

1992

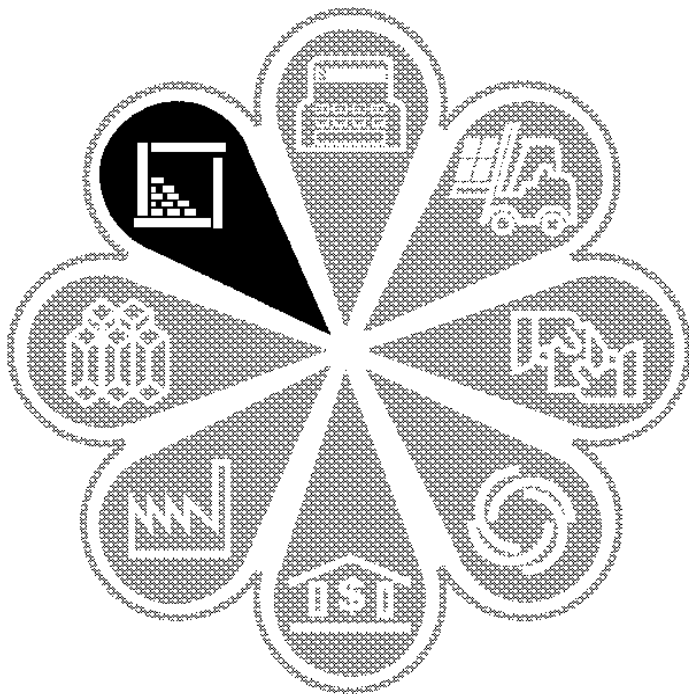
Census of Construction Industries

CC92-I-25

INDUSTRY SERIES

Installation or Erection of Building Equipment Special Trade Contractors, Not Elsewhere Classified

Industry 1796



1992 Census of Construction Industries

CC92-I-25

INDUSTRY SERIES

Installation or Erection of Building Equipment Special Trade Contractors, Not Elsewhere Classified

Industry 1796

Issued August 1995



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

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

BUREAU OF THE CENSUS
Martha Farnsworth Riche, Director

Acknowledgments

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.

Systems and procedures for mailout, receipt, correspondence, data input, industry classification, other clerical processing, administrative-record processing, quality control, and the associated electronic computer programs, were developed in the Economic Planning and Coordination Division.

Mailout preparation and receipt operations, clerical and analytical review activities, data keying, and geocoding review were performed by the staff of the Data Preparation Division, **Judith N. Petty**, Chief.

Geographic coding procedures and associated computer programs were developed by the staff of the Geography Division, **Joel Morrison**, Chief.

The computer processing systems were developed and coordinated in the Economic Statistical Methods and Programming Division, **Charles P. Paulter, Jr.**, Chief, and **Sarah W. Baumgardner**, Assistant Chief. **Samuel Rozenel**, Chief, Current Construction Branch, was responsible for the design and implementation of the computer systems. The computer programs were prepared under the supervision of **Leonard S. Sammarco** and **Kevin J. Montgomery**.

Computer processing was performed in the Computer Services Division, **Marvin D. Raines**, Chief.

The staff of the Administrative and Publications Services Division, **Walter C. Odom**, Chief, performed planning, design, composition, editorial review, and printing planning and procurement for the publications and report forms. **Bernadette J. Gayle** provided publication coordination and editing.

Special acknowledgment is also due the many businesses whose cooperation has contributed to the publication of these data.

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



BUREAU OF THE CENSUS

Martha Farnsworth Riche, Director
Harry A. Scarr, Deputy Director

Paula J. Schneider, Principal Associate
Director for Programs

Frederick T. Knickerbocker, Associate
Director for Economic Programs

Thomas L. Mesenbourg, Assistant Director
for Economic Programs

**ECONOMIC PLANNING AND COORDINATION
DIVISION**

John P. Govoni, Chief

MANUFACTURING AND CONSTRUCTION DIVISION

David W. Cartwright, 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

Installation or Erection of Building Equipment Special Trade Contractors, Not Elsewhere Classified

[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	11
10. Value of Construction Work by Location of Construction Work: 1992 and 1987 ...	12
11. Dollar Value of Business Done by Kind-of-Business Activity: 1992 and 1987	13
12. Selected Industry Ratios: 1992 and 1987	14
13. Selected Industry Ratios by State: 1992	15

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 or erection of building equipment, not elsewhere classified, such as elevators, escalators, pneumatic tube systems, and dust collection equipment. This industry also includes contractors primarily engaged in the installation or dismantling of machinery or other industrial equipment. 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 \$6.8 billion in total dollar value of business. Of this amount, \$6.6 billion were for the value of construction work. These establishments paid out \$1.7 billion for materials, components, and supplies and \$479 million for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$77 million. Value added for 1992 was \$4.5 billion.

There were 3,889 establishments with total employment averaging 82,648 during the year. Total payroll for 1992 was \$2.3 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 23 percent of the total number of employer establishments in this industry accounted for 78 percent of all business done.

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

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

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

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

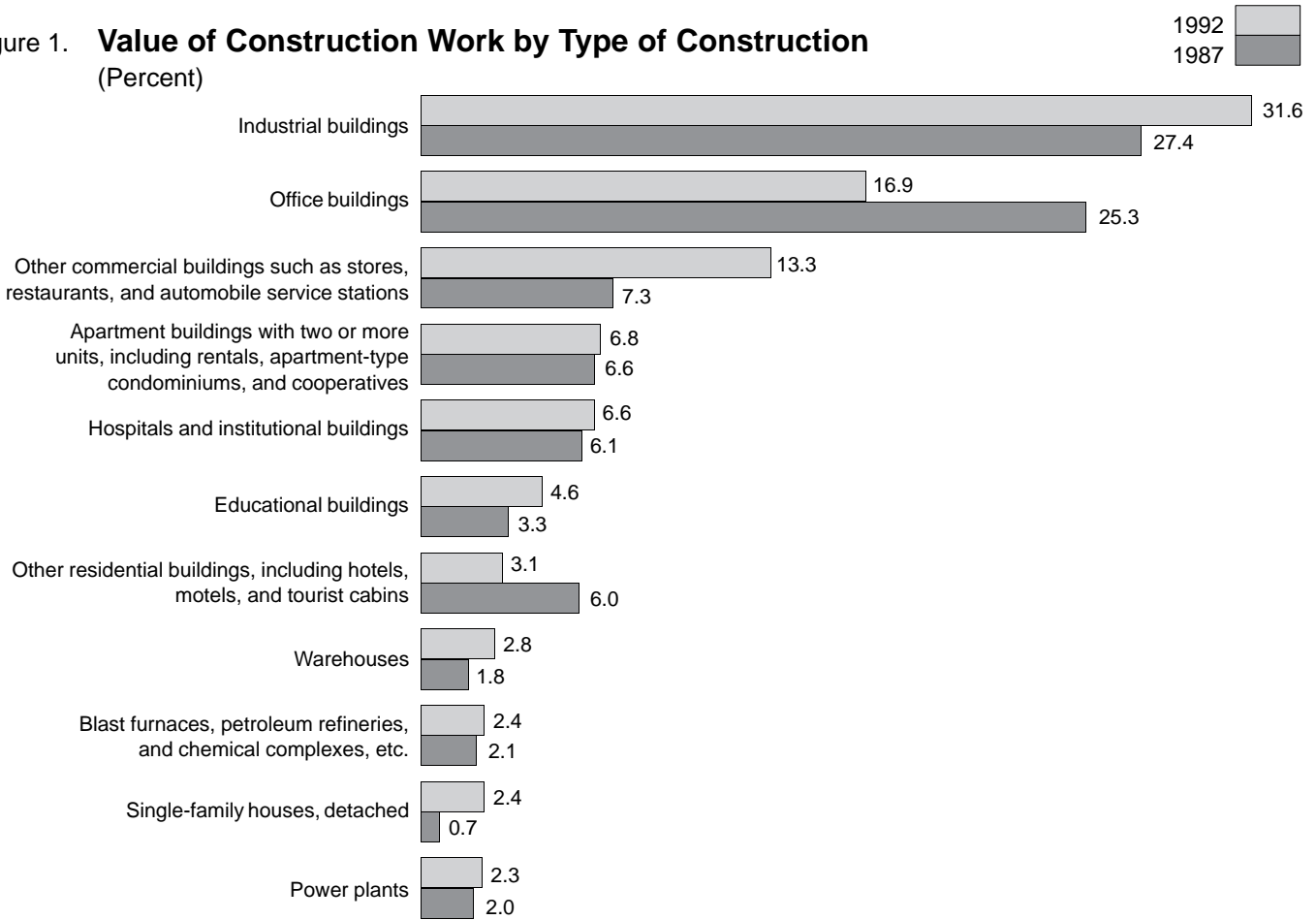


Figure 2. **Selected Costs per Dollar Value of Business Done**
(Percent)

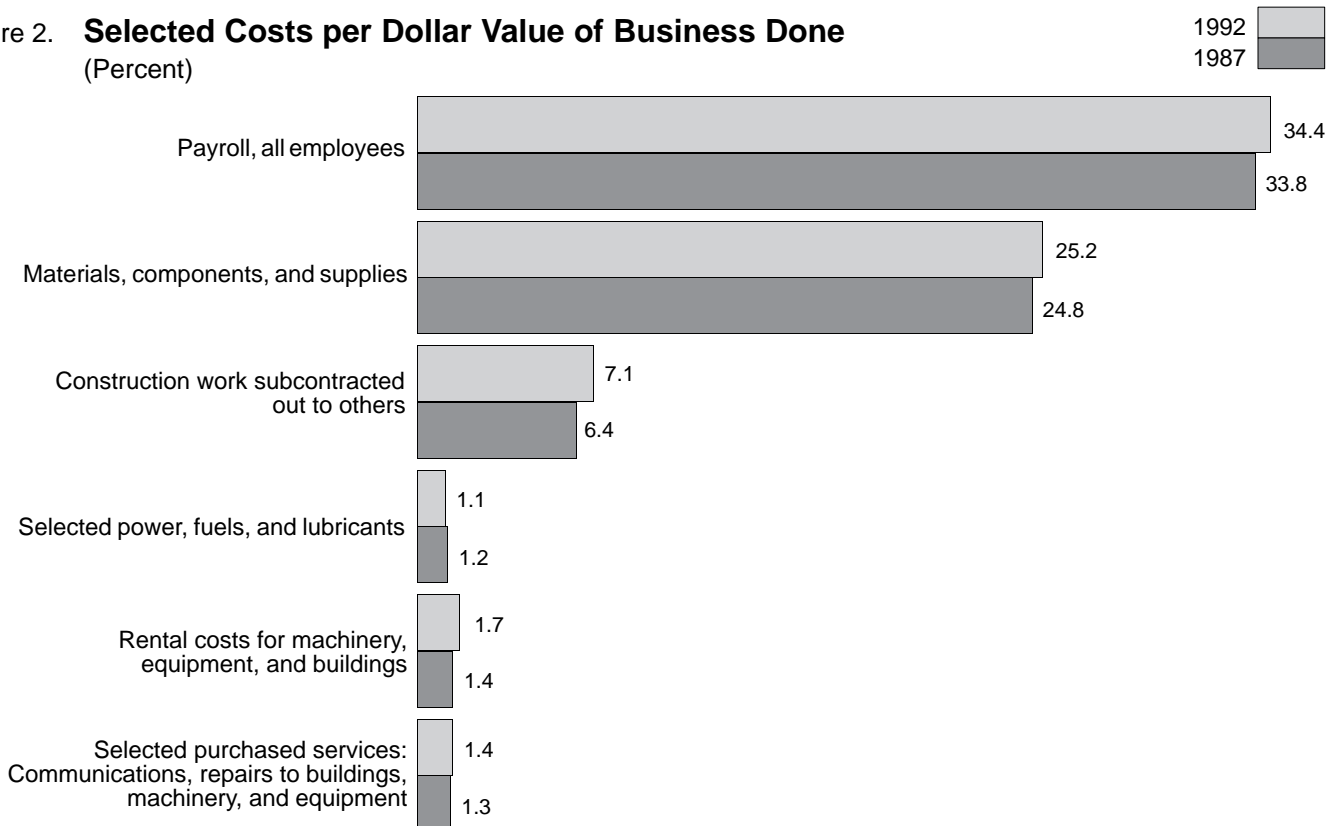


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

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

Location of establishment	1992								
	Number of establishments	Employees**		Payroll		Value of construction work	Net value of construction work†	Value added††	Cost of materials, components, supplies, and fuels
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	I
United States	3 889	82 648	64 380	2 324 139	1 742 093	6 611 040	6 132 131	4 494 378	1 776 845
Alabama	55	1 235	1 023	27 889	21 508	66 569	64 109	46 959	(D)
Alaska	8	75	55	1 705	1 196	4 585	(D)	3 146	(D)
Arizona	32	444	313	13 007	10 399	61 072	(D)	28 774	(D)
Arkansas	45	939	803	24 915	20 436	68 837	64 102	47 878	(D)
California	341	7 837	6 153	249 485	187 556	671 462	640 414	468 055	178 865
Colorado	45	777	607	23 082	18 583	55 614	54 976	37 480	17 570
Connecticut	48	1 020	790	26 813	19 769	73 544	71 372	58 541	12 837
Delaware	12	133	92	3 995	3 393	(S)	(S)	(S)	(S)
District of Columbia	3	(D)	64	(D)	(D)	(D)	(D)	(D)	(D)
Florida	169	4 603	3 609	116 464	88 234	351 920	(D)	196 967	79 577
Georgia	111	2 270	1 722	51 559	36 921	157 803	150 874	102 391	54 435
Hawaii	19	922	729	20 136	16 095	67 345	66 708	48 914	19 080
Idaho	6	115	70	(D)	1 579	(D)	9 135	(D)	(D)
Illinois	171	4 440	3 416	150 274	107 978	406 473	382 993	266 382	120 574
Indiana	95	1 327	1 040	40 982	31 351	103 605	94 453	75 675	22 203
Iowa	54	663	518	16 437	12 574	50 777	46 340	36 842	11 225
Kansas	64	1 132	916	31 937	24 272	79 920	(D)	61 461	17 930
Kentucky	73	1 556	1 203	40 642	29 124	121 349	112 099	75 429	38 519
Louisiana	59	1 276	930	34 606	25 212	88 272	81 456	59 139	27 208
Maine	23	409	328	6 172	4 848	13 896	13 475	10 709	(D)
Maryland	93	2 123	1 684	70 626	55 278	213 214	203 465	146 385	60 458
Massachusetts	121	2 786	2 167	76 995	57 208	223 823	217 119	164 174	54 508
Michigan	160	4 017	3 236	82 270	61 784	248 497	222 685	171 430	62 587
Minnesota	79	1 591	1 221	50 167	35 657	153 434	146 372	117 924	37 873
Mississippi	26	443	369	10 679	8 427	25 536	25 141	19 498	(D)
Missouri	80	914	689	29 322	21 993	73 844	70 377	49 247	(D)
Montana	10	138	119	2 736	2 454	7 002	6 944	5 595	1 349
Nebraska	25	411	262	8 516	5 949	22 623	22 264	17 059	6 052
Nevada	17	285	219	9 323	6 752	40 944	40 749	24 465	16 284
New Hampshire	16	282	215	7 022	5 272	23 168	22 203	16 179	6 306
New Jersey	138	2 814	2 015	101 659	72 363	324 809	295 763	184 069	112 968
New Mexico	16	314	263	5 191	3 991	14 103	(D)	9 172	4 518
New York	307	6 830	5 141	250 761	182 574	629 624	606 071	458 732	150 706
North Carolina	114	2 232	1 734	51 275	38 602	157 983	149 660	103 113	48 437
North Dakota	14	197	156	2 229	1 599	7 653	7 124	4 685	2 440
Ohio	178	4 651	3 740	121 798	94 279	326 555	310 460	232 852	81 472
Oklahoma	34	705	592	13 689	11 237	44 963	(D)	30 440	14 438
Oregon	81	769	599	20 449	15 984	50 449	47 912	37 294	10 617
Pennsylvania	191	6 165	4 964	185 826	147 608	548 938	471 718	384 015	100 871
Rhode Island	14	120	87	4 075	2 730	9 085	9 005	7 834	1 208
South Carolina	51	1 209	949	25 780	20 211	58 007	55 718	43 600	(D)
South Dakota	16	97	66	1 985	1 306	5 418	5 149	3 460	1 689
Tennessee	98	2 129	1 664	49 250	37 646	153 501	136 659	93 342	49 270
Texas	268	4 478	3 451	106 379	75 355	312 571	302 071	202 271	107 346
Utah	37	288	222	6 476	5 350	26 229	26 000	15 340	10 985
Vermont	3	27	20	1 003	(D)	(D)	3 589	2 068	(D)
Virginia	78	2 317	1 830	60 210	46 984	185 399	175 488	130 520	51 177
Washington	67	1 289	997	36 318	27 107	119 897	113 287	86 139	27 246
West Virginia	18	169	144	4 301	3 679	12 942	12 856	7 048	5 808
Wisconsin	98	1 526	1 148	40 029	27 114	109 229	105 653	79 896	30 031
Wyoming	*9	(D)	40	(D)	1 499	3 916	3 916	2 545	1 371

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				
478 909	1 806 984	116 126	71 517	721 129	62 151	5 359 826	3 723 074	1	(Z)	3	U.S.
2 461	14 422	1 436	*989	13 359	1 239	68 409	49 915	6	6	62	AL
(D)	1 918	66	(D)	(D)	47	7 220	5 086	(Z)	(D)	(D)	AK
(D)	7 253	455	481	3 179	519	44 057	24 848	5	(D)	(Z)	AZ
4 734	9 386	1 616	1 443	12 705	524	29 613	20 910	3	2	9	AR
31 048	204 526	17 495	5 910	65 071	5 441	523 790	376 610	2	1	2	CA
638	20 771	1 061	582	4 376	633	53 020	36 798	1	1	(Z)	CO
2 172	26 190	1 302	389	8 782	823	80 494	56 926	3	3	(Z)	CT
565	(S)	(S)	59	1 855	252	18 740	12 284	(Z)	(Z)	(Z)	DE
(D)	(D)	(D)	(D)	(D)	(D)	7 966	6 064	(D)	(D)	(D)	DC
(D)	75 896	3 733	2 642	29 094	2 510	210 392	136 709	2	(D)	5	FL
6 929	45 793	2 171	1 206	17 671	1 824	143 324	103 427	2	1	(Z)	GA
637	22 324	708	(D)	4 042	331	35 064	24 533	4	1	(D)	HI
(D)	5 922	(D)	116	(D)	(D)	6 135	3 167	(Z)	(Z)	(Z)	ID
23 480	103 707	6 768	4 505	36 797	3 834	310 011	217 480	2	1	13	IL
9 152	18 535	2 085	3 295	23 410	1 519	113 985	87 640	4	4	29	IN
4 437	7 631	710	869	7 522	682	45 644	28 595	6	6	(Z)	IA
(D)	4 096	1 180	1 378	7 585	1 183	68 578	45 326	5	(D)	26	KS
9 250	39 862	2 560	2 270	20 724	1 085	71 052	51 755	4	2	(Z)	KY
6 817	17 041	1 747	*986	11 768	1 068	68 544	52 749	4	7	40	LA
421	2 296	171	*210	2 126	150	14 951	9 563	6	9	44	ME
9 750	89 586	2 236	865	9 282	1 675	140 957	97 035	3	4	35	MD
6 705	62 719	3 513	*1 727	12 354	1 618	150 103	105 236	2	2	44	MA
25 812	61 902	5 032	2 150	42 930	2 933	263 255	170 459	3	2	5	MI
7 062	46 661	2 386	2 202	15 856	974	88 276	59 149	3	3	23	MN
394	5 012	387	482	(D)	436	41 979	25 837	10	8	(Z)	MS
3 468	19 759	1 461	1 082	8 396	822	65 086	44 696	5	5	13	MO
58	*3 281	72	(D)	*1 032	84	7 699	5 219	20	24	(D)	MT
359	11 401	265	716	5 054	358	22 374	17 243	8	5	(Z)	NE
195	11 912	606	(S)	(S)	121	14 982	10 537	(Z)	(Z)	(S)	NV
965	12 048	244	159	1 531	162	16 844	10 525	1	1	(Z)	NH
29 046	64 880	4 863	1 327	23 396	3 084	339 190	224 164	1	1	(Z)	NJ
(D)	7 577	187	*148	2 473	49	5 082	3 933	11	(D)	59	NM
23 553	165 165	9 845	4 590	60 441	6 952	600 546	438 018	2	1	5	NY
8 323	47 297	2 170	1 078	18 733	1 319	113 296	81 046	4	2	(Z)	NC
529	1 588	62	15	1 668	118	10 974	6 825	10	29	(Z)	ND
16 095	86 371	5 695	4 939	28 827	2 655	219 415	162 322	2	2	2	OH
(D)	9 420	498	290	12 354	279	22 697	17 533	3	(D)	3	OK
2 537	9 498	1 367	432	*6 756	829	62 380	44 394	9	5	1	OR
77 221	140 641	11 662	4 415	35 421	3 524	342 500	266 631	1	1	8	PA
80	1 432	63	40	721	114	13 140	8 748	2	1	(Z)	RI
2 288	14 079	916	1 305	12 970	677	37 322	27 610	5	5	4	SC
269	3 197	81	(D)	485	*128	5 495	3 851	3	1	(D)	SD
16 842	27 645	2 897	3 074	29 435	1 705	141 128	87 412	3	3	5	TN
10 500	75 775	4 980	3 607	32 230	3 508	266 297	197 318	2	2	14	TX
229	*15 490	*748	*1 206	*5 512	152	11 704	7 817	30	24	48	UT
(D)	(D)	(D)	(D)	(D)	*68	6 440	4 013	(Z)	(Z)	(D)	VT
9 911	82 095	4 468	2 594	37 123	1 202	105 333	73 130	1	3	6	VA
6 611	49 056	2 068	1 176	7 743	716	66 422	41 416	3	2	39	WA
86	2 414	121	(D)	(D)	202	33 729	14 444	(Z)	(Z)	(D)	WV
3 576	44 640	1 611	2 665	27 475	1 797	223 149	115 496	5	4	3	WI
-	(D)	(D)	64	(D)	(D)	(S)	(S)	(D)	13	34	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	3 889	3 777	3 754	2 442	2	2	2	2
Proprietors and working partners	574	371	629	598	7	11	7	10
All employees**	82 648	62 151	60 169	40 474	1	1	1	1
Construction workers:								
March	67 104	50 527	49 239	31 300	(Z)	1	1	1
May	58 918	49 840	48 732	32 085	1	1	1	1
August	65 180	50 641	48 682	33 688	1	1	1	1
November	66 319	49 986	48 487	33 334	1	1	1	1
Average	64 380	50 244	49 101	32 630	1	1	1	1
Other employees:								
March	18 172	11 801	11 058	7 774	1	1	1	1
May	17 655	11 939	(NA)	(NA)	1	1	(NA)	(NA)
August	17 835	11 765	(NA)	(NA)	1	1	(NA)	(NA)
November	19 410	12 107	(NA)	(NA)	1	1	(NA)	(NA)
Average	18 268	11 906	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees	2 324 139	1 857 748	1 449 266	752 439	(Z)	(Z)	(Z)	(Z)
Payroll, construction workers	1 742 093	1 447 481	1 144 755	601 593	(Z)	1	(Z)	(Z)
Payroll, other employees	582 046	410 266	304 511	150 846	(Z)	1	(Z)	(Z)
First-quarter payroll, all employees	586 784	463 654	353 004	172 374	1	1	(Z)	(Z)
Fringe benefits, all employees	752 079	460 503	302 273	155 442	1	1	(Z)	1
Legally required expenditures	406 879	248 320	182 602	76 258	1	1	(Z)	1
Voluntary expenditures	345 200	212 183	119 671	79 184	1	1	(Z)	1
Dollar value of business done	6 750 132	5 502 934	4 255 801	1 947 041	(Z)	1	(Z)	1
Value of construction work	6 611 040	5 359 826	4 189 275	1 899 047	(Z)	1	(Z)	1
Value of construction work subcontracted in from others	1 806 984	1 489 221	1 798 884	635 660	2	1	(Z)	(Z)
Other business receipts	139 092	143 107	66 526	47 995	4	2	3	2
Net value of construction work†	6 132 131	5 009 764	3 970 612	1 829 175	(Z)	1	(Z)	(Z)
Value added††	4 494 378	3 723 074	2 952 049	1 385 046	(Z)	1	(Z)	(Z)
Selected costs	2 255 754	1 779 859	1 303 752	561 995	1	1	1	1
Materials, components, and supplies	1 699 555	1 363 562	1 038 708	469 172	1	1	1	1
Construction work subcontracted out to others	478 909	350 061	218 663	69 872	1	1	1	4
Selected power, fuels, and lubricants	77 290	66 236	46 381	22 952	1	1	1	1
Electricity	13 722	11 696	7 863	3 335	1	1	2	1
Natural and manufactured gas	4 304	3 388	2 457	1 412	1	2	3	1
Gasoline and diesel fuel	53 113	47 437	32 337	15 050	1	1	2	1
On highway use	47 084	42 714	(NA)	(NA)	1	1	(NA)	(NA)
Off highway use	6 029	4 722	(NA)	(NA)	2	2	(NA)	(NA)
Other, including lubricating oils and greases	6 151	3 714	3 722	3 157	2	1	2	2
Rental cost for machinery, equipment, and buildings	116 126	76 798	43 718	23 037	1	1	1	1
For machinery and equipment	56 897	43 227	26 078	15 119	2	2	1	1
For buildings	59 229	33 570	17 640	7 919	2	2	2	1
Selected purchased services	92 141	71 274	49 356	27 171	2	1	1	1
Communication services	45 674	36 846	24 902	12 725	1	1	1	1
Repairs to buildings and other structures	5 303	5 770	4 176	1 884	5	2	2	1
Repairs to machinery and equipment	41 164	28 656	20 277	12 563	2	2	2	1
Ownership of construction projects:								
Value of construction work	6 611 040	5 359 826	4 189 275	1 899 047	(Z)	1	(Z)	1
Government owned	1 046 049	444 611	348 489	212 739	2	3	3	1
Federal	325 381	117 728	(NA)	(NA)	5	9	(NA)	(NA)
State and local	720 668	326 882	(NA)	(NA)	2	3	(NA)	(NA)
Privately owned	5 564 991	4 915 215	3 840 785	1 686 308	1	1	(Z)	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	675 802	394 698	2	2
Capital expenditures, other than land	71 517	49 079	3	3
New	55 107	36 442	3	3
Used	16 411	12 637	3	8
Retirements and disposition of depreciable assets.....	26 191	17 458	2	3
End-of-year gross book value of depreciable assets	721 129	426 319	2	2
Depreciation charges during year	72 052	46 511	2	3
Buildings and Other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	102 476	83 263	4	4
Capital expenditures, other than land	6 632	7 849	3	10
New buildings and other structures	5 092	3 967	3	8
Used buildings and other structures.....	1 540	3 882	7	19
Retirements and disposition of depreciable assets.....	1 636	3 570	3	4
End-of-year gross book value of depreciable assets	107 472	87 543	3	4
Depreciation charges during year	6 633	6 901	4	5
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	573 326	311 435	2	2
Capital expenditures, other than land	64 886	41 230	3	3
New machinery and equipment, including automobiles and trucks	50 015	32 475	4	3
New automobiles and trucks, intended primarily for highway use	16 641	16 742	3	4
Used machinery and equipment, including automobiles and trucks	14 871	8 754	3	6
Retirements and disposition of depreciable assets.....	24 555	13 888	3	3
End-of-year gross book value of depreciable assets	613 657	338 776	2	2
Depreciation charges during year	65 418	39 609	2	3

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	3 889	2
Value of construction work	6 611 040	(Z)
Establishments with inventories:		
Number	1 272	2
Value of construction work	3 677 708	(Z)
Inventories¹:		
End of 1992, materials and supplies	130 909	2
End of 1991, materials and supplies	94 894	2
Establishments with no inventories:		
Number	1 197	3
Value of construction work	1 847 114	1
Establishments not reporting:		
Number	1 420	3
Value of construction work	1 086 218	1

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

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

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

Selected statistics	Total	Establishments with an average of—								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1992										
Number of establishments -----	3 889	1 358	948	699	528	215	111	15	15	1
All employees** -----	82 648	2 736	6 330	9 609	15 940	15 175	15 621	5 022	12 216	(D)
Payroll, all employees -----	2 324 139	64 017	154 454	277 233	543 225	483 400	450 532	108 749	242 529	(D)
Dollar value of business done -----	6 750 132	226 574	482 692	774 659	1 487 513	1 331 905	1 145 142	415 880	885 768	(D)
Value of construction work -----	6 611 040	223 873	469 422	757 340	1 461 481	1 285 867	1 130 064	410 557	872 436	(D)
Net value of construction work† -----	6 132 131	210 351	441 446	724 675	1 391 828	1 178 202	1 068 081	1 117 547	(D)	(D)
Value added†† -----	4 494 378	151 302	313 963	536 272	1 019 565	873 750	772 724	257 812	568 989	(D)
Cost of materials, components, supplies, and fuels -----	1 776 845	61 750	140 752	205 722	398 294	350 490	310 435	309 401	(D)	(D)
Cost of construction work subcontracted out to others -----	478 909	13 522	27 976	32 664	69 653	107 665	61 983	165 446	(D)	(D)
Rental cost for machinery, equipment, and buildings -----	116 126	5 329	11 215	15 104	26 763	26 382	16 626	3 370	11 337	(D)
Capital expenditures, other than land -----	71 517	4 639	9 845	12 147	13 867	16 574	9 113	2 765	2 566	(D)
End-of-year gross book value of depreciable assets -----	721 129	38 210	74 049	107 006	168 363	185 676	121 210	15 515	11 100	(D)
1987										
All employees** -----	62 151	3 263	5 269	8 776	14 744	10 802	12 277	4 064	2 951	(D)
Value of construction work -----	5 359 826	309 546	404 828	726 342	1 157 418	953 067	1 066 110	742 513	(D)	(D)
Value added†† -----	3 723 074	220 893	291 264	509 979	840 079	655 895	724 856	252 267	227 840	(D)
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees** -----	1	5	4	2	1	1	(Z)	(Z)	(Z)	(D)
Net value of construction work† -----	(Z)	5	4	2	1	(Z)	(Z)	(Z)	(D)	(D)
Capital expenditures, other than land -----	3	13	15	8	1	(Z)	(Z)	(Z)	(Z)	(D)

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

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

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

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1992											
Number of establishments -----	3 889	(S)	(S)	318	752	629	627	654	264	188	116
All employees** -----	82 648	(S)	(S)	885	3 554	5 645	8 547	13 415	10 844	12 506	26 866
Payroll, all employees -----	2 324 139	(S)	(S)	9 089	46 678	86 250	162 919	383 903	345 314	488 128	799 068
Dollar value of business done -----	6 750 132	(S)	(S)	23 224	126 220	230 754	440 535	1 024 636	905 250	1 292 727	2 698 505
Value of construction work -----	6 611 040	(S)	(S)	23 167	125 155	228 151	431 982	998 401	880 044	1 262 947	2 652 929
Net value of construction work† -----	6 132 131	(S)	(S)	22 753	121 470	219 000	414 819	952 610	829 067	1 194 549	2 369 810
Value added†† -----	4 494 378	(S)	(S)	16 605	88 902	161 000	304 149	716 227	626 495	879 848	1 695 290
Cost of materials, components, supplies, and fuels -----	1 776 845	(S)	(S)	6 205	33 633	60 603	119 222	262 618	227 778	344 481	720 096
Cost of construction work subcontracted out to others -----	478 909	(S)	(S)	414	3 685	9 151	17 163	45 791	50 977	68 398	283 119
Rental cost for machinery, equipment, and buildings -----	116 126	(S)	(S)	383	3 003	7 048	9 434	20 109	17 760	24 055	34 151
Capital expenditures, other than land -----	71 517	(S)	(S)	583	2 512	4 625	9 147	12 410	11 053	15 463	15 458
End-of-year gross book value of depreciable assets -----	721 129	(S)	(S)	3 902	23 042	39 409	65 810	128 429	117 524	157 147	183 746
1987											
All employees** -----	62 151	(S)	(S)	(S)	2 260	3 923	5 915	12 310	9 305	11 172	15 868
Value of construction work -----	5 359 826	(S)	(S)	(S)	114 532	227 916	437 739	947 903	832 434	976 202	1 789 427
Value added†† -----	3 723 074	(S)	(S)	(S)	85 548	162 384	319 608	692 721	600 302	705 317	1 132 000
1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** -----	1	(S)	(S)	6	5	3	3	1	1	(Z)	(Z)
Net value of construction work† -----	(Z)	(S)	(S)	9	6	5	4	2	1	(Z)	(Z)
Capital expenditures, other than land -----	3	(S)	(S)	32	19	22	13	7	2	(Z)	(Z)

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

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

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

Type of construction	Value of construction work				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
1992								
Value of construction work	6 611 040	2 182 760	1 419 832	2 987 484	(Z)	1	1	(Z)
Building construction	6 137 551	2 066 208	1 251 561	2 819 783	(Z)	1	1	(Z)
Single-family houses	196 915	122 883	34 423	39 609	3	3	10	2
Single-family houses, detached	155 774	115 286	24 096	16 393	3	3	11	5
Single-family houses, attached, including townhouses and townhouse-type condominiums	41 141	7 597	10 327	23 217	8	19	23	1
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	451 177	97 213	100 239	253 725	(Z)	1	(Z)	1
Other residential buildings, including hotels, motels, and tourist cabins	204 407	58 617	20 593	125 197	(Z)	(Z)	(Z)	(Z)
Office buildings	1 120 522	285 535	167 237	667 751	(Z)	(Z)	1	(Z)
Other commercial buildings such as stores, restaurants, and automobile service stations	880 592	269 335	96 767	514 490	1	1	2	(Z)
Industrial buildings and warehouses	2 275 417	794 231	706 207	774 979	1	1	2	1
Industrial buildings	2 087 931	722 249	670 677	695 005	1	1	2	1
Warehouses	187 486	71 982	35 530	79 974	4	7	4	3
Religious buildings	63 034	24 344	6 558	32 132	1	2	8	(Z)
Educational buildings	303 545	155 465	28 254	119 827	1	2	2	(Z)
Hospitals and institutional buildings	436 446	155 537	59 359	221 550	1	1	3	1
Farm buildings, nonresidential	40 284	19 674	6 102	14 508	12	12	18	15
Amusement, social, and recreational buildings, indoors	83 806	23 963	8 948	50 894	2	3	14	1
Other nonresidential buildings	81 406	59 412	16 873	(S)	4	5	6	(S)
Nonbuilding construction	452 525	116 552	168 272	167 701	2	6	2	4
Recreational facilities	34 409	29 863	1 921	*2 624	19	19	29	47
Blast furnaces, petroleum refineries, chemical complexes, etc.	156 539	28 685	45 352	82 502	2	4	4	2
Power plants	151 499	5 552	(D)	(D)	4	12	(D)	(D)
Other nonbuilding construction	110 079	52 452	(D)	(D)	4	5	(D)	(D)
Construction work, n.s.k.	20 964	(NA)	(NA)	(NA)	12	(NA)	(NA)	(NA)
1987								
Value of construction work	5 359 826	2 170 867	807 322	2 199 510	1	1	1	1
Building construction	4 722 281	2 009 445	671 399	2 041 436	1	1	1	1
Single-family houses	45 557	28 786	11 172	5 598	10	14	17	22
Single-family houses, detached	38 774	24 667	9 740	4 365	12	15	19	28
Single-family houses, attached, including townhouses and townhouse-type condominiums	6 783	4 118	1 431	1 233	19	30	6	4
Apartment buildings with two or more units, including rentals, apartment-type condominiums, and cooperatives	354 018	104 595	42 140	207 282	1	2	(Z)	(Z)
Other residential buildings, including hotels, motels, and tourist cabins	320 264	132 090	28 908	159 264	2	2	6	2
Office buildings	1 356 025	614 524	77 885	663 616	(Z)	(Z)	3	1
Other commercial buildings such as stores, restaurants, and automobile service stations	389 140	168 914	65 746	154 479	3	3	9	1
Industrial buildings and warehouses	1 565 427	712 069	373 036	480 321	2	3	1	2
Industrial buildings	1 468 750	662 636	353 945	452 168	2	3	1	2
Warehouses	96 676	49 433	19 090	28 152	2	2	3	4
Religious buildings	32 447	15 092	3 205	14 149	2	4	2	1
Educational buildings	179 239	70 367	13 097	95 774	2	1	10	2
Hospitals and institutional buildings	325 182	114 234	38 273	172 675	(Z)	(Z)	2	1
Farm buildings, nonresidential	29 913	9 138	8 402	12 371	23	23	33	20
Amusement, social, and recreational buildings, indoors	46 608	10 824	2 654	33 129	2	6	9	(Z)
Other nonresidential buildings	78 461	28 812	6 881	42 778	4	(Z)	24	5
Nonbuilding construction	455 418	161 421	135 923	158 074	2	5	2	3
Blast furnaces, petroleum refineries, chemical complexes, etc.	114 325	41 087	36 552	36 685	7	15	3	9
Power plants	105 104	26 024	41 306	37 772	2	2	1	3
Other nonbuilding construction	235 989	94 310	58 064	83 616	(NA)	(NA)	(NA)	(NA)
Construction work, n.s.k.	182 127	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)

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

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

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	3 889	82 648	2 324 139	6 611 040	3 935 141	6 132 131	4 494 378	478 909	1	(Z)	1
Establishments not specializing by type	711	21 924	767 363	2 187 298	(NA)	2 062 312	1 392 052	124 986	1	1	1
Establishments specializing 51 percent or more	3 179	60 724	1 556 776	4 423 742	3 935 141	4 069 819	3 102 327	353 923	1	1	1
SINGLE-FAMILY HOUSES, DETACHED											
All establishments specializing in type	166	992	29 671	136 935	130 415	(D)	80 319	(D)	5	3	(D)
Establishments with —											
100 percent specialization	74	598	20 127	102 520	102 520	(D)	60 096	(D)	2	1	(D)
90 to 99 percent specialization	37	159	3 955	14 319	13 404	13 815	7 228	(S)	23	24	(S)
80 to 89 percent specialization	35	73	1 247	4 262	3 482	4 160	*2 102	*102	37	34	60
70 to 79 percent specialization	14	118	3 013	11 435	8 421	11 207	6 736	(S)	21	20	(S)
60 to 69 percent specialization	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
51 to 59 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
APARTMENT BUILDINGS WITH TWO OR MORE UNITS, INCLUDING RENTALS, APARTMENT-TYPE CONDOMINIUMS, AND COOPERATIVES											
All establishments specializing in type	106	2 106	87 985	218 108	172 271	208 396	164 734	9 712	(Z)	(Z)	(Z)
Establishments with —											
100 percent specialization	37	438	16 468	54 481	54 481	53 119	42 019	1 362	(Z)	(Z)	(Z)
90 to 99 percent specialization	8	198	8 637	20 594	18 803	20 264	17 017	330	(Z)	(Z)	(Z)
80 to 89 percent specialization	16	370	16 754	41 498	34 503	(D)	28 150	(D)	(Z)	(Z)	(D)
70 to 79 percent specialization	13	271	11 361	26 555	19 380	26 377	20 795	178	(Z)	(Z)	(Z)
60 to 69 percent specialization	27	586	25 892	56 815	35 110	53 999	42 841	2 816	(Z)	(Z)	(Z)
51 to 59 percent specialization	5	244	8 873	18 165	9 994	(D)	13 912	(D)	(Z)	(Z)	(D)
OFFICE BUILDINGS											
All establishments specializing in type	194	7 537	227 064	641 870	483 669	630 864	469 969	11 005	(Z)	(Z)	(Z)
Establishments with —											
100 percent specialization	65	1 744	46 628	137 790	137 790	134 994	97 265	2 796	1	1	(Z)
90 to 99 percent specialization	12	427	13 346	30 184	27 604	(D)	20 256	(D)	3	6	(D)
80 to 89 percent specialization	13	194	6 436	15 826	12 980	(D)	12 440	(D)	(Z)	(Z)	(D)
70 to 79 percent specialization	27	2 469	67 857	200 084	147 973	197 806	149 791	2 278	(Z)	(Z)	(Z)
60 to 69 percent specialization	50	2 041	62 745	182 466	115 152	180 191	133 326	2 275	2	1	1
51 to 59 percent specialization	27	662	30 053	75 519	42 169	73 274	56 892	2 245	(Z)	(Z)	(Z)
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type	546	17 074	238 499	618 157	544 149	604 476	469 833	13 681	(Z)	1	1
Establishments with —											
100 percent specialization	463	13 725	168 212	376 687	376 687	365 649	299 318	11 038	1	1	2
90 to 99 percent specialization	12	(D)	4 573	12 135	11 661	(D)	8 916	(D)	(D)	16	(D)
80 to 89 percent specialization	16	1 043	18 752	70 086	56 529	69 084	50 011	1 002	1	1	1
70 to 79 percent specialization	*16	265	11 622	30 514	21 880	29 770	20 885	744	8	4	(Z)
60 to 69 percent specialization	31	(D)	26 945	105 707	64 603	105 405	74 120	302	(D)	2	25
51 to 59 percent specialization	7	149	8 395	23 028	12 790	(D)	16 583	(D)	(Z)	(Z)	(D)
INDUSTRIAL BUILDINGS											
All establishments specializing in type	1 447	24 666	740 690	2 042 960	1 908 240	1 814 042	1 445 829	228 919	1	1	2
Establishments with —											
100 percent specialization	1 252	18 160	538 579	1 467 046	1 467 046	1 318 834	1 032 402	148 212	2	1	2
90 to 99 percent specialization	32	907	31 380	77 349	72 614	67 833	62 110	9 515	3	3	2
80 to 89 percent specialization	56	1 908	67 640	236 207	197 954	(D)	163 149	(D)	2	1	(D)
70 to 79 percent specialization	37	977	28 819	60 051	44 056	55 270	39 972	4 780	2	4	3
60 to 69 percent specialization	62	2 576	70 480	190 563	120 201	183 525	140 760	7 037	3	3	5
51 to 59 percent specialization	8	138	3 793	11 745	6 369	(D)	7 436	(D)	(Z)	(Z)	(D)
WAREHOUSES											
All establishments specializing in type	175	1 680	37 136	119 306	113 590	106 968	85 205	12 338	6	6	14
Establishments with —											
100 percent specialization	139	1 417	31 130	95 821	95 821	(D)	72 146	(D)	7	7	(D)
90 to 99 percent specialization	7	63	1 620	(D)	6 499	(D)	4 602	(D)	(Z)	(D)	(D)
80 to 89 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
70 to 79 percent specialization	7	76	2 431	9 097	6 789	(D)	4 406	(D)	39	15	(D)
60 to 69 percent specialization	(S)	107	1 710	*6 745	*4 114	5 899	3 406	(S)	30	43	(S)
51 to 59 percent specialization	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
BLAST FURNACES, PETROLEUM REFINERIES, CHEMICAL COMPLEXES, ETC.											
All establishments specializing in type	57	1 688	56 285	113 799	99 066	103 034	88 793	10 765	4	3	4
Establishments with —											
100 percent specialization	35	947	25 925	50 035	50 035	44 706	36 121	5 330	4	4	6
90 to 99 percent specialization	5	220	11 654	25 251	23 472	23 557	22 012	1 694	(Z)	(Z)	(Z)
80 to 89 percent specialization	—	—	—	—	—	—	—	—	—	—	—
70 to 79 percent specialization	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
60 to 69 percent specialization	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
51 to 59 percent specialization	*12	*105	*2 523	*6 151	*3 575	(D)	5 468	(D)	48	44	(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	3 889	64 380	67 104	58 918	65 180	66 319	2	1	(Z)	1	1	1	1
Alabama	55	1 023	954	1 062	1 009	1 066	11	5	8	5	5	4	4
Alaska	8	55	44	47	58	70	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Arizona	32	313	299	300	317	334	23	7	8	5	7	7	7
Arkansas	45	803	721	807	742	944	18	3	4	3	3	3	3
California	341	6 153	6 898	5 730	5 978	6 004	7	2	1	2	2	2	3
Colorado	45	607	505	501	645	777	17	1	3	1	1	1	1
Connecticut	48	790	681	707	857	915	4	3	4	3	4	2	2
Delaware	12	92	73	91	81	121	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
District of Columbia	3	64	(D)	71	(D)	(Z)	(Z)	(Z)	(Z)	(D)	(D)	(D)	(D)
Florida	169	3 609	3 781	3 097	4 108	3 452	10	2	2	2	1	2	2
Georgia	111	1 722	2 006	1 401	1 714	1 770	10	2	1	3	4	2	2
Hawaii	19	729	790	644	711	772	9	4	4	5	5	4	4
Idaho	6	70	61	81	65	71	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Illinois	171	3 416	3 690	3 145	3 359	3 469	6	2	2	3	2	2	2
Indiana	95	1 040	1 030	1 038	1 052	1 041	15	4	3	5	6	4	4
Iowa	54	518	444	480	593	555	6	6	6	5	8	4	4
Kansas	64	916	882	912	924	946	17	4	5	4	4	4	4
Kentucky	73	1 203	1 019	1 081	1 396	1 315	18	5	3	2	8	7	7
Louisiana	59	930	790	893	1 001	1 036	13	3	2	7	2	2	2
Maine	23	328	215	301	369	425	34	8	7	9	7	6	6
Maryland	93	1 684	1 709	1 660	1 689	1 679	13	3	3	3	2	2	2
Massachusetts	121	2 167	2 582	1 918	2 074	2 095	10	2	1	2	2	2	2
Michigan	160	3 236	3 271	2 833	3 408	3 433	11	3	2	2	6	3	3
Minnesota	79	1 221	1 964	923	1 010	986	15	3	2	4	5	4	4
Mississippi	26	369	344	352	396	382	21	12	9	9	13	13	13
Missouri	80	689	636	628	722	768	13	5	5	6	5	5	5
Montana	10	119	101	152	111	113	13	20	23	11	27	24	24
Nebraska	25	262	221	245	239	344	10	9	9	9	11	7	7
Nevada	17	219	174	181	253	267	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
New Hampshire	16	215	169	200	233	255	4	1	2	1	1	1	1
New Jersey	138	2 015	1 971	1 983	2 062	2 044	6	1	1	1	1	1	1
New Mexico	16	263	219	239	277	315	22	12	14	13	11	10	10
New York	307	5 141	5 309	4 775	5 179	5 303	6	3	3	3	3	3	3
North Carolina	114	1 734	2 021	1 659	1 714	1 541	10	4	3	4	4	4	4
North Dakota	14	156	108	138	173	206	15	11	16	12	10	8	8
Ohio	178	3 740	3 756	3 124	3 737	4 342	7	2	2	2	2	2	2
Oklahoma	34	592	743	489	637	497	13	3	2	4	4	4	4
Oregon	81	599	628	529	639	601	17	8	8	9	9	8	8
Pennsylvania	191	4 964	5 041	4 822	4 872	5 119	10	1	1	1	1	1	1
Rhode Island	14	87	91	84	86	87	10	3	5	2	3	2	2
South Carolina	51	949	780	843	1 053	1 120	15	4	5	5	3	3	3
South Dakota	16	66	48	61	65	89	16	4	(Z)	4	4	4	4
Tennessee	98	1 664	1 373	1 421	1 922	1 939	12	3	3	3	3	4	4
Texas	268	3 451	3 942	3 177	3 350	3 334	7	2	3	2	3	3	3
Utah	37	222	223	223	221	222	25	28	28	28	29	29	29
Vermont	3	20	(D)	22	(D)	(D)	(Z)	(Z)	(D)	(Z)	(D)	(D)	(D)
Virginia	78	1 830	2 358	1 652	1 687	1 624	4	1	1	2	2	2	2
Washington	67	997	1 232	883	930	944	16	3	3	4	3	2	2
West Virginia	18	144	120	131	173	151	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)
Wisconsin	98	1 148	985	1 145	1 173	1 288	14	5	4	8	6	3	3
Wyoming	9	40	37	39	46	37	61	27	30	28	24	15	15

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

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

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

Location of construction work	1992					1987 value of construction work done in this State	Percent change 1987 (col F) to 1992 (col A)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State				A	C	E
		Number	Value of construction work	Number	Value of construction work					
	A	B	C	D	E			F	G	A	C	E
United States	6 611 040	3 823	5 588 639	2 262	1 022 401	5 359 826	23.3	(Z)	(Z)	1
Alabama	69 057	51	56 351	36	12 705	69 176	-2	6	7	(Z)
Alaska	(D)	8	(D)	1	(D)	12 420	(D)	4	(D)	(D)
Arizona	63 116	32	61 044	17	2 072	32 902	91.8	2	3	(Z)
Arkansas	75 464	44	59 692	24	15 772	26 784	181.7	2	2	(Z)
California	682 294	341	651 033	52	31 261	535 202	27.5	1	1	1
Colorado	53 768	45	52 593	27	1 175	41 648	29.1	1	1	26
Connecticut	79 260	47	67 103	50	12 158	78 219	1.3	4	4	18
Delaware	23 149	(S)	(S)	27	11 057	21 736	6.5	(Z)	(S)	(Z)
District of Columbia	79 792	3	(D)	43	(D)	28 634	178.7	3	(D)	(D)
Florida	353 938	165	336 444	63	17 494	234 383	51.0	2	2	19
Georgia	166 620	105	139 281	78	27 339	164 795	1.1	2	1	9
Hawaii	(D)	19	(D)	3	(D)	35 094	(D)	1	(D)	(D)
Idaho	12 774	6	8 562	18	4 212	11 361	12.4	4	(Z)	11
Illinois	361 736	169	320 923	104	40 813	329 551	9.8	1	1	1
Indiana	154 101	94	86 591	84	67 511	133 404	15.5	3	5	1
Iowa	57 276	53	40 118	48	17 158	41 283	38.7	4	5	1
Kansas	50 447	56	39 291	37	11 156	55 722	-9.5	8	11	5
Kentucky	91 291	71	61 280	67	30 011	75 188	21.4	1	1	1
Louisiana	85 758	57	77 379	37	8 380	75 478	13.6	2	2	2
Maine	16 382	23	13 194	11	3 187	18 888	-13.3	8	9	(Z)
Maryland	131 466	91	118 983	53	12 483	122 783	7.1	5	5	2
Massachusetts	216 406	121	198 691	37	17 715	156 531	38.3	2	2	(Z)
Michigan	318 213	158	222 661	64	95 552	237 110	34.2	2	2	(Z)
Minnesota	148 261	79	141 424	38	6 837	111 797	32.6	3	4	2
Mississippi	32 594	25	16 490	41	16 104	60 298	-45.9	6	13	(Z)
Missouri	79 398	78	58 956	65	20 442	63 365	25.3	3	4	2
Montana	5 776	10	5 490	4	286	7 572	-23.7	11	11	(Z)
Nebraska	22 288	25	18 624	31	3 664	25 236	-11.7	5	6	5
Nevada	44 414	17	40 759	19	3 655	20 650	115.1	(Z)	(Z)	3
New Hampshire	20 762	15	15 169	26	5 593	16 353	27.0	1	1	3
New Jersey	311 398	137	256 773	91	54 625	258 480	20.5	2	1	8
New Mexico	10 341	16	8 642	11	1 698	9 232	12.0	10	12	(Z)
New York	663 373	306	605 548	101	57 825	655 790	1.2	1	1	2
North Carolina	162 503	111	138 752	82	23 751	116 573	39.4	3	2	15
North Dakota	10 519	14	7 040	14	3 478	11 601	-9.3	20	30	(Z)
Ohio	358 389	168	295 019	110	63 369	227 055	57.8	2	2	1
Oklahoma	51 309	33	43 248	33	8 061	26 698	92.2	2	2	1
Oregon	58 302	80	43 850	24	14 452	59 715	-2.4	5	6	2
Pennsylvania	395 288	186	341 957	118	53 331	261 436	51.2	1	2	1
Rhode Island	13 282	12	6 328	25	6 954	15 364	-13.6	1	2	1
South Carolina	56 878	51	45 333	46	11 545	52 036	9.3	2	3	(Z)
South Dakota	10 660	16	4 724	19	5 936	3 643	192.6	10	2	17
Tennessee	107 261	98	95 951	65	11 309	114 023	-5.9	7	7	1
Texas	319 371	268	306 111	57	13 260	282 277	13.1	3	3	4
Utah	25 291	37	23 773	12	1 518	12 899	96.1	25	26	(Z)
Vermont	4 134	3	(D)	7	(D)	7 152	-42.2	(Z)	(D)	(D)
Virginia	194 080	77	155 491	97	38 589	111 994	73.3	2	2	4
Washington	115 391	67	97 157	44	18 234	66 310	74.0	2	3	1
West Virginia	51 051	17	10 206	36	40 845	33 389	52.9	(Z)	(Z)	(Z)
Wisconsin	117 595	98	99 810	53	17 785	187 713	-37.4	4	4	2
Wyoming	5 616	*9	2 316	13	3 300	2 858	96.5	22	23	33

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	6 750 132	5 502 934	(Z)	1
BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS				
General building contractor	49 724	91 847	1	3
SPECIAL TRADE CONTRACTORS				
Elevator installation and service contractor	3 367 482	2 853 841	(Z)	(Z)
Escalator installation and service contractor	261 785	152 002	(Z)	1
Foundation contractor, digging of	50 418	22 375	1	3
Millwright	2 475 524	1 886 823	1	2
Special cases	111 997	(NA)	8	(NA)
Structural steel erection contractor	61 880	66 530	1	2
Other construction activities	230 265	243 821	2	(NA)
OTHER BUSINESS ACTIVITIES				
Manufacturing	41 433	16 385	12	9
Other business activities	96 378	119 977	3	(NA)
Kind of business activity, n.s.k.	3 247	49 333	(Z)	3

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**	21.3	16.5	2
Number of construction workers.....	16.6	13.3	2
Number of all other employees	4.7	3.2	2
Payroll, all employees	\$1,000 597.6	491.9	2
Payroll, construction workers.....	do 447.9	383.2	2
Payroll, other employees	do 149.7	108.6	2
Dollar value of business done.....	do 1 735.6	1 457.0	2
Value of construction work	do 1 699.9	1 419.1	2
Cost of materials, components, supplies, and fuels.....	do 456.9	378.6	2
Construction work subcontracted to others	do 123.1	92.7	2
Rental cost for machinery, equipment, and buildings	do 29.9	20.3	2
Capital expenditures, other than land	do 18.4	13.0	3
Gross book value of depreciable assets	do 185.4	113.1	2
AVERAGE PER EMPLOYEE			
Payroll, all employees	\$1,000 28.1	29.9	(Z)
Dollar value of business done.....	do 81.7	88.5	(Z)
Value added††	do 54.4	59.9	(Z)
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers.....	\$1,000 27.1	28.8	(Z)
Value of construction work	do 102.7	106.7	(Z)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000 31.9	34.5	(Z)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK			
Payroll, all employees .....	.352	.347	(Z)
Cost of materials, components, supplies, and fuels.....	.269	.267	(Z)
Cost of construction work subcontracted out to others .....	.072	.065	1
Value of construction work subcontracted in from others .....	.273	.278	1
Rental cost for machinery, equipment, and buildings .....	.018	.014	1

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

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

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Value of construction work per construction worker (\$1,000)	Average per dollar value of construction work				
				Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted out to others	Value of construction work sub-contracted in from others	Rental cost for machinery, equipment, and buildings
United States	21.3	28.1	102.7	.352	.269	.072	.273	.018
Alabama	22.5	22.6	65.1	.419	(D)	.037	.217	.022
Alaska	9.4	22.7	83.4	.372	(D)	(D)	.418	.014
Arizona	13.9	29.3	195.1	.213	(D)	(D)	.119	.007
Arkansas	20.9	26.5	85.7	.362	(D)	.069	.136	.023
California	23.0	31.8	109.1	.372	.266	.046	.305	.026
Colorado	17.3	29.7	91.6	.415	.316	.011	.373	.019
Connecticut	21.2	26.3	93.1	.365	.175	.030	.356	.018
Delaware	11.1	30.0	(S)	(S)	(S)	(S)	(S)	(S)
District of Columbia	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Florida	27.3	25.3	97.5	.331	.226	(D)	.216	.011
Georgia	20.5	22.7	91.6	.327	.345	.044	.290	.014
Hawaii	48.5	21.8	92.4	.299	.283	.009	.331	.011
Idaho	19.2	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Illinois	26.0	33.8	119.0	.370	.297	.058	.255	.017
Indiana	13.9	30.9	99.6	.396	.214	.088	.179	.020
Iowa	12.4	24.8	98.0	.324	.221	.087	.150	.014
Kansas	17.6	28.2	87.2	.400	.224	(D)	.051	.015
Kentucky	21.4	26.1	100.9	.335	.317	.076	.328	.021
Louisiana	21.8	27.1	94.9	.392	.308	.077	.193	.020
Maine	17.8	15.1	42.4	.444	(D)	.030	.165	.012
Maryland	22.9	33.3	126.6	.331	.284	.046	.420	.010
Massachusetts	23.0	27.6	103.3	.344	.244	.030	.280	.016
Michigan	25.2	20.5	76.8	.331	.252	.104	.249	.020
Minnesota	20.0	31.5	125.7	.327	.247	.046	.304	.016
Mississippi	17.3	24.1	69.2	.418	(D)	.015	.196	.015
Missouri	11.5	32.1	107.2	.397	(D)	.047	.268	.020
Montana	14.5	19.8	58.8	.391	.193	.008	*.469	.010
Nebraska	16.5	20.7	86.3	.376	.268	.016	.504	.012
Nevada	16.8	32.7	187.0	.228	.398	.005	.291	.015
New Hampshire	17.3	24.9	107.8	.303	.272	.042	.520	.011
New Jersey	20.4	36.1	161.2	.313	.348	.089	.200	.015
New Mexico	19.6	16.5	53.6	.368	.320	(D)	.537	.013
New York	22.2	36.7	122.5	.398	.239	.037	.262	.016
North Carolina	19.6	23.0	91.1	.325	.307	.053	.299	.014
North Dakota	13.7	11.3	49.1	.291	.319	.069	.208	.008
Ohio	26.1	26.2	87.3	.373	.249	.049	.264	.017
Oklahoma	20.7	19.4	76.0	.304	.321	(D)	.209	.011
Oregon	9.5	26.6	84.2	.405	.210	.050	.188	.027
Pennsylvania	32.2	30.1	110.6	.339	.184	.141	.256	.021
Rhode Island	8.6	34.0	104.4	.449	.133	.009	.158	.007
South Carolina	23.7	21.3	61.1	.444	(D)	.039	.243	.016
South Dakota	6.1	20.5	82.1	.366	.312	.050	.590	.015
Tennessee	21.8	23.1	92.2	.321	.321	.110	.180	.019
Texas	16.7	23.8	90.6	.340	.343	.034	.242	.016
Utah	7.9	22.5	118.1	.247	.419	.009	*.591	.029
Vermont	9.0	37.1	(D)	(D)	(D)	(D)	(D)	(D)
Virginia	29.9	26.0	101.3	.325	.276	.053	.443	.024
Washington	19.1	28.2	120.3	.303	.227	.055	.409	.017
West Virginia	9.4	25.5	89.9	.332	.449	.007	.187	.009
Wisconsin	15.6	26.2	95.1	.366	.275	.033	.409	.015
Wyoming	(D)	(D)	97.9	(D)	.350	-	(D)	(D)

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.