Sulphate process	-	-	23	6.33	15	6.13	40	7.42	-	-
Sulphite process	-	-	-	-	-	-	22	7.23	-	-
Soda process	-	-	-	-	-	-	-	-	-	-
Semi-chemical process	-	-	-	-	-	-	-	-	-	-
Recovery, caustic, and acid making:										
Acid makers (sulphite)	-	-	26	6.00	-	-	16	8.41	20	8.70
Evaporator operators (sulphate)	-	-	11	6.50	11	6.23	-	-	16	8.49
Recovery operators (sulphate)	-	-	15	6.91	22	6.70	81	9.08	32	8.78
Recovery helpers, first (sulphate)	-	-	-	-	18	6.18	84	7.73	25	7.43
Caustic operators (causticisers) (sulphate)	-	-	-	-	11	6.36	44	8.11	-	-
Lime-kiln operators (sulphate)	-	-	-	-	-	-	51	8.00	16	8.24

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Great Lakes						Pacific			
	Establishments with—						Establishments with—			
	100-249 workers		250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD										
Stock preparation:										
Head stock preparers, group I	27	\$5.67	80	\$6.99	14	\$7.59	30	\$9.19	18	\$9.48
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	66	6.89	14	7.59	16	9.18	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-
Head stock preparers, group II	135	6.00	188	6.23	86	7.03	84	8.15	-	-
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	37	6.15	109	6.30	39	7.54	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	36	7.48	-	-
Boxboard	-	-	35	5.97	-	-	-	-	-	-
Beater-operator helpers	115	5.77	293	5.80	175	6.12	96	7.58	-	-
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	29	5.54	176	5.83	114	6.40	52	7.67	-	-
Sanitary tissue	-	-	-	-	20	6.05	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	24	5.56	-	-	-	-	-	-
Boxboard	-	-	63	5.64	-	-	-	-	-	-
Hydrapulper operators	136	5.45	293	5.80	102	6.20	123	7.19	-	-
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	152	5.82	58	6.16	44	6.95	-	-
Sanitary tissue	-	-	32	6.01	41	6.28	27	7.59	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	24	5.80	-	-	32	7.31	-	-
Boxboard	-	-	54	5.77	-	-	-	-	-	-
Machine room:										
Paper-machine tenders	196	6.56	537	7.01	319	7.73	240	10.65	154	10.14
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	55	6.69	333	7.02	144	7.80	68	10.37	-	-
Sanitary tissue	-	-	72	7.39	-	-	48	11.18	44	10.45
Coarse (Kraft)	41	5.87	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	56	6.77	-	-	64	10.09	-	-
Boxboard	-	-	38	6.50	-	-	-	-	-	-
Backtenders	197	6.07	530	6.45	307	7.12	235	9.74	156	9.28
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	55	6.07	332	6.49	132	7.21	68	9.46	-	-
Sanitary tissue	-	-	72	6.64	-	-	47	10.17	45	9.62
Coarse (Kraft)	42	5.61	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	56	6.23	-	-	60	9.23	-	-
Boxboard	-	-	32	6.06	-	-	-	-	-	-
Third hands	200	5.66	540	6.01	293	6.56	219	8.52	144	8.28
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	52	5.65	344	6.05	115	6.73	68	8.39	-	-
Sanitary tissue	-	-	72	6.18	-	-	39	8.96	36	8.63
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	56	5.91	-	-	52	8.02	-	-
Boxboard	-	-	38	5.66	-	-	-	-	-	-

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Great Lakes						Pacific			
	Establishments with—									
	100-249 workers		250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD—Continued										
Fourth hands	164	\$5.52	547	\$5.76	252	\$6.11	230	\$7.55	121	\$7.46
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	34	5.47	330	5.77	130	6.20	69	7.51	-	-
Sanitary tissue	-	-	64	5.75	87	6.23	41	7.86	27	7.70
Coarse (Kraft)	-	-	-	-	-	-	48	7.37	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	52	5.91	-	-	36	7.31	-	-
Boxboard	-	-	63	5.67	-	-	-	-	-	-
Fifth hands	124	5.31	291	5.68	118	5.91	200	7.17	74	7.11
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	189	5.64	65	6.02	56	7.22	-	-
Sanitary tissue	-	-	-	-	-	-	34	7.20	-	-
Coarse (Kraft)	-	-	-	-	-	-	44	7.07	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	38	7.00	-	-
Boxboard	-	-	56	5.59	-	-	-	-	-	-
Finishing, roll:	-	-	-	-	-	-	-	-	-	-
Calender operators	-	-	197	6.30	101	6.90	-	-	-	-
Fine grades	-	-	178	6.38	97	6.95	-	-	-	-
Calender helpers	-	-	229	5.59	85	6.13	-	-	-	-
Fine grades	-	-	190	5.59	81	6.17	-	-	-	-
Coater operators (off-machine)	-	-	63	6.33	133	6.76	-	-	-	-
Fine grades	-	-	41	6.55	133	6.76	-	-	-	-
Boxboard	-	-	20	5.97	-	-	-	-	-	-
Coater operator helpers	-	-	65	5.99	79	6.39	-	-	-	-
Fine grades	-	-	57	6.04	79	6.39	-	-	-	-
Rewinder operators	150	5.65	280	6.07	433	6.10	69	7.34	-	-
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	221	6.03	198	6.33	41	7.38	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	7	6.15	-	-	-	-	-	-
Rewinder helpers	72	5.49	193	5.77	143	5.81	52	6.95	55	6.67
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	-	-	149	5.77	112	5.99	-	-	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	6	5.99	-	-	-	-	-	-
Finishing, sheet:	-	-	-	-	-	-	-	-	-	-
Cutters, guillotine type (cut and trim)	70	5.73	213	5.88	112	6.33	30	7.33	-	-
Fine grades	31	5.66	204	5.89	108	6.36	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	7	5.55	-	-	-	-	-	-
Cutters, rotary or sheet	58	5.64	247	5.82	221	6.35	60	7.67	25	7.58
Fine grades	31	5.63	191	5.90	214	6.38	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	-	-	-	-
Boxboard	-	-	-	-	-	-	-	-	-	-
Laboratory:	-	-	-	-	-	-	-	-	-	-
Paper testers	110	5.78	319	5.85	153	6.22	133	7.55	83	7.71

See footnotes at end of table.

Table 13. Occupational averages: All mills by size of mill—Continued

(Number and average straight-time hourly earnings¹ of production workers in selected occupations, United States and selected regions, summer 1977)

Department and occupation	Great Lakes						Pacific			
	Establishments with—						Establishments with—			
	100-249 workers		250-999 workers		1,000 workers or more		250-999 workers		1,000 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
PAPER AND PAPERBOARD—Continued										
Newsprint and groundwood	-	-	-	-	-	-	-	-	-	-
Fine grades	33	\$5.79	223	\$5.92	101	\$6.38	48	\$7.65	-	-
Sanitary tissue	-	-	-	-	-	-	-	-	-	-
Coarse (Kraft)	-	-	-	-	-	-	-	-	-	-
Special industrial	-	-	-	-	-	-	-	-	-	-
Container board	-	-	-	-	-	-	40	7.52	-	-
Boxboard	-	-	38	5.36	-	-	-	-	-	-
MISCELLANEOUS										
Electricians, maintenance	91	6.78	353	6.76	280	7.33	307	9.68	152	\$9.59
Boiler tenders	131	6.48	223	6.23	84	6.86	94	8.33	40	8.78
Janitors	61	5.09	274	5.39	231	5.74	146	6.57	77	6.76
Mechanists, maintenance	11	6.47	168	6.76	136	7.27	105	9.56	58	9.49
Mechanics, general	35	6.10	39	6.76	-	-	295	9.78	-	-
Millwrights, pulp and paper	275	6.80	705	6.68	613	7.26	439	9.64	338	9.52
Oilers	55	5.79	171	5.97	126	6.26	124	7.97	61	8.41
Pipefitters, maintenance	54	6.90	348	6.80	248	7.19	240	9.64	138	9.52
Truckers, power	290	5.41	919	5.59	937	6.02	436	7.24	445	7.50
Forklift	243	5.39	556	5.58	566	5.95	344	7.22	322	7.50
Other than forklift	47	5.53	363	5.62	371	6.13	92	7.31	123	7.50

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 that no data were reported or that data did not meet publication criteria.

Table 14. Occupational averages: All mills by size of mill and size of community

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Occupation and Size of establishment	United States ²				New England				Middle Atlantic		Southeast			
	Metropolitan areas		Nonmetropolitan areas		Metropolitan areas		Nonmetropolitan areas		Metropolitan areas				Nonmetropolitan areas	
	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings	Number of workers	Average hourly earn- ings
Crane operators:														
100-249 workers	-	-	14	\$6.64	-	-	-	-	-	-	-	-	-	-
250-999 workers	152	\$7.51	288	7.23	-	-	23	\$5.98	27	\$6.17	80	\$7.90	178	\$7.41
1,000 or more workers	116	7.70	366	7.66	-	-	39	6.80	-	-	66	7.95	240	7.99
Cooks, sulphate, batch digester:														
100-249 workers	-	-	16	8.75	-	-	-	-	-	-	-	-	-	-
250-999 workers	55	7.57	111	8.38	-	-	-	-	-	-	24	7.99	64	8.32
1,000 or more workers	57	8.09	116	8.11	-	-	-	-	-	-	32	8.14	68	8.26
Cooks, sulphate, cont. digester:														
250-999 workers	74	8.83	80	8.53	-	-	-	-	-	-	16	9.25	20	9.15
1,000 or more workers	12	8.45	66	7.64	-	-	-	-	-	-	12	8.45	28	7.47
Paper-machine tenders, fine grades:														
100-249 workers	146	6.34	101	6.67	87	\$5.95	-	-	-	-	-	-	-	-
250-999 workers	463	6.79	305	7.83	84	6.36	44	6.25	187	6.76	-	-	-	-
1,000 or more workers	177	7.75	335	8.03	-	-	85	8.14	-	-	-	-	96	7.98
Fourth hands, fine grades:														
100-249 workers	98	5.41	44	5.59	45	4.93	-	-	-	-	-	-	-	-
250-999 workers	356	5.67	303	6.09	26	5.45	44	5.00	142	5.55	-	-	-	-
1,000 or more workers	157	6.15	277	6.13	-	-	108	5.67	-	-	23	6.44	48	6.96
Mechanics, general:														
100-249 workers	222	6.33	312	7.86	-	-	74	5.96	138	5.80	-	-	-	-
250-999 workers	666	8.79	1,727	8.90	-	-	101	5.79	-	-	140	8.14	1,056	8.90
1,000 or more workers	267	7.28	329	8.65	-	-	-	-	-	-	-	-	91	8.29
Millwrights, pulp and paper:														
100-249 workers	413	6.53	196	7.39	78	5.67	-	-	-	-	-	-	-	-
250-999 workers	1,369	7.13	1,494	7.93	69	5.89	243	6.20	472	6.39	316	8.20	349	7.86
1,000 or more workers	1,204	7.84	2,182	7.82	-	-	336	6.89	-	-	541	7.89	932	7.99
Janitors:														
100-249 workers	122	4.62	66	4.89	31	4.47	23	4.95	23	4.69	20	4.31	-	-
250-999 workers	452	5.36	389	5.67	67	4.94	35	4.60	152	5.08	57	5.64	72	5.38
1,000 or more workers	325	5.68	472	5.59	-	-	48	4.99	-	-	54	5.37	226	5.57

See footnotes at end of table.

Table 14. Occupational averages: All mills by size of mill and size of community—Continued

(Number and average straight-time hourly earnings¹ of workers in selected occupations, United States and selected regions, summer 1977)

Occupation and Size of establishment	Southwest				Great Lakes				Pacific			
	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
Crane operators:	-	-	-	-	-	-	-	-	-	-	-	-
100-249 workers	32	\$8.19	23	\$8.03	11	\$6.02	41	\$6.23	-	-	-	-
250-999 workers	27	7.97	32	7.81	-	-	36	6.65	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Cooks, sulphate, batch digester:	-	-	-	-	-	-	-	-	16	\$7.85	-	-
100-249 workers	-	-	-	-	-	-	-	-	-	-	-	-
250-999 workers	17	8.15	16	7.80	-	-	12	7.50	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Cooks, sulphate, cont. digester:	20	9.26	-	-	-	-	-	-	-	-	28	\$9.27
250-999 workers	-	-	-	-	-	-	-	-	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Paper-machine tenders, fine grades:	-	-	-	-	-	-	41	6.66	-	-	-	-
100-249 workers	-	-	-	-	168	6.66	165	7.39	-	-	52	10.66
250-999 workers	-	-	-	-	-	-	94	8.03	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Fourth hands, fine grades:	-	-	-	-	-	-	20	5.40	-	-	-	-
100-249 workers	-	-	-	-	168	5.62	162	5.92	-	-	57	7.55
250-999 workers	-	-	-	-	-	-	89	6.33	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Mechanics, general:	-	-	-	-	33	6.05	-	-	-	-	-	-
100-249 workers	392	9.33	233	9.28	-	-	25	6.53	-	-	-	-
250-999 workers	-	-	-	-	-	-	-	-	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Millwrights, pulp and paper:	-	-	-	-	217	6.84	58	6.65	-	-	-	-
100-249 workers	-	-	-	-	354	6.55	351	6.82	123	9.29	316	9.77
250-999 workers	-	-	244	8.01	-	-	309	7.32	-	-	211	9.50
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-
Janitors:	-	-	-	-	39	5.03	22	5.18	-	-	-	-
100-249 workers	-	-	-	-	123	5.31	151	5.46	52	6.51	94	6.60
250-999 workers	-	-	32	5.47	-	-	115	5.72	-	-	-	-
1,000 or more workers	-	-	-	-	-	-	-	-	-	-	-	-

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 that no data were reported or that data did not meet publication criteria.

Table 15. Occupational earnings: Crane operators(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Southeast	Southwest	Great Lakes
Number of workers	988	65	574	124	142
Average hourly earnings ¹	\$7.46	\$6.45	\$7.79	\$7.88	\$6.51
Total	100.0	100.0	100.0	100.0	100.0
Under \$5.00	0.9	6.2	-	-	3.5
\$5.00 and under \$5.20 .....	.3	1.5	-	-	-
\$5.20 and under \$5.40 .....	.1	-	-	-	-
\$5.40 and under \$5.60	1.1	3.1	0.9	-	.7
\$5.60 and under \$5.80	1.5	3.1	-	-	6.3
\$5.80 and under \$6.00	1.9	13.8	1.0	-	1.4
\$6.00 and under \$6.20	3.3	7.7	-	-	11.3
\$6.20 and under \$6.40	2.2	-	-	6.5	9.9
\$6.40 and under \$6.60	4.0	13.8	.3	-	7.7
\$6.60 and under \$6.80	7.9	-	4.9	-	33.1
\$6.80 and under \$7.00	5.0	24.6	.7	-	19.7
\$7.00 and under \$7.20	4.4	1.5	5.2	3.2	2.8
\$7.20 and under \$7.40	15.1	24.6	20.6	7.3	3.5
\$7.40 and under \$7.60	6.6	-	8.9	4.8	-
\$7.60 and under \$7.80	3.0	-	-	20.2	-
\$7.80 and under \$8.00 .....	.9	-	.3	-	-
\$8.00 and under \$8.20	24.8	-	33.3	43.5	-
\$8.20 and under \$8.40	7.8	-	10.8	12.1	-
\$8.40 and under \$8.60	4.1	-	6.4	-	-
\$8.60 and under \$8.80	3.8	-	6.6	-	-
\$8.80 and under \$9.00 .....	.2	-	-	-	-
\$9.00 and over .....	.9	-	-	2.4	-

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

Table 16. Occupational earnings: Cooks, sulphate, batch digester

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	Southeast	Southwest	Pacific	Hourly earnings	United States ²	Southeast	Southwest	Pacific
Number of workers	363	188	61	52					
Average hourly earnings ¹	\$8.14	\$8.23	\$8.22	\$8.91	\$7.40 and under \$7.60	6.6	4.3	6.6	15.4
Total	100.0	100.0	100.0	100.0	\$7.60 and under \$7.80	5.5	8.5	-	-
Under \$6.00	1.9	-	-	-	\$7.80 and under \$8.00	11.3	10.6	34.4	-
\$6.00 and under \$6.20	2.2	-	-	-	\$8.00 and under \$8.20	8.8	10.6	-	7.7
\$6.20 and under \$6.40	3.0	-	-	-	\$8.20 and under \$8.40	13.2	14.9	19.7	7.7
\$6.40 and under \$6.60	-	-	-	-	\$8.40 and under \$8.60	7.7	10.6	13.1	-
\$6.60 and under \$6.80	1.1	-	-	-	\$8.60 and under \$8.80	6.6	8.5	-	7.7
\$6.80 and under \$7.00	1.1	2.1	-	-	\$8.80 and under \$9.00	6.6	12.8	-	-
\$7.00 and under \$7.20	1.1	-	-	-	\$9.00 and under \$9.20	5.5	2.1	13.1	7.7
\$7.20 and under \$7.40	5.5	8.5	6.6	-	\$9.20 and under \$9.40	6.6	6.4	6.6	15.4
					\$9.40 and under \$9.60	4.4	-	-	30.8
					\$9.60 and under \$9.80	-	-	-	-
					\$9.80 and under \$10.00	1.1	-	-	7.7

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

Table 17. Occupational earnings: Cooks, sulphate, continuous digester

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	Southeast	Pacific	Hourly earnings	United States ²	Southeast	Pacific
Number of workers	232	76	72				
Average hourly earnings ¹	\$8.37	\$8.44	\$8.92	\$7.00 and under \$7.20	-	-	-
Total	100.0	100.0	100.0	\$7.20 and under \$7.40	3.4	10.5	-
Under \$5.80	9.5	-	-	\$7.40 and under \$7.60	5.2	15.8	-
\$5.80 and under \$6.00	1.3	-	-	\$7.60 and under \$7.80	1.7	5.3	-
\$6.00 and under \$6.20	1.7	-	-	\$7.80 and under \$8.00	5.2	-	16.7
\$6.20 and under \$6.40	1.7	5.3	-	\$8.00 and under \$8.40	6.9	10.5	5.6
\$6.40 and under \$6.60	-	-	-	\$8.40 and under \$8.80	19.0	5.3	27.8
\$6.60 and under \$6.80	1.7	-	-	\$8.80 and under \$9.20	11.6	10.5	16.7
\$6.80 and under \$7.00	-	-	-	\$9.20 and under \$9.60	13.8	31.6	11.1
				\$9.60 and under \$10.00	6.9	-	11.1
				\$10.00 and under \$10.40	8.6	5.3	11.1
				\$10.40 and under \$10.80	1.7	-	-

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

Table 18. Occupational earnings: Grinder operators(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	Middle Atlantic	Southeast	Great Lakes	Hourly earnings	United States ²	Middle Atlantic	Southeast	Great Lakes
Number of workers	475	41	72	174	\$6.40 and under \$6.60	-	-	-	-
Average hourly earnings ¹	\$6.21	\$5.32	\$6.62	\$5.66	\$6.60 and under \$6.80	6.7	-	44.4	-
Total	100.0	100.0	100.0	100.0	\$6.80 and under \$7.00	-	-	-	-
\$4.70 and under \$4.80	4.6	43.9	-	-	\$7.00 and under \$7.20	6.3	-	-	-
\$4.80 and under \$4.90	-	-	-	-	\$7.20 and under \$7.40	5.9	-	-	-
\$4.90 and under \$5.00	-	-	-	-	\$7.40 and under \$7.60 .....	.8	-	5.6	-
\$5.00 and under \$5.20	-	-	-	-	\$7.60 and under \$7.80	-	-	-	-
\$5.20 and under \$5.40	1.7	-	-	4.6	\$7.80 and under \$8.00	-	-	-	-
\$5.40 and under \$5.60	19.6	34.1	-	43.7	\$8.00 and under \$8.20	1.7	-	5.6	-
\$5.60 and under \$5.80	3.4	-	-	-	\$8.20 and under \$8.40 .....	.8	-	5.6	-
\$5.80 and under \$6.00	17.3	-	16.7	35.6	\$8.40 and under \$8.60 .....	.8	-	-	-
\$6.00 and under \$6.20	25.3	22.0	22.2	16.1	\$8.60 and under \$8.80	1.7	-	-	-
\$6.20 and under \$6.40 .....	.8	-	-	-	\$8.80 and under \$9.00 .....	.8	-	-	-
					\$9.00 and under \$9.20	1.7	-	-	-

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

Table 19. Occupational earnings: Beater-operator helpers, fine grades

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Great Lakes	Pacific
Number of workers	871	197	174	89	319	56
Average hourly earnings ¹	\$5.84	\$5.06	\$5.36	\$6.64	\$6.01	\$7.68
Total	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.00	0.8	3.6	-	-	-	-
\$4.00 and under \$4.10	1.4	6.1	-	-	-	-
\$4.10 and under \$4.20	-	-	-	-	-	-
\$4.20 and under \$4.30	-	-	-	-	-	-
\$4.30 and under \$4.40 .....	.2	1.0	-	-	-	-
\$4.40 and under \$4.50	-	-	-	-	-	-
\$4.50 and under \$4.60	4.1	6.1	9.2	-	-	-
\$4.60 and under \$4.70	2.8	12.2	-	-	-	-
\$4.70 and under \$4.80 .....	.3	-	-	-	0.9	-
\$4.80 and under \$4.90	5.6	12.2	14.4	-	-	-
\$4.90 and under \$5.00	-	-	-	-	-	-
\$5.00 and under \$5.20	7.0	26.4	5.2	-	-	-
\$5.20 and under \$5.40	12.3	12.7	24.1	18.0	7.5	-
\$5.40 and under \$5.60	11.9	6.1	23.6	-	16.0	-
\$5.60 and under \$5.80	10.6	9.6	12.1	-	13.8	-
\$5.80 and under \$6.00	3.1	-	2.3	-	7.2	-
\$6.00 and under \$6.20	9.1	-	4.6	5.6	20.7	-
\$6.20 and under \$6.40	6.1	-	-	12.4	13.2	-
\$6.40 and under \$6.60	3.1	-	-	4.5	7.2	-
\$6.60 and under \$6.80	5.6	2.0	4.6	14.6	3.8	-
\$6.80 and under \$7.00	4.5	-	-	18.0	6.6	-
\$7.00 and under \$7.20	2.1	2.0	-	4.5	3.1	-
\$7.20 and under \$7.40	1.4	-	-	4.5	-	14.3
\$7.40 and under \$7.60	2.1	-	-	4.5	-	14.3
\$7.60 and under \$7.80	4.1	-	-	-	-	64.3
\$7.80 and under \$8.00	1.4	-	-	9.0	-	7.1
\$8.00 and under \$8.40 .....	.5	-	-	4.5	-	-

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

Table 20. Occupational earnings: Paper-machine tenders, fine grades

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Great Lakes	Pacific
Number of workers	1,527	386	296	120	532	112
Average hourly earnings ¹	\$7.33	\$6.69	\$6.66	\$8.31	\$7.20	\$10.14
Total	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5.50	1.5	5.2	1.0	-	-	-
\$5.50 and under \$5.60 .....	.5	1.0	-	-	0.6	-
\$5.60 and under \$5.70	1.8	3.4	5.1	-	-	-
\$5.70 and under \$5.80 .....	.2	-	-	-	.6	-
\$5.80 and under \$5.90	1.5	4.4	2.0	-	-	-
\$5.90 and under \$6.00	6.6	16.3	10.8	-	1.1	-
\$6.00 and under \$6.20	10.5	17.9	18.9	-	6.8	-
\$6.20 and under \$6.40	7.8	8.3	8.4	-	10.2	-
\$6.40 and under \$6.60	6.8	6.5	7.8	-	9.0	-
\$6.60 and under \$6.80	6.2	8.5	10.1	-	5.8	-
\$6.80 and under \$7.00	7.7	3.9	21.3	-	7.3	-
\$7.00 and under \$7.20	7.3	1.3	2.4	34.2	10.9	-
\$7.20 and under \$7.40	4.8	1.0	1.4	6.7	10.7	-
\$7.40 and under \$7.60	4.6	.8	2.7	3.3	9.8	-
\$7.60 and under \$7.80	3.1	2.6	1.4	-	6.2	-
\$7.80 and under \$8.00	4.8	9.6	-	-	4.7	-
\$8.00 and under \$8.40	6.1	3.1	-	13.3	8.5	3.6
\$8.40 and under \$8.80	3.1	-	-	6.7	4.9	7.1
\$8.80 and under \$9.20	2.1	-	2.7	6.7	1.5	3.6
\$9.20 and under \$9.60	2.8	-	-	15.8	1.5	14.3
\$9.60 and under \$10.00	2.4	3.1	1.4	-	-	7.1
\$10.00 and under \$10.40	3.7	2.1	1.4	6.7	-	25.0
\$10.40 and under \$10.80	2.9	-	1.4	6.7	-	25.0
\$10.80 and under \$11.20 .....	.8	1.0	-	-	-	7.1
\$11.20 and under \$11.60 .....	.5	-	-	-	-	7.1

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

Table 21. Occupational earnings: Fourth hands, fine grades(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Great Lakes	Pacific
Number of workers	1,235	255	241	83	494	109
Average hourly earnings ¹	\$5.91	\$5.40	\$5.50	\$6.82	\$5.86	\$7.47
Total	100.0	100.0	100.0	100.0	100.0	100.0
Under \$4.50	1.3	6.3	-	-	-	-
\$4.50 and under \$4.60	1.0	4.7	-	-	-	-
\$4.60 and under \$4.70	2.4	4.3	6.6	-	0.6	-
\$4.70 and under \$4.80 .....	.8	3.9	-	-	-	-
\$4.80 and under \$4.90	4.5	14.1	3.3	-	.6	-
\$4.90 and under \$5.00	1.5	1.6	6.2	-	-	-
\$5.00 and under \$5.20	6.9	16.9	11.6	-	1.2	-
\$5.20 and under \$5.40	7.1	2.7	5.4	-	13.8	-
\$5.40 and under \$5.60	16.4	9.8	31.1	-	20.6	-
\$5.60 and under \$5.80	8.0	4.7	14.1	9.6	8.3	-
\$5.80 and under \$6.00	8.0	2.0	10.0	-	14.2	-
\$6.00 and under \$6.20	12.0	18.0	3.3	4.8	18.2	-
\$6.20 and under \$6.40	4.0	.8	-	3.6	7.3	-
\$6.40 and under \$6.60	4.3	-	3.3	9.6	6.5	-
\$6.60 and under \$6.80	5.0	5.1	1.7	14.5	5.1	3.7
\$6.80 and under \$7.00	3.4	1.6	-	14.5	2.8	-
\$7.00 and under \$7.20	2.7	2.0	1.7	19.3	.8	3.7
\$7.20 and under \$7.40	2.9	1.6	-	9.6	-	18.3
\$7.40 and under \$7.60	6.2	-	1.7	14.5	-	56.0
\$7.60 and under \$7.80	1.0	-	-	-	-	11.0
\$7.80 and under \$8.00 .....	.6	-	-	-	-	7.3

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

Table 22. Occupational earnings: Mechanics, general(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
Number of workers	3,523	310	195	1,429	978	108	314
Average hourly earnings ¹	\$8.48	\$6.13	\$5.79	\$8.70	\$9.18	\$6.75	\$9.77
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5.00	0.8	-	3.1	0.8	-	³ 11.1	-
\$5.00 and under \$5.20 .....	.9	10.6	-	-	-	-	-
\$5.20 and under \$5.40	1.8	15.8	7.7	-	-	-	-
\$5.40 and under \$5.60	2.4	8.4	29.2	-	-	-	-
\$5.60 and under \$5.80	2.6	8.7	7.2	1.5	3.1	-	-
\$5.80 and under \$6.00	1.5	-	23.1	-	-	6.5	-
\$6.00 and under \$6.20	1.2	-	15.4	-	-	10.2	-
\$6.20 and under \$6.40	1.9	7.7	14.4	.3	-	9.3	-
\$6.40 and under \$6.60	3.9	29.7	-	3.2	-	-	-
\$6.60 and under \$6.80 .....	.7	7.4	-	-	-	1.9	-
\$6.80 and under \$7.00 .....	.2	.6	-	-	-	5.6	-
\$7.00 and under \$7.20 .....	.3	.6	-	.1	.2	5.6	-
\$7.20 and under \$7.40	2.3	9.0	-	3.6	-	-	-
\$7.40 and under \$7.60	2.5	-	-	1.7	.1	40.7	-
\$7.60 and under \$7.80	2.9	1.3	-	2.0	1.8	5.6	-
\$7.80 and under \$8.00	1.7	-	-	1.3	.1	-	-
\$8.00 and under \$8.20 .....	.3	-	-	-	.3	-	-
\$8.20 and under \$8.40	7.5	-	-	11.1	10.7	-	-
\$8.40 and under \$8.60	5.3	-	-	11.8	1.8	-	-
\$8.60 and under \$8.80	5.4	-	-	12.3	1.2	3.7	-
\$8.80 and under \$9.00	5.3	-	-	1.5	16.8	-	-
\$9.00 and under \$9.20	11.9	-	-	23.0	9.1	-	-
\$9.20 and under \$9.40	9.7	-	-	7.3	24.3	-	0.3
\$9.40 and under \$9.60	7.6	-	-	9.7	.4	-	39.8
\$9.60 and under \$9.80	1.1	-	-	.6	1.1	-	5.7
\$9.80 and under \$10.00	5.8	-	-	-	-	-	39.5
\$10.00 and under \$10.20	5.6	-	-	2.0	12.6	-	14.6
\$10.20 and under \$10.40	7.0	-	-	6.2	16.3	-	-

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.² Includes data for regions in addition to those shown separately.³ Workers were distributed as follows: 1.9 percent at \$4.30 to \$4.40; and 9.3

percent at \$4.50 to \$4.60.

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

Table 23. Occupational earnings: Millwrights, pulp and paper

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
Number of workers	6,858	818	595	2,190	497	1,593	864
Average hourly earnings ¹	\$7.62	\$6.39	\$6.54	\$7.93	\$7.99	\$6.92	\$9.59
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5.00	1.9	8.1	-	0.9	3.6	1.1	-
\$5.00 and under \$5.20	1.4	5.0	6.1	.2	-	.8	-
\$5.20 and under \$5.40	1.0	7.5	-	.5	-	-	-
\$5.40 and under \$5.60	3.3	4.0	24.5	-	-	3.0	-
\$5.60 and under \$5.80	1.7	3.7	8.9	-	-	2.1	-
\$5.80 and under \$6.00	1.9	2.6	6.4	-	-	4.3	-
\$6.00 and under \$6.20	3.5	16.5	-	.2	-	6.3	-
\$6.20 and under \$6.40	3.1	7.3	8.9	1.8	-	3.6	-
\$6.40 and under \$6.60	3.0	7.0	5.5	.7	-	6.3	-
\$6.60 and under \$6.80	4.3	8.2	-	2.1	-	11.6	-
\$6.80 and under \$7.00	2.7	.5	6.4	-	-	9.0	-
\$7.00 and under \$7.20	7.1	-	.5	4.2	.8	15.0	-
\$7.20 and under \$7.40	6.0	9.4	6.7	6.7	13.5	5.0	-
\$7.40 and under \$7.60	9.0	11.6	-	11.9	-	16.3	-
\$7.60 and under \$7.80	4.3	-	-	7.1	2.0	8.2	-
\$7.80 and under \$8.00	2.7	1.0	11.6	1.8	4.8	3.0	-
\$8.00 and under \$8.40	20.3	7.7	13.1	40.0	61.2	4.4	-
\$8.40 and under \$8.80	7.5	-	-	20.2	14.1	-	-
\$8.80 and under \$9.20	1.8	-	1.3	1.4	-	-	10.1
\$9.20 and under \$9.60	6.7	-	-	.2	-	-	52.8
\$9.60 and under \$10.00	4.7	-	-	-	-	-	25.2
\$10.00 and under \$10.40	1.9	-	-	-	-	-	10.3
\$10.40 and over .....	.2	-	-	-	-	-	1.6

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

Table 24. Occupational earnings: Janitors

(Percent distribution by average straight-time hourly earnings,¹ United States and selected regions, summer 1977)

Hourly earnings	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
Number of workers	1,826	236	262	431	67	566	223
Average hourly earnings ¹	\$5.48	\$4.83	\$5.08	\$5.45	\$5.24	\$5.50	\$6.63
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$3.50	0.4	1.3	-	0.5	-	-	-
\$3.50 and under \$3.60 .....	.8	3.4	-	-	9.0	-	-
\$3.60 and under \$3.70	-	-	-	-	-	-	-
\$3.70 and under \$3.80 .....	.2	.8	-	.5	-	-	-
\$3.80 and under \$3.90	1.2	1.3	-	2.3	6.0	0.9	-
\$3.90 and under \$4.00 .....	.1	-	-	.5	-	-	-
\$4.00 and under \$4.10	-	-	-	-	-	-	-
\$4.10 and under \$4.20 .....	.7	3.4	-	-	-	.9	-
\$4.20 and under \$4.30	1.3	2.5	3.4	-	1.5	1.2	-
\$4.30 and under \$4.40 .....	.4	1.7	-	.5	-	.2	-
\$4.40 and under \$4.50	1.8	1.7	8.4	-	1.5	1.1	-
\$4.50 and under \$4.60	2.2	15.3	1.9	-	-	-	-
\$4.60 and under \$4.70	1.9	.8	4.6	-	-	3.7	-
\$4.70 and under \$4.80	3.6	14.4	9.9	.7	-	.4	-
\$4.80 and under \$4.90	3.4	2.5	12.2	-	-	3.2	-
\$4.90 and under \$5.00	4.4	16.1	10.7	2.8	-	.4	-
\$5.00 and under \$5.20	9.1	11.4	3.1	13.9	16.4	8.8	-
\$5.20 and under \$5.40	10.1	13.1	13.7	19.0	4.5	5.8	-
\$5.40 and under \$5.60	14.7	6.4	18.7	19.3	22.4	18.7	-
\$5.60 and under \$5.80	15.2	3.8	13.4	13.5	22.4	28.4	-
\$5.80 and under \$6.00	14.2	-	-	24.8	11.9	25.1	-
\$6.00 and under \$6.20	1.0	-	-	1.9	4.5	1.2	0.4
\$6.20 and under \$6.40 .....	.1	-	-	-	-	-	.4
\$6.40 and under \$6.60	7.7	-	-	-	-	-	61.9
\$6.60 and under \$6.80	3.7	-	-	-	-	-	23.3
\$6.80 and under \$7.00	1.4	-	-	-	-	-	11.2
\$7.00 and under \$7.20 .....	.3	-	-	-	-	-	2.7

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

Table 25. Method of wage payment(Percent of production workers in pulp, paper, and paperboard mills by method of wage payment,¹ United States and selected regions, summer 1977)

Method of wage payment	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
All workers	100	100	100	100	100	100	100
Time-rated workers	97	94	96	97	100	98	100
Formal plans	97	94	96	97	100	98	100
Single rate	90	92	90	80	99	92	95
Range of rates	8	2	5	17	(³)	6	5
Individual rates	(³)	(³)	(³)	-	-	-	-
Incentive workers	3	6	4	3	-	2	-

¹ For definition of method of wage payment, see appendix B.² Includes data for 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.

Table 26. Scheduled weekly hours(Percent of production workers in pulp, paper, and paperboard mills by scheduled weekly hours,¹ United States and selected regions, summer 1977)

Weekly hours	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
All workers	100	100	100	100	100	100	100
Under 37.5 hours	(³)	-	-	-	-	1	-
37.5 hours	2	-	14	-	-	-	-
40 hours	46	18	44	54	54	35	63
41.5 hours	(³)	-	-	1	-	-	-
42 hours	35	42	15	34	20	50	35
Over 42 and under 44 hours	1	-	-	1	-	-	2
44 hours	5	11	4	5	15	-	-
45 and under 48 hours	2	2	2	-	8	2	-
48 hours	9	24	17	4	2	10	-
Over 48 hours	2	2	4	2	-	2	-

¹ Data relate to the predominant schedule for full-time day-shift workers in each establishment.² Includes data for regions in addition to those shown separately.³ Less than 0.5 percent.

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

Table 27. Shift differential practices

(Percent of production workers employed on selected shifts in pulp, paper, and paperboard mills by type of shift and amount of shift differential, United States and selected regions, summer 1977)

Shift differential	United States ¹					New England					Middle Atlantic					Southeast				
	Rotating shifts ²			Fixed shifts ³		Rotating shifts ²			Fixed shifts ³		Rotating shifts ²			Fixed shifts ³		Rotating shifts ²			Fixed shifts ³	
	Day	Evening	Night	Evening	Night	Day	Evening	Night	Evening	Night	Day	Evening	Night	Evening	Night	Day	Evening	Night	Evening	Night
Workers assigned to selected shifts ⁴	24.4	22.6	22.0	2.0	1.1	24.8	23.9	23.3	0.7	0.6	28.1	21.4	20.5	2.3	0.3	23.5	23.3	23.2	1.3	0.8
Receiving shift differential .....	.3	22.5	21.9	2.0	1.1	1.0	23.9	23.3	.7	.6	1.1	21.4	20.5	2.3	.3	-	23.3	23.2	1.3	.8
Uniform cents per hour .....	.1	22.3	21.7	1.9	1.1	.6	23.5	22.9	.7	.6	-	20.3	19.4	2.3	.3	-	23.3	23.2	1.3	.8
Under 10 cents	(⁵)	1.2	(⁵)	.1	-	-	1.0	-	-	-	-	.6	-	-	-	-	1.5	-	.1	-
10 cents .....	.1	6.5	.1	.6	(⁵)	.6	3.7	-	.7	-	-	1.2	.6	.1	-	-	11.9	.1	.5	(⁵)
11 cents	-	3.4	-	.2	-	-	3.3	-	-	-	-	3.7	-	-	-	-	5.2	-	.2	-
12 cents	-	2.0	.3	.2	(⁵)	-	2.1	-	-	-	-	2.2	-	(⁵)	-	-	3.4	.8	.4	-
12.5 cents	-	.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13 cents	-	1.2	.6	.1	(⁵)	-	2.1	-	-	-	-	2.5	-	(⁵)	-	-	.1	.8	(⁵)	(⁵)
14 cents	-	.5	.4	-	-	-	1.6	-	-	-	-	2.2	-	-	-	-	-	.7	-	-
15 cents	-	1.5	4.4	2	2	-	2.1	-	-	-	-	.7	.3	(⁵)	-	-	.9	9.9	.1	.5
16 cents	-	.3	1.9	2	.1	-	.9	.5	-	.6	-	-	.8	-	-	-	-	4.6	-	.2
17 cents	-	.2	.9	-	-	-	1.8	-	-	-	-	.4	2.0	-	-	-	-	1.6	-	-
18 cents	-	.7	1.1	2	(⁵)	-	1.2	1.7	-	-	-	4.3	-	2.1	-	-	-	2.8	-	-
19 cents	-	.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 cents	-	1.0	1.9	(⁵)	.4	-	2.5	7.1	-	-	-	2.5	1.0	-	-	-	-	.6	-	-
21 cents	-	.1	.8	-	(⁵)	-	-	.9	-	-	-	-	.7	-	(⁵)	-	2	1.1	-	-
22 cents	-	.2	1.6	-	.1	-	.9	.7	-	-	-	-	.6	-	-	-	-	.5	-	-
23 cents	-	(⁵)	.4	-	(⁵)	-	-	1.2	-	-	-	-	.4	-	(⁵)	-	-	-	-	.1
24 cents	-	.2	.7	-	.1	-	1.4	.4	-	-	-	-	4.0	-	(⁵)	-	-	-	-	-
25 cents	-	.4	1.4	(⁵)	(⁵)	-	.9	2.5	-	-	-	-	1.9	-	-	-	-	.9	-	-
26 cents	-	2.4	.1	2	-	-	-	-	-	-	-	-	.7	-	-	-	-	-	-	-
27 cents	-	-	.3	-	(⁵)	-	-	-	-	-	-	-	2.3	-	.2	-	-	-	-	-
28 cents	-	-	.2	-	-	-	-	1.3	-	-	-	-	-	-	-	-	-	-	-	-
30 cents	-	-	1.1	-	(⁵)	-	-	1.4	-	-	-	-	2.7	-	(⁵)	-	-	-	-	-
Over 30 cents	-	.1	3.5	(⁵)	.1	-	-	3.4	-	-	-	-	1.7	-	-	-	-	-	-	-
Other formal paid differential .....	.2	.2	.2	.1	-	.4	.4	.4	-	-	1.1	1.1	1.1	-	-	-	-	-	-	-

See footnotes at end of table.

Table 27. Shift differential practices—Continued

(Percent of production workers employed on selected shifts in pulp, paper, and paperboard mills by type of shift and amount of shift differential, United States and selected regions, summer 1977)

Shift differential	Southwest					Great Lakes					Pacific				
	Rotating shifts ²			Fixed shifts ³		Rotating shifts ²			Fixed shifts ³		Rotating shifts ²			Fixed shifts ³	
	Day	Evening	Night	Evening	Night	Day	Evening	Night	Evening	Night	Day	Evening	Night	Evening	Night
Workers assigned to selected shifts ⁴	23.2	23.1	23.1	1.0	0.1	24.9	21.3	19.5	3.5	2.6	22.8	22.7	22.6	2.1	0.4
Receiving shift differential	-	22.6	22.6	1.0	.1	.1	21.3	19.5	3.5	2.6	-	22.7	22.6	2.1	.4
Uniform cents per hour	-	22.6	22.6	1.0	.1	.1	21.3	19.5	3.5	2.6	-	22.2	22.0	1.6	.4
Under 10 cents	-	4.9	-	-	-	.1	.3	.1	.1	-	-	-	-	-	-
10 cents	-	15.4	-	1.0	-	-	3.8	-	.9	-	-	-	-	-	-
11 cents	-	2.4	-	-	-	-	3.4	-	.6	-	-	-	-	-	-
12 cents	-	-	.5	-	-	-	2.2	-	.5	-	-	-	-	-	-
12.5 cents	-	-	-	-	-	-	.2	-	-	-	-	-	-	-	-
13 cents	-	-	3.7	-	-	-	2.6	-	.3	-	-	-	-	-	-
14 cents	-	-	2.0	-	-	-	.3	-	-	-	-	-	-	-	-
15 cents	-	-	13.3	-	.1	-	3.7	.2	.6	-	-	-	-	-	-
16 cents	-	-	1.9	-	-	-	.8	.6	.7	-	-	-	-	-	-
17 cents	-	-	.4	-	-	-	.1	-	-	-	-	.7	-	-	-
18 cents	-	-	.8	-	-	-	.5	.2	-	.1	-	-	-	-	-
19 cents	-	-	-	-	-	-	-	-	-	-	-	1.5	-	-	-
20 cents	-	-	-	-	-	-	1.3	3.1	-	1.5	-	.2	-	.4	-
21 cents	-	-	-	-	-	-	.4	2.6	-	.2	-	-	-	-	-
22 cents	-	-	-	-	-	-	.6	5.7	-	.4	-	-	-	-	-
23 cents	-	-	-	-	-	-	.2	.9	-	-	-	-	-	-	-
24 cents	-	-	-	-	-	-	-	.6	-	.3	-	.6	.3	-	-
25 cents	-	-	-	-	-	-	.8	2.9	-	.1	-	19.2	-	1.2	-
26 cents	-	-	-	-	-	-	-	.2	-	-	-	-	-	-	-
27 cents	-	-	-	-	-	-	-	-	-	-	-	-	.4	-	-
28 cents	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30 cents	-	-	-	-	-	-	-	2.0	-	-	-	-	-	-	-
Over 30 cents	-	-	-	-	-	-	-	.3	-	-	-	-	21.3	-	.4
Other formal paid differential	-	-	-	-	-	-	-	-	-	-	-	.6	.6	.5	-

¹ Includes data for regions in addition to those shown separately.² Workers assigned to rotating shifts successively worked on day, evening or night schedules.³ Workers assigned to extra fixed shifts regularly worked either evening or night schedules.⁴ In addition to rotating and fixed shifts, other types, such as oscillating, covered 1.5 percent of the

workers.

⁵ Less than 0.05 percent.

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

Table 28. Paid holidays

(Percent of production workers in pulp, paper, and paperboard mills with formal provisions for paid holidays, United States and selected regions, summer 1977)

Number of paid holidays	United States ¹	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
All workers	100	100	100	100	100	100	100
Workers in establishments providing paid holidays	100	100	100	100	100	100	100
Under 8 days	1	3	-	(²)	-	-	-
8 days	3	10	3	1	2	2	-
9 days	11	31	10	9	7	12	-
9 days plus 2 or 4 half days	(²)	3	-	-	-	-	-
10 days	41	31	44	43	65	55	3
10 days plus 1 or 2 half days	2	-	2	-	-	8	-
11 days	24	10	23	41	26	20	7
11 days plus 1 half day	(²)	-	-	-	-	-	2
12 days	13	2	12	4	-	3	72
13 days	5	11	5	2	-	-	14
14 days	(²)	-	-	-	-	-	2

¹ Includes data for 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 29. Paid vacations

(Percent of production workers in pulp, paper, and paperboard mills with formal provisions for paid vacations after selected periods of service, United States and selected regions, summer 1977)

Vacation policy	United States ¹	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
All workers	100	100	100	100	100	100	100
Method of payment							
Workers in establishments providing paid vacations	100	100	100	100	100	100	100
Length-of-time payment	64	82	66	41	62	65	88
Percentage payment	36	18	34	59	38	35	12
Amount of vacation pay²							
After 1 year of service:							
1 week	73	85	68	90	100	72	17
Over 1 and under 2 weeks	21	3	19	6	-	28	74
2 weeks	4	11	13	1	-	-	5
Over 2 and under 3 weeks	1	-	-	3	-	-	4
After 2 years of service:							
1 week	64	78	60	85	80	64	-
Over 1 and under 2 weeks	10	1	9	6	-	27	-
2 weeks	14	19	24	5	20	8	22
Over 2 and under 3 weeks	13	-	7	4	-	2	78
3 weeks	(³)	2	-	-	-	-	-
After 3 years of service:							
1 week	2	2	-	6	-	1	-
Over 1 and under 2 weeks	(³)	-	3	-	-	1	-
2 weeks	74	94	84	85	100	66	22
Over 2 and under 3 weeks	22	1	14	10	-	32	71
3 weeks	(³)	2	-	-	-	-	-
Over 3 and under 4 weeks	1	-	-	-	-	-	7
After 5 years of service:							
1 week	(³)	-	-	-	-	1	-
2 weeks	70	88	83	88	95	63	3
Over 2 and under 3 weeks	14	1	14	10	-	27	17
3 weeks	6	11	4	2	5	1	19
Over 3 and under 4 weeks	10	-	-	-	-	8	61
After 10 years of service:							
2 weeks	(³)	-	-	1	-	-	-
Over 2 and under 3 weeks	(³)	-	2	-	2	-	-
3 weeks	70	99	85	89	98	57	-
Over 3 and under 4 weeks	15	1	11	9	-	43	3
4 weeks	3	-	1	1	-	-	19
Over 4 and under 5 weeks	8	-	-	-	-	-	61
5 weeks	2	-	-	-	-	-	13
Over 5 and under 6 weeks	1	-	-	-	-	-	4
After 12 years of service:							
2 weeks	(³)	-	-	1	-	-	-
Over 2 and under 3 weeks	(³)	-	-	-	2	-	-
3 weeks	63	96	49	86	98	46	-
Over 3 and under 4 weeks	11	4	10	10	-	25	-
4 weeks	10	-	35	3	-	11	19
Over 4 and under 5 weeks	13	-	6	-	-	18	64
5 weeks	2	-	-	-	-	-	13
Over 5 weeks	1	-	-	-	-	-	4
After 15 years of service:							
2 weeks	(³)	-	-	(³)	-	-	-
Over 2 and under 3 weeks	(³)	-	-	-	-	-	-
3 weeks	5	9	5	3	11	7	-
Over 3 and under 4 weeks	1	-	2	2	2	1	-
4 weeks	68	90	81	87	87	50	18
Over 4 and under 5 weeks	22	1	11	8	-	42	64
5 weeks	2	-	-	-	-	-	14

See footnotes at end of table.

Table 29. Paid vacations—Continued

(Percent of production workers in pulp, paper, and paperboard mills with formal provisions for paid vacations after selected periods of service, United States and selected regions, summer 1977)

Vacation policy	United States ¹	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
Amount of vacation pay²—Continued							
After 15 years of service:							
Over 5 weeks	1	-	-	-	-	-	4
After 20 years of service:							
2 weeks	(³)	-	-	(³)	-	-	-
Over 2 and under 3 weeks	(³)	-	-	-	-	-	-
3 weeks	2	-	3	3	5	3	-
Over 3 and under 4 weeks	1	-	-	1	2	1	-
4 weeks	19	36	21	18	32	15	-
Over 4 and under 5 weeks	3	1	6	3	-	5	3
5 weeks	52	62	62	70	60	38	19
Over 5 and under 6 weeks	11	-	6	5	-	37	-
6 weeks	8	-	2	-	-	2	61
Over 6 and under 7 weeks	2	-	-	-	-	-	17
Over 7 weeks	1	-	-	-	-	-	-
After 25 years of service:							
2 weeks	(³)	-	-	(³)	-	-	-
Over 2 and under 3 weeks	(³)	-	-	-	-	-	-
3 weeks	2	-	3	2	5	3	-
Over 3 and under 4 weeks	(³)	-	-	1	2	-	-
4 weeks	6	9	4	7	11	3	-
Over 4 and under 5 weeks	1	1	-	1	-	1	-
5 weeks	53	70	62	76	82	23	12
Over 5 and under 6 weeks	4	-	4	8	-	2	3
6 weeks	15	20	21	4	-	33	7
Over 6 and under 7 weeks	6	-	5	-	-	21	2
7 weeks	4	-	-	-	-	13	7
Over 7 weeks	10	-	2	-	-	1	69
After 30 years of service: ⁴							
2 weeks	(³)	-	-	(³)	-	-	-
Over 2 and under 3 weeks	(³)	-	-	-	-	-	-
3 weeks	2	-	3	2	5	3	-
Over 3 and under 4 weeks	(³)	-	-	1	2	-	-
4 weeks	5	8	4	7	11	(³)	-
Over 4 and under 5 weeks	(³)	1	-	-	-	1	-
5 weeks	14	21	16	16	18	8	7
Over 5 and under 6 weeks	(³)	-	4	-	-	(³)	-
6 weeks	52	58	64	65	65	48	12
Over 6 and under 7 weeks	9	-	5	8	-	22	5
7 weeks	5	11	-	-	-	13	7
Over 7 weeks	11	-	6	-	-	6	69

¹ Includes data for regions in addition to those shown separately.
² 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 individual establishment provisions for progression. For example, changes indicated at 10 years may include changes that occurred between 5 and 10 years.

³ Less than 0.5 percent.
⁴ Vacation provisions were virtually the same after longer periods of service.

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

Table 30. Health, insurance, and retirement plans

(Percent of production workers in pulp, paper, and paperboard mills with specified health, insurance, and retirement plans,¹ United States and selected regions, summer 1977)

Type of plan	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
All workers	100	100	100	100	100	100	100
Workers in establishments providing:							
Life insurance	100	100	100	100	100	100	100
Noncontributory plans	83	67	98	83	70	78	100
Accidental death and dismemberment insurance	89	87	100	77	92	92	100
Noncontributory plans	75	60	98	68	66	69	100
Sickness and accident insurance or sick leave or both ³	96	97	71	100	100	100	96
Sickness and accident insurance	93	97	66	98	100	97	93
Noncontributory plans	80	76	66	89	78	72	93
Sick leave (full pay, no waiting period)	4	3	8	4	7	4	-
Sick leave (partial pay or waiting period)	2	-	8	1	-	-	6
Long-term disability insurance	16	18	8	13	14	20	22
Noncontributory plans	13	11	8	10	9	15	22
Hospitalization insurance	99	100	96	100	100	100	100
Noncontributory plans	70	67	89	65	55	60	100
Surgical insurance	100	100	100	100	100	100	100
Noncontributory plans	70	67	89	65	55	60	100
Medical insurance	100	100	100	100	100	100	100
Noncontributory plans	70	67	89	65	55	60	100
Major medical insurance	97	97	100	97	100	94	100
Noncontributory plans	68	67	89	64	52	52	100
Dental insurance	33	5	38	13	10	43	100
Noncontributory plans	30	2	30	11	5	38	100
Retirement plans ⁴	99	100	97	100	98	96	100
Pensions	99	100	97	100	98	96	100
Noncontributory plans	90	90	82	90	94	87	100
Severance pay	1	2	9	-	-	-	-

¹ Includes those plans for which the employer pays at least part of the cost and excludes legally required plans such as workers' compensation and social security; however, plans required by State temporary disability 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 plans financed entirely by the employer.

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

³ Unduplicated total of workers receiving sickness and accident insurance and sick leave shown separately.

⁴ Unduplicated total of workers covered by pension plans and severance pay shown separately.

Table 31. Other selected benefits

(Percent of production workers in pulp, paper, and paperboard mills providing funeral leave pay, jury duty pay, and technological severance pay,¹ United States and selected regions, summer 1977)

Type of benefit	United States ²	New England	Middle Atlantic	Southeast	Southwest	Great Lakes	Pacific
Workers in establishments with provisions for:							
Funeral leave	99	100	100	100	98	100	100
Jury duty leave	94	100	97	100	100	84	86
Technological severance pay	35	18	7	52	54	15	66

¹ For definition of items, see appendix B.

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

Appendix A. Regression Analysis

Conventional methods of analyzing wage variations using published averages typically stop short of measuring the independent influence on wage levels of factors such as size of establishment and location. The independent effect of employment size on earnings, for example, may be obscured by earnings differentials associated with regional location or community size.

One method of isolating the independent effect on wages of various establishment and work characteristics is multiple regression. By this method the estimated wage differential for a given variable is determined independently. The variables included in table A-1 are defined, where necessary, in appendix B—Scope and Method of Survey.

In the regression equation, one category of each of the variables is not shown explicitly, but its influence is embodied in the constant term. In table A-1, therefore, the constant term categories for all production workers are nonmetropolitan, small employment size (100-249), New England, and paper mill.¹ For three of the seven occupations selected for this analysis, the pulpmaking process was an added variable (soda or other in the constant); for three occupations in paper and paperboard production, the type of paper or paperboard (fine grade in the constant); and for paper machine tenders and fourth hands in the machine room, the width of machine (100 inches or less in the

constant). The average wage level relating to this set of suppressed characteristics is represented by the value of the constant term. The coefficients of the explicit variables represent the differentials associated with categories of those characteristics differing from the basic set embodied in the constant.

The effects of the coefficients on average wage levels are determined by the substitution of the values of the new variables in table A-1 for those suppressed in the constant term. For example, for production workers in large mills (1,000 workers or more), estimated average hourly earnings are higher by 61 cents, or \$5.85, when other factors are held constant. Further, if these workers are located in the Pacific region, another \$2.23 is added to the constant term, which raises the average hourly earnings to \$8.08. Wage differences found by simple comparison of published averages may be labeled gross differentials; those isolated by multiple regression techniques are net differentials (table A-2).

It should be emphasized that the regression analysis is not sufficiently complete to measure with certainty the independent effects of employee and establishment characteristics on wage levels. As table A-1 shows, the regression analysis failed to account for about 40 percent of the variation in average earnings levels for all production workers, and 21 to 49 percent of the variation in earnings for the seven selected occupations. (See adjusted coefficient of determination, \bar{R}^2 .) This could mean that other factors, beyond the scope of the survey, influenced the estimates. However, by holding constant those characteristics within the survey scope, estimates for specified characteristics definitely were improved.

¹Union contract status was not used as a variable in this regression because nearly all (97 percent) of the production workers covered by the study were in mills operating under labor-management agreements.

Table A-1. Regression analysis of straight-time hourly earnings, all production workers and selected occupations, pulp, paper, and paperboard mills, United States, summer 1977

(Standard errors show in parentheses)

Item	All production workers	Cooks, batch digester	Cooks, continuous digester	Bleach-plant operators	Beater-operator helpers	Paper-machine tenders	Fourth hands	Millwrights, pulp and paper
Constant	\$5.24 (.15)	\$4.95 (.44)	\$5.31 (.73)	\$3.51 (.49)	\$4.91 (.18)	\$5.58 (.15)	\$4.44 (.12)	\$5.93 (.24)
Variable								
Metropolitan area	-.09 (.08)	-.13 (.15)	.33 (.34)	.23 (.17)	-.05 (.12)	-.22 (.08)	-.03 (.06)	-.11 (.12)
Size of establishment:								
250-999 workers	.55 (.13)	.39 (.26)	.60 (.58)	.55 (.34)	.34 (.15)	.46 (.11)	.20 (.08)	.53 (.21)
1,000 workers or more	.61 (.13)	.48 (.26)	.06 (.63)	.72 (.36)	.73 (.17)	.66 (.13)	.43 (.09)	.61 (.22)
Region:								
Middle Atlantic	.09 (.16)	.06 (.50)	.75 (.74)	.81 (.41)	.25 (.20)	.27 (.14)	.42 (.11)	.23 (.27)
Southeast	1.08 (.13)	1.56 (.36)	2.46 (.57)	2.68 (.32)	1.15 (.22)	1.13 (.15)	.89 (.10)	1.52 (.20)
Southwest	1.25 (.16)	1.61 (.40)	3.01 (.61)	2.87 (.38)	.87 (.28)	1.44 (.18)	.94 (.12)	1.65 (.27)
Great Lakes	.44 (.13)	.44 (.38)	.83 (.65)	1.38 (.34)	.65 (.17)	.51 (.12)	.68 (.09)	.61 (.20)
Pacific	2.23 (.15)	2.42 (.37)	3.04 (.52)	3.33 (.32)	2.19 (.23)	3.22 (.16)	1.99 (.11)	3.20 (.23)
Type of mill:								
Pulp	.13 (.17)	.62 (.30)	.15 (.51)	.55 (.24)	—	—	—	.22 (.25)
Paperboard	-.15 (.09)	.19 (.16)	-.15 (.33)	.27 (.23)	-.32 (.29)	-.70 (.16)	-.33 (.11)	-.16 (.14)
Pulpmaking process:								
Sulphate	—	1.16 (.26)	.24 (.39)	1.12 (.27)	—	—	—	—
Sulphite	—	1.34 (.31)	-.53 (.56)	.89 (.32)	—	—	—	—
Type of paper or paperboard:								
Coarse (Kraft)	—	—	—	—	-.11 (.20)	-.07 (.14)	.05 (.09)	—
Sanitary tissue	—	—	—	—	-.07 (.22)	.35 (.12)	.08 (.09)	—
Container board	—	—	—	—	.50 (.34)	.54 (.20)	.29 (.13)	—
Boxboard	—	—	—	—	-.07 (.32)	.33 (.21)	.15 (.13)	—
Other	—	—	—	—	.09 (.18)	.29 (.13)	.22 (.09)	—
Machine width:								
101-150 inches	—	—	—	—	—	.40 (.11)	.34 (.09)	—
151-200 inches	—	—	—	—	—	1.35 (.13)	.85 (.10)	—
201-300 inches	—	—	—	—	—	2.13 (.14)	1.28 (.11)	—
301 inches and over	—	—	—	—	—	2.60 (.30)	1.20 (.19)	—
Statistical information:								
Adjusted coefficient of determination (R ²) (in percent)	60	64	51	70	52	79	74	62
Standard error of the estimate	\$0.58	\$0.67	\$1.03	\$0.75	\$0.71	\$0.78	\$0.50	\$0.77
Mean (Y)	\$6.54	\$7.89	\$8.07	\$7.55	\$5.96	\$7.72	\$6.12	\$7.62
Number of observations (N)	260	99	66	103	178	440	384	199
Number of establishments (S)	260	98	65	99	159	240	216	199

NOTE: Since the regression coefficients are based on a sample, they may differ from the figures that would have been obtained from a complete census of the industry. Chances are about 2 out of 3 that an estimate from the sample would differ from those in a total census-derived value by less than the standard error, and 19 out of 20 that the difference would be less than twice the standard error. "Y" is the mean of the earnings (dependent) variable weighted by production workers. "N" is the number of

observations used in each regression equation; it exceeds the number of establishments(s) when more than one type of pulp-making process is used in the same mill or different types of paper or machine widths are found. Dashes indicated that variable is not applicable for regression equation. R², normally presented in decimal form, was converted to a percent to show the extent of variation in earnings levels explained by the characteristics in the regression equation.

Table A-2. Hourly earnings differentials associated with selected establishment characteristics, pulp, paper, and paperboard mills, United States, summer 1977

(Standard errors shown in parentheses)

Characteristic	All production workers	Cooks, batch digester	Cooks, continuous digester	Bleach-plant operators	Beater-operator helpers	Paper-machine tenders	Fourth hands	Millwrights, pulp and paper
Location in metropolitan area to nonmetropolitan area:								
Gross differential	-\$0.32	-\$0.23	\$0.55	\$0.15	-\$0.49	-\$0.88	-\$0.40	-\$0.50
Net differential	-.09	-.13	.33	.23	-.05	-.22	-.03	-.11
	(.08)	(.15)	(.34)	(.17)	(.12)	(.08)	(.06)	(.12)
Establishments with at least 1,000 workers to those with 100 to 249 workers:								
Gross differential .....	.96	.86	.35	.74	1.29	2.06	1.06	1.02
Net differential .....	.61	.48	.06	.72	.73	.66	.43	.61
	(.13)	(.26)	(.63)	(.36)	(.17)	(.13)	(.09)	(.22)
Paperboard mills to paper mills:								
Gross differential .....	.12	.56	.18	1.34	-.14	.14	-.14	.22
Net differential	-.15	.19	-.15	.27	-.32	-.70	-.33	-.16
	(.09)	(.16)	(.33)	(.23)	(.29)	(.16)	(.11)	(.14)
Southeast to New England region:								
Gross differential	1.13	1.82	2.37	2.62	1.49	2.05	1.30	1.54
Net differential	1.08	1.56	2.46	2.68	1.15	1.13	.89	1.52
	(.13)	(.36)	(.57)	(.32)	(.22)	(.15)	(.10)	(.20)

NOTE: Gross differentials were derived from simple cross-tabulations using published averages; net differentials from multiple regression analysis.

Appendix B. Scope and Method of Survey

Scope of survey

The survey included establishments engaged primarily in manufacturing (1) pulp from wood or from other material such as rags, linters, waste paper, or straw; (2) paper (except building paper) from wood-pulp and other fibers; and (3) paperboard, including paperboard coated on the paperboard machine, from woodpulp and other fibers (industry groups 261, 262, and 263 as defined in the 1972 edition of the *Standard Industrial Classification Manual* prepared by the U.S. Office of Management and Budget). Separate auxiliary units such as central offices and research laboratories were excluded. Data for workers in converted paper products departments of mills covered by the study were excluded from the regular earnings tabulations and are presented separately.

Establishments studied were selected from those employing 100 workers or more at the time of reference of the data used in compiling the universe lists. Table B-1 shows the number of establishments and workers

estimated to be within the scope of the survey, as well as the number actually studied by the Bureau.

Method of study

Data were obtained by personal visits of the Bureau's field staff to a representative sample of establishments within the scope of the survey. To obtain appropriate accuracy at minimum cost, a greater proportion of large than of small establishments was studied. 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.

Establishment definition

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

Table B-1. Estimated number of establishments and employees within scope of survey and number studied, pulp, paper, and paperboard industries, summer 1977

Region ¹	Number of establishments ²		Workers in establishments		
	Within scope of study	Actually studied	Within scope of study		Actually studied
			Total ³	Production workers	
All mills					
United States ⁴	386	260	216,673	170,757	180,592
New England	62	36	26,946	21,380	22,146
Middle Atlantic	54	30	23,358	18,303	17,849
Southeast	77	59	64,157	50,321	55,680
Southwest	30	25	19,674	15,645	18,501
Great Lakes	103	67	50,992	39,518	40,402
Pacific	48	32	26,150	21,378	20,749
Pulp mills					
United States ⁴	19	16	10,273	8,156	7,524
Southeast	8	5	6,090	4,840	3,341
Pacific	7	7	2,752	2,192	2,752
Paper mills					
United States ⁴	234	168	150,257	118,618	131,886
New England	52	31	24,813	19,654	20,883
Middle Atlantic	36	23	18,914	14,989	15,939
Southeast	26	25	32,944	25,916	32,329
Southwest	17	14	11,001	8,902	10,236
Great Lakes	75	55	42,830	33,290	36,038
Pacific	24	16	16,661	13,502	13,367
Paperboard mills					
United States ⁴	133	76	56,143	43,983	41,182
Middle Atlantic	18	7	4,444	3,314	1,910
Southeast	43	29	25,123	19,565	20,010
Southwest	12	10	8,181	6,384	7,773
Great Lakes	27	11	7,983	6,090	4,185
Pacific	17	9	6,737	5,684	4,630

The regions used in this study include *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; and *Pacific*—California, Nevada, Oregon, and Washington.

² Includes only those establishments with 100 workers or more at the time of reference of the universe data.

³ Includes executive, professional, office, and other workers in addition to the production worker category shown separately.

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

Employment

Estimates of the number of workers within the scope of the study are intended as a general guide to the size and composition of the industries' labor force, rather than as precise measures of employment.

Production workers

The terms "production workers" and "production and related workers," used interchangeably in this bulletin, include working supervisors and all nonsupervisory workers engaged in nonoffice activities. Administrative, executive, professional, and technical personnel, and force-account construction employees, who are used as a separate work force on the firm's own properties, are excluded.

Occupational classification

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 C for these descriptions.) The criteria for selection of the occupations were: The number of workers in the occupation; the usefulness of the data in collective bargaining; and appropriate representation 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. Non-production bonus payments, such as Christmas or yearend bonuses, were excluded.

Average (mean) hourly rates or earnings for each occupation or category 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 (or standard) hours to which the salary corresponds.

Size of community

Tabulations by size of community pertain to metropolitan and nonmetropolitan areas. The term "metropolitan areas," as used in this bulletin, refers to the Standard Metropolitan Statistical Areas as defined by the U.S. Office of Management and Budget through February 1974. Except in New England, a Standard Metropolitan Statistical Area is defined as a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more. Counties contiguous to the one containing such a city are included in a 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, where the city and town are administratively more important than the county, 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.) An experienced worker occasionally may be paid above or below the single rate for special reasons, but such payments are exceptions. Range-of-rate plans are those in which the minimum, maximum, or both of these 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 these. 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 for 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 practices

Shift practices relate to the number of employees actually assigned to selected shifts at the time of the survey. Workers assigned to rotating shifts work alternately on day, evening, and night shifts; workers assigned to oscillating shifts have work schedules which alternate between two periods of time (e.g., evenings and nights) but do not make the full cycle as under rotating shift arrangements. Workers assigned to fixed shifts have a constant work schedule.

Supplementary wage provisions

Supplementary benefits in an establishment were considered applicable to all production workers if they applied to half of such workers or more in the establishment. Similarly, if fewer than 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 and exclude informal plans whereby time off with pay is granted at the discretion of the employer or 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 represent the most common practices, but they do not necessarily reflect individual establishment provisions for progression. For example, 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 the employer pays all or a part of the cost, excluding programs required by law such as workers' compensation and social security. Among 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 a part of the cost.

However, in New York and New Jersey, where temporary disability insurance laws require employer contributions,¹ 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 for (1) plans which provide full pay and no waiting period, and (2) plans providing either partial pay or a waiting period.

Long-term disability insurance plans provide payments to totally disabled employees upon the expiration of sick leave, sickness and accident insurance, or both, or after a specified period of disability (typically 6 months). Payments are made until the end of disability, a maximum age, or eligibility for retirement benefits. Payments may be full or partial, but are almost always reduced by social security, workers' compensation, and private pension benefits payable to the disabled employee.

Medical insurance refers to plans providing for complete or partial payment of doctors' fees. Such 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 or catastrophe insurance, includes plans designed to cover employees for sickness or injury involving an expense which exceeds the normal coverage of hospitalization, medical, and surgical plans.

Dental insurance includes plans which cover normal dental services such as fillings, extractions, and X-rays. Many health insurance plans provide benefits for certain kinds of oral surgery or dental care required as a result of an accident; plans limited to such conditions were excluded.

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

¹The temporary disability laws in California and Rhode Island do not require employer contributions.

Paid funeral and jury-duty leave. Data for paid funeral and jury-duty leave relate to formal plans which provide at least partial payment for time lost as a result of attending funerals of specified family members or serving as a juror.

Technological severance pay. Data relate to formal plans providing for payments to employees permanently separated from the company because of a technological change or plant closing.

Appendix C. 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 description 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.

Pulp

Woodyard and Wood Preparation

Crane operator

Operates crane to hoist and move logs of pulpwood in the woodyard of a pulp or paper mill. Work involves: Manipulating controls to raise and lower loadline and to move the load to desired location.

Barker, drum

Tends the operation of a drum barker which removes the bark from blocks of pulpwood by tumbling the blocks in a rotating cylinder. Work involves *most of the following*: Feeding pulpwood blocks into machine by hand or mechanical means; starting revolving drum; breaking up jam; and directing workers in sorting blocks. May oversee operation of washing unit or adjust water sprays at end of machine to remove chips or dirt adhering to pulpwood blocks.

Barker, hydraulic

Tends the operation of a barking machine which removes bark from logs by action of water under pressure. Work involves *most of the following*: Starting conveyor to carry log through machine; observing operation while the barking nozzle travels from one end of the rotating log to the other, removing the bark by water shot at high pressure; and directing workers

in sorting logs and regulating supply to machine. May oversee operation of washing unit or adjust water sprays at end of machine to remove chips or dirt adhering to log.

Sawyer

Cuts logs to desired size for pulping process. Operates one of the following types of saws: Swinging circular cutoff saw; stationary slasher consisting of one or more circular saw blades mounted in a saw table; and bandsaw. May make adjustments on machine.

Chipper operator

Feeds logs, blocks, or other wood by hand or with wood pick, from conveyor into hopper of a chipping machine that reduces the wood to chips. May start and stop conveyor to regulate amount of wood to be chipped; may inspect and change knives in machine.

Knife grinder

Grinds and sharpens, on power-driven grinding machine, the knives or cutters used in chipping or other wood-preparation machines. Work involves mounting knives or cutters in grinding machine and adjusting and operating the machine. May hone cutting edges.

Pulp Making

Cook

(Digester operator)

Is responsible for the operation of digester and the cooking process. Work involves *most of the following*: Determining the amount of liquor or acid to be used and the cooking pressure; directing the charging of the digester with chips or fibrous material and liquor or acid; determining through periodic tests when contents are ready for removal; directing the blowing of the contents of the digester; and keeping records and making reports on tonnage, liquor analysis, etc. May operate associated refining, screening, and washing system.

For wage study purposes, cooks are classified by type of digester and process, as follows:

Cook, batch digester

Sulphate process
Sulphite process
Soda process
Other

Cook, continuous digester (Kaymr operator, Globe operator)

Sulphate process
Sulphite process
Soda process
Other

Cook helper, first

Assists cook in cooking wood chips or fibrous materials to make pulp. Work involves *most of the following*: Loading and capping the digester (or directing the loading and capping, if done by other helpers); adjusting valves to build up neat and pressure in digester; making tests; and opening valves to blow pulp to blow pit. May perform other duties, as directed by cook.

For wage study purposes, cook helpers, first, are classified by type of digester and process, as follows:

Cook helper, first, batch digester

Sulphate process
Sulphite process
Soda process
Other

Cook helper, first, continuous digester

Sulphate process
Sulphite process
Soda process
Other

Grinder operator

Tends grinding machine that reduces blocks of wood to pulp. (Grinding machines are of three general types—pocket, magazine, and continuous—based on the method of feeding the wood to the grinder.) Work involves keeping machine supplied with wood and regulating machine to prevent burning of stock or glazing of grindstone.

Blow-pit operator (sulphite)

Tends blow pit (storage tank) and assists in discharging (blowing) woodpulp from digester. Work involves *most of the following*: Closing blow-pit hatch and blowing digester by opening valve; washing pulp stock in blow pit by admitting fresh water under pressure; sluicing blow pit with water; and pumping stock to stock chest preparatory to screening.

Washer operator (sulphate)

Operates washer or diffusers to clean and to thin the pulp preparatory to screening. Work involves *most of the following*: Controlling the flow of pulp through washers; and regulating the spraying of pulp with proper solution in primary washers, and with hot water in secondary washers.

Screen tender

Screens wood pulp to remove knots, slivers, and other foreign matter and to separate fine from coarse fibers. Work involves *most of the following*: Adjusting valves, pumps, and flow gates to control flow of pulp and wash water through filter screen and thereby

regulate consistency of stock; observing level of liquid to avoid overloading the screen; examining usable fiber for slivers; and replacing defective screen plates.

For wage study purposes, screen tenders are classified by process, as follows:

Screen tender

Sulphate process

Sulphite process

Soda process

Groundwood process

Semichemical process

Other

Bleach-plant operator

Whitens or bleaches pulp to specified requirements. Work involves *most of the following*: Pumping and controlling flow of stock to bleaching tanks; adding bleaching solution according to desired strength; and making tests during bleaching process to determine when pulp is properly bleached.

For wage study purposes, bleach-plant operators are classified by process, as follows:

Bleach-plant operator

Sulphate process

Sulphite process

Soda process

Groundwood process

Other

Wet-machine operator

Operates a wet-machine to produce pulp in lap form. Work involves *most of the following*: Maintaining uniform flow of pulp onto accumulating roll of machine; building sheet up to desired thickness; cutting sheet from machine; and folding and loading laps on trucks or skids.

For wage study purposes, wet-machine operators are classified by process, as follows:

Wet-machine operator

Sulphate process

Sulphite process

Soda process

Groundwood process

Semichemical process

Other

Pulp tester

(Stock tester)

Tests pulp or moisture content, color, purity, and strength. Work involves: Making physical tests such as tests for strength or color; and making chemical tests necessary to maintain uniformity and quality of paper stock desired.

For wage study purposes, pulp testers are classified by process, as follows:

Sulphate process

Sulphite process

Soda process

Semichemical process

Other

Recovery, Caustic, and Acid Making

Acid maker (sulphite)

Prepares acid for use in cooking sulphite pulp which is to be made into paper. Work involves: Weighing sulphur, and loading or directing the loading of burners with sulphur and other ingredients necessary to make acids of required strength. May operate acid tower.

Evaporator operator (sulphate)

In the recovery process, operates an evaporator to concentrate the solution used in cooking sulphate pulp. Work involves *most of the following*: Pumping liquid into evaporator tank or pan; maintaining specified pressure and temperature; periodically testing concentration of solution and adjusting feeds, temperature, and pressure in accordance with these tests; and pumping concentrated liquors to storage or to recovery furnace.

Recovery operator (sulphate)

In charge of the process of recovering sodium compounds from the liquor which has been washed from a previous batch of sulphate (or soda) pulp. Spray of liquor is admitted into contact with hot air in recovery furnace and the molten black ash is then conveyed from furnace to leaching tanks where the soda is washed from the carbon.

Recovery helper, first (sulphate)

Works under the direction of the recovery operator and receives verbal and/or written instructions outlining the specific duties to be performed; operates recovery boilers and auxiliary equipment; maintains correct A test on green liquor, adding salt cake to maintain specified sulphidity; makes liquor tests for laboratory; checks ash hoppers and maintains proper tests of liquor in chemical ash tanks; responsible for proper burning of concentrated black liquor or oil; maintains correct furnace conditions to produce maximum reduction and steam from liquor available; operates cascade evaporators; maintains correct water level in boilers; blows down boilers as required; changes charts and takes specified readings for log sheets; checks on functioning of pumps; and keeps firing floor and recovery panels clean.

Caustic operator (causticiser) (sulphate)

Makes caustic liquor for digesting wood chips into pulp. Work involves: Placing and mixing lime, soda ash, and water in vat; and agitating mixture mechanically as heat is applied to produce a uniform solution.

Lime-kiln operator (sulphate)

Burns lime sludge in oil or gas burner kiln to recover lime. Work involves *most of the following*: Controlling operation of oil burners to regulate kiln temperature; adjusting flow of lime sludge into kiln; and starting and stopping conveyor that carries lime from bottom of kiln.

Paper and Paperboard

Stock Preparation

Head stock preparer

(Beater engineer)

Is in charge of stock preparation process in a paper mill, and directs a crew of beater-operator helpers or other stock preparation workers.

For wage study purposes, head stock preparers are classified by group and grade or type of paper, as follows:

Group I. A beater engineer in charge of the beating process where stock preparations are varied and require the application of technical knowledge to achieve specified results; and also where color formulas have to be developed to meet special requirements.

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Group II. A beater engineer in charge of the beating process where stock preparation is a routine mechanical process and the attainment of specific colors is based on definite, standard formulas which, however, may be altered slightly to meet varying stock conditions.

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Beater-operator helper

(Beater-engineer helper)

Tends beaters and vats that prepare furnish for making paper or paperboard. Work involves *most of the following*: Turning valves to charge vats with specified amounts of slush pulp, fillers, size, and liquid chemicals; weighing and dumping ingredients into vats according to formula; dipping furnish sample from vat for laboratory sampling; removing plug of vat to dump furnish into beater chest and starting pump to transfer furnish from vat to storage; and observing vat and beater

operation and notifying beater engineer (Head stock preparer) of malfunctioning. May clean vats and chip rust, scale, and other deposits from machine rolls. May also weigh, mix, and cook dyes, and transport sheet pulp and other materials from stockroom. Exclude waste (or broke) beater-operator helpers.

For wage study purposes, beater-operator helpers are classified by grade or type of paper, as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Hydrapulper operator

(Pulper; slusher operator)

Tends machine that reduces broke (waste paper) or dry pulp sheets to pulp for use in making paper or paperboard. Work involves *most of the following*: Dumping broke or pulp sheets into machine vat and turning valves to admit water and steam that soften material to specified consistency; starting machine that reduces material to pulp; and opening discharge gate or starting pump to dump or transport pulp to storage or to other processes. May catch pulp in broke boxes and push boxes to beater engine.

For wage study purposes, hydrapulper operators are classified by grade or type of paper, as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Machine Room

Paper-machine tender

Is in charge of the operation of a papermaking machine. Work involves *most of the following*: Regulating and controlling flow of stock onto Fourdrinier wire or cylinder molds; setting and adjusting presses; regulating speed of various sections of machine; in-

terpreting tests as to quality of product and making necessary adjustments to meet specifications; and replacing wires and felts. Machine tender usually is stationed at wet end of machine and directs the backtender and other members of paper-machine crew.

In those mills where computer controls regulate papermaking machine operations, the machine tender performs less control and more monitoring duties and is available in case of emergency.

For wage study purposes, paper-machine tenders are classified by grade or type of paper and by machine width,¹ as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Backtender

Is stationed at the dry end of a paper machine. Work involves *most of the following*: Leading paper to and over dryers; regulating heat of dryers; adjusting calendars to obtain proper finish and caliper; putting paper on the reel; performing or directing the rewinding or cutting operation; weighing and calipering paper sheets and reporting results to machine tender; observing paper for any imperfections; and assisting machine tender at wet end of machine as directed.

For wage study purposes, backtenders are classified by grade or type of paper and by machine width,¹ as follows:

Newsprint and groundwood
Fine grade
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

¹Each of the machine-room occupations is to be classified by grade or type of paper and also by width of machine, as follows:

100 inches or less
101 inches - 150 inches
151 inches - 200 inches
201 inches - 300 inches
301 inches and over

Third hand

Performs the winding operation at the dry end of a paper machine. Work involves *most of the following*: Setting slitters in accordance with required width of rolls of paper; making splices in paper when necessary; running rolls to proper diameter; inspecting paper for imperfections during rewinding process; removing rolls with assistance of other members of crew; keeping record of weight and number of rolls made; and assisting backtender and machine tender as necessary.

For wage study purposes, third hands are classified by grade or type of paper and by machine width,² as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Fourth hand

Prepares calender stacks and dryers for operation, assists the third hand in the winding operation of a paper machine and usually removes rolls of paper from rewinder and weighs them; and assists at wet end in putting on felts and wires and in washing up.

For wage study purposes, fourth hands are classified by grade or type of paper and by machine width,² as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Fifth hand

Assists in the tending of the winder and calender sections of a paper machine. Works with other crew members in transferring paper roll from reel to reeling-off stand, threading paper through winder, in tending calender, in splicing broken paper at reeling-off stand, and unloading finished rolls from winder.

For wage study purposes, fifth hands are classified by grade or type of paper and by machine width,² as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Finishing, Roll

Calender operator

(Supercalender operator)

Operates a supercalender or calendering machine to impart a gloss to the paper. Work involves *most of the following*: Positioning roll of paper on the machine and threading it through the calendering rolls; regulating and adjusting pressure of the rolls; and removing the calendered paper.

For wage study purposes, calender operators are classified by grade or type of paper, as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Other

Calender helper

Assists calender operator to impart a gloss to surface of paper. Work involves *most of the following*: Trucking or moving rolls of paper; assisting in mounting rolls on calender machine; threading paper through rollers; and removing finished rolls from machine.

For wage study purposes, calender helpers are classified by grade or type of paper, as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Other

Coater operator (off-machine)

Operates a machine (removed from the papermaking machine) to glaze or impregnate paper or paperboard

²See footnote 1.

with size or coating mixtures. Work involves *most of the following*: Adjusting spreader rollers and aligning or fastening brushes or scraper blade in machine; loading paper roll on machine feed rack, and threading paper through spreader, pressure, and drying rolls; turning valve to admit specified coating mixture into machine tank; and adjusting tension of paper and pressure of rollers. May measure depth of coating. Excludes workers engaged in coating operations on equipment attached to papermaking machines.

For wage study purposes, off-machine coater operators are classified by grade or type of paper, as follows:

Newprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Coater operator helper

Assists coater operator (off-machine) by performing *most of the following*: Loading rolls of paper or paperboard on machine feed racks; placing core on rewind shaft and positioning shaft on machine; assisting operator in threading paper through machine and starting end of paper around rewind core; splicing breaks in paper; and removing rewound roll from machine. Excludes workers assisting in the coating operations on equipment attached to papermaking machines.

For wage study purposes, coater operator helpers are classified by grade or type of paper, as follows:

Newsprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Rewinder operator

Operates slitting and rewinding machine to slit rolls of paper, and to rewind material in order to obtain compact rolls of desired size. Work involves *most of the following*: Setting slitters to obtain desired width; positioning roll in machine; threading material through machine and engaging ends on rewinding rolls or spools; starting machine and controlling tension and speed of machine to insure even winding and slitting; examining material during rewinding; and removing rolls when specified diameter is attained.

For wage study purposes, rewinder operators are classified by grade or type of paper, as follows:

Newprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Rewinder helper

Assists rewinder operator by performing any *one or combination of the following*: Transporting rolls of paper from stock pile to machine; mounting rolls on machine; assisting in setting slitters, threading paper into machine, and splicing paper. May assist rewinder operator by performing other duties, as assigned.

For wage study purposes, rewinder helpers are classified by grade or type of paper, as follows:

Newprint and groundwood
Fine grades
Sanitary tissue
Coarse (Kraft)
Special industrial
Container board
Boxboard
Other

Finishing, Sheet

Cutter

(Power cutter; rotary cutter; trimmer)

Operates or tends the operation of one or more of the varieties of machines that cut or trim paper or paperboard to specified sizes; sets and adjusts knives, guides, stops, or clamps. The cutting equipment may be of the automatic type or may be hand controlled or operated; and the stock may be fed by hand or mechanical devices.

For wage study purposes, cutters are classified by type of cutter and by grade or type of paper, as follows:

Cutter, guillotine type (cut and trim)

Newsprint and groundwood

Fine grades

Sanitary tissue

Coarse (Kraft)

Special industrial

Container board

Boxboard

Other

Cutter, rotary or sheet

Newsprint and groundwood

Fine grades

Sanitary tissue

Coarse (Kraft)

Special industrial

Container board

Boxboard

Other

Laboratory

Paper tester

Uses special testing equipment to conduct physical tests such as weight, strength, moisture, tear, tensile strength, fold, and absorption to determine if paper meets specifications.

For wage study purposes, paper testers are classified by grade or type of paper, as follows:

Newsprint and groundwood

Fine grades

Sanitary tissue

Coarse (Kraft)

Special industrial

Container board

Boxboard

Other

Miscellaneous

Electrician, maintenance

Performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generating, distribution, or utilization of electric energy in an establishment. Work involves *most of the following*: Installing or repairing any of a variety of electrical equipment such as generators, transformers, switchboards, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment; working from blueprints, drawings, layout, or other specifications; locating and diagnosing trouble in the electrical system or equipment; working standard computations relating to load requirements of wiring or electrical equipment; using a variety of electrician's handtools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.

Boiler tender

Fires stationary boilers to furnish the establishment in which employed with heat, power, or steam. Feeds fuels to fire by hand or operates a mechanical stoker, gas, or oil burner; and checks water and safety valves. May clean, oil, or assist in repairing boiler room equipment.

Janitor

(Porter; sweeper; charworker)

Cleans and keeps in an orderly condition factory working areas and washrooms, *or* premises of an office or other establishment. Work involves *a combination of the following*: Sweeping, mopping and/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; and cleaning lavatories, showers, and restrooms. *Workers who specialize in window washing are excluded.*

Machinist, maintenance

Produces replacement parts and new parts in making repairs of metal parts of mechanical equipment operated in an establishment. Work involves *most of the following*: Interpreting written instructions and specifications; planning and laying out of work; using a variety of machinist's handtools and precision measuring instruments; setting up and operating standard machine tools; shaping of metal parts to close tolerances; making standard shop computations relating to dimensions of work, tooling, feeds and speeds of machining; knowledge of the working properties of the common metals; selecting standard materials, parts, and

equipment required for the work; and fitting and assembling parts into mechanical equipment. In general, the machinist's work normally requires a rounded training in machine-shop practice usually acquired through a formal apprenticeship or equivalent training and experience.

Mechanic, general

(Multicraft mechanic)

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

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 who 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.

Millwright, pulp and paper

Maintains and repairs machinery and equipment in pulp and paper mills, largely on a routine basis, but may be called upon to do repairs on machinery when difficulties in operation occur. Work involves *most of the following*: Examining paper-machine rolls, bearings, pumps, and other parts to insure all are in proper working condition; dismantling and repairing any of these parts, as necessary; sending defective parts to machine shop for repair; some sheet-metal work, welding, pipefitting, and related jobs, as required. Performs similar operations on pulp mill digesters and other equipment. Works with the production crew to restore normal operation of machine or equipment when breakdown occurs.

Oiler

(Greaser; lubricator)

Lubricates, with oil or grease, the moving parts or wearing surfaces of mechanical equipment in an establishment. Observes operation of machines and reports to maintenance or other supervisor any defective operation observed.

Pipefitter, maintenance

Installs or repairs water, steam, gas, or other types of pipe and pipefittings in an establishment. Work involves *most of the following*: Laying out of work and measuring to locate position of pipe from drawings or other written specifications; cutting various sizes of pipe to correct lengths with chisel and hammer or oxyacetylene torch or pipe-cutting machine; threading pipe with stocks and dies; bending pipe by hand-driven or power-driven machines; assembling pipe with couplings and fastening pipe to hangers; making standard shop computations relating to pressures, flow, and size of pipe required; and making standard tests to determine whether finished pipes meet specifications. In general, the work of the maintenance pipefitter requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience. *Workers primarily engaged in installing and repairing building sanitation or heating systems are excluded.*

Trucker, power

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

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

Trucker, power (forklift)

Trucker, power (other than forklift)

Industry Wage Studies

The most recent reports providing occupational wage data for industries included in the Bureau's program of industry wage surveys since 1960 are listed below. Copies are for sale 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 regional offices of the Bureau of Labor Statistics shown on the inside back cover. Copies that are out of stock are available for reference purposes at leading public, college, or university libraries, or at the Bureau's Washington or regional offices.

Manufacturing

Basic Iron and Steel, 1972. BLS Bulletin 1839
Candy and Other Confectionery Products, 1975. Bulletin 1939
Cigar Manufacturing, 1972. BLS Bulletin 1796
Cigarette Manufacturing, 1976. BLS Bulletin 1944
Corrugated and Solid Fiber Boxes, 1976. BLS Bulletin 1921
Fabricated Structural Steel, 1974. BLS Bulletin 1935
Fertilizer Manufacturing, 1971. BLS Bulletin 1763
Flour and Other Grain Mill Products, 1972. BLS Bulletin 1803
Fluid Milk Industry, 1973. BLS Bulletin 1871
Footwear, 1975. BLS Bulletin 1946
Hosiery, 1976. BLS Bulletin 1987
Industrial Chemicals, 1976. BLS Bulletin 1978
Iron and Steel Foundries, 1973. BLS Bulletin 1894
Leather Tanning and Finishing, 1973. BLS Bulletin 1835
Machinery Manufacturing, 1974-75. BLS Bulletin 1929
Meat Products, 1974. BLS Bulletin 1896
Men's and Boys' Separate Trousers, 1974. BLS Bulletin 1906
Men's and Boys' Shirts (Except Work Shirts) and Nightwear, 1974. BLS Bulletin 1901
Men's and Boys' Suits and Coats, 1976. BLS Bulletin 1962
Miscellaneous Plastics Products, 1974. BLS Bulletin 1914
Motor Vehicles and Parts, 1973-74. BLS Bulletin 1912
Nonferrous Foundries, 1975. BLS Bulletin 1952
Paints and Varnishes, 1976. BLS Bulletin 1973
Paperboard Containers and Boxes, 1970. BLS Bulletin 1719
Petroleum Refining, 1976. BLS Bulletin 1948
Pressed or Blown Glass and Glassware, 1975. BLS Bulletin 1923
Pulp, Paper, and Paperboard Mills, 1977. BLS Bulletin 2008
Shipbuilding and Repairing, 1976. BLS Bulletin 1968
Southern Sawmills and Planing Mills, 1969. BLS Bulletin 1694

Manufacturing — Continued

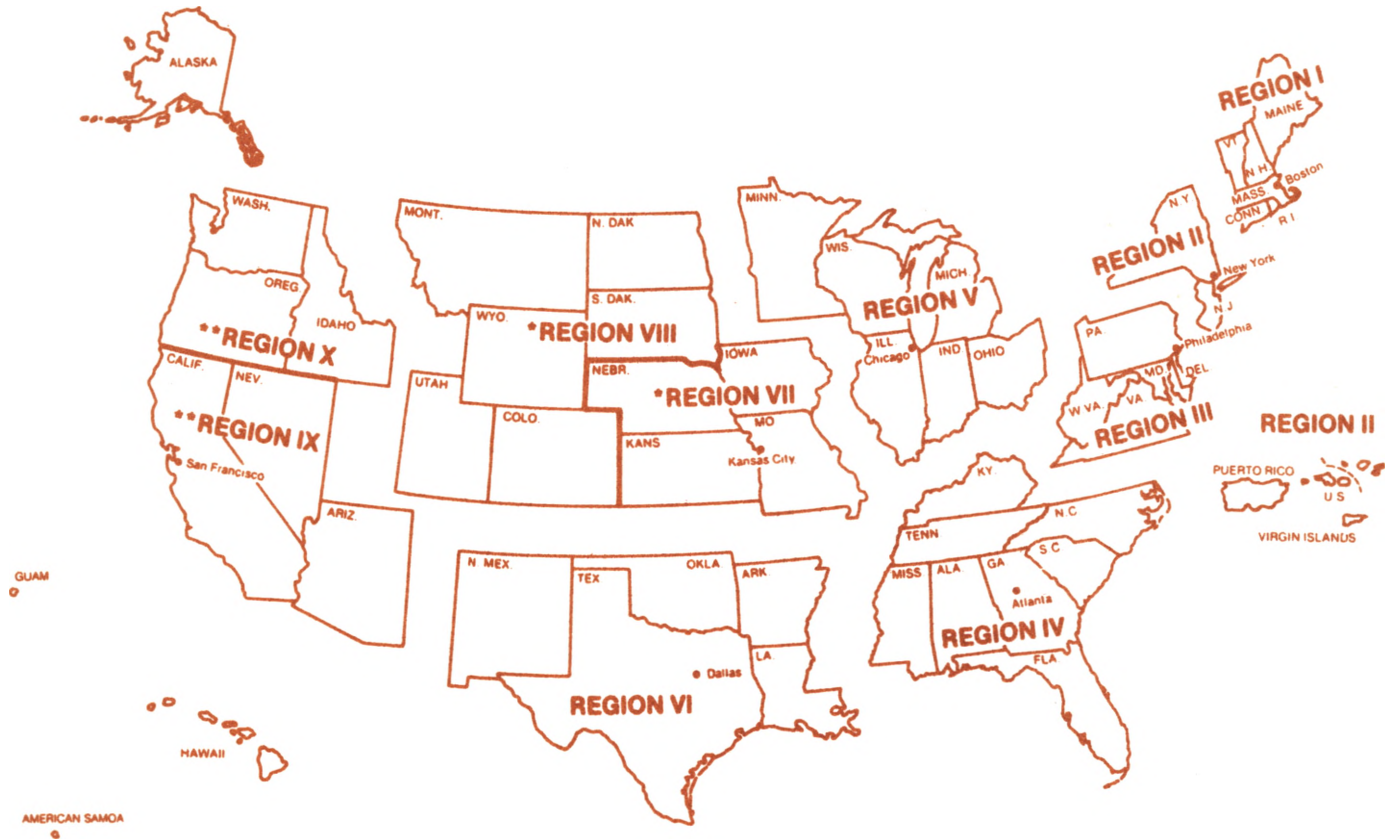
Structural Clay Products, 1975. BLS Bulletin 1942
Synthetic Fibers, 1976. BLS Bulletin 1975
Textile Dyeing and Finishing, 1976. BLS Bulletin 1967
Textiles, 1975. BLS Bulletin 1945
Wages and Demographic Characteristics in Work Clothing Manufacturing, 1972. BLS Bulletin 1858
West Coast Sawmilling, 1969. BLS Bulletin 1704
Women's and Misses' Coats and Suits, 1970. BLS Bulletin 1728
Women's and Misses' Dresses, 1974. BLS Bulletin 1908
Wood Household Furniture, 1974. BLS Bulletin 1930

Nonmanufacturing

Appliance Repair Shops, 1975. BLS Bulletin 1936
Auto Dealer Repair Shops, 1973. BLS Bulletin 1876
Banking and Life Insurance, 1976. BLS Bulletin 1988
Bituminous Coal Mining, 1976. BLS Bulletin 1999
Communications, 1976. BLS Bulletin 1991
Contract Cleaning Services, 1977. BLS Bulletin 2009
Contract Construction, 1973. BLS Bulletin 1911
Crude Petroleum and Natural Gas Production, 1972. BLS Bulletin 1797
Department Stores, 1977. BLS Bulletin 2006
Educational Institutions: Nonteaching Employees, 1968-69. BLS Bulletin 1671
Electric and Gas Utilities, 1972. BLS Bulletin 1834
Hospitals, 1975-76. BLS Bulletin 1949
Hotels and Motels, 1973. BLS Bulletin 1883
Laundry and Cleaning Services, 1968. BLS Bulletin 1645¹
Metal Mining, 1972. BLS Bulletin 1820
Motion Picture Theaters, 1966. BLS Bulletin 1542¹
Nursing Homes and Related Facilities, 1976. BLS Bulletin 1964
Scheduled Airlines, 1975. BLS Bulletin 1951
Wages and Tips in Restaurants and Hotels, 1970. BLS Bulletin 1712

¹Bulletin out of stock

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