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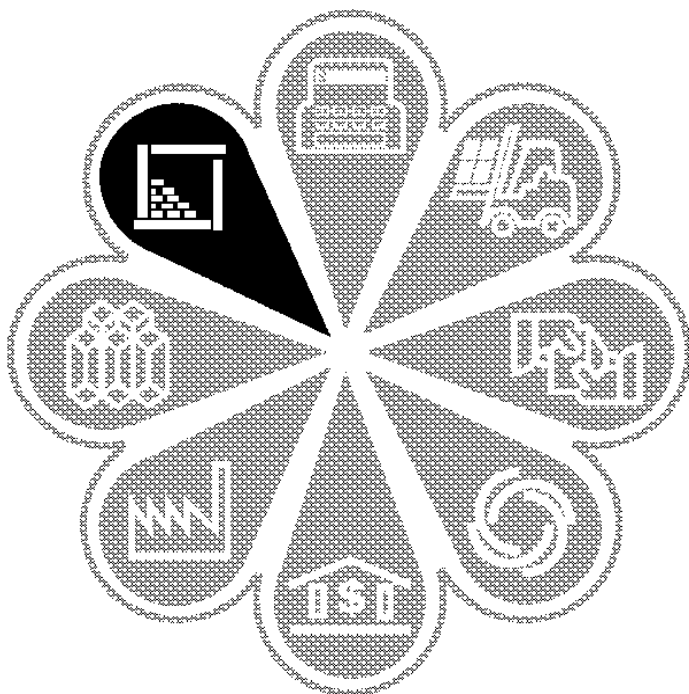
Census of Construction Industries

CC92-I-12

INDUSTRY SERIES

Electrical Work Special Trade Contractors

Industry 1731



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U.S. Department of Commerce
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Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs
BUREAU OF THE CENSUS
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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 electrical power and lighting installation at the construction site. This industry also includes establishments engaged in the installation of telecommunication equipment, electronic controls, security systems, and highway signals. For additional examples, refer to the *Standard Industrial Classification Manual: 1987*¹ (SIC) published by the Office of Management and Budget, Executive Office of the President.

During 1992, the establishments with paid employees classified in this industry accounted for \$40.7 billion in total dollar value of business. Of this amount, \$40.3 billion were for the value of construction work. These establishments paid out \$14.9 billion for materials, components, and supplies and \$1.7 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$568 million. Value added for 1992 was \$23.5 billion.

There were 54,022 establishments with total employment averaging 487,072 during the year. Total payroll for 1992 was \$13.6 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 9 percent of the total number of employer establishments in this industry, accounted for 62 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)

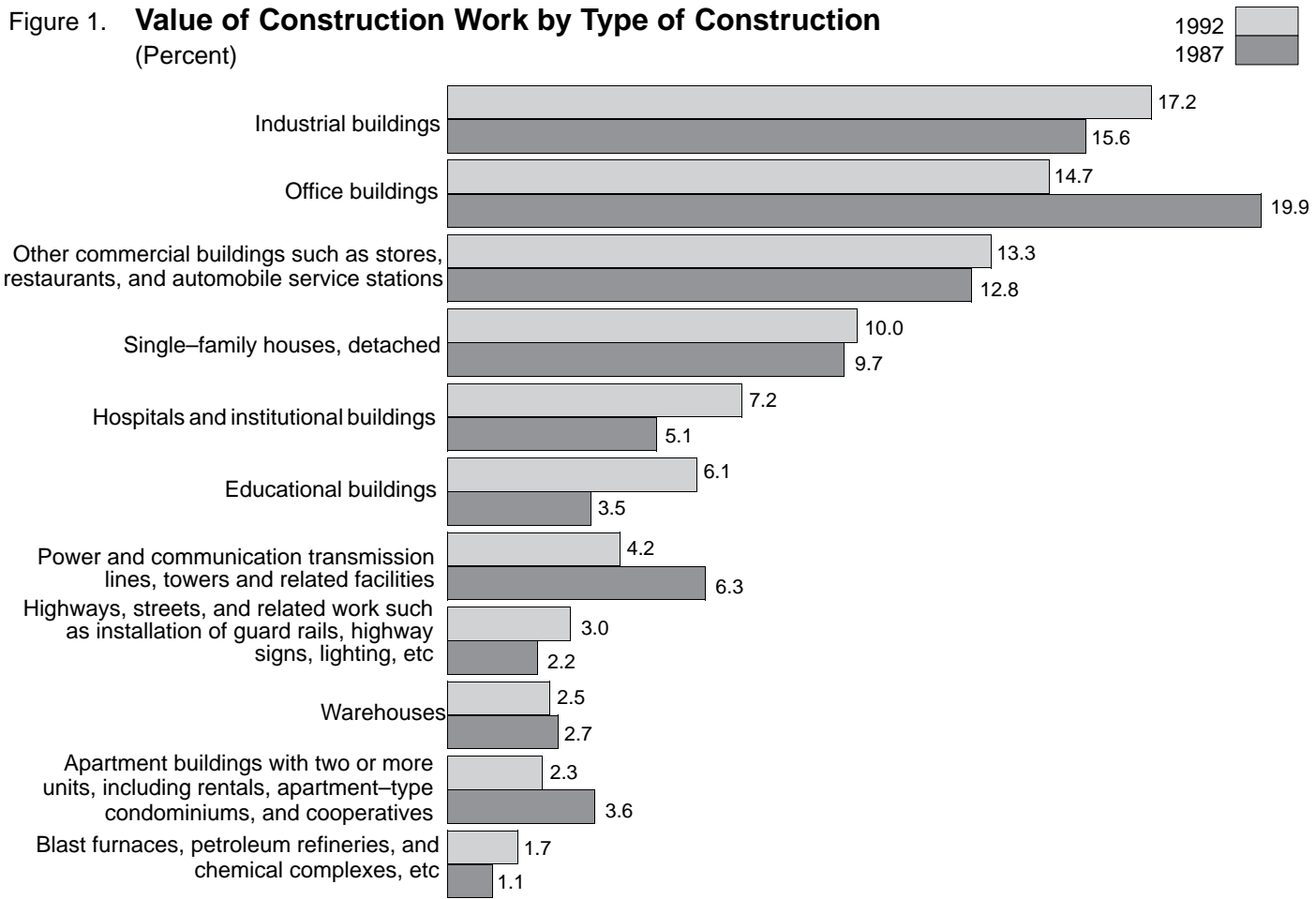


Figure 2. **Selected Costs per Dollar Value of Business Done**
(Percent)

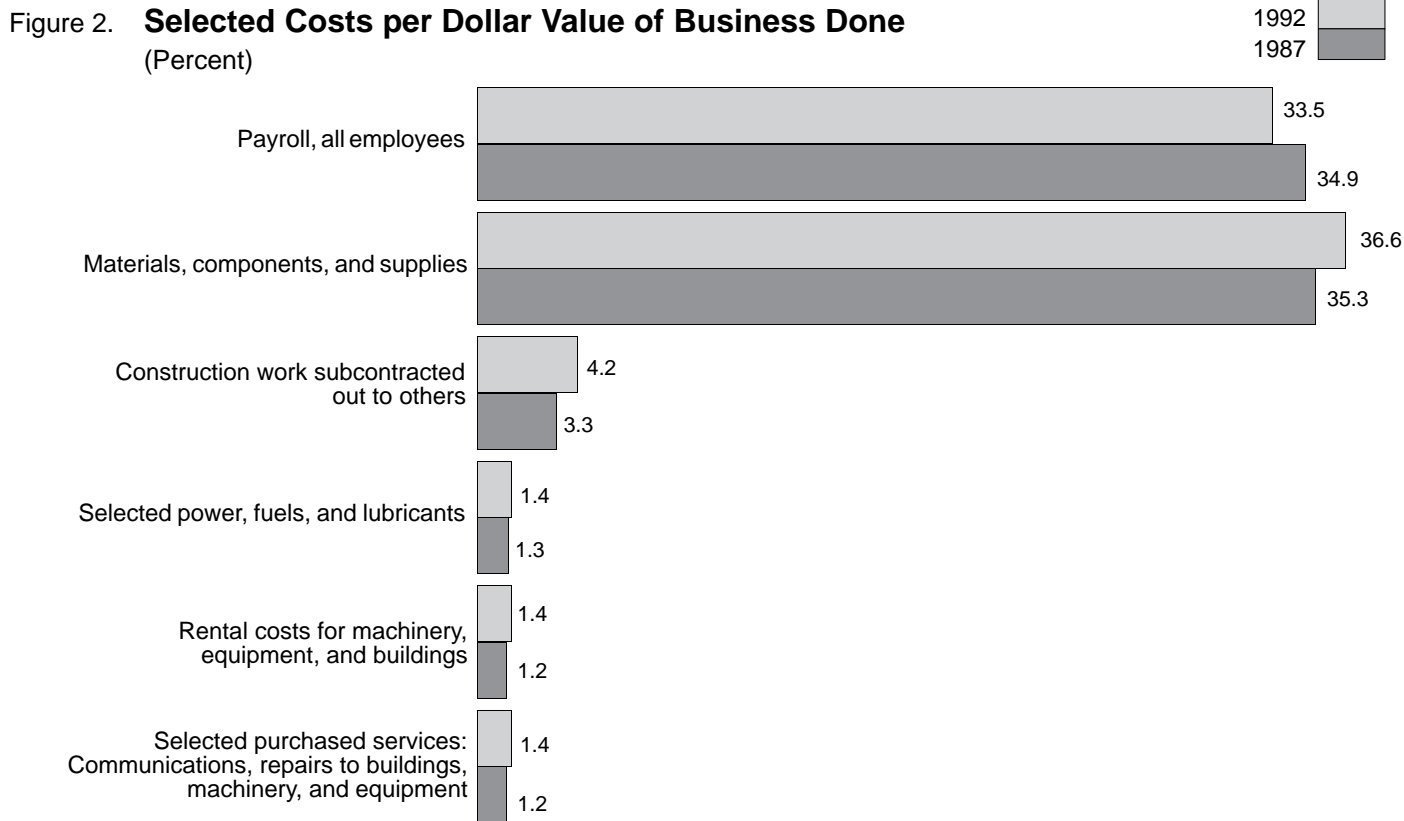


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

[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 -----	54 022	487 072	379 052	13 623 816	10 038 862	40 259 410	38 541 019	23 548 293	15 460 357
Alabama -----	654	6 756	5 412	141 907	102 150	464 828	430 120	254 651	181 044
Alaska -----	176	1 309	1 009	50 465	38 307	156 688	148 182	92 815	56 662
Arizona -----	768	7 176	5 595	152 113	108 208	509 294	486 802	255 321	237 904
Arkansas -----	434	3 546	2 810	71 794	55 023	229 900	224 065	125 889	99 697
California -----	6 077	50 159	37 866	1 559 249	1 115 200	4 813 283	4 557 223	2 734 326	1 866 458
Colorado -----	898	9 195	7 332	238 684	185 049	722 211	697 404	398 410	304 501
Connecticut -----	1 004	6 009	4 576	191 330	135 729	570 551	551 858	326 834	229 261
Delaware -----	181	1 554	1 196	43 425	32 926	120 683	116 247	71 758	45 265
District of Columbia -----	30	355	256	10 946	6 973	32 262	31 851	20 236	11 615
Florida -----	3 643	31 983	25 019	696 199	494 589	2 202 452	2 119 300	1 201 376	941 447
Georgia -----	1 407	13 887	10 823	337 111	246 409	982 595	943 510	556 079	396 579
Hawaii -----	270	3 081	2 364	98 027	68 850	326 173	312 081	194 537	119 302
Idaho -----	273	1 635	1 297	41 880	31 997	133 906	130 806	76 451	55 582
Illinois -----	2 336	23 636	18 390	845 207	638 089	2 333 980	2 218 217	1 412 000	823 587
Indiana -----	1 053	11 724	9 211	320 473	240 942	903 341	862 095	535 416	347 973
Iowa -----	507	4 349	3 361	112 853	83 893	341 373	332 572	206 608	129 765
Kansas -----	445	3 687	2 896	93 028	68 818	286 628	273 160	156 621	124 534
Kentucky -----	599	6 355	5 088	154 505	117 480	450 330	435 106	257 145	185 868
Louisiana -----	737	9 098	7 220	217 376	165 635	609 213	592 681	356 534	244 723
Maine -----	363	1 543	1 192	35 347	26 512	113 860	110 485	64 717	50 314
Maryland -----	1 281	13 459	10 389	361 050	255 213	1 044 831	1 018 324	603 062	425 900
Massachusetts -----	1 614	11 639	8 918	362 397	257 001	1 082 981	1 034 318	645 328	401 914
Michigan -----	1 840	16 327	12 394	504 834	370 821	1 374 604	1 315 622	857 420	471 817
Minnesota -----	1 208	9 776	7 650	309 345	235 534	829 235	802 143	501 336	326 084
Mississippi -----	341	2 038	1 504	50 424	38 223	161 764	154 691	98 715	59 145
Missouri -----	891	8 737	6 706	246 536	181 004	702 057	672 730	419 205	258 578
Montana -----	220	1 159	874	28 754	22 516	85 896	82 868	46 127	38 498
Nebraska -----	396	2 587	1 995	62 156	47 009	196 793	191 651	108 278	89 242
Nevada -----	305	3 555	2 781	97 153	73 474	313 664	282 064	172 207	111 866
New Hampshire -----	337	1 496	1 134	37 299	26 156	114 711	112 656	64 166	50 522
New Jersey -----	2 323	15 640	12 057	537 554	405 524	1 478 927	1 419 148	907 271	517 306
New Mexico -----	518	3 996	3 128	89 972	66 719	305 644	281 972	171 784	112 325
New York -----	3 898	35 867	28 030	1 240 243	933 598	3 439 187	3 283 874	2 120 531	1 181 748
North Carolina -----	1 860	15 227	12 197	313 705	227 072	948 060	905 650	518 022	400 952
North Dakota -----	203	1 077	837	23 568	19 190	86 897	83 400	46 009	38 063
Ohio -----	1 927	18 893	14 667	548 733	406 846	1 537 927	1 451 672	896 254	578 781
Oklahoma -----	579	4 443	3 464	102 082	74 703	311 558	300 054	180 292	127 960
Oregon -----	637	5 672	4 290	184 213	140 178	521 016	504 625	316 274	194 057
Pennsylvania -----	2 275	20 713	15 884	616 912	453 870	1 819 016	1 760 712	1 109 643	676 286
Rhode Island -----	330	1 364	997	38 153	26 768	114 924	112 062	63 961	49 769
South Carolina -----	666	7 662	6 355	177 785	137 048	482 458	466 286	290 165	179 403
South Dakota -----	166	1 107	868	22 701	17 344	79 878	73 915	44 210	31 476
Tennessee -----	779	9 669	7 543	236 231	165 389	695 778	672 550	398 939	285 852
Texas -----	2 899	33 662	26 194	804 653	567 424	2 764 654	2 651 816	1 709 420	984 646
Utah -----	354	3 278	2 601	85 349	66 740	270 236	260 857	158 854	104 434
Vermont -----	202	879	678	19 459	14 067	56 917	55 380	33 964	23 158
Virginia -----	1 413	13 448	10 661	331 203	235 797	959 376	919 972	525 171	407 642
Washington -----	1 205	12 887	10 183	395 855	306 917	1 111 703	1 066 891	615 052	463 125
West Virginia -----	261	2 149	1 780	55 757	46 049	145 823	143 718	92 182	52 348
Wisconsin -----	1 069	9 932	7 957	298 815	235 483	834 393	803 649	485 555	330 460
Wyoming -----	168	1 154	891	29 007	22 406	84 949	81 987	51 170	34 923

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				
1 718 391	22 410 612	550 171	508 188	4 328 892	509 309	35 838 226	21 816 585	(Z)	(Z)	2	U.S.
*34 708	260 706	4 394	7 431	58 376	6 813	401 661	231 415	3	3	15	AL
8 506	132 878	3 279	2 672	16 223	917	101 691	64 367	6	5	23	AK
22 492	338 241	6 674	6 157	49 525	8 298	520 045	288 185	3	3	11	AZ
5 834	147 258	2 961	4 161	28 352	2 729	157 870	82 783	5	4	22	AR
256 059	3 028 065	93 005	50 584	491 248	57 797	4 866 723	2 864 117	1	1	7	CA
24 807	466 795	9 468	11 283	73 415	8 173	566 983	343 119	2	2	10	CO
18 694	272 126	6 624	4 321	52 640	8 534	641 327	414 076	2	2	10	CT
4 436	63 042	1 516	783	11 586	1 622	108 491	66 166	4	2	38	DE
411	16 158	258	(S)	2 699	1 629	121 580	92 759	10	6	(S)	DC
83 152	1 376 598	33 443	25 826	232 167	36 281	1 998 988	1 130 468	1	1	7	FL
39 085	556 843	15 249	11 505	119 381	16 633	1 014 997	591 669	2	2	11	GA
14 092	256 734	6 452	6 418	39 946	1 949	198 600	117 010	2	2	5	HI
3 100	97 449	2 021	3 144	12 127	1 116	61 817	35 589	6	6	20	ID
115 763	1 407 588	30 878	34 545	253 435	23 636	1 970 662	1 264 271	1	1	8	IL
41 246	409 320	9 216	10 195	99 928	9 571	637 738	402 616	2	1	7	IN
8 801	158 772	4 116	5 411	49 612	3 293	206 954	113 136	4	2	10	IA
13 468	156 793	3 272	3 285	38 611	4 527	309 805	189 133	3	3	13	KS
15 224	272 254	5 407	6 726	49 268	5 539	329 504	182 360	3	3	18	KY
16 532	344 198	6 994	6 124	52 876	7 874	493 263	307 090	3	2	9	LA
3 375	48 448	869	*1 136	10 897	2 065	131 004	76 734	7	6	44	ME
26 507	665 866	13 531	12 878	107 632	14 646	942 257	577 073	2	2	15	MD
48 664	662 404	13 045	10 046	94 007	17 067	1 203 412	738 819	2	2	14	MA
58 982	774 119	18 755	24 073	177 334	15 096	1 228 011	785 131	2	1	7	MI
27 092	422 625	10 657	12 026	86 911	8 581	687 612	416 607	2	2	9	MN
7 072	63 501	2 505	2 190	35 769	2 277	126 990	72 997	5	5	21	MS
29 327	433 348	6 183	12 307	95 240	9 164	698 478	438 183	2	2	17	MO
3 028	50 865	851	2 926	12 321	756	44 169	27 956	6	7	36	MT
5 142	113 401	1 772	2 623	27 607	2 641	175 141	101 639	3	3	10	NE
31 600	274 658	5 028	3 834	29 767	2 768	244 191	144 674	3	3	15	NV
2 055	61 179	1 696	1 301	13 936	2 609	166 088	93 314	5	5	17	NH
59 779	672 603	19 506	15 214	140 809	20 708	1 504 610	941 688	1	1	7	NJ
23 673	164 649	3 653	5 833	42 007	2 805	207 144	109 824	3	3	14	NM
155 313	1 579 533	45 158	25 918	278 394	45 658	3 803 434	2 560 106	1	1	5	NY
42 410	451 668	10 711	12 756	123 976	16 338	880 489	469 475	2	2	12	NC
3 497	17 245	1 360	1 948	19 794	980	56 340	30 485	6	7	36	ND
86 255	793 901	16 657	18 798	173 422	16 303	1 160 626	700 493	1	1	5	OH
11 504	152 456	4 440	5 956	42 597	4 006	231 531	129 881	3	3	18	OK
16 391	305 011	7 559	8 656	63 504	4 214	301 654	184 236	2	2	6	OR
58 304	781 343	20 283	20 094	170 808	20 678	1 530 536	983 939	1	1	8	PA
2 862	49 926	927	1 727	12 359	1 883	138 815	87 134	4	3	35	RI
16 172	281 505	8 296	5 272	76 199	9 542	455 758	281 256	2	2	13	SC
*5 964	37 717	1 179	*2 212	17 604	730	40 111	21 616	7	9	43	SD
23 228	370 933	7 495	10 016	83 117	11 012	648 989	398 487	2	2	10	TN
112 838	1 467 141	36 544	36 158	293 702	32 827	2 065 300	1 226 320	1	1	6	TX
9 379	183 166	3 880	6 650	39 100	2 612	192 262	100 874	5	3	12	UT
1 537	15 533	609	598	6 526	1 056	65 946	36 384	6	5	33	VT
39 403	587 577	13 604	12 333	100 833	14 928	923 952	534 661	2	1	7	VA
44 812	720 470	17 067	14 156	100 299	8 564	638 499	374 240	2	1	9	WA
2 105	67 390	(S)	(S)	16 201	1 742	96 078	64 001	6	5	(S)	WV
(S)	338 436	8 657	13 153	91 300	7 128	483 991	294 711	2	1	10	WI
2 962	40 180	1 492	2 216	13 509	969	56 090	33 298	4	5	18	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	54 022	49 436	39 563	36 764	(Z)	(Z)	1	1
Proprietors and working partners	16 431	11 406	11 792	18 574	1	3	2	2
All employees**	487 072	509 309	434 764	356 591	(Z)	1	(Z)	(Z)
Construction workers:								
March	368 289	395 113	345 368	277 202	(Z)	1	(Z)	(Z)
May	371 673	396 921	348 303	291 843	(Z)	1	(Z)	(Z)
August	395 949	422 196	356 276	309 833	(Z)	1	(Z)	(Z)
November	380 299	409 699	342 666	308 046	(Z)	1	1	(Z)
Average	379 052	405 982	351 894	296 946	(Z)	(Z)	(Z)	(Z)
Other employees:								
March	105 945	101 194	82 748	58 138	1	1	1	1
May	107 140	103 171	(NA)	(NA)	1	1	(NA)	(NA)
August	107 580	103 391	(NA)	(NA)	1	1	(NA)	(NA)
November	111 412	105 582	(NA)	(NA)	1	1	(NA)	(NA)
Average	108 019	103 334	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees	13 623 816	12 663 516	9 106 563	5 482 519	(Z)	(Z)	(Z)	(Z)
Payroll, construction workers	10 038 862	9 621 993	7 346 536	4 496 695	(Z)	(Z)	(Z)	(Z)
Payroll, other employees	3 584 954	3 041 522	1 760 027	985 825	(Z)	(Z)	(Z)	(Z)
First-quarter payroll, all employees	3 167 880	2 957 539	2 164 750	1 220 111	(Z)	1	(Z)	(Z)
Fringe benefits, all employees	3 602 516	2 962 599	1 619 494	1 094 744	(Z)	(Z)	(Z)	(Z)
Legally required expenditures	1 968 666	1 927 854	1 241 780	501 993	(Z)	1	(Z)	(Z)
Voluntary expenditures	1 633 850	1 034 745	377 714	592 751	1	1	(Z)	(Z)
Dollar value of business done	40 727 041	36 275 257	26 441 085	14 481 842	(Z)	(Z)	(Z)	(Z)
Value of construction work	40 259 410	35 838 226	25 948 527	14 221 277	(Z)	(Z)	(Z)	(Z)
Value of construction work subcontracted in from others	22 410 612	16 067 963	10 822 978	6 928 640	1	1	1	(Z)
Other business receipts	467 631	437 030	492 558	260 565	3	2	1	2
Net value of construction work†	38 541 019	34 657 764	25 252 434	13 919 122	(Z)	(Z)	(Z)	(Z)
Value added††	23 548 293	21 816 585	15 122 619	8 748 490	(Z)	(Z)	(Z)	(Z)
Selected costs	17 178 748	14 458 671	11 318 466	5 733 353	(Z)	1	(Z)	(Z)
Materials, components, and supplies	14 892 772	12 788 495	10 234 565	5 239 950	(Z)	(Z)	(Z)	(Z)
Construction work subcontracted out to others	1 718 391	1 180 462	696 092	302 156	1	3	1	2
Selected power, fuels, and lubricants	567 585	489 713	387 808	191 247	1	1	1	1
Electricity	105 737	81 132	56 613	27 989	1	1	1	1
Natural and manufactured gas	19 334	16 935	13 679	8 881	2	2	2	3
Gasoline and diesel fuel	423 321	362 957	294 679	140 452	1	1	1	1
On highway use	383 318	337 671	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use	40 003	25 286	(NA)	(NA)	5	2	(NA)	(NA)
Other, including lubricating oils and greases	19 194	28 688	22 836	13 926	2	2	2	2
Rental cost for machinery, equipment, and buildings	550 171	440 512	238 416	104 368	1	1	1	1
For machinery and equipment	258 385	201 939	133 087	59 322	1	1	1	1
For buildings	291 786	238 573	105 329	45 046	1	1	1	1
Selected purchased services	569 248	417 485	271 747	177 895	1	1	1	3
Communication services	259 880	198 070	119 242	74 206	1	1	1	2
Repairs to buildings and other structures	38 080	36 019	23 866	14 250	2	2	1	2
Repairs to machinery and equipment	271 289	183 395	128 638	89 439	1	1	1	5
Ownership of construction projects:								
Value of construction work	40 259 410	35 838 226	25 948 527	14 221 277	(Z)	(Z)	(Z)	(Z)
Government owned	9 364 753	6 270 845	3 743 799	2 525 096	1	2	1	(Z)
Federal	2 646 426	2 072 994	(NA)	(NA)	2	4	(NA)	(NA)
State and local	6 718 326	4 197 850	(NA)	(NA)	1	1	(NA)	(NA)
Privately owned	30 894 657	29 567 381	22 204 727	11 696 182	1	1	(Z)	(Z)

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

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

Item	1992	1987	Relative standard error of estimate (percent)	
			1992	1987
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	4 020 723	2 966 533	1	1
Capital expenditures, other than land	508 188	495 613	2	1
New	393 700	387 094	2	2
Used	114 488	108 519	3	4
Retirements and disposition of depreciable assets.....	200 019	125 188	3	2
End-of-year gross book value of depreciable assets	4 328 892	3 336 958	1	1
Depreciation charges during year	494 480	442 076	1	1
Buildings and Other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	722 104	774 678	3	2
Capital expenditures, other than land	55 881	80 605	5	4
New buildings and other structures	40 367	51 657	6	4
Used buildings and other structures.....	15 515	28 948	9	9
Retirements and disposition of depreciable assets.....	26 848	17 780	10	5
End-of-year gross book value of depreciable assets	751 137	837 503	2	2
Depreciation charges during year	58 071	77 985	4	2
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	3 298 619	2 191 855	1	1
Capital expenditures, other than land	452 307	415 008	2	1
New machinery and equipment, including automobiles and trucks	353 333	335 437	2	2
New automobiles and trucks, intended primarily for highway use	185 547	226 797	3	2
Used machinery and equipment, including automobiles and trucks	98 974	79 570	3	3
Retirements and disposition of depreciable assets.....	173 171	107 408	3	2
End-of-year gross book value of depreciable assets	3 577 755	2 499 455	1	1
Depreciation charges during year	436 409	364 090	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	54 022	(Z)
Value of construction work	40 259 410	(Z)
Establishments with inventories:		
Number	25 991	1
Value of construction work	24 282 236	(Z)
Inventories¹:		
End of 1992, materials and supplies	730 998	2
End of 1991, materials and supplies	710 862	2
Establishments with no inventories:		
Number	13 461	1
Value of construction work	9 022 694	1
Establishments not reporting:		
Number	14 570	1
Value of construction work	6 954 480	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	54 022	32 138	10 639	6 316	3 433	981	400	94	20	2
All employees**	487 072	61 683	68 046	83 378	101 907	66 605	57 542	31 973	15 937	(D)
Payroll, all employees	13 623 816	1 130 161	1 559 936	2 170 575	2 938 594	2 167 495	1 958 035	1 113 387	585 634	(D)
Dollar value of business done	40 727 041	4 469 219	4 712 475	6 431 235	8 584 348	6 141 669	5 476 657	3 057 089	1 854 349	(D)
Value of construction work	40 259 410	4 428 930	4 637 929	6 350 293	8 497 045	6 076 932	5 391 350	3 025 145	1 851 787	(D)
Net value of construction work†	38 541 019	4 282 183	4 503 211	6 102 620	8 143 307	5 767 188	5 110 724	2 871 587	1 760 199	(D)
Value added††	23 548 293	2 459 743	2 727 977	3 644 812	4 917 630	3 534 045	3 178 626	1 835 545	1 249 914	(D)
Cost of materials, components, supplies, and fuels	15 460 357	1 862 730	1 849 780	2 538 751	3 312 979	2 297 879	2 017 405	1 067 986	512 847	(D)
Cost of construction work subcontracted out to others	1 718 391	146 747	134 718	247 672	353 738	309 744	280 626	153 558	91 588	(D)
Rental cost for machinery, equipment, and buildings	550 171	59 002	65 369	102 524	107 027	78 568	60 195	41 060	36 424	(D)
Capital expenditures, other than land	508 188	78 923	67 566	94 414	108 398	80 005	41 703	24 925	12 254	(D)
End-of-year gross book value of depreciable assets	4 328 892	621 817	577 683	777 718	931 680	651 442	423 197	215 158	130 197	(D)
1987										
All employees**	509 309	54 411	72 593	84 775	107 146	65 776	71 866	30 252	12 615	9 871
Value of construction work	35 838 226	3 432 481	4 088 965	5 402 040	7 675 104	5 029 064	5 805 988	2 542 384	1 862 198	(D)
Value added††	21 816 585	1 916 741	2 434 840	3 248 485	4 610 927	2 961 120	3 623 087	1 728 709	644 269	648 406
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees**	(Z)	2	2	2	1	(Z)	(Z)	(Z)	(Z)	(D)
Net value of construction work†	(Z)	2	2	2	1	(Z)	(Z)	(Z)	(Z)	(D)
Capital expenditures, other than land	2	6	7	5	2	(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	54 022	(S)	(S)	7 559	15 538	10 121	6 453	4 683	1 685	792	509
All employees**	487 072	(S)	(S)	11 201	42 779	54 393	63 997	91 497	63 746	55 786	98 101
Payroll, all employees	13 623 816	(S)	(S)	151 335	742 705	1 144 645	1 530 143	2 497 235	1 930 406	1 873 587	3 700 884
Dollar value of business done	40 727 041	(S)	(S)	561 188	2 515 235	3 551 809	4 513 897	7 155 366	5 750 097	5 371 973	11 122 695
Value of construction work	40 259 410	(S)	(S)	555 469	2 490 590	3 520 762	4 450 717	7 052 447	5 683 927	5 308 601	11 013 926
Net value of construction work†	38 541 019	(S)	(S)	543 173	2 443 148	3 447 868	4 334 001	6 774 985	5 414 104	5 062 311	10 342 485
Value added††	23 548 293	(S)	(S)	315 614	1 454 843	2 014 273	2 629 357	4 073 978	3 244 189	3 147 717	6 563 034
Cost of materials, components, supplies, and fuels	15 460 357	(S)	(S)	233 278	1 012 950	1 464 642	1 767 824	2 803 926	2 236 085	1 977 966	3 888 220
Cost of construction work subcontracted out to others	1 718 391	(S)	(S)	12 297	47 442	72 894	116 716	277 462	269 823	246 290	671 441
Rental cost for machinery, equipment, and buildings	550 171	(S)	(S)	6 811	32 367	51 964	67 483	105 222	72 696	65 194	146 769
Capital expenditures, other than land	508 188	(S)	(S)	44 212	57 491	74 175	96 520	72 653	72 653	66 053	85 900
End-of-year gross book value of depreciable assets	4 328 892	(S)	(S)	79 366	352 241	472 293	612 735	832 611	610 487	536 928	803 462
1987											
All employees**	509 309	(S)	(S)	(S)	48 865	55 374	69 061	90 135	68 343	60 692	96 863
Value of construction work	35 838 226	(S)	(S)	(S)	2 423 291	2 961 243	4 196 781	6 248 725	5 227 696	4 780 523	9 305 177
Value added††	21 816 585	(S)	(S)	(S)	1 390 618	1 782 985	2 503 198	3 748 820	3 067 759	2 917 043	6 015 924
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees**	(Z)	(S)	(S)	3	2	2	2	1	(Z)	(Z)	(Z)
Net value of construction work†	(Z)	(S)	(S)	3	2	2	2	1	(Z)	(Z)	(Z)
Capital expenditures, other than land	2	(S)	(S)	(S)	7	7	7	4	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	40 259 410	18 936 375	12 066 037	6 346 601	(Z)	(Z)	1	1
Building construction	32 321 030	16 141 665	10 760 584	5 418 781	(Z)	(Z)	1	1
Single-family houses	4 648 845	2 811 640	1 016 034	821 172	1	2	2	2
Single-family houses, detached	4 038 338	2 438 023	894 936	705 379	1	2	2	2
Single-family houses, attached, including townhouses and townhouse-type condominiums	610 508	373 617	121 098	115 793	3	4	4	3
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	939 455	505 141	227 026	207 287	2	3	3	5
Other residential buildings, including hotels, motels, and tourist cabins	553 928	296 322	150 857	106 749	2	2	3	5
Hotels, motels, and tourist cabins	447 359	238 357	123 391	85 612	2	2	3	3
Other residential buildings	106 569	57 965	27 467	21 137	8	9	9	20
Office buildings	5 926 949	2 443 593	2 536 146	947 209	1	1	1	1
Other commercial buildings such as stores, restaurants, and automobile service stations	5 356 277	2 894 911	1 518 917	942 449	1	1	2	2
Industrial buildings and warehouses	7 960 564	3 584 673	2 797 219	1 578 672	1	1	1	1
Industrial buildings	6 934 233	3 042 163	2 478 597	1 413 473	1	1	1	1
Warehouses	1 026 331	542 510	318 622	165 199	1	2	2	2
Religious buildings	445 301	211 239	152 295	81 767	2	3	3	3
Educational buildings	2 468 614	1 311 812	902 023	254 780	1	1	2	2
Hospitals and institutional buildings	2 904 932	1 450 109	1 149 073	305 751	1	1	1	2
Farm buildings, nonresidential	155 908	68 244	40 134	47 529	6	8	6	6
Amusement, social, and recreational buildings, indoors	337 464	221 022	78 787	37 655	2	3	4	5
Other nonresidential buildings	622 792	342 958	192 073	87 762	3	3	5	8
Nonbuilding construction	5 027 983	2 794 710	1 305 453	927 820	1	1	1	2
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc.	1 217 037	814 439	232 468	170 130	2	2	3	2
Power and communication transmission lines, towers, and related facilities	1 700 780	900 591	460 261	339 928	2	2	2	4
Mass transit construction	286 861	197 916	83 803	5 142	1	1	1	2
Blast furnaces, petroleum refineries, chemical complexes, etc.	670 432	265 897	199 205	205 330	2	1	4	1
Power plants	508 076	219 539	166 174	122 363	1	2	2	2
Power plants, nuclear	64 700	23 904	26 445	14 350	1	2	2	7
Power plants and cogeneration plants, except nuclear	443 376	195 635	139 729	108 012	1	2	2	2
Sewage treatment and water treatment plants	231 097	163 769	56 849	10 480	3	2	6	10
Sewage treatment plants	197 535	143 928	45 694	7 913	3	2	6	12
Water treatment plants	33 563	19 841	11 155	2 567	9	14	7	13
Other nonbuilding construction	413 700	232 560	106 694	74 447	5	6	6	9
Construction work, n.s.k.	2 910 397	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
1987								
Value of construction work	35 838 226	19 124 238	9 826 818	5 229 657	(Z)	1	1	1
Building construction	29 056 063	16 570 385	8 141 801	4 343 881	(Z)	1	1	1
Single-family houses	4 164 610	2 773 371	757 296	633 943	1	1	2	2
Single-family houses, detached	3 460 344	2 234 563	673 924	551 856	1	2	2	3
Single-family houses, attached, including townhouses and townhouse-type condominiums	704 266	538 807	83 371	82 087	2	2	5	4
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	1 284 568	901 414	202 031	181 122	2	2	4	3
Other residential buildings, including hotels, motels, and tourist cabins	1 091 273	701 239	244 016	146 017	1	1	3	3
Hotels, motels, and tourist cabins	772 646	539 245	160 204	73 197	1	1	4	4
Other residential buildings	318 626	161 994	83 812	72 820	3	3	4	5
Office buildings	7 127 066	3 830 394	2 407 202	889 469	1	1	1	1
Other commercial buildings such as stores, restaurants, and automobile service stations	4 604 330	2 638 884	1 154 483	810 964	1	1	2	2
Industrial buildings and warehouses	6 548 566	3 436 698	1 941 105	1 170 762	1	1	1	1
Industrial buildings	5 580 302	2 815 151	1 733 725	1 031 425	1	1	1	1
Warehouses	968 264	621 547	207 380	139 337	1	2	2	2
Religious buildings	354 962	189 609	100 281	65 071	2	3	3	6
Educational buildings	1 246 465	685 961	423 927	136 576	1	2	2	3
Hospitals and institutional buildings	1 822 402	970 412	685 928	166 061	1	1	1	3
Farm buildings, nonresidential	127 201	39 593	45 911	41 696	6	7	12	6
Amusement, social, and recreational buildings, indoors	257 214	167 033	54 835	35 344	3	4	3	4
Other nonresidential buildings	427 401	235 771	124 781	66 848	3	3	5	7
Nonbuilding construction	5 124 653	2 553 856	1 685 018	885 779	1	2	1	2
Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc.	782 517	470 547	188 150	123 819	2	2	2	2
Power and communication transmission lines, towers, and related facilities	2 257 271	1 100 055	758 745	398 471	3	4	1	4
Mass transit construction	335 253	150 339	164 747	20 166	1	2	1	1
Blast furnaces, petroleum refineries, chemical complexes, etc.	379 422	131 027	166 953	81 441	2	3	1	5
Power plants	543 989	254 175	196 774	93 039	1	1	1	2
Power plants, nuclear	143 961	53 095	66 954	23 910	(Z)	(Z)	(Z)	(Z)
Power plants and cogeneration plants, except nuclear	400 028	201 080	129 819	69 128	1	1	1	3
Sewage treatment and water treatment plants	173 221	120 576	35 443	17 200	4	5	5	10
Sewage treatment plants	126 912	86 381	27 795	12 735	5	5	5	9
Water treatment plants	46 308	34 195	7 648	4 464	8	7	10	22
Other nonbuilding construction	652 979	327 136	174 206	151 642	5	5	9	7
Construction work, n.s.k.	1 657 513	(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	54 022	487 072	13 623 816	40 259 410	19 809 604	38 541 019	23 548 293	1 718 391	(Z)	(Z)	1
Establishments not specializing by type	16 422	191 153	5 533 869	16 378 329	(NA)	15 695 922	9 316 771	682 407	1	1	1
Establishments specializing 51 percent or more	37 601	295 918	8 089 947	23 881 081	19 809 604	22 845 097	14 231 521	1 035 984	1	(Z)	2
SINGLE-FAMILY HOUSES, DETACHED											
All establishments specializing in type	13 447	51 625	1 041 373	3 296 264	2 700 907	3 223 471	1 901 457	72 793	2	2	8
Establishments with —											
100 percent specialization	3 882	11 334	213 768	740 018	740 018	725 967	420 556	14 051	5	4	25
90 to 99 percent specialization	2 693	11 420	231 723	713 594	664 468	701 894	409 221	11 701	5	4	14
80 to 89 percent specialization	2 060	7 521	159 225	496 618	407 826	483 505	284 917	13 113	5	5	29
70 to 79 percent specialization	2 350	10 252	200 052	614 181	446 419	604 590	365 822	9 591	4	4	20
60 to 69 percent specialization	1 873	8 458	180 000	572 109	354 921	550 458	327 593	21 651	6	5	7
51 to 59 percent specialization	587	2 640	56 605	159 744	87 256	157 058	93 348	2 687	10	9	20
SINGLE-FAMILY HOUSES, ATTACHED, INCLUDING TOWNHOUSES AND TOWNHOUSE-TYPE CONDOMINIUMS											
All establishments specializing in type	541	2 217	46 658	161 779	127 559	160 317	93 869	1 462	10	13	22
Establishments with —											
100 percent specialization	198	564	9 980	42 680	42 680	42 180	24 480	*500	20	20	41
90 to 99 percent specialization	*30	229	5 564	14 669	13 801	(D)	9 042	(D)	34	32	(D)
80 to 89 percent specialization	65	456	8 805	23 860	19 192	23 852	15 578	(S)	21	23	(S)
70 to 79 percent specialization	83	268	6 755	*30 893	*22 684	*30 824	*18 380	*69	22	49	59
60 to 69 percent specialization	(S)	489	11 086	(S)	(S)	(S)	(S)	(S)	22	(S)	(S)
51 to 59 percent specialization	28	212	4 468	15 314	8 395	(D)	8 405	(D)	28	29	(D)
APARTMENT BUILDINGS WITH TWO OR MORE UNITS, INCLUDING RENTALS, APARTMENT-TYPE CONDOMINIUMS, AND COOPERATIVES											
All establishments specializing in type	645	4 596	109 720	344 334	275 011	325 275	193 032	19 059	6	6	11
Establishments with —											
100 percent specialization	171	867	18 331	76 675	76 675	71 346	44 181	5 329	17	18	37
90 to 99 percent specialization	83	895	20 656	55 342	50 983	54 366	34 716	976	9	11	20
80 to 89 percent specialization	107	615	12 955	46 094	37 558	45 686	23 333	409	18	16	8
70 to 79 percent specialization	130	925	25 217	76 489	55 669	66 976	40 107	9 514	13	9	3
60 to 69 percent specialization	146	1 100	26 658	73 570	45 434	70 950	40 687	2 620	15	15	18
51 to 59 percent specialization	7	194	5 902	16 164	8 692	15 953	10 007	*211	11	10	42
OFFICE BUILDINGS											
All establishments specializing in type	2 636	36 445	1 220 128	3 297 144	2 574 867	3 191 547	2 019 053	105 597	2	1	5
Establishments with —											
100 percent specialization	671	6 477	238 331	632 410	632 410	614 698	404 056	17 712	4	3	10
90 to 99 percent specialization	387	5 542	173 220	441 220	412 211	430 142	288 019	11 078	5	4	9
80 to 89 percent specialization	387	6 920	254 337	648 531	529 950	632 558	409 625	15 973	3	2	17
70 to 79 percent specialization	451	5 359	168 278	510 200	368 848	486 412	285 733	23 788	4	4	13
60 to 69 percent specialization	498	7 744	239 108	659 163	407 120	635 686	389 420	23 477	4	3	9
51 to 59 percent specialization	243	4 402	146 854	405 621	224 329	392 052	242 200	13 569	4	4	6
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type	3 687	35 460	949 838	3 159 763	2 588 358	3 015 346	1 920 497	144 417	2	2	6
Establishments with —											
100 percent specialization	1 128	9 830	265 234	1 133 451	1 133 451	1 079 577	798 725	53 874	4	2	2
90 to 99 percent specialization	371	3 394	89 477	254 279	238 196	245 958	142 671	8 321	7	9	30
80 to 89 percent specialization	538	4 633	130 022	363 116	300 995	354 483	211 201	8 633	6	5	12
70 to 79 percent specialization	658	6 962	193 198	604 356	435 153	557 103	313 109	47 253	5	5	17
60 to 69 percent specialization	674	7 494	189 625	567 627	350 195	549 620	317 199	18 006	4	4	6
51 to 59 percent specialization	319	3 148	82 281	236 935	130 368	228 604	137 593	8 331	7	6	9
INDUSTRIAL BUILDINGS											
All establishments specializing in type	4 095	57 475	1 836 488	4 847 049	3 748 522	4 645 768	2 972 729	201 281	1	1	2
Establishments with —											
100 percent specialization	1 053	11 423	346 479	840 576	840 576	810 066	538 330	30 510	3	3	6
90 to 99 percent specialization	598	7 295	226 172	606 818	566 621	587 642	372 020	19 176	4	4	3
80 to 89 percent specialization	755	10 282	327 063	857 482	706 792	830 690	550 492	26 792	3	3	3
70 to 79 percent specialization	690	8 782	285 423	785 657	578 308	743 094	465 197	42 563	4	3	3
60 to 69 percent specialization	709	11 613	386 511	1 097 363	693 014	1 043 216	634 349	54 147	3	2	7
51 to 59 percent specialization	289	8 081	264 839	659 154	363 210	631 059	412 341	28 094	2	2	2
WAREHOUSES											
All establishments specializing in type	219	1 275	34 874	109 044	86 261	105 088	61 411	3 956	12	9	14
Establishments with —											
100 percent specialization	40	232	7 676	28 068	28 068	25 786	16 064	2 282	17	11	4
90 to 99 percent specialization	76	161	4 304	14 309	13 073	13 574	6 078	*735	27	19	61
80 to 89 percent specialization	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
70 to 79 percent specialization	29	408	13 752	37 168	26 613	36 738	22 666	430	11	10	38
60 to 69 percent specialization	53	317	6 105	18 199	11 518	17 811	10 915	*388	36	34	68
51 to 59 percent specialization	*13	*116	*2 277	*7 693	*4 103	*7 580	*4 042	*113	42	45	43

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	893	9 435	255 569	812 578	594 112	770 179	424 720	42 399	4	3	6
Establishments with —											
100 percent specialization	140	760	25 038	73 837	73 837	69 772	42 793	4 065	18	15	17
90 to 99 percent specialization	100	980	26 126	91 127	84 352	85 049	42 435	6 078	13	10	25
80 to 89 percent specialization	132	1 218	32 781	116 269	94 417	108 855	56 036	7 414	9	9	9
70 to 79 percent specialization	200	2 363	62 894	198 196	144 528	188 088	97 602	10 108	7	6	12
60 to 69 percent specialization	213	2 525	64 763	208 791	128 904	199 652	111 846	9 139	9	7	14
51 to 59 percent specialization	108	1 590	43 967	124 358	68 073	118 762	74 008	5 596	10	8	9
HOSPITALS AND INSTITUTIONAL BUILDINGS											
All establishments specializing in type	544	8 673	287 664	859 627	618 672	814 318	492 311	45 309	3	3	7
Establishments with —											
100 percent specialization	135	1 440	48 612	130 323	130 323	122 103	77 798	8 221	7	7	11
90 to 99 percent specialization	46	500	13 706	39 550	36 048	39 151	25 521	398	21	17	10
80 to 89 percent specialization	92	690	18 261	61 319	49 666	54 843	31 382	*6 476	13	15	48
70 to 79 percent specialization	92	1 984	71 397	214 737	156 208	207 586	130 930	7 151	5	5	9
60 to 69 percent specialization	81	2 481	88 586	264 824	163 342	253 961	145 081	10 863	2	2	1
51 to 59 percent specialization	98	1 577	47 103	148 873	83 085	136 673	81 598	12 200	8	9	4
HIGHWAYS, STREETS, AND RELATED WORK SUCH AS INSTALLATION OF GUARD RAILS, HIGHWAY SIGNS, LIGHTING, ETC.											
All establishments specializing in type	407	8 065	251 672	902 769	793 754	843 234	456 196	59 536	3	3	6
Establishments with —											
100 percent specialization	237	3 445	112 954	386 046	386 046	361 859	191 158	24 186	5	4	6
90 to 99 percent specialization	67	1 687	56 008	199 669	185 646	185 197	113 475	14 472	9	7	21
80 to 89 percent specialization	30	1 092	18 896	95 531	80 136	86 012	32 569	9 519	9	8	6
70 to 79 percent specialization	28	645	20 176	72 216	52 155	67 144	42 320	5 071	10	10	6
60 to 69 percent specialization	23	703	25 092	91 626	58 229	88 832	46 404	2 794	6	3	3
51 to 59 percent specialization	22	492	18 547	57 682	31 542	54 189	30 270	3 493	8	6	5
POWER AND COMMUNICATION TRANSMISSION LINES, TOWERS, AND RELATED FACILITIES											
All establishments specializing in type	1 023	16 618	466 886	1 385 086	1 314 773	1 235 076	837 863	150 009	2	2	11
Establishments with —											
100 percent specialization	881	13 628	372 507	1 093 047	1 093 047	972 955	659 128	120 093	3	3	14
90 to 99 percent specialization	24	549	16 385	47 059	43 943	43 981	31 579	3 077	15	18	5
80 to 89 percent specialization	28	1 172	33 300	98 232	80 837	85 143	60 715	13 089	8	8	10
70 to 79 percent specialization	32	331	14 564	46 737	34 817	(D)	25 214	(D)	25	11	(D)
60 to 69 percent specialization	21	767	26 711	87 985	55 776	78 504	54 083	9 482	6	4	1
51 to 59 percent specialization	37	172	3 418	12 025	6 352	(D)	7 145	(D)	16	15	(D)
BLAST FURNACES, PETROLEUM REFINERIES, CHEMICAL COMPLEXES, ETC.											
All establishments specializing in type	195	8 697	266 254	561 968	480 026	546 448	384 806	15 520	2	2	2
Establishments with —											
100 percent specialization	86	4 090	121 118	252 410	252 410	249 067	190 783	3 342	1	1	1
90 to 99 percent specialization	19	818	23 662	52 959	49 493	51 578	33 177	1 381	16	17	23
80 to 89 percent specialization	18	1 128	37 579	62 661	50 863	(D)	44 272	(D)	7	7	(D)
70 to 79 percent specialization	22	1 721	50 674	109 466	79 111	105 866	60 240	3 600	1	1	(Z)
60 to 69 percent specialization	22	383	10 837	29 104	18 547	(D)	18 113	(D)	15	11	(D)
51 to 59 percent specialization	(S)	558	22 383	55 369	29 603	52 889	38 222	2 480	3	2	3
POWER PLANTS AND COGENERATION PLANTS, EXCEPT NUCLEAR											
All establishments specializing in type	109	2 035	75 565	184 932	158 646	178 961	140 652	5 971	4	4	7
Establishments with —											
100 percent specialization	48	777	20 445	50 824	50 824	47 413	32 914	3 411	6	7	9
90 to 99 percent specialization	(S)	*58	*975	*4 006	*3 605	*3 942	*2 397	*64	57	55	64
80 to 89 percent specialization	6	(S)	(S)	(S)	(S)	(D)	(S)	(S)	(S)	(S)	(D)
70 to 79 percent specialization	*18	253	8 879	29 553	21 481	28 563	17 667	990	9	9	28
60 to 69 percent specialization	*3	*27	*1 034	*3 146	*1 888	*3 087	*2 044	(S)	66	64	(S)
51 to 59 percent specialization	*4	*106	2 790	*8 463	*4 535	(D)	*4 985	(D)	50	48	(D)

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

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

Location of establishment	Number of establishments	Average number of construction workers	Construction workers ¹				Relative standard error of estimate (percent) for column—					
			January to March	April to June	July to September	October to December	A	B	C	D	E	F
			A	B	C	D	E	F	A	B	C	D	E	F
United States	54 022	379 052	368 289	371 673	395 949	380 299	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Alabama	654	5 412	5 120	5 244	5 708	5 576	4	3	3	4	5	4
Alaska	176	1 009	848	975	1 236	975	4	6	7	7	7	5
Arizona	768	5 595	5 189	5 357	5 811	6 024	3	3	3	3	3	4
Arkansas	434	2 810	2 745	2 807	2 965	2 724	5	4	5	5	5	4
California	6 077	37 866	37 628	37 241	39 504	37 091	1	1	1	1	1	1
Colorado	898	7 332	6 635	7 027	7 808	7 856	3	2	3	2	3	3
Connecticut	1 004	4 576	4 389	4 422	4 846	4 645	2	2	2	2	2	2
Delaware	181	1 196	1 191	1 182	1 261	1 150	5	4	5	4	4	4
District of Columbia	30	256	270	248	252	254	14	9	11	9	11	9
Florida	3 643	25 019	24 252	24 577	25 746	25 502	1	1	1	1	1	1
Georgia	1 407	10 823	10 540	10 589	11 024	11 140	3	2	2	2	2	2
Hawaii	270	2 364	2 463	2 297	2 400	2 296	4	2	3	3	3	2
Idaho	273	1 297	1 183	1 229	1 387	1 390	5	6	7	8	8	6
Illinois	2 336	18 390	17 721	18 366	19 230	18 242	2	1	1	1	1	1
Indiana	1 053	9 211	8 958	8 782	9 738	9 364	2	2	1	2	2	2
Iowa	507	3 361	3 286	3 289	3 588	3 280	5	4	4	4	4	3
Kansas	445	2 896	2 799	2 806	3 057	2 924	4	3	3	4	4	4
Kentucky	599	5 088	4 853	5 101	5 560	4 838	4	3	3	3	3	3
Louisiana	737	7 220	7 334	7 408	7 299	6 839	4	2	2	3	2	2
Maine	363	1 192	1 088	1 098	1 355	1 227	5	7	8	7	9	8
Maryland	1 281	10 389	10 110	10 252	10 800	10 392	2	2	2	2	2	3
Massachusetts	1 614	8 918	8 623	8 397	9 394	9 258	1	2	2	2	2	2
Michigan	1 840	12 394	11 866	11 972	13 229	12 511	2	2	2	2	2	2
Minnesota	1 208	7 650	7 227	7 609	8 255	7 507	2	2	2	2	2	2
Mississippi	341	2 038	2 034	1 930	2 085	2 105	6	5	5	5	5	5
Missouri	891	6 706	6 452	6 463	7 203	6 705	3	2	2	2	3	3
Montana	220	874	797	836	924	939	4	6	6	5	8	7
Nebraska	396	1 995	1 902	1 971	2 104	2 002	4	3	3	4	3	3
Nevada	305	2 781	2 510	2 511	2 911	3 191	3	3	3	3	3	3
New Hampshire	337	1 134	1 002	1 055	1 288	1 189	3	4	4	5	5	6
New Jersey	2 323	12 057	12 025	11 638	12 491	12 076	2	1	1	1	2	2
New Mexico	518	3 128	3 028	3 101	3 182	3 200	4	3	3	3	3	4
New York	3 898	28 030	28 504	27 587	28 731	27 299	1	1	1	1	1	1
North Carolina	1 860	12 197	12 025	12 209	12 539	12 016	2	2	2	2	2	2
North Dakota	203	837	732	819	938	858	2	6	7	6	6	6
Ohio	1 927	14 667	14 336	14 342	15 259	14 732	2	1	1	1	1	1
Oklahoma	579	3 464	3 297	3 440	3 645	3 476	4	3	3	3	3	4
Oregon	637	4 290	4 016	4 082	4 606	4 454	3	3	3	3	3	3
Pennsylvania	2 275	15 884	15 629	15 518	16 588	15 801	2	2	1	2	2	2
Rhode Island	330	997	996	906	1 126	959	3	5	4	4	7	4
South Carolina	666	6 355	6 613	6 529	6 384	5 896	3	2	2	2	2	2
South Dakota	166	868	861	868	894	848	8	8	7	7	8	8
Tennessee	779	7 543	7 058	7 342	7 591	8 184	3	2	2	2	3	2
Texas	2 899	26 194	25 029	25 819	27 728	26 199	2	1	1	1	1	2
Utah	354	2 601	2 458	2 592	2 667	2 688	4	4	4	4	5	5
Vermont	202	678	685	619	726	681	2	6	6	6	6	7
Virginia	1 413	10 661	10 341	10 617	11 012	10 673	2	2	2	2	2	2
Washington	1 205	10 183	9 701	10 044	10 642	10 344	2	2	2	2	2	2
West Virginia	261	1 780	1 642	1 867	1 908	1 703	6	6	6	6	6	7
Wisconsin	1 069	7 957	7 426	7 843	8 427	8 130	2	2	2	2	2	2
Wyoming	168	891	870	847	898	948	2	4	4	4	5	6

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

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

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

Location of construction work	1992					1987 value of construction work done in this State	Percent change 1987 (col F) to 1992 (col A)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State				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	40 259 410	53 856	36 996 785	8 561	3 262 624	35 838 226	12.3	(Z)	(Z)	1
Alabama	463 592	646	401 917	214	61 676	412 516	12.4	3	3	5
Alaska	167 823	175	152 439	19	15 384	119 830	40.1	5	5	4
Arizona	566 548	767	492 651	79	73 896	555 102	2.1	2	3	4
Arkansas	234 125	426	198 902	114	35 223	160 253	46.1	4	5	5
California	4 970 681	6 077	4 745 360	189	225 321	4 943 977	.5	1	1	2
Colorado	665 807	890	645 320	74	20 487	491 077	35.6	2	2	2
Connecticut	554 611	1 002	528 995	147	25 617	677 352	-18.1	2	2	12
Delaware	139 091	(S)	111 721	124	27 370	149 138	-6.7	2	3	5
District of Columbia	206 621	(S)	25 768	313	180 852	206 359	.1	2	6	2
Florida	2 215 337	3 630	2 090 008	230	125 328	2 020 666	9.6	2	2	2
Georgia	1 033 778	1 404	902 509	331	131 269	1 031 169	.3	2	2	15
Hawaii	336 236	270	326 173	33	10 062	214 122	57.0	2	2	12
Idaho	150 507	273	125 116	82	25 391	65 424	130.0	5	5	11
Illinois	2 383 160	2 313	2 247 659	283	135 501	1 979 707	20.4	1	1	2
Indiana	865 804	1 051	806 878	337	58 926	631 631	37.1	2	2	4
Iowa	334 580	506	311 770	117	22 811	196 638	70.2	2	2	3
Kansas	282 008	445	238 600	185	43 408	311 137	-9.4	3	3	5
Kentucky	483 060	592	381 409	294	101 651	324 919	48.7	2	3	3
Louisiana	583 338	735	538 983	114	44 356	479 179	21.7	2	2	6
Maine	122 686	363	111 714	83	10 972	137 439	-10.7	6	6	17
Maryland	960 688	1 280	836 980	280	123 708	838 040	14.6	2	2	4
Massachusetts	953 017	1 603	922 525	175	30 492	1 162 804	-18.0	2	2	5
Michigan	1 354 198	1 839	1 293 926	177	60 272	1 189 586	13.8	1	1	3
Minnesota	815 925	1 208	788 754	167	27 171	697 994	16.9	2	2	6
Mississippi	191 737	332	154 194	131	37 543	160 156	19.7	4	5	4
Missouri	696 228	890	621 335	158	74 893	710 370	-2.0	2	2	5
Montana	82 571	217	76 990	24	5 582	46 841	76.3	6	7	2
Nebraska	189 722	396	178 849	47	10 873	178 645	6.2	3	3	4
Nevada	347 333	305	310 125	89	37 207	248 587	39.7	2	2	3
New Hampshire	127 771	336	100 870	188	26 901	185 816	-31.2	5	6	7
New Jersey	1 462 758	2 308	1 348 407	266	114 351	1 509 798	-3.1	1	1	4
New Mexico	277 123	518	260 502	66	16 621	195 795	41.5	3	3	3
New York	3 516 647	3 888	3 352 590	333	164 056	3 838 810	-8.4	1	1	3
North Carolina	983 367	1 858	870 591	204	112 776	848 401	15.9	2	2	4
North Dakota	89 077	202	70 355	40	18 722	61 365	45.2	9	9	24
Ohio	1 525 504	1 918	1 412 514	350	112 990	1 181 150	29.2	1	1	4
Oklahoma	295 104	578	277 513	97	17 591	256 537	15.0	3	3	5
Oregon	509 327	637	458 177	98	51 149	294 254	73.1	2	2	3
Pennsylvania	1 869 914	2 269	1 708 498	449	161 415	1 451 246	28.8	1	1	3
Rhode Island	124 508	330	101 089	101	23 420	125 658	-9	4	4	13
South Carolina	444 595	666	383 378	240	61 216	437 970	1.5	2	2	5
South Dakota	87 042	166	76 587	97	10 455	51 614	68.6	9	10	12
Tennessee	637 279	779	585 706	193	51 573	550 887	15.7	2	2	7
Texas	2 495 988	2 891	2 345 969	207	150 019	1 933 371	29.1	1	1	3
Utah	218 455	352	210 052	32	8 403	171 571	27.3	4	4	17
Vermont	58 889	202	51 623	72	7 267	80 999	-27.3	5	5	13
Virginia	927 690	1 411	758 952	429	168 738	1 000 649	-7.3	1	2	2
Washington	1 141 787	1 201	1 046 200	154	95 587	644 722	77.1	1	2	2
West Virginia	167 333	261	123 825	114	43 507	127 264	31.5	4	6	6
Wisconsin	861 875	1 068	806 972	187	54 903	480 774	79.3	1	1	4
Wyoming	86 563	168	78 844	34	7 719	68 893	25.6	5	6	4

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 -----	40 727 041	36 275 257	(Z)	(Z)
SPECIAL TRADE CONTRACTORS				
Electric power installation and service contractor, including lighting -----	27 848 974	26 602 277	(Z)	1
Electronic control systems installation and service contractor -----	2 368 554	1 673 570	1	1
Fire and security systems installation and service contractor -----	2 603 442	1 959 773	2	1
Highway lighting and signal installation and service contractor -----	1 297 020	849 995	2	2
Telecommunications installation and service contractor -----	4 536 809	3 860 192	1	1
Other construction activities -----	815 491	584 559	3	(NA)
OTHER BUSINESS ACTIVITIES				
Retail trade -----	167 519	159 116	7	3
Wholesale trade -----	67 774	58 992	3	4
Other business activities -----	216 863	216 479	3	(NA)
Kind of business activity, n.s.k. -----	804 594	310 304	2	6

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**	9.0	10.3	(Z)
Number of construction workers.....	7.0	8.2	(Z)
Number of all other employees	2.0	2.1	1
Payroll, all employees	\$1,000 252.2	256.2	(Z)
Payroll, construction workers.....	do-- 185.8	194.6	(Z)
Payroll, other employees	do-- 66.4	61.5	(Z)
Dollar value of business done.....	do-- 753.9	733.8	(Z)
Value of construction work.....	do-- 745.2	724.9	(Z)
Cost of materials, components, supplies, and fuels.....	do-- 286.2	268.6	(Z)
Construction work subcontracted to others	do-- 31.8	23.9	1
Rental cost for machinery, equipment, and buildings	do-- 10.2	8.9	1
Capital expenditures, other than land	do-- 9.4	10.0	2
Gross book value of depreciable assets	do-- 80.1	67.5	1
AVERAGE PER EMPLOYEE			
Payroll, all employees	\$1,000 28.0	24.9	(Z)
Dollar value of business done.....	do-- 83.6	71.2	(Z)
Value added††	do-- 48.3	42.8	(Z)
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers.....	\$1,000 26.5	23.7	(Z)
Value of construction work	do-- 106.2	88.3	(Z)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 33.2	29.4	(Z)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK			
Payroll, all employees .....	.338	.353	(Z)
Cost of materials, components, supplies, and fuels.....	.384	.371	(Z)
Cost of construction work subcontracted out to others .....	.043	.033	1
Value of construction work subcontracted in from others .....	.557	.448	1
Rental cost for machinery, equipment, and buildings .....	.014	.012	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	9.0	28.0	106.2	.338	.384	.043	.557	.014
Alabama	10.3	21.0	85.9	.305	.389	*.075	.561	.009
Alaska	7.4	38.6	155.3	.322	.362	.054	.848	.021
Arizona	9.3	21.2	91.0	.299	.467	.044	.664	.013
Arkansas	8.2	20.2	81.8	.312	.434	.025	.641	.013
California	8.3	31.1	127.1	.324	.388	.053	.629	.019
Colorado	10.2	26.0	98.5	.330	.422	.034	.646	.013
Connecticut	6.0	31.8	124.7	.335	.402	.033	.477	.012
Delaware	8.6	27.9	100.9	.360	.375	.037	.522	.013
District of Columbia	11.7	30.8	126.0	.339	.360	.013	.501	.008
Florida	8.8	21.8	88.0	.316	.427	.038	.625	.015
Georgia	9.9	24.3	90.8	.343	.404	.040	.567	.016
Hawaii	11.4	31.8	138.0	.301	.366	.043	.787	.020
Idaho	6.0	25.6	103.2	.313	.415	.023	.728	.015
Illinois	10.1	35.8	126.9	.362	.353	.050	.603	.013
Indiana	11.1	27.3	98.1	.355	.385	.046	.453	.010
Iowa	8.6	25.9	101.6	.331	.380	.026	.465	.012
Kansas	8.3	25.2	99.0	.325	.434	.047	.547	.011
Kentucky	10.6	24.3	88.5	.343	.413	.034	.605	.012
Louisiana	12.3	23.9	84.4	.357	.402	.027	.565	.011
Maine	4.2	22.9	95.5	.310	.442	.030	.426	.008
Maryland	10.5	26.8	100.6	.346	.408	.025	.637	.013
Massachusetts	7.2	31.1	121.4	.335	.371	.045	.612	.012
Michigan	8.9	30.9	110.9	.367	.343	.043	.563	.014
Minnesota	8.1	31.6	108.4	.373	.393	.033	.510	.013
Mississippi	7.6	19.5	79.4	.312	.366	.044	.393	.015
Missouri	9.8	28.2	104.7	.351	.368	.042	.617	.009
Montana	5.3	24.8	98.3	.335	.448	.035	.592	.010
Nebraska	6.5	24.0	98.6	.316	.453	.026	.576	.009
Nevada	11.6	27.3	112.8	.310	.357	.101	.876	.016
New Hampshire	4.4	24.9	101.2	.325	.440	.018	.533	.015
New Jersey	6.7	34.4	122.7	.363	.350	.040	.455	.013
New Mexico	7.7	22.5	97.7	.294	.368	.077	.539	.012
New York	9.2	34.6	122.7	.361	.344	.045	.459	.013
North Carolina	8.2	20.6	77.7	.331	.423	.045	.476	.011
North Dakota	5.3	21.9	103.8	.271	.438	.040	.198	.016
Ohio	9.8	29.0	104.9	.357	.376	.056	.516	.011
Oklahoma	7.7	23.0	89.9	.328	.411	.037	.489	.014
Oregon	8.9	32.5	121.4	.354	.372	.031	.585	.015
Pennsylvania	9.1	29.8	114.5	.339	.372	.032	.430	.011
Rhode Island	4.1	28.0	115.3	.332	.433	.025	.434	.008
South Carolina	11.5	23.2	75.9	.368	.372	.034	.583	.017
South Dakota	6.7	20.5	92.0	.284	.394	*.075	.472	.015
Tennessee	12.4	24.4	92.2	.340	.411	.033	.533	.011
Texas	11.6	23.9	105.5	.291	.356	.041	.531	.013
Utah	9.3	26.0	103.9	.316	.386	.035	.678	.014
Vermont	4.4	22.1	83.9	.342	.407	.027	.273	.011
Virginia	9.5	24.6	90.0	.345	.425	.041	.612	.014
Washington	10.7	30.7	109.2	.356	.417	.040	.648	.015
West Virginia	8.2	25.9	81.9	.382	.359	.014	.462	(S)
Wisconsin	9.3	30.1	104.9	.358	.396	(S)	.406	.010
Wyoming	6.9	25.1	95.3	.341	.411	.035	.473	.018

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.