

1992

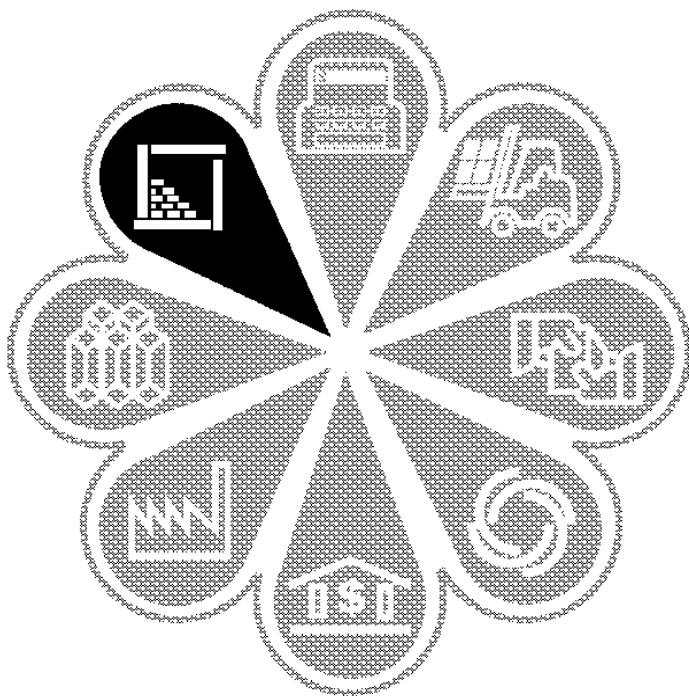
Census of Construction Industries

CC92-I-18

INDUSTRY SERIES

Roofing, Siding, and Sheet Metal Work Special Trade Contractors

Industry 1761



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U.S. Department of Commerce
Ronald H. Brown, Secretary
David J. Barram, Deputy Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Martha Farnsworth Riche, Director

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

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

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



**Economics and Statistics
Administration**

Everett M. Ehrlich, Under Secretary
for Economic Affairs



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**ECONOMIC PLANNING AND COORDINATION
DIVISION**

John P. Govoni, Chief

MANUFACTURING AND CONSTRUCTION DIVISION

John P. Govoni, Acting Chief

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

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

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

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

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

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

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

AUTHORITY AND SCOPE

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

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

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

AVAILABILITY OF THE DATA

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

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

WHAT'S NEW IN 1992

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

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

HISTORICAL INFORMATION

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

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

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

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

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

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

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

SOURCES FOR MORE INFORMATION

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

Census of Construction

GENERAL

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

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

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

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

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

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

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

ESTABLISHMENT BASIS OF REPORTING

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

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

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

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

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

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

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

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

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

Employer Companies

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

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

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

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

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

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

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

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

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

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

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

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

p_i is the selection probability of that firm.

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

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

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

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

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

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

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

Nonemployer Companies

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

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

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

CENSUS REPORT FORMS

Information for the 1992 Census of Construction Industries was obtained from employer establishments primarily through the use of 22 questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179. Establishments with 1991 administrative payroll of \$1,080,000 or more all received the standard form. For those sample establishments with payroll under that amount, half received the standard form and half received the short form. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and advisory groups.

Also, approximately 6,000 establishments in SIC's 1521, 1629, and 1799 were surveyed in the Census of Construction Industries 1989 Pretest. This survey consisted of four panels which received one of four experimental questionnaires and one panel which received the control questionnaire. Along with the questionnaire, these establishments received an evaluation questionnaire, which requested information about respondents' reactions to the questionnaire, problems in completing the questionnaire, and how long it took to complete the questionnaire. Results from the 1989 Pretest questionnaire are reflected as reworded questions, improved instructions, and restructured value of business questions in the 1992 questionnaires.

DATA PROCESSING

The 1992 census report forms were mailed out in December 1992. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, IN, where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1993.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and

imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group) and State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1992 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical location of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

CHANGE IN COLLECTION METHODOLOGY FOR VALUE OF CONSTRUCTION WORK DONE

In 1987 and 1992, the "value of construction work" was collected to better measure actual construction activity done during the year. In 1992, this item was collected as a total of three separate items. These items (receipts from construction contract work, value of speculative construction work, and value of construction work done for own use) were collected separately to emphasize construction activity that had been poorly reported in previous censuses.

Receipts from the sale of land were not collected separately in 1992, as in 1987, but are still excluded from the value of construction work done.

All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census contains varying amounts of duplication, since the construction work of one firm may be subcontracted to

other construction firms and may also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries results from the use of products of these other industries as input materials by construction establishments. "Value added" avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added" is defined in the 1992 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1992 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Manufacturing and Construction Division, Bureau of the Census, Washington, DC 20233.

To discuss a special tabulation before submitting specifications, call 301-457-4680.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1992 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity; whereas, the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts

of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities, and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the census of construction industries.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- * Sampling error exceeds 40 percent.
- ** Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
- Represents zero.
- † Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
- †† Represents dollar value of business done less costs for construction work subcontracted to others and costs for materials, components, supplies, and fuels. In 1987, for SIC 1531, land receipts were collected as a component of dollar value of business and, therefore, were subtracted from this value. (See Duplication in Value of Construction Work.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
- (X) Not applicable.
- (Z) Less than half of the unit shown.
- n.s.k. Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

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

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

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

Contents

Roofing, Siding, and Sheet Metal Work Special Trade Contractors

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Introduction to the Economic Census.....	III
Census of Construction	V
Users' Guide for Locating Statistics in This Report by Table Number	X
Summary of Findings	2

FIGURES

1. Value of Construction Work by Type of Construction	3
2. Selected Costs per Dollar Value of Business Done	3

TABLES

Statistics for Establishments With Payroll

1. General Statistics by State: 1992 and 1987	4
2. Detailed Statistics: 1992 and Earlier Census Years.....	6
3. Assets, Capital Expenditures, and Depreciation: 1992 and 1987	7
4. Value of Inventories: 1992 and 1991	7
5. Selected Statistics by Employment Size Class: 1992 and 1987	8
6. Selected Statistics by Size Class of the Dollar Value of Business Done: 1992 and 1987	8
7. Value of Construction Work by Type of Construction: 1992 and 1987	9
8. Selected Statistics by Specialization in Types of Construction: 1992	10
9. Quarterly Construction Worker Employment by State: 1992	12
10. Value of Construction Work by Location of Construction Work: 1992 and 1987 ...	13
11. Dollar Value of Business Done by Kind-of-Business Activity: 1992 and 1987	14
12. Selected Industry Ratios: 1992 and 1987	15
13. Selected Industry Ratios by State: 1992	16

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

APPENDIXES

A. Explanation of Terms	A-1
B. Standard Industrial Classification Titles for Industry Groups and Industries	B-1
C. Geographic Divisions and States.....	C-1

Publication Program..... Inside back cover

Summary of Findings

Establishments classified in this industry are primarily engaged in the installation of roofing (including roof spraying, painting, or coating), siding and sheet metal work. Sheet metal work performed by plumbing, heating, and air-conditioning contractors in conjunction with the installation of plumbing, heating, and air-conditioning equipment is classified in Industry 1711, Plumbing, Heating, and Air-Conditioning Special Trade Contractors. For additional examples, refer to the *Standard Industrial Classification Manual: 1987*¹ (SIC) published by the Office of Management and Budget, Executive Office of the President.

During 1992, the establishments with paid employees classified in this industry accounted for \$17.0 billion in total dollar value of business. Of this amount, \$16.8 billion were for the value of construction work. These establishments paid out \$6.6 billion for materials, components, and supplies and \$1.2 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$299 million. Value added for 1992 was \$8.9 billion.

There were 27,569 establishments with total employment averaging 215,545 during the year. Total payroll for 1992 was \$4.6 billion.

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



Larger establishments with 20 employees or more, while representing only 9 percent of the total number of employer establishments in this industry accounted for 52 percent of all business done.

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

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

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

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

1992 
1987 

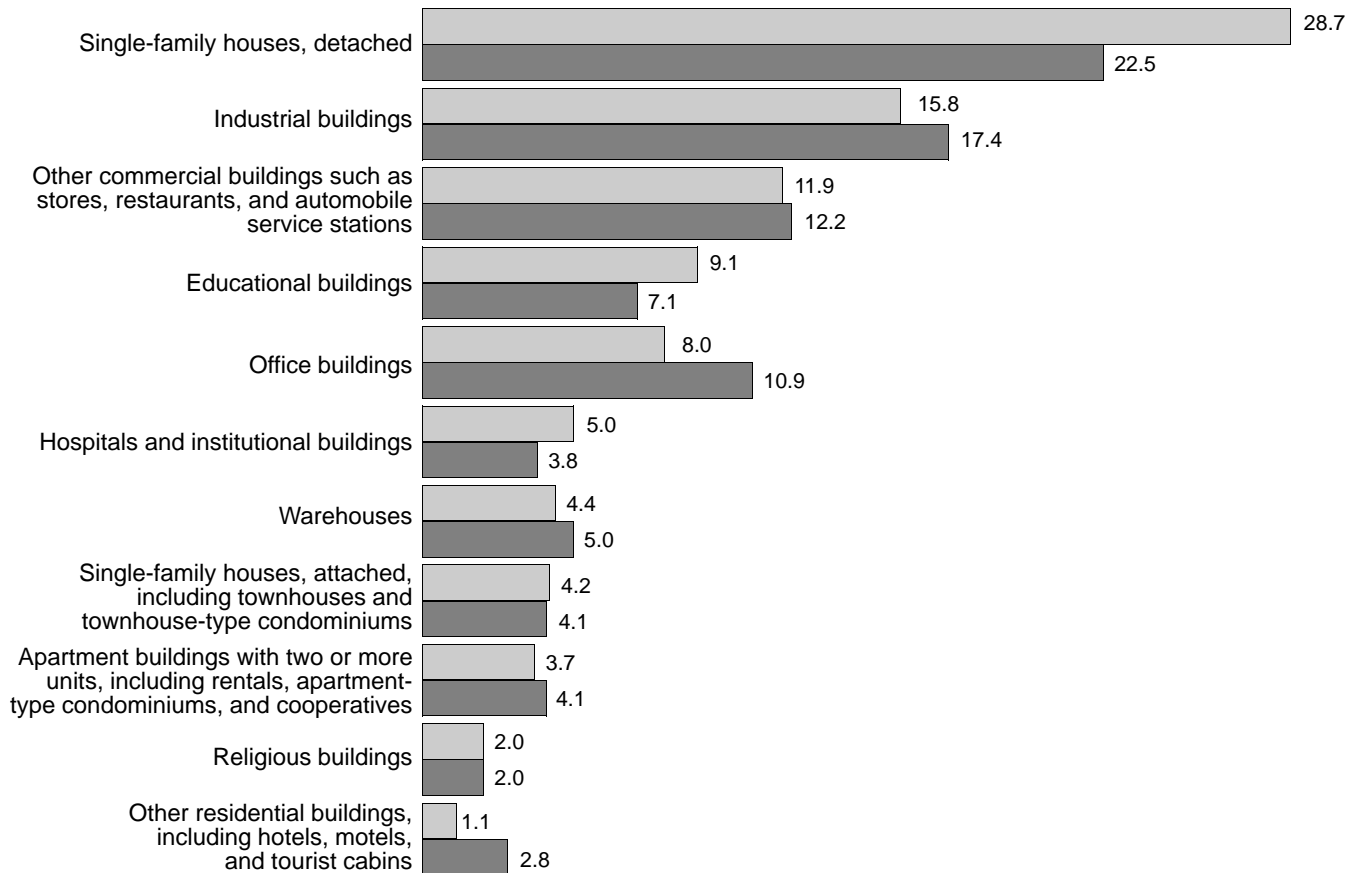




Figure 2. **Selected Costs per Dollar Value of Business Done**
(Percent)

1992 
1987 

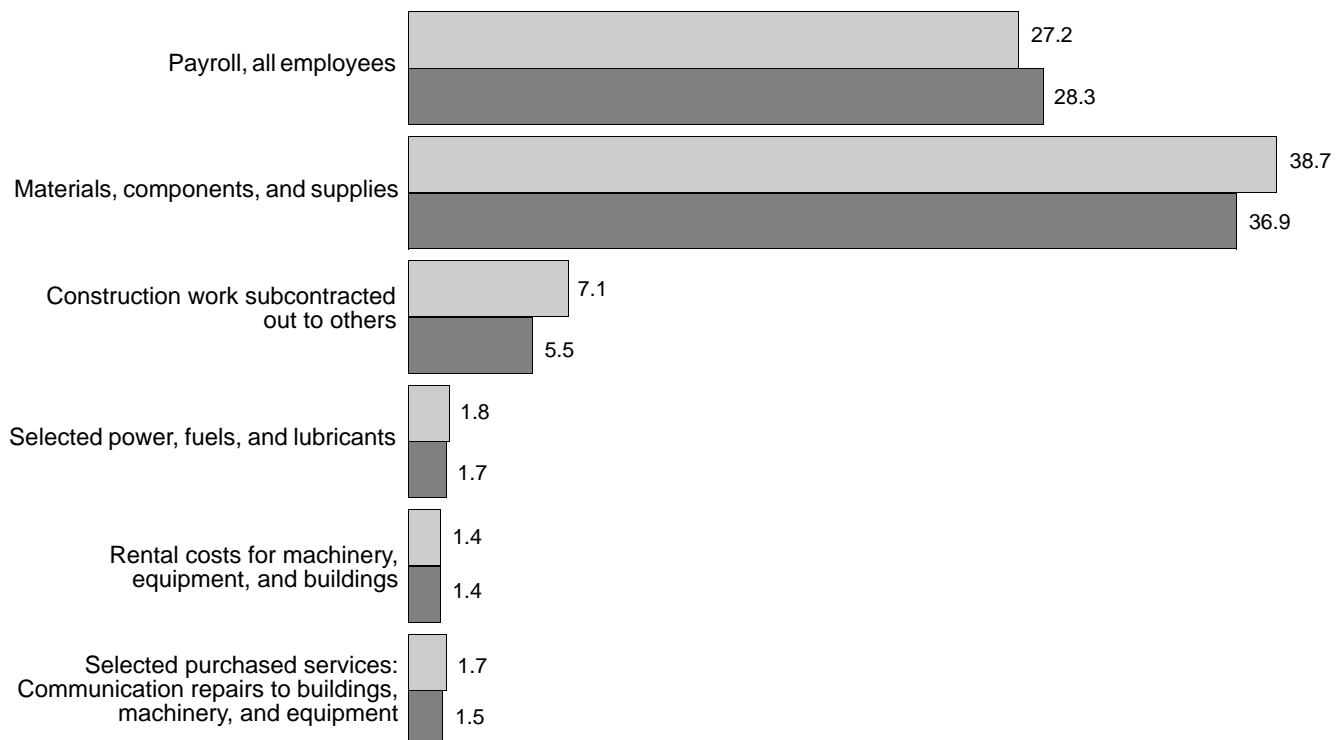


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

[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]

Location of establishment	1992								
	Number of establishments	Employees**		Payroll		Value of construction work	Net value of construction work†	Value added††	Cost of materials, components, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
United States -----	27 569	215 545	168 764	4 622 510	3 229 953	16 787 979	15 589 833	8 905 974	6 870 490
Alabama -----	379	3 002	2 375	54 075	36 443	188 620	175 777	96 922	82 207
Alaska -----	55	284	239	10 517	8 372	37 321	35 480	19 068	16 625
Arizona -----	349	4 140	3 325	72 978	52 728	264 798	259 248	137 605	121 966
Arkansas -----	237	1 558	1 182	27 518	17 962	95 089	88 984	48 473	40 832
California -----	2 864	24 875	19 591	547 442	375 541	2 052 794	1 941 158	1 112 002	852 039
Colorado -----	444	3 996	3 232	82 501	61 299	324 468	303 114	154 924	148 346
Connecticut -----	353	2 406	1 872	68 830	46 739	234 288	210 817	126 458	84 399
Delaware -----	99	757	556	18 435	11 540	52 471	50 135	29 138	21 442
District of Columbia -----	8	319	290	(D)	(D)	(D)	(D)	(D)	6 518
Florida -----	2 024	15 802	11 984	286 413	190 011	1 141 258	1 030 533	540 469	494 700
Georgia -----	593	4 977	3 951	99 235	66 105	330 874	307 522	170 873	140 263
Hawaii -----	133	1 259	946	33 392	24 139	129 677	121 008	74 433	47 862
Idaho -----	165	987	811	14 901	11 721	68 548	65 184	28 735	37 918
Illinois -----	1 324	10 928	8 508	309 792	218 188	1 013 654	927 824	563 689	374 091
Indiana -----	641	6 072	4 806	138 419	100 601	463 784	434 589	252 985	184 573
Iowa -----	398	3 368	2 663	69 752	48 193	243 301	232 115	136 970	100 162
Kansas -----	376	3 084	2 444	58 733	42 116	208 000	196 348	119 461	82 090
Kentucky -----	384	3 125	2 474	58 911	41 676	206 234	193 428	113 635	86 352
Louisiana -----	374	2 907	2 198	50 635	32 646	185 932	173 689	103 889	73 250
Maine -----	125	746	604	16 429	11 363	58 014	56 732	30 318	26 626
Maryland -----	617	5 465	4 265	125 523	84 450	354 421	334 671	202 591	135 645
Massachusetts -----	460	3 102	2 355	79 358	56 408	292 806	265 447	154 826	115 724
Michigan -----	872	7 150	5 509	163 009	114 689	581 409	539 923	295 295	246 716
Minnesota -----	447	4 092	3 110	105 725	75 530	392 257	361 972	204 338	171 644
Mississippi -----	239	1 799	1 554	26 333	19 023	107 763	(D)	60 847	45 434
Missouri -----	744	4 923	3 896	102 157	72 981	362 013	338 907	203 710	139 279
Montana -----	103	702	560	12 123	8 466	60 193	55 494	24 069	31 573
Nebraska -----	192	1 448	1 108	25 614	17 400	98 462	89 219	46 750	43 019
Nevada -----	94	1 172	982	28 748	23 104	116 422	107 817	64 161	44 104
New Hampshire -----	114	656	454	13 361	7 975	45 895	43 628	(D)	22 547
New Jersey -----	1 024	5 735	4 542	154 364	113 240	514 484	465 557	283 670	182 022
New Mexico -----	141	1 160	969	17 616	13 465	66 336	64 137	37 631	27 245
New York -----	1 655	10 777	8 232	286 097	198 498	934 882	856 800	531 697	338 919
North Carolina -----	878	5 794	4 642	96 627	67 931	354 002	330 322	189 863	144 893
North Dakota -----	77	748	621	13 545	9 537	53 014	50 076	28 049	22 340
Ohio -----	1 271	9 026	7 051	204 565	148 631	738 428	680 319	396 254	299 560
Oklahoma -----	257	2 008	1 566	39 678	28 121	139 261	132 337	78 925	54 343
Oregon -----	429	2 776	2 158	56 259	38 569	230 457	215 278	120 731	98 075
Pennsylvania -----	1 218	9 721	7 548	214 827	153 052	794 365	746 205	449 499	300 595
Rhode Island -----	113	703	537	14 501	10 268	48 614	46 422	29 436	16 985
South Carolina -----	366	2 736	2 227	41 492	30 341	163 418	155 922	84 838	71 435
South Dakota -----	79	764	596	18 215	11 943	62 139	56 027	27 996	30 905
Tennessee -----	549	4 357	3 383	83 358	57 248	300 934	275 409	147 888	131 090
Texas -----	1 527	12 809	9 840	231 566	149 896	1 138 647	1 005 284	531 741	485 655
Utah -----	191	1 786	1 421	30 857	22 244	117 990	113 487	64 996	50 798
Vermont -----	68	302	243	(D)	(D)	(D)	(D)	(D)	11 649
Virginia -----	766	6 755	5 434	128 846	90 042	412 490	385 392	207 054	179 244
Washington -----	839	5 911	4 631	128 948	93 346	472 215	450 868	255 655	200 533
West Virginia -----	143	1 171	957	25 893	18 723	85 488	83 483	48 433	36 826
Wisconsin -----	718	4 947	3 926	112 051	80 051	380 679	363 588	212 741	157 345
Wyoming -----	53	458	395	6 833	5 213	23 778	22 415	10 426	12 086

1992—Con.					1987			Relative standard error of estimate (percent) for column—			Location of establishment
Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Value of construction work	Value added††					B	G	M
J	K	L	M	N	O	P	Q				
1 198 147	7 065 888	238 569	232 716	2 296 335	231 137	15 027 806	8 524 431	1	1	3	U.S.
12 843	85 503	2 425	3 365	33 048	2 631	141 776	81 933	7	6	28	AL
1 841	21 673	468	1 129	8 472	215	27 073	14 152	8	9	13	AK
5 549	152 416	3 590	3 730	33 868	4 596	261 650	148 528	4	4	15	AZ
6 104	31 980	1 465	813	15 715	1 604	88 889	49 455	6	6	29	AR
111 636	820 549	33 092	20 927	210 111	27 289	1 907 960	1 109 870	2	2	6	CA
21 353	215 231	2 706	4 857	29 843	3 552	210 124	114 338	5	4	8	CO
23 471	105 131	3 757	3 236	35 108	3 520	276 709	160 446	3	2	6	CT
2 336	24 500	885	494	7 931	800	51 477	32 159	7	6	36	DE
(D)	(D)	(D)	(D)	(D)	526	34 671	32 158	(Z)	(D)	(D)	DC
110 725	449 111	16 307	16 742	130 810	17 824	1 008 422	527 615	3	3	13	FL
23 352	154 032	5 411	3 910	48 890	6 156	361 902	200 241	4	4	14	GA
8 668	56 199	4 152	1 487	11 646	997	78 178	50 739	7	5	20	HI
3 363	31 227	746	*895	*9 575	983	57 472	27 576	13	15	54	ID
85 830	470 841	16 515	16 384	131 896	10 868	828 243	495 388	3	3	13	IL
29 194	177 988	5 486	5 246	63 877	5 072	342 620	194 843	3	3	6	IN
11 186	77 248	3 915	3 704	42 474	2 376	169 334	88 071	6	4	10	IA
11 652	42 850	2 779	3 912	26 892	2 396	141 281	79 963	7	6	19	KS
12 807	107 490	3 020	5 512	34 731	2 684	149 923	82 619	6	4	28	KY
12 244	73 247	2 290	2 629	28 562	3 043	156 060	95 148	4	4	20	LA
1 282	24 702	651	*667	11 843	943	65 868	39 295	12	11	51	ME
19 750	185 366	5 184	3 457	54 715	6 473	381 629	230 766	3	3	15	MD
27 359	138 167	4 671	(D)	47 092	6 262	444 392	252 178	5	5	(D)	MA
41 486	219 476	6 958	11 703	97 085	7 623	608 683	333 035	4	5	17	MI
30 285	203 280	6 332	8 772	66 709	3 456	270 921	143 778	5	4	23	MN
(D)	44 166	1 036	1 392	19 737	1 439	83 340	41 832	11	(D)	22	MS
23 106	159 978	3 643	5 387	58 040	5 390	364 603	214 323	4	4	15	MO
*4 699	31 808	442	*1 898	7 814	356	27 697	14 986	13	18	40	MT
9 243	37 338	1 035	*1 264	11 633	1 419	86 022	46 770	6	6	41	NE
8 605	92 804	1 162	448	10 304	1 145	77 180	45 112	6	7	18	NV
2 267	21 113	1 016	571	9 079	1 145	79 974	44 879	8	8	18	NH
48 927	222 736	6 587	4 167	63 749	9 027	715 806	417 441	3	3	15	NJ
2 199	34 577	1 013	844	12 274	1 518	89 298	53 825	8	7	28	NM
78 082	358 558	14 995	12 349	138 116	14 567	1 049 763	618 481	2	2	12	NY
23 680	134 440	5 331	6 859	55 414	6 266	310 919	169 277	3	4	38	NC
2 938	17 809	627	658	7 443	492	34 766	17 227	7	5	8	ND
58 109	227 191	11 676	9 499	97 914	9 820	676 917	383 140	3	3	10	OH
6 924	56 509	1 264	1 283	21 981	2 179	123 105	67 499	6	6	22	OK
15 179	121 887	4 472	2 849	23 748	2 700	153 110	85 817	6	6	20	OR
48 161	331 366	12 136	7 781	95 506	10 865	726 695	413 808	3	3	10	PA
2 192	24 342	678	500	8 559	947	58 734	32 773	9	8	37	RI
7 495	59 645	3 037	2 235	22 916	2 593	126 373	66 796	6	9	21	SC
6 112	25 205	(D)	(S)	9 029	483	32 451	16 835	10	7	(S)	SD
25 525	126 288	3 212	4 692	50 192	4 239	248 581	126 651	4	5	20	TN
133 363	366 005	10 908	17 306	164 744	13 306	693 455	395 947	3	4	12	TX
4 502	67 575	1 092	1 238	12 393	1 501	100 378	49 933	8	6	25	UT
(D)	(D)	195	293	6 479	638	40 984	23 210	10	(D)	33	VT
27 099	207 523	6 281	5 700	56 194	7 039	377 384	210 561	3	3	20	VA
21 347	218 323	6 268	5 776	65 079	4 480	323 387	179 254	4	3	17	WA
2 005	19 827	922	1 708	14 918	935	55 959	33 798	7	5	27	WV
17 092	149 113	5 285	7 125	65 129	4 317	284 358	158 898	3	3	13	WI
1 363	12 640	275	512	(D)	417	21 284	11 041	17	9	23	WY

Table 2. Detailed Statistics for Establishments With Payroll: 1992 and Earlier Census Years

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

Item	1992	1987	1982	1977	Relative standard error of estimate (percent)			
					1992	1987	1982	1977
Number of establishments in business during year	27 569	25 673	21 152	20 577	1	1	1	2
Proprietors and working partners	10 957	7 016	7 791	12 273	2	3	2	3
All employees**	215 545	231 137	191 489	171 931	1	1	1	1
Construction workers:								
March	151 184	168 096	139 078	125 835	1	1	1	1
May	167 348	186 686	156 478	148 478	1	1	1	1
August	184 483	202 798	168 728	157 631	1	1	1	1
November	172 040	190 106	162 767	152 661	1	1	1	1
Average	168 764	186 916	158 901	146 307	1	1	1	1
Other employees:								
March	46 551	44 103	32 404	24 637	1	1	1	1
May	46 474	43 713	(NA)	(NA)	1	1	(NA)	(NA)
August	47 528	44 738	(NA)	(NA)	1	1	(NA)	(NA)
November	46 570	44 328	(NA)	(NA)	1	1	(NA)	(NA)
Average	46 781	44 221	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees	4 622 510	4 313 694	3 034 812	1 967 824	1	(Z)	(Z)	1
Payroll, construction workers	3 229 953	3 111 000	2 320 658	1 555 286	1	1	1	1
Payroll, other employees	1 392 557	1 202 693	714 154	412 538	1	1	1	1
First-quarter payroll, all employees	990 648	921 919	635 491	395 479	1	1	1	(Z)
Fringe benefits, all employees	1 285 784	1 084 331	642 394	407 503	1	1	1	(Z)
Legally required expenditures	896 435	768 595	436 104	240 107	1	1	1	1
Voluntary expenditures	389 349	315 736	206 290	167 396	1	1	1	(Z)
Dollar value of business done	16 974 611	15 258 891	10 033 533	6 320 693	1	1	1	1
Value of construction work	16 787 979	15 027 806	9 836 510	6 200 390	1	1	1	1
Value of construction work subcontracted in from others	7 065 888	5 685 007	4 045 325	2 998 790	1	1	1	1
Other business receipts	186 632	231 085	197 023	120 304	4	3	2	2
Net value of construction work†	15 589 833	14 182 802	9 315 228	5 938 778	1	1	1	1
Value added††	8 905 974	8 524 431	5 459 875	3 420 412	1	1	1	1
Selected costs	8 068 637	6 734 460	4 573 658	2 900 282	1	1	1	1
Materials, components, and supplies	6 571 185	5 637 184	3 848 560	2 535 596	1	1	1	1
Construction work subcontracted out to others	1 198 147	845 003	521 282	261 612	2	2	1	2
Selected power, fuels, and lubricants	299 305	252 272	203 816	103 075	1	1	1	1
Electricity	56 072	39 938	27 879	12 350	2	1	2	1
Natural and manufactured gas	26 437	12 525	11 310	5 667	2	2	2	3
Gasoline and diesel fuel	204 150	184 020	151 864	75 166	1	1	1	1
On highway use	192 023	170 647	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use	12 127	13 373	(NA)	(NA)	4	3	(NA)	(NA)
Other, including lubricating oils and greases	12 646	15 786	12 762	9 893	3	3	2	3
Rental cost for machinery, equipment, and buildings	238 569	215 477	109 183	49 191	2	2	1	1
For machinery and equipment	96 597	86 984	51 791	23 525	3	2	2	1
For buildings	141 971	128 492	57 392	25 666	2	2	2	1
Selected purchased services	292 044	230 744	148 914	88 306	2	1	1	1
Communication services	119 500	94 106	59 982	35 249	2	2	2	1
Repairs to buildings and other structures	21 872	20 105	12 386	6 334	6	3	4	4
Repairs to machinery and equipment	150 673	116 532	76 546	46 723	2	1	1	1
Ownership of construction projects:								
Value of construction work	16 787 979	15 027 806	9 836 510	6 200 390	1	1	1	1
Government owned	3 151 231	2 285 520	1 552 323	803 964	3	2	3	1
Federal	878 116	673 356	(NA)	(NA)	5	3	(NA)	(NA)
State and local	2 273 116	1 612 163	(NA)	(NA)	3	2	(NA)	(NA)
Privately owned	13 636 748	12 742 285	8 284 187	5 396 426	1	1	1	1

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	2 143 798	1 616 963	2	1
Capital expenditures, other than land	232 716	249 240	3	2
New	171 725	188 480	3	2
Used	60 991	60 760	7	4
Retirements and disposition of depreciable assets.....	80 179	59 537	6	4
End-of-year gross book value of depreciable assets	2 296 335	1 806 667	2	1
Depreciation charges during year	239 900	230 558	2	1
Buildings and Other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	408 818	382 501	4	3
Capital expenditures, other than land	30 486	36 983	9	7
New buildings and other structures	19 672	23 497	10	9
Used buildings and other structures.....	10 814	13 485	14	8
Retirements and disposition of depreciable assets.....	9 330	7 309	15	10
End-of-year gross book value of depreciable assets	429 974	412 175	4	3
Depreciation charges during year	32 941	34 104	5	4
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	1 734 980	1 234 462	2	1
Capital expenditures, other than land	202 230	212 257	3	2
New machinery and equipment, including automobiles and trucks	152 053	164 982	3	2
New automobiles and trucks, intended primarily for highway use	76 749	103 685	4	3
Used machinery and equipment, including automobiles and trucks	50 177	47 274	7	4
Retirements and disposition of depreciable assets.....	70 849	52 227	6	4
End-of-year gross book value of depreciable assets	1 866 361	1 394 492	2	1
Depreciation charges during year	206 959	196 454	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	27 569	1
Value of construction work	16 787 979	1
Establishments with inventories:		
Number	11 022	1
Value of construction work	11 441 215	1
Inventories¹:		
End of 1992, materials and supplies	337 331	2
End of 1991, materials and supplies	317 678	2
Establishments with no inventories:		
Number	8 591	2
Value of construction work	3 064 053	2
Establishments not reporting:		
Number	7 957	2
Value of construction work	2 282 711	2

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

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

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

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1992										
Number of establishments	27 569	(S)	5 518	3 311	2 019	446	96	6	2	—
All employees**	215 545	31 354	35 216	43 705	59 650	29 434	13 098	3 088	(D)	—
Payroll, all employees	4 622 510	461 295	623 388	892 709	1 388 225	807 785	367 003	82 105	(D)	—
Dollar value of business done	16 974 611	2 487 154	2 452 520	3 151 388	4 791 109	2 582 645	1 214 919	294 876	(D)	—
Value of construction work	16 787 979	2 473 726	2 435 546	3 103 731	4 736 366	2 543 401	1 204 068	291 141	(D)	—
Net value of construction work†	15 589 833	2 230 668	2 253 124	2 892 909	4 432 210	2 378 319	1 127 601	275 002	(D)	—
Value added††	8 905 974	1 172 001	1 247 090	1 656 825	2 558 575	1 436 471	655 414	179 598	(D)	—
Cost of materials, components, supplies, and fuels	6 870 490	1 072 095	1 023 009	1 283 740	1 928 378	981 092	483 038	99 139	(D)	—
Cost of construction work subcontracted out to others	1 198 147	243 059	182 422	210 823	304 155	165 082	76 467	16 139	(D)	—
Rental cost for machinery, equipment, and buildings	238 569	31 462	32 817	50 476	70 012	32 282	16 309	5 211	(D)	—
Capital expenditures, other than land	232 716	37 591	39 685	47 638	64 066	29 816	11 091	2 829	(D)	—
End-of-year gross book value of depreciable assets	2 296 335	332 289	356 780	442 253	690 292	315 677	131 223	27 820	(D)	—
1987										
All employees**	231 137	(S)	38 854	48 731	64 632	31 422	17 038	3 076	(D)	—
Value of construction work	15 027 806	(S)	2 025 854	2 958 609	4 435 043	2 323 211	1 513 311	(D)	(D)	—
Value added††	8 524 431	(S)	1 168 457	1 671 320	2 538 488	1 345 678	791 068	133 285	(D)	—
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees**	1	2	3	3	2	1	(Z)	(Z)	(D)	—
Net value of construction work†	1	3	3	3	1	1	(Z)	(Z)	(D)	—
Capital expenditures, other than land	3	8	10	8	4	2	(Z)	(Z)	(D)	—

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1992 and 1987

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

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1992											
Number of establishments	27 569	(S)	(S)	(S)	7 436	4 935	3 451	2 559	913	360	114
All employees**	215 545	(S)	(S)	(S)	22 697	28 333	34 278	49 029	33 145	22 502	14 979
Payroll, all employees	4 622 510	(S)	(S)	(S)	290 149	467 249	651 239	1 098 256	853 496	675 578	489 065
Dollar value of business done	16 974 611	(S)	(S)	(S)	1 199 878	1 769 021	2 374 491	3 897 990	3 133 714	2 348 354	1 853 968
Value of construction work	16 787 979	(S)	(S)	(S)	1 194 280	1 757 466	2 350 584	3 848 852	3 094 150	2 321 658	1 825 849
Net value of construction work†	15 589 833	(S)	(S)	(S)	1 138 378	1 645 986	2 199 145	3 560 712	2 866 576	2 124 983	1 674 591
Value added††	8 905 974	(S)	(S)	(S)	637 922	929 514	1 254 480	1 982 313	1 614 498	1 277 666	991 260
Cost of materials, components, supplies, and fuels	6 870 490	(S)	(S)	(S)	506 054	728 027	968 572	1 627 538	1 291 642	874 012	711 450
Cost of construction work subcontracted out to others	1 198 147	(S)	(S)	(S)	55 902	111 480	151 439	288 140	227 574	196 675	151 258
Rental cost for machinery, equipment, and buildings	238 569	(S)	(S)	(S)	15 023	23 781	36 288	58 311	45 116	28 835	25 195
Capital expenditures, other than land	232 716	(S)	(S)	(S)	23 527	30 496	30 559	58 617	38 671	27 507	17 070
End-of-year gross book value of depreciable assets	2 296 335	(S)	(S)	(S)	190 348	262 500	346 149	576 724	376 325	273 867	205 299
1987											
All employees**	231 137	(S)	(S)	(S)	(S)	30 330	34 941	54 850	37 169	18 438	14 830
Value of construction work	15 027 806	(S)	(S)	(S)	(S)	1 526 858	2 085 876	3 743 300	2 932 980	1 666 389	1 435 145
Value added††	8 524 431	(S)	(S)	(S)	(S)	851 023	1 160 978	2 117 470	1 692 946	940 121	852 563
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees**	1	(S)	(S)	(S)	3	3	3	2	1	1	(Z)
Net value of construction work†	1	(S)	(S)	(S)	3	3	3	2	2	1	(Z)
Capital expenditures, other than land	3	(S)	(S)	(S)	10	10	9	6	7	5	(Z)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1992 and 1987

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

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
1992								
Value of construction work	16 787 979	5 623 898	6 469 201	4 104 966	1	1	1	2
Building construction	16 051 453	5 562 622	6 420 992	4 067 839	1	1	1	2
Single-family houses	5 525 826	1 814 490	2 260 849	1 450 488	2	3	2	3
Single-family houses, detached	4 815 863	1 553 402	2 020 190	1 242 271	2	3	2	3
Single-family houses, attached, including townhouses and townhouse-type condominiums	709 962	261 088	240 658	208 216	3	6	5	5
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	616 145	136 269	242 776	237 100	3	6	4	3
Other residential buildings, including hotels, motels, and tourist cabins	179 337	64 312	65 285	49 740	3	3	5	7
Office buildings	1 335 019	551 955	486 772	296 291	1	2	2	3
Other commercial buildings such as stores, restaurants, and automobile service stations	1 993 129	778 841	723 268	491 020	2	2	2	3
Industrial buildings and warehouses	3 392 784	1 110 760	1 386 207	895 816	1	1	1	2
Industrial buildings	2 654 523	865 812	1 094 477	694 234	1	2	1	2
Warehouses	738 261	244 948	291 730	201 582	2	2	3	4
Religious buildings	332 981	88 592	144 518	99 870	2	4	3	3
Educational buildings	1 528 562	527 525	671 941	329 097	2	3	3	4
Hospitals and institutional buildings	844 384	338 146	347 701	158 537	2	1	3	4
Amusement, social, and recreational buildings, indoors	113 522	56 979	32 416	24 127	4	3	3	16
Other nonresidential buildings	189 766	94 753	59 260	35 753	10	8	28	15
Nonbuilding construction	146 612	61 277	48 209	37 127	4	3	7	6
Construction work, n.s.k.	589 914	(NA)	(NA)	(NA)	4	(NA)	(NA)	(NA)
1987								
Value of construction work	15 027 806	5 870 711	4 796 373	3 629 887	1	1	1	1
Building construction	14 079 526	5 768 140	4 745 480	3 565 906	1	1	1	1
Single-family houses	4 000 304	1 504 500	1 383 447	1 112 357	2	2	2	3
Single-family houses, detached	3 385 622	1 207 919	1 243 633	934 069	2	3	3	3
Single-family houses, attached, including townhouses and townhouse-type condominiums	614 682	296 581	139 814	178 287	3	4	6	6
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	616 429	236 558	182 354	197 516	2	5	3	3
Other residential buildings, including hotels, motels, and tourist cabins	427 892	201 902	121 717	104 272	3	3	5	5
Office buildings	1 644 814	908 281	457 550	278 982	1	2	2	2
Other commercial buildings such as stores, restaurants, and automobile service stations	1 829 764	792 750	580 525	456 489	1	2	2	3
Industrial buildings and warehouses	3 370 775	1 392 993	1 115 051	862 730	1	1	1	2
Industrial buildings	2 616 099	1 057 834	881 172	677 093	1	1	2	2
Warehouses	754 676	335 159	233 879	185 637	2	3	2	3
Religious buildings	293 639	83 610	117 819	92 209	2	3	4	3
Educational buildings	1 070 234	330 933	472 306	266 994	2	2	2	3
Hospitals and institutional buildings	570 190	215 894	231 394	122 901	1	2	2	4
Amusement, social, and recreational buildings, indoors	77 910	29 903	29 216	18 790	4	5	6	12
Other nonresidential buildings	177 575	70 816	54 101	52 666	7	13	4	8
Nonbuilding construction	217 446	102 571	50 893	63 981	5	5	6	13
Construction work, n.s.k.	730 834	(NA)	(NA)	(NA)	4	(NA)	(NA)	(NA)

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

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

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	B				C	D	E	F	G	H	B	D	H
All establishments	27 569	215 545	4 622 510	16 787 979	8 264 658	15 589 833	8 905 974	1 198 147	1	1	2
Establishments not specializing by type	6 053	84 155	2 026 689	6 982 110	(NA)	6 523 474	3 775 956	458 636	1	1	4
Establishments specializing 51 percent or more	21 516	131 390	2 595 821	9 805 870	8 264 658	9 066 359	5 130 018	739 511	1	1	3
SINGLE-FAMILY HOUSES, DETACHED											
All establishments specializing in type	12 425	63 784	1 082 892	4 632 120	4 038 638	4 245 633	2 297 003	386 486	2	2	5
Establishments with —											
100 percent specialization	5 087	19 909	335 087	1 527 003	1 527 003	1 367 884	788 937	159 119	3	3	7
90 to 99 percent specialization	2 923	17 037	280 422	1 205 631	1 127 645	1 120 122	587 822	85 509	4	4	10
80 to 89 percent specialization	1 797	9 433	162 484	735 479	604 672	663 780	345 012	71 700	6	6	16
70 to 79 percent specialization	1 491	8 798	144 897	586 154	427 214	549 838	283 384	36 316	5	6	13
60 to 69 percent specialization	834	6 891	125 604	454 549	283 926	433 928	232 349	20 621	6	6	12
51 to 59 percent specialization	293	1 715	34 398	123 304	68 178	110 082	59 499	13 222	11	10	25
SINGLE-FAMILY HOUSES, ATTACHED, INCLUDING TOWNHOUSES AND TOWNHOUSE-TYPE CONDOMINIUMS											
All establishments specializing in type	1 050	4 483	75 262	303 449	263 462	274 116	140 119	29 332	7	8	20
Establishments with —											
100 percent specialization	505	1 821	29 116	128 604	128 604	113 670	57 219	14 935	10	12	24
90 to 99 percent specialization	145	683	13 302	52 516	49 225	47 876	22 160	4 641	17	16	31
80 to 89 percent specialization	170	643	10 537	47 357	38 837	41 815	21 495	*5 542	20	26	72
70 to 79 percent specialization	77	293	4 509	17 412	12 541	17 101	8 577	*311	31	32	44
60 to 69 percent specialization	(S)	(S)	11 397	39 500	24 396	36 196	20 296	*3 304	(S)	23	59
51 to 59 percent specialization	(S)	368	6 401	18 059	9 858	17 458	10 373	(S)	21	23	(S)
APARTMENT BUILDINGS WITH TWO OR MORE UNITS, INCLUDING RENTALS, APARTMENT-TYPE CONDOMINIUMS, AND COOPERATIVES											
All establishments specializing in type	404	2 146	36 969	142 726	109 045	127 077	73 733	15 649	10	10	12
Establishments with —											
100 percent specialization	101	476	6 553	21 576	21 576	18 947	10 379	2 629	25	23	27
90 to 99 percent specialization	(S)	240	6 316	24 997	23 332	20 070	14 085	4 927	28	24	21
80 to 89 percent specialization	29	306	5 599	19 681	16 272	17 658	8 966	2 023	24	13	13
70 to 79 percent specialization	61	320	4 861	23 667	16 666	21 110	11 107	*2 557	28	30	43
60 to 69 percent specialization	(S)	617	10 191	41 410	25 107	38 799	22 960	2 611	17	18	27
51 to 59 percent specialization	*18	*187	3 450	11 395	6 092	10 493	6 236	*902	44	30	48
OFFICE BUILDINGS											
All establishments specializing in type	316	4 941	157 330	436 325	325 584	400 960	262 260	35 365	4	3	8
Establishments with —											
100 percent specialization	82	997	33 090	78 080	78 080	70 927	51 462	7 153	7	9	30
90 to 99 percent specialization	38	431	8 825	24 224	22 203	22 048	12 693	2 176	23	18	9
80 to 89 percent specialization	(S)	675	25 716	79 632	65 241	69 368	47 150	10 265	4	7	16
70 to 79 percent specialization	48	718	21 161	61 798	45 290	57 417	33 583	4 382	11	12	13
60 to 69 percent specialization	63	1 466	49 148	136 539	83 776	127 830	83 775	8 709	7	5	4
51 to 59 percent specialization	48	654	19 390	56 051	30 995	53 371	33 596	2 680	13	9	16
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type	1 456	13 600	280 111	1 081 378	903 329	1 024 910	557 372	56 468	4	3	9
Establishments with —											
100 percent specialization	665	5 541	111 961	436 147	436 147	417 553	222 631	18 594	6	5	9
90 to 99 percent specialization	182	1 579	32 481	118 714	109 497	112 562	59 510	6 152	11	9	21
80 to 89 percent specialization	119	1 490	26 876	101 232	83 012	94 877	49 890	6 355	11	9	5
70 to 79 percent specialization	160	1 901	42 469	152 762	110 414	146 561	85 032	6 201	9	10	15
60 to 69 percent specialization	253	2 185	48 662	195 667	122 061	181 766	102 904	13 901	9	10	30
51 to 59 percent specialization	78	904	17 663	76 856	42 198	71 591	37 406	5 265	17	16	18
INDUSTRIAL BUILDINGS											
All establishments specializing in type	1 213	18 865	507 023	1 542 148	1 238 202	1 432 595	892 859	109 553	2	2	3
Establishments with —											
100 percent specialization	521	5 473	138 260	428 692	428 692	397 206	252 340	31 486	5	4	9
90 to 99 percent specialization	164	2 653	72 771	203 408	190 306	192 877	121 628	10 531	7	5	6
80 to 89 percent specialization	103	2 180	61 976	181 505	149 214	167 040	99 687	14 465	6	4	6
70 to 79 percent specialization	172	3 679	100 494	315 971	227 304	289 403	180 841	26 388	4	4	4
60 to 69 percent specialization	146	3 117	85 274	249 411	154 586	231 833	146 885	17 577	5	4	4
51 to 59 percent specialization	107	1 764	48 248	163 341	88 099	154 235	91 479	9 105	7	6	13
WAREHOUSES											
All establishments specializing in type	85	1 084	23 373	89 247	65 264	84 726	40 532	4 521	9	7	7
Establishments with —											
100 percent specialization	(S)	132	2 388	11 416	11 416	11 077	(S)	(S)	36	31	(S)
90 to 99 percent specialization	(S)	(S)	*1 405	*5 983	*5 477	*5 600	(S)	*384	(S)	62	58
80 to 89 percent specialization	*11	103	4 271	16 359	13 196	16 079	6 752	*281	24	12	57
70 to 79 percent specialization	6	167	5 127	15 593	11 754	(D)	6 205	(D)	11	9	(D)
60 to 69 percent specialization	9	439	7 466	29 010	17 476	(D)	12 220	(D)	3	3	(D)
51 to 59 percent specialization	*8	*153	2 715	10 885	5 944	10 592	5 024	293	41	32	28

18-10 ROOFING, SIDING, AND SHEET METAL WORK

CONSTRUCTION—INDUSTRY SERIES

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

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

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work sub-contracted out to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	E						
EDUCATIONAL BUILDINGS											
All establishments specializing in type	575	6 597	155 319	582 082	406 980	537 418	289 182	44 664	5	5	14
Establishments with —											
100 percent specialization	57	268	5 726	28 016	28 016	25 030	13 716	*2 986	31	32	50
90 to 99 percent specialization	92	615	16 179	43 388	39 770	41 292	22 255	2 096	15	16	22
80 to 89 percent specialization	83	892	17 078	80 297	66 278	72 742	37 329	7 555	18	14	32
70 to 79 percent specialization	98	1 313	34 247	124 694	90 628	111 500	65 534	13 195	12	12	35
60 to 69 percent specialization	177	2 183	49 518	193 348	120 378	179 565	98 207	13 784	10	11	20
51 to 59 percent specialization	68	1 326	32 570	112 339	61 912	107 290	52 140	5 049	8	6	4
HOSPITALS AND INSTITUTIONAL BUILDINGS											
All establishments specializing in type	153	2 041	63 625	180 998	130 402	166 594	114 486	14 404	4	5	9
Establishments with —											
100 percent specialization	(S)	(S)	(S)	(S)	(S)	(D)	(S)	(D)	(S)	(S)	(D)
90 to 99 percent specialization	*11	141	5 746	16 820	15 555	15 520	10 171	(S)	5	27	(S)
80 to 89 percent specialization	(S)	391	10 775	32 123	25 844	30 456	18 566	1 667	4	3	(Z)
70 to 79 percent specialization	(S)	374	12 170	36 966	26 393	28 577	20 557	8 388	3	3	(Z)
60 to 69 percent specialization	43	774	24 077	59 729	36 927	58 750	45 010	978	10	9	19
51 to 59 percent specialization	10	247	8 164	21 197	11 519	(D)	9 758	(D)	10	6	(D)

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

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

Location of establishment	Number of establishments	Average number of construction workers	Construction workers ¹				Relative standard error of estimate (percent) for column—					
			January to March	April to June	July to September	October to December	A	B	C	D	E	F
			A	B	C	D	E	F	A	B	C	D	E	F
United States	27 569	168 764	151 184	167 348	184 483	172 040	1	1	1	1	1	1
Alabama	379	2 375	2 234	2 299	2 504	2 464	6	7	6	7	7	10
Alaska	55	239	218	248	296	193	5	9	10	10	7	11
Arizona	349	3 325	3 111	3 415	3 419	3 356	6	5	5	5	5	5
Arkansas	237	1 182	1 179	1 202	1 169	1 180	9	6	7	7	6	6
California	2 864	19 591	18 833	19 164	20 596	19 771	2	2	2	2	2	2
Colorado	444	3 232	2 932	3 152	3 375	3 468	5	5	4	4	6	6
Connecticut	353	1 872	1 467	1 912	2 219	1 892	6	3	4	3	2	3
Delaware	99	556	510	577	564	571	16	8	8	7	8	8
District of Columbia	8	290	(D)	294	(D)	278	(Z)	(Z)	(Z)	(Z)	(D)	(Z)
Florida	2 024	11 984	11 321	11 611	12 328	12 676	3	3	3	3	3	3
Georgia	593	3 951	3 860	3 773	4 108	4 064	5	4	4	4	4	4
Hawaii	133	946	981	861	916	1 027	7	7	10	8	8	9
Idaho	165	811	653	835	948	805	12	14	15	15	15	13
Illinois	1 324	8 508	6 809	9 031	9 627	8 563	4	3	3	3	3	3
Indiana	641	4 806	4 241	4 877	5 346	4 762	5	3	4	3	3	3
Iowa	398	2 663	2 233	2 639	3 106	2 673	7	6	6	6	6	7
Kansas	376	2 444	1 870	2 266	3 090	2 549	6	8	7	8	10	9
Kentucky	384	2 474	2 334	2 462	2 569	2 531	5	6	6	6	7	6
Louisiana	374	2 198	2 266	2 214	2 178	2 135	5	5	6	5	5	5
Maine	125	604	471	582	694	671	15	13	10	13	13	14
Maryland	617	4 265	3 942	4 401	4 607	4 112	6	3	4	3	3	3
Massachusetts	460	2 355	1 935	2 292	2 725	2 468	6	5	6	5	5	5
Michigan	872	5 509	4 320	5 412	6 637	5 668	4	4	5	4	4	4
Minnesota	447	3 110	2 577	3 155	3 404	3 305	6	5	5	5	5	6
Mississippi	239	1 554	1 554	1 489	1 631	1 541	8	11	12	9	11	13
Missouri	744	3 896	3 350	3 891	4 454	3 890	4	4	4	4	4	4
Montana	103	560	454	545	642	598	13	12	13	13	12	12
Nebraska	192	1 108	974	1 153	1 237	1 067	10	7	7	7	6	7
Nevada	94	982	932	963	1 033	1 002	6	7	7	6	7	7
New Hampshire	114	454	347	430	525	512	12	9	8	8	10	10
New Jersey	1 024	4 542	3 881	4 600	5 104	4 581	4	3	3	4	4	3
New Mexico	141	969	869	932	1 126	949	4	8	9	9	10	9
New York	1 655	8 232	6 390	8 156	9 599	8 782	3	3	3	3	3	3
North Carolina	878	4 642	4 517	4 602	4 767	4 680	4	4	4	4	4	4
North Dakota	77	621	558	610	713	605	19	8	8	8	8	8
Ohio	1 271	7 051	5 658	6 879	8 263	7 405	3	3	4	3	3	3
Oklahoma	257	1 566	1 516	1 529	1 659	1 562	6	6	7	6	6	7
Oregon	429	2 158	2 063	1 958	2 439	2 173	6	6	6	7	6	6
Pennsylvania	1 218	7 548	6 389	7 635	8 235	7 932	3	3	3	3	3	3
Rhode Island	113	537	472	580	552	545	9	10	11	10	10	12
South Carolina	366	2 227	2 110	2 212	2 333	2 254	6	6	6	6	6	7
South Dakota	79	596	497	650	664	572	15	9	10	10	9	11
Tennessee	549	3 383	3 277	3 316	3 570	3 367	5	4	4	4	5	4
Texas	1 527	9 840	9 871	9 724	10 358	9 408	3	4	4	4	4	4
Utah	191	1 421	1 212	1 401	1 574	1 497	8	9	9	9	9	11
Vermont	68	243	(D)	244	(D)	240	16	12	(D)	14	(D)	12
Virginia	766	5 434	5 080	5 302	5 781	5 573	4	4	4	4	4	4
Washington	839	4 631	4 332	4 631	5 110	4 449	3	3	4	4	4	3
West Virginia	143	957	785	857	1 115	1 071	6	7	7	7	7	8
Wisconsin	718	3 926	3 012	4 026	4 474	4 190	4	3	4	3	3	3
Wyoming	53	395	323	357	485	415	10	19	17	18	22	16

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

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

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

Location of construction work	1992					1987 value of construction work done in this State	Percent change 1987 (col F) to 1992 (col A)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State				A	C	E
		Number	Value of construction work	Number	Value of construction work					
United States	16 787 979	27 473	15 564 131	5 061	1 223 848	15 027 806	11.7	1	1	2
Alabama	176 600	378	162 554	107	14 046	140 086	26.1	5	6	7
Alaska	39 526	(S)	37 321	10	2 205	28 075	40.8	8	9	5
Arizona	244 386	349	240 048	29	4 338	256 718	-4.8	4	5	6
Arkansas	105 372	234	84 487	76	20 884	83 900	25.6	7	7	21
California	2 064 661	2 856	2 033 568	58	31 092	1 908 539	8.2	2	2	3
Colorado	341 373	444	310 734	35	30 639	212 809	60.4	4	5	1
Connecticut	227 206	353	207 428	84	19 778	266 842	-14.9	3	3	5
Delaware	58 541	99	44 087	64	14 454	77 175	-24.1	7	8	16
District of Columbia	47 184	8	11 984	127	35 200	76 274	-38.1	4	(Z)	5
Florida	1 192 150	2 024	1 109 943	173	82 206	1 025 914	16.2	3	3	8
Georgia	348 233	593	305 530	189	42 703	356 850	-2.4	3	3	7
Hawaii	143 407	133	129 677	25	13 730	83 821	71.1	5	5	13
Idaho	69 252	161	59 512	57	9 740	51 739	33.8	12	14	16
Illinois	1 041 817	1 322	979 816	205	62 002	874 539	19.1	3	3	5
Indiana	433 770	641	393 876	186	39 894	308 141	40.8	3	3	3
Iowa	223 009	398	210 331	81	12 678	144 861	53.9	4	4	11
Kansas	219 543	368	183 268	136	36 275	163 496	34.3	6	7	5
Kentucky	221 913	384	182 276	179	39 636	183 567	20.9	4	5	6
Louisiana	190 988	374	180 320	61	10 668	161 486	18.3	4	4	5
Maine	56 946	125	53 646	50	3 300	64 406	-11.6	11	11	21
Maryland	330 485	617	280 223	212	50 263	365 453	-9.6	4	4	5
Massachusetts	296 197	460	268 469	102	27 728	460 931	-35.7	5	5	5
Michigan	587 045	863	558 809	136	28 236	568 358	3.3	7	7	12
Minnesota	390 094	447	372 088	91	18 006	269 609	44.7	4	4	8
Mississippi	103 451	239	90 454	97	12 997	86 413	19.7	11	13	3
Missouri	316 667	738	289 886	107	26 781	339 322	-6.7	5	5	9
Montana	57 754	103	56 595	12	1 159	26 770	115.7	18	18	33
Nebraska	91 357	192	88 212	37	3 145	77 953	17.2	8	9	18
Nevada	143 064	94	113 089	59	29 975	77 950	83.5	5	7	3
New Hampshire	45 263	106	36 065	64	9 197	80 759	-44.0	7	8	13
New Jersey	483 393	1 023	449 267	176	34 127	712 434	-32.1	4	4	10
New Mexico	76 654	141	65 486	45	*11 169	93 825	-18.3	9	7	41
New York	911 821	1 654	867 206	186	44 615	1 039 527	-12.3	2	3	4
North Carolina	363 615	878	324 922	169	38 693	324 812	11.9	4	4	8
North Dakota	49 175	77	45 498	*19	3 677	33 377	47.3	7	7	34
Ohio	726 863	1 270	689 757	183	37 106	654 988	11.0	3	3	7
Oklahoma	141 128	249	129 213	74	11 915	123 506	14.3	6	6	30
Oregon	226 217	429	212 723	80	13 494	155 859	45.1	6	6	18
Pennsylvania	765 915	1 205	712 473	172	53 441	679 057	12.8	3	3	8
Rhode Island	54 293	113	47 039	52	7 253	59 967	-9.5	8	9	11
South Carolina	185 683	(S)	147 459	147	38 224	142 220	30.6	8	9	10
South Dakota	50 692	79	46 313	27	4 379	28 425	78.3	9	10	14
Tennessee	282 792	545	258 377	111	24 415	263 997	7.1	5	5	3
Texas	1 095 873	1 517	1 082 406	70	13 467	685 075	60.0	5	5	10
Utah	102 584	191	101 637	8	948	100 368	2.2	8	8	7
Vermont	20 255	(S)	19 282	11	973	35 039	-42.2	7	7	28
Virginia	474 365	766	389 403	238	84 962	400 818	18.3	3	3	7
Washington	477 005	838	454 935	90	22 070	320 484	48.8	3	3	12
West Virginia	87 318	143	65 827	142	21 491	55 042	58.6	5	6	12
Wisconsin	374 978	718	357 125	168	17 854	269 231	39.3	3	3	10
Wyoming	30 106	53	23 486	44	6 620	26 973	11.6	10	8	36

Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind-of-Business Activity: 1992 and 1987

[Thousand dollars. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kind of business activities	Dollar value of business done		Relative standard error of estimate (percent)	
	1992	1987	1992	1987
All kinds of business -----	16 974 611	15 258 891	1	1
SPECIAL TRADE CONTRACTORS				
Architectural sheet metal contractor, including gutters and downspouts -	1 053 906	952 400	3	2
Carpentry contractor-----	130 352	90 179	7	7
Heating, ventilation and air-conditioning contractor-----	131 296	142 408	7	10
Roofing contractor-----	9 734 747	8 711 104	1	1
Sheet metal contractor-----	3 241 169	3 064 143	1	1
Siding contractor-----	1 530 428	1 130 220	3	4
Specialty sheet metal contractor, including decking and metal ceilings--	432 284	300 091	4	6
Other construction activities-----	421 828	422 225	3	(NA)
Other business activities-----	182 166	233 518	4	(NA)
Kind of business activity, n.s.k.-----	116 434	212 603	5	6

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

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

Selected statistics	1992	1987	Relative standard error of estimate (percent) for 1992
AVERAGE PER ESTABLISHMENT			
Number of employees**	7.8	9.0	1
Number of construction workers.....	6.1	7.3	1
Number of all other employees	1.7	1.7	1
Payroll, all employees	\$1,000 167.7	168.0	1
Payroll, construction workers.....	do-- 117.2	121.2	1
Payroll, other employees	do-- 50.5	46.8	1
Dollar value of business done.....	do-- 615.7	594.4	1
Value of construction work	do-- 608.9	585.4	1
Cost of materials, components, supplies, and fuels.....	do-- 249.2	229.4	1
Construction work subcontracted to others	do-- 43.5	32.9	2
Rental cost for machinery, equipment, and buildings	do-- 8.7	8.4	2
Capital expenditures, other than land	do-- 8.4	9.7	3
Gross book value of depreciable assets	do-- 83.3	70.4	2
AVERAGE PER EMPLOYEE			
Payroll, all employees	\$1,000 21.4	18.7	(Z)
Dollar value of business done.....	do-- 78.8	66.0	1
Value added††	do-- 41.3	36.9	(Z)
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers.....	\$1,000 19.1	16.6	(Z)
Value of construction work	do-- 99.5	80.4	1
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 29.8	27.2	1
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK			
Payroll, all employees .....	.275	.287	(Z)
Cost of materials, components, supplies, and fuels.....	.409	.392	(Z)
Cost of construction work subcontracted out to others .....	.071	.056	2
Value of construction work subcontracted in from others .....	.421	.378	2
Rental cost for machinery, equipment, and buildings .....	.014	.014	2

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

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

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Value of construction work per construction worker (\$1,000)	Average per dollar value of construction work				
				Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings
United States	7.8	21.4	99.5	.275	.409	.071	.421	.014
Alabama	7.9	18.0	79.4	.287	.436	.068	.453	.013
Alaska	5.1	37.0	156.2	.282	.445	.049	.581	.013
Arizona	11.8	17.6	79.6	.276	.461	.021	.576	.014
Arkansas	6.6	17.7	80.4	.289	.429	.064	.336	.015
California	8.7	22.0	104.8	.267	.415	.054	.400	.016
Colorado	9.0	20.6	100.4	.254	.457	.066	.663	.008
Connecticut	6.8	28.6	125.2	.294	.360	.100	.449	.016
Delaware	7.6	24.4	94.4	.351	.409	.045	.467	.017
District of Columbia	39.9	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Florida	7.8	18.1	95.2	.251	.433	.097	.394	.014
Georgia	8.4	19.9	83.7	.300	.424	.071	.466	.016
Hawaii	9.4	26.5	137.1	.257	.369	.067	.433	.032
Idaho	6.0	15.1	84.5	.217	.553	.049	.456	.011
Illinois	8.3	28.3	119.1	.306	.369	.085	.464	.016
Indiana	9.5	22.8	96.5	.298	.398	.063	.384	.012
Iowa	8.5	20.7	91.4	.287	.412	.046	.317	.016
Kansas	8.2	19.0	85.1	.282	.395	.056	.206	.013
Kentucky	8.1	18.9	83.4	.286	.419	.062	.521	.015
Louisiana	7.8	17.4	84.6	.272	.394	.066	.394	.012
Maine	6.0	22.0	96.0	.283	.459	.022	.426	.011
Maryland	8.9	23.0	83.1	.354	.383	.056	.523	.015
Massachusetts	6.7	25.6	124.3	.271	.395	.093	.472	.016
Michigan	8.2	22.8	105.5	.280	.424	.071	.377	.012
Minnesota	9.2	25.8	126.1	.270	.438	.077	.518	.016
Mississippi	7.5	14.6	69.3	.244	.422	(D)	.410	.010
Missouri	6.6	20.8	92.9	.282	.385	.064	.442	.010
Montana	6.8	17.3	107.5	.201	.525	*.078	.528	.007
Nebraska	7.5	17.7	88.9	.260	.437	.094	.379	.011
Nevada	12.5	24.5	118.6	.247	.379	.074	.797	.010
New Hampshire	5.8	20.4	101.1	.291	.491	.049	.460	.022
New Jersey	5.6	26.9	113.3	.300	.354	.095	.433	.013
New Mexico	8.2	15.2	68.5	.266	.411	.033	.521	.015
New York	6.5	26.5	113.6	.306	.363	.084	.384	.016
North Carolina	6.6	16.7	76.3	.273	.409	.067	.380	.015
North Dakota	9.7	18.1	85.4	.256	.421	.055	.336	*.012
Ohio	7.1	22.7	104.7	.277	.406	.079	.308	.016
Oklahoma	7.8	19.8	88.9	.285	.390	.050	.406	.009
Oregon	6.5	20.3	106.8	.244	.426	.066	.529	.019
Pennsylvania	8.0	22.1	105.2	.270	.378	.061	.417	.015
Rhode Island	6.2	20.6	90.5	.298	.349	.045	.501	.014
South Carolina	7.5	15.2	73.4	.254	.437	.046	.365	.019
South Dakota	9.7	23.8	104.3	.293	.497	.098	.406	(D)
Tennessee	7.9	19.1	89.0	.277	.436	.085	.420	.011
Texas	8.4	18.1	115.7	.203	.427	.117	.321	.010
Utah	9.4	17.3	83.0	.262	.431	.038	.573	.009
Vermont	4.5	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Virginia	8.8	19.1	75.9	.312	.435	.066	.503	.015
Washington	7.0	21.8	102.0	.273	.425	.045	.462	.013
West Virginia	8.2	22.1	89.3	.303	.431	.023	.232	.011
Wisconsin	6.9	22.7	97.0	.294	.413	.045	.392	.014
Wyoming	8.7	14.9	60.2	.287	.508	.057	.532	.012

Appendix A.

Explanation of Terms

Construction. Is composed of three broad categories:

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

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

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

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

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

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

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

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

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

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

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

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

Dollar value of business done comprises the following detail:

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

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

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

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

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

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

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

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

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

Costs for materials, components, and supplies include:

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

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

Excluded from this item are:

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

Costs for construction work subcontracted out to others include:

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

Excluded from this item are:

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

Costs for selected power, fuels, and lubricants include:

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

Rental costs for machinery, equipment, and buildings.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Building construction:

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

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

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

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

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

Appendix C. Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington

Publication Program

1992 CENSUS OF CONSTRUCTION INDUSTRIES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(Available August 1995) [P] [C]

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

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

OTHER ECONOMIC CENSUS REPORTS

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

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

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

HOW TO ORDER DATA PRODUCTS

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