

# 1992

## Census of Construction Industries

---

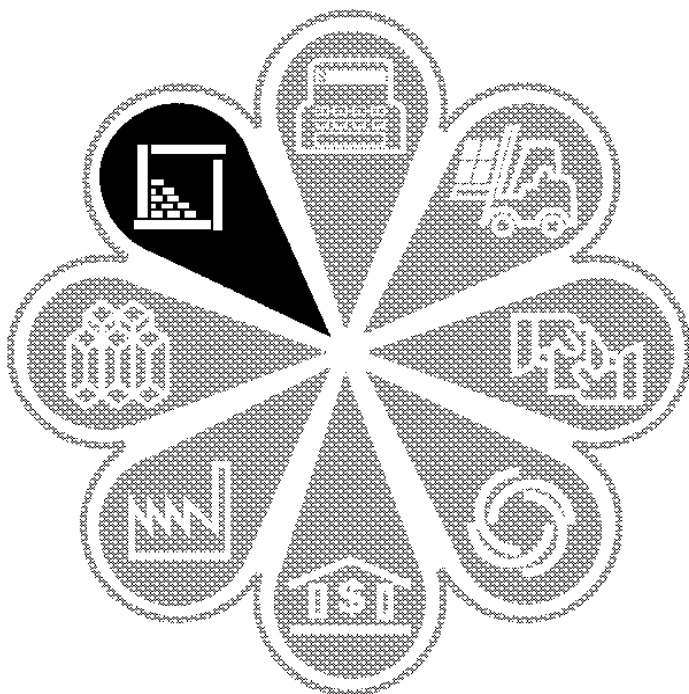
CC92-I-5

INDUSTRY SERIES

### General Contractors— Nonresidential Buildings, Other Than Industrial Buildings and Warehouses

Industry 1542

---



# 1992 Census of Construction Industries

---

CC92-I-5

INDUSTRY SERIES

## General Contractors— Nonresidential Buildings, Other Than Industrial Buildings and Warehouses

Industry 1542

---

Issued October 1995



**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

---

## Acknowledgments

Many persons participated in the various activities of the 1992 Census of Construction Industries. The overall planning and review of the census operations were performed by the Economic Census Staff of the Economic Planning and Coordination Division.

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.

Systems and procedures for mailout, receipt, correspondence, data input, industry classification, other clerical processing, administrative-record processing, quality control, and the associated electronic computer programs, were developed in the Economic Planning and Coordination Division.

Mailout preparation and receipt operations, clerical and analytical review activities, data keying, and geocoding review were performed by the staff of the Data Preparation Division, **Judith N. Petty**, Chief.

Geographic coding procedures and associated computer programs were developed by the staff of the Geography Division, **Joel Morrison**, Chief.

The computer processing systems were developed and coordinated in the Economic Statistical Methods and Programming Division, **Charles P. Paulter, Jr.**, Chief, and **Sarah W. Baumgardner**, Assistant Chief. **Samuel Rozenel**, Chief, Current Construction Branch, was responsible for the design and implementation of the computer systems. The computer programs were prepared under the supervision of **Leonard S. Sammarco** and **Kevin J. Montgomery**.

Computer processing was performed in the Computer Services Division, **Marvin D. Raines**, Chief.

The staff of the Administrative and Customer Services Division, **Walter C. Odom**, Chief, performed planning, design, composition, editorial review, and printing planning and procurement for the publications and report forms. **Bernadette J. Gayle** provided publication coordination and editing.

Special acknowledgment is also due the many businesses whose cooperation has contributed to the publication of these data.

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



**Economics and Statistics  
Administration**

**Everett M. Ehrlich**, Under Secretary  
for Economic Affairs



**BUREAU OF THE CENSUS**

**Martha Farnsworth Riche**, Director  
**Harry A. Scarr**, Deputy Director

**Paula J. Schneider**, Principal Associate  
Director for Programs

**Frederick T. Knickerbocker**, Associate  
Director for Economic Programs

**Thomas L. Mesenbourg**, Assistant Director  
for Economic Programs

**ECONOMIC PLANNING AND COORDINATION  
DIVISION**

**John P. Govoni**, Chief

**MANUFACTURING AND CONSTRUCTION DIVISION**  
**David W. Cartwright**, Chief

# 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*<sup>1</sup> (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.

<sup>1</sup>*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.

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

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 <sup>1</sup>	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.

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

# Contents

## General Contractors— Nonresidential Buildings, Other Than Industrial Buildings and Warehouses

[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 .....	11
10. Value of Construction Work by Location of Construction Work: 1992 and 1987 ...	12
11. Dollar Value of Business Done by Kind-of-Business Activity: 1992 and 1987 .....	13
12. Selected Industry Ratios: 1992 and 1987 .....	14
13. Selected Industry Ratios by State: 1992 .....	15

**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 the construction of commercial, institutional, religious, and amusement and recreational buildings (including new work, additions, alterations, remodeling, and repair). For additional examples, refer to the *Standard Industrial Classification Manual: 1987*<sup>1</sup> (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 \$95.7 billion in total dollar value of business. Of this amount, \$94.0 billion were for the value of construction work. These establishments paid out \$18.1 billion for materials, components, and supplies and \$55.1 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$796 million. Value added for 1992 was \$21.8 billion.

There were 29,739 establishments with total employment averaging 407,138 during the year. Total payroll for 1992 was \$11.8 billion.

Larger establishments with 20 employees or more, while representing only 15 percent of the total number of

employer establishments in this industry, accounted for 75 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.

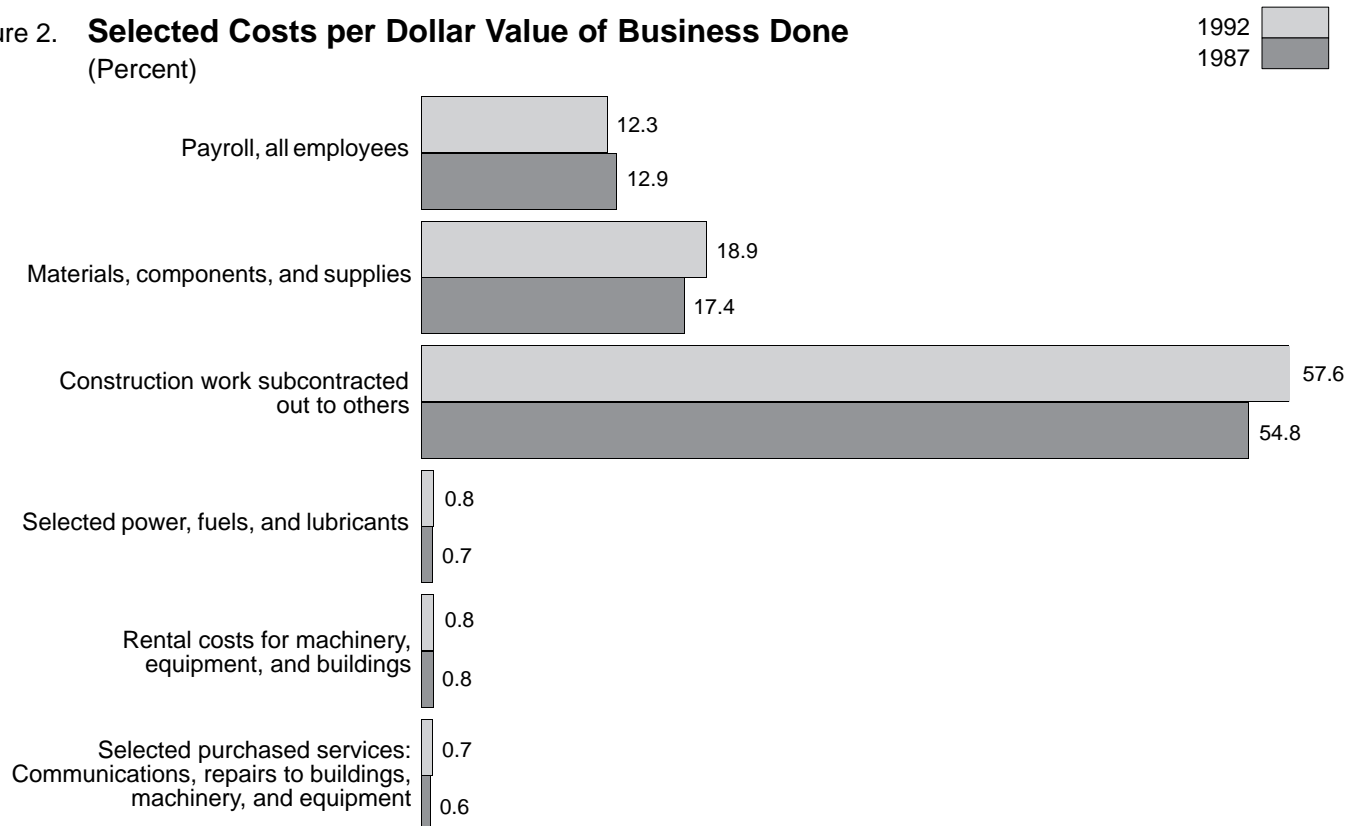
---

<sup>1</sup>*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.

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, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
<b>United States .....</b>	<b>29 739</b>	<b>407 138</b>	<b>285 952</b>	<b>11 803 969</b>	<b>7 182 947</b>	<b>93 986 840</b>	<b>38 913 401</b>	<b>21 753 615</b>	<b>18 862 161</b>
Alabama .....	416	9 640	7 210	238 901	149 164	1 866 014	800 967	340 077	478 722
Alaska .....	135	1 597	1 161	69 834	46 712	376 945	217 519	134 645	85 491
Arizona .....	454	7 812	4 966	243 044	139 475	2 692 216	953 863	677 252	290 933
Arkansas .....	322	4 240	3 233	88 946	59 136	843 937	395 485	201 925	205 387
California .....	3 487	38 868	25 780	1 371 144	791 350	11 654 025	4 346 889	2 735 470	1 737 819
Colorado .....	520	9 052	6 479	271 982	171 984	2 667 086	1 131 482	615 673	537 978
Connecticut .....	414	4 419	2 844	160 790	91 627	1 314 341	469 475	246 816	242 174
Delaware .....	99	1 056	711	28 817	15 500	250 909	115 247	70 011	50 795
District of Columbia .....	61	2 274	1 615	72 687	41 919	549 125	171 232	108 400	68 845
Florida .....	1 872	20 515	13 885	504 459	278 800	4 215 323	1 740 617	900 386	875 485
Georgia .....	831	14 756	10 350	370 607	215 507	3 082 659	1 306 529	635 369	706 496
Hawaii .....	218	3 711	2 669	140 808	90 944	813 594	432 075	218 345	220 346
Idaho .....	172	2 664	1 928	65 113	39 395	441 583	204 610	117 666	116 244
Illinois .....	1 301	15 834	10 818	537 765	338 703	4 330 652	1 590 374	985 411	721 049
Indiana .....	522	10 506	8 031	297 456	204 775	1 669 682	894 109	556 466	367 461
Iowa .....	376	5 411	4 156	136 732	94 430	997 100	481 435	259 204	246 582
Kansas .....	361	5 143	3 747	124 735	78 280	1 256 030	610 594	321 846	301 212
Kentucky .....	398	6 031	4 643	142 134	95 883	996 866	482 671	243 514	255 101
Louisiana .....	368	5 298	4 101	108 173	73 004	870 704	432 757	213 929	227 897
Maine .....	121	1 028	738	25 859	16 261	209 698	91 410	52 503	46 369
Maryland .....	778	12 903	8 730	402 879	233 727	3 082 781	1 268 569	832 885	553 469
Massachusetts .....	731	7 813	4 953	254 391	139 980	2 300 667	835 234	419 185	436 809
Michigan .....	808	10 186	6 853	315 543	185 798	2 564 043	998 785	464 168	610 787
Minnesota .....	560	7 394	5 238	237 926	153 098	2 075 227	811 122	535 635	314 919
Mississippi .....	253	3 975	2 994	76 689	49 485	570 681	294 184	131 124	167 227
Missouri .....	781	8 386	5 909	224 366	138 025	1 784 379	683 860	388 783	333 078
Montana .....	110	1 209	938	26 082	18 450	184 887	89 049	28 426	63 363
Nebraska .....	311	2 773	2 068	56 146	37 176	399 112	192 752	100 685	101 215
Nevada .....	226	2 205	1 590	67 601	45 372	598 256	227 143	149 736	94 256
New Hampshire .....	97	1 318	889	40 692	22 660	281 158	105 920	73 333	51 208
New Jersey .....	872	10 110	6 946	348 267	211 512	2 506 283	1 257 986	805 954	516 344
New Mexico .....	233	3 721	2 819	99 838	64 210	633 549	338 185	200 940	139 676
New York .....	1 883	22 550	14 981	790 218	456 267	5 563 580	2 296 448	1 465 237	1 082 208
North Carolina .....	745	13 017	9 678	310 356	190 969	2 303 139	1 011 855	486 397	548 583
North Dakota .....	129	1 240	1 018	25 093	17 569	178 570	96 653	44 130	54 158
Ohio .....	1 217	16 104	10 709	457 105	272 392	3 449 300	1 426 004	749 491	752 085
Oklahoma .....	375	5 136	3 735	98 901	63 277	870 775	372 697	169 856	209 048
Oregon .....	406	4 170	3 003	126 078	79 629	927 207	376 048	208 972	177 668
Pennsylvania .....	1 208	19 851	14 272	625 674	413 102	4 635 315	1 872 285	1 137 402	891 439
Rhode Island .....	135	1 967	1 330	51 098	29 382	461 519	243 186	153 531	97 470
South Carolina .....	375	5 703	4 226	133 538	83 450	938 151	456 084	227 919	241 165
South Dakota .....	144	1 518	1 165	31 793	22 423	253 358	143 541	76 466	69 200
Tennessee .....	540	10 315	7 374	246 915	148 548	2 076 727	748 343	379 294	385 844
Texas .....	1 694	25 650	17 814	651 063	370 931	6 295 322	2 524 307	1 117 805	1 461 591
Utah .....	218	3 891	2 830	99 344	64 474	934 192	361 116	216 246	159 264
Vermont .....	122	1 787	1 290	47 311	28 306	361 812	165 632	86 344	80 683
Virginia .....	696	10 469	7 361	283 974	164 774	2 215 492	846 191	381 436	487 990
Washington .....	861	10 219	7 413	321 009	208 214	2 434 798	993 731	485 576	526 648
West Virginia .....	194	2 035	1 615	45 852	34 490	223 044	134 836	86 021	52 044
Wisconsin .....	506	9 039	6 663	295 680	193 368	1 688 776	830 970	491 955	398 576
Wyoming .....	85	628	484	12 558	9 040	96 251	41 346	23 775	21 756



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††				
J	K	L	M	N	O	P	Q				
<b>55 073 439</b>	<b>2 906 477</b>	<b>786 089</b>	<b>543 254</b>	<b>5 178 776</b>	<b>488 480</b>	<b>89 793 431</b>	<b>24 830 667</b>	<b>(Z)</b>	<b>(Z)</b>	<b>2</b>	<b>U.S.</b>
1 065 046	34 751	16 288	7 981	100 181	13 075	2 225 696	450 271	3	2	8	AL
159 426	11 240	3 948	5 204	32 486	2 769	426 884	204 992	13	16	12	AK
1 738 353	47 255	21 536	9 957	118 609	6 977	1 642 403	465 505	3	2	4	AZ
448 451	(S)	11 981	5 050	43 112	4 633	571 098	170 131	4	5	13	AR
7 307 136	272 308	102 897	47 411	445 597	49 251	11 875 924	2 983 346	1	1	4	CA
1 535 604	52 461	17 666	23 051	99 861	9 364	2 166 885	546 277	3	2	3	CO
844 867	48 982	10 062	5 247	92 555	8 690	1 894 541	694 447	3	3	10	CT
135 663	6 945	1 667	795	11 031	1 130	179 836	45 675	5	3	22	DE
377 893	23 494	2 959	435	15 284	2 926	618 816	115 214	6	5	1	DC
2 474 706	119 888	38 674	17 287	175 629	29 275	4 661 665	1 218 976	3	3	12	FL
1 776 129	51 362	41 859	12 799	151 554	17 151	3 286 314	765 438	2	2	7	GA
381 519	17 039	6 868	6 849	70 733	2 825	516 841	188 830	3	4	12	HI
236 974	10 637	2 907	3 950	42 427	1 253	202 591	51 386	7	6	35	ID
2 740 278	162 430	26 806	30 693	240 501	21 890	4 172 725	1 257 118	2	2	16	IL
775 573	83 710	10 756	11 371	113 932	9 037	1 300 643	394 492	2	2	8	IN
515 664	16 907	6 087	8 525	79 282	4 792	719 968	187 575	4	2	14	IA
645 436	93 802	17 383	10 883	82 911	5 236	861 120	244 720	4	3	20	KS
514 195	32 854	9 152	12 692	61 477	5 431	726 998	204 885	3	3	7	KY
437 948	20 268	5 193	3 498	45 805	6 483	910 398	224 511	6	7	11	LA
118 289	*8 153	1 750	713	17 580	2 563	317 027	91 723	11	9	30	ME
1 814 212	72 125	19 542	12 411	169 692	16 726	3 345 732	906 432	2	2	9	MD
1 465 434	70 870	13 482	7 500	102 346	13 440	2 528 221	767 358	3	3	11	MA
1 565 259	105 312	16 634	19 192	163 034	10 838	2 216 361	578 151	3	3	8	MI
1 264 105	42 789	10 167	15 269	134 968	7 912	1 681 795	316 380	4	3	5	MN
175 496	4 033	4 033	5 130	45 093	4 306	532 056	126 783	4	4	18	MS
1 100 518	92 409	11 860	8 219	114 575	11 256	2 094 156	677 353	3	4	11	MO
95 839	*3 941	1 448	3 048	17 186	1 018	141 287	40 056	9	7	12	MT
206 360	11 515	3 595	5 437	44 573	3 163	435 551	131 741	6	6	19	NE
371 114	25 544	6 728	3 822	30 361	2 087	416 718	104 441	6	5	20	NV
175 238	16 992	2 389	2 032	28 495	3 293	498 313	141 497	4	7	9	NH
1 248 298	94 308	22 374	11 257	127 921	15 310	2 899 495	942 045	2	2	13	NJ
295 364	19 916	5 891	3 616	35 593	3 100	471 352	139 220	5	3	26	NM
3 267 132	254 105	41 589	28 656	258 223	30 219	6 007 129	1 989 955	2	2	5	NY
1 291 283	35 569	19 641	11 854	226 234	13 173	2 026 515	597 499	2	2	8	NC
81 917	*3 538	1 020	2 091	19 489	1 045	121 942	33 644	6	5	22	ND
2 023 296	223 647	25 773	31 696	254 043	16 802	3 294 245	961 420	2	2	11	OH
498 078	8 081	11 081	5 332	46 362	4 452	640 077	150 301	3	3	19	OK
551 159	22 560	13 519	8 176	48 295	3 214	683 032	165 370	5	4	33	OR
2 763 030	161 128	37 434	24 774	287 106	22 163	3 932 849	1 177 028	2	2	6	PA
218 332	17 270	2 629	1 271	9 994	1 920	448 428	96 451	3	4	24	RI
482 067	21 456	8 675	5 448	65 792	7 113	882 236	248 366	3	3	14	SC
109 817	3 385	3 123	4 006	31 917	1 211	140 492	45 219	8	9	9	SD
1 328 385	44 224	15 699	14 299	118 696	13 554	2 253 954	584 658	2	2	16	TN
3 771 014	164 783	69 107	26 858	244 712	34 889	6 107 616	1 439 212	2	2	6	TX
573 076	9 945	6 775	7 335	51 195	3 152	636 672	175 794	4	4	15	UT
196 180	1 787	3 761	2 018	23 041	2 232	306 608	77 046	5	4	8	VT
1 369 301	58 289	14 193	9 851	131 092	14 466	2 245 655	565 368	3	3	9	VA
1 441 066	84 029	22 812	14 692	115 180	11 049	2 041 106	606 002	3	2	9	WA
88 208	5 643	2 784	2 720	24 767	1 957	176 259	72 440	8	5	18	WV
857 806	78 122	10 703	19 939	157 098	7 587	1 174 550	436 955	2	2	3	WI
54 905	(S)	*1 192	*914	11 160	1 057	134 633	30 947	13	11	45	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 .....	29 739	31 337	22 112	18 467	1	1	1	1
Proprietors and working partners .....	6 676	4 784	4 682	7 481	3	4	3	3
All employees** .....	407 138	488 480	359 856	311 588	(Z)	(Z)	(Z)	(Z)
Construction workers:								
March .....	267 944	342 442	262 170	224 057	(Z)	(Z)	(Z)	(Z)
May .....	284 544	361 771	277 805	251 907	1	1	(Z)	(Z)
August .....	306 902	392 270	294 283	278 415	1	1	(Z)	(Z)
November .....	284 420	371 002	269 370	262 203	1	1	(Z)	(Z)
Average .....	285 952	366 871	278 193	254 360	(Z)	(Z)	(Z)	(Z)
Other employees:								
March .....	121 770	120 699	81 416	55 820	(Z)	1	1	(Z)
May .....	121 862	121 409	(NA)	(NA)	(Z)	1	(NA)	(NA)
August .....	121 556	122 298	(NA)	(NA)	1	1	(NA)	(NA)
November .....	119 555	122 044	(NA)	(NA)	1	1	(NA)	(NA)
Average .....	121 186	121 613	(NA)	(NA)	(Z)	1	(NA)	(NA)
Payroll, all employees .....	11 803 969	11 842 710	7 260 046	4 274 933	(Z)	(Z)	(Z)	(Z)
Payroll, construction workers .....	7 182 947	7 755 933	5 084 654	3 189 805	(Z)	(Z)	(Z)	(Z)
Payroll, other employees .....	4 621 021	4 086 776	2 175 392	1 085 128	(Z)	(Z)	(Z)	(Z)
First-quarter payroll, all employees .....	2 697 173	2 666 992	1 677 757	888 523	1	(Z)	(Z)	(Z)
Fringe benefits, all employees .....	2 939 942	2 680 400	1 348 806	863 668	1	(Z)	(Z)	(Z)
Legally required expenditures .....	1 910 282	1 780 371	991 426	483 485	1	(Z)	(Z)	(Z)
Voluntary expenditures .....	1 029 659	900 029	357 379	380 183	1	(Z)	(Z)	(Z)
Dollar value of business done .....	95 689 214	91 698 973	52 824 851	27 400 418	(Z)	(Z)	(Z)	(Z)
Value of construction work .....	93 986 840	89 793 431	52 304 554	27 137 768	(Z)	(Z)	(Z)	(Z)
Value of construction work subcontracted in from others .....	2 906 477	3 024 631	1 101 307	422 085	2	2	2	2
Other business receipts .....	1 702 374	1 905 541	520 297	262 649	1	1	1	2
Net value of construction work† .....	38 913 401	39 510 241	21 546 587	12 816 028	(Z)	(Z)	(Z)	(Z)
Value added†† .....	21 753 615	24 830 667	12 512 366	7 112 256	(Z)	(Z)	(Z)	(Z)
Selected costs .....	73 935 600	66 868 306	40 312 485	20 288 148	(Z)	(Z)	(Z)	(Z)
Materials, components, and supplies .....	18 066 238	15 984 990	9 221 961	5 716 533	(Z)	1	(Z)	(Z)
Construction work subcontracted out to others .....	55 073 439	50 283 190	30 757 966	14 321 740	(Z)	(Z)	(Z)	(Z)
Selected power, fuels, and lubricants .....	795 923	600 125	332 557	249 875	1	1	1	1
Electricity .....	287 895	123 906	76 137	54 786	1	1	1	1
Natural and manufactured gas .....	44 188	34 593	19 329	26 461	2	2	1	1
Gasoline and diesel fuel .....	422 377	404 289	213 704	126 433	1	1	1	1
On highway use .....	353 184	337 666	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use .....	69 192	66 622	(NA)	(NA)	2	1	(NA)	(NA)
Other, including lubricating oils and greases .....	41 463	37 337	23 385	42 197	2	2	1	1
Rental cost for machinery, equipment, and buildings .....	786 089	720 585	382 584	186 287	1	1	1	(Z)
For machinery and equipment .....	494 738	463 535	291 640	149 013	2	1	(Z)	(Z)
For buildings .....	291 350	257 050	90 943	37 274	1	1	1	1
Selected purchased services .....	665 079	524 397	277 681	191 570	1	1	1	1
Communication services .....	263 732	206 968	117 359	75 391	1	1	1	2
Repairs to buildings and other structures .....	59 796	46 304	22 018	16 060	3	2	1	3
Repairs to machinery and equipment .....	341 551	271 124	138 303	100 120	2	1	1	1
Ownership of construction projects:								
Value of construction work .....	93 986 840	89 793 431	52 304 554	27 137 768	(Z)	(Z)	(Z)	(Z)
Government owned .....	31 296 622	19 268 927	10 016 229	8 425 879	1	1	1	(Z)
Federal .....	7 431 103	5 530 635	(NA)	(NA)	2	1	(NA)	(NA)
State and local .....	23 865 518	13 738 291	(NA)	(NA)	1	1	(NA)	(NA)
Privately owned .....	62 690 219	70 524 504	42 288 325	18 711 890	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
<b>BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT</b>				
Beginning-of-year gross book value of depreciable assets .....	4 994 310	4 021 836	1	2
Capital expenditures, other than land .....	543 254	571 238	2	2
New .....	426 676	444 253	2	2
Used .....	116 578	126 984	4	3
Retirements and disposition of depreciable assets.....	358 788	247 266	5	2
End-of-year gross book value of depreciable assets .....	5 178 776	4 345 808	1	2
Depreciation charges during year .....	534 618	528 284	1	2
<b>Buildings and Other Structures, Additions, and Related Facilities</b>				
Beginning-of-year gross book value of depreciable assets .....	1 075 124	1 170 111	2	5
Capital expenditures, other than land .....	78 835	123 161	4	3
New buildings and other structures .....	67 336	83 138	4	4
Used buildings and other structures.....	11 499	40 023	5	7
Retirements and disposition of depreciable assets.....	118 527	62 029	4	4
End-of-year gross book value of depreciable assets .....	1 035 432	1 231 243	2	4
Depreciation charges during year .....	73 579	105 626	2	7
<b>Machinery and Equipment</b>				
Beginning-of-year gross book value of depreciable assets .....	3 919 186	2 851 724	1	1
Capital expenditures, other than land .....	464 419	448 076	2	2
New machinery and equipment, including automobiles and trucks .....	359 340	361 115	2	2
New automobiles and trucks, intended primarily for highway use .....	149 116	185 959	4	2
Used machinery and equipment, including automobiles and trucks .....	105 079	86 961	4	3
Retirements and disposition of depreciable assets.....	240 261	185 236	7	2
End-of-year gross book value of depreciable assets .....	4 143 343	3 114 565	1	1
Depreciation charges during year .....	461 038	422 658	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)
<b>All establishments:</b>		
Number .....	29 739	1
Value of construction work .....	93 986 840	(Z)
<b>Establishments with inventories:</b>		
Number .....	6 387	2
Value of construction work .....	24 245 673	1
<b>Inventories<sup>1</sup>:</b>		
End of 1992, materials and supplies .....	308 950	4
End of 1991, materials and supplies .....	251 685	5
<b>Establishments with no inventories:</b>		
Number .....	13 795	1
Value of construction work .....	49 416 850	(Z)
<b>Establishments not reporting:</b>		
Number .....	9 557	1
Value of construction work .....	20 324 317	1

<sup>1</sup>Inventories 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
<b>1992</b>										
Number of establishments .....	29 739	13 602	6 839	4 757	3 100	930	397	79	27	8
All employees** .....	407 138	26 827	44 880	64 421	92 797	63 416	58 759	27 834	18 307	9 898
Payroll, all employees .....	11 803 969	518 238	1 060 556	1 735 313	2 752 463	2 032 935	1 898 690	937 998	587 623	280 153
Dollar value of business done .....	95 689 214	4 324 706	7 193 145	12 123 667	21 489 982	16 415 291	18 028 901	8 205 292	5 429 728	2 478 503
Value of construction work .....	93 986 840	4 264 929	7 062 895	11 947 428	21 227 237	16 119 028	17 750 425	7 900 649	5 257 560	2 456 690
Net value of construction work† .....	38 913 401	2 406 993	3 644 870	5 776 334	8 933 746	6 223 061	5 906 361	2 995 736	1 859 956	1 166 345
Value added†† .....	21 753 615	1 291 872	2 098 079	3 365 576	5 056 329	3 539 789	3 033 389	1 715 434	960 123	693 025
Cost of materials, components, supplies, and fuels .....	18 862 161	1 174 898	1 677 042	2 586 997	4 140 162	2 979 534	3 151 448	1 584 945	1 072 001	495 133
Cost of construction work subcontracted out to others .....	55 073 439	1 857 935	3 418 025	6 171 094	12 293 491	9 895 968	11 844 064	4 904 913	3 397 604	1 290 345
Rental cost for machinery, equipment, and buildings .....	786 089	49 467	67 616	111 889	162 508	126 628	140 454	105 736	(D)	21 790
Capital expenditures, other than land .....	543 254	47 527	60 866	83 137	111 368	87 267	129 607	(D)	12 498	10 984
End-of-year gross book value of depreciable assets .....	5 178 776	346 397	659 164	794 221	1 131 579	869 384	1 110 502	(D)	133 066	134 464
<b>1987</b>										
All employees** .....	488 480	27 010	48 950	74 757	114 115	81 026	68 482	36 062	20 512	17 563
Value of construction work .....	89 793 431	4 063 082	6 234 979	10 826 988	19 635 847	15 778 608	16 042 480	9 562 567	7 648 879	(D)
Value added†† .....	24 830 667	1 325 414	2 029 296	3 460 630	5 514 887	4 140 848	3 980 248	2 355 663	1 330 187	693 491
<b>1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>										
All employees** .....	(Z)	2	2	2	1	(Z)	(Z)	(Z)	(Z)	(Z)
Net value of construction work† .....	(Z)	3	3	2	1	(Z)	(Z)	(Z)	(Z)	(Z)
Capital expenditures, other than land .....	2	9	10	5	2	(Z)	(Z)	(D)	(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
<b>1992</b>											
Number of establishments .....	29 739	(S)	(S)	(S)	4 559	4 833	4 570	5 044	2 602	1 651	1 868
All employees** .....	407 138	(S)	(S)	(S)	12 565	21 300	31 476	55 758	50 041	52 607	177 381
Payroll, all employees .....	11 803 969	(S)	(S)	(S)	179 483	366 692	630 708	1 389 190	1 389 883	1 594 889	6 188 766
Dollar value of business done .....	95 689 214	(S)	(S)	(S)	153 176	763 573	1 723 577	3 268 230	7 918 697	9 130 317	11 479 670
Value of construction work .....	93 986 840	(S)	(S)	(S)	148 597	749 847	1 696 624	3 210 931	7 781 123	8 979 177	11 335 869
Net value of construction work† .....	38 913 401	(S)	(S)	(S)	117 127	564 377	1 174 183	2 022 134	4 387 455	4 482 948	5 028 200
Value added†† .....	21 753 615	(S)	(S)	(S)	69 458	327 881	669 397	1 151 109	2 585 407	2 501 430	2 870 681
Cost of materials, components, supplies, and fuels .....	18 862 161	(S)	(S)	(S)	52 248	250 222	531 739	928 324	1 939 622	2 132 658	2 301 321
Cost of construction work subcontracted out to others .....	55 073 439	(S)	(S)	(S)	185 471	522 441	1 188 797	3 393 668	4 496 230	6 307 669	38 935 398
Rental cost for machinery, equipment, and buildings .....	786 089	(S)	(S)	(S)	3 430	10 488	24 157	44 850	86 750	105 962	430 545
Capital expenditures, other than land .....	543 254	(S)	(S)	(S)	12 075	27 127	37 199	76 978	66 243	69 251	251 142
End-of-year gross book value of depreciable assets .....	5 178 776	(S)	(S)	(S)	26 545	95 393	241 545	362 334	676 633	701 235	648 551
<b>1987</b>											
All employees** .....	488 480	(S)	(S)	(S)	16 350	25 181	40 327	70 505	67 811	64 950	195 743
Value of construction work .....	89 793 431	(S)	(S)	(S)	834 870	1 757 823	3 548 017	8 616 749	10 054 443	11 860 574	52 906 270
Value added†† .....	24 830 667	(S)	(S)	(S)	383 580	718 665	1 334 214	2 943 736	3 219 900	3 361 380	12 763 382
<b>1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** .....	(Z)	(S)	(S)	7	4	4	3	2	2	1	(Z)
Net value of construction work† .....	(Z)	(S)	(S)	5	4	3	3	2	2	1	(Z)
Capital expenditures, other than land .....	2	(S)	(S)	(S)	12	10	9	9	5	2	(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
<b>1992</b>								
<b>Value of construction work</b> .....	<b>93 986 840</b>	<b>59 660 281</b>	<b>29 605 477</b>	<b>3 220 743</b>	<b>(Z)</b>	<b>(Z)</b>	<b>1</b>	<b>1</b>
Building construction .....	90 610 897	58 235 899	29 251 931	3 123 067	(Z)	(Z)	1	1
Single-family houses .....	1 815 743	1 032 404	637 648	145 691	2	2	3	4
Single-family houses, detached .....	1 437 807	806 056	529 162	102 589	2	3	3	5
Single-family houses, attached, including townhouses and townhouse-type condominiums .....	377 937	226 348	108 486	43 102	2	2	4	4
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives .....	1 613 401	1 037 115	497 954	78 332	1	1	3	5
Other residential buildings, including hotels, motels, and tourist cabins .....	1 504 269	1 021 745	444 714	37 810	1	1	1	4
Hotels, motels, and tourist cabins .....	1 019 055	705 971	291 239	21 846	1	1	1	4
Other residential buildings .....	485 213	315 774	153 475	15 965	2	3	3	6
Office buildings .....	19 263 171	10 461 014	7 979 933	822 223	1	1	1	2
Other commercial buildings such as stores, restaurants, and automobile service stations .....	19 887 592	13 075 505	6 116 734	695 353	1	1	1	3
Industrial buildings and warehouses .....	8 014 241	5 607 928	2 044 832	361 481	(Z)	(Z)	1	2
Industrial buildings .....	6 227 887	4 271 637	1 665 571	290 679	(Z)	(Z)	1	2
Warehouses .....	1 786 354	1 336 290	379 261	70 803	1	1	2	3
Religious buildings .....	2 528 329	1 625 334	832 668	70 327	2	2	3	6
Educational buildings .....	13 360 653	8 927 570	4 189 041	244 041	1	1	2	5
Hospitals and institutional buildings .....	14 266 761	9 474 980	4 523 926	267 856	(Z)	(Z)	1	2
Farm buildings, nonresidential .....	961 469	793 543	98 452	69 475	4	4	7	12
Amusement, social, and recreational buildings, indoors .....	2 556 005	1 969 872	545 086	41 048	2	2	3	4
Other nonresidential buildings .....	4 839 263	3 208 889	1 340 944	289 430	1	1	2	4
Nonbuilding construction .....	1 875 604	1 424 382	353 546	97 676	1	1	1	3
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc. ....	428 347	404 715	17 001	6 631	1	1	9	15
Bridges, tunnels, and elevated highways .....	256 626	126 152	123 163	7 311	1	3	(Z)	1
Sewage treatment and water treatment plants .....	511 812	403 736	101 818	6 259	1	1	2	21
Other nonbuilding construction .....	678 819	489 779	111 564	77 476	1	2	2	2
Construction work, n.s.k. ....	1 500 339	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
<b>1987</b>								
<b>Value of construction work</b> .....	<b>89 793 431</b>	<b>62 922 133</b>	<b>22 451 376</b>	<b>2 481 494</b>	<b>(Z)</b>	<b>(Z)</b>	<b>1</b>	<b>1</b>
Building construction .....	85 968 429	61 633 448	21 936 784	2 398 198	(Z)	(Z)	1	1
Single-family houses .....	1 746 350	1 116 019	524 178	106 153	2	2	3	4
Single-family houses, detached .....	1 333 895	783 367	457 555	92 972	2	3	3	5
Single-family houses, attached, including townhouses and townhouse-type condominiums .....	412 455	332 652	66 622	13 180	2	3	7	8
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives .....	1 586 133	1 209 403	324 999	51 730	1	1	3	5
Other residential buildings, including hotels, motels, and tourist cabins .....	2 890 685	2 461 153	390 895	38 635	1	1	2	7
Hotels, motels, and tourist cabins .....	1 907 398	1 675 907	216 442	15 048	1	1	3	8
Other residential buildings .....	983 286	785 246	174 453	23 586	1	1	4	10
Office buildings .....	26 438 662	19 154 579	6 676 427	607 655	(Z)	(Z)	1	3
Other commercial buildings such as stores, restaurants, and automobile service stations .....	20 503 267	14 569 596	5 205 611	728 060	1	1	1	2
Industrial buildings and warehouses .....	7 243 757	5 411 855	1 531 673	300 228	1	1	1	2
Industrial buildings .....	5 062 087	3 613 717	1 198 173	250 196	1	1	1	2
Warehouses .....	2 181 669	1 798 137	333 500	50 032	1	1	2	5
Religious buildings .....	1 975 064	1 371 430	555 422	48 212	2	2	3	5
Educational buildings .....	8 048 930	5 381 754	2 509 590	157 585	1	1	2	6
Hospitals and institutional buildings .....	9 935 109	6 857 235	2 918 446	159 428	1	1	1	4
Farm buildings, nonresidential .....	873 340	714 651	98 451	60 237	5	5	10	9
Amusement, social, and recreational buildings, indoors .....	1 646 644	1 329 776	295 263	21 603	1	1	3	12
Other nonresidential buildings .....	3 080 482	2 055 991	905 825	118 665	2	2	3	7
Nonbuilding construction .....	1 886 576	1 288 686	514 593	83 296	1	1	2	4
Construction work, n.s.k. ....	1 938 429	(NA)	(NA)	(NA)	1	(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 sub-contracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
<b>All establishments</b> -----	<b>29 739</b>	<b>407 138</b>	<b>11 803 969</b>	<b>93 986 840</b>	<b>40 964 082</b>	<b>38 913 401</b>	<b>21 753 615</b>	<b>55 073 439</b>	<b>(Z)</b>	<b>(Z)</b>	<b>(Z)</b>
Establishments not specializing by type -----	7 748	170 846	5 212 068	43 151 513	(NA)	17 122 030	8 998 377	26 029 482	1	(Z)	(Z)
Establishments specializing 51 percent or more -----	21 991	236 292	6 591 901	50 835 328	40 964 082	21 791 371	12 755 238	29 043 956	1	1	1
<b>OFFICE BUILDINGS</b>											
<b>All establishments specializing in type</b> -----	<b>5 168</b>	<b>53 133</b>	<b>1 634 931</b>	<b>11 877 456</b>	<b>9 580 035</b>	<b>4 872 890</b>	<b>3 102 030</b>	<b>7 004 566</b>	<b>1</b>	<b>1</b>	<b>1</b>
Establishments with —											
100 percent specialization -----	2 032	18 136	540 836	3 512 351	3 512 351	1 498 321	936 275	2 014 030	3	2	3
90 to 99 percent specialization -----	560	5 668	188 009	1 358 331	1 258 555	574 907	395 634	783 424	4	3	3
80 to 89 percent specialization -----	613	6 848	252 728	1 822 181	1 501 000	566 632	463 501	1 255 549	4	3	2
70 to 79 percent specialization -----	764	7 818	230 438	1 871 074	1 370 771	872 626	528 711	998 448	4	3	3
60 to 69 percent specialization -----	699	8 116	229 077	1 630 284	1 016 652	734 698	443 406	895 586	3	2	2
51 to 59 percent specialization -----	501	6 547	193 841	1 683 234	920 707	625 706	334 504	1 057 528	4	2	2
<b>OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS</b>											
<b>All establishments specializing in type</b> -----	<b>7 619</b>	<b>76 794</b>	<b>2 036 472</b>	<b>16 201 525</b>	<b>13 666 035</b>	<b>7 246 889</b>	<b>4 068 024</b>	<b>8 954 636</b>	<b>1</b>	<b>1</b>	<b>1</b>
Establishments with —											
100 percent specialization -----	3 695	33 413	851 959	6 154 310	6 154 310	2 948 334	1 675 715	3 205 977	2	2	2
90 to 99 percent specialization -----	815	8 667	249 420	2 430 207	2 278 676	975 283	555 071	1 454 944	4	3	3
80 to 89 percent specialization -----	693	7 322	187 814	1 555 969	1 293 351	651 276	343 146	904 693	4	3	3
70 to 79 percent specialization -----	1 007	11 128	301 237	2 449 133	1 797 687	972 832	525 698	1 476 301	3	3	2
60 to 69 percent specialization -----	810	9 508	254 238	2 018 457	1 278 355	875 934	454 635	1 142 523	4	3	2
51 to 59 percent specialization -----	600	6 757	191 804	1 593 448	863 656	823 250	513 758	770 198	4	3	3
<b>RELIGIOUS BUILDINGS</b>											
<b>All establishments specializing in type</b> -----	<b>621</b>	<b>4 732</b>	<b>110 508</b>	<b>812 352</b>	<b>600 528</b>	<b>405 170</b>	<b>249 345</b>	<b>407 183</b>	<b>7</b>	<b>7</b>	<b>8</b>
Establishments with —											
100 percent specialization -----	169	749	16 620	101 625	101 625	53 373	28 354	48 252	16	19	19
90 to 99 percent specialization -----	41	347	8 782	43 252	40 826	25 530	12 205	17 721	33	28	23
80 to 89 percent specialization -----	84	600	13 111	135 287	110 431	59 986	39 005	75 302	20	16	16
70 to 79 percent specialization -----	91	1 077	27 316	194 645	142 233	93 929	57 046	100 716	12	14	18
60 to 69 percent specialization -----	158	1 421	32 206	259 392	161 766	123 617	81 391	135 775	12	15	15
51 to 59 percent specialization -----	77	539	12 474	78 152	43 647	48 735	31 343	29 416	19	15	18
<b>EDUCATIONAL BUILDINGS</b>											
<b>All establishments specializing in type</b> -----	<b>2 226</b>	<b>35 810</b>	<b>1 033 067</b>	<b>8 674 077</b>	<b>6 589 243</b>	<b>3 365 094</b>	<b>1 846 981</b>	<b>5 308 983</b>	<b>2</b>	<b>1</b>	<b>2</b>
Establishments with —											
100 percent specialization -----	523	5 426	154 337	1 343 078	1 343 078	566 051	330 649	777 027	5	6	8
90 to 99 percent specialization -----	305	4 250	132 144	1 174 325	1 098 970	449 312	267 565	725 013	5	3	3
80 to 89 percent specialization -----	334	5 543	158 546	1 307 942	1 083 865	497 482	238 864	810 460	4	4	5
70 to 79 percent specialization -----	340	6 877	192 920	1 567 886	1 149 741	567 962	314 607	999 925	4	3	2
60 to 69 percent specialization -----	443	6 607	188 453	1 484 553	935 161	620 326	350 581	864 227	3	3	3
51 to 59 percent specialization -----	280	7 106	206 668	1 796 292	978 428	663 961	344 716	1 132 331	3	2	2
<b>HOSPITALS AND INSTITUTIONAL BUILDINGS</b>											
<b>All establishments specializing in type</b> -----	<b>1 521</b>	<b>30 314</b>	<b>957 318</b>	<b>7 978 110</b>	<b>6 011 163</b>	<b>2 860 598</b>	<b>1 712 675</b>	<b>5 117 513</b>	<b>1</b>	<b>1</b>	<b>1</b>
Establishments with —											
100 percent specialization -----	462	5 976	165 212	1 401 639	1 401 639	518 658	309 793	882 981	4	3	3
90 to 99 percent specialization -----	193	3 066	92 587	720 930	663 516	276 378	168 626	444 552	4	3	3
80 to 89 percent specialization -----	188	3 405	107 044	937 606	783 272	334 678	230 320	602 928	3	2	2
70 to 79 percent specialization -----	216	6 267	206 357	1 847 101	1 359 502	622 767	323 306	1 224 333	4	2	2
60 to 69 percent specialization -----	237	5 363	173 731	1 368 509	868 169	524 439	311 574	844 070	3	3	2
51 to 59 percent specialization -----	225	6 238	212 387	1 702 325	935 065	583 677	369 056	1 118 647	2	1	1
<b>FARM BUILDINGS, NONRESIDENTIAL</b>											
<b>All establishments specializing in type</b> -----	<b>1 654</b>	<b>8 559</b>	<b>163 183</b>	<b>910 940</b>	<b>754 140</b>	<b>750 360</b>	<b>462 539</b>	<b>160 580</b>	<b>5</b>	<b>4</b>	<b>6</b>
Establishments with —											
100 percent specialization -----	673	3 244	59 222	349 649	349 649	282 948	149 947	66 700	8	8	10
90 to 99 percent specialization -----	195	879	15 140	87 684	81 580	73 495	45 841	14 188	15	13	24
80 to 89 percent specialization -----	208	1 124	21 882	128 668	106 709	104 423	68 545	24 245	12	11	16
70 to 79 percent specialization -----	274	930	17 544	89 152	65 542	76 329	51 473	12 823	11	9	17
60 to 69 percent specialization -----	(S)	1 168	24 496	138 758	87 523	113 756	86 605	25 003	12	9	7
51 to 59 percent specialization -----	153	1 215	24 899	117 030	63 138	99 409	60 128	17 621	14	15	21
<b>AMUSEMENT, SOCIAL, AND RECREATIONAL BUILDINGS, INDOORS</b>											
<b>All establishments specializing in type</b> -----	<b>533</b>	<b>5 381</b>	<b>127 047</b>	<b>988 110</b>	<b>816 239</b>	<b>481 633</b>	<b>295 108</b>	<b>506 477</b>	<b>4</b>	<b>3</b>	<b>3</b>
Establishments with —											
100 percent specialization -----	(S)	3 045	63 165	427 253	427 253	174 808	89 245	252 445	4	4	4
90 to 99 percent specialization -----	32	223	4 422	30 103	27 462	15 385	9 523	14 718	31	33	38
80 to 89 percent specialization -----	(S)	421	15 714	89 059	73 105	55 308	30 066	33 751	13	6	6
70 to 79 percent specialization -----	36	371	10 637	154 590	109 670	(S)	(S)	49 541	17	7	9
60 to 69 percent specialization -----	77	665	17 723	198 673	129 807	76 891	43 338	121 782	10	6	6
51 to 59 percent specialization -----	(S)	655	15 386	88 432	48 941	54 192	(S)	34 240	19	10	15

**5-10 NONRESIDENTIAL CONSTRUCTION, N.E.C.**

**CONSTRUCTION—INDUSTRY SERIES**

**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 <sup>1</sup>				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
<b>United States .....</b>	<b>29 739</b>	<b>285 952</b>	<b>267 944</b>	<b>284 544</b>	<b>306 902</b>	<b>284 420</b>	<b>1</b>	<b>(Z)</b>	<b>(Z)</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Alabama .....	416	7 210	7 204	7 111	7 520	7 005	8	4	4	4	4	4	4	4
Alaska .....	135	1 161	869	969	1 494	1 314	12	14	15	13	17	17	17	17
Arizona .....	454	4 966	4 514	4 793	5 490	5 065	8	4	4	5	4	4	4	4
Arkansas .....	322	3 233	3 025	3 280	3 671	2 955	9	5	5	4	5	5	5	5
California .....	3 487	25 780	25 534	25 626	26 823	25 136	3	2	2	2	2	2	2	2
Colorado .....	520	6 479	6 032	6 150	6 981	6 754	7	3	3	3	3	3	3	3
Connecticut .....	414	2 844	2 538	2 774	3 191	2 875	8	4	4	5	4	4	4	4
Delaware .....	99	711	592	1 016	633	605	16	5	5	3	6	6	6	6
District of Columbia .....	61	1 615	1 692	1 624	1 601	1 541	15	7	9	10	9	10	9	10
Florida .....	1 872	13 885	13 350	14 388	14 157	13 647	4	3	3	3	3	3	3	3
Georgia .....	831	10 350	10 524	10 191	10 406	10 278	6	2	2	3	2	3	2	3
Hawaii .....	218	2 669	2 476	2 429	2 746	3 026	11	3	3	3	3	3	3	3
Idaho .....	172	1 928	1 635	1 899	2 214	1 964	13	8	7	9	8	8	8	8
Illinois .....	1 301	10 818	9 855	10 686	11 897	10 835	5	3	3	2	3	3	3	3
Indiana .....	522	8 031	7 168	7 933	8 852	8 171	7	2	3	2	2	2	2	2
Iowa .....	376	4 156	3 669	4 172	4 620	4 163	9	4	4	4	4	4	4	4
Kansas .....	361	3 747	3 503	3 842	3 995	3 650	9	4	4	4	4	4	4	4
Kentucky .....	398	4 643	4 459	4 560	4 723	4 828	8	3	4	3	3	3	3	3
Louisiana .....	368	4 101	3 815	4 166	4 241	4 181	9	6	6	6	6	6	6	6
Maine .....	121	738	632	716	778	825	16	12	11	13	13	13	13	13
Maryland .....	778	8 730	8 541	8 607	9 225	8 546	6	3	2	2	3	3	3	3
Massachusetts .....	731	4 953	4 713	4 855	5 483	4 762	6	4	3	4	5	4	5	4
Michigan .....	808	6 853	5 565	6 786	7 829	7 231	6	3	3	3	3	3	3	3
Minnesota .....	560	5 238	4 434	5 233	6 087	5 199	7	4	4	4	5	4	5	4
Mississippi .....	253	2 994	2 719	2 923	3 281	3 052	11	4	4	5	4	4	4	4
Missouri .....	781	5 909	5 527	5 976	6 364	5 770	7	4	3	3	4	4	4	4
Montana .....	110	938	713	930	1 099	1 011	17	9	9	10	10	10	10	10
Nebraska .....	311	2 068	2 025	2 045	2 149	2 053	10	6	6	7	6	6	6	6
Nevada .....	226	1 590	1 505	1 482	1 638	1 735	12	6	8	7	6	7	6	7
New Hampshire .....	97	889	821	883	973	880	16	5	5	4	4	4	5	5
New Jersey .....	872	6 946	6 417	6 642	7 698	7 027	5	3	3	3	3	3	3	3
New Mexico .....	233	2 819	2 526	2 770	3 154	2 826	12	5	4	6	5	5	5	5
New York .....	1 883	14 981	13 483	15 215	16 445	14 783	4	2	2	2	2	2	2	2
North Carolina .....	745	9 678	9 848	9 754	9 921	9 190	6	2	2	2	2	2	2	2
North Dakota .....	129	1 018	871	1 094	1 154	953	14	6	5	5	6	6	6	6
Ohio .....	1 217	10 709	9 749	10 439	11 874	10 773	5	2	2	2	2	2	2	2
Oklahoma .....	375	3 735	3 736	3 721	3 711	3 774	7	3	3	4	4	4	4	4
Oregon .....	406	3 003	2 950	2 992	3 169	2 903	9	5	5	5	5	5	5	5
Pennsylvania .....	1 208	14 272	13 645	14 163	15 496	13 784	5	2	2	3	3	3	3	3
Rhode Island .....	135	1 330	1 307	1 322	1 445	1 246	12	3	4	3	3	3	3	4
South Carolina .....	375	4 226	4 264	4 258	4 322	4 058	8	3	3	3	4	3	4	3
South Dakota .....	144	1 165	969	1 164	1 333	1 196	16	8	7	7	8	8	8	8
Tennessee .....	540	7 374	7 276	7 275	7 647	7 296	6	2	3	2	2	2	3	3
Texas .....	1 694	17 814	16 707	18 030	18 997	17 523	4	2	2	3	3	3	3	3
Utah .....	218	2 830	2 556	2 779	3 027	2 956	10	4	4	4	4	4	4	4
Vermont .....	122	1 290	1 132	1 205	1 411	1 412	18	6	5	5	6	6	7	7
Virginia .....	696	7 361	7 187	7 283	7 801	7 174	6	3	3	3	3	3	3	3
Washington .....	861	7 413	6 709	7 744	8 108	7 091	6	3	4	5	3	4	4	4
West Virginia .....	194	1 615	1 277	1 587	1 941	1 654	14	8	8	9	9	9	9	9
Wisconsin .....	506	6 663	5 287	6 562	7 589	7 214	8	2	2	3	3	3	2	2
Wyoming .....	85	484	399	504	501	533	19	12	12	13	12	12	15	15

<sup>1</sup>Construction 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				A	C	E
		Number	Value of construction work	Number	Value of construction work					
<b>United States</b> .....	<b>93 986 840</b>	<b>29 518</b>	<b>79 174 584</b>	<b>8 453</b>	<b>14 812 256</b>	<b>89 793 432</b>	<b>4.7</b>	<b>(Z)</b>	<b>(Z)</b>	<b>(Z)</b>
Alabama .....	1 322 337	414	1 166 985	163	155 352	1 504 332	-12.1	(D)	2	1
Alaska .....	(D)	134	(D)	15	62 026	504 518	(D)	(D)	16	(Z)
Arizona .....	1 835 938	452	1 591 745	130	244 193	1 733 576	5.9	2	3	1
Arkansas .....	(D)	319	(D)	91	111 803	583 784	(D)	(D)	5	2
California .....	12 567 729	3 484	11 009 347	261	1 558 382	12 380 181	1.5	1	1	2
Colorado .....	2 014 321	519	1 828 926	82	185 395	1 586 514	27.0	2	3	(Z)
Connecticut .....	1 344 976	405	1 128 130	183	216 846	1 713 590	-21.5	2	2	1
Delaware .....	320 368	99	188 612	115	131 755	206 762	54.9	3	5	1
District of Columbia .....	783 415	58	253 901	271	529 514	1 066 791	-26.6	2	5	2
Florida .....	5 009 616	1 862	4 044 307	306	965 309	5 411 566	-7.4	2	2	1
Georgia .....	2 906 644	809	2 415 114	269	491 530	3 056 741	-4.9	2	2	1
Hawaii .....	986 672	218	813 594	34	173 079	576 605	71.1	2	3	1
Idaho .....	363 467	170	290 766	74	72 701	264 603	37.4	6	7	4
Illinois .....	4 556 384	1 301	4 125 734	317	430 650	4 251 654	7.2	1	2	2
Indiana .....	1 718 699	517	1 465 574	218	253 124	1 128 202	52.3	2	2	2
Iowa .....	844 591	376	753 795	177	90 795	585 377	44.3	2	2	7
Kansas .....	1 056 583	351	873 198	133	183 385	863 865	22.3	2	3	2
Kentucky .....	1 113 189	395	846 399	213	266 790	873 566	27.4	3	4	1
Louisiana .....	1 069 503	367	836 834	149	232 669	988 439	8.2	4	5	1
Maine .....	295 036	121	197 637	67	97 399	404 649	-27.1	5	8	2
Maryland .....	2 448 524	768	1 942 649	298	505 875	2 531 411	-3.3	2	2	1
Massachusetts .....	2 251 461	730	1 958 798	176	292 663	2 801 696	-19.6	2	2	4
Michigan .....	2 362 411	808	2 164 024	174	198 387	2 333 932	1.2	2	2	2
Minnesota .....	1 985 004	559	1 863 856	137	121 148	1 566 101	26.7	2	2	4
Mississippi .....	539 184	246	398 028	116	141 156	491 615	9.7	4	5	1
Missouri .....	1 656 416	776	1 359 265	245	297 151	1 902 880	-13.0	3	3	7
Montana .....	165 726	109	147 558	52	18 168	156 781	5.7	7	8	6
Nebraska .....	478 071	311	368 340	91	109 731	502 086	-4.8	5	6	11
Nevada .....	916 075	226	564 088	121	351 987	541 908	69.0	3	4	1
New Hampshire .....	317 892	89	221 187	95	96 704	514 845	-38.3	5	7	5
New Jersey .....	2 770 559	856	2 250 018	312	520 542	3 110 290	-10.9	1	2	1
New Mexico .....	603 173	233	485 243	87	117 929	539 415	11.8	3	4	2
New York .....	5 951 679	1 876	5 280 309	308	671 370	5 886 804	1.1	1	1	2
North Carolina .....	2 529 560	745	1 865 534	260	664 026	2 218 036	14.0	2	2	(Z)
North Dakota .....	150 909	126	139 872	59	11 037	150 516	.3	4	4	9
Ohio .....	3 372 717	1 208	3 045 608	224	327 109	3 167 271	6.5	2	2	2
Oklahoma .....	732 603	367	614 772	133	117 831	697 215	5.1	3	4	3
Oregon .....	900 877	401	781 544	107	119 333	711 557	26.6	3	3	4
Pennsylvania .....	4 522 643	1 203	3 951 491	315	571 152	3 601 648	25.6	1	1	2
Rhode Island .....	429 437	134	390 086	65	39 350	302 036	42.2	4	4	5
South Carolina .....	1 155 316	367	820 138	214	335 178	990 938	16.6	2	3	1
South Dakota .....	(D)	144	(D)	56	66 770	170 296	(D)	(D)	7	3
Tennessee .....	1 515 766	533	1 292 488	182	223 278	1 981 291	-23.5	2	2	4
Texas .....	6 350 832	1 688	5 639 116	221	711 715	6 035 367	5.2	2	2	1
Utah .....	692 520	215	637 915	70	54 605	492 322	40.7	5	5	6
Vermont .....	214 507	122	137 450	48	77 057	169 655	26.4	5	8	2
Virginia .....	2 732 532	684	1 892 192	435	840 340	3 012 181	-9.3	1	2	1
Washington .....	2 648 107	844	2 225 945	186	422 162	2 054 008	28.9	2	2	1
West Virginia .....	(D)	194	(D)	128	164 057	244 756	(D)	(D)	5	2
Wisconsin .....	(D)	503	(D)	189	119 855	1 091 804	(D)	(D)	2	9
Wyoming .....	(D)	85	(D)	79	51 894	137 432	(D)	(D)	12	6



**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
<b>All kinds of business</b> .....	<b>95 689 214</b>	<b>91 698 973</b>	<b>(Z)</b>	<b>(Z)</b>
<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>				
General building contractor .....	74 544 519	85 540 047	(Z)	(Z)
General building contractor, remodeling <sup>1</sup> .....	16 611 456	(NA)	1	(NA)
Operative builder .....	180 903	220 173	4	6
Other construction activities .....	2 062 984	2 629 668	1	3
<b>OTHER BUSINESS ACTIVITIES</b>				
Architectural services .....	81 683	(NA)	9	(NA)
Building construction on land owned by you, for rent or lease .....	192 511	187 438	4	4
Construction management services .....	983 561	(NA)	1	(NA)
Other business activities .....	522 189	1 745 012	2	(NA)
Kind of business activity, n.s.k. ....	509 411	1 376 635	5	2

<sup>1</sup>In 1987, this item, for the most part, represented the value of residential remodeling general contractor work and was included in "other construction activities." For 1992, it was shown separately and represents the value of both residential and nonresidential remodeling general contractor work.

**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
<b>AVERAGE PER ESTABLISHMENT</b>			
Number of employees** .....	13.7	15.6	1
Number of construction workers.....	9.6	11.7	1
Number of all other employees .....	4.1	3.9	1
Payroll, all employees .....	396.9	377.9	1
Payroll, construction workers..... do..	241.5	247.5	1
Payroll, other employees .....	155.4	130.4	1
Dollar value of business done..... do..	3 217.6	2 926.2	1
Value of construction work .....	3 160.3	2 865.4	1
Cost of materials, components, supplies, and fuels .....	634.2	529.3	1
Construction work subcontracted to others .....	do..	do..	1
Rental cost for machinery, equipment, and buildings .....	1 851.9	1 604.6	1
Capital expenditures, other than land .....	26.4	23.0	1
Gross book value of depreciable assets .....	18.3	18.2	2
..... do..	174.1	138.7	1
<b>AVERAGE PER EMPLOYEE</b>			
Payroll, all employees .....	\$1,000.. 29.0	24.2	(Z)
Dollar value of business done..... do..	235.0	187.7	(Z)
Value added†† .....	53.4	50.8	(Z)
<b>AVERAGE PER CONSTRUCTION WORKER</b>			
Payroll, construction workers.....	\$1,000.. 25.1	21.1	(Z)
Value of construction work .....	328.7	244.8	(Z)
<b>AVERAGE PER OTHER EMPLOYEE</b>			
Payroll, other employees .....	\$1,000.. 38.1	33.6	(Z)
<b>AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK</b>			
Payroll, all employees .....	.126	.132	(Z)
Cost of materials, components, supplies, and fuels .....	.201	.185	(Z)
Cost of construction work subcontracted out to others .....	.586	.560	(Z)
Value of construction work subcontracted in from others .....	.031	.034	2
Rental cost for machinery, equipment, and buildings .....	.008	.008	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
<b>United States</b> .....	<b>13.7</b>	<b>29.0</b>	<b>328.7</b>	<b>.126</b>	<b>.201</b>	<b>.586</b>	<b>.031</b>	<b>.008</b>
Alabama .....	23.2	24.8	258.8	.128	.257	.571	.019	.009
Alaska .....	11.8	43.7	324.7	.185	.227	.423	.030	.010
Arizona .....	17.2	31.1	542.1	.090	.108	.646	.018	.008
Arkansas .....	13.2	21.0	261.0	.105	.243	.531	(S)	.014
California .....	11.1	35.3	452.1	.118	.149	.627	.023	.009
Colorado .....	17.4	30.0	411.7	.102	.202	.576	.020	.007
Connecticut .....	10.7	36.4	462.1	.122	.184	.643	.037	.008
Delaware .....	10.7	27.3	352.9	.115	.202	.541	.028	.007
District of Columbia .....	37.5	32.0	340.0	.132	.125	.688	.043	.005
Florida .....	11.0	24.6	303.6	.120	.208	.587	.028	.009
Georgia .....	17.8	25.1	297.8	.120	.229	.576	.017	.014
Hawaii .....	17.1	37.9	304.8	.173	.271	.469	.021	.008
Idaho .....	15.5	24.4	229.0	.147	.263	.537	.024	.007
Illinois .....	12.2	34.0	400.3	.124	.166	.633	.038	.006
Indiana .....	20.1	28.3	207.9	.178	.220	.465	.050	.006
Iowa .....	14.4	25.3	239.9	.137	.247	.517	.017	.006
Kansas .....	14.3	24.3	335.2	.099	.240	.514	.075	.014
Kentucky .....	15.2	23.6	214.7	.143	.256	.516	.033	.009
Louisiana .....	14.4	20.4	212.3	.124	.262	.503	.023	.006
Maine .....	8.5	25.2	284.1	.123	.221	.564	*.039	.008
Maryland .....	16.6	31.2	353.1	.131	.180	.588	.023	.006
Massachusetts .....	10.7	32.6	464.5	.111	.190	.637	.031	.006
Michigan .....	12.6	31.0	374.1	.123	.238	.610	.041	.006
Minnesota .....	13.2	32.2	396.2	.115	.152	.609	.021	.005
Mississippi .....	15.7	19.3	190.6	.134	.293	.485	.049	.007
Missouri .....	10.7	26.8	302.0	.126	.187	.617	.052	.007
Montana .....	11.0	21.6	197.1	.141	.343	.518	*.021	.008
Nebraska .....	8.9	20.2	193.0	.141	.254	.517	.029	.009
Nevada .....	9.8	30.7	376.3	.113	.158	.620	.043	.011
New Hampshire .....	13.6	30.9	316.3	.145	.182	.623	.060	.008
New Jersey .....	11.6	34.4	360.8	.139	.206	.498	.038	.009
New Mexico .....	16.0	26.8	224.7	.158	.220	.466	.031	.009
New York .....	12.0	35.0	371.4	.142	.195	.587	.046	.007
North Carolina .....	17.5	23.8	238.0	.135	.238	.561	.015	.009
North Dakota .....	9.6	20.2	175.4	.141	.303	.459	*.020	.006
Ohio .....	13.2	28.4	322.1	.133	.218	.587	.065	.007
Oklahoma .....	13.7	19.3	233.1	.114	.240	.572	.009	.013
Oregon .....	10.3	30.2	308.8	.136	.192	.594	.024	.015
Pennsylvania .....	16.4	31.5	324.8	.135	.192	.596	.035	.008
Rhode Island .....	14.5	26.0	347.0	.111	.211	.473	.037	.006
South Carolina .....	15.2	23.4	222.0	.142	.257	.514	.023	.009
South Dakota .....	10.6	20.9	217.5	.125	.273	.433	.013	.012
Tennessee .....	19.1	23.9	281.6	.119	.186	.640	.021	.008
Texas .....	15.1	25.4	353.4	.103	.232	.599	.026	.011
Utah .....	17.8	25.5	330.1	.106	.170	.613	.011	.007
Vermont .....	14.6	26.5	280.5	.131	.223	.542	.005	.010
Virginia .....	15.0	27.1	301.0	.128	.220	.618	.026	.006
Washington .....	11.9	31.4	328.5	.132	.216	.592	.035	.009
West Virginia .....	10.5	22.5	138.1	.206	.233	.395	.025	.012
Wisconsin .....	17.8	32.7	253.5	.175	.236	.508	.046	.006
Wyoming .....	7.4	20.0	198.9	.130	.226	.570	(S)	.012

## 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
<b>15</b>	<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>	<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.</b>
<b>152</b>	<b>General Building Contractors—Residential Buildings</b>	<b>173</b>	<b>Electrical Work Special Trade Contractors</b>
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	<b>174</b>	<b>Masonry, Stone Work, Tile Setting, and Plastering Special Trade Contractors</b>
<b>153</b>	<b>Operative Builders</b>	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
<b>154</b>	<b>General Building Contractors—Nonresidential Buildings</b>	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	<b>175</b>	<b>Carpentry and Floor Work Special Trade Contractors</b>
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
<b>16</b>	<b>HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS</b>	1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified
<b>161</b>	<b>Highway and Street Construction, Except Elevated Highways</b>	<b>176</b>	<b>Roofing, Siding, and Sheet Metal Work Special Trade Contractors</b>
1611	Highway and Street Construction Contractors, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
<b>162</b>	<b>Heavy Construction, Except Highway and Street Construction</b>	<b>177</b>	<b>Concrete Work Special Trade Contractors</b>
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	<b>178</b>	<b>Water Well Drilling Special Trade Contractors</b>
1629	Heavy Construction Contractors, Not Elsewhere Classified	1781	Water Well Drilling Special Trade Contractors
<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS</b>	<b>179</b>	<b>Miscellaneous Special Trade Contractors</b>
<b>171</b>	<b>Plumbing, Heating, and Air-Conditioning Special Trade Contractors</b>	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
<b>172</b>	<b>Painting and Paper Hanging Special Trade Contractors</b>	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.