

1992

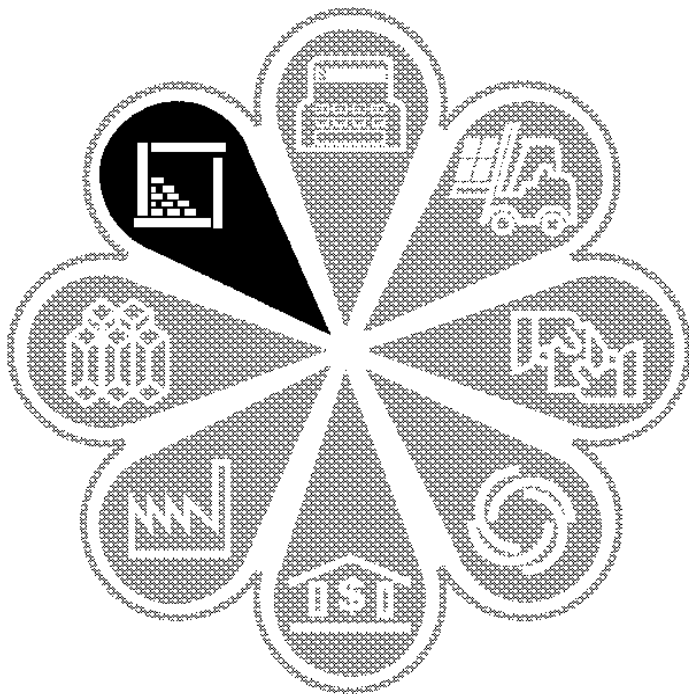
Census of Construction Industries

CC92-I-10

INDUSTRY SERIES

Plumbing, Heating, and Air-Conditioning Special Trade Contractors

Industry 1711



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

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

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



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

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

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

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

AUTHORITY AND SCOPE

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

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

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

AVAILABILITY OF THE DATA

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

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

WHAT'S NEW IN 1992

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

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

HISTORICAL INFORMATION

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

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

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

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

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

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

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

SOURCES FOR MORE INFORMATION

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

Census of Construction

GENERAL

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

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

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

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

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

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

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

ESTABLISHMENT BASIS OF REPORTING

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

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

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

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

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

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

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

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

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

Employer Companies

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

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

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

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

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

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

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

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

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

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

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

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

p_i is the selection probability of that firm.

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

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

Reliability of employer statistics. Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used. The relative standard error is a measure of sampling variability; i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the

relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

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

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

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

Nonemployer Companies

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

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

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

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

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

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

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Summary of Findings

Establishments classified in this industry are primarily engaged in plumbing, heating, or air-conditioning work or any combination of these types of work. Sheet metal work performed by plumbing, heating, and air-conditioning contractors in conjunction with the installation of plumbing, heating, and air-conditioning equipment is included here; but roofing and sheet metal work contractors are classified in Industry 1761, Roofing, Siding, and Sheet Metal Work Special Trade Contractors. For additional examples, refer to the *Standard Industrial Classification Manual: 1987* (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 \$57.7 billion in total dollar value of business. Of this amount, \$56.9 billion were for the value of construction work. These establishments paid out \$21.1 billion for materials, components, and supplies and \$6.1 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$949 million. Value added for 1992 was \$29.4 billion.

There were 75,395 establishments with total employment averaging 612,516 during the year. Total payroll for 1992 was \$16.6 billion.

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

Larger establishments with 20 employees or more, while representing only 8 percent of the total number of employer establishments in this industry, accounted for 56 percent of all business done.

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

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

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

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

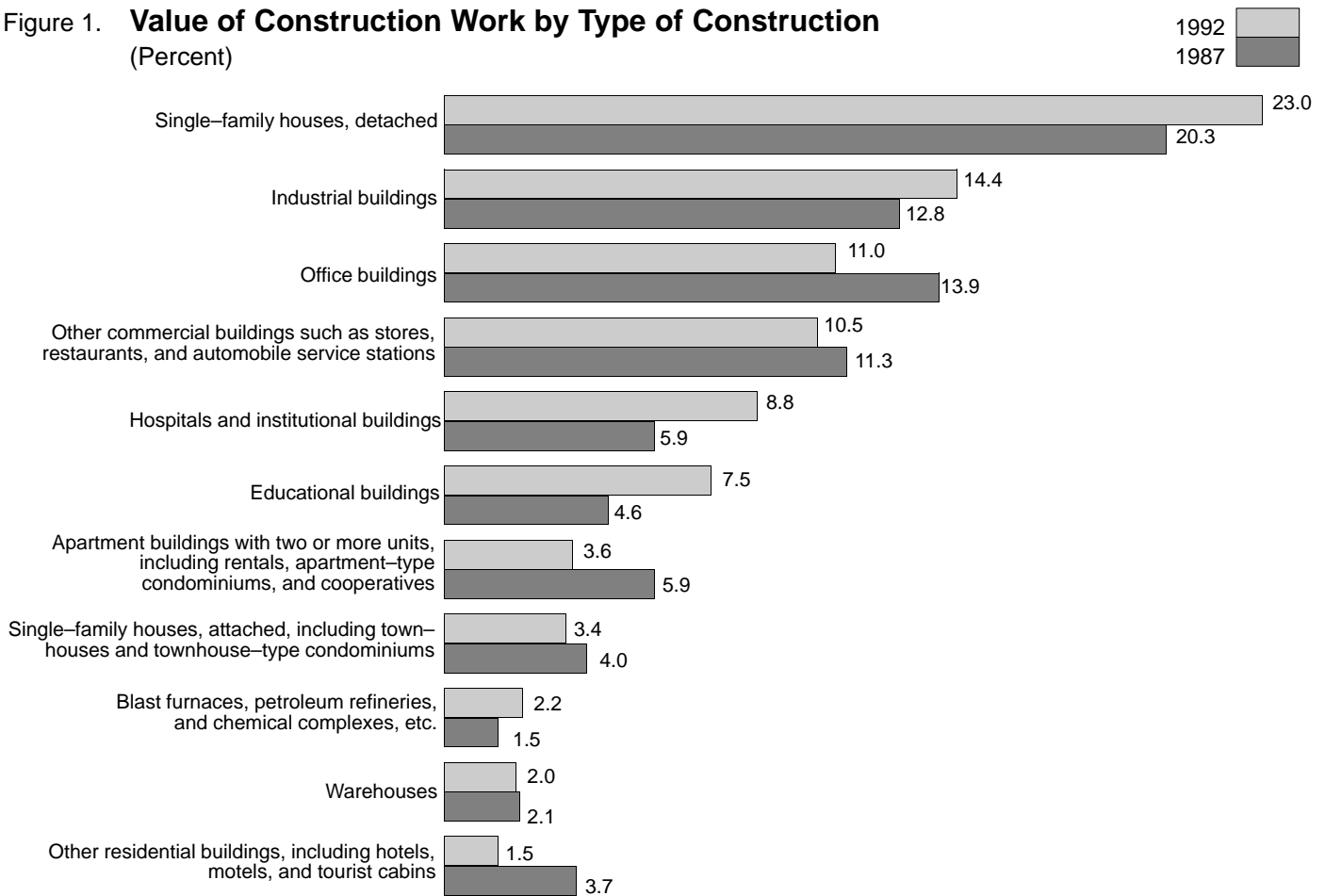


Figure 2. **Selected Costs per Dollar Value of Business Done**
(Percent)

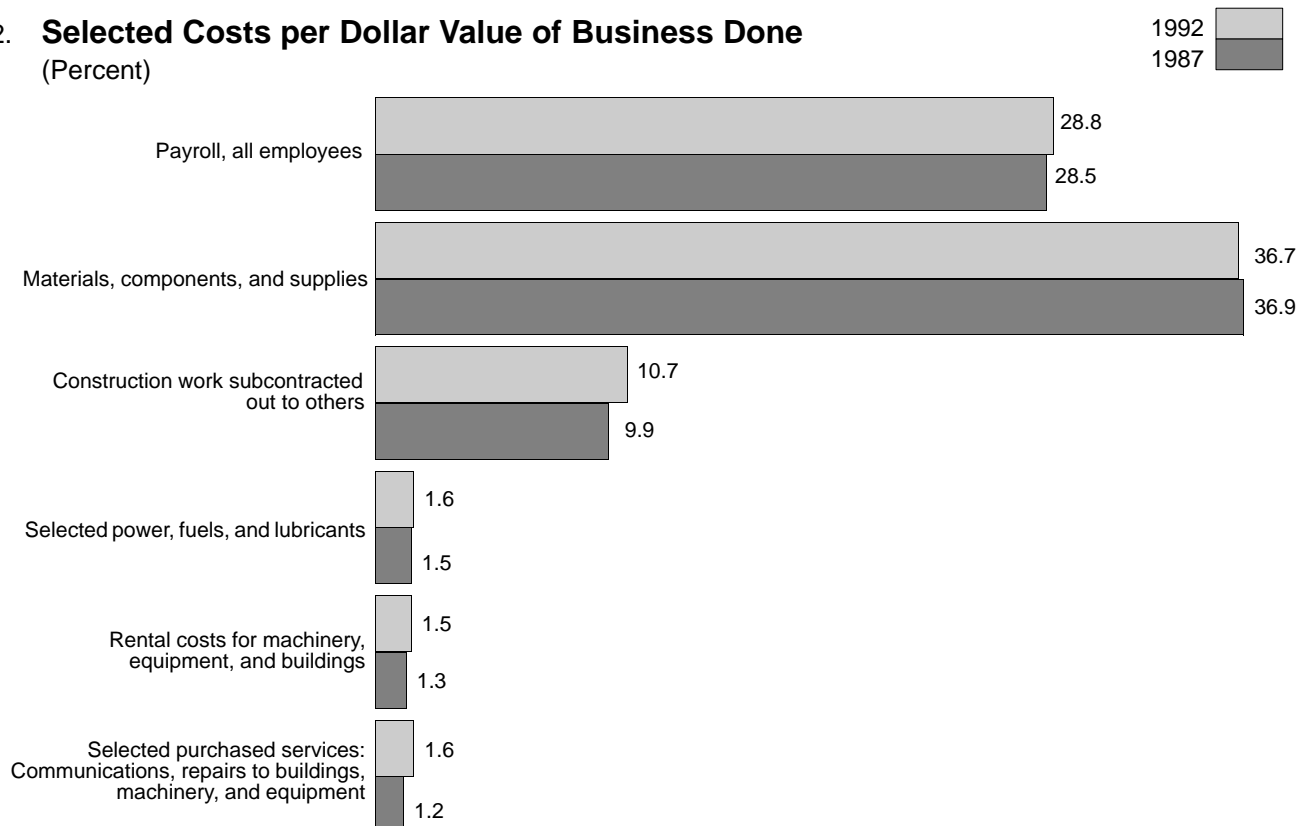


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

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

Location of establishment	1992								
	Number of establishments	Employees**		Payroll		Value of construction work	Net value of construction work†	Value added††	Cost of materials, components, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
United States -----	75 395	612 516	455 117	16 613 239	11 781 219	56 902 406	50 755 709	29 431 529	22 089 755
Alabama -----	1 140	10 667	8 328	237 663	172 412	800 645	743 871	437 945	328 018
Alaska -----	175	1 112	783	38 402	26 096	163 572	130 690	69 245	64 126
Arizona -----	1 085	9 435	7 210	213 561	153 237	789 707	742 960	397 358	356 070
Arkansas -----	695	5 225	4 109	107 485	82 023	384 733	349 806	191 285	163 240
California -----	6 998	55 569	40 972	1 786 647	1 253 096	5 956 333	5 498 412	3 357 578	2 195 438
Colorado -----	1 232	9 931	7 457	258 526	189 184	910 429	808 840	443 663	379 663
Connecticut -----	1 236	7 665	5 448	238 989	163 517	795 322	694 815	413 725	292 459
Delaware -----	233	2 461	1 854	62 626	44 478	196 478	170 518	104 753	68 303
District of Columbia -----	39	1 250	957	40 881	30 501	106 382	95 994	62 247	35 174
Florida -----	4 584	36 926	26 905	795 789	535 653	2 910 802	2 649 193	1 432 364	1 257 414
Georgia -----	2 029	17 291	13 017	392 050	271 382	1 435 736	1 260 720	677 517	590 889
Hawaii -----	251	2 716	1 877	101 857	67 567	331 053	298 729	177 496	127 874
Idaho -----	396	3 131	2 360	71 046	53 330	267 366	250 144	131 171	121 612
Illinois -----	3 534	30 869	22 344	989 520	713 580	3 106 163	2 817 296	1 726 829	1 127 389
Indiana -----	1 634	17 569	13 060	507 684	371 705	1 553 176	1 375 942	840 535	560 397
Iowa -----	925	6 950	5 147	172 832	125 910	608 929	540 978	315 930	242 009
Kansas -----	885	6 472	4 621	159 923	110 401	595 627	543 310	300 620	250 417
Kentucky -----	1 092	9 338	7 244	197 854	144 904	720 106	642 480	343 068	314 016
Louisiana -----	1 006	8 068	6 006	183 734	128 853	671 604	592 082	310 207	287 048
Maine -----	495	2 318	1 607	52 208	35 548	191 826	172 185	107 541	72 399
Maryland -----	1 752	18 398	13 654	511 809	344 231	1 771 689	1 487 191	866 750	637 495
Massachusetts -----	1 915	12 007	8 747	374 420	264 823	1 305 949	1 108 895	663 691	462 043
Michigan -----	2 641	19 464	14 150	566 541	397 611	1 966 036	1 715 611	1 016 885	740 903
Minnesota -----	1 305	11 727	8 619	377 246	277 359	1 249 940	1 087 734	652 901	449 897
Mississippi -----	590	4 448	3 411	95 013	67 970	371 878	331 500	169 903	170 684
Missouri -----	1 698	12 588	9 488	357 367	266 489	1 199 720	1 033 047	600 699	442 243
Montana -----	277	1 344	973	34 090	23 621	126 259	112 947	63 217	52 898
Nebraska -----	621	4 824	3 542	114 353	81 413	397 357	361 770	194 045	171 302
Nevada -----	370	3 990	3 070	118 943	87 577	407 390	384 000	220 473	170 055
New Hampshire -----	430	2 436	1 735	65 601	46 841	219 830	191 975	109 344	85 113
New Jersey -----	3 031	18 189	13 087	597 787	413 598	1 963 728	1 716 376	1 045 994	689 322
New Mexico -----	498	3 309	2 538	65 217	46 890	243 865	217 524	127 581	94 802
New York -----	5 026	37 160	26 743	1 142 038	781 545	4 037 256	3 435 502	2 062 954	1 408 069
North Carolina -----	2 541	25 463	19 708	579 449	413 223	1 983 422	1 822 909	987 613	860 462
North Dakota -----	221	1 378	1 087	34 695	26 899	128 338	111 502	61 801	55 598
Ohio -----	3 138	27 773	20 635	739 849	530 323	2 545 882	2 227 564	1 282 644	971 912
Oklahoma -----	957	5 235	3 853	108 461	76 436	432 174	392 416	199 734	196 752
Oregon -----	802	7 071	5 266	208 954	153 494	697 771	617 747	343 211	282 831
Pennsylvania -----	3 459	31 411	23 889	934 974	696 592	3 056 292	2 669 234	1 621 444	1 100 063
Rhode Island -----	328	1 603	1 151	46 309	33 235	167 687	149 698	87 159	63 214
South Carolina -----	1 145	9 811	7 475	204 251	144 479	687 125	627 204	334 437	299 102
South Dakota -----	244	1 393	1 026	28 237	20 740	107 170	99 412	54 618	47 725
Tennessee -----	1 318	13 599	10 521	302 404	209 191	1 089 836	996 794	532 988	472 357
Texas -----	4 629	36 218	26 938	878 467	610 917	3 198 146	2 884 020	1 584 673	1 333 946
Utah -----	575	4 480	3 485	112 188	85 044	428 277	369 042	203 812	177 233
Vermont -----	261	1 059	769	23 538	17 024	89 977	81 576	47 417	35 575
Virginia -----	2 168	18 503	13 953	428 557	302 312	1 374 534	1 270 564	701 906	586 131
Washington -----	1 469	14 223	10 481	444 098	313 719	1 453 211	1 290 825	793 115	543 911
West Virginia -----	399	2 650	2 036	51 130	37 831	196 810	182 903	106 497	81 425
Wisconsin -----	1 734	14 921	11 119	437 937	321 278	1 428 177	1 326 527	812 310	538 073
Wyoming -----	192	877	662	20 037	15 138	80 693	72 736	40 638	34 665

1992—Con.					1987			Relative standard error of estimate (percent) for column—			Location of establishment
Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Value of construction work	Value added††					B	G	M
J	K	L	M	N	O	P	Q				
6 146 698	29 450 247	860 629	754 154	6 537 542	617 333	49 503 323	25 911 790	(Z)	(Z)	2	U.S.
56 774	399 435	10 622	15 133	98 325	9 187	596 364	299 431	2	2	11	AL
32 882	112 553	2 115	1 500	18 388	871	104 971	54 019	6	5	15	AK
46 748	546 459	14 846	9 364	79 154	10 545	757 757	386 705	2	2	10	AZ
34 927	206 739	7 090	9 451	53 164	3 763	261 538	115 804	3	4	17	AR
457 921	3 789 213	116 356	73 581	630 504	64 720	5 975 639	3 365 458	1	1	4	CA
101 589	606 648	15 147	12 408	96 237	10 225	634 449	302 483	2	2	17	CO
100 507	362 466	10 801	8 460	96 698	11 107	949 573	501 254	3	2	18	CT
25 960	93 706	4 249	2 166	24 315	2 658	197 689	104 334	6	5	30	DE
10 388	54 709	1 874	953	10 926	1 172	94 492	51 141	4	2	3	DC
261 609	1 557 301	43 274	39 114	348 139	42 344	2 793 088	1 412 969	1	1	8	FL
175 017	702 652	18 720	15 916	156 712	19 379	1 437 158	680 239	2	2	8	GA
32 324	229 365	7 972	3 539	35 385	2 083	204 342	126 024	3	3	12	HI
17 222	180 767	2 325	5 800	38 057	1 657	116 977	60 991	4	5	23	ID
288 867	1 466 429	41 276	38 963	365 717	28 475	2 596 230	1 407 347	1	2	7	IL
177 234	756 831	31 535	20 082	175 378	14 755	1 201 123	632 928	2	1	9	IN
67 951	267 453	7 572	12 475	83 779	5 079	369 059	185 324	2	2	13	IA
52 318	255 009	7 536	7 591	65 034	5 811	402 292	230 056	3	4	10	KS
77 625	381 491	10 388	10 619	76 850	8 161	543 223	277 988	2	2	10	KY
79 522	324 388	10 650	6 321	62 192	6 487	462 665	219 696	2	2	13	LA
19 641	68 858	3 566	1 910	27 356	2 875	206 533	109 869	5	5	25	ME
284 498	1 012 463	24 858	18 729	181 442	21 202	1 746 564	882 217	2	1	6	MD
197 054	618 989	19 830	12 185	140 586	17 765	1 563 375	832 123	2	2	10	MA
250 425	961 007	25 745	27 278	226 209	19 591	1 772 975	945 744	2	1	10	MI
162 206	641 069	13 505	15 429	154 908	11 260	1 047 690	543 693	2	2	9	MN
40 378	192 325	5 042	4 811	32 737	3 757	259 435	129 664	3	3	19	MS
166 673	640 084	13 966	23 368	152 295	13 070	1 208 907	569 311	2	2	10	MO
13 312	85 781	1 698	3 144	17 727	1 041	73 898	38 946	6	6	24	MT
35 587	199 440	4 854	6 949	56 981	3 611	254 436	129 684	3	3	18	NE
23 390	319 695	6 967	3 150	48 033	3 068	266 110	143 796	2	2	15	NV
27 855	100 535	3 658	2 733	25 752	3 796	309 159	158 470	4	4	15	NH
247 352	830 128	30 415	19 895	211 192	23 788	2 167 859	1 155 305	1	1	8	NJ
26 341	165 345	3 843	4 535	29 435	3 276	205 093	111 772	5	5	18	NM
601 754	1 666 553	52 873	39 104	394 765	42 058	3 951 782	2 137 461	1	1	9	NY
160 512	853 326	25 578	47 305	383 810	21 528	1 380 772	705 150	1	2	4	NC
16 836	47 811	1 227	1 523	13 330	1 234	91 319	41 861	5	4	20	ND
318 318	1 068 000	36 563	31 659	271 145	27 187	2 017 620	1 044 399	1	1	7	OH
39 758	261 863	6 316	8 516	65 072	4 858	357 830	184 434	4	3	14	OK
80 024	423 752	10 674	8 724	57 258	4 632	377 566	199 510	3	2	13	OR
387 057	1 355 059	42 684	35 966	355 116	27 660	2 341 572	1 266 872	1	1	6	PA
17 989	66 037	1 917	(S)	12 731	1 885	172 903	83 344	4	5	(S)	RI
59 920	333 861	12 298	10 112	99 455	10 514	669 171	320 578	2	2	14	SC
7 758	57 580	1 490	2 872	18 392	1 191	76 583	39 538	7	7	28	SD
93 042	633 310	15 199	13 304	123 259	12 417	892 336	423 643	2	2	9	TN
314 126	1 732 960	54 863	40 422	325 879	36 415	2 687 530	1 341 943	1	1	7	TX
59 235	282 731	6 207	6 010	46 186	3 774	301 199	140 228	3	3	18	UT
8 401	47 553	1 629	716	10 276	1 710	129 280	67 175	8	7	21	VT
103 970	832 426	19 497	19 447	183 623	21 062	1 385 283	715 838	2	1	9	VA
162 386	864 597	28 889	18 013	142 390	8 404	756 797	417 152	2	2	7	WA
13 907	82 143	2 183	2 811	21 234	2 233	138 243	75 795	5	5	26	WV
101 650	681 884	17 018	26 425	179 486	11 208	943 910	514 494	2	1	10	WI
7 957	29 471	1 228	2 382	14 527	761	50 939	27 566	7	9	20	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	75 395	69 566	60 243	56 435	(Z)	-	1	1
Proprietors and working partners	25 759	17 982	19 761	28 698	1	2	2	2
All employees**	612 516	617 333	512 004	458 687	(Z)	(Z)	(Z)	(Z)
Construction workers:								
March	433 552	452 744	381 815	341 167	(Z)	(Z)	(Z)	(Z)
May	455 916	469 279	390 306	367 815	(Z)	(Z)	(Z)	(Z)
August	476 968	491 584	407 130	386 712	(Z)	(Z)	(Z)	(Z)
November	454 034	469 567	388 931	378 311	(Z)	(Z)	(Z)	(Z)
Average	455 117	470 793	397 548	368 993	(Z)	(Z)	(Z)	(Z)
Other employees:								
March	156 001	144 063	114 266	86 771	(Z)	(Z)	1	1
May	154 290	143 590	(NA)	(NA)	(Z)	(Z)	(NA)	(NA)
August	157 514	147 448	(NA)	(NA)	(Z)	(Z)	(NA)	(NA)
November	161 789	151 080	(NA)	(NA)	(Z)	(Z)	(NA)	(NA)
Average	157 399	146 545	(NA)	(NA)	(Z)	(Z)	(NA)	(NA)
Payroll, all employees	16 613 239	14 329 834	9 860 690	6 413 961	(Z)	(Z)	(Z)	(Z)
Payroll, construction workers	11 781 219	10 310 628	7 476 808	5 024 679	(Z)	(Z)	(Z)	(Z)
Payroll, other employees	4 832 019	4 019 206	2 383 881	1 389 282	(Z)	(Z)	(Z)	(Z)
First-quarter payroll, all employees	3 790 655	3 297 114	2 322 105	1 401 612	(Z)	(Z)	(Z)	(Z)
Fringe benefits, all employees	4 144 076	3 124 864	1 792 827	1 191 833	(Z)	(Z)	(Z)	(Z)
Legally required expenditures	2 504 992	1 986 535	1 344 811	613 373	(Z)	(Z)	(Z)	(Z)
Voluntary expenditures	1 639 083	1 138 328	448 015	578 461	(Z)	(Z)	(Z)	(Z)
Dollar value of business done.....	57 667 981	50 219 653	33 521 439	21 431 185	(Z)	(Z)	(Z)	(Z)
Value of construction work	56 902 406	49 503 323	32 661 277	21 072 098	(Z)	(Z)	(Z)	(Z)
Value of construction work subcontracted in from others	29 450 247	21 987 082	14 977 848	10 895 292	1	1	(Z)	(Z)
Other business receipts	765 575	716 330	860 162	359 087	2	2	1	2
Net value of construction work†	50 755 709	44 517 739	28 846 061	19 135 815	(Z)	(Z)	(Z)	(Z)
Value added††	29 431 529	25 911 790	16 961 501	10 681 068	(Z)	(Z)	(Z)	(Z)
Selected costs	28 236 452	24 307 862	16 559 938	10 750 117	(Z)	(Z)	(Z)	(Z)
Materials, components, and supplies	21 140 903	18 556 072	12 165 599	8 495 261	(Z)	(Z)	(Z)	(Z)
Construction work subcontracted out to others	6 146 698	4 985 584	3 815 215	1 936 282	1	1	(Z)	(Z)
Selected power, fuels, and lubricants	948 852	766 206	579 123	318 575	1	1	1	1
Electricity	175 481	119 454	83 116	41 281	1	1	1	1
Natural and manufactured gas	44 015	32 481	29 861	26 118	1	1	1	1
Gasoline and diesel fuel	685 556	567 556	434 274	227 035	1	1	1	1
On highway use	624 644	519 004	(NA)	(NA)	1	(Z)	(NA)	(NA)
Off highway use	60 912	48 551	(NA)	(NA)	3	2	(NA)	(NA)
Other, including lubricating oils and greases	43 800	46 713	31 872	24 142	2	2	2	1
Rental cost for machinery, equipment, and buildings	860 629	664 587	364 921	184 692	1	1	1	1
For machinery and equipment	382 555	287 552	191 898	107 612	2	1	1	1
For buildings	478 074	377 035	173 022	77 080	1	1	1	1
Selected purchased services	925 988	596 403	392 979	259 566	1	1	1	2
Communication services	440 301	298 091	186 256	117 679	1	1	1	3
Repairs to buildings and other structures	65 354	53 347	37 877	18 505	2	2	1	2
Repairs to machinery and equipment	420 332	244 964	168 844	123 383	1	1	1	3
Ownership of construction projects:								
Value of construction work	56 902 406	49 503 323	32 661 277	21 072 098	(Z)	(Z)	(Z)	(Z)
Government owned	11 158 758	7 129 289	4 684 376	3 194 485	1	1	2	(Z)
Federal	2 886 356	2 353 812	(NA)	(NA)	2	2	(NA)	(NA)
State and local	8 272 401	4 775 476	(NA)	(NA)	1	1	(NA)	(NA)
Privately owned	45 743 649	42 374 033	27 976 900	17 877 613	1	(Z)	(Z)	(Z)

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

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

Item	1992	1987	Relative standard error of estimate (percent)	
			1992	1987
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	6 056 840	4 476 131	1	1
Capital expenditures, other than land	754 154	720 556	2	1
New	606 002	565 812	1	1
Used	148 153	154 744	4	3
Retirements and disposition of depreciable assets.....	273 452	196 749	6	3
End-of-year gross book value of depreciable assets	6 537 542	4 999 938	1	1
Depreciation charges during year	732 072	662 294	1	1
Buildings and Other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	1 221 073	1 329 493	2	2
Capital expenditures, other than land	99 449	119 228	5	3
New buildings and other structures	70 981	73 396	5	4
Used buildings and other structures.....	28 468	45 831	11	6
Retirements and disposition of depreciable assets.....	29 468	42 343	8	4
End-of-year gross book value of depreciable assets	1 291 054	1 406 377	2	2
Depreciation charges during year	102 607	124 058	3	3
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	4 835 767	3 146 637	1	1
Capital expenditures, other than land	654 706	601 328	2	1
New machinery and equipment, including automobiles and trucks	535 021	492 415	2	1
New automobiles and trucks, intended primarily for highway use	284 543	338 010	2	2
Used machinery and equipment, including automobiles and trucks	119 684	108 913	4	3
Retirements and disposition of depreciable assets.....	243 984	154 405	7	3
End-of-year gross book value of depreciable assets	5 246 488	3 593 560	1	1
Depreciation charges during year	629 466	538 235	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)
All establishments:		
Number	75 395	(Z)
Value of construction work	56 902 406	(Z)
Establishments with inventories:		
Number	39 153	1
Value of construction work	38 880 056	(Z)
Inventories¹:		
End of 1992, materials and supplies	1 257 932	2
End of 1991, materials and supplies	1 236 009	2
Establishments with no inventories:		
Number	17 285	1
Value of construction work	10 264 726	1
Establishments not reporting:		
Number	18 957	1
Value of construction work	7 757 624	1

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

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

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

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1992										
Number of establishments	75 395	44 174	16 118	8 959	4 551	1 074	417	84	17	2
All employees**	612 516	84 002	103 618	117 945	132 766	71 601	60 456	28 031	14 097	(D)
Payroll, all employees	16 613 239	1 514 324	2 304 272	3 033 231	3 904 568	2 277 281	2 089 479	1 007 280	482 803	(D)
Dollar value of business done	57 667 981	7 085 469	8 104 976	10 283 814	13 125 027	7 622 650	6 890 156	3 250 752	1 305 137	(D)
Value of construction work	56 902 406	6 995 437	7 972 616	10 133 743	12 929 271	7 532 642	6 845 521	3 212 754	1 280 423	(D)
Net value of construction work†	50 755 709	6 644 375	7 474 133	9 311 048	11 410 059	6 453 736	5 693 395	2 725 938	1 043 025	(D)
Value added††	29 431 529	3 581 883	4 239 185	5 332 127	6 635 810	3 805 118	3 449 466	1 607 571	780 369	(D)
Cost of materials, components, supplies, and fuels	22 089 755	3 152 524	3 367 309	4 128 991	4 970 005	2 738 626	2 288 564	1 156 365	287 370	(D)
Cost of construction work subcontracted out to others	6 146 698	351 062	498 483	822 695	1 519 211	1 078 906	1 152 126	486 816	237 398	(D)
Rental cost for machinery, equipment, and buildings	860 629	114 543	138 178	161 707	181 853	97 494	88 816	45 107	32 931	(D)
Capital expenditures, other than land	754 154	135 851	126 475	146 083	159 001	67 854	52 473	31 825	34 593	(D)
End-of-year gross book value of depreciable assets	6 537 542	987 857	1 059 746	1 286 201	1 469 253	731 299	539 054	241 875	222 257	(D)
1987										
All employees**	617 333	77 420	102 309	119 018	138 718	76 706	65 658	21 794	15 707	(D)
Value of construction work	49 503 323	5 636 922	6 579 374	8 732 171	11 821 399	6 951 812	6 445 335	2 268 183	1 068 125	(D)
Value added††	25 911 790	2 927 527	3 570 519	4 770 035	6 170 715	3 562 334	3 299 591	1 054 757	556 310	(D)
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees**	(Z)	1	2	1	1	(Z)	(Z)	(Z)	(Z)	(D)
Net value of construction work†	(Z)	2	2	1	1	(Z)	(Z)	(Z)	(Z)	(D)
Capital expenditures, other than land	2	5	5	4	1	(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
1992											
Number of establishments	75 395	(S)	(S)	9 214	22 164	14 971	10 361	7 161	2 457	1 096	654
All employees**	612 516	(S)	(S)	13 008	55 312	73 011	92 280	121 783	81 114	64 739	105 227
Payroll, all employees	16 613 239	(S)	(S)	167 266	895 034	1 454 726	2 155 391	3 265 082	2 518 816	2 133 027	3 969 570
Dollar value of business done	57 667 981	(S)	(S)	688 754	3 633 660	5 300 895	7 234 455	10 755 765	8 556 850	7 490 318	13 795 499
Value of construction work	56 902 406	(S)	(S)	681 899	3 586 971	5 228 561	7 114 135	10 574 230	8 422 707	7 410 588	13 672 969
Net value of construction work†	50 755 709	(S)	(S)	661 910	3 466 321	5 021 789	6 768 493	9 773 775	7 465 523	6 292 788	11 100 767
Value added††	29 431 529	(S)	(S)	366 953	1 911 887	2 776 893	3 873 010	5 621 144	4 380 728	3 640 820	6 747 546
Cost of materials, components, supplies, and fuels	22 089 755	(S)	(S)	301 812	1 601 124	2 317 231	3 015 803	4 334 166	3 218 938	2 731 698	4 475 751
Cost of construction work subcontracted out to others	6 146 698	(S)	(S)	(S)	120 649	206 772	345 642	800 455	957 184	1 117 800	2 572 202
Rental cost for machinery, equipment, and buildings	860 629	(S)	(S)	12 721	58 526	93 824	122 395	170 740	118 766	92 608	187 536
Capital expenditures, other than land	754 154	(S)	(S)	13 597	69 479	98 251	124 685	149 580	100 606	64 078	130 849
End-of-year gross book value of depreciable assets	6 537 542	(S)	(S)	119 378	545 280	730 101	1 013 221	1 360 554	913 721	689 144	1 131 653
1987											
All employees**	617 333	(S)	(S)	(S)	60 983	79 732	89 727	120 984	82 355	71 696	90 022
Value of construction work	49 503 323	(S)	(S)	(S)	3 401 263	4 778 598	6 125 095	9 538 085	7 580 324	6 946 222	10 251 429
Value added††	25 911 790	(S)	(S)	(S)	1 816 406	2 607 880	3 395 222	5 221 579	3 889 785	3 531 234	4 981 934
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees**	(Z)	(S)	(S)	3	2	2	2	1	1	(Z)	(Z)
Net value of construction work†	(Z)	(S)	(S)	3	2	2	2	1	1	(Z)	(Z)
Capital expenditures, other than land	2	(S)	(S)	10	6	6	5	3	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
1992								
Value of construction work	56 902 406	27 236 402	14 451 846	13 271 750	(Z)	(Z)	1	1
Building construction	50 530 263	25 069 901	13 362 302	12 098 060	(Z)	(Z)	1	1
Single-family houses	14 999 745	7 585 518	2 885 243	4 528 984	1	1	1	1
Single-family houses, detached	13 073 632	6 528 214	2 604 689	3 940 730	1	1	1	1
Single-family houses, attached, including townhouses and townhouse-type condominiums	1 926 113	1 057 304	280 554	588 254	2	4	4	3
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	2 066 054	905 651	436 571	723 831	1	2	4	2
Other residential buildings, including hotels, motels, and tourist cabins	852 875	461 511	210 757	180 607	2	2	4	5
Hotels, motels, and tourist cabins	672 948	366 129	174 755	132 064	2	2	4	6
Other residential buildings	179 927	95 382	36 002	48 543	5	6	8	9
Office buildings	6 285 859	3 022 766	1 739 066	1 524 028	1	1	1	1
Other commercial buildings such as stores, restaurants, and automobile service stations	5 961 182	2 760 469	1 346 516	1 854 196	1	1	2	2
Industrial buildings and warehouses	9 339 353	4 525 977	2 926 720	1 886 656	1	1	1	1
Industrial buildings	8 195 284	3 861 372	2 631 122	1 702 791	1	1	1	1
Warehouses	1 144 069	664 605	295 598	183 866	2	2	4	2
Religious buildings	786 950	376 416	199 065	211 469	2	3	3	2
Educational buildings	4 289 757	2 296 286	1 510 004	483 467	1	1	1	2
Hospitals and institutional buildings	5 021 324	2 635 901	1 863 664	521 759	1	1	1	1
Amusement, social, and recreational buildings, indoors	320 365	178 087	84 586	57 692	3	3	5	9
Other nonresidential buildings	606 799	321 320	160 111	125 369	2	2	5	7
Nonbuilding construction	4 429 736	2 166 502	1 089 544	1 173 690	1	1	1	1
Sewers, water mains, and related facilities	890 529	495 473	145 541	249 515	3	4	5	5
Sewers, sewer lines, septic systems, and related facilities	627 205	352 750	92 210	182 246	4	5	6	6
Water mains and related facilities	263 324	142 724	53 331	67 269	5	7	7	8
Pipeline construction other than sewer or water lines	381 764	176 541	92 315	112 908	2	2	3	4
Blast furnaces, petroleum refineries, chemical complexes, etc.	1 249 798	498 290	361 986	389 523	1	1	1	1
Power plants	742 647	236 486	213 964	292 197	1	1	2	1
Power plants, nuclear	69 963	24 470	15 766	29 727	1	2	1	(Z)
Power plants and cogeneration plants, except nuclear	672 684	212 017	198 198	262 470	1	1	2	1
Sewage treatment and water treatment plants	859 891	588 602	213 512	57 777	1	1	3	4
Sewage treatment plants	560 700	405 023	116 796	38 880	1	1	4	4
Water treatment plants	299 191	183 579	96 715	18 897	2	2	4	8
Other nonbuilding construction	305 107	171 110	62 227	71 770	4	6	6	7
Construction work, n.s.k.	1 942 408	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
1987								
Value of construction work	49 503 323	26 767 072	10 625 460	9 768 215	(Z)	(Z)	1	1
Building construction	43 233 667	24 659 468	9 686 895	8 887 309	(Z)	(Z)	1	1
Single-family houses	12 058 369	6 689 180	2 156 749	3 212 441	1	1	1	1
Single-family houses, detached	10 072 026	5 331 328	1 920 540	2 820 158	1	1	1	1
Single-family houses, attached, including townhouses and townhouse-type condominiums	1 986 343	1 357 851	236 208	392 283	2	2	5	3
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	2 900 532	1 916 529	387 692	596 311	1	1	3	2
Other residential buildings, including hotels, motels, and tourist cabins	1 812 306	1 215 243	288 092	308 970	1	1	2	3
Hotels, motels, and tourist cabins	1 256 221	936 005	163 063	157 152	1	1	1	3
Other residential buildings	556 085	279 238	125 028	151 818	3	3	4	4
Office buildings	6 904 019	4 266 382	1 562 020	1 075 616	1	1	1	1
Other commercial buildings such as stores, restaurants, and automobile service stations	5 589 589	3 100 048	1 160 695	1 328 847	1	1	1	2
Industrial buildings and warehouses	7 417 676	4 055 651	2 066 983	1 295 042	1	1	1	1
Industrial buildings	6 355 722	3 311 282	1 886 973	1 157 467	1	1	1	1
Warehouses	1 061 954	744 368	180 010	137 575	1	1	3	3
Religious buildings	618 341	290 024	144 605	183 712	2	2	2	4
Educational buildings	2 260 898	1 183 076	728 746	349 075	1	1	2	2
Hospitals and institutional buildings	2 903 744	1 564 234	992 161	347 348	1	1	1	1
Amusement, social, and recreational buildings, indoors	260 309	143 856	52 238	64 214	2	2	3	4
Other nonresidential buildings	507 884	235 245	146 914	125 733	(NA)	(NA)	(NA)	(NA)
Nonbuilding construction	3 927 080	2 107 604	938 565	880 910	1	1	1	2
Sewers, water mains, and related facilities	788 612	429 296	176 824	182 491	3	3	3	4
Sewers, sewer lines, septic systems, and related facilities	501 554	272 351	99 905	129 298	3	4	5	5
Water mains and related facilities	287 057	156 945	76 919	53 192	3	5	2	6
Pipeline construction other than sewer or water lines	284 720	152 491	69 823	62 405	3	3	4	9
Blast furnaces, petroleum refineries, chemical complexes, etc.	724 730	294 573	192 703	237 453	2	2	1	3
Power plants	754 733	406 991	178 205	169 535	1	(Z)	2	1
Power plants, nuclear	185 839	117 594	14 916	53 329	(Z)	(Z)	1	(Z)
Power plants and cogeneration plants, except nuclear	568 893	289 397	163 289	116 206	1	1	2	2
Sewage treatment and water treatment plants	797 092	540 112	213 157	43 822	3	3	5	6
Sewage treatment plants	465 831	302 067	138 906	24 856	4	5	4	6
Water treatment plants	331 261	238 044	74 251	18 966	2	2	7	11
Other nonbuilding construction	577 193	284 141	107 853	185 203	(NA)	(NA)	(NA)	(NA)
Construction work, n.s.k.	2 342 576	(NA)	(NA)	(NA)	2	(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	F	G	H	B	D	H
All establishments	75 395	612 516	16 613 239	56 902 406	28 088 358	50 755 709	29 431 529	6 146 698	(Z)	(Z)	1
Establishments not specializing by type	18 079	226 098	6 724 509	22 630 516	(NA)	19 727 213	11 530 441	2 903 303	1	1	1
Establishments specializing 51 percent or more	57 317	386 418	9 888 730	34 271 891	28 088 358	31 028 496	17 901 088	3 243 395	(Z)	(Z)	1
SINGLE-FAMILY HOUSES, DETACHED											
All establishments specializing in type	32 959	162 674	3 401 806	12 552 989	10 511 645	12 169 400	6 496 408	383 589	1	1	3
Establishments with —											
100 percent specialization	11 140	39 469	781 786	3 178 615	3 178 615	3 042 406	1 535 863	136 208	2	3	6
90 to 99 percent specialization	6 439	33 842	705 730	2 783 349	2 602 743	2 697 764	1 389 595	85 585	3	3	8
80 to 89 percent specialization	5 329	29 703	611 184	2 154 506	1 779 873	2 107 490	1 160 400	47 015	3	3	7
70 to 79 percent specialization	5 353	28 242	600 930	2 138 250	1 562 222	2 083 363	1 159 136	54 886	3	3	8
60 to 69 percent specialization	3 793	23 926	536 818	1 795 151	1 111 299	1 747 737	978 023	47 414	3	3	7
51 to 59 percent specialization	904	7 493	165 358	503 119	276 893	490 639	273 391	12 480	5	5	7
SINGLE-FAMILY HOUSES, ATTACHED, INCLUDING TOWNHOUSES AND TOWNHOUSE-TYPE CONDOMINIUMS											
All establishments specializing in type	2 233	11 153	241 587	868 190	739 764	846 552	459 322	21 638	5	5	10
Establishments with —											
100 percent specialization	998	4 331	93 484	342 267	342 267	337 257	191 136	5 010	8	11	15
90 to 99 percent specialization	328	1 806	38 708	134 207	124 879	131 205	67 031	3 002	11	11	20
80 to 89 percent specialization	301	1 412	32 843	116 463	95 314	112 962	62 507	3 501	11	10	13
70 to 79 percent specialization	269	1 240	24 018	86 869	62 875	84 359	43 990	2 511	13	13	22
60 to 69 percent specialization	292	1 945	43 058	157 855	98 050	150 759	80 835	7 096	12	8	24
51 to 59 percent specialization	44	420	9 476	30 528	16 379	30 011	13 823	518	25	30	38
APARTMENT BUILDINGS WITH TWO OR MORE UNITS, INCLUDING RENTALS, APARTMENT-TYPE CONDOMINIUMS, AND COOPERATIVES											
All establishments specializing in type	1 133	8 052	209 693	714 270	554 377	643 899	366 068	70 371	5	5	8
Establishments with —											
100 percent specialization	234	1 438	42 131	135 824	135 824	119 189	67 164	16 635	9	8	9
90 to 99 percent specialization	122	935	22 691	79 242	74 233	71 467	40 790	7 775	18	13	36
80 to 89 percent specialization	146	1 043	24 867	91 497	74 769	81 481	50 444	*10 016	16	15	43
70 to 79 percent specialization	302	2 123	53 632	182 608	131 214	164 787	91 783	17 821	10	11	8
60 to 69 percent specialization	265	1 978	53 200	182 664	114 787	166 158	94 562	16 507	9	9	10
51 to 59 percent specialization	62	536	13 171	42 435	23 551	40 817	21 325	1 617	17	16	3
OFFICE BUILDINGS											
All establishments specializing in type	1 745	26 165	845 670	2 728 036	2 046 548	2 383 446	1 473 574	344 591	2	1	2
Establishments with —											
100 percent specialization	434	5 855	180 873	563 050	563 050	497 453	313 325	65 597	5	3	3
90 to 99 percent specialization	106	1 196	44 365	163 941	152 210	131 886	79 097	32 055	8	6	8
80 to 89 percent specialization	300	2 961	94 904	313 515	256 125	274 848	177 344	38 667	6	4	3
70 to 79 percent specialization	303	4 933	165 976	536 227	392 143	463 857	289 940	72 370	4	4	4
60 to 69 percent specialization	434	7 562	228 993	726 705	451 318	648 917	387 294	77 788	3	3	5
51 to 59 percent specialization	169	3 659	130 559	424 598	231 702	366 484	226 574	58 114	3	2	3
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type	4 221	33 440	901 639	3 050 120	2 493 084	2 797 919	1 668 817	252 201	2	2	4
Establishments with —											
100 percent specialization	1 391	10 940	323 164	1 069 907	1 069 907	983 657	568 191	86 250	4	4	7
90 to 99 percent specialization	552	3 367	81 125	278 668	259 172	259 537	154 681	19 130	8	7	8
80 to 89 percent specialization	518	4 324	103 971	366 319	301 287	339 781	199 967	26 538	8	7	10
70 to 79 percent specialization	644	5 403	143 253	516 035	372 793	459 973	275 141	56 062	6	5	9
60 to 69 percent specialization	776	6 411	167 505	562 282	348 610	517 026	330 952	45 256	5	5	10
51 to 59 percent specialization	340	2 995	82 620	256 909	141 315	237 944	139 884	18 965	7	6	3
INDUSTRIAL BUILDINGS											
All establishments specializing in type	2 330	51 153	1 664 243	5 191 193	4 215 396	4 437 875	2 764 275	753 318	1	1	1
Establishments with —											
100 percent specialization	886	19 829	610 302	1 892 039	1 892 039	1 637 427	1 017 222	254 612	2	2	3
90 to 99 percent specialization	320	4 213	129 926	406 737	378 909	355 929	212 777	50 808	3	3	3
80 to 89 percent specialization	252	5 191	188 332	557 125	461 109	470 181	305 118	86 944	3	3	3
70 to 79 percent specialization	323	7 637	268 120	846 203	614 357	714 382	440 793	131 821	2	2	2
60 to 69 percent specialization	401	7 959	264 563	868 119	534 881	731 597	439 535	136 523	3	2	3
51 to 59 percent specialization	148	6 324	203 001	620 969	334 102	528 360	348 831	92 609	2	2	2
WAREHOUSES											
All establishments specializing in type	178	1 675	58 702	207 453	161 412	169 875	93 459	37 578	9	8	4
Establishments with —											
100 percent specialization	32	430	14 227	62 660	62 660	56 853	27 040	5 807	20	19	21
90 to 99 percent specialization	9	112	(D)	(D)	(D)	(D)	(D)	(D)	21	(D)	(D)
80 to 89 percent specialization	(S)	168	(D)	(D)	(D)	(D)	(D)	(D)	13	(D)	(D)
70 to 79 percent specialization	*20	164	4 866	16 790	11 918	15 959	9 265	*830	28	34	43
60 to 69 percent specialization	46	241	8 124	21 330	13 238	18 963	12 593	2 368	33	27	30
51 to 59 percent specialization	(S)	560	21 343	60 678	33 270	50 681	26 310	9 997	12	10	3

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

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

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B				C	D	E	F	G	H	B	D	H
EDUCATIONAL BUILDINGS											
All establishments specializing in type	1 054	14 910	446 416	1 867 702	1 337 351	1 462 960	778 529	404 742	3	2	4
Establishments with —											
100 percent specialization	158	751	22 929	125 234	125 234	87 363	49 439	37 871	13	16	34
90 to 99 percent specialization	96	1 379	34 271	151 895	142 701	120 933	57 410	30 962	12	9	10
80 to 89 percent specialization	166	2 238	66 987	321 705	265 678	243 753	123 122	77 952	7	6	8
70 to 79 percent specialization	182	2 745	78 045	324 719	235 211	249 122	130 313	75 597	6	6	10
60 to 69 percent specialization	266	5 331	163 663	640 547	401 258	518 404	283 436	122 143	4	3	4
51 to 59 percent specialization	186	2 467	80 520	303 603	167 270	243 386	134 807	60 217	6	5	7
HOSPITALS AND INSTITUTIONAL BUILDINGS											
All establishments specializing in type	684	14 866	485 815	1 980 961	1 440 473	1 477 475	825 630	503 486	2	2	2
Establishments with —											
100 percent specialization	127	1 577	42 442	204 537	204 537	138 800	76 348	65 737	13	9	12
90 to 99 percent specialization	100	1 061	34 407	136 769	126 516	103 053	62 210	33 716	8	6	4
80 to 89 percent specialization	88	1 979	68 258	293 608	244 282	221 928	130 620	71 680	6	4	4
70 to 79 percent specialization	168	3 841	127 784	484 897	348 502	386 158	219 503	98 740	5	4	3
60 to 69 percent specialization	145	4 215	141 884	616 166	380 513	420 360	225 404	195 806	4	3	2
51 to 59 percent specialization	55	2 192	71 040	244 983	136 123	207 176	111 544	37 807	3	2	2
SEWERS, SEWER LINES, SEPTIC SYSTEMS, AND RELATED FACILITIES											
All establishments specializing in type	1 326	4 708	89 695	349 151	318 621	332 747	207 073	16 404	7	7	14
Establishments with —											
100 percent specialization	967	3 360	58 819	228 328	228 328	218 589	131 114	(S)	9	8	(S)
90 to 99 percent specialization	76	367	7 291	23 321	21 849	22 195	15 844	*1 126	33	35	45
80 to 89 percent specialization	94	202	3 174	19 677	16 064	19 199	11 070	*478	28	28	51
70 to 79 percent specialization	67	325	9 309	38 639	28 545	34 803	23 458	3 836	22	19	14
60 to 69 percent specialization	100	363	9 386	35 067	21 524	33 908	20 869	*1 159	20	23	47
51 to 59 percent specialization	21	*91	*1 716	*4 120	*2 311	*4 053	*4 719	(S)	54	47	(S)
PIPELINE CONSTRUCTION OTHER THAN SEWER OR WATER LINES											
All establishments specializing in type	104	2 511	81 542	227 822	191 747	202 088	143 243	25 733	5	3	4
Establishments with —											
100 percent specialization	67	1 155	38 728	109 569	109 569	97 568	68 631	12 002	7	5	8
90 to 99 percent specialization	3	115	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	(D)	(D)
80 to 89 percent specialization	10	506	13 738	28 402	23 421	24 692	20 229	3 710	(Z)	(Z)	(Z)
70 to 79 percent specialization	5	179	(D)	(D)	(D)	15 099	(D)	(D)	12	(D)	(D)
60 to 69 percent specialization	*16	282	8 558	29 044	18 061	25 616	13 495	3 428	30	18	2
51 to 59 percent specialization	4	274	9 368	32 404	18 086	(D)	20 812	(D)	(Z)	(Z)	(D)
BLAST FURNACES, PETROLEUM REFINERIES, CHEMICAL COMPLEXES, ETC.											
All establishments specializing in type	152	11 042	424 970	1 056 640	914 049	908 526	682 682	148 115	1	1	3
Establishments with —											
100 percent specialization	85	2 649	108 282	270 848	270 848	237 625	181 314	33 223	4	4	11
90 to 99 percent specialization	19	3 663	138 927	309 844	294 229	263 519	196 873	46 325	1	(Z)	(Z)
80 to 89 percent specialization	14	905	33 176	83 284	70 422	73 930	58 262	9 354	(Z)	(Z)	(Z)
70 to 79 percent specialization	21	3 236	121 450	328 887	241 993	279 399	204 499	49 488	(Z)	(Z)	(Z)
60 to 69 percent specialization	10	407	(D)	35 479	21 391	30 138	22 085	5 341	5	5	2
51 to 59 percent specialization	4	181	(D)	28 299	15 167	23 915	19 649	4 384	8	13	24
POWER PLANTS AND COGENERATION PLANTS, EXCEPT NUCLEAR											
All establishments specializing in type	75	4 235	165 618	425 250	332 697	371 100	289 923	54 150	2	1	1
Establishments with —											
100 percent specialization	45	841	29 222	83 673	83 673	75 668	49 360	8 005	7	6	5
90 to 99 percent specialization	6	646	23 651	65 235	62 801	(D)	42 573	(D)	2	2	(D)
80 to 89 percent specialization	5	600	26 646	67 389	53 911	64 134	56 391	3 255	(Z)	(Z)	(Z)
70 to 79 percent specialization	7	1 326	53 122	115 121	81 281	102 190	85 209	12 931	2	1	(Z)
60 to 69 percent specialization	3	204	8 986	25 731	15 439	(D)	12 981	(D)	(Z)	(Z)	(D)
51 to 59 percent specialization	9	619	23 990	68 102	35 593	55 175	43 409	12 927	3	4	5

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

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

Location of establishment	Number of establishments	Average number of construction workers	Construction workers ¹				Relative standard error of estimate (percent) for column—					
			January to March	April to June	July to September	October to December	A	B	C	D	E	F
			A	B	C	D	E	F	A	B	C	D	E	F
United States	75 395	455 117	433 552	455 916	476 968	454 034	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Alabama	1 140	8 328	7 806	8 298	8 782	8 426	3	2	2	3	4	2
Alaska	175	783	693	5 745	885	807	6	6	8	7	6	7
Arizona	1 085	7 210	6 792	7 079	7 636	7 332	3	3	3	3	3	3
Arkansas	695	4 109	3 802	4 358	4 287	3 989	3	4	4	4	4	4
California	6 998	40 972	40 715	41 766	42 395	39 012	1	1	1	1	1	1
Colorado	1 232	7 457	6 797	7 487	7 851	7 695	3	3	2	3	3	3
Connecticut	1 236	5 448	5 092	5 241	5 758	5 704	2	3	2	3	3	4
Delaware	233	1 854	1 699	1 788	1 965	1 964	8	6	4	6	7	7
District of Columbia	39	957	938	967	1 013	910	10	4	4	5	3	2
Florida	4 584	26 905	25 543	27 002	28 030	27 046	1	1	1	1	1	1
Georgia	2 029	13 017	12 648	12 922	13 628	12 872	2	2	2	2	2	2
Hawaii	251	1 877	1 872	1 893	1 842	1 902	4	3	3	3	4	4
Idaho	396	2 360	2 206	2 239	2 535	2 458	3	5	5	5	5	6
Illinois	3 534	22 344	20 874	22 327	23 869	22 305	2	1	1	2	2	2
Indiana	1 634	13 060	12 346	12 944	13 841	13 108	3	2	2	2	2	2
Iowa	925	5 147	4 812	5 349	5 342	5 085	3	2	2	2	2	2
Kansas	885	4 621	4 411	4 666	4 805	4 600	4	3	3	3	3	3
Kentucky	1 092	7 244	6 938	7 291	7 624	7 124	3	3	2	2	2	3
Louisiana	1 006	6 006	5 860	6 089	6 164	5 909	3	2	2	2	2	2
Maine	495	1 607	1 382	1 581	1 876	1 589	4	5	5	5	4	6
Maryland	1 752	13 654	13 292	13 681	14 247	13 395	2	2	2	2	2	2
Massachusetts	1 915	8 747	8 391	8 724	8 836	9 036	2	2	2	3	2	2
Michigan	2 641	14 150	13 027	14 015	15 711	13 847	2	2	2	2	2	2
Minnesota	1 305	8 619	7 869	8 346	9 238	9 024	3	2	2	2	2	2
Mississippi	590	3 411	3 282	3 450	3 587	3 327	3	3	3	3	3	3
Missouri	1 698	9 488	8 816	9 287	9 679	10 171	2	2	2	2	2	2
Montana	277	973	910	993	1 052	936	5	5	5	6	6	7
Nebraska	621	3 542	3 427	3 636	3 618	3 487	4	3	3	3	3	3
Nevada	370	3 070	2 736	2 930	3 202	3 413	4	2	3	2	2	3
New Hampshire	430	1 735	1 567	1 796	1 828	1 750	4	4	4	4	4	5
New Jersey	3 031	13 087	12 344	13 239	13 520	13 248	1	1	1	2	2	2
New Mexico	498	2 538	2 330	2 567	2 704	2 550	5	5	5	6	6	6
New York	5 026	26 743	25 981	26 561	28 103	26 326	1	1	1	1	1	1
North Carolina	2 541	19 708	18 292	19 836	20 766	19 937	2	1	1	1	2	1
North Dakota	221	1 087	960	1 083	1 203	1 104	5	6	6	6	6	6
Ohio	3 138	20 635	19 534	20 405	21 471	21 132	2	1	1	2	1	2
Oklahoma	957	3 853	3 685	3 988	4 103	3 636	3	4	4	4	4	4
Oregon	802	5 266	5 531	5 171	5 440	4 925	3	3	2	3	3	3
Pennsylvania	3 459	23 889	22 337	23 463	25 424	24 331	1	1	1	1	1	1
Rhode Island	328	1 151	1 024	1 115	1 270	1 193	4	4	5	5	4	5
South Carolina	1 145	7 475	7 168	7 754	7 636	7 342	2	2	2	4	2	2
South Dakota	244	1 026	895	1 046	1 097	1 063	7	7	7	7	8	8
Tennessee	1 318	10 521	10 047	10 477	10 857	10 702	3	2	2	2	2	2
Texas	4 629	26 938	25 948	27 641	28 351	25 813	1	1	1	1	1	1
Utah	575	3 485	3 242	3 478	3 764	3 458	3	3	3	3	4	3
Vermont	261	769	720	816	791	747	4	8	8	8	8	9
Virginia	2 168	13 953	13 426	14 116	14 299	13 972	2	2	2	2	2	2
Washington	1 469	10 481	10 619	10 474	10 673	10 157	3	2	2	2	2	3
West Virginia	399	2 036	1 861	1 943	2 212	2 125	3	5	5	5	5	5
Wisconsin	1 734	11 119	10 454	11 224	11 460	11 339	2	2	2	2	2	2
Wyoming	192	662	610	627	699	711	6	7	8	7	7	9

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

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

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

Location of construction work	1992					1987 value of construction work done in this State	Percent change 1987 (col F) to 1992 (col A)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State				A	C	E
		Number	Value of construction work	Number	Value of construction work					
	A	B	C	D	E			F	G	A	C	E
United States	56 902 406	75 207	52 854 621	8 689	4 047 785	49 503 324	14.9	(Z)	(Z)	1
Alabama	785 735	1 139	718 023	188	67 712	631 372	24.4	2	2	4
Alaska	178 613	175	155 023	28	23 589	126 119	41.6	5	6	4
Arizona	789 710	1 075	770 414	44	19 296	779 058	1.4	2	2	9
Arkansas	381 622	692	347 473	81	34 149	258 711	47.5	4	4	7
California	5 964 074	6 997	5 856 610	191	107 464	6 050 058	-1.4	1	1	4
Colorado	912 817	1 231	880 649	71	32 168	642 080	42.2	2	3	3
Connecticut	885 033	1 235	762 886	169	122 147	943 951	-6.2	2	2	1
Delaware	249 510	233	177 394	160	72 116	209 466	19.1	4	5	3
District of Columbia	292 826	(S)	84 806	355	208 020	322 183	-9.1	2	3	2
Florida	2 943 006	4 583	2 859 356	152	83 650	2 843 892	3.5	1	1	3
Georgia	1 487 802	2 010	1 326 714	302	161 088	1 505 509	-1.2	2	2	3
Hawaii	369 858	251	331 053	35	38 805	227 385	62.7	3	3	1
Idaho	284 843	396	242 793	86	42 050	141 715	101.0	4	5	1
Illinois	3 175 878	3 534	2 965 754	282	210 124	2 707 387	17.3	1	2	1
Indiana	1 513 342	1 632	1 400 829	261	112 513	1 120 209	35.1	1	2	3
Iowa	613 937	910	571 620	135	42 317	368 550	66.6	2	2	3
Kansas	585 258	885	483 090	190	102 168	509 764	14.8	3	3	3
Kentucky	789 406	1 092	661 396	261	128 010	572 253	37.9	2	2	4
Louisiana	666 347	1 006	634 228	64	32 119	473 611	40.7	2	2	1
Maine	220 567	495	185 994	86	34 573	224 326	-1.7	4	5	5
Maryland	1 439 477	1 732	1 337 356	274	102 121	1 386 179	3.8	1	1	3
Massachusetts	1 239 265	1 904	1 172 360	203	66 904	1 577 616	-21.4	2	2	6
Michigan	1 992 593	2 641	1 928 942	154	63 651	1 764 928	12.9	1	1	3
Minnesota	1 168 742	1 303	1 128 094	138	40 648	1 024 134	14.1	2	2	5
Mississippi	376 327	590	309 188	177	67 139	242 424	55.2	4	4	17
Missouri	1 100 086	1 698	1 010 280	225	89 806	1 041 497	5.6	2	2	3
Montana	137 316	277	123 211	48	14 104	89 944	52.7	5	6	18
Nebraska	356 028	616	341 507	63	14 521	237 583	49.9	3	3	6
Nevada	440 427	366	396 482	112	43 945	280 798	56.8	2	2	5
New Hampshire	213 142	429	166 900	150	46 242	329 579	-35.3	4	5	3
New Jersey	1 985 598	3 012	1 838 948	395	146 650	2 268 884	-12.5	1	1	3
New Mexico	262 309	482	231 948	64	30 361	225 078	16.5	4	4	8
New York	3 980 283	5 020	3 845 247	339	135 036	3 891 647	2.3	1	1	5
North Carolina	1 849 284	2 541	1 720 153	284	129 131	1 318 179	40.3	2	2	3
North Dakota	150 001	221	(D)	35	(D)	91 419	64.1	3	(D)	(D)
Ohio	2 557 912	3 137	2 424 712	289	133 200	1 856 554	37.8	1	1	3
Oklahoma	437 115	956	413 434	81	23 681	353 946	23.5	3	3	22
Oregon	664 993	793	610 114	95	54 879	336 541	97.6	2	2	2
Pennsylvania	2 925 767	3 455	2 781 317	450	144 450	2 244 509	30.4	1	1	3
Rhode Island	172 896	328	152 244	90	20 652	152 133	13.6	5	5	6
South Carolina	761 076	1 140	635 023	246	126 053	671 086	13.4	2	2	1
South Dakota	104 464	244	94 024	83	10 441	76 225	37.0	7	8	13
Tennessee	1 051 857	1 318	970 862	202	80 995	868 468	21.1	2	2	4
Texas	3 153 087	4 605	3 048 528	163	104 559	2 559 131	23.2	1	1	6
Utah	376 392	575	355 933	24	20 458	276 064	36.3	4	4	2
Vermont	104 974	261	86 291	53	18 683	131 223	-20.0	7	8	5
Virginia	1 497 297	2 163	1 257 361	467	239 936	1 607 260	-6.8	1	2	3
Washington	1 487 746	1 468	1 322 626	183	165 120	767 183	93.9	2	2	2
West Virginia	284 717	399	174 704	203	110 013	191 178	48.9	3	5	1
Wisconsin	1 440 074	1 734	1 367 860	174	72 214	920 086	56.5	1	1	8
Wyoming	100 980	192	(D)	81	(D)	64 221	57.2	7	(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
All kinds of business	57 667 981	50 219 653	(Z)	(Z)
BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS				
General building contractor	52 098	142 723	9	6
SPECIAL TRADE CONTRACTORS				
Building sprinkler system installation contractor	2 843 249	1 958 583	1	1
Electric power installation and service contractor, including lighting	437 805	(NA)	3	(NA)
Energy management contractor	215 913	100 930	7	7
Heating, ventilation and air-conditioning contractor	20 854 668	18 460 062	1	1
Lawn sprinkler system installation contractor	358 972	317 426	6	5
Mechanical contractor	11 406 263	9 045 153	1	1
Plumbing contractor	14 271 492	13 405 954	1	1
Refrigeration contractor	1 577 949	1 182 185	2	3
Septic system installation contractor	489 709	445 401	5	5
Sheet metal contractor	1 423 839	987 800	1	1
Steam fitting and piping contractor	1 878 263	2 007 749	1	1
Other construction activities	812 522	1 031 743	3	4
OTHER BUSINESS ACTIVITIES				
Retail trade	370 194	297 014	3	3
Wholesale trade	94 464	63 527	4	4
Other business activities	266 692	346 519	4	(NA)
Kind of business activity, n.s.k.	313 890	426 884	4	5

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

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

Selected statistics	1992	1987	Relative standard error of estimate (percent) for 1992
AVERAGE PER ESTABLISHMENT			
Number of employees**	8.1	8.9	(Z)
Number of construction workers.....	6.0	6.8	(Z)
Number of all other employees	2.1	2.1	(Z)
Payroll, all employees	\$1,000 220.3	206.0	(Z)
Payroll, construction workers.....	do-- 156.3	148.2	(Z)
Payroll, other employees	do-- 64.1	57.8	(Z)
Dollar value of business done.....	do-- 764.9	721.9	(Z)
Value of construction work	do-- 754.7	711.6	(Z)
Cost of materials, components, supplies, and fuels	do-- 293.0	277.8	(Z)
Construction work subcontracted to others	do-- 81.5	71.7	1
Rental cost for machinery, equipment, and buildings	do-- 11.4	9.6	1
Capital expenditures, other than land	do-- 10.0	10.4	2
Gross book value of depreciable assets	do-- 86.7	71.9	1
AVERAGE PER EMPLOYEE			
Payroll, all employees	\$1,000 27.1	23.2	(Z)
Dollar value of business done.....	do-- 94.1	81.3	(Z)
Value added††	do-- 48.1	42.0	(Z)
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers.....	\$1,000 25.9	21.9	(Z)
Value of construction work	do-- 125.0	105.1	(Z)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 30.7	27.4	(Z)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK			
Payroll, all employees .....	.292	.289	(Z)
Cost of materials, components, supplies, and fuels .....	.388	.390	(Z)
Cost of construction work subcontracted out to others .....	.108	.101	1
Value of construction work subcontracted in from others .....	.518	.444	1
Rental cost for machinery, equipment, and buildings .....	.015	.013	1

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

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

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Value of construction work per construction worker (\$1,000)	Average per dollar value of construction work				
				Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings
United States	8.1	27.1	125.0	.292	.388	.108	.518	.015
Alabama	9.4	22.3	96.1	.297	.410	.071	.499	.013
Alaska	6.3	34.5	208.9	.235	.392	.201	.688	.013
Arizona	8.7	22.6	109.5	.270	.451	.059	.692	.019
Arkansas	7.5	20.6	93.6	.279	.424	.091	.537	.018
California	7.9	32.2	145.4	.300	.369	.077	.636	.020
Colorado	8.1	26.0	122.1	.284	.417	.112	.666	.017
Connecticut	6.2	31.2	146.0	.300	.368	.126	.456	.014
Delaware	10.6	25.4	106.0	.319	.348	.132	.477	.022
District of Columbia	32.2	32.7	111.2	.384	.331	.098	.514	.018
Florida	8.1	21.6	108.2	.273	.432	.090	.535	.015
Georgia	8.5	22.7	110.3	.273	.412	.122	.489	.013
Hawaii	10.8	37.5	176.4	.308	.386	.098	.693	.024
Idaho	7.9	22.7	113.3	.266	.455	.064	.676	.009
Illinois	8.7	32.1	139.0	.319	.363	.093	.472	.013
Indiana	10.8	28.9	118.9	.327	.361	.114	.487	.020
Iowa	7.5	24.9	118.3	.284	.397	.112	.439	.012
Kansas	7.3	24.7	128.9	.268	.420	.088	.428	.013
Kentucky	8.6	21.2	99.4	.275	.436	.108	.530	.014
Louisiana	8.0	22.8	111.8	.274	.427	.118	.483	.016
Maine	4.7	22.5	119.4	.272	.377	.102	.359	.019
Maryland	10.5	27.8	129.8	.289	.360	.161	.571	.014
Massachusetts	6.3	31.2	149.3	.287	.354	.151	.474	.015
Michigan	7.4	29.1	138.9	.288	.377	.127	.489	.013
Minnesota	9.0	32.2	145.0	.302	.360	.130	.513	.011
Mississippi	7.5	21.4	109.0	.255	.459	.109	.517	.014
Missouri	7.4	28.4	126.4	.298	.369	.139	.534	.012
Montana	4.8	25.4	129.8	.270	.419	.105	.679	.013
Nebraska	7.8	23.7	112.2	.288	.431	.090	.502	.012
Nevada	10.8	29.8	132.7	.292	.417	.057	.785	.017
New Hampshire	5.7	26.9	126.7	.298	.387	.127	.457	.017
New Jersey	6.0	32.9	150.1	.304	.351	.126	.423	.015
New Mexico	6.7	19.7	96.1	.267	.389	.108	.678	.016
New York	7.4	30.7	151.0	.283	.349	.149	.413	.013
North Carolina	10.0	22.8	100.6	.292	.434	.081	.430	.013
North Dakota	6.2	25.2	118.1	.270	.433	.131	.373	.010
Ohio	8.9	26.6	123.4	.291	.382	.125	.420	.014
Oklahoma	5.5	20.7	112.2	.251	.455	.092	.606	.015
Oregon	8.8	29.6	132.5	.299	.405	.115	.607	.015
Pennsylvania	9.1	29.8	127.9	.306	.360	.127	.443	.014
Rhode Island	4.9	28.9	145.7	.276	.377	.107	.394	.011
South Carolina	8.6	20.8	91.9	.297	.435	.087	.486	.018
South Dakota	5.7	20.3	104.5	.263	.445	.072	.537	.014
Tennessee	10.3	22.2	103.6	.277	.433	.085	.581	.014
Texas	7.8	24.3	118.7	.275	.417	.098	.542	.017
Utah	7.8	25.0	122.9	.262	.414	.138	.660	.014
Vermont	4.1	22.2	117.0	.262	.395	.093	.529	.018
Virginia	8.5	23.2	98.5	.312	.426	.076	.606	.014
Washington	9.7	31.2	138.7	.306	.374	.112	.595	.020
West Virginia	6.6	19.3	96.7	.260	.414	.071	.417	.011
Wisconsin	8.6	29.4	128.4	.307	.377	.071	.477	.012
Wyoming	4.6	22.8	121.9	.248	.430	.099	.365	.015

Appendix A.

Explanation of Terms

Construction. Is composed of three broad categories:

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

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

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

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

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

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

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

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

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

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

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

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

Dollar value of business done comprises the following detail:

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

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

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

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

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

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

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

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

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

Costs for materials, components, and supplies include:

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

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

Excluded from this item are:

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

Costs for construction work subcontracted out to others include:

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

Excluded from this item are:

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

Costs for selected power, fuels, and lubricants include:

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

Rental costs for machinery, equipment, and buildings.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Building construction:

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

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

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

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

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

Appendix C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington

Publication Program

1992 CENSUS OF CONSTRUCTION INDUSTRIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(Available August 1995) [P] [C]

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

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

OTHER ECONOMIC CENSUS REPORTS

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

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

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

HOW TO ORDER DATA PRODUCTS

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