

1992

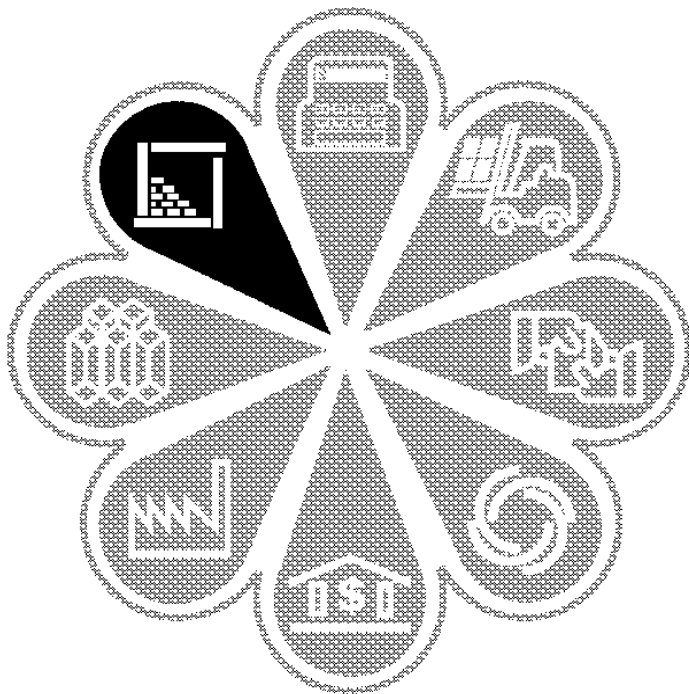
Census of Construction Industries

CC92-I-9

INDUSTRY SERIES

Heavy Construction Contractors, Not Elsewhere Classified

Industry 1629



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U.S. Department of Commerce
Ronald H. Brown, Secretary
David J. Barram, Deputy Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Martha Farnsworth Riche, Director

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This report was prepared in the Manufacturing and Construction Division. **Barry A. Rappaport**, Assistant Chief for Construction and Mineral Census and Related Programs, was responsible for the overall planning, management, and coordination of the census of construction industries. Planning and implementation were under the direction of **Patricia L. Horning**, Chief, Construction and Mineral Census Branch, with staff assistance by **Juliana Van Berkum**, **Jennifer L. Evans**, **Susan L. Hostetter**, **Doris M. Kling**, **Carolyn J. Stone**, and **Linda M. Taylor**. The sampling plans and variance and estimation specifications were developed by **Dennis K. Duke**. Under the direction of **C. Lloyd Anderson**, the Systems Support Staff maintained the small computers and assisted in the management of computer output.

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If you have any questions concerning the statistics in this report, call 301-457-4680.



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the Nation's economy. It provides essential information for government, business, industry, and the general public.

The economic census furnishes an important part of the framework for such composite measures as the gross domestic product, input/output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policymaking agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in 2 and 7. The 1992 Economic Census consists of the following eight censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Financial, Insurance, and Real Estate Industries
- Census of Transportation, Communications, and Utilities
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1992 Census of Agriculture and 1992 Census of Governments are conducted separately.) The next economic census is scheduled to be taken in 1998 covering the year 1997.

AVAILABILITY OF THE DATA

The results of the economic census are available in printed reports for sale by the U.S. Government Printing Office and on compact discs for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Bureau of the Census, Washington, DC 20233-8300. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State data centers in every State as well as business and industry data centers in many States also supply economic census statistics.

WHAT'S NEW IN 1992

The 1992 Economic Census covers more of the economy than any previous census. New for 1992 are data on communications, utilities, finance, insurance, and real estate, as well as coverage of more transportation industries. The economic, agriculture, and governments censuses now collectively cover nearly 98 percent of all economic activity.

Among other changes, new 1992 definitions affect the boundaries of about a third of all metropolitan areas. Also, the Survey of Women-Owned Businesses has now been expanded to include all corporations.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1963, 1958, and 1954. Prior to that time, the individual subcomponents of the economic census were taken separately at varying intervals.

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 Manufactures Census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 Economic Census was the first census to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic census, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The census of construction industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The census of transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks, but expanded in 1987 to cover business establishments in several transportation industries. For 1992, these statistics are incorporated into a broadened census of transportation, communications, and utilities. Also new for 1992 is the census of financial, insurance, and real estate industries. This is part of a gradual expansion in coverage of industries previously subjected to government regulation.

The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic census in 1972 along with the Survey of Women-Owned Businesses.

An economic census has also been taken in Puerto Rico since 1909, in the Virgin Islands of the United States and Guam since 1958, and in the Commonwealth of the Northern Mariana Islands since 1982.

Statistical reports from the 1987 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the census provides complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, with the results appearing in publication series such as Current Business Reports (retail and wholesale trade and service industries), the Annual Survey of Manufactures, Current Industrial Reports, and the Quarterly Financial Report. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the census. The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1992 Economic Census and Related Statistics*. More information on the methodology, procedures, and history of the census will be published in the *History of the 1992 Economic Census*. Contact Customer Services for information on availability.

Census of Construction

GENERAL

The 1992 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction or construction on their own account for sale as defined in the *Standard Industrial Classification Manual: 1987*¹ (SIC). This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction. The SIC manual defines construction in three broad types of activity:

1. **Building construction by general contractors or by operative builders.** General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
2. **Heavy construction general contractors.** Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction, if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets, and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
3. **Construction by other special trade contractors.** These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1992. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

Prior to 1992, this census also included one industry classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. This industry is covered in the 1992 Census of Financial, Insurance, and Real Estate Industries.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during all or any part of 1992. The census of construction industries figures represent a summary of records for individual establishments rather than for companies.

If an establishment was engaged in construction and one or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report for each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1992 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1992 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The companies included in the 1992 Census of Construction Industries were identified as part of an operation common to all 1992 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on nonemployers were obtained from administrative records of other agencies of the Federal Government.

Employer Companies

Developing the sampling frame for employer companies. This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act (FICA) taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of

ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative-record data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1992 Economic Census the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment companies and large single-establishment companies. Thus, the 1992 Economic Census list for single-establishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

Selecting the employer sample. The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with 1991 administrative payroll of \$480,000 or more and a probability sample of single-establishment companies with payroll under that amount. Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 547,000 single-establishment employer companies initially classified as construction companies, 158,000 were included in the sample. All of the 11,000 establishments of multiestablishment companies were included in

the sample. There was a net increase in the sample of 48,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan area, or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

Estimation procedures for 1992 and 1987 data. Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1992 and 1987 published here are simple unbiased estimates of the form:

$$x'_c = \sum_{i=1}^{n_c} x_i / p_i$$

where: x'_c is the simple unbiased estimate of a characteristic for a publication cell.

x_i is the reported value of a characteristic for an individual establishment in the publication cell.

p_i is the selection probability of that firm.

n_c is the number of firms in the sample for the cell.

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

Reliability of employer statistics. Since the estimates for employer establishments in these reports are based on the samples, 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 forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used. The relative standard error is a measure of sampling variability; i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the

relative standard error also partially reflects the effect of random errors of response and processing, 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 relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

Nonemployer Companies

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

One such "nonsampling" issue was raised in the processing of the 1992 statistics. For 1992, a relatively small number of nonemployer records with revenues more than \$1 million were excluded from tabulations. The exclusion of these records, however, resulted in a significant decrease in total nonemployer revenues from 1987, where no upper limit was used. The large revenues are now assumed to be unreasonable for firms without employees. It is also likely that these revenues are duplicated in revenues reported by (or imputed to) firms with paid employees. A comprehensive study of this issue is planned prior to the 1997 census.

CENSUS REPORT FORMS

Information for the 1992 Census of Construction Industries was obtained from employer establishments primarily through the use of 22 questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179. Establishments with 1991 administrative payroll of \$1,080,000 or more all received the standard form. For those sample establishments with payroll under that amount, half received the standard form and half received the short form. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and advisory groups.

Also, approximately 6,000 establishments in SIC's 1521, 1629, and 1799 were surveyed in the Census of Construction Industries 1989 Pretest. This survey consisted of four panels which received one of four experimental questionnaires and one panel which received the control questionnaire. Along with the questionnaire, these establishments received an evaluation questionnaire, which requested information about respondents' reactions to the questionnaire, problems in completing the questionnaire, and how long it took to complete the questionnaire. Results from the 1989 Pretest questionnaire are reflected as reworded questions, improved instructions, and restructured value of business questions in the 1992 questionnaires.

DATA PROCESSING

The 1992 census report forms were mailed out in December 1992. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, IN, where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1993.

VIII CENSUS OF CONSTRUCTION

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group) and State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1992 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical location of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

CHANGE IN COLLECTION METHODOLOGY FOR VALUE OF CONSTRUCTION WORK DONE

In 1987 and 1992, the "value of construction work" was collected to better measure actual construction activity done during the year. In 1992, this item was collected as a total of three separate items. These items (receipts from construction contract work, value of speculative construction work, and value of construction work done for own use) were collected separately to emphasize construction activity that had been poorly reported in previous censuses.

Receipts from the sale of land were not collected separately in 1992, as in 1987, but are still excluded from the value of construction work done.

All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and may also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries results from the use of products of these other industries as input materials by construction establishments. "Value added" avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added" is defined in the 1992 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1992 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Manufacturing and Construction Division, Bureau of the Census, Washington, DC 20233.

To discuss a special tabulation before submitting specifications, call 301-457-4680.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1992 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction

Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity; whereas, the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities, and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the census of construction industries.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- * Sampling error exceeds 40 percent.
- ** Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
- Represents zero.
- † Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
- †† Represents dollar value of business done less costs for construction work subcontracted to others and costs for materials, components, supplies, and fuels. In 1987, for SIC 1531, land receipts were collected as a component of dollar value of business and, therefore, were subtracted from this value. (See Duplication in Value of Construction Work.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
- (X) Not applicable.
- (Z) Less than half of the unit shown.
- n.s.k. Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For the United States	By State	By employment size	By size class of dollar value of business done	By type, class, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery, and equipment	3					
End of year—total	1, 3	1	5	6		
End of year—buildings, machinery, and equipment	3					
Depreciation charges during year—buildings, machinery, and equipment	3					
Capital expenditures:						
Total capital expenditures	1, 3	1	5	6		
New buildings—machinery and equipment	3					
Used buildings—machinery and equipment	3					
Communication services, costs for	2					
Employees:						
All employees—average number	1, 2, 8	1	5	6		8
Construction workers—average number	1, 2, 9	1, 9				
Construction workers—quarterly	2, 9	9				
Other employees—average number	2					
Other employees—quarterly	2					
Establishments—number in business during year	1, 2, 4, 8, 9	1, 9	5	6		8
Fringe benefits—legally required and voluntary expenditures	2					
Inventories	4					
Materials, components, supplies, and fuels—costs for	1, 2	1	5	6		
Ownership—private or government owned	2					
Payroll:						
First-quarter, all employees	2					
Annual:						
All employees	1, 2, 8	1	5	6		8
Construction workers	1, 2	1				
Other employees	2					
Power, fuels, and lubricants—costs for	2					
Proprietors and working partners	2					
Ratios, selected industry	12	13				
Receipts and value:						
Dollar value of business done, total	2, 11		5	6	11	
Value of construction work, total	1, 2, 4, 7, 8, 10	1, 10	5	6	7, 10	8
For work subcontracted in from others	1, 2					
Other business receipts	2					
Net value of construction work	1, 2, 8	1	5	6		8
Value added	1, 2, 8	1	5	6		8
Rental costs:						
Total	1, 2	1	5	6		
For machinery and equipment	2					
For buildings	2					
Repairs to buildings and other structures	2					
Repairs to machinery and equipment	2					
Subcontract work to others, costs for	1, 2, 8	1	5	6		8

Note: Data for 1987 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work.

Contents

Heavy Construction Contractors, Not Elsewhere Classified

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Introduction to the Economic Census.....	III
Census of Construction	V
Users' Guide for Locating Statistics in This Report by Table Number	X
Summary of Findings	2

FIGURES

1. Value of Construction Work by Type of Construction	3
2. Selected Costs per Dollar Value of Business Done	3

TABLES

Statistics for Establishments With Payroll

1. General Statistics by State: 1992 and 1987	4
2. Detailed Statistics: 1992 and Earlier Census Years	6
3. Assets, Capital Expenditures, and Depreciation: 1992 and 1987	7
4. Value of Inventories: 1992 and 1991	7
5. Selected Statistics by Employment Size Class: 1992 and 1987	8
6. Selected Statistics by Size Class of the Dollar Value of Business Done: 1992 and 1987	8
7. Value of Construction Work by Type of Construction: 1992 and 1987	9
8. Selected Statistics by Specialization in Types of Construction: 1992	10
9. Quarterly Construction Worker Employment by State: 1992	12
10. Value of Construction Work by Location of Construction Work: 1992 and 1987 ...	13
11. Dollar Value of Business Done by Kind-of-Business Activity: 1992 and 1987	14
12. Selected Industry Ratios: 1992 and 1987	15
13. Selected Industry Ratios by State: 1992	16

Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

APPENDIXES

A. Explanation of Terms	A-1
B. Standard Industrial Classification Titles for Industry Groups and Industries	B-1
C. Geographic Divisions and States.....	C-1

Publication Program..... Inside back cover

Summary of Findings

Establishments classified in this industry are primarily engaged in heavy construction projects, not elsewhere classified, such as chemical complexes, dams and reservoirs, harbor and port facilities, missile facilities, oil refineries, subways, water and sewer treatment plants, power plants, industrial ovens and incinerators, athletic fields, golf courses, and irrigation projects. This industry also includes contractors engaged in earthmoving not connected with buildings, land drainage, leveling, and reclamation. For additional examples, refer to the *Standard Industrial Classification Manual: 1987*¹ (SIC) published by the Office of Management and Budget, Executive Office of the President.

During 1992, the establishments with paid employees classified in this industry accounted for \$34.2 billion in total dollar value of business. Of this amount, \$32.8 billion were for the value of construction work. These establishments paid out \$8.7 billion for materials, components, and supplies and \$6.1 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$780 million. Value added for 1992 was \$18.6 billion.

There were 15,816 establishments with total employment averaging 304,113 during the year. Total payroll for 1992 was \$9.3 billion.

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Larger establishments with 20 employees or more, while representing only 13 percent of the total number of employer establishments in this industry accounted for 83 percent of all business done.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

For 1987 and earlier censuses, receipts from the sale of land were collected separately for general contractors and operative builders. These receipts were included in the total dollar value of business done but excluded from the value of construction work done. For 1992, receipts from the sale of land were not collected separately but are still excluded from the value of construction work done. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the introduction.

Figure 1. **Value of Construction Work by Type of Construction**
(Percent)

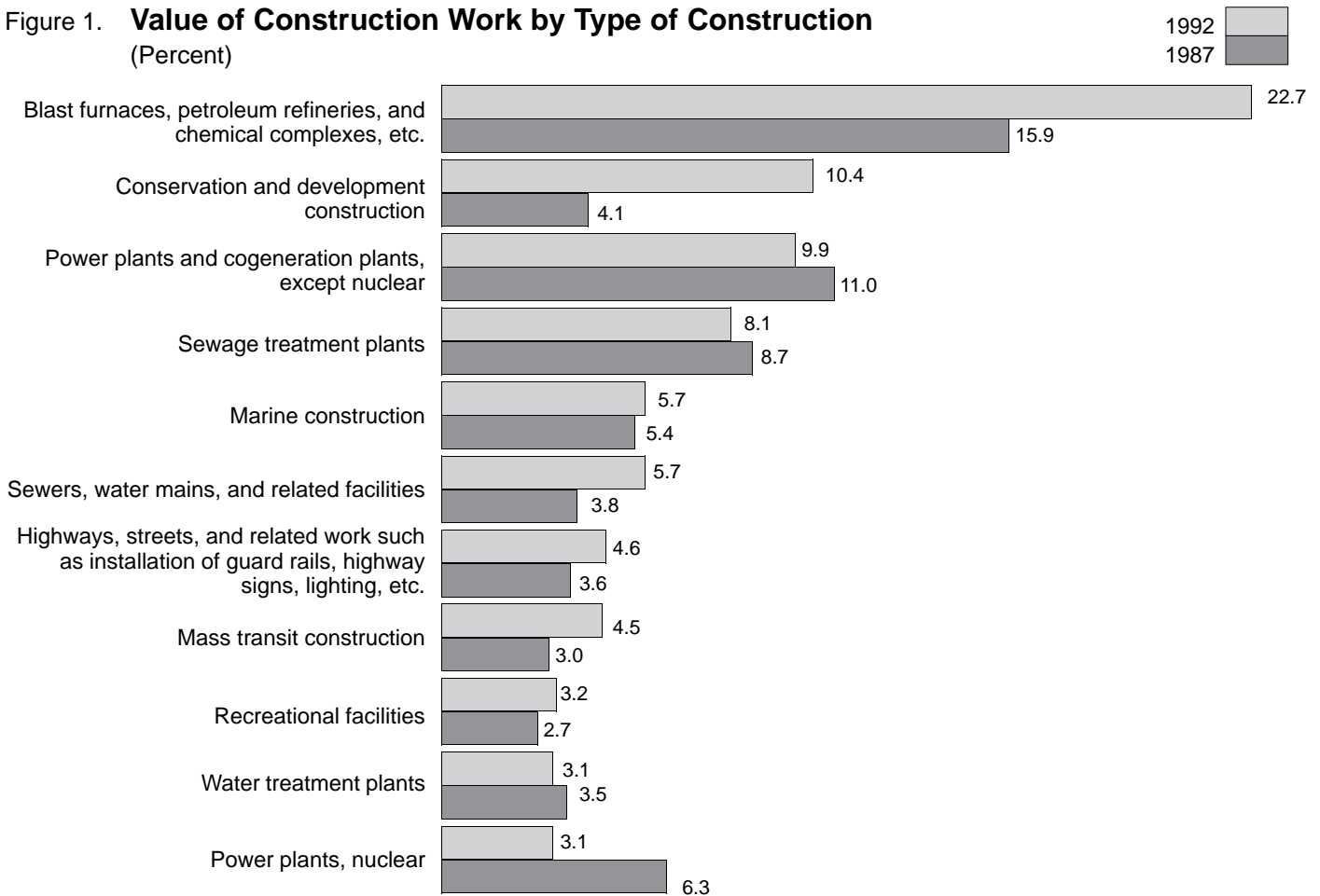


Figure 2. **Selected Costs per Dollar Value of Business Done**
(Percent)

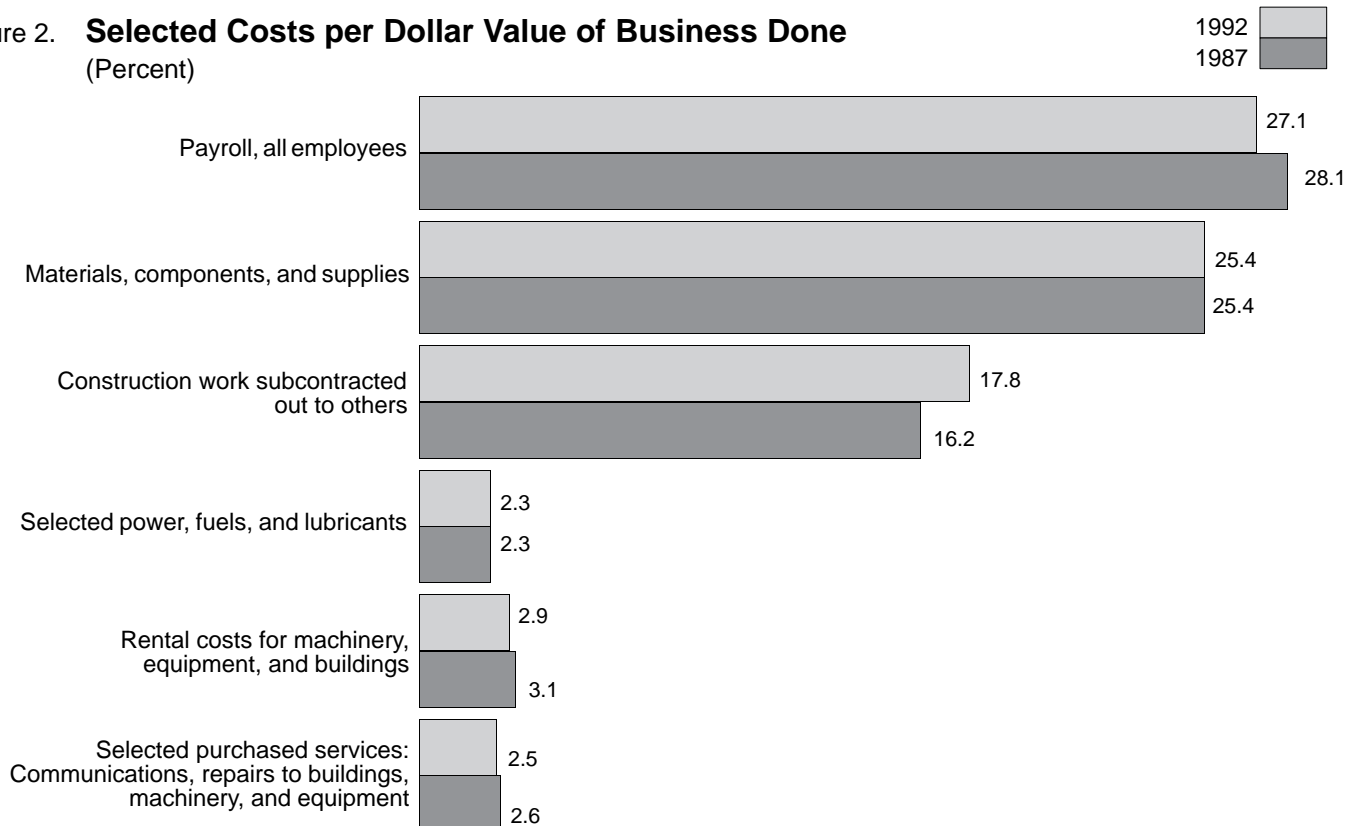


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Location of establishment	1992								
	Number of establishments	Employees**		Payroll		Value of construction work	Net value of construction work†	Value added††	Cost of materials, components, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
United States -----	15 816	304 113	240 024	9 260 705	6 787 615	32 836 527	26 759 824	18 642 289	9 446 662
Alabama -----	292	5 384	3 993	143 717	84 469	634 169	566 090	301 392	300 042
Alaska -----	70	830	693	24 707	18 230	74 449	(D)	59 128	(D)
Arizona -----	139	2 624	2 023	69 622	48 886	312 993	262 012	154 627	(D)
Arkansas -----	188	1 722	1 425	37 242	29 262	169 885	154 962	87 425	75 004
California -----	1 166	31 808	25 005	1 023 383	751 401	3 567 539	2 848 798	1 982 123	970 302
Colorado -----	332	5 582	4 627	158 516	128 275	671 582	545 111	324 313	240 536
Connecticut -----	164	4 392	3 132	188 644	120 887	723 205	663 463	551 718	126 257
Delaware -----	33	535	450	13 730	11 084	42 984	38 020	28 708	11 328
District of Columbia -----	6	150	103	6 075	3 849	(D)	(D)	(D)	(D)
Florida -----	865	10 067	7 903	247 232	173 349	1 163 267	945 080	597 978	370 967
Georgia -----	442	6 811	5 392	173 416	132 213	647 813	525 835	320 152	211 570
Hawaii -----	54	972	712	32 498	21 989	149 479	113 860	90 175	47 041
Idaho -----	141	1 937	1 203	52 775	31 467	181 443	(D)	100 918	(D)
Illinois -----	472	8 288	6 760	284 321	216 804	1 201 560	950 168	732 228	301 375
Indiana -----	415	4 687	3 939	146 939	116 899	525 558	431 071	304 414	134 385
Iowa -----	370	1 694	1 309	32 489	24 371	133 207	121 421	81 045	45 360
Kansas -----	279	2 496	2 023	57 332	44 812	227 323	194 817	124 599	74 194
Kentucky -----	240	3 776	3 072	89 380	66 569	380 965	321 751	210 124	117 439
Louisiana -----	437	25 472	22 264	699 356	575 392	1 895 756	1 660 756	1 175 458	530 431
Maine -----	153	1 452	1 160	34 874	27 384	155 056	127 181	84 988	46 254
Maryland -----	221	6 755	5 542	274 934	210 011	805 266	586 254	360 471	233 861
Massachusetts -----	290	5 571	3 291	227 464	119 608	897 848	700 045	505 242	201 740
Michigan -----	468	3 537	2 844	95 566	72 749	356 851	300 768	208 293	99 766
Minnesota -----	262	2 879	2 307	93 753	67 389	378 340	309 188	219 254	92 995
Mississippi -----	148	2 373	1 911	47 844	34 482	170 521	153 356	94 256	63 264
Missouri -----	456	4 017	3 355	103 916	84 238	498 716	391 804	(D)	185 730
Montana -----	99	960	774	21 789	16 706	108 012	(D)	53 330	(D)
Nebraska -----	232	1 848	1 412	49 474	37 575	456 265	329 602	216 866	126 906
Nevada -----	83	5 855	3 631	219 570	129 026	574 674	510 299	372 788	140 495
New Hampshire -----	129	1 006	778	25 999	18 717	122 719	94 521	48 805	48 171
New Jersey -----	358	7 005	5 344	273 413	193 031	1 033 561	907 840	733 164	264 310
New Mexico -----	112	1 191	1 001	23 128	17 331	84 336	74 503	52 120	22 433
New York -----	742	7 322	5 589	263 833	179 875	1 132 037	880 949	587 640	306 915
North Carolina -----	516	5 252	3 954	126 795	79 502	661 190	458 575	322 155	146 641
North Dakota -----	80	1 012	879	25 436	21 568	(D)	84 356	58 595	(D)
Ohio -----	570	10 215	7 222	423 774	277 212	1 785 950	1 129 337	792 613	449 246
Oklahoma -----	288	3 047	2 414	71 483	52 666	261 921	236 594	161 920	78 099
Oregon -----	239	2 258	1 792	68 042	49 537	317 253	254 119	168 497	94 751
Pennsylvania -----	555	8 709	6 542	268 661	185 991	1 180 417	902 839	614 028	331 876
Rhode Island -----	56	316	238	8 121	6 155	(D)	30 325	(D)	(D)
South Carolina -----	266	5 875	3 624	167 001	132 155	440 689	375 259	224 430	155 161
South Dakota -----	114	401	319	8 053	6 373	40 058	30 837	20 508	10 648
Tennessee -----	264	5 033	4 079	162 803	128 891	595 990	451 895	275 928	181 349
Texas -----	1 289	65 915	53 842	1 987 962	1 520 257	5 153 334	4 507 245	3 579 148	1 387 117
Utah -----	140	1 771	1 469	47 341	37 698	192 050	159 246	104 349	(D)
Vermont -----	62	535	428	10 726	8 224	44 941	(D)	26 837	(D)
Virginia -----	483	7 473	6 094	192 658	138 628	643 173	543 077	364 907	188 796
Washington -----	486	8 064	6 259	263 268	188 127	1 167 465	954 593	522 935	477 074
West Virginia -----	162	3 744	3 145	85 566	67 165	259 820	246 449	154 687	100 953
Wisconsin -----	276	2 457	1 892	76 132	57 090	365 917	254 439	165 916	96 917
Wyoming -----	111	1 039	865	29 950	22 047	83 579	74 709	54 892	20 897

1992—Con.					1987			Relative standard error of estimate (percent) for column—			Location of establishment
Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Value of construction work	Value added††					B	G	M
J	K	L	M	N	O	P	Q				
6 076 703	5 022 613	981 246	883 662	9 812 189	297 618	25 632 969	15 300 639	(Z)	(Z)	2	U.S.
68 079 (D)	91 303 (D)	9 541 4 393	14 921 *2 700	139 372 (D)	8 433 1 142	727 367 109 420	365 702 68 186	3 9	2 (D)	16 49	AL AK
50 981	41 764	17 797	6 277	65 134	3 379	240 070	141 678	5	4	11	AZ
14 923	34 575	5 904	10 666	107 345	1 742	127 253	68 106	7	5	14	AR
718 741	650 457	126 160	69 607	890 081	34 276	3 727 902	2 142 609	1	1	5	CA
126 471	123 211	16 744	17 640	116 366	4 968	463 802	260 700	3	2	20	CO
59 741	82 385	12 153	3 269	85 611	5 280	437 511	343 760	2	1	10	CT
4 963	11 082	1 579	1 895	21 199	995	76 811	52 633	5	4	4	DE
(D)	(D)	1 321	142	2 642	(D)	(D)	(D)	(Z)	(D)	(Z)	DC
218 187	201 404	51 775	32 724	329 001	12 221	1 045 318	537 580	3	2	7	FL
121 977	136 948	20 097	17 431	162 436	6 074	527 124	267 658	3	3	15	GA
35 620	(D)	4 195	7 607	55 517	1 009	119 633	64 891	6	7	22	HI
(D)	10 180	5 477	5 170	34 674	716	101 159	50 969	7	(D)	29	ID
251 392	168 529	41 926	33 595	433 413	5 954	826 500	483 592	2	1	7	IL
94 487	90 708	12 675	17 448	123 233	3 872	418 590	212 266	3	3	9	IN
11 786	17 538	2 728	7 367	62 465	1 509	115 815	64 620	10	10	23	IA
32 507	37 498	6 867	12 030	112 069	2 052	156 988	90 111	4	3	16	KS
59 214	34 419	5 295	10 747	117 015	2 201	162 468	91 124	7	8	17	KY
235 000	177 358	76 593	37 750	581 587	17 028	1 009 234	663 379	1	1	12	LA
27 875	26 636	5 761	12 841	92 285	4 236	354 726	242 682	9	7	7	ME
219 012	91 878	10 306	9 871	86 294	7 627	616 650	424 115	2	2	21	MD
197 803	196 531	22 170	9 605	164 198	6 592	723 218	399 637	2	1	10	MA
56 083	70 612	16 739	18 031	138 228	5 554	539 054	331 087	5	4	11	MI
69 152	37 059	19 138	18 453	171 359	2 451	249 555	113 022	5	4	13	MN
17 166	20 438	6 167	7 109	51 605	1 747	96 986	56 003	6	6	27	MS
106 912	67 381	13 296	26 322	198 391	2 642	239 753	131 140	4	4	14	MO
(D)	21 299	3 978	5 353	41 967	1 005	143 278	83 946	8	(D)	27	MT
126 663	15 054	7 263	9 301	82 907	936	89 505	53 864	5	2	15	NE
64 375	(D)	18 477	37 582	(D)	(D)	(D)	(D)	2	1	3	NV
28 198	28 143	2 688	7 394	49 137	1 364	123 510	73 299	7	6	10	NH
125 721	226 382	19 510	20 585	212 604	10 895	952 518	755 047	3	2	8	NJ
*9 833	*21 563	2 093	*7 220	28 504	1 330	91 129	46 804	13	14	45	NM
251 088	197 367	27 956	28 242	308 463	8 460	1 142 148	604 195	3	2	9	NY
202 615	162 571	18 827	21 086	191 470	4 141	290 159	171 677	5	3	9	NC
(D)	(D)	4 015	4 901	31 816	633	53 911	27 152	8	10	32	ND
656 613	184 366	43 877	35 355	356 505	8 340	996 536	501 273	2	2	7	OH
25 327	22 036	5 424	7 486	57 107	3 788	203 689	105 203	5	4	8	OK
63 134	60 255	12 926	11 029	93 752	971	136 822	67 295	5	4	23	OR
277 578	186 851	41 149	28 820	378 008	17 134	1 288 528	790 001	3	2	9	PA
(D)	(D)	2 971	*2 897	*9 582	376	39 435	22 710	10	10	74	RI
65 431	112 131	7 911	20 252	130 948	21 130	1 596 464	1 213 412	3	3	18	SC
9 221	(D)	(S)	1 451	(D)	137	8 293	(D)	18	17	27	SD
144 095	86 648	22 535	34 335	213 401	3 248	321 124	156 523	2	2	2	TN
646 089	655 650	131 961	104 585	1 663 742	45 713	2 753 256	1 707 817	1	1	3	TX
32 804	(D)	5 010	8 086	56 252	1 227	124 332	79 102	8	5	12	UT
(D)	4 328	*3 274	3 114	24 676	485	31 185	21 519	12	(D)	39	VT
100 096	106 870	19 613	15 292	249 865	5 961	405 087	221 412	3	3	10	VA
212 872	205 910	36 548	24 184	227 856	4 984	672 952	367 384	3	2	10	WA
13 371	58 283	8 014	10 659	67 864	2 355	146 887	106 930	3	3	19	WV
111 478	95 243	12 417	18 393	132 483	1 607	173 335	92 049	7	7	24	WI
8 870	7 556	4 902	4 840	40 712	915	77 565	40 882	7	9	26	WY

Table 2. Detailed Statistics for Establishments With Payroll: 1992 and Earlier Census Years

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1992	1987	1982	1977	Relative standard error of estimate (percent)			
					1992	1987	1982	1977
Number of establishments in business during year	15 816	14 532	7 662	8 342	1	1	2	2
Proprietors and working partners	5 097	3 585	1 914	4 451	3	4	5	5
All employees**	304 113	297 618	415 199	412 719	(Z)	(Z)	(Z)	(Z)
Construction workers:								
March	226 582	222 536	343 523	293 876	(Z)	(Z)	(Z)	(Z)
May	246 572	242 847	337 572	324 564	(Z)	1	(Z)	(Z)
August	247 058	244 807	314 569	334 002	(Z)	1	(Z)	(Z)
November	239 883	242 652	319 609	320 642	1	(Z)	(Z)	(Z)
Average	240 024	238 204	329 475	318 375	(Z)	(Z)	(Z)	(Z)
Other employees:								
March	64 739	59 511	85 453	92 739	(Z)	1	(Z)	(Z)
May	64 182	59 656	(NA)	(NA)	1	1	(NA)	(NA)
August	63 541	59 240	(NA)	(NA)	1	1	(NA)	(NA)
November	63 896	59 250	(NA)	(NA)	1	1	(NA)	(NA)
Average	64 090	59 414	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees	9 260 705	7 661 992	11 062 660	7 298 267	(Z)	(Z)	(Z)	(Z)
Payroll, construction workers	6 787 615	5 726 472	8 649 399	5 274 120	(Z)	(Z)	(Z)	(Z)
Payroll, other employees	2 473 090	1 935 519	2 413 261	2 024 147	(Z)	(Z)	(Z)	(Z)
First-quarter payroll, all employees	2 084 449	1 719 499	2 423 588	1 596 110	(Z)	(Z)	(Z)	(Z)
Fringe benefits, all employees	2 245 046	1 834 442	1 903 384	1 354 246	(Z)	(Z)	(Z)	(Z)
Legally required expenditures	1 405 536	1 177 878	1 352 977	702 449	1	(Z)	(Z)	(Z)
Voluntary expenditures	839 510	656 563	550 406	651 797	(Z)	(Z)	(Z)	(Z)
Dollar value of business done	34 165 654	27 310 131	36 310 245	23 282 543	(Z)	(Z)	(Z)	(Z)
Value of construction work	32 836 527	25 632 969	33 657 455	21 624 035	(Z)	(Z)	(Z)	(Z)
Value of construction work subcontracted in from others	5 022 613	3 294 752	1 949 539	1 217 455	2	2	1	1
Other business receipts	1 329 127	1 677 162	2 652 790	1 658 508	1	(Z)	(Z)	(Z)
Net value of construction work†	26 759 824	21 209 274	26 391 852	17 527 251	(Z)	(Z)	(Z)	(Z)
Value added††	18 642 289	15 300 639	18 952 918	12 446 662	(Z)	(Z)	(Z)	(Z)
Selected costs	15 523 366	12 009 491	17 357 327	10 835 881	(Z)	(Z)	(Z)	(Z)
Materials, components, and supplies	8 666 276	6 949 590	9 452 406	6 353 738	1	(Z)	(Z)	(Z)
Construction work subcontracted out to others	6 076 703	4 423 695	7 265 602	4 096 784	(Z)	1	(Z)	(Z)
Selected power, fuels, and lubricants	780 387	636 206	639 318	385 359	1	1	(Z)	(Z)
Electricity	74 273	65 774	105 820	42 650	1	1	(Z)	(Z)
Natural and manufactured gas	27 869	5 350	16 962	16 202	1	2	(Z)	(Z)
Gasoline and diesel fuel	618 816	512 577	465 276	276 596	1	1	(Z)	(Z)
On highway use	257 077	213 346	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use	361 738	299 231	(NA)	(NA)	1	1	(NA)	(NA)
Other, including lubricating oils and greases	59 428	52 503	51 259	49 958	2	1	1	1
Rental cost for machinery, equipment, and buildings	981 246	833 356	569 707	498 877	1	1	(Z)	(Z)
For machinery and equipment	855 262	728 531	473 109	436 842	1	1	1	(Z)
For buildings	125 985	104 824	96 597	62 035	2	1	(Z)	1
Selected purchased services	864 472	705 775	438 848	409 777	1	1	(Z)	1
Communication services	129 655	107 507	115 854	78 865	1	1	(Z)	1
Repairs to buildings and other structures	34 457	22 398	13 497	15 852	3	3	2	1
Repairs to machinery and equipment	700 360	575 869	309 496	315 061	1	1	1	1
Ownership of construction projects:								
Value of construction work	32 836 527	25 632 969	33 657 455	21 624 035	(Z)	(Z)	(Z)	(Z)
Government owned	12 759 117	9 066 320	8 105 801	5 562 202	1	1	(Z)	(Z)
Federal	3 949 685	2 939 784	(NA)	(NA)	2	1	(NA)	(NA)
State and local	8 809 432	6 126 535	(NA)	(NA)	2	1	(NA)	(NA)
Privately owned	20 077 410	16 566 649	25 551 654	16 061 833	1	1	(Z)	(Z)

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	1992	1987	Relative standard error of estimate (percent)	
			1992	1987
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	9 415 299	5 823 246	1	1
Capital expenditures, other than land	883 662	672 353	2	2
New	628 773	463 784	2	2
Used	254 889	208 568	4	4
Retirements and disposition of depreciable assets.....	486 772	662 169	3	2
End-of-year gross book value of depreciable assets	9 812 189	5 833 429	1	1
Depreciation charges during year	932 317	627 814	1	2
Buildings and Other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	1 466 233	602 898	1	2
Capital expenditures, other than land	54 065	48 136	6	5
New buildings and other structures	42 065	30 253	6	3
Used buildings and other structures.....	11 999	17 883	17	12
Retirements and disposition of depreciable assets.....	10 932	70 954	14	2
End-of-year gross book value of depreciable assets	1 509 365	580 080	1	2
Depreciation charges during year	57 080	38 156	4	2
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	7 949 066	5 220 347	1	1
Capital expenditures, other than land	829 598	624 216	2	2
New machinery and equipment, including automobiles and trucks	586 708	433 531	2	2
New automobiles and trucks, intended primarily for highway use	115 141	114 588	3	4
Used machinery and equipment, including automobiles and trucks	242 890	190 684	4	3
Retirements and disposition of depreciable assets.....	475 840	591 214	3	2
End-of-year gross book value of depreciable assets	8 302 824	5 253 349	1	1
Depreciation charges during year	875 237	589 657	1	2

Table 4. Value of Inventories for Establishments With Payroll: 1992 and 1991

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number	15 816	1
Value of construction work	32 836 527	(Z)
Establishments with inventories:		
Number	3 470	3
Value of construction work	12 235 830	(Z)
Inventories¹:		
End of 1992, materials and supplies	189 303	2
End of 1991, materials and supplies	217 888	2
Establishments with no inventories:		
Number	6 172	2
Value of construction work	15 143 582	(Z)
Establishments not reporting:		
Number	6 175	2
Value of construction work	5 457 115	1

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1992										
Number of establishments	15 816	8 733	3 116	1 935	1 266	383	240	78	34	32
All employees**	304 113	16 467	19 874	25 215	37 412	26 584	37 501	25 683	22 532	92 845
Payroll, all employees	9 260 705	285 533	399 521	621 957	1 074 312	822 881	1 264 696	863 675	776 814	3 151 316
Dollar value of business done	34 165 654	1 605 275	1 672 754	2 645 467	4 419 551	3 743 546	5 269 633	3 534 506	2 827 720	8 447 203
Value of construction work	32 836 527	1 580 233	1 628 954	2 579 056	4 280 296	3 679 441	5 140 701	3 472 395	2 668 256	7 807 195
Net value of construction work†	26 759 824	1 403 514	1 472 663	2 210 819	3 467 035	2 929 597	4 012 423	2 608 545	2 266 951	6 388 277
Value added††	18 642 289	920 559	984 415	1 418 866	2 222 825	1 913 978	2 690 699	1 612 186	1 665 782	5 212 979
Cost of materials, components, supplies, and fuels	9 446 662	507 997	532 048	858 363	1 383 465	1 079 724	1 450 656	1 058 470	760 633	1 815 306
Cost of construction work subcontracted out to others	6 076 703	176 719	156 291	368 237	813 261	749 844	1 128 278	863 850	401 305	1 418 918
Rental cost for machinery, equipment, and buildings	981 246	47 551	65 202	95 359	159 650	125 890	169 785	117 781	79 607	120 422
Capital expenditures, other than land	883 662	84 006	89 208	98 226	139 852	112 764	129 843	91 127	42 260	96 376
End-of-year gross book value of depreciable assets	9 812 189	754 126	800 871	973 453	1 400 513	1 013 255	1 525 812	807 114	494 612	2 042 433
1987										
All employees**	297 618	15 812	18 003	24 090	35 630	29 097	29 737	24 317	21 963	98 968
Value of construction work	25 632 969	1 267 653	1 348 849	1 968 226	3 565 869	3 014 951	3 054 854	3 066 528	1 868 315	6 477 723
Value added††	15 300 639	806 423	855 355	1 187 356	1 963 162	1 533 524	1 748 103	1 743 434	981 604	4 481 676
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees**	(Z)	3	4	3	2	(Z)	(Z)	(Z)	(Z)	(Z)
Net value of construction work†	(Z)	3	4	4	1	(Z)	(Z)	(Z)	(Z)	(Z)
Capital expenditures, other than land	2	8	10	7	2	(Z)	(Z)	(Z)	(Z)	(Z)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1992											
Number of establishments	15 816	(S)	(S)	1 849	3 850	2 895	2 004	1 722	729	418	505
All employees**	304 113	(S)	(S)	2 829	10 641	14 478	17 701	28 647	22 662	23 413	182 062
Payroll, all employees	9 260 705	(S)	(S)	30 720	153 185	258 340	367 841	714 564	638 566	736 257	6 345 258
Dollar value of business done	34 165 654	(S)	(S)	135 671	636 045	1 022 209	1 415 172	2 662 330	2 578 943	2 919 750	22 746 151
Value of construction work	32 836 527	(S)	(S)	133 732	617 584	993 833	1 381 834	2 598 468	2 493 062	2 849 609	21 719 913
Net value of construction work†	26 759 824	(S)	(S)	129 562	587 096	929 962	1 261 759	2 292 615	2 086 978	2 301 411	17 124 050
Value added††	18 642 289	(S)	(S)	86 959	397 885	643 305	846 074	1 516 238	1 378 842	1 466 978	12 275 186
Cost of materials, components, supplies, and fuels	9 446 662	(S)	(S)	44 542	207 671	315 033	449 022	840 239	794 018	904 573	5 875 102
Cost of construction work subcontracted out to others	6 076 703	(S)	(S)	4 170	30 488	63 871	120 075	305 853	406 084	548 199	4 595 863
Rental cost for machinery, equipment, and buildings	981 246	(S)	(S)	(S)	17 948	33 321	47 298	113 483	83 135	110 937	569 584
Capital expenditures, other than land	883 662	(S)	(S)	(S)	37 471	71 541	62 510	116 412	79 466	92 960	410 810
End-of-year gross book value of depreciable assets	9 812 189	(S)	(S)	93 325	362 328	592 703	643 425	1 089 440	772 372	892 584	5 336 485
1987											
All employees**	297 618	(S)	(S)	(S)	10 708	14 219	18 568	27 270	25 162	26 390	170 092
Value of construction work	25 632 969	(S)	(S)	(S)	581 313	829 852	1 309 915	2 141 040	2 293 841	2 530 890	15 760 452
Value added††	15 300 639	(S)	(S)	(S)	395 430	549 942	849 189	1 335 111	1 307 642	1 374 428	9 366 037
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees**	(Z)	(S)	(S)	7	5	4	4	2	2	1	(Z)
Net value of construction work†	(Z)	(S)	(S)	5	4	4	4	3	2	2	(Z)
Capital expenditures, other than land	2	(S)	(S)	(S)	11	11	11	6	2	1	(Z)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
1992								
Value of construction work	32 836 527	20 484 992	4 939 024	6 187 840	(Z)	(Z)	1	1
Building construction	1 620 783	1 214 977	208 610	197 196	1	1	3	2
Single-family houses	217 277	174 349	25 253	17 675	4	5	11	11
Office buildings	187 322	154 783	19 755	12 784	2	2	5	2
Other commercial buildings such as stores, restaurants, and automobile service stations	174 640	132 438	22 854	19 348	3	3	6	11
Industrial buildings and warehouses	607 178	408 876	64 074	134 228	1	1	4	3
Other nonresidential buildings	434 365	344 531	76 675	13 160	1	1	5	6
Nonbuilding construction	29 991 073	19 270 015	4 730 414	5 990 645	(Z)	(Z)	1	(Z)
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc.	1 525 053	1 016 479	378 808	129 766	1	1	1	2
Recreational facilities	1 061 592	837 323	141 766	82 503	3	3	7	7
Bridges, tunnels, and elevated highways	596 669	393 433	155 293	47 944	1	1	1	1
Dam and reservoir construction	755 730	545 162	185 734	24 833	2	2	1	16
Marine construction	1 874 962	1 161 222	246 434	467 305	1	1	2	3
Harbor and port facilities	461 328	282 943	91 392	86 993	3	4	4	8
Conservation and development construction	3 415 547	2 358 865	559 249	497 433	2	2	4	3
Power and communication transmission lines, towers, and related facilities	219 801	139 639	(D)	(D)	3	4	(D)	(D)
Sewers, water mains, and related facilities	1 869 494	1 447 997	210 741	210 756	2	2	4	5
Sewers, sewer lines, septic systems, and related facilities	1 146 541	878 210	126 874	141 457	2	2	5	6
Water mains and related facilities	722 953	569 787	83 867	69 300	3	3	5	5
Pipeline construction other than sewer or water lines	336 352	225 897	49 384	61 071	3	4	4	7
Mass transit construction	1 490 204	847 897	401 861	240 446	2	3	3	5
Urban mass transit	541 151	371 445	(D)	(D)	4	5	(D)	(D)
Railroad construction	949 053	476 451	(D)	(D)	3	3	(D)	(D)
Blast furnaces, petroleum refineries, chemical complexes, etc.	7 466 527	4 452 648	722 996	2 290 882	(Z)	(Z)	1	(Z)
Power plants	4 289 033	2 442 739	360 728	1 485 566	(Z)	(Z)	1	(Z)
Power plants, nuclear	1 030 077	303 369	(D)	(D)	1	2	(D)	(D)
Power plants and cogeneration plants, except nuclear	3 258 956	2 139 369	(D)	(D)	1	2	(D)	(D)
Sewage treatment and water treatment plants	3 688 587	2 507 818	1 057 286	123 483	2	2	2	5
Sewage treatment plants	2 656 739	1 820 902	762 577	73 261	2	3	2	7
Water treatment plants	1 031 848	686 917	294 709	50 223	2	2	2	5
Oilfields	254 537	165 265	(D)	(D)	7	9	(D)	(D)
Other nonbuilding construction	685 658	444 688	120 869	120 101	1	1	(Z)	2
Construction work, n.s.k.	1 224 671	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)
1987								
Value of construction work	25 632 969	16 656 969	3 826 277	4 219 372	(Z)	(Z)	1	1
Building construction	1 804 110	1 365 815	265 150	173 144	1	1	2	3
Office buildings	358 922	252 753	73 512	32 656	1	1	1	5
Other commercial buildings such as stores, restaurants, and automobile service stations	300 581	231 925	40 222	28 432	3	3	6	5
Industrial buildings and warehouses	502 589	383 756	54 921	63 911	1	1	5	4
Other nonresidential buildings	642 018	497 381	96 495	48 145	3	4	13	7
Nonbuilding construction	22 898 509	15 291 154	3 561 127	4 046 228	(Z)	(Z)	1	1
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc.	923 313	678 255	168 761	76 296	1	1	3	4
Recreational facilities	690 860	542 486	79 715	68 658	5	5	9	10
Bridges, tunnels, and elevated highways	532 104	350 212	151 149	30 741	1	2	1	4
Dam and reservoir construction	721 365	634 989	53 960	32 414	2	2	4	11
Marine construction	1 379 611	840 915	193 775	344 920	1	2	3	2
Harbor and port facilities	431 507	270 251	86 128	75 127	3	5	4	3
Conservation and development construction	1 062 716	780 319	150 236	132 160	3	3	6	6
Power and communication transmission lines, towers, and related facilities	274 727	188 258	23 741	62 728	3	4	2	4
Sewers, water mains, and related facilities	980 373	757 877	127 230	95 265	2	2	5	5
Sewers, sewer lines, septic systems, and related facilities	571 449	436 327	84 486	50 635	2	3	5	7
Water mains and related facilities	408 924	321 550	42 744	44 629	2	2	7	6
Pipeline construction other than sewer or water lines	249 086	182 001	26 579	40 505	2	3	4	6
Mass transit construction	780 781	319 557	264 065	197 158	2	3	2	4
Urban mass transit	262 313	104 780	(D)	(D)	(Z)	1	(D)	(D)
Railroad construction	518 467	214 777	(D)	(D)	3	4	(D)	(D)
Blast furnaces, petroleum refineries, chemical complexes, etc.	4 081 447	2 118 200	720 162	1 243 084	(Z)	1	(Z)	(Z)
Power plants	4 454 151	2 823 683	483 500	1 146 967	(Z)	(Z)	1	(Z)
Power plants, nuclear	1 624 007	871 015	173 453	579 538	(Z)	(Z)	(Z)	(Z)
Power plants and cogeneration plants, except nuclear	2 830 144	1 952 667	310 047	567 428	(Z)	(Z)	1	(Z)
Sewage treatment and water treatment plants	3 138 903	2 344 836	672 232	121 834	1	1	2	5
Sewage treatment plants	2 230 966	1 659 269	498 791	72 905	1	1	2	6
Water treatment plants	907 937	685 566	173 441	48 929	1	1	6	7
Oilfields	296 365	190 953	30 174	75 237	3	3	4	6
Other nonbuilding construction	2 901 200	2 268 362	329 720	303 134	5	5	9	8
Construction work, n.s.k.	930 349	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1992

[Thousand dollars. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A.]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B				C	D	E	F	G	H	B	D	H
All establishments	15 816	304 113	9 260 705	32 836 527	22 182 804	26 759 824	18 642 289	6 076 703	(Z)	(Z)	(Z)
Establishments not specializing by type	2 058	63 091	1 988 909	7 494 186	(NA)	5 888 376	4 141 317	1 605 810	1	1	1
Establishments specializing 51 percent or more	13 758	241 023	7 271 796	25 342 341	22 182 804	20 871 448	14 500 972	4 470 893	(Z)	(Z)	1
RECREATIONAL FACILITIES											
All establishments specializing in type	739	7 705	192 836	885 503	835 948	709 460	438 335	176 043	4	4	6
Establishments with —											
100 percent specialization	(S)	5 895	138 527	639 627	639 627	532 592	310 761	107 035	5	4	8
90 to 99 percent specialization	43	529	15 087	67 798	63 384	55 634	35 254	12 164	14	12	25
80 to 89 percent specialization	21	484	16 923	87 783	72 852	48 580	39 121	39 204	6	7	7
70 to 79 percent specialization	14	401	11 694	46 481	34 188	40 336	30 381	6 145	4	8	8
60 to 69 percent specialization	*27	266	7 018	22 990	14 679	17 870	12 679	5 120	20	14	16
51 to 59 percent specialization	*25	130	3 586	20 823	11 219	14 448	10 139	*6 375	30	34	49
DAM AND RESERVOIR CONSTRUCTION											
All establishments specializing in type	174	3 614	121 986	440 290	411 325	356 243	240 671	84 047	4	4	5
Establishments with —											
100 percent specialization	99	2 570	96 143	341 542	341 542	273 924	182 208	67 618	4	3	3
90 to 99 percent specialization	*11	181	5 228	18 100	17 079	16 510	10 035	*1 591	27	24	64
80 to 89 percent specialization	*12	211	6 312	24 359	20 379	17 452	10 281	(S)	19	34	(S)
70 to 79 percent specialization	*13	*52	*1 347	*4 310	*3 180	*4 216	*3 325	*94	59	62	62
60 to 69 percent specialization	*14	272	5 577	22 389	13 944	18 584	*13 347	3 805	36	31	16
51 to 59 percent specialization	*25	328	7 379	29 589	15 200	25 557	21 475	4 032	14	11	5
MARINE CONSTRUCTION											
All establishments specializing in type	703	11 138	348 440	1 643 075	1 477 707	1 478 768	924 677	164 307	3	2	2
Establishments with —											
100 percent specialization	556	6 969	203 568	983 894	983 894	879 639	549 118	104 256	4	2	2
90 to 99 percent specialization	46	662	22 752	85 144	78 280	(D)	43 226	(D)	13	14	(D)
80 to 89 percent specialization	27	1 127	40 249	170 495	147 245	152 981	115 604	17 514	3	1	2
70 to 79 percent specialization	35	1 089	39 036	177 895	131 345	161 427	99 276	16 468	4	2	(Z)
60 to 69 percent specialization	(S)	1 218	41 013	219 016	133 477	198 239	112 806	20 778	12	5	1
51 to 59 percent specialization	*10	*74	1 822	6 630	3 466	(D)	4 647	(D)	44	12	(D)
HARBOR AND PORT FACILITIES											
All establishments specializing in type	247	2 391	72 685	322 320	262 897	267 207	184 549	55 113	6	4	5
Establishments with —											
100 percent specialization	182	1 119	26 792	106 478	106 478	94 174	63 559	12 304	11	12	23
90 to 99 percent specialization	*21	139	4 334	26 580	24 432	(D)	(D)	(D)	23	6	(D)
80 to 89 percent specialization	5	219	7 653	24 761	19 911	(D)	(D)	(D)	(Z)	(Z)	(D)
70 to 79 percent specialization	17	290	11 370	60 844	43 998	(D)	31 680	(D)	2	4	(D)
60 to 69 percent specialization	22	623	22 536	103 657	68 078	87 101	65 351	16 556	9	4	4
51 to 59 percent specialization	—	—	—	—	—	—	—	—	—	—	—
CONSERVATION AND DEVELOPMENT CONSTRUCTION											
All establishments specializing in type	4 067	33 490	843 634	3 504 195	2 967 319	2 951 472	2 038 473	552 723	2	2	2
Establishments with —											
100 percent specialization	3 026	18 405	415 906	1 726 846	1 726 846	1 542 849	1 067 104	183 996	3	3	6
90 to 99 percent specialization	266	2 887	67 360	284 316	265 415	245 668	172 538	38 647	7	5	7
80 to 89 percent specialization	174	2 038	62 764	239 294	197 552	204 604	130 631	34 691	8	6	8
70 to 79 percent specialization	280	3 397	90 333	337 913	246 487	278 683	208 063	59 230	5	5	7
60 to 69 percent specialization	166	3 227	88 251	423 542	267 425	315 533	205 528	108 009	5	2	1
51 to 59 percent specialization	155	3 536	119 020	492 284	263 594	364 135	254 608	128 150	4	2	1
SEWERS, SEWER LINES, SEPTIC SYSTEMS, AND RELATED FACILITIES											
All establishments specializing in type	1 083	5 343	122 256	525 300	412 158	459 397	279 346	65 903	5	6	7
Establishments with —											
100 percent specialization	515	1 841	38 024	147 728	147 728	140 448	101 759	7 280	9	8	15
90 to 99 percent specialization	103	422	10 093	42 767	39 410	38 978	22 550	3 789	24	21	30
80 to 89 percent specialization	110	617	14 705	57 181	46 351	53 683	34 735	3 498	16	17	18
70 to 79 percent specialization	174	1 125	28 490	128 477	92 652	113 471	62 616	15 006	9	9	11
60 to 69 percent specialization	96	590	14 565	59 340	37 808	50 269	29 478	9 070	12	11	18
51 to 59 percent specialization	84	749	16 380	89 807	48 209	62 547	28 207	27 259	15	21	13
WATER MAINS AND RELATED FACILITIES											
All establishments specializing in type	270	1 916	42 195	193 214	157 592	170 692	100 350	22 522	9	9	13
Establishments with —											
100 percent specialization	131	665	13 635	67 523	67 523	61 910	34 642	5 613	18	20	37
90 to 99 percent specialization	26	179	4 638	21 798	20 243	*19 697	9 624	2 101	29	37	33
80 to 89 percent specialization	(S)	237	6 461	19 462	15 743	16 331	12 799	3 132	17	13	1
70 to 79 percent specialization	*28	251	4 890	27 339	19 815	21 152	9 935	(S)	24	6	(S)
60 to 69 percent specialization	48	445	10 230	45 351	27 654	40 642	26 594	*4 709	17	15	41
51 to 59 percent specialization	*11	140	2 341	11 741	6 612	10 960	6 756	781	36	32	10

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1992—Con.

[Thousand dollars. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work sub-contracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H	B	D	H
PIPELINE CONSTRUCTION OTHER THAN SEWER OR WATER LINES											
All establishments specializing in type	181	2 201	49 715	148 801	130 494	131 643	99 009	17 158	8	8	11
Establishments with —											
100 percent specialization	126	1 404	30 215	86 109	86 109	81 769	59 712	4 339	11	9	19
90 to 99 percent specialization	*11	*87	*1 744	*6 334	*5 875	*6 001	*4 586	*333	51	50	48
80 to 89 percent specialization	*5	*74	*2 072	*9 501	*8 076	*9 022	*6 304	(S)	68	73	(S)
70 to 79 percent specialization	*7	121	2 792	6 334	4 606	6 134	4 932	200	33	30	22
60 to 69 percent specialization	*13	(S)	(S)	(S)	(S)	(D)	(S)	(D)	(S)	(S)	(D)
51 to 59 percent specialization	18	*53	*1 970	*8 861	*5 032	(D)	*3 945	(D)	46	61	(D)
RAILROAD CONSTRUCTION											
All establishments specializing in type	425	7 403	198 922	1 103 131	868 891	865 538	553 134	237 593	4	3	4
Establishments with —											
100 percent specialization	362	5 490	129 274	521 156	521 156	452 404	310 274	68 751	6	5	12
90 to 99 percent specialization	*20	233	5 823	20 330	19 655	18 894	12 013	1 436	24	14	4
80 to 89 percent specialization	(S)	195	5 440	21 934	18 328	19 885	14 420	*2 049	14	34	49
70 to 79 percent specialization	3	(D)	(D)	23 510	17 470	(D)	11 852	(D)	(D)	(Z)	(D)
60 to 69 percent specialization	*8	409	16 964	(D)	(D)	(D)	(D)	(D)	7	(D)	(D)
51 to 59 percent specialization	4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
BLAST FURNACES, PETROLEUM REFINERIES, CHEMICAL COMPLEXES, ETC.											
All establishments specializing in type	676	80 978	2 582 111	6 945 745	6 549 047	5 782 412	4 395 018	1 163 333	(Z)	(Z)	(Z)
Establishments with —											
100 percent specialization	500	51 421	1 580 185	4 110 292	4 110 292	3 672 208	2 676 177	438 083	(Z)	1	1
90 to 99 percent specialization	63	15 908	600 179	1 777 137	1 706 203	(D)	1 094 847	(D)	1	(Z)	(D)
80 to 89 percent specialization	56	2 634	76 430	191 497	159 016	(D)	134 903	(D)	4	3	(D)
70 to 79 percent specialization	28	4 013	123 839	384 478	290 239	298 280	206 242	86 198	2	1	2
60 to 69 percent specialization	19	3 169	104 630	261 926	166 068	230 871	148 036	31 055	3	1	(Z)
51 to 59 percent specialization	10	3 833	96 848	220 416	117 230	147 635	134 813	72 781	1	1	(Z)
POWER PLANTS AND COGENERATION PLANTS, EXCEPT NUCLEAR											
All establishments specializing in type	200	15 357	644 068	2 367 312	2 187 038	2 126 109	1 548 033	241 202	1	1	5
Establishments with —											
100 percent specialization	103	8 416	348 743	1 363 926	1 363 926	1 242 150	845 798	121 776	1	1	1
90 to 99 percent specialization	(S)	2 119	110 580	414 299	389 143	334 374	215 679	79 925	1	3	14
80 to 89 percent specialization	11	(D)	14 821	41 487	33 641	37 898	(D)	3 589	6	8	10
70 to 79 percent specialization	8	(D)	(D)	(D)	(D)	(D)	(D)	27 385	(D)	(D)	1
60 to 69 percent specialization	8	395	14 830	(D)	(D)	(D)	26 572	(D)	6	(D)	(D)
51 to 59 percent specialization	12	(D)	(D)	22 239	12 362	(D)	11 458	(D)	(D)	4	(D)
SEWAGE TREATMENT PLANTS											
All establishments specializing in type	508	14 060	461 024	2 531 920	2 026 348	1 670 339	969 023	861 582	2	3	1
Establishments with —											
100 percent specialization	233	4 410	139 159	860 089	860 089	570 371	308 228	289 718	4	2	1
90 to 99 percent specialization	60	1 059	42 282	270 995	249 371	205 698	105 233	65 297	18	22	11
80 to 89 percent specialization	39	786	27 508	185 991	155 306	116 281	55 254	69 710	9	6	2
70 to 79 percent specialization	72	1 720	51 070	294 128	220 193	214 663	127 153	79 465	5	3	2
60 to 69 percent specialization	50	3 224	115 080	492 365	314 750	313 990	205 572	178 375	4	4	4
51 to 59 percent specialization	54	2 861	85 927	428 352	226 639	249 337	167 583	179 015	2	1	1
WATER TREATMENT PLANTS											
All establishments specializing in type	213	4 353	131 340	713 826	511 116	524 750	291 046	189 075	4	3	4
Establishments with —											
100 percent specialization	130	1 148	32 332	151 012	151 012	108 314	61 190	42 698	9	6	5
90 to 99 percent specialization	6	251	8 569	27 089	24 573	22 153	14 126	4 936	(Z)	(Z)	(Z)
80 to 89 percent specialization	*15	290	6 856	45 403	37 510	31 708	17 687	13 696	7	10	6
70 to 79 percent specialization	13	752	19 503	99 011	71 723	81 660	43 562	17 351	4	3	1
60 to 69 percent specialization	(S)	993	40 425	169 406	107 115	129 908	72 526	39 498	8	4	5
51 to 59 percent specialization	18	919	23 655	221 904	119 182	151 007	81 955	70 897	7	6	9
OILFIELDS											
All establishments specializing in type	321	4 210	90 845	258 061	249 470	242 269	190 514	15 791	6	7	12
Establishments with —											
100 percent specialization	284	3 420	76 206	219 139	219 139	205 951	165 245	13 188	7	8	13
90 to 99 percent specialization	20	305	6 242	15 615	14 238	14 172	9 768	*1 443	24	18	60
80 to 89 percent specialization	*8	147	*1 911	*6 532	*5 416	*6 272	3 329	2 460	34	44	33
70 to 79 percent specialization	5	130	3 512	7 172	5 260	(D)	5 993	(D)	18	26	(D)
60 to 69 percent specialization	*4	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
51 to 59 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Table 9. Quarterly Construction Worker Employment for Establishments With Payroll by State: 1992

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Location of establishment	Number of establishments	Average number of construction workers	Construction workers ¹				Relative standard error of estimate (percent) for column—						
			January to March	April to June	July to September	October to December	A	B	C	D	E	F	
			A	B	C	D	E	F	A	B	C	D	E	F
United States	15 816	240 024	226 582	246 572	247 058	239 883	1	(Z)	(Z)	(Z)	(Z)	(Z)	1
Alabama	292	3 993	3 785	4 075	4 133	3 978	11	3	4	4	3	3	3
Alaska	70	693	223	847	884	817	15	9	17	10	8	10	10
Arizona	139	2 023	2 043	2 387	2 101	1 561	11	5	4	7	5	5	5
Arkansas	188	1 425	1 284	1 366	1 557	1 494	13	7	6	7	7	9	9
California	1 166	25 005	25 296	24 403	26 033	24 287	5	1	1	1	1	1	1
Colorado	332	4 627	4 487	4 879	4 547	4 597	9	3	3	3	4	3	3
Connecticut	164	3 132	2 581	3 580	2 531	3 838	13	3	3	3	4	2	2
Delaware	33	450	430	443	443	485	17	5	3	5	5	5	5
District of Columbia	6	103	(D)	(D)	(D)	(D)	(Z)	(Z)	(D)	(D)	(D)	(D)	(D)
Florida	865	7 903	7 976	7 957	7 774	7 907	5	3	3	3	3	3	3
Georgia	442	5 392	5 176	5 403	5 641	5 348	8	3	3	3	3	3	3
Hawaii	54	712	697	765	697	690	14	6	6	5	5	7	7
Idaho	141	1 203	1 192	1 312	1 219	1 089	15	9	8	9	9	10	10
Illinois	472	6 760	5 777	7 269	7 509	6 487	8	2	2	2	2	2	2
Indiana	415	3 939	3 566	4 051	3 882	4 255	9	3	3	3	3	3	3
Iowa	370	1 309	1 079	1 499	1 414	1 244	7	11	11	11	12	12	12
Kansas	279	2 023	1 797	2 059	2 170	2 066	9	4	5	4	4	4	4
Kentucky	240	3 072	2 746	3 246	3 210	3 088	11	8	5	8	7	19	19
Louisiana	437	22 264	22 780	22 839	21 542	21 894	7	1	1	1	1	2	2
Maine	153	1 160	731	1 104	1 511	1 294	16	9	12	9	10	9	9
Maryland	221	5 542	6 407	4 916	5 730	5 113	11	2	1	2	2	2	2
Massachusetts	290	3 291	2 682	3 311	3 630	3 540	9	2	2	2	2	2	2
Michigan	468	2 844	1 832	3 092	3 503	2 949	8	5	6	5	5	5	5
Minnesota	262	2 307	(D)	(D)	2 938	2 264	11	5	(D)	(D)	5	6	6
Mississippi	148	1 911	1 345	1 628	2 340	2 332	13	7	7	7	8	6	6
Missouri	456	3 355	2 835	3 573	3 900	3 114	8	4	5	4	4	5	5
Montana	99	774	(D)	770	931	(D)	16	9	(D)	10	10	(D)	(D)
Nebraska	232	1 412	1 039	1 409	1 741	1 459	9	6	7	6	5	7	7
Nevada	83	3 631	3 613	3 658	3 818	3 436	15	3	2	3	3	4	4
New Hampshire	129	778	483	798	955	874	13	7	8	6	6	8	8
New Jersey	358	5 344	4 715	5 887	5 541	5 233	8	3	2	3	3	3	3
New Mexico	112	1 001	1 057	1 077	839	1 031	18	14	13	13	24	12	12
New York	742	5 589	4 117	5 844	6 443	5 955	6	3	3	3	3	3	3
North Carolina	516	3 954	3 654	4 086	4 073	4 002	8	5	6	5	5	5	5
North Dakota	80	879	504	1 021	998	991	19	8	9	7	8	8	8
Ohio	570	7 222	6 317	8 302	6 755	7 514	7	3	2	2	3	3	3
Oklahoma	288	2 414	2 507	2 462	2 385	2 302	8	5	4	4	5	5	5
Oregon	239	1 792	1 612	1 767	1 989	1 800	11	5	6	5	5	5	5
Pennsylvania	555	6 542	5 506	6 920	7 163	6 580	7	3	3	3	3	3	3
Rhode Island	56	238	(D)	252	(D)	251	20	10	(D)	9	(D)	9	9
South Carolina	266	3 624	3 416	3 280	3 423	4 379	11	4	4	4	4	4	4
South Dakota	114	319	(D)	324	367	(D)	16	18	(D)	17	17	(D)	(D)
Tennessee	264	4 079	3 285	3 883	3 903	5 243	11	2	3	2	3	2	2
Texas	1 289	53 842	55 648	55 692	52 812	51 218	5	1	1	1	1	1	1
Utah	140	1 469	1 216	1 705	1 523	1 430	13	8	6	13	8	8	8
Vermont	62	428	259	442	550	459	22	14	21	16	13	14	14
Virginia	483	6 094	5 955	5 891	6 389	6 140	8	2	2	3	2	2	2
Washington	486	6 259	5 935	6 217	6 606	6 276	8	3	3	2	3	3	3
West Virginia	162	3 145	2 367	3 365	3 306	3 543	14	3	4	3	3	2	2
Wisconsin	276	1 892	1 280	2 001	2 390	1 896	12	7	7	7	7	7	7
Wyoming	111	865	747	843	943	927	15	7	6	7	9	6	6

¹Construction workers during pay periods including 12th of March, May, August, and November.

Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Location of construction work	1992					1987 value of construction work done in this State	Percent change 1987 (col F) to 1992 (col A)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State						
		Number	Value of construction work	Number	Value of construction work					
	A	B	C	D	E					
United States	32 836 527	15 631	23 539 892	3 839	9 296 635	25 632 969	28.1	(Z)	1	(Z)
Alabama	777 272	288	480 583	116	296 688	410 227	89.5	2	3	1
Alaska	99 723	64	(D)	5	(D)	(D)	(D)	6	(D)	(D)
Arizona	451 013	138	258 634	61	192 379	401 997	12.2	4	6	2
Arkansas	205 254	187	98 903	92	106 351	218 253	-6.0	4	8	3
California	3 597 305	1 165	3 013 406	83	583 899	3 289 376	9.4	1	1	(Z)
Colorado	392 959	329	338 074	34	54 885	354 894	10.7	3	4	2
Connecticut	301 328	163	167 957	46	133 371	322 644	-6.6	3	6	1
Delaware	94 156	33	36 733	65	57 423	52 698	78.7	2	5	1
District of Columbia	(D)	(S)	(D)	28	(D)	(D)	(D)	(D)	(D)	(D)
Florida	1 439 527	853	1 027 002	116	412 525	1 147 352	25.5	2	3	1
Georgia	663 138	438	451 087	114	212 051	892 864	-25.7	3	4	1
Hawaii	(D)	54	(D)	28	128 971	(D)	(D)	(D)	(D)	1
Idaho	144 881	130	101 645	27	43 236	95 961	51.0	8	12	(Z)
Illinois	916 190	468	682 394	123	233 796	875 416	4.7	2	2	1
Indiana	573 785	406	418 652	89	155 133	364 855	57.3	3	3	2
Iowa	156 858	370	122 898	52	33 960	159 247	-1.5	8	10	7
Kansas	187 095	272	130 613	44	56 483	143 294	30.6	3	4	3
Kentucky	463 802	239	340 018	89	123 784	334 952	38.5	6	8	1
Louisiana	2 082 071	432	1 500 485	133	581 586	1 092 045	90.7	1	2	1
Maine	(D)	153	(D)	29	116 741	(D)	(D)	(D)	(D)	1
Maryland	424 406	218	271 729	94	152 677	378 021	12.3	3	4	3
Massachusetts	790 964	287	656 718	66	134 246	828 783	-4.6	1	1	1
Michigan	579 598	467	311 719	78	267 878	517 548	12.0	2	4	(Z)
Minnesota	304 230	260	251 495	44	52 735	152 627	99.3	4	5	2
Mississippi	329 748	148	155 758	92	173 989	160 783	105.1	3	6	(Z)
Missouri	529 283	445	378 608	85	150 675	230 103	130.0	4	5	2
Montana	118 790	99	85 373	17	33 417	148 268	-19.9	5	7	1
Nebraska	497 623	228	410 161	47	87 462	57 272	768.9	2	2	1
Nevada	(D)	83	(D)	68	221 408	604 717	(D)	(D)	(D)	2
New Hampshire	75 220	124	62 884	56	12 335	220 094	-65.8	7	8	6
New Jersey	919 686	351	544 141	90	375 545	1 502 327	-38.8	2	4	(Z)
New Mexico	(D)	112	(D)	45	121 163	120 396	(D)	(D)	(D)	(Z)
New York	1 575 476	739	940 656	167	634 820	1 189 857	32.4	1	2	1
North Carolina	587 669	493	258 224	138	329 445	556 435	5.6	2	5	1
North Dakota	89 623	80	58 046	36	31 577	76 223	17.6	11	16	1
Ohio	889 117	568	746 917	94	142 200	768 941	15.6	2	3	2
Oklahoma	244 615	(S)	186 491	64	58 124	166 494	46.9	5	6	5
Oregon	354 044	221	277 917	72	76 127	183 765	92.7	3	4	2
Pennsylvania	1 390 479	550	796 757	190	593 723	1 145 072	21.4	1	2	1
Rhode Island	42 293	55	31 459	33	10 834	44 277	-4.5	7	10	14
South Carolina	393 844	265	281 267	129	112 577	530 398	-25.7	3	5	2
South Dakota	54 181	114	38 788	37	15 393	20 796	160.5	10	14	4
Tennessee	688 442	260	317 820	84	370 622	330 196	108.5	2	3	1
Texas	4 647 434	1 281	4 294 510	157	352 924	2 904 366	60.0	2	2	1
Utah	331 084	139	154 364	19	176 720	(D)	(D)	2	5	(Z)
Vermont	(D)	62	(D)	29	46 216	60 030	(D)	(D)	(D)	4
Virginia	907 706	481	541 204	134	366 502	589 443	54.0	2	3	1
Washington	1 086 847	483	770 463	70	316 384	595 312	82.6	3	4	2
West Virginia	325 699	158	149 848	117	175 852	188 125	73.1	2	5	1
Wisconsin	365 702	275	285 893	44	79 809	185 419	97.2	6	7	1
Wyoming	115 244	(S)	73 000	69	42 244	(D)	(D)	6	9	2

Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kind of business activities	Dollar value of business done		Relative standard error of estimate (percent)	
	1992	1987	1992	1987
All kinds of business	34 165 654	27 310 131	(Z)	(Z)
BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS				
General building contractor	659 365	1 169 246	(Z)	1
HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS				
Blasting contractor, except building demolition.....	195 721	114 092	7	9
Dredging contractor	605 240	506 611	4	1
Excavating, earthmoving, and land clearing contractor, not connected with buildings	5 072 960	3 843 069	1	2
Heavy construction contractor	22 474 255	17 379 291	(Z)	(Z)
Highway and street general contractor	1 189 524	654 542	1	1
Paving contractor	179 378	245 554	1	4
Pile driving contractors.....	326 851	284 089	3	4
Special cases.....	724 408	(NA)	2	(NA)
Trenching contractor	350 271	412 983	5	4
SPECIAL TRADE CONTRACTORS				
Excavating, earth and land clearing contractor, connected with buildings	463 391	75 878	2	6
Other construction activities	499 379	571 818	2	(NA)
OTHER BUSINESS ACTIVITIES				
Construction management services	279 933	814 220	1	(Z)
Engineering services	491 061	381 471	(Z)	(Z)
Other business activities	546 902	478 393	2	(NA)
Kind of business activity, n.s.k.	107 014	378 871	5	4

Table 12. Selected Industry Ratios for Establishments With Payroll: 1992 and 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Selected statistics	1992	1987	Relative standard error of estimate (percent) for 1992
AVERAGE PER ESTABLISHMENT			
Number of employees**	19.2	20.5	1
Number of construction workers.....	15.2	16.4	1
Number of all other employees	4.1	4.1	1
Payroll, all employees	\$1,000 585.5	527.2	1
Payroll, construction workers.....	do-- 429.1	394.1	1
Payroll, other employees	do-- 156.4	133.2	1
Dollar value of business done.....	do-- 2 160.1	1 879.3	1
Value of construction work.....	do-- 2 076.1	1 763.9	1
Cost of materials, components, supplies, and fuels.....	do-- 597.3	522.0	1
Construction work subcontracted to others	do-- 384.2	304.4	1
Rental cost for machinery, equipment, and buildings	do-- 62.0	57.3	2
Capital expenditures, other than land	do-- 55.9	46.3	2
Gross book value of depreciable assets	do-- 620.4	401.4	1
AVERAGE PER EMPLOYEE			
Payroll, all employees	\$1,000 30.5	25.7	(Z)
Dollar value of business done.....	do-- 112.3	91.8	(Z)
Value added††	do-- 61.3	51.4	(Z)
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers.....	\$1,000 28.3	24.0	(Z)
Value of construction work	do-- 136.8	107.6	(Z)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 38.6	32.6	(Z)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK			
Payroll, all employees .....	.282	.299	(Z)
Cost of materials, components, supplies, and fuels.....	.288	.296	(Z)
Cost of construction work subcontracted out to others .....	.185	.173	(Z)
Value of construction work subcontracted in from others .....	.153	.129	1
Rental cost for machinery, equipment, and buildings .....	.030	.033	1

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1992

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Value of construction work per construction worker (\$1,000)	Average per dollar value of construction work				
				Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings
United States	19.2	30.5	136.8	.282	.288	.185	.153	.030
Alabama	18.4	26.7	158.8	.227	.473	.107	.144	.015
Alaska	11.9	29.8	107.4	.332	(D)	(D)	(D)	.059
Arizona	18.9	26.5	154.7	.222	(D)	.163	.133	.057
Arkansas	9.1	21.6	119.2	.219	.441	.088	.204	.035
California	27.3	32.2	142.7	.287	.272	.201	.182	.035
Colorado	16.8	28.4	145.1	.236	.358	.188	.183	.025
Connecticut	26.8	43.0	230.9	.261	.175	.083	.114	.017
Delaware	16.0	25.7	95.5	.319	.264	.115	.258	.037
District of Columbia	25.0	40.5	(D)	(D)	(D)	(D)	(D)	(D)
Florida	11.6	24.6	147.2	.213	.319	.188	.173	.045
Georgia	15.4	25.5	120.1	.268	.327	.188	.211	.031
Hawaii	18.1	33.4	209.9	.217	.315	.238	(D)	.028
Idaho	13.7	27.2	150.8	.291	(D)	(D)	.056	.030
Illinois	17.5	34.3	177.7	.237	.251	.209	.140	.035
Indiana	11.3	31.4	133.4	.280	.256	.180	.173	.024
Iowa	4.6	19.2	101.8	.244	.341	.088	.132	.020
Kansas	8.9	23.0	112.4	.252	.326	.143	.165	.030
Kentucky	15.7	23.7	124.0	.235	.308	.155	.090	.014
Louisiana	58.3	27.5	85.1	.369	.280	.124	.094	.040
Maine	9.5	24.0	133.7	.225	.298	.180	.172	.037
Maryland	30.5	40.7	145.3	.341	.290	.272	.114	.013
Massachusetts	19.2	40.8	272.8	.253	.225	.220	.219	.025
Michigan	7.6	27.0	125.5	.268	.280	.157	.198	.047
Minnesota	11.0	32.6	164.0	.248	.246	.183	.098	.051
Mississippi	16.1	20.2	89.2	.281	.371	.101	.120	.036
Missouri	8.8	25.9	148.6	.208	.372	.214	.135	.027
Montana	9.7	22.7	139.6	.202	(D)	(D)	.197	.037
Nebraska	8.0	26.8	323.1	.108	.278	.278	.033	.016
Nevada	71.0	37.5	158.3	.382	.244	.112	(D)	.032
New Hampshire	7.8	25.8	157.7	.212	.393	.230	.229	.022
New Jersey	19.6	39.0	193.4	.265	.256	.122	.219	.019
New Mexico	10.7	19.4	84.3	.274	.266	.117	*.256	.025
New York	9.9	36.0	202.5	.233	.271	.222	.174	.025
North Carolina	10.2	24.1	167.2	.192	.222	.306	.246	.028
North Dakota	12.7	25.1	(D)	(D)	(D)	(D)	(D)	(D)
Ohio	17.9	41.5	247.3	.237	.252	.368	.103	.025
Oklahoma	10.6	23.5	108.5	.273	.298	.097	.084	.021
Oregon	9.5	30.1	177.0	.214	.299	.199	.190	.041
Pennsylvania	15.7	30.8	180.4	.228	.281	.235	.158	.035
Rhode Island	5.7	25.7	(D)	(D)	(D)	(D)	(D)	(D)
South Carolina	22.1	28.4	121.6	.379	.352	.148	.254	.018
South Dakota	3.5	20.1	125.6	.201	.266	.230	(D)	(S)
Tennessee	19.0	32.3	146.1	.273	.304	.242	.145	.038
Texas	51.1	30.2	95.7	.386	.269	.125	.127	.026
Utah	12.6	26.7	130.7	.247	(D)	.171	(D)	.026
Vermont	8.7	20.0	105.0	.239	(D)	(D)	.096	*.073
Virginia	15.5	25.8	105.5	.300	.294	.156	.166	.030
Washington	16.6	32.6	186.5	.226	.409	.182	.176	.031
West Virginia	23.1	22.9	82.6	.329	.389	.051	.224	.031
Wisconsin	8.9	31.0	193.4	.208	.265	.305	.260	.034
Wyoming	9.4	28.8	96.6	.358	.250	.106	.090	.059

Appendix A.

Explanation of Terms

Construction. Is composed of three broad categories:

1. **New construction.** Includes the complete, original building of structures and essential service facilities and the initial installation of integral equipment such as elevators and plumbing, heating, and air-conditioning supplies and equipment.
2. **Additions, alterations, or reconstruction.** Includes construction work which adds to the value or useful life of an existing building or structure, or which adapts a building or structure to a new or different use. Included are "major replacements" of building systems such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets, which would be classified as maintenance and repair.
3. **Maintenance and repair.** Includes incidental construction work which keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, and cleaning and janitorial services.

Number of establishments in business during year. Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Proprietors and working partners. These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

All employees. Comprises all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

Construction workers. Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers,

and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

Other employees. Includes employees in executive, purchasing, accounting, personnel, professional, and technical activities, as well as routine office functions. Also included are supervisory employees above the working foreman level.

Payroll. Includes the gross earnings paid in the calendar year 1992 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

Fringe benefits. Represents expenditures made by the employer during 1992 for legally required and voluntary fringe benefit programs for employees.

Legally required contributions. Includes Social Security contributions, unemployment compensation, worker's compensation, and State temporary disability payments.

Voluntary payments. Includes life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

Value of construction work done. Includes all value of construction work done during 1992 for construction work performed by general contractors and special trades contractors. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Speculative builders were instructed to include the value of buildings and other structures built or being built for sale in 1992 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

Other business receipts. Includes business receipts not reported as value of construction work done. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

Net value of construction work. Derived for each establishment by subtracting the costs for construction work subcontracted out to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Value added. Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted out to others, and costs for materials, components, supplies, and fuels. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Selected costs. Represents the costs for materials, components, and supplies; costs for construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1992 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)

- freight and other direct charges representing only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, as well as costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Excluded from this item are:

- industrial and other specialized machinery and equipment such as printing presses and computer systems, which are not an integral part of a structure.
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted out to others include:

- all costs during 1992 for construction work subcontracted out to other construction contractors.

Excluded from this item are:

- the costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use. Such costs are reported under, "costs for materials, components, and supplies."
- costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal, and coke products.

Rental costs for machinery, equipment, and buildings. Includes all costs during 1992 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in "capital expenditures."

Selected purchased services. Includes all costs during 1992 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies or from other establishments of the same company. It includes only the cost of

repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property or the cost of adapting it for another use. Such costs are included in "capital expenditures."

Assets and depreciation. Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices and shops); stationary machinery (generators and shop equipment); mobile machinery (tractors and trucks); and other equipment (office furniture and fixtures). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, and destroyed during 1992.

Capital expenditures. Refers to all costs actually incurred during 1992 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1992.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

Inventories. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Ownership of construction projects. Shows the distribution of the value of construction work done by ownership of the project; that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal and State and local governments.

Value of construction work subcontracted in from others. Includes the value of construction work during 1992 for work done by reporting establishments as subcontractors. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

Types of construction. Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1992. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e, office and residential, or commercial, they were to classify the building by major purpose.

In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of these terms.

Building construction:

- **Single-family houses, detached.** Includes all residential buildings constructed for one family use.
- **Single-family houses, attached, including townhouses and townhouse-type condominiums.** Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives.** Includes high-rise, low-rise, or any structures containing two or more housing units other than attached single-family houses.
- **Hotels, motels, and tourist cabins.** Includes hotels, motels, bed and breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- **Other residential buildings.** Includes dormitories, fraternity and sorority houses, and other nonhousekeeping residential structures.
- **Office buildings.** Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.

- **Other commercial buildings, such as stores, restaurants, and automobile service stations.** Includes all buildings which are intended for use primarily in the retail and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
 - **Industrial buildings.** Includes all industrial buildings and plants which are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
 - **Warehouses.** Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
 - **Religious buildings.** Includes all buildings which are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
 - **Educational buildings.** Includes all buildings which are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing or commercial establishment, are also included.
 - **Hospitals and institutional buildings.** Includes medical office buildings and all other buildings which are intended to provide hospital and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
 - **Farm buildings, nonresidential.** Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
 - **Amusement, social, and recreational buildings.** Includes buildings which are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, skating rinks, fitness centers, bowling alleys, and indoor swimming pools.
 - **Other nonresidential buildings.** Includes nonresidential buildings which are not classified elsewhere such as fire stations, post offices, bus and air passenger terminals and hangars, and prisons.
- Nonbuilding construction:**
- **Highways, streets, and related work such as installation of guardrails, highway signs, and lighting.** Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control, and lighting. Also includes earthwork protective structures when used in connection with road improvements.
 - **Outdoor swimming pools.** Includes wading pools and reflecting pools.
 - **Airport runways and related work.** Includes runways, taxiways, aprons, and related work.
 - **Private driveways and parking areas.** Includes all nonstructural parking areas and private driveways of all surface types.
 - **Fencing.** Includes all types of fencing.
 - **Recreational facilities.** Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
 - **Tunnels.** Includes highway, pedestrian, railroad, and water distribution tunnels.
 - **Bridges and elevated highways.** Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
 - **Dam and reservoir construction.** Includes hydroelectric, water supply, and flood control dams and reservoirs.
 - **Marine construction.** Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
 - **Harbor and port facilities.** Includes docks, piers, and wharves.
 - **Conservation and development construction.** Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
 - **Power and communication transmission lines, towers, and related facilities.** Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, and electric light and power facilities.
 - **Sewers, sewerlines, septic tanks, and related facilities.** Includes sanitary and storm sewers, pumping stations, septic systems, and related facilities.
 - **Water mains and related facilities.** Includes water supply systems, pumping stations, and related facilities.
 - **Pipeline construction other than sewer or waterlines.** Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
 - **Urban mass transit.** Includes subways, trollies, street cars, and light rail systems.
 - **Railroad construction.** Includes the construction of railroad beds, tracks, freight yards, and signal towers for systems other than urban mass transit.
 - **Blast furnaces, petroleum refineries, chemical complexes, etc.** Includes coke ovens and mining appurtenances such as tipples and washeries.

- **Power plants, nuclear.** Includes atomic energy plants and nuclear reactors.
- **Power plants, and cogeneration plants, except nuclear.** Includes electric and steam generating plants and cogenerating plants.
- **Sewage treatment plants.** Includes sewage treatment and waste disposal plants.
- **Water treatment plants.** Includes water filtration and water softening plants.
- **Ships.** Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
- **Other nonbuilding construction.** Includes all types of nonbuilding construction not included elsewhere.

Appendix B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	173	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	174	Masonry, Stone Work, Tile Setting, and Plastering Special Trade Contractors
153	Operative Builders	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
154	General Building Contractors—Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Carpentry and Floor Work Special Trade Contractors
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS	1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified
161	Highway and Street Construction, Except Elevated Highways	176	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
1611	Highway and Street Construction Contractors, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
162	Heavy Construction, Except Highway and Street Construction	177	Concrete Work Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1771	Concrete Work Special Trade Contractors
1623	Water, Sewer, Pipeline, and Communications and Power Line Construction Contractors	178	Water Well Drilling Special Trade Contractors
1629	Heavy Construction Contractors, Not Elsewhere Classified	1781	Water Well Drilling Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS	179	Miscellaneous Special Trade Contractors
171	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
172	Painting and Paper Hanging Special Trade Contractors	1794	Excavation Work Special Trade Contractors
1721	Painting and Paper Hanging Special Trade Contractors	1795	Wrecking and Demolition Work Special Trade Contractors
		1796	Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere Classified
		1799	Special Trade Contractors, Not Elsewhere Classified

Appendix C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington

Publication Program

1992 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)

Data products in the census of construction industries are issued in four publication series and in three media:

Printed reports	[P]
CD-ROM	[C]
Highlights online	[+]

Preliminary Industry Series (CC92-I-1(P) to -27(P))

(Available July 1994 through January 1995) [P] [C]

Twenty-six separate industry reports and a U.S. summary report, providing national statistics for establishments with payroll. Statistics shown for 1992 include:

- Number of establishments
- Number of employees
- Payroll
- Value of construction work done, by type of structure
- Selected operating costs

Final Industry Series (CC92-I-1 to -27)

(Available April 1995 through August 1995) [P] [C] [+]

Twenty-six separate industry reports and a U.S. summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- Capital expenditures
- Inventories
- Industry profiles
- Assets
- Depreciation
- And much more

Geographic Area Series (CC92-A-1 to -10)

(Available August 1995 through December 1995) [P] [C] [+]

Nine reports on the construction industries, representing each census geographic division, and a U.S. summary report. Regional reports provide detailed data for States and metropolitan areas.

Subject Report—Legal Form of Organization and Type of Operation (CC92-S-1)

(Available August 1995) [P] [C]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

- Employment
- Payroll
- Value of construction work done
- Selected operating costs

OTHER ECONOMIC CENSUS REPORTS

The census of construction industries is part of the 1992 Economic Census. The economic census is conducted at 5-year intervals in years ending in 2 and 7 and consists of eight separate censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Financial, Insurance, and Real Estate Industries
- Census of Transportation, Communications, and Utilities
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the census of outlying areas, including separate economic census of Puerto Rico and other outlying areas. The census of agriculture and census of governments are conducted separately.

HOW TO ORDER DATA PRODUCTS

Order forms for the specific reports and other data products may be obtained from Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300. If you have any questions, call Census Customer Services 1-301-457-4100.