# 1992 Census of Construction Industries 

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## INDUSTRY SERIES

## Painting and Paper Hanging Special Trade Contractors

 Industry 1721

# 1992 <br> Census of <br> Construction Industries 

# Painting and <br> Paper Hanging Special Trade Contractors 

Industry 1721

U.S. Department of Commerce

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

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


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## Introduction to the Economic Census

## PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

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

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

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

## AUTHORITY AND SCOPE

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

## - Census of Retail Trade

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

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

## AVAILABILITY OF THE DATA

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

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

## WHAT'S NEW IN 1992

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

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

## HISTORICAL INFORMATION

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

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

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

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

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

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

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

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

## AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

## SOURCES FOR MORE INFORMATION

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

## Census of Construction

## GENERAL

The 1992 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction or construction on their own account for sale as defined in the Standard Industrial Classification Manual: 1987 (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.
[^0]General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

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

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

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

## ESTABLISHMENT BASIS OF REPORTING

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

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

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

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

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

## SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

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

## Employer Companies

Developing the sampling frame for employer companies. This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act (FICA) taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of
ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

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

$$
\begin{gathered}
x_{c}^{\prime}={ }_{c}^{n_{c}}{ }^{\sum x_{i} / p_{i}} \\
i=1
\end{gathered}
$$

where: $x_{c}^{\prime}$ 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 questionnaries 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 constructionrelated 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.
$\dagger \quad$ 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 | $\begin{array}{r} \text { By } \\ \text { employment } \\ \text { size } \end{array}$ | size class of dollar value of business done | By type, class, kind of business, and location of construction ${ }^{1}$ | By <br> 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 yearbuildings, 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 |  |  |  |  |  |  |
| 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.
${ }^{1}$ Type-buildings, roads, etc. Class-new construction; additions, alterations, or reconstruction; or maintenance and repair work.

## Contents <br> Painting and Paper Hanging Special Trade Contractors

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## Summary of Findings

Establishments classified in this industry are primarily engaged in interior and exterior painting (except roofs), and paper hanging. For additional examples, refer to the Standard Industrial Classification Manual: 1987 (SIC) published by the Office of Management and Budget, Executive Office of the President.

During 1992, the establishments with paid employees classified in this industry accounted for $\$ 8.74$ billion in total dollar value of business. Of this amount, $\$ 8.69$ billion were for the value of construction work. These establishments paid out $\$ 2.1$ billion for materials, components, and supplies and $\$ 595$ million for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were $\$ 181$ million. Value added for 1992 was $\$ 5.9$ billion.

There were 31,920 establishments with total employment averaging 162,587 during the year. Total payroll for 1992 was $\$ 3.2$ billion.

Larger establishments with 20 employees or more, while representing only 4 percent of the total number of employer establishments in this industry, accounted for 39 percent of all business done.

[^1]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)
1987


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]


\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{1992-Con.} \& \multicolumn{3}{|c|}{1987} \& \multicolumn{3}{|l|}{\multirow[b]{2}{*}{Relative standard error of estimate (percent) for column-}} \& \multirow{3}{*}{Location establishment} <br>
\hline Cost of construction work subcontracted out to others \& Value of construction work subcontracted in from others \& Rental cost for machinery, equipment, and buildings \& Capital expenditures, other than land \& $$
\begin{array}{r}
\text { End-of-year } \\
\text { gross } \\
\text { book } \\
\text { value of } \\
\text { depreciable } \\
\text { assets }
\end{array}
$$ \& $$
\underset{\text { employees }}{ } \stackrel{\text { All }}{ }
$$ \& Value of construction work \& Value added $\dagger$ \& \& \& \& <br>
\hline J \& K \& L \& M \& N \& 0 \& P \& Q \& B \& G \& M \& <br>
\hline 595079 \& 4487597 \& 158190 \& 144930 \& 1084015 \& 169968 \& 7953323 \& 5716473 \& 1 \& 1 \& 3 \& U.S. <br>
\hline 10762 \& 79193 \& 3319 \& 2484 \& 20003 \& 2277 \& 103009 \& 70047 \& 6 \& 5 \& 22 \& AL <br>
\hline 2259 \& 18860 \& 240 \& 965 \& 6304 \& 263 \& 20807 \& 14909 \& 10 \& 8 \& 24 \& AK <br>
\hline 7723 \& 107380 \& 1962 \& 4082 \& 17723 \& 2682 \& 99106 \& 71477 \& 7 \& 6 \& 23 \& AZ <br>
\hline 5401
54642 \& 23
676
639 \& 24640 \& 1061
17280 \& 4914
120960 \& 713
21370 \& 35463
1144368 \& 24939
836719 \& 11
2 \& 11
2 \& 31
9 \& AR <br>
\hline 10305 \& 88721 \& 1473 \& 3288 \& 14598 \& 2323 \& 100452 \& 69868 \& 5 \& 5 \& 20 \& CO <br>
\hline 4870 \& 44964 \& 1518 \& 1813 \& 13783 \& 3457 \& 178456 \& 125084 \& 4 \& 5 \& 31 \& CT <br>
\hline 2141 \& 11550 \& 291 \& *370 \& 2343 \& 462 \& 25393 \& 19352 \& 14 \& 12 \& 41 \& DE <br>
\hline 35 (D) \& ${ }^{\text {( }}$ ( ${ }^{\text {a }}$ ) \& ${ }^{\text {(D) }}$ \& (D) \& 1556 \& - 268 \& 17454 \& 13
356
27141 \& (Z) \& (D) \& (D) \& DC <br>
\hline 35973 \& 248541 \& 10538 \& 6826 \& 52642 \& 10776 \& 400418 \& 271441 \& 4 \& 4 \& 15 \& FL <br>
\hline 35053 \& 134103 \& 4643 \& 2836 \& 29687 \& 4142 \& 183033 \& 128760 \& 5 \& 6 \& 16 \& GA <br>
\hline 8292 \& 63721 \& 1967 \& 937 \& 14917 \& 1295 \& 83159 \& 65566 \& 5 \& 3 \& 16 \& Hi <br>
\hline - 666 \& 16293 \& $\begin{array}{r}348 \\ 5520 \\ \hline\end{array}$ \& * 705 \& + 3442 \& + 224 \& 8146
488 \& 5105 \& 14 \& 11 \& 48 \& ID <br>
\hline 25126 \& 190895 \& 5520 \& 5855 \& 55891 \& 7999 \& 428609 \& 322896 \& 4 \& 3 \& 17 \& IL <br>
\hline 19594 \& 132328 \& 3422 \& 4316 \& 40234 \& 3165 \& 137922 \& 103109 \& 4 \& 4 \& 15 \& IN <br>
\hline *4386 \& 26892 \& 511 \& 1697 \& 13907 \& 1108 \& 47478 \& 36196 \& 8 \& 8 \& 24 \& IA <br>
\hline 3084 \& 38239 \& 1350 \& 651 \& 10926 \& 1259 \& 52826 \& 38052 \& 8 \& 7 \& 21 \& KS <br>
\hline 14104 \& 37244 \& 1482 \& 1757 \& 13378 \& 1732 \& 79006 \& 57997 \& 7 \& 6 \& 32 \& KY <br>
\hline 12791 \& 66262 \& 5058 \& 4452 \& 20628 \& 3050 \& 128311 \& 90509 \& 4 \& 4 \& 8 \& LA <br>
\hline 898 \& 10839 \& 768 \& 615 \& 3797 \& 1218 \& 39157 \& 31023 \& 11 \& 10 \& 19 \& ME <br>
\hline 16325 \& 111191 \& 3035 \& 2282 \& 21471 \& 4983 \& 249416 \& 165316 \& 6 \& 4 \& 31 \& MD <br>
\hline $\begin{array}{r}9417 \\ 18 \\ \hline 151\end{array}$ \& 88882 \& 2729
5178 \& 2502 \& 18737 \& 5210 \& 264982 \& 198646 \& 5 \& 5 \& 18 \& MA <br>
\hline 18751 \& 129824 \& 5178 \& 3833 \& 44825 \& 5662 \& 304613 \& 202149 \& 5 \& 5 \& 13 \& M <br>
\hline 10718
1498 \& 90263
20973 \& 3205
1242 \& 5040
405 \& 28972
5642 \& 2692
815 \& 143589
30614 \& 102721
21099 \& 9 \& + ${ }^{5}$ \& 22 22 \& MN
MS <br>
\hline \& \& \& \& \& \& \& \& \& \& \& <br>
\hline 4551 \& 120762 \& 3221 \& 4058 \& 21437 \& 4683 \& 203370 \& 154850 \& 4 \& 3 \& 27 \& MO <br>
\hline 1136 \& 9706 \& 245 \& 780 \& 4405 \& 151 \& 6462 \& 5010 \& 12 \& 14 \& 18 \& MT <br>
\hline 2532 \& 19587 \& 953 \& *2050 \& 7613 \& 861 \& 35478 \& 25152 \& 9 \& 8 \& 70 \& NE <br>
\hline 1771 \& 29408 \& 434 \& (D) \& 4878 \& 703 \& 34102 \& 22963 \& 9 \& 11 \& (D) \& NV <br>
\hline 2987 \& 12816 \& 289 \& 285 \& 2447 \& 1155 \& 42409 \& 33941 \& 13 \& 12 \& 30 \& NH <br>
\hline 17944 \& 110560
16453 \& 5
5318
331 \& 3815
441 \& 33906 \& 5141
814 \& 275169 \& 198969 \& 8 \& 3 \& 15 \& NJ <br>
\hline 39544 \& 281170 \& 9604 \& 8163 \& 57228 \& \& 675524 \& $\begin{array}{r}21 \\ 487626 \\ \hline\end{array}$ \& 8 \& 8
3 \& 21 \& NM <br>
\hline 17896 \& 100978 \& (D) \& 4652 \& 27358 \& 5049 \& 168080 \& 116462 \& 5 \& 4 \& 21 \& NC <br>
\hline 745 \& 11816 \& 512 \& 663 \& 3892 \& 410 \& 15108 \& 10720 \& 15 \& 19 \& 18 \& ND <br>
\hline 23886 \& 168156 \& 6899 \& 6298 \& 47730 \& 6564 \& 303382 \& 224404 \& 4 \& 4 \& 15 \& OH <br>
\hline 5017 \& 26330 \& 731 \& 1295 \& 9 910 \& 998 \& 43812 \& 32356 \& 7 \& 7 \& 10 \& OK <br>
\hline 2663 \& 62143 \& 2273 \& 2364 \& 15454 \& 1620 \& 71186 \& 53067 \& 7 \& 6 \& 24 \& OR <br>
\hline 16186 \& 169132 \& 8096 \& + 768 \& 60230 \& 8015 \& 400263 \& 300946 \& 4 \& 3 \& 20 \& PA <br>
\hline 2459 \& 10406 \& 303 \& *437 \& 3198 \& 877 \& 38086 \& 29191 \& 9 \& 7 \& 44 \& RI <br>
\hline 9 014 \& 46918 \& 1806 \& 1686 \& 11604 \& \& 96043 \& 61875 \& 8 \& 7 \& 24 \& SC <br>
\hline **737 \& 9552 \& 331 \& 531 \& 2048 \& 243 \& 9473 \& 6964 \& 14 \& 13 \& 36 \& SD <br>
\hline $\begin{array}{r}7495 \\ 83202 \\ \hline\end{array}$ \& 81106
341350
3 \& 2049
12228 \& 3563
6941 \& 18221
67006 \& 2 2598 \& 102111
494542 \& $\begin{array}{r}68061 \\ 340 \\ \hline 16\end{array}$ \& 5
3
3 \& 5
4 \& 23
10 \& TN <br>
\hline 1305 \& 33950 \& 462 \& 1369 \& 6044 \& 750 \& 31233 \& 21617 \& 13 \& 12 \& 38 \& UT <br>
\hline \& 9239 \& 231 \& *207 \& 1588 \& 622 \& 18538 \& 13543 \& 13 \& 12 \& 55 \& VT <br>
\hline 21970 \& 135829 \& 3834 \& 3409 \& 23622 \& 6218 \& 248746 \& 174181 \& 4 \& 4 \& 23 \& VA <br>
\hline 7641 \& 126608 \& 5437 \& 6204 \& 41052 \& 3023 \& 156752 \& 115693 \& 6 \& 4 \& 34 \& WA <br>
\hline - 298 \& \& 410 \& 219 \& 2965 \& 289 \& 14615 \& 11548 \& 23 \& 19 \& 39 \& WV <br>
\hline 6304
(D) \& 79349
6448 \& 2323
85 \& 4013

254 \& 24684
2358 \& 2904
119 \& 125782
5452 \& 94758
4831 \& r 5 \& (D) \& 23
36 \& WY <br>
\hline
\end{tabular}

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]


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 | 986237 | 759537 | 2 | 2 |
| Capital expenditures, other than land ----------------1-1-1 | 144930 | 147339 | 3 | 4 |
| New-- | $\begin{array}{r}107194 \\ 37 \\ \hline\end{array}$ | 114268 | 4 | 4 |
| Retirements and disposition of depreciable assets. | 47152 | 33253 | 7 | 7 |
|  | 1084015 | 873623 | 2 | 2 |
|  | 128538 | 119375 | 2 | 2 |
| Buildings and Other Structures, Additions, and Related Facilities |  |  |  |  |
|  | 163167 | 181271 | 5 | 4 |
|  | 13990 9159 4 | $\begin{array}{r}19153 \\ 12406 \\ \hline\end{array}$ | 13 18 | 118 |
| Used buildings and other structures------------1 | 4831 | 6747 | 14 | 10 |
| Retirements and disposition of depreciable assets_ | 4167 | 6079 | 9 | 21 |
| End-of-year gross book value of depreciable assets | 172989 | 194346 | 5 | 4 |
|  | 13973 | 19278 | 5 | 6 |
| Machinery and Equipment |  |  |  |  |
| Beginning-of-year gross book value of depreciable assets $\qquad$ Capital expenditures, other than land | 823 130 130 | 578266 128185 | 2 3 | 2 |
|  | 98036 | 101862 | 4 | 4 |
| New automobiles and trucks, intended primarily for highway use | 45852 | 69509 | 6 | 4 |
| Used machinery and equipment, including automobiles and trucks | 32905 | 26323 | 5 | 7 |
|  | 42985 | 27174 | 8 | 7 |
|  | 911026 | 679277 | 2 | 2 |
|  | 114565 | 100097 | 2 | 2 |

Table 4. Value of Inventories for Establishments With Payroll: 1992 and 1991
[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

| Item | Establishments with payroll | Relative standard error of estimate (percent) |
| :---: | :---: | :---: |
| All establishments: |  |  |
| Number $\qquad$ <br> Value of construction work | $\begin{array}{r} 31920 \\ 8689828 \end{array}$ | 1 |
| Establishments with inventories: |  |  |
| Number-----------.-.--- | - $\begin{array}{r}6216\end{array}$ | 2 |
| Value of construction work Inventories ${ }^{1}$ : | 2980579 |  |
| End of 1992, materials and supplies | 69265 | 5 |
| End of 1991, materials and supplies | 66038 | 4 |
| Establishments with no inventories: |  |  |
| Number------------------- Value of construction work | $\begin{array}{r} 12854 \\ 3422755 \end{array}$ | 1 |
| Establishments not reporting: |  |  |
| Number------------------ Value of construction work | $\begin{array}{r} 12850 \\ 2286494 \end{array}$ | 1 1 |

${ }^{1}$ Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1992 and 1987
[Thousand dollars. Detail may not add to total because of rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

| Selected statistics | Total | Establishments with an average of- |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{r} 1 \text { to } 4 \\ \text { employees } \end{array}$ | 5 to 9 employees | $\begin{array}{r} 10 \text { to } 19 \\ \text { employees } \end{array}$ | $\begin{array}{r} 20 \text { to } 49 \\ \text { employees } \end{array}$ | $\begin{array}{r} 50 \text { to } 99 \\ \text { employees } \end{array}$ | 100 to 249 employees employees | 250 to 499 employees | 500 to 999 employees | $\begin{array}{r} 1,000 \\ \text { employees } \\ \text { or more } \end{array}$ |
| 1992 |  |  |  |  |  |  |  |  |  |  |
| Number of establishments | 31920 | 23021 | 5306 | 2269 | 1072 | 172 | 66 | 11 | 3 | - |
| All employees** --------- | 162587 | 40905 | 33919 | 29445 | 31170 | 11597 | 9583 | 3839 | 2128 |  |
| Payroll, all employees | 3164065 | 580112 | 584483 | 600193 | 753602 | 314139 | 228883 | 81631 | 21021 | - |
| Dollar value of business done | 8739774 | 2160777 | 1626572 | 1580079 | 1850735 | 722280 | 564909 | 185530 | 48892 |  |
| Value of construction work .- | 8689828 | 2154415 | 1620002 | 1568908 | 1835404 | 717770 | 560021 | 184417 | 48892 |  |
| Net value of construction work $\dagger$ - | 8094749 | 1975197 | 1497475 | 1452715 | 1735848 | 682489 | 525763 | 225261 | (D) | - |
| Value addedt† -------------------------------------- | 5854779 | 1399720 | 1070720 | 1047255 | 1275073 | 501315 | 378163 | 149875 | 32658 | - |
| Cost of materials, components, supplies, and fuels .---- | 2289916 | 581841 | 433324 | 416631 | 476107 | 185685 | 152488 | 43841 | (D) |  |
| Cost of construction work subcontracted out to others -- | 595079 | 179217 | 122527 | 116193 | 99555 | 35280 | 34258 | 8048 | (D) |  |
| Rental cost for machinery, equipment, and buildings ---- | 158190 | 27818 | 28678 | 24188 | 37418 | 15502 | 18157 | 6429 | (D) |  |
| Capital expenditures, other than land ---------------- | 144930 | 40579 | 28020 | 22336 | 30686 | 9640 | 11515 | 2154 | (D) |  |
| End-of-year gross book value of depreciable assets ---- | 1084015 | 271108 | 190278 | 183544 | 242165 | 97115 | 78920 | 20885 | (D) | - |
| 1987 |  |  |  |  |  |  |  |  |  |  |
| All employees** | 169968 | (S) | 36981 | 32590 | 34174 | 13374 | 9522 | 4130 | - | - |
| Value of construction work ---------------------------------------------------- | 7953323 5716473 | (S) | 1522383 1093401 | 11381694 1001397 | 1731396 1281510 | 749964 565820 | 504939 369114 | 249321 164222 | - | - |
| 1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT) |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | - |
| Net value of construction workt ------------------------- | 1 | 2 | 3 | 3 | 2 | 1 | (Z) | (Z) | (D) | - |
| Capital expenditures, other than land---------------------------- | 3 | 7 | 9 | 8 | 8 | 1 | (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

| Selected statistics | Total | Establishments with dollar value of business done |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Less than | $\begin{aligned} & \$ 25,000 \\ & \text { to } \\ & \$ 49,999 \end{aligned}$ | $\begin{array}{r} \$ 50,000 \\ \text { to } \\ \$ 99,999 \end{array}$ | $\begin{aligned} & \$ 100,000 \\ & \text { to } \\ & \$ 249,999 \end{aligned}$ | $\begin{aligned} & \$ 250,000 \\ & \text { to } \\ & \$ 499,999 \end{aligned}$ | $\begin{aligned} & \$ 500,000 \\ & \text { to } \\ & \$ 999,999 \end{aligned}$ | $\begin{array}{r} \$ 1,000,000 \\ \text { to } \\ \$ 2,499,999 \end{array}$ | $\begin{aligned} & \$ 2,500,000 \\ & \text { to } \\ & \$ 4,999,999 \end{aligned}$ | $\begin{aligned} & \$ 5,000,000 \\ & \text { to } \\ & \$ 9,999,999 \end{aligned}$ | $\begin{array}{r} \$ 10,000,000 \\ \text { or more } \end{array}$ |
| 1992 |  |  |  |  |  |  |  |  |  |  |  |
| Number of establishments | 31920 | (S) | (S) | 7454 | 9568 | 3471 |  | 1105 | 296 | 106 | 40 |
| All employees** -------------------------------------- | 162587 | (S) | (S) | 13727 | 34247 | 25073 | 24207 | 26354 | 13021 | 9618 | 8695 |
| Payroll, all employees | 3164065 | (S) | (S) | 161669 | 497018 | 444741 | 498578 | 632477 | 374982 | 272999 | 219800 |
| Dollar value of business done | 8739774 | (S) | (S) | 544997 | 1492092 | 1198407 | 1348422 | 1631949 | 1010824 | 711102 | 587578 |
| Value of construction work - | 8689828 | (S) | (S) | 543597 | 1487620 | 1193659 | 1337046 | 1620998 | 1003829 | 707784 | 581487 |
| Net value of construction work $\dagger$------------------- | 8094749 | (S) | (S) | 520730 | 1396947 | 1117027 | 1223567 | 1516733 | 928691 | 646138 | 538944 |
| Value addedt†-------------------1-1 | 5854779 | (S) | (S) | 376916 | 999484 | 806087 | 873620 | 1099729 | 687563 | 473013 | 393877 |
| Cost of materials, components, supplies, and fuels | 2289916 | (S) | (S) | 145213 | 401936 | 315688 | 361323 | 427955 | 248123 | 176443 | 151158 |
| Cost of construction work subcontracted out to others | 595079 | (S) | (S) | 22867 | 90672 | 76632 | 113479 | 104265 | 75138 | 61646 | 42543 |
| Rental cost for machinery, equipment, and |  |  |  |  |  |  |  |  |  |  |  |
| buildings ---------------------------1-1 | 158190 | (S) | (S) | 6120 | 21092 | 19475 | 23188 | 31939 | 20096 | 14748 | 19518 |
| Capital expenditures, other than land-------- | 144930 | (S) | (S) | 13964 | 28321 | 16212 | 19384 | 25944 | 15678 | 11074 | 9656 |
| End-ot-year gross book value of depreciable assets | 1084015 | (S) | (S) | 83526 | 165071 | 142299 | 149908 | 213450 | 134675 | 90904 | 74501 |
| 1987 |  |  |  |  |  |  |  |  |  |  |  |
| All employees** ----------------------------- | 169968 | (S) | (S) | (S) | 36996 | 28054 | 26085 | 25572 | 13725 | 8666 | 6266 |
| Value of construction work ------------------------------------ Value addedtt--- | 7953323 5716473 | (S) | (S) | (S) | 1382442 976844 | 1175312 830751 | 1278071 924425 | 1447895 1046975 | 900099 656541 | 593676 438641 | $\begin{aligned} & 468278 \\ & 327970 \end{aligned}$ |
| 1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT) |  |  |  |  |  |  |  |  |  |  |  |
| All employees** ---------------------------- | 1 | (S) |  | 3 |  | 4 | 3 |  |  | (Z) |  |
| Net value of construction workt ---------------- | 1 3 |  |  | 3 | 2 9 | + ${ }^{3}$ | +3 | ${ }_{6}^{2}$ | 2 | (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 |
| 1992 |  |  |  |  |  |  |  |  |
| Value of construction work - | 8689828 | 2974580 | 1650183 | 3869515 | 1 | 1 | 2 | 1 |
| Building construction-- | 7102870 | 2669616 | 1468106 | 2965148 | 1 | 2 | 2 | 2 |
| Single-family houses ------------ Single-family houses, detached | 2585553 2222793 | 1174927 1029193 | 377872 324251 | 1032753 869349 | 2 2 | 3 <br> 3 | 5 5 | 2 |
| Single-family houses, attached, including townhouses and townhouse-type condominiums | 362760 | 145734 | 5 53621 | 163405 | 4 | 5 | 8 | 5 |
| Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives | 362760 531817 | 145734 114103 | 53621 79197 | 163405 338517 | 4 | 5 7 | 8 7 | 4 |
|  | 210184 | 66699 | 65331 | 78154 | 5 | 8 | 11 | 4 |
|  | 150335 | 55883 | 53054 | 41397 | 6 | 8 | 13 | 4 |
|  | 59849 | 10816 | 12277 | 36756 | 10 | 20 | 19 | 11 |
|  | 1046095 | 349732 | 340690 | 355673 | 2 | 2 | 3 | 3 |
| Other commercial buildings such as stores, restaurants, and automobile service stations | 863277 | 340166 | 163678 | 359433 | 3 | 3 | 4 | 4 |
|  | 1023818 | 303943 | 192273 | 527602 | 2 | 6 | 4 | 2 |
| Industrial buildings . | 879591 | 246299 | 162038 | 471254 | 3 | 8 | 4 | 2 |
| Warehouses ---- | 144227 | 57643 | 30235 | 56348 | 4 | 4 | 5 | 6 |
| Religious buildings Educational building | 111339 283974 | $\begin{array}{r}34828 \\ 124925 \\ \hline 1\end{array}$ | 27403 77560 | 49109 81488 | 7 4 | 11 5 | 5 5 5 | 8 |
|  | 283974 335711 | 124925 127829 | $\begin{array}{r}77560 \\ 121580 \\ \hline\end{array}$ | 81488 86301 | 4 | 5 | 5 6 | 6 5 |
|  | 111102 | 32464 | 22520 | 56118 | 6 | 8 | 10 | 11 |
| Nonbuilding construction | 1391408 | 304964 | 182077 | 904367 | 2 | 4 | 6 | 3 |
| Highways, streets, and related work such as installation of guard rails, highway <br> signs, lighting, etc. $\qquad$ | 284974 | 104568 | 79489 | 100917 | 5 | 7 | 9 | 6 |
|  | 233760 | 22895 | 29563 | 181303 | 5 | 7 | 23 | 7 |
| Blast furnaces, petroleum refineries, chemical complexes, etc. --------------------- | 343681 | 58414 | 21716 | 263551 | 3 | 9 | 5 |  |
|  | 105801 | 10675 | 13252 21437 | 81874 42818 | 4 | $\begin{array}{r}13 \\ 5 \\ \hline\end{array}$ | $\begin{array}{r}17 \\ 4 \\ \hline\end{array}$ | 3 |
| Sewage treatment plants .- | 59030 | 28517 | 14085 | 16428 | 6 | 7 | 5 | 11 |
| Water treatment plants | 55239 | 21497 | 7351 | 26391 | 6 | 6 | 5 | 10 |
| Water storage facilities | 71765 | 11147 | 1356 | 59262 | 26 | 7 | 9 | 32 |
|  | +155932 | 44383 | 14280 | 97269 | 4 | 11 | 10 | 4 |
| Construction work, n.s.k. | 195550 | (NA) | (NA) | (NA) | 6 | (NA) | (NA) | (NA) |
| 1987 |  |  |  |  |  |  |  |  |
| Value of construction work | 7953323 | 3001279 | 1339642 | 2926718 | 1 | 1 | 2 | 1 |
| Building construction- | 6291053 | 2768344 | 1231058 | 2291652 | 1 | 1 | 2 |  |
|  | 1929573 | 932192 | 264553 | 732827 | 2 | 2 | 3 | 3 |
| Single-family houses, detached $\qquad$ <br> Single-family houses, attached, including townhouses and townhouse-type | 1594775 | 740161 | 228026 | 626586 | 2 | 3 | 4 | 3 |
|  | 334798 | 192031 | 36527 | 106241 | 4 | 5 | 8 | 6 |
| Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives | 567725 | 224681 | 75973 | 267070 | 4 | 7 | 7 |  |
|  | 360642 | 157085 | 91273 | 112283 | 4 | 4 | 10 | 5 |
|  | 224176 | 113255 | 59696 | 51224 | 4 | 3 | 14 | 4 |
| Other residential buildings ------ | 136466 | 43830 | 31577 | 61059 | 7 | 10 | 10 | 9 |
|  | 1105840 | 489963 | 296245 | 319631 | 2 | 2 | 3 | 3 |
| Other commercial buildings such as stores, restaurants, and automobile service stations | 646199 | 298006 | 144539 | 203653 | 2 | 3 | 3 | 3 |
|  | 988816 | 417459 | 161893 | 409463 | 2 | 3 |  | 3 |
| Industrial buildings ---------- | 839501 | 332701 | 140439 | 366360 | 2 | 3 | 5 | 3 |
| Warehouses | 149315 99 174 | 84758 2889 | 21 2354 23 | 43103 46727 | 5 3 | 6 | 5 | 5 |
| Educational buildings | 213712 | 72659 | 64139 | 76913 | 4 | 6 | 6 | 6 |
| Hospitals and institutional buildings | 263224 | 108944 | 88005 | 66274 | 3 | 3 | 4 | 8 |
|  | 116148 | 38486 | 20861 | 56811 | 10 | 17 | 12 | 13 |
|  | 976587 | 232936 | 108584 | 635066 | 3 | 4 | 5 | 3 |
| Highways, streets, and related work such as installation of guard rails, highway signs, lighting, etc. |  |  |  |  | 7 | 10 |  | 9 |
|  | 153356 | 18204 | 11367 | 123784 | 10 | 13 | 22 | 12 |
| Blast furnaces, petroleum refineries, chemical complexes, etc. --------------------- | 201543 | 24858 | 20039 | 156645 | 3 | 3 | 8 | 4 |
|  | 90827 | 35575 | 8553 | 46698 | 2 | 3 | 5 | 2 |
|  | 93871 | 59147 | 12688 | 22036 | 6 | 7 | 8 | 14 |
|  | 82877 195281 | 6584 34171 | 5901 19887 | 70391 141226 | 6 9 | 17 13 | ${ }_{17}^{6}$ | - ${ }^{6}$ |
|  | 685683 | (NA) | (NA) | (NA) | 3 | (NA) | (NA) | (NA) |

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of
Construction: 1992
[Thousand dollars. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table
where distribution of the value of construction work by type of construction was not provided in table 7 . For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendix A]

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow{3}{*}{Item} \& \multirow[b]{2}{*}{Number of establishments} \& \multirow[b]{2}{*}{\[
\text { employees** }_{\text {All }}
\]} \& \multirow[b]{2}{*}{Payroll, all employees} \& \multicolumn{2}{|l|}{Value of construction work} \& \multirow[b]{2}{*}{Net value of construction work \(\dagger\)} \& \multirow[b]{2}{*}{Value added \(\dagger\)} \& \multirow[b]{2}{*}{Cost of construction work subcontracted out to others} \& \multicolumn{3}{|l|}{\multirow[t]{2}{*}{Relative standard error of estimate (percent) for column-}} \\
\hline \& \& \& \& For
all types \& \[
\begin{gathered}
\text { For } \\
\text { specialized } \\
\text { type }
\end{gathered}
\] \& \& \& \& \& \& \\
\hline \& A \& B \& c \& D \& E \& F \& G \& H \& B \& D \& H \\
\hline All establishments \& 31920 \& 162587 \& 3164065 \& 8689828 \& 5394461 \& 8094749 \& 5854779 \& 595079 \& 1 \& 1 \& 4 \\
\hline \begin{tabular}{l}
Establishments not specializing by type \(\qquad\) \\
Establishments specializing 51 percent or more \(\qquad\)
\end{tabular} \& 5475
26445 \& 44804
117
783 \& \[
\begin{array}{r}
971440 \\
2192624
\end{array}
\] \& \[
\begin{aligned}
\& 2444822 \\
\& 6245006
\end{aligned}
\] \& \[
5394\left(\begin{array}{c}
(\mathrm{NA}) \\
461
\end{array}\right.
\] \& \[
\begin{aligned}
\& 2296147 \\
\& 5798602
\end{aligned}
\] \& \[
\begin{array}{ll}
1 \& 680 \\
4 \& 174 \\
4
\end{array}
\] \& \[
\begin{aligned}
\& 148675 \\
\& 446404
\end{aligned}
\] \& 2
1 \& 2
1 \& 6
4 \\
\hline SINGLE-FAMILY HOUSES, DETACHED \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type -------------- \& 16483 \& 48569 \& 721913 \& 2135557 \& 1901659 \& 1983869 \& 1420102 \& 151688 \& 2 \& 2 \& 6 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization \& 8189 \& 21911 \& 315477 \& 986678 \& 986678 \& 908861 \& 642204 \& 77817 \& 3 \& 3 \& 10 \\
\hline 90 to 99 percent specialization \& 2877 \& 8836 \& 135778 \& 399713 \& 373087 \& 372726 \& 265441 \& 26987 \& 5 \& 5 \& 16 \\
\hline 80 to 89 percent specialization \& 2
2
1 7418 \& 6775
5548 \& 99 557 \& 266382 \& 219338
175674 \& 252 983 \& 187811
163227 \& 13399
13
1312 \& \({ }^{6}\) \& 5 \& 11 \\
\hline  \& 1741
1300
1357 \& \begin{tabular}{l}
5548 \\
4230 \\
\hline
\end{tabular} \& 83108
69132
18 \& 240109
191513 \& 175674
118620 \& 226298
175
412 \& \begin{tabular}{l}
163227 \\
128291 \\
\hline 33127
\end{tabular} \& 13812
16102
1 \& 6
8
8 \& 6 \& 10
21 \\
\hline 51 to 59 percent specialization ------------------------------------------ \& 357 \& 1270 \& 18861 \& 51161 \& 28263 \& 47590 \& 33127 \& 3572 \& 14 \& 13 \& 32 \\
\hline SINGLE-FAMILY HOUSES, ATTACHED, INCLUDING TOWNHOUSES AND TOWNHOUSE-TYPE CONDOMINIUMS \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type -------------- \& 1239 \& 4925 \& 76085 \& 202499 \& 168855 \& 193358 \& 140781 \& 9140 \& 8 \& 7 \& 16 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization --- \& 512 \& 1544 \& 22226 \& 61699 \& 61699 \& 58469 \& 43178 \& 3230 \& 14 \& 12 \& 33 \\
\hline 90 to 99 percent specialization \& 207 \& 966 \& 14177 \& 32992 \& 30532 \& 32104 \& 23362 \& 888 \& 25 \& 21 \& 30 \\
\hline 80 to 89 percent specialization- \& (S) \& 756
760 \& 12887
10
559 \& 34200
32124
3 \& 27889
23468 \& 33412 \& 22483
21627 \& 788 \& 13
17 \& 13
17 \& (D) \\
\hline 60 to 69 percent specialization- \& 155 \& 813 \& 14941 \& 38186 \& 23442 \& 36372 \& 27830 \& 1815 \& 15 \& 14 \& (13 \\
\hline 51 to 59 percent specialization - \& *17 \& *86 \& *1296 \& *3 298 \& *1825 \& 36 (D) \& *2 301 \& 18 (D) \& 56 \& 42 \& (D) \\
\hline APARTMENT BUILDINGS WITH TWO OR MORE UNITS, INCLUDING RENTALS, APARTMENT-TYPE CONDOMINIUMS, AND COOPERATIVES \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type \& 1620 \& 7415 \& 123839 \& 347008 \& 300308 \& 311729 \& 229682 \& 35279 \& 6 \& 6 \& 14 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization ------------------------------------- \& 761 \& 2950 \& 51010 \& 137953 \& 137953 \& 123343 \& 95828 \& 14610 \& 10 \& 10 \& 24 \\
\hline 90 to 99 percent specialization \& 260 \& 1281 \& 20062 \& 55310 \& 51856 \& 46934 \& 33970 \& 8376 \& 15 \& 12 \& 28 \\
\hline 80 to 89 percent specialization \& (S) \& 961 \& 12076 \& 44118 \& 36063 \& 38475 \& 26476 \& 5643 \& 16 \& 19 \& 38 \\
\hline 70 to 79 percent specialization \& 195 \& 1323 \& 25715 \& 66783 \& 48534 \& 64722 \& 45192 \& 2060 \& 13 \& 10 \& 16 \\
\hline 60 to 69 percent specialization \& 146 \& * 81 \& 13803
\(* 1174\) \& +36155 \& +22 154 \& 34177
\(* 4\) \& 25 725 \& + 978 \& 21 \& 19 \& 25 \\
\hline 51 to 59 percent specialization \& *8 \& *40 \& *1 174 \& *6689 \& *3750 \& *4 078 \& *2 492 \& *2 611 \& 49 \& 60 \& 65 \\
\hline HOTELS, MOTELS, AND TOURIST CABINS \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type ------------- \& 82 \& 569 \& 14727 \& 44081 \& 37467 \& 35947 \& 29795 \& 8134 \& 19 \& 15 \& 24 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization ------------------------------------- \& (S) \& 194 \& 4093 \& 21204 \& 21204 \& 15369 \& 14213 \& 5835 \& 39 \& 23 \& 31 \\
\hline  \& (S) \& *57 \& \& *3 205 \& *2884 \& *2684 \& *1757 \& \& \& \& (S) \\
\hline 70 to 79 percent specialization \& *20 \& 207 \& 5794 \& 12264 \& 8861 \& 11229 \& 8669 \& *1035 \& 31 \& 31 \& 46 \\
\hline 60 to 69 percent specialization \& 2
1 \& (D) \& \[
\begin{aligned}
\& (\mathrm{D}) \\
\& (\mathrm{D})
\end{aligned}
\] \& (D) \& (D) \& \[
\begin{aligned}
\& (\mathrm{D}) \\
\& \text { (D) }
\end{aligned}
\] \& (D) \& (D) \& (D) \& (D) \& (D) \\
\hline OTHER RESIDENTIAL BUILDINGS \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type \& 190 \& 785 \& 13279 \& 49193 \& 41431 \& 45525 \& 32098 \& 3668 \& 16 \& 14 \& 28 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization \& 116 \& 389 \& 5907 \& 27
\(*\) \& \({ }^{27} 014\) \& 25
\(\times\) \& 17406 \& 1980 \& 20 \& 16 \& 36 \\
\hline 90 to 99 percent specialization \& *16 \& *26 \& *488 \& *1 392 \& *1 292 \& *1248 \& *1064 \& (S) \& 64 \& \& (S) \\
\hline 80 to 89 percent specialization \& *13 \& *11 \& (S)
3093 \& 8 (S) \& 6 (S) \& 7 (D) \& (S) \& *558) \& 71
38 \& \({ }_{37}\) \& (D) \\
\hline 60 to 69 percent specialization \& (S) \& (S) \& \& \& \& (S) \& (S) \& (S) \& (S) \& (S) \& (S) \\
\hline 51 to 59 percent specialization. \& * 4 \& *102 \& 2609 \& 7285 \& 3735 \& (D) \& 5677 \& (D) \& 45 \& 22 \& (D) \\
\hline OFFICE BUILDINGS \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type .-- \& 1225 \& 11617 \& 292433 \& 695176 \& 531983 \& 655065 \& 470913 \& 40110 \& 3 \& 3 \& 9 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization \& 342 \& 2264 \& 53933 \& 133791 \& 133791 \& 125595 \& 90564 \& 8196 \& 8 \& 8 \& 32 \\
\hline 90 to 99 percent specialization \& 121 \& 990 \& 26460 \& 59745 \& 55247 \& 58058 \& 43404 \& 1687 \& 11 \& 7 \& 17 \\
\hline 80 to 89 percent specialization \& 188 \& 1679 \& 48881 \& 108777 \& 88215 \& 104072 \& 77996 \& 4705 \& 8 \& 7 \& 23 \\
\hline 70 to 79 percent specialization \& 201 \& 2643 \& 64640 \& 151506 \& 110393 \& 143442 \& 103386 \& 8064 \& \begin{tabular}{l}
7 \\
\hline
\end{tabular} \& 6 \& 8 \\
\hline 60 to 69 percent specialization - \& 281 \& 3081 \& 74174 \& 184315 \& 113206 \& 169304 \& 116805 \& 15011 \& 5 \& 5 \& 12 \\
\hline 51 to 59 percent specialization. \& 91 \& 960 \& 24346 \& 57042 \& 31130 \& 54594 \& 38759 \& 2447 \& 14 \& 11 \& 32 \\
\hline OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS \& \& \& \& \& \& \& \& \& \& \& \\
\hline All establishments specializing in type -------------- \& 1483 \& 9847 \& 197906 \& 532276 \& 450594 \& 500180 \& 365728 \& 32096 \& 4 \& 4 \& 10 \\
\hline Establishments with - \& \& \& \& \& \& \& \& \& \& \& \\
\hline 100 percent specialization ------------------------------------- \& 601 \& 3737 \& 78957 \& 213105 \& 213105 \& 201522 \& 149957 \& 11583 \& 8 \& 6 \& 17 \\
\hline 90 to 99 percent specialization ---------------------------------- \& 150 \& 1015 \& 19777 \& 62800 \& 57538 \& 57196 \& 41866 \& 5604 \& 14 \& 20 \& 36 \\
\hline 80 to 89 percent specialization -------------------------------- \& 206 \& 1862 \& 36994 \& 89049 \& 73073 \& 85944 \& 63732 \& 3 105 \& - 9 \& 9 \& 15 \\
\hline 70 to 79 percent specialization ---------------------------------- \& 215 \& 1185 \& 23257 \& 63721 \& 46259 \& 60 874 \& 46359 \& 2847 \& 13 \& 11 \& 18 \\
\hline  \& 235
\((S)\) \& 1438
611 \& 24313
14608 \& 61850
41751 \& 38092
22528 \& 58339
36305 \& 39531
24282 \& 3511

(S) \& 13
12 \& 13
10 \& (S) <br>
\hline
\end{tabular}

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
see appendix A]


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

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

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

| Location of construction work | 1992 |  |  |  |  | 1987 value of construction work done in this State | $\begin{array}{r} \text { Percent } \\ \text { change } \\ 1987 \\ (\text { col F) } \\ \text { to } \\ 1992 \\ (\operatorname{col} \text { A) } \end{array}$ | Relative standard error of estimate (percent) for column- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value of construction work done in this State | Construction work done by establishments located in this State |  | Construction work done by establishments not located in this State |  |  |  |  |  |  |
|  |  | Number | Value of construction work | Number | Value of construction work |  |  |  |  |  |
|  | A | B | c | D | E | F | G | A | c | E |
| United States | 8689828 | 31692 | 7911831 | 4051 | 777997 | 7953323 | 9.3 | 1 | 1 | 2 |
| Alabama_- | 139994 | (S) | 112251 | 92 | 27742 | 90792 | 54.2 | 5 | 6 | 13 |
| Arizona-- | -147446 | 109 | +144635 | 25 | $\begin{array}{r}8 \\ 2 \\ 2 \\ 712 \\ \hline\end{array}$ | 23979 105537 | 64.4 39.6 | 6 | 8 | (2) |
| Arkansas | 57097 | 187 | 48783 | 33 | 8314 | 42752 | 33.6 | 12 | 13 | 30 |
| California | 1165925 | 4083 | 1145784 | 85 | 20142 | 1136578 | 2.6 | 2 | 2 | 5 |
| Colorado | 143441 | 644 | 140177 | 30 | 3264 | 102953 | 39.3 | 6 | 6 | 17 |
| Connecticut | 127439 | 541 | 107897 | 111 | 19542 | 180211 | -29.3 | 5 | 6 | 11 |
| Delaware | 33152 | 120 | 21761 | 78 | 11390 | 34723 | -4.5 | 10 | 12 | 18 |
| District of Columbia <br> Florida | 40473 466359 | 1977 | 8616 423297 | 157 116 | 31857 43062 | 50091 415140 | -19.2 12.3 | 9 4 | (Z) | 12 5 |
| Georgia |  |  |  |  |  |  |  |  |  |  |
| Hawaii- | 125018 | 162 | 112046 | ${ }_{*} 23$ | 12972 | 911242 | -4.7 | 9 | 10 | 19 |
| Idaho -- | 27107 | 191 | 124926 | 50 | r2 182 | 7439 | 264.4 | 10 | 10 | 30 |
| Illinois --- | 417812 | 1348 | 378336 | 145 | 39476 | 417688 |  | 3 | 3 | 4 |
| Indiana - | 203383 | 753 | 180682 | 125 | 22702 | 145666 | 39.6 | 4 | 5 | 15 |
| lowa -- | 83791 | 361 | 67823 | 76 | 15969 | 44835 | 86.9 | 9 | 9 | 27 |
| Kansas | 76304 | 307 | 55405 | 120 | 20898 | 61878 | 23.3 | 6 | 7 | 9 |
| Kentucky - | 94581 | 357 291 |  | 97 | 10751 |  |  | 6 3 | 7 | 10 4 |
| Louisiana - | 190779 24764 | 291 166 | 162917 22894 | 55 21 | 27862 1870 | 145012 40432 | 31.6 -38.8 | 10 | r ${ }^{3}$ | 22 |
| Maryland -- | 198011 | 749 | 164091 | 174 | 33920 | 215476 | -8.1 | 4 | 5 | 9 |
| Massachusetts | 169892 | 704 | 159590 | 88 | 10301 | 274492 | -38.1 | 5 | 5 | 12 |
| Michigan------ | 267918 | 925 | 253609 | 69 | 14309 | 303461 | -11.7 | 5 | 5 | 10 |
| Minnesota Mississippi | 142168 46155 | 466 211 | $\begin{array}{r}135 \\ 32889 \\ \hline\end{array}$ | 61 58 | 6739 13275 | 134020 32210 | 6.1 43.3 | 9 | 12 | 18 6 |
| Missouri -- | 173113 | 764 | 160716 | 104 | 12397 | 177415 | -2.4 | 4 | 4 | 14 |
| Montana | 24783 | 114 | 21082 | 21 | 3701 | 6890 | 259.7 | 12 | 13 | 10 |
| Nebraska | 46117 | 194 | 43959 | 30 | 2157 | 36286 | 27.1 | 8 | 8 | 21 |
| Nevada | 46685 | 140 | 40422 | 47 | 6263 | 36709 | 27.2 | 11 | 11 | 27 |
| New Hampshire | 27053 | 183 | 24943 | 48 | 2110 | 43191 | -37.4 | 12 | 12 | 32 |
| New Jersey -- | 252716 | 1035 | 218588 | $\stackrel{199}{+}$ | 34128 | 281748 | -10.3 | 3 | 4 |  |
| New Mexico | 27405 | 158 | 23971 | *27 | 3433 | 32421 | -15.5 | 7 | 7 | 26 |
| New York--- | 630086 |  | 600373 | 219 | 29713 | 667947 | -5.7 | 3 | 3 | 10 |
| North Carolina | 236474 | 1123 | 210448 | 109 | 26026 | 170999 | 38.3 | 4 | 4 | 11 |
| North Dakota -- | 15996 | 72 | 13568 | 11 | 2428 | 14583 | 9.7 | 17 | 20 | 9 |
| Ohio ---- | 364513 | 1357 | 340445 | 115 | 24068 | 298031 | 22.3 | 4 | 4 | 16 |
| Oklahoma | 61088 | 306 | 53288 | 37 | 7801 | 40372 | 51.3 | 8 | 9 | 11 |
| Oregon | 102677 | 480 | 90313 | 37 | 12364 | 72613 | 41.4 | 6 | 6 | 1 |
| Pennsylvania | 358674 | 1350 | 335044 | 165 | 23630 | 335947 | 6.8 | 4 | 4 | 8 |
| Rhode Island.- | 32735 | 182 | 24657 | 41 | 8078 | 41566 | -21.2 | 6 | 8 | 6 |
| South Carolina | 104377 | 475 | 84644 | 98 | 19733 | 109559 | -4.7 | 7 | 8 | 13 |
| South Dakota -- | 17962 | 98 397 | $\begin{array}{r}15666 \\ 114 \\ \hline 13\end{array}$ | 32 | 2 296 | $\begin{array}{r}8 \\ \hline 1042 \\ \hline 976\end{array}$ | 122.5 | 12 | 13 | 26 |
| Tennessee---- | 129722 648795 | 397 1604 | 114313 618037 | 99 109 | 15409 30 | 104976 458341 | 41.6 | 4 | 4 | 17 |
| Utah - | 50741 | 233 | 47327 | 27 | 3413 | 32542 | 55.9 | 10 | 10 | 34 |
| Vermont | 16671 | 134 | 15177 | 28 | 1493 | 23577 | -29.3 | 12 | 13 | 17 |
| Virginia --- | 271612 | 1140 | 221386 | 168 | 50226 | 293278 | -7.4 | 3 | 4 | 3 |
| Washington - | 228332 | 1000 | 219815 | 77 | 8518 | 155415 | 46.9 | 4 | 4 | 12 |
| West Virginia--- | 20657 | 95 | 12940 | 78 | 7718 | 22755 | -9.2 | 13 | 20 | 11 |
| Wisconsin ----- | 169363 14283 | 732 79 | 162910 10917 | 80 41 | 6454 3367 | 114686 8669 | 47.7 64.8 | 11 | 14 | 5 |
| Wyoming | 1428 |  |  |  |  | 866 |  |  |  | 20 |

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 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 |
|  | 8739774 | 8027973 | 1 | 1 |
| SPECIAL TRADE CONTRACTORS |  |  |  |  |
| Bridge painting contractor --------------------------------------------- | 220343 | 156596 | 5 | 10 |
| Drywall, sheetrock, spackling and finishing contractor ----------------- | 42971 | 45480 | 7 | 5 |
|  | 6961779 | 6362909 | 1 | 1 |
|  | 694145 86165 | $\begin{array}{r}723624 \\ 69 \\ \hline 172\end{array}$ | 2 3 | 2 |
|  | 321144 | 171005 | 5 |  |
|  | 295565 | 221710 | 4 | (NA) |
|  | 44084 | 97128 | 7 | (NA) |
|  | 73579 | 179607 | 7 | 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]

|  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

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 | $\begin{array}{r} \text { Payroll } \\ \text { per } \\ \text { employee } \\ (\$ 1,000) \end{array}$ | 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 subcontracted out to others | Value of construction work subcontracted in from others | Rental cost for machinery, equipment, and buildings |
| United States | 5.1 | 19.5 | 63.7 | . 364 | . 264 | . 068 | . 516 | . 018 |
| Alabama | 6.9 | 18.9 | 61.1 | . 375 | . 267 | . 083 | . 610 | . 026 |
| Alaska -- | 4.1 | 22.5 | 81.9 | . 323 | . 249 | . 074 | . 619 | . 008 |
| Arizona | 6.5 | 16.5 | 55.4 | . 359 | . 310 | . 051 | . 709 | . 013 |
| Arkansas | 5.7 | 16.4 | 57.4 | . 334 | . 258 | . 104 | . 445 | . 012 |
| California | 4.8 | 20.9 | 71.3 | . 352 | . 275 | . 047 | . 581 | . 021 |
| Colorado | 4.7 | 16.7 | 54.0 | . 355 | . 309 | . 072 | . 618 | . 010 |
| Connecticut | 3.6 | 21.9 | 69.9 | . 375 | . 212 | . 043 | . 395 | . 013 |
| Delaware | 4.2 | 17.9 | 51.2 | . 422 | . 192 | . 093 | . 503 | . 013 |
| District of Columbia | 15.2 | (D) | 74.3 | (D) | (D) | (D) | (D) | (D) |
| Florida - | 4.8 | 16.5 | 61.2 | . 336 | . 294 | . 077 | . 534 | . 023 |
| Georgia | 6.6 | 19.1 | 67.7 | . 333 | . 240 | . 147 | . 563 | . 020 |
| Hawaii.- | 9.5 | 30.6 | 88.0 | . 420 | . 243 | . 074 | . 569 | . 018 |
| Idaho - | 2.8 | 14.8 | 55.6 | . 304 | . 297 | . 026 | . 629 | . 013 |
| Illinois | 5.1 | 26.0 | 74.0 | . 424 | . 237 | . 060 | . 455 | . 013 |
| Indiana | 5.6 | 19.1 | 63.5 | . 364 | . 251 | . 088 | . 593 | . 015 |
| Iowa --- | 4.2 | 17.3 | 55.4 | . 355 | . 247 | *. 060 | . 366 | . 007 |
| Kansas | 4.3 | 17.8 | 54.1 | . 374 | (D) | . 049 | . 603 | . 021 |
| Kentucky | 5.9 | 15.4 | 57.1 | . 319 | . 285 | . 137 | . 363 | . 014 |
| Louisiana | 12.2 | 19.5 | 58.2 | . 385 | . 248 | . 071 | . 368 | . 028 |
| Maine | 3.4 | 14.7 | 52.9 | . 338 | . 252 | . 035 | . 425 | . 030 |
| Maryland | 6.4 | 18.5 | 52.3 | . 409 | . 267 | . 074 | . 501 | . 014 |
| Massachusetts | 4.3 | 20.2 | 64.4 | . 378 | . 229 | . 058 | . 541 | . 017 |
| Michigan---- | 4.9 | 20.3 | 71.8 | . 348 | . 274 | . 071 | . 493 | . 020 |
| Minnesota | 5.0 | 25.0 | 83.9 | . 368 | . 262 | . 068 | . 572 | . 020 |
| Mississippi | 4.4 | 14.7 | 45.1 | . 372 | (D) | . 041 | . 573 | . 034 |
| Missouri | 4.6 | 22.5 | 63.4 | . 418 | . 266 | . 024 | . 636 | . 017 |
| Montana.- | 3.9 | 16.1 | 62.6 | . 317 | . 297 | . 051 | . 432 | . 011 |
| Nebraska | 4.7 | 17.2 | 58.9 | . 343 | . 238 | . 056 | . 430 | . 021 |
| Nevada | 5.7 | 20.8 | 70.9 | . 365 | . 312 | . 039 | . 647 | . 010 |
| New Hampshire | 2.9 | 15.3 | 59.6 | . 309 | (D) | . 115 | . 494 | . 011 |
| New Jersey -- | 3.9 | 21.7 | 71.1 | . 358 | . 241 | . 072 | . 441 | . 022 |
| New Mexico | 3.7 | 14.3 | 48.0 | . 339 | . 289 | . 027 | . 671 | . 014 |
| New York--.- | 5.3 | 21.8 | 68.7 | . 377 | . 240 | . 061 | . 436 | . 015 |
| North Carolina | 4.4 | 16.0 | 53.2 | . 367 | . 264 | . 082 | . 465 | (D) |
| North Dakota | 5.1 | 18.2 | 64.5 | . 325 | . 312 | . 036 | . 574 | . 025 |
| Ohio | 4.8 | 19.2 | 66.6 | . 349 | . 269 | . 066 | . 467 | . 019 |
| Oklahoma | 4.2 | 17.2 | 60.0 | . 338 | . 252 | . 077 | . 405 | . 011 |
| Oregon----- | 4.2 | 17.3 | 56.3 | . 370 | . 309 | . 028 | .655 | . 024 |
| Pennsylvania | 5.4 | 20.3 | 64.8 | . 372 | . 285 | . 040 | . 421 | . 020 |
| Rhode Island.-- | 2.9 | 17.1 | 58.0 | . 359 | . 209 | . 094 | . 400 | . 012 |
| South Carolina | 4.6 | 14.8 | 51.0 | . 345 | . 265 | . 097 | . 505 | . 019 |
| South Dakota .- | 3.9 | 14.8 | 57.0 | . 319 | . 293 | *. 039 | . 499 | . 017 |
| Tennessee.- | 6.4 | 18.0 | 57.5 | . 375 | . 278 | . 060 | . 651 | . 016 |
| Texas ---- | 7.7 | 18.0 | 61.5 | . 336 | . 252 | . 125 | . 512 | . 018 |
| Utah ----- | 4.7 | 15.0 | 56.8 | . 317 | . 308 | . 025 | .651 | . 009 |
| Vermont | 3.0 | 15.0 | 44.8 | . 390 | . 258 | . 031 | . 569 | . 014 |
| Virginia -------- | 4.8 | 17.6 | 55.4 | . 380 | . 246 | . 086 | . 529 | . 015 |
| Washington ---- | 4.5 | 19.8 | 61.0 | . 381 | . 283 | . 033 | . 543 | . 023 |
| West Virginia--- | 3.1 | 18.6 | 53.1 | . 393 | (D) | . 021 | (D) | . 029 |
| Wisconsin --- | 4.4 | 20.1 | 64.1 | . 379 | . 278 | . 036 | . 456 | . 013 |
| Wyoming - | 3.7 | (D) | 43.3 | (D) | (D) | (D) | . 587 | . 008 |

# 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. <br> Standard Industrial Classification Titles for Industry Groups and Industries 

| SIC |
| :--- | :--- | :--- | :--- |
| code |$\quad$| SIC |
| :--- |
| code |$\quad$ Industry titles | Industry titles |
| :--- |

## Appendix C. <br> 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

lowa
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 <br> (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 <br> (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.


[^0]:    ${ }^{1}$ 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.

[^1]:    ${ }^{1}$ 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.

