



Occupational pay in structural clay products industries

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According to a Bureau of Labor Statistics wage survey, hourly earnings of production workers in structural clay products industries averaged \$7.41 in October 1986, up from \$5.86 in September 1980.¹ This represents an increase of 4.0 percent, on an annual average basis, and compares with an increase of 5.2 percent a year in the Bureau's Employment Cost Index for durable goods manufacturing industries.

Average hourly earnings in October 1986 varied considerably among the seven regions for which separate data are available, ranging from \$6.24 in the Southwest to \$9.43 in the Middle West. In the Southeast, where three-fourths of the industries' work force were employed, hourly earnings averaged \$6.64. Averages in the other four regions were \$7.16 in the Border States; \$7.94 in the Pacific States; \$8.21 in the Middle Atlantic; and \$8.35 in the Great Lakes.

Among the major product branches studied separately, nationwide hourly averages were \$9.80 in clay refractories, \$7.20 in ceramic wall and floor tile, and \$6.78 in brick and structural clay tile. Although clay refractories maintained its lead in earnings, the pay difference between it and the relatively low-paying brick and structural clay tile branch narrowed between 1980 and 1986—from 57 to 45 percent.

Pay levels were influenced by regional location and industrial concentration. For example, one-half of the workers in the Southwest and three-fifths of those in the Southeast, the two lowest paying regions in the Nation, were in brick and structural clay tile plants. However, slightly less than three-fifths of the Middle West work force—the highest paid among the regions—worked in clay refractory plants.

Employment change. Overall, production employment in structural clay products manufacturing fell by 10 percent between September 1980 and October 1986—from 26,288

to 23,535 workers. Work force changes at the branch level varied considerably. For example, employment declined by 50 percent in clay refractories (from 6,340 to 3,414 workers). But the number of workers in brick and structural clay tile plants changed relatively little (from 11,687 in 1980 to 11,593 in 1986).

The employment decline in clay refractories was accompanied by a 13-percent drop in shipments of refractories between 1981 and 1985.² These declines are attributable, in part, to a drop in orders from the steel industry, a major purchaser of refractories. However, shipments for brick and structural clay products rose by 83 percent over the same period because of the construction industry's strong demand for brick and tile.

Occupational averages. Of the 31 occupations studied separately, industrywide averages were lowest for janitors (\$6.60 hourly) and off-bearers (\$6.62) and highest for electricians (\$10.31) and machinists (\$10.32). Power-truck operators, the largest job group studied separately, averaged \$7.28.

Occupational averages were usually highest in clay refractory plants and lowest in brick and structural clay tile plants (table 1). Clay refractory workers usually earned between 25 and 45 percent more than workers in the same occupation in brick and clay tile plants.

Nationwide, about four-fifths of the workers were paid on a time-rated basis, typically under formal plans providing single rates for specific jobs. Workers paid incentive wages typically averaged between 20 and 40 percent more than their time-rated counterparts. Jobs predominantly paid on this basis included unloaders of tunnel kilns, brick sorters, die pressers, and kiln setters and drawers.

Virtually all workers were in establishments providing paid holidays and vacations. Workers typically received between 6 and 10 holidays per year. Nationwide, typical vacation provisions included 1 week after 1 year of service, 2 weeks after 3 years, 3 weeks or more after 10 years, and at least 4 weeks after 20 years.

Almost all clay workers were in establishments providing at least part of the cost of life, hospitalization, surgical, medical, and major medical insurance. Also, most received accidental death and dismemberment insurance and protection against temporary loss of income due to illness or accident. Retirement plans were provided to the majority of the workers.

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Table 1. Average hourly earnings¹ in structural clay products manufacturing, selected occupations, October 1986

Occupation	All establishments	Clay refractory plants	Brick and structural clay tile plants	Ceramic wall and floor tile plants
All production workers ²	\$7.41	\$9.80	\$6.78	\$7.20
Crushing, grinding, and mixing:				
Clay grinders	7.11	10.08	6.57	7.47
Clay makers	7.95	10.25	6.12	7.05
Dry pan operators	7.83	9.05	6.61	8.32
Forming and cutting:				
Die pressers	9.18	10.41	8.25	7.23
Press operators	7.24	8.62	7.07	6.77
Pugmill operators	7.31	9.98	6.86	8.05
Burning:				
Firers, tunnel kiln	7.38	9.57	6.88	7.87
Kiln setters and drawers	8.17	7.67	8.66	6.46
Placers, tunnel kiln	6.82	9.64	7.19	6.18
Unloaders, tunnel kiln	6.70	10.97	6.43	6.54
Finishing (drawing):				
Finishers	7.14	7.83	6.85	6.94
Off-bearers	6.63	8.11	6.60	6.51
Maintenance:				
Electricians	10.31	11.62	8.95	10.64
Machinists	10.32	11.37	8.22	9.76
Mechanics (machinery)	9.16	11.03	8.03	8.90
Motor vehicle mechanics	8.70	11.48	8.17	7.90
General maintenance workers	7.87	10.09	7.23	8.03
Custodial and material movement:				
Janitors	6.60	9.11	5.94	6.40
Packaging-machine operators	7.83	9.28	7.43	7.63
Shipping packers	7.20	8.46	7.09	6.79
Power-truck operators	7.28	10.17	6.54	7.35
Truckdrivers	7.43	10.04	7.07	7.51

¹ Excludes 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 increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

² Includes data for workers in occupations in addition to those shown separately.

A comprehensive report, *Industry Wage Survey: Structural Clay Products, October 1986* (Bulletin 2288), may be purchased from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, or from the Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690. The bulletin provides additional information on occupational pay and employee benefits by region and size of establishment. □

—FOOTNOTES—

¹Earnings data exclude 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 pay increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

For a report on the previous study, see *Industry Wage Survey: Structural Clay Products, September 1980*, Bulletin 2139 (Bureau of Labor Statistics, 1982).

²See *Annual Survey of Manufacturers, 1985, Value of Product Shipments* (U.S. Department of Commerce, Bureau of the Census). Data for 1986 will be available in February.

Occupational pay levels in footwear manufacturing

According to a Bureau of Labor Statistics survey of footwear manufacturing, hourly pay levels of production and related workers averaged \$5.72 in men's shoe plants and \$5.14 in women's, in October 1986.¹ This represents a 31-percent increase in earnings for men's footwear plants, and a 24-percent rise for women's footwear since a similar survey was conducted in April 1980.² By comparison, the Bureau's Employment Cost Index for nondurable goods manufacturing industries rose 41 percent over the same period.

Average hourly earnings in October 1986 varied considerably among the six regions studied separately for men's footwear, from \$4.96 in the Border States to \$6.55 in the Great Lakes. In New England, where nearly one-fourth of the workers in men's plants were employed, hourly earnings averaged \$5.77. In women's footwear, hourly pay levels in the three regions studied separately were \$5.14 (Middle West), \$5.36 (Middle Atlantic), and \$5.45 (New England).

Among 67 jobs studied separately, hourly averages in men's footwear ranged from \$4.76 (foam cutters) to \$7.21 (edge trimmers); in women's footwear, the range was \$4.55 (sock-lining stitchers) to \$7.69 (platform-cover lasters). Fancy stitchers, the largest occupational group

Just more than one-half of the work force were employed in plants operating under labor-management contracts covering a majority of production workers. The Middle Atlantic and Middle West regions recorded the highest proportion (75 percent) of workers in union plants, while the Southwest recorded the smallest proportion (25 percent). The Aluminum, Brick, and Glass Workers International Union and the United Steelworkers of America (both AFL-CIO affiliates) were the major unions in the clay products industries.

Also studied in the current survey was the use of temporary help and the extent to which services were contracted out. One-eighth of the production workers were in structural clay products plants regularly using temporary help. Plants employing nearly 60 percent of the clay industries' production force commonly contracted trucking services.

in both industries, averaged \$5.52 in men's shoe plants and \$5.20 in women's footwear.

The departments in a footwear manufacturing plant typically reflect the sequence and the unique activities in shoemaking. (See table 1.) For example, workers in cutting rooms cut out shoe uppers or linings commonly using a clicking machine. Vamp and whole shoe cutters were the most numerous of six jobs studied in this department. They averaged \$6.77 an hour in men's footwear, and \$5.96 in women's. Within each cutting-room occupation, pay may vary according to the type of machine used (conventional or numerically controlled) and the type of material cut (leather, synthetic, or both).

Among the other departments, prefitting and fitting operations involve assembling or stitching the shoe components to form the upper. Employed here are fancy stitchers, who sew decorative designs on shoe uppers, and skivers, who taper the leather edges to ensure thinner seams. Occupational averages in these two departments were typically in the \$5 to \$6 range.

Lasting operations include drawing the completed upper over the last (a foot-like form) and attaching the insole. The two most numerous job groups, and their average hourly pay, were toe and forepart lasters (\$6.40 in men's shoe plants and \$5.59 in women's) and side lasters (\$6.50 in men's and \$6.07 in women's).

The bottoming department is responsible for attaching the sole to the upper, combining all footwear components. The choice of three basic construction methods—cementing, stitching, and molding—is determined, in part, by the type of last and the means for attaching the upper to the insole and midsole. In men's plants, occupational averages were usually between \$5.50 and \$6.50 an hour; in women's footwear, the typical range was \$4.75 to \$6.25.

Finishing occupations, which prepare the shoe for sale and distribution, include making minor repairs, cleaning, and polishing. The seven finishing jobs studied showed a wide range of earnings. In men's footwear, averages ranged from \$5.28 (repairers) to \$6.56 (edge setters); in women's footwear, the spread was \$4.73 (repairers and sprayers) to \$6.62 (edge setters).

Nationwide, about three-fourths of the workers were employed under incentive pay systems, typically individual piece rates. A majority of the workers in nearly all of the occupations surveyed were paid incentive rates. Among the occupations usually paid time rates were repairers, floor workers, and inspectors. Virtually all workers were in establishments with weekly work schedules of 40 hours.

Nearly all production workers were in establishments providing paid holidays and paid vacations. The most prevalent holiday provisions, covering about three-fourths of the workers in men's footwear and more than eight-tenths of the workers in women's footwear, spanned 8 to

Table 1. Number of workers and average hourly earnings in footwear manufacturing plants, selected occupations, October 1986

Department and occupation	Men's footwear		Women's footwear	
	Number of workers	Average hourly earnings ¹	Number of workers	Average hourly earnings ¹
All production workers ²	26,612	\$5.72	21,863	\$5.14
Men	10,052	6.01	6,131	5.45
Women	15,993	5.50	15,732	5.01
Cutting				
Cutters, foam	18	4.76	16	5.65
Cutters, lining	342	5.96	174	6.01
Cutters, vamp and whole shoe	948	6.77	695	5.96
Prefitting				
Markers, stitch	189	5.55	220	4.96
Skivers, uppers or linings ..	391	5.41	279	5.08
Fitting				
Fancy stitchers	1,336	5.52	1,099	5.20
Sock-lining stitchers (slip-lasted shoes)	10	5.63	229	4.55
Top stitchers	530	5.80	789	4.93
Lasting				
Platform-cover lasters (slip-lasted shoes)	-	-	17	7.69
Side lasters	230	6.50	363	6.07
Staple or tack lasting	173	6.50	211	6.17
Cement lasting	57	6.50	152	5.95
Toe and forepart lasters	293	6.40	339	5.59
Bottoming				
Bottom roughers	100	6.21	220	5.35
Edge trimmers	327	7.21	95	5.22
Sole attachers, cement process	219	6.38	469	5.17
Finishing				
Edge setters	96	6.56	8	6.62
Repairers	401	5.28	322	4.73
Sprayers, uppers	139	5.63	98	4.73
Miscellaneous				
Floor workers	445	5.48	648	5.08
Inspectors	736	5.31	372	5.08

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

²Includes data for occupations in addition to those shown separately. Some data were collected for workers whose sex was not available from payroll records.

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

10 days per year. Typical vacation provisions included 1 week of vacation pay after 1 year of service, 2 weeks after 3 or 4 years, 3 weeks after 10 years, and 4 weeks after 20 years.

Nine-tenths or more of the footwear workers were in establishments providing at least part of the cost of life, hospitalization, surgical, and basic medical insurance. Footwear establishments providing insurance protection against accidental death and dismemberment or lost income due to short-term illness or accident covered about three-fourths of the work force. Dental plans covered nearly three-tenths of the workers in men's footwear and about one-tenth in women's; and vision care insurance plans were provided to about one-tenth of the workers in men's plants, but were not reported in visits to women's plants. Most life and health insurance plans were financed jointly by employers and employees.

Retirement plans, usually financed entirely by employers, applied to eight-tenths of the workers in men's shoe plants and to three-fourths in women's.

A comprehensive report on the survey, *Industry Wage Survey: Men's and Women's Footwear, October 1986* (Bulletin 2291) may be purchased from the Superinten-

dent of Documents, Washington, DC 20402, or from the Bureau of Labor Statistics, Publications Sales Center, P.O. Box 2145, Chicago, IL 60690. The bulletin provides additional information on occupational pay, and on the incidence of employee benefits. □

—FOOTNOTES—

¹Wage data are straight-time hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts. Cost-of-living increases (but not bonuses) were included as part of the workers' regular pay. Excluded were performance bonuses and lump-sum payments of the type negotiated in the auto and aerospace industries, as well as profit-sharing payments, attendance bonuses, Christmas or yearend bonuses, and other nonproduction bonuses.

The survey included establishments primarily manufacturing men's or women's leather footwear, except athletic, that were designed for dress, street, or work use. Footwear plants making shoes whose uppers

were not leather or a leather-like substitute, such as vinyl, were excluded.

²For a discussion of the earlier survey, see *Industry Wage Survey: Men's and Women's Footwear, April 1980*, Bulletin 2118 (Bureau of Labor Statistics, March 1982). The October 1986 study is not strictly comparable to the April 1980 survey, because the current one has a lower minimum establishment size—50 workers instead of 100. However, establishments with less than 100 workers accounted for less than 5 percent of the 1986 survey work force and had little or no effect on industry pay levels.

A note on communications

The *Monthly Labor Review* welcomes communications that supplement, challenge, or expand on research published in its pages. To be considered for publication, communications should be factual and analytical, not polemical in tone. Communications should be addressed to the Editor-in-Chief, *Monthly Labor Review*, Bureau of Labor Statistics, U.S. Department of Labor, Washington, DC 20212.
