




**1977
CENSUS OF
CONSTRUCTION
INDUSTRIES**

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Industry Series

Preliminary Report

Structural Steel Erection Special Trade Contractors

SIC 1791

During 1977, the establishments with payroll in this industry had business receipts of \$1.9 billion. Of this amount, \$1.8 billion were receipts for construction work, an increase of 27 percent compared with 1972. Their payments for construction work subcontracted to others amounted to \$0.1 billion leaving net construction receipts of about \$1.7 billion. Total average employment in the industry showed a decrease of 18 percent from 1972 to 47.8 thousand employees. Payroll for 1977 amounted to \$685.1 million. Value added at \$1.2 billion in 1977 was 19 percent more than in 1972.

The Structural Steel Erection Special Trade Contractors industry includes establishments primarily engaged in the erection of structural steel. It also includes establishments primarily engaged in the placing of concrete reinforcement and structural iron work and the erection of metal storage tanks. It also includes establishments engaged in the installation of metal building fronts and store fronts, the installation of metal elevator fronts, and metal furring work. Structural steel erection work done by general contractors engaged in bridge construction or other heavy construction is classified in the appropriate industries of major group 16. For a more detailed description, see the 1972 SIC Manual.¹

For this census, a "construction establishment" was defined as a relatively permanent office or other place of business at which or from which the usual business activities related to construction were conducted. A separate census report was required from each establishment but not from each construction site. Instead, the data for work at each site were included in the report from the appropriate office or branch office. Foreign construction activities were not included in this census.

The 1977 Census of Construction Industries is the sixth census of construction establishments in the United States. As in previous years, it was conducted jointly with the censuses of mineral industries, manufactures, retail trade, wholesale trade, and service industries under authority of title 13 of the United States Code. Although the first construction census was

conducted covering 1929, only the data from the censuses of 1967 and 1972 are comparable with the 1977 data.

The 1977 estimates for establishments with payroll in all of the construction industries are based on reports from a probability sample of approximately 181,000 establishments selected from about 536,000 construction establishments with payroll. The sample included all construction establishments with a payroll equivalent of 15 or more full-time employees and a sample of those with fewer employees. There were two exceptions: In SIC 1521, sampling was employed in establishments with less than 20 employees because of the large number of establishments in that industry; in SIC 1795, all known establishments were included because of the very small number of establishments in that industry. The data obtained from the sample were inflated to represent all construction establishments with payroll. Complete descriptions of the sampling and estimating procedures will be included in the final reports.

Since the data in this report are based on a sample, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same schedules and procedures. The standard error shown in the tables is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population was surveyed. As calculated for this report, the standard error partially incorporates the effect of random errors of response, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference is less than twice the standard error.

This report does not include figures for separate adminis-

¹ Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 4101-0066. Price \$6.75. 1977 Supplement. Stock No. 003-005-00176-0. Price 90 cents.


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Table 1. Detailed Statistics for Establishments With Payroll: 1977, 1972, and 1967

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Structural steel erection special trade contractors (1791)			Standard error of estimate (percent)		
	1977	1972	1967	1977	1972	1967
Number of establishments.....	2,594	2,760	1,944	3	4	4
Proprietors and working partners.....	710	934	953	9	8	10
All employees:						
March.....	42,420	53,623	37,753	1	1	1
May.....	48,118	55,112	41,516	1	2	1
August.....	51,398	61,058	44,616	1	2	1
November.....	49,275	61,222	41,210	1	2	1
Average.....	47,828	58,137	41,515	1	2	1
Construction workers:						
March.....	36,259	45,679	33,163	1	2	1
May.....	41,625	47,078	37,025	1	2	1
August.....	44,967	52,770	40,003	1	2	1
November.....	42,684	52,778	36,677	1	3	1
Average.....	41,410	49,983	36,936	1	2	1
Other employees:						
March.....	6,161	7,944	4,602	2	2	1
May.....	6,493	8,034	4,520	2	2	1
August.....	6,431	8,288	4,714	2	2	2
November.....	6,591	8,444	4,589	2	2	2
Average.....	6,429	8,154	4,695	2	2	2
Payroll, all employees.....	685,134	637,949	323,070	1	1	1
Payroll, construction workers.....	564,382	534,094	277,136	1	1	1
Payroll, other employees.....	120,753	103,855	45,936	1	1	1
First quarter payroll, all employees.....	143,704	(NA)	(NA)	1	(NA)	(NA)
Employer costs for fringe benefits.....	160,835	(NA)	(NA)	1	(NA)	(NA)
Legally required expenditures.....	83,573	(NA)	(NA)	1	(NA)	(NA)
Voluntary expenditures.....	77,262	(NA)	(NA)	1	(NA)	(NA)
All business receipts.....	1,922,114	1,496,417	753,797	1	1	1
Total construction receipts.....	1,844,230	1,457,836	731,914	1	1	1
Receipts for work subcontracted in from others.....	990,805	899,234	431,860	1	1	2
Other business and land receipts.....	77,885	38,581	21,899	2	2	2
Net construction receipts.....	1,748,254	1,385,610	704,454	1	1	1
Value added.....	1,203,183	1,012,890	551,110	1	1	1
Selected payments.....	718,931	483,527	202,692	1	2	1
Materials, components, and supplies.....	592,932	1,411,301	1,175,169	1	2	2
Construction work subcontracted to others.....	95,976	72,226	27,471	2	3	3
Selected power, fuels, and lubricants.....	30,024	(NA)	(NA)	1	(NA)	(NA)
Electricity.....	5,468	(NA)	(NA)	2	(NA)	(NA)
Natural gas.....	1,139	(NA)	(NA)	2	(NA)	(NA)
Gasoline and diesel fuel.....	19,911	(NA)	(NA)	2	(NA)	(NA)
Lubricating oils and greases.....	1,982	(NA)	(NA)	2	(NA)	(NA)
Other.....	1,525	(NA)	(NA)	2	(NA)	(NA)
Rental payments for machinery, equipment, and structures.....	40,874	(NA)	(NA)	1	(NA)	(NA)
For machinery and equipment.....	33,530	34,134	17,349	1	2	3
For structures.....	7,344	(NA)	(NA)	2	(NA)	(NA)
Selected purchased services.....	28,664	(NA)	(NA)	1	(NA)	(NA)
Communication.....	8,487	(NA)	(NA)	2	(NA)	(NA)
Repairs to structures and related facilities.....	1,898	(NA)	(NA)	2	(NA)	(NA)
Repairs to machinery and equipment.....	18,280	(NA)	(NA)	1	(NA)	(NA)
Capital expenditures.....	52,832	45,797	25,310	1	3	2
New.....	40,040	36,976	21,274	1	3	2
Structures and related facilities.....	8,020	4,627	2,708	2	5	4
Machinery and equipment, including automobiles and trucks.....	32,020	32,349	18,566	2	3	1
Automobiles and trucks intended primarily for highway use.....	11,341	(NA)	(NA)	3	(NA)	(NA)
Used.....	12,792	8,821	4,036	2	5	5
Structures and related facilities.....	2,465	1,104	746	4	4	11
Machinery and equipment, including automobiles and trucks.....	10,327	7,717	3,290	2	5	5
Fixed assets and depreciation:						
Gross book value of depreciable assets at end of year.....	393,536	273,928	(NA)	1	2	(NA)
Accumulated depreciation at end of year.....	182,087	130,576	(NA)	1	2	(NA)
Net value of depreciable assets at end of year.....	211,450	143,352	(NA)	1	2	(NA)
Depreciation charges during year.....	37,563	28,979	(NA)	1	3	(NA)
Structures, additions, and related facilities:						
Gross book value of depreciable assets at end of year.....	66,829	53,678	(NA)	2	3	(NA)
Accumulated depreciation at end of year.....	18,990	16,262	(NA)	2	3	(NA)
Net value of depreciable assets at end of year.....	47,839	37,416	(NA)	2	3	(NA)
Depreciation charges during year.....	3,004	3,812	(NA)	2	7	(NA)
Machinery and equipment:						
Gross book value of depreciable assets at end of year.....	326,708	220,250	(NA)	2	3	(NA)
Accumulated depreciation at end of year.....	163,097	114,314	(NA)	2	2	(NA)
Net value of depreciable assets at end of year.....	163,611	105,936	(NA)	2	2	(NA)
Depreciation charges during year.....	34,559	25,167	(NA)	2	2	(NA)

¹Includes data for power, fuels, and lubricants, now shown separately.

Table 2. **Construction Receipts for Establishments With Payroll by Type of Construction: 1977 and 1972**

(Thousands of dollars. Detailed figures may not add to totals because of rounding. For meaning of abbreviations and symbols, see text)

Item	Structural steel erection special trade contractors (1791)		Standard error of estimate (percent)	
	1977	1972	1977	1972
Construction receipts.....	1,844,230	1,457,836	1	1
Building construction.....	1,192,146	1,118,747	1	1
Single-family houses.....	22,865	(NA)	5	(NA)
Apartment buildings.....	39,520	58,693	7	3
Other residential buildings.....	25,945	42,724	2	2
Industrial buildings and warehouses.....	693,610	500,798	1	2
Office and bank buildings.....	128,689	184,716	2	1
Stores, restaurants, public garages, and automobile service stations....	68,867	78,355	5	3
Religious buildings.....	20,192	17,353	3	2
Educational buildings.....	77,105	104,737	2	2
Hospitals and institutional buildings.....	68,652	82,921	2	2
Amusement, social, and recreational buildings.....	13,665	28,326	2	3
Other nonresidential buildings.....	33,035	20,124	9	7
Nonbuilding construction.....	524,903	292,591	1	1
Highways, streets, and related facilities.....	17,145	22,043	6	7
Bridges and elevated highways.....	82,089	137,997	1	1
Power and communication transmission lines, towers, and related facilities.....	16,792	(NA)	6	(NA)
Blast furnaces, petroleum refineries, and chemical complexes.....	80,952	35,085	2	3
Power plants.....	99,757	38,816	1	4
Sewage treatment and water treatment plants.....	46,410	14,236	3	5
Miscellaneous heavy construction.....	111,062	(NA)	2	(NA)
Other nonbuilding construction.....	70,696	44,414	2	4
Construction work not specified by kind.....	127,203	46,498	4	6

Note: See text for explanation of duplication.

trative offices, warehouses, garages, or other auxiliary units which service construction establishments of the same company. Data for separate central administrative offices and auxiliaries are collected in the enterprise statistics survey, a part of the economic censuses.

This report is one in a series presenting preliminary data collected in the 1977 Census of Construction Industries. The universe for this census included all establishments classified in the construction industries (SIC's 15, 16, 17, and 6552). This report will be superseded by a more detailed final report. In addition to data for establishments with payroll presented here, the final Industry Summary report and the reports in the Geographic Area Series will present limited data for construction establishments with no payroll during 1977.

The totals of construction receipts reported by all construction establishments in each of the several industry, State, or other groupings in this census contain varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted out to other construction firms and, therefore, will be included in the subcontractor's receipts. To avoid this duplication, a "net construction receipts" figure has been derived by subtracting the payments made for construction work subcontracted to others from the construction receipts.

Usually, "value added" is the best measure for comparing the

relative economic importance of industries or areas. It eliminates the duplication in receipts because of subcontracting. It also eliminates from the output measure the cost of materials, which differs in relative importance among areas and industries. For this census, "value added" is equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for industries for which land receipts are significant, "value added" is equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

The symbols in the tables mean:

- Represents zero.
- D Withheld to avoid disclosing figures for individual companies; figures are included in higher level totals.
- S Withheld because estimates did not meet publication standards on the basis of either the associated standard error or a consistency review.
- Z Standard error of estimate is greater than zero but less than 1 percent.
- a Sampling error is greater than 40 percent.
- NA Not available; data were not collected.

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