

# 1992

## Census of Construction Industries

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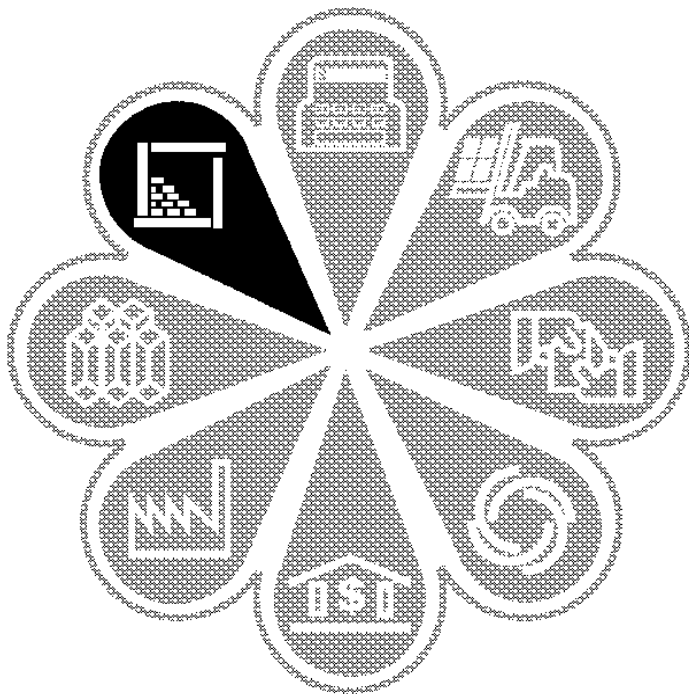
CC92-I-7

INDUSTRY SERIES

### Bridge, Tunnel, and Elevated Highway Construction Contractors

Industry 1622

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Issued July 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

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

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



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# Introduction to the Economic Census

## PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

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

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

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

## AUTHORITY AND SCOPE

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

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

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

## AVAILABILITY OF THE DATA

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

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

## WHAT'S NEW IN 1992

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

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

## HISTORICAL INFORMATION

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

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

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

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

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

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

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

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

## **AVAILABILITY OF MORE FREQUENT ECONOMIC DATA**

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

## **SOURCES FOR MORE INFORMATION**

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

# Census of Construction

## GENERAL

The 1992 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction or construction on their own account for sale as defined in the *Standard Industrial Classification Manual: 1987*<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.

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

<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.

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.

## **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.

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 dol- lar value of busi- ness 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.

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## Bridge, Tunnel, and Elevated Highway Construction Contractors

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

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## Summary of Findings

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Establishments classified in this industry are primarily engaged in the construction of bridges; viaducts; elevated highways; and highway, pedestrian, and railway tunnels. General contractors primarily engaged in subway construction are classified in Industry 1629, Heavy Construction Contractors, Not Elsewhere Classified. 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 \$7.3 billion in total dollar value of business. Of this amount, \$7.2 billion were for the value of construction work. These establishments paid out \$2.2 billion for materials, components, and supplies and \$1.9 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$108 million. Value added for 1992 was \$3.1 billion.

There were 1,041 establishments with total employment averaging 43,701 during the year. Total payroll for 1992 was \$1.5 billion.

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<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.

Larger establishments with 20 employees or more, while representing only 47 percent of the total number of employer establishments in this industry, accounted for 90 percent of all business done.

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

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

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

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

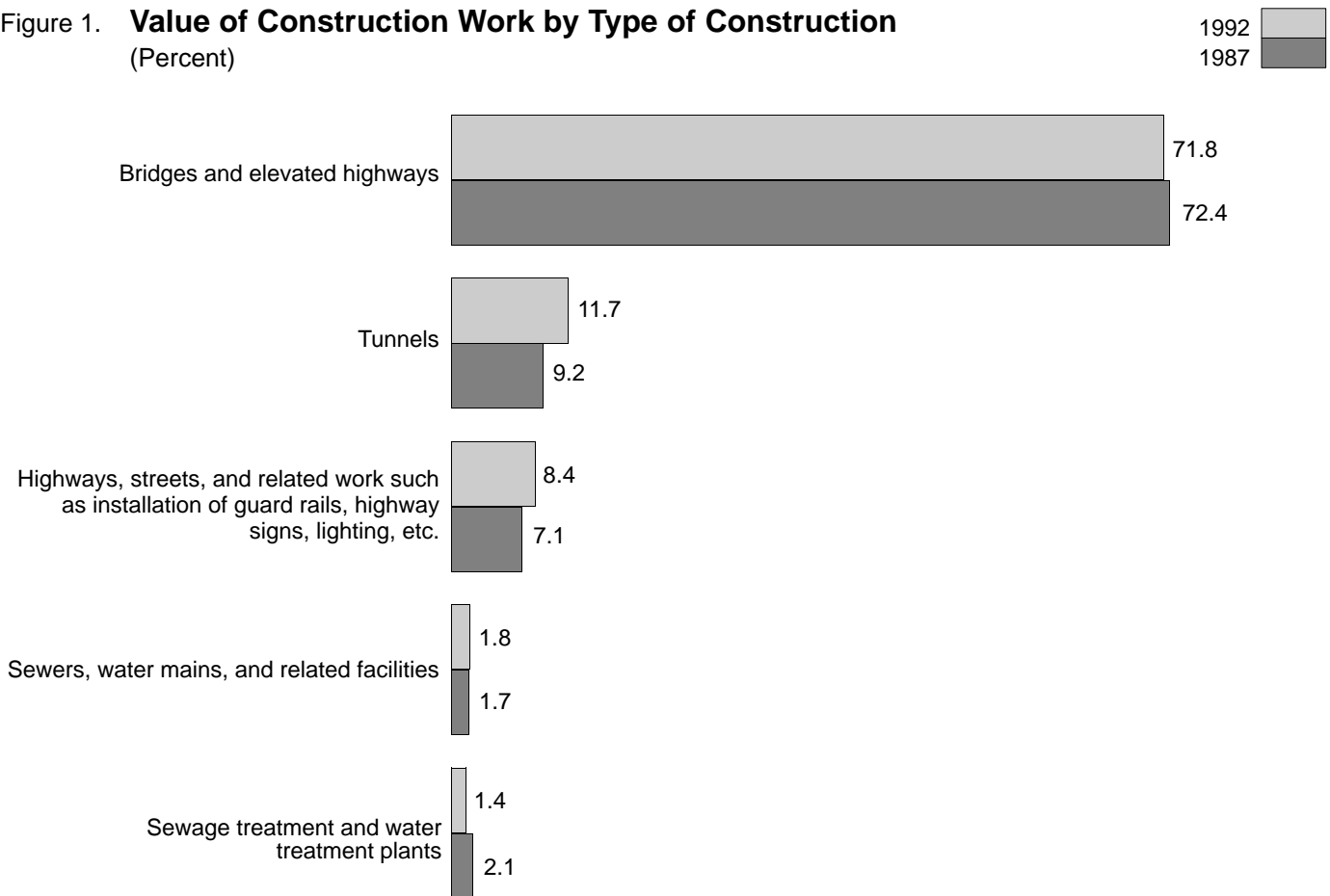
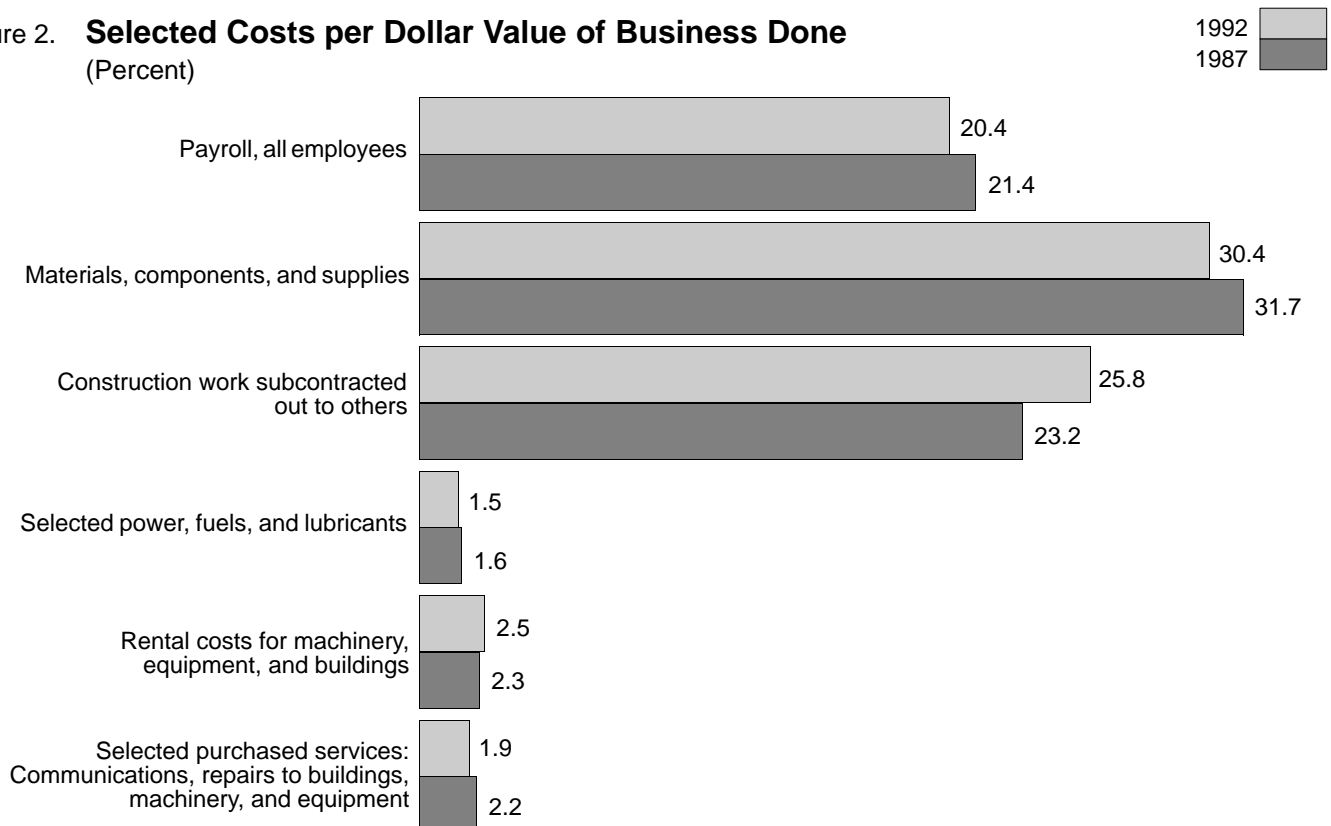


Figure 2. **Selected Costs per Dollar Value of Business Done**  
(Percent)



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

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

Location of establishment	1992								
	Number of establishments	Employees**		Payroll		Value of construction work	Net value of construction work†	Value added††	Cost of materials, components, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
<b>United States -----</b>	<b>1 041</b>	<b>43 701</b>	<b>36 116</b>	<b>1 485 491</b>	<b>1 125 201</b>	<b>7 198 275</b>	<b>5 315 950</b>	<b>3 078 306</b>	<b>2 326 306</b>
Alabama -----	15	763	632	16 240	12 549	92 482	63 712	27 009	37 057
Alaska -----	4	118	83	6 048	4 307	25 059	22 873	(D)	14 239
Arizona -----	1	(D)	(D)	6 (D)	(D)	(D)	(D)	(D)	10 557
Arkansas -----	19	308	255	6 141	4 499	34 353	24 482	14 260	19 593
California -----	50	2 255	1 809	101 186	79 146	592 300	357 290	186 155	179 597
Colorado -----	10	358	291	11 614	9 185	73 587	46 677	23 603	(D)
Connecticut -----	26	1 167	921	43 395	29 437	182 422	142 931	92 845	52 105
Delaware -----	(S)	*75	52	2 598	1 559	11 913	(D)	5 453	(D)
District of Columbia -----	-	-	-	-	-	-	-	-	-
Florida -----	32	1 781	1 476	45 063	32 005	312 602	205 848	79 328	128 381
Georgia -----	27	1 002	802	22 065	15 706	110 402	85 024	53 428	31 612
Hawaii -----	2	(D)	(D)	2 (D)	(D)	(D)	(D)	(D)	(D)
Idaho -----	4	100	81	2 877	2 252	12 181	10 544	5 796	4 919
Illinois -----	52	3 062	2 594	128 128	100 380	552 142	414 404	283 334	132 490
Indiana -----	32	2 252	1 852	92 367	72 229	354 663	288 560	136 836	155 333
Iowa -----	28	794	673	18 554	14 493	73 159	61 951	24 399	41 783
Kansas -----	18	918	805	23 629	19 039	106 140	81 227	41 804	43 811
Kentucky -----	24	714	607	22 027	17 315	108 917	84 639	43 330	42 208
Louisiana -----	12	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Maine -----	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Maryland -----	22	945	807	21 437	16 479	76 689	62 489	38 107	24 803
Massachusetts -----	32	1 557	1 178	69 542	46 639	497 175	324 593	212 732	122 876
Michigan -----	29	607	495	21 689	16 379	108 551	75 805	42 002	34 130
Minnesota -----	11	857	722	28 407	21 345	142 610	(D)	(D)	56 732
Mississippi -----	12	978	855	21 395	17 253	119 275	82 485	49 569	(D)
Missouri -----	38	1 199	980	38 005	28 953	187 041	154 810	90 688	67 243
Montana -----	5	111	100	(D)	2 314	(D)	(D)	(D)	5 571
Nebraska -----	6	63	50	2 054	1 267	14 658	11 490	7 425	4 065
Nevada -----	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
New Hampshire -----	7	120	86	3 715	2 575	19 636	12 598	7 687	6 385
New Jersey -----	24	1 067	846	48 780	35 824	169 713	146 054	94 691	54 835
New Mexico -----	(S)	127	118	(D)	2 195	18 551	(D)	(D)	7 306
New York -----	96	4 232	3 462	184 300	137 555	760 910	565 471	387 577	188 183
North Carolina -----	14	599	511	14 097	9 610	71 756	53 013	26 140	26 979
North Dakota -----	4	182	157	5 326	4 263	24 934	19 442	10 798	8 644
Ohio -----	57	1 712	1 294	61 359	46 309	278 470	216 309	126 190	93 078
Oklahoma -----	29	691	607	17 825	14 265	93 399	76 335	40 173	38 067
Oregon -----	7	253	203	9 502	7 118	57 545	38 059	22 909	(D)
Pennsylvania -----	66	2 935	2 398	86 218	63 739	403 860	300 275	202 207	104 953
Rhode Island -----	4	137	106	(D)	4 371	24 169	18 043	(D)	(D)
South Carolina -----	13	440	364	10 917	7 332	49 741	40 952	(D)	21 205
South Dakota -----	3	38	31	(D)	675	3 879	(D)	1 737	(D)
Tennessee -----	30	1 433	1 262	35 770	27 549	204 114	136 954	64 753	73 366
Texas -----	56	1 368	1 136	31 495	23 192	176 393	150 985	84 136	67 169
Utah -----	*9	137	117	3 564	2 656	21 760	10 710	6 154	4 556
Vermont -----	13	252	216	5 681	4 129	23 084	17 797	10 990	7 748
Virginia -----	29	987	836	25 829	19 333	126 648	91 448	49 892	41 620
Washington -----	23	1 414	1 023	62 914	45 547	235 643	190 397	126 915	67 549
West Virginia -----	6	140	119	5 706	4 571	27 422	21 813	12 018	9 869
Wisconsin -----	12	1 155	1 007	44 257	36 219	323 954	211 177	112 780	(D)
Wyoming -----	*8	211	172	4 421	3 174	20 359	15 302	8 841	7 087



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>1 882 325</b>	<b>874 650</b>	<b>182 852</b>	<b>155 163</b>	<b>1 602 798</b>	<b>47 494</b>	<b>5 480 936</b>	<b>2 430 434</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>U.S.</b>
28 770	16 386	807	3 845	28 372	530	57 804	22 516	5	3	26	AL
2 186	(D)	757	1 256	11 062	(D)	(D)	(D)	(Z)	(Z)	(Z)	AK
(D)	(D)	(D)	(D)	(D)	1 214	130 042	48 277	(D)	(D)	(D)	AZ
9 871	4 263	502	1 467	10 820	356	46 105	15 845	15	13	11	AR
235 010	124 739	21 128	11 658	94 222	1 940	301 677	153 566	2	1	4	CA
26 910	12 742	937	651	14 770	693	108 254	20 984	(Z)	(Z)	7	CO
39 491	16 616	9 223	1 452	41 119	1 068	150 625	90 928	2	2	(Z)	CT
(D)	824	191	546	4 692	*46	(D)	*3 339	40	(D)	31	DE
—	—	—	—	—	—	—	—	—	—	—	DC
106 754	38 463	12 326	9 338	38 896	853	107 728	33 219	4	2	3	FL
25 417	30 420	888	3 913	36 247	1 212	122 850	54 093	11	6	10	GA
(D)	(D)	(D)	(D)	(D)	—	—	—	(D)	(D)	—	HI
1 637	156	86	(D)	6 082	155	19 087	10 029	(Z)	(Z)	(D)	ID
137 738	30 552	11 897	11 344	132 178	2 393	257 699	111 479	3	8	3	IL
66 103	12 556	6 512	9 750	77 492	1 850	241 116	108 457	(Z)	(Z)	(Z)	IN
11 208	7 238	482	4 126	31 919	1 019	112 782	42 378	5	5	20	IA
24 914	19 259	1 793	2 684	38 955	1 040	103 921	46 431	4	6	5	KS
24 278	14 797	1 916	3 024	30 044	821	88 839	29 498	1	(Z)	3	KY
5 137	(D)	4 714	3 485	59 300	702	64 330	25 513	(D)	(D)	21	LA
(D)	184	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	ME
14 200	2 323	1 806	1 635	30 542	850	98 568	45 631	2	3	1	MD
172 582	13 506	7 223	6 897	55 210	514	60 456	29 143	3	1	5	MA
32 746	15 509	1 164	3 606	32 015	675	112 063	39 162	5	2	6	MI
(D)	2 743	6 615	2 235	34 107	1 413	154 728	77 980	(Z)	(D)	8	MN
36 790	16 919	2 933	3 441	35 127	973	102 676	40 007	(Z)	(Z)	(Z)	MS
32 231	23 941	4 066	4 562	50 169	1 457	140 984	52 901	4	16	6	MO
1 015	3 021	232	418	4 126	112	7 460	4 929	(Z)	(Z)	(Z)	MT
3 168	1 659	109	385	5 032	292	24 245	10 205	(Z)	(Z)	(Z)	NE
—	(D)	—	(D)	(D)	(D)	9 647	5 330	(D)	(D)	(D)	NV
7 038	2 587	599	215	6 536	130	15 740	8 174	18	15	(Z)	NH
23 659	12 518	6 315	1 873	37 980	1 581	213 386	123 530	1	1	8	NJ
(D)	*4 075	—	62	2 693	513	(D)	25 315	22	(D)	18	NM
195 440	49 209	21 846	11 569	145 104	3 583	323 040	176 688	1	2	4	NY
18 743	22 375	3 647	2 521	18 246	1 694	144 088	44 494	(Z)	(Z)	(Z)	NC
5 492	(D)	(D)	499	6 957	218	21 090	9 765	(Z)	(Z)	(Z)	ND
62 160	44 013	4 309	9 219	50 896	1 660	203 375	94 500	2	2	7	OH
17 064	16 766	2 799	1 828	30 683	649	62 085	34 913	7	6	8	OK
19 486	2 250	3 400	1 576	5 830	421	55 915	22 370	(Z)	(Z)	12	OR
103 585	92 672	11 709	5 705	107 236	3 425	461 661	232 990	5	3	3	PA
6 126	4 809	1 143	652	4 307	87	16 094	7 264	(Z)	(Z)	(Z)	RI
8 789	23 931	1 513	1 030	13 086	825	102 591	31 931	4	4	25	SC
(D)	(D)	(D)	47	822	(D)	(D)	(D)	(Z)	(D)	(Z)	SD
67 160	28 049	2 408	4 702	45 864	1 230	114 007	53 398	4	4	6	TN
25 409	50 843	5 907	5 554	40 775	3 950	400 159	194 806	7	5	10	TX
11 050	6 127	517	660	5 974	(D)	(D)	5 057	19	20	16	UT
5 287	3 518	148	704	11 069	305	30 722	16 245	17	12	(Z)	VT
35 200	18 671	5 297	1 089	26 413	2 440	278 343	84 944	7	6	14	VA
45 245	13 515	6 763	4 344	52 021	827	126 006	49 229	1	1	(Z)	WA
5 609	(S)	601	376	10 513	290	31 295	15 174	(Z)	(Z)	(Z)	WV
112 777	22 867	3 637	6 757	55 340	977	148 661	61 930	(Z)	(Z)	1	WI
5 057	3 537	506	1 109	*9 848	(D)	(D)	(D)	22	19	39	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 .....	1 041	1 159	999	979	3	3	2	2
Proprietors and working partners .....	103	161	162	256	12	15	9	7
All employees** .....	43 701	47 494	37 581	38 093	1	1	(Z)	(Z)
Construction workers:								
March .....	29 284	33 019	26 749	25 728	1	1	(Z)	(Z)
May .....	37 483	41 884	33 565	33 852	1	1	(Z)	(Z)
August .....	41 405	45 462	36 474	38 435	1	1	(Z)	(Z)
November .....	36 291	40 012	32 703	34 653	1	1	(Z)	(Z)
Average .....	36 116	40 092	32 473	33 187	1	1	(Z)	(Z)
Other employees:								
March .....	7 423	7 255	5 102	4 793	1	1	1	(Z)
May .....	7 574	7 379	(NA)	(NA)	1	1	(NA)	(NA)
August .....	7 760	7 562	(NA)	(NA)	1	1	(NA)	(NA)
November .....	7 585	7 404	(NA)	(NA)	1	1	(NA)	(NA)
Average .....	7 585	7 402	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees .....	1 485 491	1 191 764	815 514	535 877	(Z)	1	(Z)	(Z)
Payroll, construction workers .....	1 125 201	909 919	664 873	438 750	(Z)	(Z)	(Z)	(Z)
Payroll, other employees .....	360 290	281 844	150 641	97 128	1	1	(Z)	(Z)
First-quarter payroll, all employees .....	289 139	227 384	157 316	96 496	1	1	(Z)	(Z)
Fringe benefits, all employees .....	498 795	341 151	154 749	107 594	1	1	(Z)	(Z)
Legally required expenditures .....	302 296	225 313	115 304	64 721	1	1	(Z)	(Z)
Voluntary expenditures .....	196 500	115 838	39 445	42 873	1	1	1	(Z)
Dollar value of business done .....	7 286 936	5 579 414	3 549 200	2 270 818	1	1	(Z)	(Z)
Value of construction work .....	7 198 275	5 480 936	3 503 890	2 247 284	1	1	(Z)	(Z)
Value of construction work subcontracted in from others .....	874 650	745 097	377 277	300 775	3	3	1	1
Other business receipts .....	88 662	98 477	45 310	23 534	1	1	(Z)	1
Net value of construction work† .....	5 315 950	4 186 846	2 812 186	1 827 239	1	1	(Z)	(Z)
Value added†† .....	3 078 306	2 430 434	1 468 448	962 687	1	1	(Z)	(Z)
Selected costs .....	4 208 630	3 148 979	2 080 752	1 308 131	1	1	(Z)	(Z)
Materials, components, and supplies .....	2 218 403	1 767 054	1 319 225	846 600	1	1	(Z)	(Z)
Construction work subcontracted out to others .....	1 882 325	1 294 090	691 704	420 045	1	1	(Z)	(Z)
Selected power, fuels, and lubricants .....	107 903	87 835	69 822	41 487	1	1	(Z)	(Z)
Electricity .....	18 040	12 623	8 964	3 281	1	1	(Z)	(Z)
Natural and manufactured gas .....	4 570	2 711	2 543	5 929	2	1	1	(Z)
Gasoline and diesel fuel .....	77 602	65 599	52 429	28 249	1	1	1	(Z)
On highway use .....	38 903	31 998	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use .....	38 699	33 600	(NA)	(NA)	1	1	(NA)	(NA)
Other, including lubricating oils and greases .....	7 691	6 901	5 885	4 029	2	1	1	1
Rental cost for machinery, equipment, and buildings .....	182 852	129 896	79 216	62 763	2	2	1	1
For machinery and equipment .....	158 897	118 516	71 952	59 428	2	2	1	1
For buildings .....	23 955	11 380	7 263	3 336	2	2	1	(Z)
Selected purchased services .....	135 848	121 319	80 717	50 732	2	1	1	(Z)
Communication services .....	18 929	12 750	9 678	5 132	2	1	1	1
Repairs to buildings and other structures .....	5 010	3 950	2 381	2 168	6	1	2	1
Repairs to machinery and equipment .....	111 909	104 618	68 657	43 432	2	1	(Z)	(Z)
Ownership of construction projects:								
Value of construction work .....	7 198 275	5 480 936	3 503 890	2 247 284	1	1	(Z)	(Z)
Government owned .....	6 604 244	4 803 659	3 011 288	1 904 579	1	1	(Z)	(Z)
Federal .....	840 864	1 100 377	(NA)	(NA)	2	1	(NA)	(NA)
State and local .....	5 763 380	3 703 281	(NA)	(NA)	1	1	(NA)	(NA)
Privately owned .....	594 030	677 277	492 601	342 705	2	2	1	(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 .....	1 528 591	1 210 909	1	1
Capital expenditures, other than land .....	155 163	151 743	1	2
New .....	115 302	107 836	2	2
Used .....	39 861	43 907	2	4
Retirements and disposition of depreciable assets.....	80 956	61 476	2	5
End-of-year gross book value of depreciable assets .....	1 602 798	1 301 176	1	1
Depreciation charges during year .....	151 083	128 527	1	1
<b>Buildings and Other Structures, Additions, and Related Facilities</b>				
Beginning-of-year gross book value of depreciable assets .....	90 430	102 438	2	4
Capital expenditures, other than land .....	3 694	12 035	6	6
New buildings and other structures .....	2 602	9 174	4	7
Used buildings and other structures.....	1 092	2 861	18	12
Retirements and disposition of depreciable assets.....	*2 835	642	43	16
End-of-year gross book value of depreciable assets .....	91 289	113 831	1	4
Depreciation charges during year .....	5 961	9 216	2	6
<b>Machinery and Equipment</b>				
Beginning-of-year gross book value of depreciable assets .....	1 438 161	1 108 471	1	1
Capital expenditures, other than land .....	151 468	139 707	1	2
New machinery and equipment, including automobiles and trucks .....	112 700	98 661	2	1
New automobiles and trucks, intended primarily for highway use .....	28 490	25 293	3	2
Used machinery and equipment, including automobiles and trucks .....	38 769	41 045	2	4
Retirements and disposition of depreciable assets.....	78 121	60 834	1	5
End-of-year gross book value of depreciable assets .....	1 511 509	1 187 344	1	1
Depreciation charges during year .....	145 122	119 311	1	1

**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 .....	1 041	3
Value of construction work .....	7 198 275	1
<b>Establishments with inventories:</b>		
Number .....	320	4
Value of construction work .....	2 412 162	1
<b>Inventories<sup>1</sup>:</b>		
End of 1992, materials and supplies .....	27 928	4
End of 1991, materials and supplies .....	30 736	2
<b>Establishments with no inventories:</b>		
Number .....	507	4
Value of construction work .....	3 809 444	1
<b>Establishments not reporting:</b>		
Number .....	213	5
Value of construction work .....	976 668	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 .....	1 041	158	164	232	262	133	68	17	4	2
All employees** .....	43 701	380	1 094	3 198	8 497	9 219	10 495	5 527	5 293	(D)
Payroll, all employees .....	1 485 491	10 379	34 455	94 051	262 095	299 111	374 045	217 988	193 367	(D)
Dollar value of business done .....	7 286 936	62 150	149 533	485 193	1 225 465	1 497 001	1 787 493	1 213 194	866 907	(D)
Value of construction work .....	7 198 275	60 875	147 833	479 485	1 212 069	1 480 227	1 759 043	1 202 031	856 713	(D)
Net value of construction work† .....	5 315 950	51 887	116 855	384 935	940 330	1 099 353	1 281 839	782 596	658 154	(D)
Value added†† .....	3 078 306	29 379	71 669	230 194	564 673	602 184	788 024	445 917	346 266	(D)
Cost of materials, components, supplies, and fuels .....	2 326 306	23 783	46 886	160 450	389 054	513 943	522 265	347 842	322 082	(D)
Cost of construction work subcontracted out to others .....	1 882 325	8 987	30 978	94 549	271 738	380 874	477 204	419 435	198 559	(D)
Rental cost for machinery, equipment, and buildings .....	182 852	1 700	3 134	11 867	34 185	37 953	33 519	40 485	20 010	(D)
Capital expenditures, other than land .....	155 163	1 055	3 337	13 220	30 813	35 008	33 599	19 649	18 482	(D)
End-of-year gross book value of depreciable assets .....	1 602 798	27 125	37 570	127 816	318 116	306 944	419 851	178 544	186 832	(D)
<b>1987</b>										
All employees** .....	47 494	490	1 305	3 152	9 105	9 768	11 615	6 129	5 926	—
Value of construction work .....	5 480 936	80 216	105 440	311 214	1 012 190	1 195 049	1 467 884	662 080	646 862	—
Value added†† .....	2 430 434	40 075	60 692	162 045	464 736	536 510	598 293	287 386	280 696	—
<b>1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>										
All employees** .....	1	16	9	6	2	(Z)	(Z)	(Z)	(Z)	(D)
Net value of construction work† .....	1	19	8	10	3	(Z)	(Z)	(Z)	(Z)	(D)
Capital expenditures, other than land .....	1	25	18	9	3	(Z)	(Z)	(Z)	(Z)	(D)

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 .....	1 041	(S)	14	23	33	97	143	242	170	144	163
All employees** .....	43 701	(S)	25	22	137	453	1 249	4 146	5 094	7 100	25 468
Payroll, all employees .....	1 485 491	(S)	170	434	2 005	9 702	27 863	108 481	141 763	233 937	961 100
Dollar value of business done .....	7 286 936	(S)	488	1 403	5 229	34 994	103 801	394 467	582 870	1 029 201	5 134 343
Value of construction work .....	7 198 275	(S)	484	1 399	5 109	34 404	101 723	386 646	575 406	1 016 053	5 076 910
Net value of construction work† .....	5 315 950	(S)	431	(S)	4 784	31 864	89 586	322 928	457 381	801 679	3 606 218
Value added†† .....	3 078 306	(S)	270	(S)	2 984	19 216	59 210	182 323	271 146	461 104	2 081 257
Cost of materials, components, supplies, and fuels .....	2 326 306	(S)	165	248	1 920	13 238	32 454	148 427	193 699	353 723	1 582 394
Cost of construction work subcontracted out to others .....	1 882 325	(S)	53	(S)	325	2 540	12 137	63 717	118 025	214 374	1 470 692
Rental cost for machinery, equipment, and buildings .....	182 852	(S)	12	72	281	1 146	3 885	10 498	17 728	25 834	123 392
Capital expenditures, other than land .....	155 163	(S)	8	(S)	(S)	915	4 190	11 279	15 420	27 317	95 854
End-of-year gross book value of depreciable assets .....	1 602 798	33	441	338	(S)	18 316	41 222	135 506	184 561	259 341	960 999
<b>1987</b>											
All employees** .....	47 494	(S)	(S)	*140	393	977	1 708	4 861	5 707	8 354	25 337
Value of construction work .....	5 480 936	(S)	(S)	3 081	14 694	58 723	120 023	392 836	571 431	942 730	3 376 825
Value added†† .....	2 430 434	(S)	(S)	2 138	8 828	35 693	68 266	198 640	281 734	423 046	1 411 842
<b>1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** .....	1	(S)	10	38	4	14	11	5	2	1	(Z)
Net value of construction work† .....	1	(S)	9	(S)	3	16	10	5	2	4	1
Capital expenditures, other than land .....	1	(S)	(Z)	(S)	(S)	20	25	10	1	(Z)	(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>7 198 275</b>	<b>4 872 281</b>	<b>1 771 950</b>	<b>554 014</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>
Building construction .....	88 456	73 772	9 366	5 318	3	4	6	8
Nonbuilding construction .....	7 109 789	4 798 508	1 762 584	548 696	1	1	1	2
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc. ....	605 191	373 621	170 878	60 693	1	1	1	3
Bridges, tunnels, and elevated highways .....	6 005 289	4 126 291	1 452 536	426 463	1	1	1	2
Tunnels .....	839 811	794 175	24 207	21 429	5	5	10	10
Bridges and elevated highways .....	5 165 478	3 332 116	1 428 328	405 034	1	1	1	2
Marine construction .....	48 537	34 376	10 284	3 877	(Z)	(Z)	(Z)	(Z)
Conservation and development construction .....	40 405	19 193	1 466	19 746	(Z)	(Z)	(Z)	(Z)
Sewers, water mains, and related facilities .....	126 824	66 529	51 110	9 185	2	3	1	4
Sewers, sewer lines, septic systems, and related facilities .....	87 124	50 414	28 312	8 398	(Z)	(Z)	(Z)	(Z)
Water mains and related facilities .....	39 700	16 116	22 798	*786	6	11	2	41
Mass transit construction .....	35 642	17 488	11 207	6 947	(Z)	(Z)	(Z)	(Z)
Sewage treatment and water treatment plants .....	97 579	77 490	17 196	2 893	1	(Z)	8	(Z)
Sewage treatment plants .....	51 874	37 889	12 100	1 885	3	(Z)	11	(Z)
Water treatment plants .....	45 705	39 602	5 096	5 096	(S)	1	(Z)	3
Other nonbuilding construction .....	150 323	83 521	47 908	18 894	2	2	1	5
Construction work, n.s.k. ....	30	(NA)	(NA)	(NA)	(Z)	(NA)	(NA)	(NA)
<b>1987</b>								
<b>Value of construction work</b> .....	<b>5 480 936</b>	<b>3 948 853</b>	<b>1 105 166</b>	<b>371 889</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Building construction .....	133 195	81 232	45 106	6 856	3	4	3	2
Nonbuilding construction .....	5 292 714	3 867 621	1 060 059	365 033	1	1	1	2
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc. ....	387 161	267 621	83 705	35 834	1	(Z)	3	1
Bridges, tunnels, and elevated highways .....	4 476 501	3 259 359	916 856	300 284	1	1	1	2
Tunnels .....	505 987	403 843	77 737	24 407	1	1	1	3
Bridges and elevated highways .....	3 970 513	2 855 516	839 119	275 877	1	1	1	2
Marine construction .....	29 291	20 764	(D)	(D)	1	2	(D)	(D)
Conservation and development construction .....	25 624	23 160	2 233	231	1	1	(Z)	39
Sewers, water mains, and related facilities .....	93 450	72 816	17 436	3 196	2	2	4	3
Sewers, sewer lines, septic systems, and related facilities .....	52 406	40 814	9 586	2 004	2	2	2	2
Water mains and related facilities .....	41 044	32 001	7 850	1 191	4	4	7	6
Sewage treatment and water treatment plants .....	113 394	99 144	10 747	3 502	1	1	(Z)	10
Sewage treatment plants .....	71 097	(D)	(D)	2 251	1	(D)	(D)	10
Water treatment plants .....	42 296	(D)	(D)	1 251	(Z)	(D)	(D)	9
Other nonbuilding construction .....	167 293	124 757	(D)	(D)	(NA)	(NA)	(D)	(D)
Construction work, n.s.k. ....	55 027	(NA)	(NA)	(NA)	10	(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
				A	B				C	D	E
<b>All establishments</b> .....	<b>1 041</b>	<b>43 701</b>	<b>1 485 491</b>	<b>7 198 275</b>	<b>5 665 961</b>	<b>5 315 950</b>	<b>3 078 306</b>	<b>1 882 325</b>	<b>1</b>	<b>1</b>	<b>1</b>
Establishments not specializing by type .....	35	3 505	145 229	576 146	(NA)	439 557	233 181	136 589	2	1	1
Establishments specializing 51 percent or more .....	1 006	40 197	1 340 262	6 622 128	5 665 961	4 876 393	2 845 125	1 745 735	1	1	1
<b>TUNNELS</b>											
<b>All establishments specializing in type</b> .....	<b>122</b>	<b>3 761</b>	<b>148 809</b>	<b>808 517</b>	<b>749 264</b>	<b>624 897</b>	<b>408 481</b>	<b>183 620</b>	<b>3</b>	<b>5</b>	<b>5</b>
Establishments with —											
100 percent specialization .....	102	2 710	111 994	624 592	624 592	476 291	307 243	148 301	4	6	3
90 to 99 percent specialization .....	*6	*83	*1 892	*15 312	*13 885	*5 823	*4 405	(S)	52	66	(S)
80 to 89 percent specialization .....	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
70 to 79 percent specialization .....	8	626	22 022	(D)	68 509	85 643	56 836	(D)	(Z)	(D)	(D)
60 to 69 percent specialization .....	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
51 to 59 percent specialization .....	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
<b>BRIDGES AND ELEVATED HIGHWAYS</b>											
<b>All establishments specializing in type</b> .....	<b>884</b>	<b>36 436</b>	<b>1 191 453</b>	<b>5 813 611</b>	<b>4 916 697</b>	<b>4 251 495</b>	<b>2 436 644</b>	<b>1 562 116</b>	<b>1</b>	<b>1</b>	<b>(Z)</b>
Establishments with —											
100 percent specialization .....	500	15 531	482 956	2 423 367	2 423 367	1 786 669	1 021 689	636 698	1	1	1
90 to 99 percent specialization .....	65	4 425	141 297	726 774	679 426	531 049	281 131	195 725	1	2	2
80 to 89 percent specialization .....	65	3 736	128 485	626 902	529 516	474 051	291 805	152 851	1	1	(Z)
70 to 79 percent specialization .....	97	3 613	120 662	582 287	427 389	414 243	238 605	168 045	2	1	1
60 to 69 percent specialization .....	80	4 778	154 454	735 780	464 756	527 629	313 315	208 151	1	1	1
51 to 59 percent specialization .....	77	4 353	163 598	718 501	392 243	517 855	290 098	200 646	4	1	(Z)

**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
<b>United States .....</b>	<b>1 041</b>	<b>36 116</b>	<b>29 284</b>	<b>37 483</b>	<b>41 405</b>	<b>36 291</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Alabama .....	15	632	553	611	673	692	17	4	5	4	4	4	5
Alaska .....	4	83	96	84	85	66	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Arizona .....	1	(D)	(D)	(D)	(D)	(D)	(Z)	(D)	(D)	(D)	(D)	(D)	(D)
Arkansas .....	19	255	202	252	283	283	24	15	17	16	15	14	14
California .....	50	1 809	1 549	1 747	2 001	1 939	11	1	1	1	2	2	2
Colorado .....	10	291	237	295	341	290	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Connecticut .....	26	921	667	885	1 103	1 028	9	2	2	1	2	2	2
Delaware .....	(S)	52	34	48	52	75	(S)	29	22	31	29	30	30
District of Columbia .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Florida .....	32	1 476	1 420	1 495	1 509	1 480	10	4	5	4	3	4	4
Georgia .....	27	802	758	842	831	777	31	13	12	14	13	12	12
Hawaii .....	2	(D)	(D)	(D)	(D)	(D)	(Z)	(D)	(D)	(D)	(D)	(D)	(D)
Idaho .....	4	81	77	84	87	77	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Illinois .....	52	2 594	1 878	2 864	3 157	2 479	10	3	4	3	2	3	3
Indiana .....	32	1 852	1 731	1 961	2 049	1 668	5	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Iowa .....	28	673	492	716	762	723	16	5	8	6	5	5	5
Kansas .....	18	805	700	879	879	765	13	3	3	4	2	3	3
Kentucky .....	24	607	512	594	661	662	31	1	(Z)	(Z)	(Z)	(Z)	(Z)
Louisiana .....	12	(D)	(D)	(D)	(D)	(D)	18	(D)	(D)	(D)	(D)	(D)	(D)
Maine .....	3	(D)	(D)	(D)	(D)	(D)	(Z)	(D)	(D)	(D)	(D)	(D)	(D)
Maryland .....	22	807	711	805	879	832	34	3	2	3	3	2	2
Massachusetts .....	32	1 178	1 049	1 302	1 202	1 159	10	3	3	3	3	3	3
Michigan .....	29	495	240	508	653	578	20	6	4	11	3	4	4
Minnesota .....	11	722	479	782	930	695	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Mississippi .....	12	855	708	868	930	915	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Missouri .....	38	980	840	1 094	1 168	818	17	4	3	5	5	5	5
Montana .....	5	100	82	122	92	102	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Nebraska .....	6	50	48	51	44	55	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Nevada .....	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
New Hampshire .....	7	86	58	97	105	82	16	11	6	7	12	19	19
New Jersey .....	24	846	688	874	949	871	9	1	1	1	1	2	2
New Mexico .....	(S)	118	124	126	111	110	(S)	19	18	22	15	20	20
New York .....	96	3 462	2 558	3 389	4 214	3 685	11	1	1	2	1	1	1
North Carolina .....	14	511	476	540	534	494	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
North Dakota .....	4	157	52	205	222	147	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Ohio .....	57	1 294	980	1 511	1 597	1 088	10	2	2	2	1	2	2
Oklahoma .....	29	607	593	611	597	626	18	7	6	6	7	9	9
Oregon .....	7	203	215	199	205	194	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Pennsylvania .....	66	2 398	1 524	2 620	2 941	2 505	6	7	4	5	8	8	8
Rhode Island .....	4	106	(D)	115	92	(D)	(Z)	(Z)	(D)	(Z)	(Z)	(D)	(D)
South Carolina .....	13	364	402	369	368	318	21	4	4	4	4	4	4
South Dakota .....	3	31	(D)	34	35	(D)	(Z)	(Z)	(Z)	(Z)	(Z)	(D)	(D)
Tennessee .....	30	1 262	1 103	1 212	1 404	1 327	14	4	4	4	4	4	4
Texas .....	56	1 136	1 025	1 132	1 195	1 192	14	7	8	9	7	6	6
Utah .....	*9	117	103	108	120	138	51	19	17	16	15	19	19
Vermont .....	13	216	88	220	300	255	26	17	21	18	15	16	16
Virginia .....	29	836	799	850	883	812	16	7	6	7	7	7	7
Washington .....	23	1 023	672	1 026	1 307	1 086	15	1	(Z)	(Z)	2	2	2
West Virginia .....	6	119	80	115	147	132	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Wisconsin .....	12	1 007	511	1 188	1 353	976	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Wyoming .....	*8	172	98	169	264	159	50	25	27	16	31	23	23

<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						
		Number	Value of construction work	Number	Value of construction work					
	A	B	C	D	E					
<b>United States</b> .....	<b>7 198 275</b>	<b>1 020</b>	<b>5 956 432</b>	<b>468</b>	<b>1 241 843</b>	<b>5 480 936</b>	<b>31.3</b>	<b>1</b>	<b>1</b>	<b>1</b>
Alabama .....	88 300	15	71 440	7	16 860	73 421	20.3	2	3	(Z)
Alaska .....	24 166	4	(D)	1	(D)	(D)	(D)	(Z)	(D)	(D)
Arizona .....	15 964	1	(D)	5	(D)	143 031	-88.8	(Z)	(D)	(D)
Arkansas .....	62 624	18	34 058	19	28 566	46 461	34.8	7	13	2
California .....	658 287	50	580 269	11	78 018	266 677	146.8	1	1	(Z)
Colorado .....	80 877	10	(D)	6	(D)	88 118	-8.2	(Z)	(D)	(D)
Connecticut .....	163 344	26	151 580	10	11 763	104 748	55.9	2	2	1
Delaware .....	37 059	(S)	(D)	9	(D)	14 527	155.1	2	(D)	(D)
District of Columbia .....	(D)	-	-	6	(D)	(D)	(D)	(D)	-	(D)
Florida .....	408 197	32	290 902	13	117 295	170 112	140.0	1	2	2
Georgia .....	112 829	27	95 981	13	16 848	161 513	-30.1	7	8	1
Hawaii .....	53 897	2	(D)	3	(D)	(D)	(D)	(Z)	(D)	(D)
Idaho .....	11 802	4	(D)	1	(D)	18 956	-37.7	(Z)	(D)	(D)
Illinois .....	610 871	52	529 545	17	81 326	245 685	148.6	6	7	11
Indiana .....	114 536	32	(D)	4	(D)	124 709	-8.2	(Z)	(D)	(D)
Iowa .....	89 570	27	58 563	8	31 007	62 723	42.8	4	6	(Z)
Kansas .....	83 871	15	75 206	13	8 665	120 689	-30.5	2	(Z)	17
Kentucky .....	95 413	24	87 615	*8	7 798	70 975	34.4	1	1	8
Louisiana .....	210 420	12	(D)	11	(D)	103 820	102.7	1	(D)	(D)
Maine .....	(D)	3	(D)	5	(D)	(D)	(D)	(D)	(D)	(D)
Maryland .....	108 455	22	75 273	27	33 182	137 609	-21.2	2	3	3
Massachusetts .....	496 481	32	487 228	13	9 253	44 712	1 010.4	2	2	(Z)
Michigan .....	104 311	29	(D)	3	(D)	114 384	-8.8	2	(D)	(D)
Minnesota .....	158 869	11	(D)	6	(D)	135 847	16.9	(Z)	(D)	(D)
Mississippi .....	105 405	12	83 729	8	21 676	84 055	25.4	(Z)	(Z)	(Z)
Missouri .....	151 739	34	111 293	16	40 445	125 066	21.3	12	15	16
Montana .....	19 856	5	(D)	2	(D)	8 107	144.9	(Z)	(D)	(D)
Nebraska .....	22 715	5	10 237	6	12 478	20 685	9.8	(Z)	(Z)	(Z)
Nevada .....	(D)	1	(D)	3	(D)	12 164	(D)	(D)	(D)	(D)
New Hampshire .....	28 668	6	16 836	12	11 832	29 644	-3.3	12	15	21
New Jersey .....	158 886	21	129 127	18	29 759	253 904	-37.4	(Z)	1	(Z)
New Mexico .....	(D)	(S)	(D)	*3	(D)	13 310	(D)	(D)	(D)	(D)
New York .....	782 350	96	708 666	19	73 684	371 631	110.5	2	2	3
North Carolina .....	70 992	14	64 796	19	6 195	163 455	-56.6	(Z)	(Z)	2
North Dakota .....	25 375	4	(D)	3	(D)	14 399	76.2	(Z)	(D)	(D)
Ohio .....	260 335	56	236 441	9	23 894	179 728	44.8	2	2	3
Oklahoma .....	71 892	29	(D)	4	(D)	95 879	-25.0	6	(D)	(D)
Oregon .....	61 755	7	43 882	7	17 873	67 148	-8.0	(Z)	(Z)	(Z)
Pennsylvania .....	346 262	64	304 755	20	41 506	387 042	-10.5	3	3	2
Rhode Island .....	25 993	4	22 927	5	3 066	24 864	4.5	(Z)	(Z)	(Z)
South Carolina .....	90 267	13	45 474	*15	44 792	113 544	-20.5	2	4	1
South Dakota .....	9 675	3	3 780	5	5 894	11 049	-12.4	(Z)	(Z)	(Z)
Tennessee .....	199 416	30	(D)	*8	(D)	108 016	84.6	3	(D)	(D)
Texas .....	263 147	56	151 428	16	111 719	469 842	-44.0	3	5	1
Utah .....	19 707	*9	19 707	-	-	(D)	(D)	16	16	-
Vermont .....	15 991	13	(D)	1	(D)	23 098	-30.8	10	(D)	(D)
Virginia .....	124 593	25	109 990	14	14 603	282 506	-55.9	5	6	(Z)
Washington .....	206 888	23	185 146	10	21 742	134 849	53.4	1	1	(Z)
West Virginia .....	59 587	6	26 965	15	32 622	45 756	30.2	(Z)	(Z)	(Z)
Wisconsin .....	219 970	12	209 188	7	10 782	124 934	76.1	(Z)	(Z)	7
Wyoming .....	17 374	*8	(D)	3	(D)	(D)	(D)	25	(D)	(D)



**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>7 286 936</b>	<b>5 579 414</b>	<b>1</b>	<b>1</b>
<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>				
General building contractor .....	55 792	130 323	5	4
<b>HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS</b>				
Excavating, earthmoving, and land clearing contractor, not connected with buildings .....	29 793	72 514	2	4
Heavy construction contractor .....	6 421 754	4 834 262	1	1
Highway and street general contractor .....	537 436	309 420	1	1
Paving contractor .....	86 478	67 994	3	(Z)
Other construction activities .....	82 388	57 966	2	12
Other business activities .....	73 295	96 925	1	(NA)
Kind of business activity, n.s.k. ....	—	10 009	—	(Z)

**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** .....	42.0	41.0	2
Number of construction workers.....	34.7	34.6	2
Number of all other employees .....	7.3	6.4	2
Payroll, all employees .....	1 427.5	1 028.3	2
Payroll, construction workers.....	1 081.3	785.1	2
Payroll, other employees .....	346.2	243.2	2
Dollar value of business done.....	7 002.7	4 814.0	2
Value of construction work .....	6 917.5	4 729.0	2
Cost of materials, components, supplies, and fuels.....	2 235.6	1 600.4	2
Construction work subcontracted to others .....	1 808.9	1 116.6	3
Rental cost for machinery, equipment, and buildings .....	175.7	112.1	3
Capital expenditures, other than land .....	149.1	130.9	3
Gross book value of depreciable assets .....	1 540.3	1 122.7	2
<b>AVERAGE PER EMPLOYEE</b>			
Payroll, all employees .....	34.0	25.1	(Z)
Dollar value of business done.....	166.7	117.5	1
Value added†† .....	70.4	51.2	1
<b>AVERAGE PER CONSTRUCTION WORKER</b>			
Payroll, construction workers.....	31.2	22.7	(Z)
Value of construction work .....	199.3	136.7	1
<b>AVERAGE PER OTHER EMPLOYEE</b>			
Payroll, other employees .....	47.5	38.1	(Z)
<b>AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK</b>			
Payroll, all employees .....	.206	.217	(Z)
Cost of materials, components, supplies, and fuels.....	.323	.338	(Z)
Cost of construction work subcontracted out to others .....	.261	.236	1
Value of construction work subcontracted in from others .....	.122	.136	2
Rental cost for machinery, equipment, and buildings .....	.025	.024	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>42.0</b>	<b>34.0</b>	<b>199.3</b>	<b>.206</b>	<b>.323</b>	<b>.261</b>	<b>.122</b>	<b>.025</b>
Alabama .....	50.7	21.3	146.3	.176	.401	.311	.177	.009
Alaska .....	29.5	51.3	301.9	.241	.568	.087	(D)	.030
Arizona .....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Arkansas .....	16.3	19.9	134.7	.179	.307	.287	.124	.015
California .....	44.7	44.9	327.4	.171	.303	.397	.211	.036
Colorado .....	35.8	32.4	252.9	.158	(D)	.366	.173	.013
Connecticut .....	44.6	37.2	198.1	.238	.286	.216	.091	.051
Delaware .....	7.5	34.6	229.1	.218	(D)	(D)	.069	.016
District of Columbia .....	-	-	-	-	-	-	-	-
Florida .....	55.8	25.3	211.8	.144	.411	.342	.123	.039
Georgia .....	37.1	22.0	137.7	.200	.286	.230	.275	.008
Hawaii .....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Idaho .....	25.0	28.8	150.4	.236	.404	.134	.013	.007
Illinois .....	59.4	41.8	212.9	.232	.240	.249	.055	.022
Indiana .....	70.7	41.0	191.5	.260	.438	.186	.035	.018
Iowa .....	28.0	23.4	108.7	.254	.571	.153	.099	.007
Kansas .....	51.8	25.7	131.9	.223	.413	.235	.181	.017
Kentucky .....	29.8	30.9	179.4	.202	.388	.223	.136	.018
Louisiana .....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Maine .....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Maryland .....	43.0	22.7	95.0	.280	.323	.185	.030	.024
Massachusetts .....	48.8	44.7	422.1	.140	.247	.347	.027	.015
Michigan .....	21.1	35.7	219.3	.200	.314	.302	.143	.011
Minnesota .....	77.9	33.1	197.5	.199	.398	(D)	.019	.046
Mississippi .....	81.5	21.9	139.5	.179	(D)	.308	.142	.025
Missouri .....	31.3	31.7	190.9	.203	.360	.172	.128	.022
Montana .....	22.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Nebraska .....	10.5	32.6	293.2	.140	.277	.216	.113	.007
Nevada .....	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
New Hampshire .....	16.1	31.0	228.3	.189	.325	.358	.132	.031
New Jersey .....	45.2	45.7	200.6	.287	.323	.139	.074	.037
New Mexico .....	*18.1	(D)	157.2	(D)	.394	(D)	*.220	-
New York .....	44.1	43.5	219.8	.242	.247	.257	.065	.029
North Carolina .....	42.8	23.5	140.4	.196	.376	.261	.312	.051
North Dakota .....	45.5	29.3	158.8	.214	.347	.220	(D)	(D)
Ohio .....	30.1	35.8	215.2	.220	.334	.223	.158	.015
Oklahoma .....	23.7	25.8	153.9	.191	.408	.183	.180	.030
Oregon .....	36.1	37.6	283.5	.165	(D)	.339	.039	.059
Pennsylvania .....	44.8	29.4	168.4	.213	.260	.256	.229	.029
Rhode Island .....	34.3	(D)	228.0	(D)	(D)	.253	.199	.047
South Carolina .....	33.0	24.8	136.7	.219	.426	.177	.481	.030
South Dakota .....	12.7	(D)	125.1	(D)	(D)	(D)	(D)	(D)
Tennessee .....	48.5	25.0	161.7	.175	.359	.329	.137	.012
Texas .....	24.6	23.0	155.3	.179	.381	.144	.288	.033
Utah .....	15.8	26.0	186.0	.164	.209	.508	.282	.024
Vermont .....	19.8	22.5	106.9	.246	.336	.229	.152	.006
Virginia .....	33.5	26.2	151.5	.204	.329	.278	.147	.042
Washington .....	61.3	44.5	230.3	.267	.287	.192	.057	.029
West Virginia .....	23.3	40.8	230.4	.208	.360	.205	(S)	.022
Wisconsin .....	96.3	38.3	321.7	.137	(D)	.348	.071	.011
Wyoming .....	27.8	21.0	118.4	.217	.348	.248	.174	.025

## 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

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### 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.