BLS Completes Test Surveys of the Construction Industry

BLS recently published the results of the final two test surveys on compensation in the construction industry in the Salt Lake City-Ogden, UT, and Toledo, OH, Metropolitan Statistical Areas. This article reviews the earnings results of these surveys.

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he Bureau of Labor Statistics (BLS) and the Employment Standards Administration (ESA), agencies of the U.S. Department of Labor, agreed to have BLS conduct four test surveys of the construction industry. These surveys are intended to determine the feasibility of collecting data on employer costs for employee compensation for bluecollar occupations in local areas. They are also designed to assist ESA in determining prevailing wages and benefits for construction workers employed on federally funded projects.

This article discusses the earnings results of the final two test surveys conducted in the Salt Lake City-Ogden, UT, and Toledo, OH,¹ Metropolitan Statistical Areas (MSAs). The results of the test surveys in Jacksonville, FL, and Tucson, AZ, were summarized in earlier articles.²

Survey design

The surveys covered all private construction establishments in the two MSAs. The list of establishments (sampling frame) from which the survey sample was selected was developed from State unemployment insurance reports. Sampling frames were developed

oped from the June 1997 reports for Salt Lake City-Ogden and the March 1998 reports for Toledo, the most recent month of reference available at the time of sample selection.

The sample of establishments was drawn by first stratifying the sampling frame by the following five construction categories within the Standard Industrial Classification (SIC) system:

- General contractors (residential building)
- General contractors (nonresidential building)
- Highway and street construction
- Heavy construction, except highway and street
- Special trade contractors

A comparable article for earlier test surveys in the Jackson-ville, FL, and Tucson, AZ, Metropolitan Statistical Areas was published in the summer 1999 issue of *Compensation and Working Conditions*.

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Establishments were then selected within each category with a probability proportionate to employment size (that is, the larger an establishment's employment, the greater its chance of selection). Weights were applied to each sampled establishment so that all establishments would be represented.

The survey of Salt Lake City-Ogden was conducted between October 1998 and February 1999 and the Toledo survey, between April and July 1999. BLS field economists collected data primarily through personal visits. The Salt Lake City-Ogden survey sampled 450 establishments with 14,547 workers to represent the 5,186 establishments and 44,624 workers estimated to be in the construction industry in that MSA. Similarly, 450 establishments with 7,821 workers were selected to represent the 1,383 establishments and 15,487 workers estimated to be in the construction industry in Toledo.3

From a complete list of an establishment's nonsupervisory blue-collar occupations, a random selection of occupations (each with a probability of selection proportional to employment) was made by BLS economists. The selected occupations were classified into 185 detailed occupations,⁴ which were aggregated into 4 major occupational groups (MOGs):

- Precision production, craft, and repair
- Machine operators, assemblers, and inspectors
- Transportation and material moving
- Handlers, equipment cleaners, helpers, and laborers

Once the occupation was classified, various characteristics of the occupation were identified, including full- or part-time work schedule, union or non-union status, and time or incentive pay basis

Sample weights were calculated for each establishment and occupation so

survey estimates would represent total employment in the sampling frame. These weights reflected the relative size of the establishment within the survey and the relative size of the occupation within the establishment. Weights were used to aggregate the individual establishments and occupations into the various data series. If a sampled establishment did not provide data, the weights of responding sampled establishments in the same industry and classification were adjusted to account for the missing data.

Average hourly earnings were computed by first combining the wages for workers in occupations within individual establishments. Individual wage rates were then weighted according to the number of workers in the establishment. Occupation weights were adjusted to compensate for nonresponding establishments.

Earnings

Straight-time hourly earnings⁵ in construction averaged \$13.60 for the 26,876 nonsupervisory blue-collar workers in Salt Lake City-Ogden during November 1998 and \$17.92 for 9,733 comparable workers in Toledo during May 1999. (See table 1.)

The earnings of individual major occupational groups relative to the overall earnings in each area generally followed predictable patterns. In Salt Lake City-Ogden, earnings for handlers, equipment cleaners, helpers, and laborers were 72 percent of earnings of the areas' nonsupervisory bluecollar workers. In Toledo, earnings for similar workers were 80 percent of the earnings of all nonsupervisory blue-collar workers. With few exceptions, this pattern occurred within MOGs and for individual occupations as well. For example, the relative earnings of electricians were 36 percent higher in Salt Lake City-Ogden and 33 percent higher in Toledo than for all nonsupervisory blue-collar workers in each area. An exception to the pattern was found among machine operators, assemblers, and inspector occupations, for which workers in Salt Lake City-Ogden enjoyed considerably higher relative earnings than did their counterparts in Toledo.

Precision production, craft, and repair occupations. Nearly two-thirds of the nonsupervisory blue-collar workers found in construction were in the major occupational group precision production, craft, and repair. Average hourly earnings for these workers were \$14.92 in Salt Lake City-Ogden and \$18.97 in Toledo. More than 85 percent of the workers in this MOG were employed in construction trades occupations. Earnings for these workers averaged \$14.96 per hour in Salt Lake City-Ogden and \$19.17 in Toledo.

Survey estimates include average hourly earnings for the most populous construction trades in the two areas. In Salt Lake City-Ogden and Toledo, respectively, hourly earnings for carpenters averaged \$14.74 and \$18.71; electricians, \$18.48 and \$23.75; painters, \$12.36 and \$14.98; plumbers, pipefitters, and steamfitters, \$20.52 and \$22.64; roofers, \$13.19 and \$15.43; and structural metal workers, \$16.58 and \$20.19.

Apprentices are workers who are learning a recognized craft or trade through a formal program of on-thejob training supplemented by related instruction.⁶ Apprentices range from workers who are beginning the program through those who have nearly completed a comprehensive program and are performing at nearly a journey-level. In Salt Lake City-Ogden and Toledo, respectively, hourly earnings for apprentice carpenters averaged \$13.53 and \$14.77; apprentice electricians, \$12.53 and \$12.23; and apprentice plumbers, pipefitters, and steamfitters, \$13.81 and \$16.11.

Machine operators, assemblers, and inspectors. Less than 1 percent of workers were machine operators, assemblers, and inspectors. These workers averaged \$15.54 an hour in Salt Lake City-Ogden and \$13.22 in Toledo. More than four-fifths of the

workers in this category in Salt Lake City-Ogden were welders and cutters, who averaged \$15.75.

Transportation and material moving occupations. Approximately 10 percent of nonsupervisory blue-collar workers in construction in the two survey areas were classified in the transportation and material moving major occupational group. Hourly earnings for these workers were \$14.09 in Salt Lake City-Ogden and \$18.01 in Toledo. Workers in this MOG are usually found in the highway and street and heavy construction industries. More than 90 percent of these workers were classified into one of the following occupations: Truckdrivers, which includes drivers of all capacities and also includes concrete mixer drivers; operating engineers, who operate a variety of power equipment such as hoists, cranes, derricks, shovels, and tractors to move and grade earth, pour concrete, and erect structural and reinforcing steel; excavating and loading machine operators, which includes those who use machinery equipped with scoops or shovels, such as backhoes or earth moving equipment, to excavate loose material; and grader, dozer, and scraper operators, which includes those who use equipment with blades such as bulldozers, to remove or grade earth.

Hourly earnings for transportation and material moving occupations were lowest for truckdrivers, \$12.67 and \$12.74 in Salt Lake City-Ogden and Toledo, respectively. The highest hourly earnings were reported for operating engineers in Salt Lake City-Ogden, \$15.76, and for excavating and loading machine operators in Toledo, \$20.33.

Handlers, equipment cleaners, helpers, and laborers. More than 20 percent of nonsupervisory blue-collar workers were in this MOG. More than 95 percent of workers in this group were classified as helpers or laborers. Helpers assist workers who specialize in one craft, while laborers perform

tasks at the work area and do not have a trade specialization.

Among these less-skilled occupations, hourly earnings in Salt Lake City-Ogden averaged \$9.67 for construction trades helpers and \$9.81 for construction laborers. In Toledo, comparable earnings were \$10.51 for helpers and \$15.51 for laborers.

Earnings among union and nonunion workers

Union workers⁷ in both MSAs earned more than their nonunion counterparts. Union workers in Salt Lake City-Ogden, representing 14 percent of nonsupervisory blue-collar workers, earned \$16.96 per hour. Their counterparts in Toledo, representing nearly two-thirds of all nonsupervisory bluecollar workers, averaged \$20.71 per hour. In contrast, nonunion workers earned \$13.05 in Salt Lake City-Ogden and \$12.62 in Toledo. (See table 2.) Union workers in construction trades occupations averaged \$17.90 in Salt Lake City-Ogden and \$21.65 in Toledo. Comparable nonunion workers earned \$14.37 in Salt Lake City-Ogden and \$13.14 in Toledo. Among the three construction trades occupations in Salt Lake City-Ogden that permitted a union and nonunion comparison, hourly earnings for carpenters averaged \$17.04 and \$14.27, respectively; those for electricians were \$20.39 and \$17.56; and those for plumbers, pipefitters, and steamfitters were \$21.56 and \$19.48. Comparable union and nonunion earnings in Toledo were \$22.36 and \$13.83 for carpenters; \$25.18 and \$14.81 for electricians; and \$24.32 and \$14.40 for plumbers, pipefitters, and steamfitters.

Union construction laborers enjoyed a 30-percent pay advantage over their nonunion counterparts in Salt Lake City-Ogden and a 76-percent advantage in Toledo. The earnings differentials between union and nonunion workers were a function of the higher proportion of union workers in higher skilled jobs, as well as higher pay within comparable occupations.

Earnings among construction industries

Among different construction industries, hourly earnings were highest in special trade contractors in Salt Lake City-Ogden, \$13.94, and highway and street construction in Toledo, \$20.11 per hour. (See tables 3 and 4.) The lowest earnings were reported in the heavy construction industry in Salt Lake City-Ogden, \$12.64, and in residential building construction in Toledo, \$12.96.

Nearly two-thirds of nonsupervisory blue-collar workers in the construction industry in both MSAs worked for special trade contractors (SIC 17). (See table 5.) These firms undertake specialized activities such as painting, electrical work, plumbing, and roofing. Special trade contractors subcontract specific work from a general contractor, or work directly for a consumer.

General building contractors (SIC 15) employed about 20 percent of nonsupervisory blue-collar workers in construction. They were divided into two categories—residential buildings and operative builders, and nonresidential buildings. This group includes builders primarily engaged in the construction of residential, industrial, commercial, or other buildings.

Heavy construction contractors (SIC 16) also employed about 15 percent of nonsupervisory blue-collar workers. They were also divided into two categories—highway and street construction (other than elevated highways) and heavy construction, except highways and streets.

Because of the differences in work within each category, there are few occupations available for comparison. In Salt Lake City-Ogden, average hourly earnings for carpenters were \$15.08 in the special trade contractor category and \$15.58 in nonresidential building construction, the only two construction industries permitting comparison. Among the three construction industries allowing comparison in Toledo, carpenters earned \$14.48 in residential building con-

struction, \$17.63 in the special trade contractors category, and \$21.73 in nonresidential building construction.

In Salt Lake City-Ogden, highway

and street construction and heavy construction laborers were the highest paid, at \$10.43 per hour; special trade contractors were the lowest paid at

\$9.44 per hour. In Toledo, earnings ranged from \$13.72 among special trade contractors to \$19.02 in highway and street construction. ■

night or weekend work; premium pay for overtime, holidays, and weekends; bonuses not directly tied to production (for example, Christmas bonuses, profit-sharing bonuses); uniform or tool allowances; free room and board; payments made by third parties (for example, tips); and on-call pay.

⁶ Eight apprentice-specific occupations exist within the blue-collar categories in the 1990 Occupational Classification System Manual (Bureau of Labor Statistics, 1993). This 1990 manual is based on the 1990 Census of Population and Housing Classified Index of Industries and Occupations. Within the construction trades, apprenticeship trade categories exist for brickmasons and stonemasons, carpenters, electricians, and plumbers, pipefitters, and steamfitters. Other apprenticeship categories exist for sheet metal workers, tool and die makers, machinists, and automobile mechanics.

⁷ Union workers' wages are determined through collective bargaining.

¹ Detailed information is available in Salt Lake City-Ogden, UT, Wages and Benefits, Construction Industry Test Survey, November 1998, Bulletin 2510-3 (Bureau of Labor Statistics, June 1999), and Toledo, OH, Wages and Benefits, Construction Industry Test Survey, May 1999, Bulletin 2510-4 (Bureau of Labor Statistics, October 1999).

² Two earlier articles summarized the results of the Jacksonville, FL, and Tucson, AZ, surveys. See Robert W. Van Giezen, "Test Surveys of the Construction Industry," *Compensation and Working Conditions*, Summer 1999, pp. 8-14, and Hilery Z. Simpson, "Retirement Benefits in the Jacksonville, FL, and Tucson, AZ, Construction Industries," pp. 15-18 of the same issue. Also see the publications, *Jacksonville, FL, Wages and Benefits, Construction Industry Test Survey, April 1998*, Bulletin 2510-1 (Bureau of Labor Statistics, October 1998); and *Tucson, AZ, Wages and Benefits, Construction Industry Test Survey, May 1998*, Bulletin 2510-3 (Bureau of Labor Statistics, October 1998).

³ For more information, see *Salt Lake City-Ogden Test Survey*, p. 22; and *Toledo Test Survey*, p. 22.

⁴ Blue-collar supervisors included in the surveys of Jacksonville and Tucson were excluded from the list of occupations studied in the Salt Lake City-Ogden and Toledo surveys.

⁵Earnings were defined as regular payments from the employer to the employee as compensation for straight-time hourly work, or for any salaried work performed. The following components were included as part of straight-time earnings: Incentive pay, including commissions, production bonuses, and piece rates; cost-of-living allowances; hazard pay; payments of income deferred due to participation in salary reduction plans; and deadhead pay, defined as pay given to transportation workers returning in a vehicle without freight or passengers. The following forms of payments were not considered part of straight-time earnings: Shift differentials, defined as extra payment for working a schedule that varies from the norm, such as

Table 1. Number of workers, average hourly earnings, and pay relatives, nonsupervisory blue-collar occupations in the construction industry, Salt Lake City-Ogden, UT, and Toledo, OH, November 1998-May 1999

	Salt L	ake City-Ogde	n, UT²	Toledo, OH ²			
Occupation ¹	Number of workers ³	Mean hourly earnings ⁴	Pay relative ⁵	Number of workers ³	Mean hourly earnings ⁴	Pay relative ⁵	
All nonsupervisory blue-collar workers	26,876	\$13.60	100	9,733	\$17.92	100	
Precision production, craft, and repair	17,462	14.92	110	6,562	18.97	106	
Construction trades	15,165	14.96	110	5,865	19.17	107	
Brickmasons and stonemasons	363	18.58	137	367	21.71	121	
Brickmason and stonemason apprentices	_	_	_	52	17.52	98	
Tile setters, hard and soft	322	17.12	126	-	_	_	
Carpenters	3.058	14.74	108	1,121	18.71	104	
Carpenter apprentices	194	13.53	99	233	14.77	82	
Drywall installers	1,672	16.71	123		_	_	
Electricians	1,059	18.48	136	867	23.75	133	
Electrician apprentices	1,307	12.53	92	231	12.23	68	
Painters	410	12.36	91	518	14.98	84	
Plasterers	680	12.42	91	45	18.97	106	
Plumbers, pipefitters, and steamfitters	997	20.52	151	778	22.64	126	
Plumber, pipefitter, and steamfitter apprentices	704	13.81	102	193	16.11	90	
Concrete and terrazzo finishers	704	12.49	92	285	18.65	104	
Insulation workers	566	13.15	97	97	16.14	90	
Paving, surfacing, and tamping equipment	300	13.13	37	31	10.14	30	
operators	142	14.05	103				
Roofers	1,059	13.19	97	254	15.43	86	
Sheetmetal duct installers	152	19.19	141	166	18.17	101	
Structural metal workers	510	16.58	122	394	20.19	113	
Construction trades, n.e.c	784	11.21	82	139	13.37	75	
Other precision production, craft, and repair	2,297	14.69	108	697	17.37	97	
	2,297	13.20	97	45	17.37	97	
Heavy equipment mechanics	202	13.20	97	45	17.30	97	
Heating, air conditioning, and refrigeration	1 100	12.56	100	229	16.10	90	
mechanics	1,188	13.56	100		16.19		
Sheet metal workers	301	20.54	151	156 78	20.31 12.18	113 68	
Oncermetal apprentices		_		70	12.10		
Machine operators, assemblers, and inspectors	243	15.54	114	45	13.22	74	
Welders and cutters	202	15.75	116	-	-	-	
Transportation and material moving	2,466	14.09	104	1,116	18.01	101	
Truckdrivers	761	12.67	93	329	12.74	71	
Operating engineers	318	15.76	116	463	19.87	111	
Excavating and loading machine operators	1.106	14.16	104	244	20.33	113	
Grader, dozer, and scraper operators	194	14.67	108		-	-	
Handlers, equipment cleaners, helpers,							
7 1 1	6,706	9.74	72	2,010	14.38	80	
and laborers Helpers, mechanics and repairers	246	9.74 8.78	65	2,010	14.50	00	
Helpers, construction trades	1,888	9.67	71	382	10.51	59	
Construction laborers	4,406	9.81	71	36∠ 1,557	15.51	87	
CONSTRUCTION INDUITIES	4,400	9.01	12	1,557	15.51	""	
	I	1	1		1	1	

¹ A classification system including about 185 individual occupations is used to cover all nonsupervisory blue-collar workers in construction industries. Individual occupations are classified into 1 of 4 major occupational groups.

adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; on-call pay; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

NOTE: Overall occupational groups may include data for categories not shown separately. Dash indicates data are not available. n.e.c. means "not elsewhere classified."

² The Salt Lake City-Ogden, UT, Metropolitan Statistical Area (MSA) includes Davis, Salt Lake, and Weber Counties. The Toledo, OH, MSA includes Fulton, Lucas, and Wood Counties.

³ The number of workers includes full- and part-time workers.

⁴ Earnings are straight-time hourly wages or salaries paid to employees. Earnings relate to November 1998 for Salt Lake City-Ogden and to May 1999 for Toledo. They include incentive pay, cost-of-living

⁵ The pay relative is the ratio between earnings for the individual occupation or occupational group and all nonsupervisory blue-collar workers in the survey.

Table 2. Average hourly earnings for nonsupervisory blue-collar occupations in the construction industry, Salt Lake City-Ogden, UT, and Toledo, OH, by union affiliation, November 1998-May 1999

Occupation ²	Salt Lake City-Ogden, UT ³		Toledo, OH ³	
Оссираноп	Union⁴	Nonunion	Union⁴	Nonunion
All nonsupervisory blue-collar workers	\$16.96	\$13.05	\$20.71	\$12.62
Precision production, craft, and repair	18.18	14.27	21.34	13.47
Construction trades	17.90	14.37	21.65	13.14
Carpenters	17.04	14.27	22.36	13.83
Electricians	20.39	17.56	25.18	14.81
Plumbers, pipefitters, and steamfitters Other precision production, craft, and repair	21.56	19.48	24.32	14.40
occupations	19.98	13.61	18.53	15.53
Machine operators, assemblers and inspectors	-	15.54	-	13.22
Transportation and material moving	16.84	13.80	20.48	13.58
Handlers, equipment cleaners, helpers, and laborers Construction laborers	11.20 12.44	9.58 9.56	17.98 18.41	10.26 10.49

¹ Earnings are straight-time hourly wages or salaries paid to employees. Earnings relate to November 1998 for Salt Lake City-Ogden and to May 1999 for Toledo. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; on-call pay; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

are classified into 1 of 4 major occupational groups.

NOTE: Overall occupational groups may include data for categories not shown separately. A dash indicates that data are not available.

Table 3. Average hourly earnings for nonsupervisory blue-collar occupations in Salt Lake City-Ogden, UT, by construction industry November 1998

Occupation ⁴	Residential building construction ⁵	Nonresidential building construction	Highway and street construction		Special trade contractors
All nonsupervisory blue-collar workers	-	\$13.89	\$12.89	\$12.64	\$13.94
Precision production, craft, and repair Construction trades Carpenters Other precision production, craft, and repair Machine operators, assemblers, and inspectors	-	15.47 15.48 15.58	14.28 14.12 - -	13.55 13.13 - -	15.04 15.12 15.08 14.62
Transportation and material moving	-	16.18	14.49	13.90	13.76
Handlers, equipment cleaners, helpers, and laborers Construction laborers	- -	10.48 10.31	10.43 10.43	10.36 10.43	9.44 9.44

¹ Earnings are straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; on-call pay; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

eral Building Contractors-Nonresidential Building, SIC 154; Highway and Street Construction, except Elevated Highways, SIC 161; Heavy Construction, except Highway and Street Construction, SIC 162; and Construction-Special Trade Contractors, SIC 17.

NOTE: Overall occupational groups may include data for categories not shown separately. A dash indicates that data are not available.

² A classification system including about 185 individual occupations is used to cover all nonsupervisory blue-collar workers in construction industries. Individual occupations

³ The Salt Lake City-Ogden, ÚT, Metropolitan Statistical Area (MSA) includes Davis, Salt Lake, and Weber Counties. The Toledo, OH, MSA consists of Fulton, Lucas, and Wood Counties.

⁴ Union workers are workers whose wages are determined through collective bargaining.

² The Salt Lake City-Ogden, UT, Metropolitan Statistical Area includes Davis, Salt Lake, and Weber Counties.

³ The 1987 Standard Industrial Classification (SIC) Manual was used in classifying establishments. The construction industries are defined as follows: General Building Contractors-Residential Buildings and Operative Builders, SIC 152 and 153; Gen-

⁴ A classification system including about 185 individual occupations is used to cover all nonsupervisory blue-collar workers in construction industries. Individual occupations are classified into 1 of 4 major occupational groups.

⁵ Data were not published for residential construction because of a high nonresponse rate.

Table 4. Average hourly earnings¹ for nonsupervisory blue-collar occupations in Toledo, OH,² by construction industry,³ May 1999

Occupation ⁴	Residential building construction	Nonresidential building construction	Highway and street construction	Heavy construction	Special trade contractors
All nonsupervisory blue-collar workers	\$12.96	\$19.70	\$20.11	\$19.07	\$17.69
Precision production, craft, and repair Construction trades Carpenters Other precision production, craft, and repair	13.89 13.89 14.48	21.08 21.08 21.73	- - - -	22.82 23.15 - -	18.88 19.13 17.63 17.36
$\label{eq:machine operators} \mbox{Machine operators, assemblers, and inspectors} \ \dots$	-	-	-	-	-
Transportation and material moving	-	-	20.86	18.72	14.10
Handlers, equipment cleaners, helpers, and laborers	9.52	16.65 17.05	19.02 19.02	17.23 18.01	12.61 13.72

¹ Earnings are straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, and holidays; nonproduction bonuses; on-call pay; and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours.

General Building Contractors-Nonresidential Building, SIC 154; Highway and Street Construction, except Elevated Highways, SIC 161; Heavy Construction, except Highway and Street Construction, SIC 162; and Construction-Special Trade Contractors, SIC 17.

NOTE: Overall occupational groups may include data for categories not shown separately. A dash indicates that data are not available.

Table 5. Number of nonsupervisory blue-collar workers in Salt Lake City-Ogden, UT, and Toledo, OH, by construction industry, November 1998-May 1999

10.000, 0.1, 2, 00.0000 00.000 00.000 00.000 00.000 00.000 00.000 00.000 00.000 00.0000					
Industry ¹	Salt Lake City- Ogden, UT ²	Toledo, OH ²			
	Number of workers ³	Number of workers ³			
All nonsupervisory construction workers	26,876	9,733			
Residential building construction Nonresidential building construction Highway and street construction Heavy construction, except highway Special trade contractors	(4) 3,302 1,712 1,562 18,405	654 1,424 322 1,149 6,183			

¹ The 1987 Standard Industrial Classification (SIC) Manual was used in classifying establishments. The construction industries are defined as follows: General Building Contractors-Residential Buildings and Operative Builders, SIC 152 and 153; General Building Contractors-Nonresidential Building, SIC 154; Highway and Street Construction, except Elevated Highways, SIC 161; Heavy Construction, except Highway and Street Construction, SIC 162; and Construction-Special

Trade Contractors, SIC 17.

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

² The Toledo, OH, Metropolitan Statistical Area consists of Fulton, Lucas, and Wood Counties.

³ The 1987 Standard Industrial Classification (SIC) Manual was used in classifying establishments. The construction industries are defined as follows: General Building Contractors-Residential Buildings and Operative Builders, SIC 152 and 153;

⁴ A classification system including about 185 individual occupations is used to cover all blue-collar workers in construction industries. Individual occupations are classified into 1 of 4 major occupational groups.

² The Salt Lake City-Ogden, UT, Metropolitan Statistical Area (MSA) includes Davis, Salt Lake, and Weber Counties. The Toledo, OH, MSA includes Fulton, Lucas, and Wood Counties.

³ Workers include full- and part-time workers.

Data were not published for residential construction because of a high nonresponse rate.

NOTE: Because of rounding sums of individual.