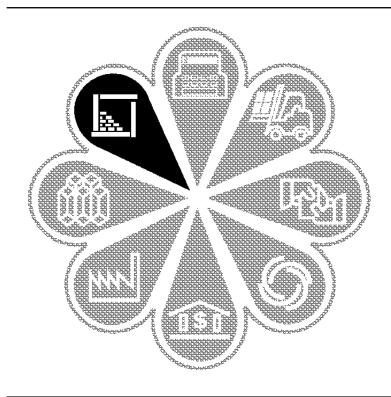
1992Census of Construction Industries

CC92-I-8

INDUSTRY SERIES

Water, Sewer, Pipeline, and Communications and Power Line Construction

Industry 1623



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

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

BUREAU OF THE CENSUS Martha Farnsworth Riche, Director

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

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



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Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC **CENSUS**

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

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

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

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

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

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

AUTHORITY AND SCOPE

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

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

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

AVAILABILITY OF THE DATA

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

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

WHAT'S NEW IN 1992

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

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

HISTORICAL INFORMATION

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

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

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

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

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

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

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

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

SOURCES FOR MORE INFORMATION

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

Census of Construction

GENERAL

The 1992 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction or construction on their own account for sale as defined in the Standard Industrial Classification Manual: 19871 (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

¹Standard 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 singleestablishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

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

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

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

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

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial 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:

$$x'_{c} = \sum_{i=1}^{n} x_{i} / p_{i}$$

$$i = 1$$

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

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

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

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

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

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

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

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

Nonemployer Companies

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

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

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

CENSUS REPORT FORMS

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

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

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

DATA PROCESSING

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

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

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

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

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

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

GEOGRAPHIC CLASSIFICATION

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

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

CHANGE IN COLLECTION METHODOLOGY FOR VALUE OF CONSTRUCTION WORK DONE

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

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

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

DUPLICATION IN VALUE OF CONSTRUCTION WORK

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

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

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

SPECIAL TABULATIONS

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

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

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

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1992 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity; whereas, the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities, and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes constructionrelated expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the census of construction industries.

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

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- Sampling error exceeds 40 percent.
- Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
- Represents zero.
- 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.)
- Withheld to avoid disclosing data for individual (D) 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.
- Not specified by kind. n.s.k.

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 dol- lar value of busi- ness done | By type, class, kind of business, 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 End of year—buildings, machinery, and equipment Depreciation charges during year— buildings, machinery, and equipment | 1, 3 3 3 | 1 | 5 | 6 | | |
| Capital expenditures: Total capital expenditures New buildings—machinery and equipment Used buildings—machinery and equipment | 1, 3 3 3 | 1 | 5 | 6 | | |
| Communication services, costs for | 2 | | | | | |
| Employees: All employees—average number Construction workers—average number Construction workers—quarterly Other employees—average number Other employees—quarterly | 1, 2, 8 1, 2, 9 2, 9 2 | 1 1, 9 9 | 5 | 6 | | 8 |
| 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 1, 2, 8 1, 2 | 1 1 | 5 | 6 | | 8 |
| 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 1, 2, 4, 7, 8, 10 1, 2 2 | 1, 10 | 5 5 | 6 6 | 11 7, 10 | 8 |
| Net value of construction work Value added. | 1, 2, 8 1, 2, 8 | 1 1 | 5 5 | 6 6 | | 8 8 |
| Rental costs: | | | | | | |
| Total For machinery and equipment For buildings | 1, 2 2 2 | 1 | 5 | 6 | | |
| Repairs to buildings and other structures | 2 | | | | | |
| Repairs to machinery and equipment | 2 | | | | | |
| Subcontract work to others, costs for | 1, 2, 8 | 1 | 5 | 6 | | 8 |

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

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

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| 1. 2. | Value of Construction Work by Type of Construction | 3 |
| TAE | BLES | |
| Stat | tistics for Establishments With Payroll | |
| 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. | General Statistics by State: 1992 and 1987 | 46 67 77 88 89 100 111 122 133 144 155 |
| | tistics for Establishments Without Payroll appear in the U.S. Industry mmary Report. | |
| APF | PENDIXES | |
| A. B. C. | Explanation of Terms Standard Industrial Classification Titles for Industry Groups and Industries Geographic Divisions and States | A-1 B-1 C-1 |
| Publ | ication Program Inside back | cover |

Summary of Findings

Establishments classified in this industry are primarily engaged in the construction of pipelines, communication and power lines, and sewer and water mains. It also includes construction of pumping stations, television and radio towers, cable laying, cable television line construction, and telephone lines. For additional examples, refer to the Standard Industrial Classification Manual: 1987 (SIC) published by the Office of Management and Budget, Executive Office of the President.

During 1992, the establishments with paid employees classified in this industry accounted for \$20.4 billion in total dollar value of business. Of this amount, \$20,2 billion were for the value of construction work. These establishments paid out \$5.5 billion for materials, components, and supplies and \$2.6 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for the industry were \$592 million. Value added for 1992 was \$11.7 billion.

There were 10,233 establishments with total employment averaging 194,252 during the year. Total payroll for 1992 was \$5.6 billion.

Larger establishments with 20 employees or more, while representing only 24 percent of the total number of employer establishments in this industry, accounted for 76 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.

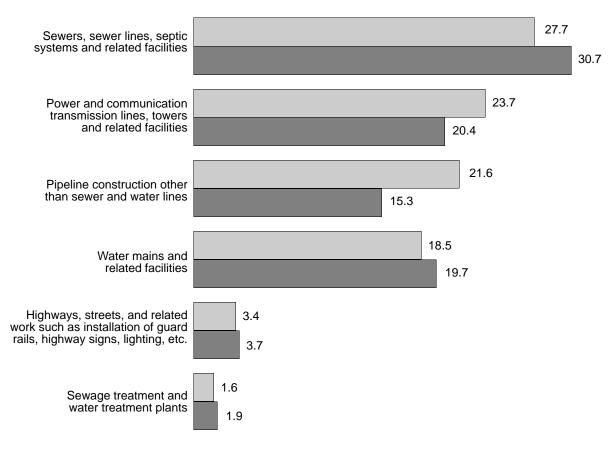
For 1987 and earlier censuses, receipts from the sale of land were collected separately for general contractors and operative builders. These receipts were included in the total dollar value of business done but excluded from the value of construction work done. For 1992, receipts from the sale of land 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.

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

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

1992 1987



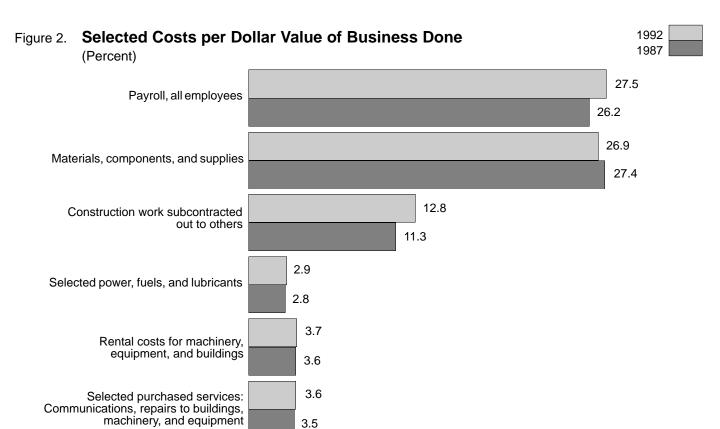


Table 1. General Statistics for Establishments With Payroll by State: 1992 and 1987

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

| | 1992 | | | | | | | | | | | |
|--|--------------------------|---------|----------------------|---------------|----------------------|-------------------------------------|---|------------------|--|--|--|--|
| | | Employ | /ees** | Pay | roll | | | | | | | |
| Location of establishment | Number of establishments | All | Construction workers | All employees | Construction workers | Value of construction work | Net value of construction work† | Value added†† | Cost of materials, components, supplies, and fuels | | | |
| | A | В | С | D | Е | F | G | Н | I | | | |
| United States | 10 233 | 194 252 | 160 105 | 5 624 369 | 4 252 249 | 20 205 048 | 17 587 363 | 11 734 058 | 6 078 014 | | | |
| Alabama Alaska Arizona Arkansas California | 167 | 3 082 | 2 554 | 63 870 | 45 806 | 264 735 | 226 169 | 134 470 | 96 746 | | | |
| | 37 | 928 | 760 | 37 529 | 27 105 | 90 218 | 84 868 | 69 496 | 18 190 | | | |
| | 150 | 3 222 | 2 596 | 97 439 | 70 678 | 277 210 | 259 396 | 183 186 | 80 278 | | | |
| | 158 | 1 748 | 1 434 | 35 171 | 27 097 | 124 232 | 110 159 | 73 093 | 38 538 | | | |
| | 999 | 17 666 | 14 358 | 602 630 | 451 583 | 2 296 243 | 2 011 366 | 1 289 149 | 743 007 | | | |
| Colorado Connecticut Delaware District of Columbia Florida | 212 | 3 782 | 3 145 | 98 554 | 76 659 | 401 745 | 346 314 | 232 961 | 121 481 | | | |
| | 105 | 1 437 | 1 063 | 56 183 | 37 437 | 180 139 | 122 811 | 86 127 | 38 948 | | | |
| | 21 | 1 348 | 1 143 | 48 414 | 38 391 | 125 057 | 109 600 | 78 345 | 31 372 | | | |
| | *6 | 164 | 143 | *3 380 | *2 704 | *9 768 | *8 249 | 4 489 | *3 759 | | | |
| | 561 | 11 394 | 9 400 | 240 748 | 178 599 | 945 905 | 785 993 | 485 955 | 307 313 | | | |
| Georgia Hawaii Idaho Illinois Indiana | 352 | 6 077 | 4 935 | 136 427 | 102 783 | 546 358 | 483 214 | 285 575 | 204 540 | | | |
| | 23 | 565 | 460 | 23 127 | 15 848 | 91 978 | 73 091 | 51 684 | 22 477 | | | |
| | 54 | 795 | 678 | 21 348 | 16 296 | 69 546 | 62 595 | 44 954 | 18 534 | | | |
| | 369 | 7 401 | 6 091 | 277 275 | 218 916 | 963 444 | 817 951 | 581 041 | 249 059 | | | |
| | 211 | 6 207 | 5 107 | 177 226 | 125 224 | 545 463 | 492 343 | 342 353 | 157 058 | | | |
| lowa | 105 | 1 110 | 927 | 33 202 | 25 519 | 132 853 | 115 291 | 89 268 | 28 739 | | | |
| Kansas | 202 | 3 075 | 2 547 | 79 274 | 61 326 | 267 873 | 237 708 | 171 826 | 70 804 | | | |
| Kentucky | 162 | 2 442 | 1 958 | 51 568 | 38 195 | 180 577 | 160 204 | 105 663 | 57 395 | | | |
| Louisiana | 203 | 4 521 | 3 816 | 106 986 | 81 452 | 426 381 | 378 073 | 250 499 | 128 789 | | | |
| Maine | 38 | 642 | 498 | 17 224 | 12 420 | 76 519 | 60 142 | 42 683 | 22 178 | | | |
| Maryland | 155 | 4 669 | 3 904 | 122 000 | 90 665 | 369 847 | 331 023 | 213 993 | 120 499 | | | |
| | 249 | 3 007 | 2 373 | 97 329 | 69 665 | 390 419 | 314 118 | 196 178 | 122 946 | | | |
| | 363 | 6 034 | 4 954 | 197 119 | 146 809 | 739 506 | 641 658 | 413 037 | 236 517 | | | |
| | 204 | 2 963 | 2 447 | 90 605 | 67 483 | 389 497 | 326 100 | 202 809 | 128 406 | | | |
| | 98 | 2 151 | 1 869 | 48 379 | 39 442 | 171 646 | 151 275 | 93 778 | 57 726 | | | |
| Missouri | 223 | 3 647 | 2 985 | 102 713 | 76 209 | 395 061 | 341 325 | 219 067 | 125 994 | | | |
| | 52 | 613 | 513 | 18 480 | 13 973 | 52 728 | 49 438 | 35 371 | 14 648 | | | |
| | 95 | 1 179 | 926 | 29 944 | 22 796 | 186 223 | 158 051 | 54 957 | 105 918 | | | |
| | 53 | 1 165 | 939 | 39 246 | 30 428 | 142 783 | 128 278 | 81 442 | 47 693 | | | |
| | 36 | 432 | 356 | 10 925 | 7 549 | 34 125 | 30 745 | 21 786 | 9 333 | | | |
| New Jersey | 223 | 4 967 | 4 040 | 199 617 | 149 056 | 688 829 | 610 053 | 437 381 | 182 420 | | | |
| | 80 | 2 813 | 2 469 | 64 518 | 50 683 | 198 271 | 175 257 | 128 495 | 49 525 | | | |
| | 455 | 7 766 | 6 193 | 269 170 | 206 139 | 922 895 | 815 585 | 597 590 | 233 792 | | | |
| | 423 | 7 707 | 6 402 | 183 928 | 138 133 | 643 172 | 551 599 | 361 668 | 194 646 | | | |
| | 49 | 576 | 487 | 15 110 | 11 750 | 69 060 | 58 256 | 32 419 | 26 610 | | | |
| Ohio | 340 | 6 479 | 5 276 | 186 741 | 144 667 | 692 701 | 609 504 | 393 386 | 220 929 | | | |
| | 216 | 3 456 | 2 850 | 115 030 | 88 234 | 340 756 | 292 327 | 228 901 | 65 562 | | | |
| | 174 | 2 547 | 2 101 | 78 770 | 61 708 | 280 493 | 248 435 | 177 293 | 72 556 | | | |
| | 344 | 9 096 | 7 425 | 270 758 | 210 672 | 831 280 | 740 870 | 509 160 | 237 817 | | | |
| | 24 | 426 | 340 | 12 786 | 10 241 | 52 138 | 45 177 | 31 849 | 13 424 | | | |
| South Carolina South Dakota Tennessee Texas Utah | 187 | 2 788 | 2 347 | 58 300 | 44 983 | 211 453 | 183 697 | 109 676 | 77 234 | | | |
| | 55 | 719 | 608 | 21 493 | 14 645 | 70 965 | 60 787 | 39 081 | 25 896 | | | |
| | 191 | 3 273 | 2 780 | 68 830 | 53 208 | 296 554 | 258 409 | 147 021 | 111 649 | | | |
| | 792 | 16 874 | 14 133 | 511 062 | 393 951 | 1 946 019 | 1 690 410 | 1 160 954 | 545 081 | | | |
| | 81 | 1 523 | 1 220 | 36 245 | 28 005 | 131 398 | 117 992 | 70 541 | 51 252 | | | |
| Vermont | 27 | 278 | 241 | 6 922 | 5 428 | 24 649 | 20 280 | 14 022 | 6 391 | | | |
| | 292 | 8 438 | 7 199 | 203 119 | 156 625 | 636 711 | 558 734 | 381 968 | 179 277 | | | |
| | 275 | 4 516 | 3 644 | 156 683 | 113 067 | 578 885 | 486 728 | 334 498 | 166 447 | | | |
| | 89 | 1 782 | 1 470 | 55 868 | 38 561 | 154 245 | 144 719 | 115 886 | 31 430 | | | |
| | 215 | 3 902 | 3 287 | 126 066 | 98 860 | 478 261 | 438 085 | 289 464 | 149 616 | | | |
| | 37 | 860 | 716 | 19 039 | 14 578 | 68 232 | 62 909 | 37 572 | 27 573 | | | |

| | | 1992—Con. | | | | 1987 | | | | | | | | | | | | | | |
|--|--|---|--|---|--------------------|----------------------------|------------------|--------------|--|-----|------------------------------------|------|------------------------------------|--|------------------------------------|--|------------------------------------|--|-----------------------------------|-----|
| 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†† | error (pe | Relative standard error of estimate (percent) for column— | | error of estimate (percent) for | | error of estimate (percent) for | | error of estimate (percent) for | | error of estimate (percent) for | | Locatio of establis ment | sh- |
| J | к | L | М | N | 0 | Р | Q | В | G | М | | | | | | | | | | |
| 2 617 685 | 3 763 945 | 753 998 | 765 509 | 6 980 524 | 197 632 | 17 010 019 | 10 089 749 | 1 | (Z) | 2 | ι | U.S. | | | | | | | | |
| 38 566 | 69 126 | 7 452 | 8 377 | 80 590 | 3 519 | 229 765 | 133 635 | 5 | 6 | 12 | AL | | | | | | | | | |
| 5 350 | 8 820 | 4 601 | 9 995 | 66 690 | 969 | 138 542 | 84 069 | 2 | 2 | 3 | AK | | | | | | | | | |
| 17 814 | 70 608 | 14 045 | 15 890 | 72 130 | 2 812 | 232 527 | 138 571 | 5 | 3 | 14 | AZ | | | | | | | | | |
| 14 073 | 22 901 | 2 597 | 8 080 | 64 706 | 1 777 | 125 741 | 67 844 | 6 | 7 | 15 | AR | | | | | | | | | |
| 284 877 | 580 060 | 89 011 | 61 608 | 617 380 | 19 119 | 2 101 952 | 1 238 137 | 2 | 1 | 5 | CA | | | | | | | | | |
| 55 432 | 69 665 | 19 853 | 13 597 | 131 684 | 3 928 | 301 407 | 172 548 | 5 | 4 | 11 | CO | | | | | | | | | |
| 57 327 | 19 874 | 3 679 | 2 944 | 96 365 | 2 303 | 214 898 | 139 151 | 5 | 4 | 10 | CT | | | | | | | | | |
| 15 458 | 14 546 | 3 371 | 2 279 | 39 924 | 970 | (D) | 33 831 | 1 | 1 | 2 | DE | | | | | | | | | |
| *1 519 | 646 | (S) | 177 | 483 | 50 | (D) | 1 658 | 35 | 47 | (Z) | DC | | | | | | | | | |
| 159 912 | 232 297 | 25 367 | 31 440 | 310 156 | 13 953 | 1 031 670 | 579 351 | 2 | 2 | 7 | FL | | | | | | | | | |
| 63 144 | 87 526 | 13 940 | 19 347 | 181 507 | 7 813 | 846 225 | 508 260 | 3 | 3 | 13 | GA | | | | | | | | | |
| 18 887 | 16 995 | 1 252 | 1 621 | 33 314 | 626 | 76 797 | 40 167 | 3 | 2 | (Z) | HI | | | | | | | | | |
| 6 952 | 7 816 | (S) | 6 370 | 34 090 | 591 | 35 480 | 22 939 | 10 | 8 | 25 | ID | | | | | | | | | |
| 145 494 | 162 380 | 26 007 | 36 430 | 336 948 | 5 715 | 657 443 | 353 466 | 3 | 2 | 8 | IL | | | | | | | | | |
| 53 120 | 57 376 | 15 242 | 18 016 | 209 348 | 5 410 | 356 448 | 224 446 | 3 | 2 | 4 | IN | | | | | | | | | |
| 17 562 | 35 081 | 5 351 | *7 993 | 68 065 | 1 040 | 100 392 | 58 734 | 5 | 4 | 42 | IA | | | | | | | | | |
| 30 165 | 48 088 | 9 569 | 13 723 | 93 112 | 1 904 | 156 902 | 82 979 | 4 | 3 | 7 | KS | | | | | | | | | |
| 20 373 | 29 596 | 6 927 | 10 117 | 69 598 | 2 250 | 169 508 | 90 438 | 5 | 5 | 14 | KY | | | | | | | | | |
| 48 308 | 26 817 | 18 649 | 13 119 | 105 419 | 4 035 | 273 229 | 166 885 | 5 | 4 | 12 | LA | | | | | | | | | |
| 16 377 | 24 837 | 1 259 | 2 916 | 44 189 | 932 | 103 797 | 61 580 | 7 | 6 | 5 | ME | | | | | | | | | |
| 38 824 | 117 889 | 10 165 | 8 632 | 153 771 | 4 568 | 320 870 | 187 042 | 3 | 2 | 12 | MD | | | | | | | | | |
| 76 301 | 98 093 | 13 426 | 14 789 | 142 490 | 3 378 | 358 332 | 224 219 | 5 | 4 | 11 | MA | | | | | | | | | |
| 97 848 | 145 705 | 23 959 | 36 881 | 326 045 | 4 811 | 505 274 | 282 096 | 3 | 3 | 12 | MI | | | | | | | | | |
| 63 396 | 88 660 | 9 318 | 17 947 | 166 631 | 3 427 | 447 500 | 223 667 | 4 | 3 | 12 | MN | | | | | | | | | |
| 20 371 | 17 167 | 5 731 | 5 165 | 47 919 | 2 583 | 142 412 | 88 670 | 5 | 6 | 15 | MS | | | | | | | | | |
| 53 736 | 82 239 | 13 451 | 20 371 | 152 833 | 2 966 | 272 319 | 156 472 | 4 | 3 | 7 | MO | | | | | | | | | |
| 3 289 | *2 653 | 2 519 | 2 745 | 18 227 | 662 | 56 186 | 34 282 | 11 | 8 | 22 | MT | | | | | | | | | |
| 28 172 | 32 389 | 5 674 | 6 025 | 40 568 | 1 388 | 75 620 | 34 900 | 10 | 8 | 21 | NE | | | | | | | | | |
| 14 505 | 40 530 | 4 533 | 5 398 | 49 723 | 666 | 69 641 | 41 770 | 5 | 4 | 2 | NV | | | | | | | | | |
| 3 380 | 8 432 | 561 | 1 283 | 20 352 | 776 | 64 422 | 40 062 | 13 | 13 | 31 | NH | | | | | | | | | |
| 78 776 | 112 398 | 26 075 | 15 954 | 190 930 | 5 343 | 547 106 | 348 243 | 3 | 2 | 6 | NJ | | | | | | | | | |
| 23 014 | 28 277 | 11 501 | 7 270 | 73 310 | 1 820 | 136 787 | 82 101 | 5 | 5 | 9 | NM | | | | | | | | | |
| 107 310 | 161 456 | 30 995 | 21 759 | 249 488 | 6 771 | 682 317 | 445 462 | 2 | 2 | 17 | NY | | | | | | | | | |
| 91 573 | 151 608 | 14 037 | 36 469 | 311 887 | 10 347 | 678 904 | 413 071 | 3 | 3 | 9 | NC | | | | | | | | | |
| 10 804 | 11 125 | 3 123 | 3 028 | 29 004 | 397 | 29 751 | 17 308 | 10 | 12 | 25 | ND | | | | | | | | | |
| 83 197 | 106 591 | 22 018 | 30 874 | 252 278 | 6 402 | 581 918 | 360 060 | 3 | 4 | 13 | OH | | | | | | | | | |
| 48 430 | 60 260 | 18 874 | 14 764 | 136 702 | 3 097 | 224 745 | 164 829 | 4 | 4 | 9 | OK | | | | | | | | | |
| 32 057 | 63 239 | 16 778 | 12 368 | 88 879 | 1 458 | 126 868 | 64 772 | 4 | 4 | 13 | OR | | | | | | | | | |
| 90 410 | 152 498 | 28 558 | 36 738 | 315 953 | 8 888 | 695 293 | 474 065 | 4 | 2 | 6 | PA | | | | | | | | | |
| 6 961 | 7 290 | 1 197 | 939 | 13 450 | 686 | 62 913 | 36 510 | 6 | 23 | 32 | RI | | | | | | | | | |
| 27 756 | 66 539 | 5 336 | 6 949 | 86 896 | 3 170 | 184 473 | 114 204 | 5 | 5 | 20 | SC | | | | | | | | | |
| 10 178 | 8 948 | 1 061 | 2 989 | 23 584 | 382 | 27 659 | 16 441 | 7 | 8 | 22 | SD | | | | | | | | | |
| 38 145 | 24 644 | 5 125 | 9 868 | 101 638 | 4 424 | 372 000 | 203 684 | 4 | 5 | 14 | TN | | | | | | | | | |
| 255 609 | 214 077 | 126 376 | 60 076 | 454 744 | 18 995 | 1 480 544 | 833 497 | 2 | 2 | 9 | TX | | | | | | | | | |
| 13 407 | 18 453 | 8 458 | 9 549 | 49 795 | 1 321 | 108 597 | 62 338 | 8 | 7 | 36 | UT | | | | | | | | | |
| 4 369 | 4 214 | 867 | 877 | 16 464 | 379 | 27 121 | 17 261 | 8 | 7 | 25 | VT | | | | | | | | | |
| 77 977 | 138 277 | 20 657 | 27 365 | 332 806 | 9 849 | 677 443 | 412 314 | 2 | 2 | 6 | VA | | | | | | | | | |
| 92 157 | 122 414 | 20 135 | 29 007 | 209 982 | 3 143 | 355 794 | 196 174 | 2 | 2 | 8 | WA | | | | | | | | | |
| 9 526 | 7 386 | 5 477 | 5 920 | 63 812 | 1 769 | 100 584 | 77 029 | 3 | 2 | 10 | WV | | | | | | | | | |
| 40 177 | 73 944 | 22 471 | 23 402 | 173 853 | 3 500 | 327 181 | 203 108 | 3 | 4 | 12 | WI | | | | | | | | | |
| 5 322 | 11 497 | 3 198 | 6 069 | 30 813 | 528 | 57 373 | 35 387 | 11 | 8 | 39 | WI | | | | | | | | | |

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 | | | | | | | ndard er (percer | |
|--|---|--|--|--|---|--------------------------------------|---|---|
| | 1992 | 1987 | 1982 | 1977 | 1992 | 1987 | 1982 | 1977 |
| Number of establishments in business during year | 10 233 | 9 919 | 9 413 | 10 227 | 1 | 1 | 1 | 2 |
| Proprietors and working partners | 2 168 | 1 726 | 2 132 | 4 035 | 4 | 6 | 4 | 4 |
| All employees** | 194 252 | 197 632 | 186 674 | 198 354 | 1 | 1 | (Z) | 1 |
| Construction workers: March May August November Average | 137 013 159 812 174 938 168 658 160 105 | 143 795 166 855 179 450 173 426 165 879 | 141 459 164 683 174 921 157 412 160 473 | 145 807 173 244 191 548 181 368 173 093 | 1 1 1 1 1 | 1 1 1 1 | (Z) (Z) (Z) 1 (Z) | 1 1 1 1 |
| Other employees: March | 34 459 33 789 34 353 33 985 34 146 | 31 509 31 506 32 047 31 947 31 753 | 26 080 (NA) (NA) (NA) (NA) | 24 839 (NA) (NA) (NA) (NA) | 1 1 1 1 1 | 1 1 1 1 | 1 1 1 1 | 1 (NA) (NA) (NA) (NA) |
| Payroll, all employees | 5 624 369 4 252 249 1 372 120 | 4 513 295 3 427 722 1 085 573 | 3 576 338 2 906 789 669 549 | 2 837 270 2 347 495 489 775 | (Z) (Z) 1 | (Z) (Z) 1 | (Z) (Z) (Z) | (Z) (Z) (Z) |
| First-quarter payroll, all employees | 1 128 019 | 920 498 | 737 855 | 523 281 | 1 | 1 | (Z) | (Z) |
| Fringe benefits, all employees | 1 519 661 1 054 343 465 317 | 1 035 877 752 744 283 132 | 634 002 492 489 141 512 | 580 131 329 226 250 905 | 1 1 1 | 1 1 1 | (Z) (Z) 1 | (Z) (Z) (Z) |
| Dollar value of business done | 20 429 757 20 205 048 3 763 945 224 709 | 17 254 987 17 010 019 3 419 333 244 968 | 12 128 956 11 952 831 1 497 843 176 125 | 9 553 498 9 361 092 1 455 661 192 406 | 1 1 2 2 | 1 1 2 2 | (Z) (Z) 2 1 | (Z) (Z) 1 1 |
| Net value of construction work† | 17 587 363 | 15 055 297 | 10 462 441 | 8 371 028 | (Z) | 1 | (Z) | (Z) |
| Value added†† | 11 734 058 | 10 089 749 | 7 005 322 | 5 522 719 | (Z) | 1 | (Z) | (Z) |
| Selected costs | 8 695 699 5 486 059 2 617 685 591 955 46 488 10 540 492 050 256 447 235 603 42 876 | 7 165 237 4 734 144 1 954 721 476 371 32 128 7 666 400 312 209 814 190 498 36 264 | 5 123 633 3 189 912 1 490 389 443 331 27 432 7 559 382 139 (NA) (NA) 26 200 | 4 030 779 2 798 430 990 064 242 285 15 966 6 316 192 902 (NA) (NA) 27 119 | 1 1 1 2 2 1 1 1 2 | 1 1 1 1 3 1 1 1 | 1 1 1 1 1 2 1 (NA) (NA) | (Z) (Z) (Z) 1 1 2 1 (NA) (NA) |
| Rental cost for machinery, equipment, and buildings | 753 998 652 119 101 879 | 625 417 557 613 67 804 | 458 027 409 955 48 072 | 364 617 343 490 21 126 | 1 2 1 | 1 1 2 | 1 1 1 | 1 1 1 |
| Selected purchased services Communication services Repairs to buildings and other structures Repairs to machinery and equipment | 729 151 108 278 29 244 591 629 | 596 515 61 144 17 192 518 178 | 461 655 46 741 12 677 402 236 | 356 533 29 195 9 394 317 944 | 1 2 4 1 | 1 1 3 1 | 1 1 2 1 | 1 1 3 1 |
| Ownership of construction projects: Value of construction work Government owned Federal State and local Privately owned | 20 205 048 7 997 394 980 974 7 016 420 12 207 654 | 17 010 019 6 290 814 972 755 5 318 059 10 719 204 | 11 952 831 4 468 103 (NA) (NA) 7 484 727 | 9 361 092 4 068 001 (NA) (NA) 5 293 091 | 1 1 5 2 1 | 1 1 3 1 1 | (Z) 1 (NA) (NA) 1 | (Z) 1 (NA) (NA) 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]

| ltem | | | | d error of estimate cent) |
|---|--|--|----------------------------|---------------------------------|
| | 1992 | 1987 | 1992 | 1987 |
| BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT | | | | |
| Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New Used Retirements and disposition of depreciable assets | 6 644 859 765 509 552 828 212 682 429 844 | 4 595 077 695 713 557 809 137 903 297 541 | 1 2 2 4 3 | 1 2 2 3 4 |
| End-of-year gross book value of depreciable assets | 6 980 524 | 4 993 249 | 1 | 1 |
| Depreciation charges during year | 748 881 | 628 401 | 1 | 1 |
| Buildings and Other Structures, Additions, and Related Facilities | | | | |
| Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New buildings and other structures Used buildings and other structures | 488 794 34 852 25 615 9 237 11 043 | 416 692 62 300 49 080 13 219 24 736 | 3 4 4 7 10 | 2 3 3 8 8 |
| End-of-year gross book value of depreciable assets | 512 602 | 454 256 | 3 | 2 |
| Depreciation charges during year | 40 566 | 54 675 | 4 | 3 |
| Machinery and Equipment | | | | |
| Beginning-of-year gross book value of depreciable assets Capital expenditures, other than land New machinery and equipment, including automobiles and trucks New automobiles and trucks, intended primarily for highway use Used machinery and equipment, including automobiles and trucks Retirements and disposition of depreciable assets | 6 156 065 730 658 527 213 159 085 203 445 418 801 | 4 178 385 633 412 508 728 174 039 124 683 272 805 | 1 2 2 3 4 3 | 1 2 2 2 2 3 4 |
| End-of-year gross book value of depreciable assets | 6 467 922 | 4 538 992 | 1 | 1 |
| Depreciation charges during year | 708 315 | 573 726 | 1 | 1 |

Table 4. Value of Inventories for Establishments With Payroll: 1992 and 1991

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

| ltem | Establishments with payroll | Relative standard error of estimate (percent) |
|--|--------------------------------|---|
| All establishments: Number Value of construction work | 10 233 20 205 048 | 1 |
| Establishments with inventories: Number | 2 497 7 367 949 | 2 1 |
| End of 1992, materials and suppliesEnd of 1991, materials and supplies | 126 146 117 429 | 2 3 |
| Establishments with no inventories: Number Value of construction work | 4 513 9 075 822 | 2 1 |
| Establishments not reporting: Number Value of construction work | 3 223 3 761 276 | 2 |

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

CONSTRUCTION-INDUSTRY SERIES

WATER, SEWER, AND UTILITY LINES 8-7

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]

| | | | | | Establishme | ents with an av | erage of- | | | |
|--|--|---|---|---|--|--|--|---|---|--|
| Selected statistics | Total | 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 All employees** Payroll, all employees Dollar value of business done Value of construction work Net value of construction work† | 10 233 194 252 5 624 369 20 429 757 20 205 048 17 587 363 | 3 459 7 139 131 783 706 592 699 478 624 371 | 2 319 15 280 349 013 1 449 907 1 437 541 1 274 584 | 2 011 26 693 681 899 2 659 515 2 636 901 2 326 186 | 1 619 48 542 1 372 190 5 316 207 5 261 338 4 525 566 | 523 35 423 1 038 756 3 691 727 3 642 016 3 141 273 | 239 34 952 1 079 227 3 764 668 3 703 654 3 151 738 | 48 16 360 636 731 1 957 510 1 945 539 1 723 158 | 13 9 863 334 770 883 632 878 581 820 487 | 1 (D) (D) (D) (D) (D) |
| Value added†† | 11 734 058 6 078 014 2 617 685 753 998 765 509 6 980 524 | 407 155 224 330 75 107 20 947 41 780 343 703 | 783 263 503 687 162 957 58 542 61 074 609 633 | 1 443 836 904 963 310 715 76 917 101 696 923 133 | 2 757 535 1 822 899 735 772 190 583 197 172 1 839 468 | 2 053 583 1 137 401 500 743 131 275 136 924 1 216 158 | 2 156 458 1 056 294 551 916 139 637 133 042 1 260 586 | 1 453 061 282 068 222 381 111 864 64 437 456 280 | 679 167 146 371 58 094 24 234 29 384 331 562 | (D) (D) (D) (D) (D) (D) |
| 1987 | | | | | | | | | | |
| All employees** Value of construction work Value added†† | 197 632 17 010 019 10 089 749 | (S) (S) (S) | 15 223 1 218 347 699 203 | 27 250 2 451 301 1 430 189 | 50 720 4 710 458 2 666 898 | 33 558 3 007 551 1 743 044 | 31 526 2 792 680 1 652 882 | 16 575 1 214 780 838 111 | 8 928 1 091 951 452 534 | 7 088 (D) 301 796 |
| 1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT) | | | | | | | | | | |
| All employees** Net value of construction work† Capital expenditures, other than land | 1 (Z) 2 | 4 6 13 | 4 4 11 | 3 3 7 | 1 1 3 | (Z) (Z) 1 | (Z) (Z) (Z) | (Z) (Z) (Z) | (Z) (Z) (Z) | (D) (D) (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]

| | | | | | Establishn | nents with do | llar value of b | ousiness done | | | |
|---|--|---|---|---|---|---|---|---|---|---|---|
| Selected statistics | Total | 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 | 10 233 194 252 5 624 369 20 429 757 20 205 048 17 587 363 | (9) (9) (9) (9) (9) (9) (9) | 301 350 3 393 11 316 11 280 10 745 | (9) (9) (9) (9) (9) (9) (9) | 1 620 5 188 77 419 277 715 274 194 258 129 | 1 736 10 680 194 047 634 181 625 240 574 193 | 1 677 16 032 354 601 1 194 583 1 184 109 1 091 839 | 1 965 34 184 864 013 3 020 091 2 985 826 2 681 739 | 980 34 373 948 737 3 489 028 3 457 383 3 023 310 | 544 32 932 996 112 3 772 211 3 723 217 3 207 515 | 351 58 979 2 170 292 7 973 966 7 887 919 6 686 744 |
| Value added††Cost of materials, components, supplies, and | 11 734 058 | (S) | 7 339 | (S) | 173 118 | 392 478 | 710 953 | 1 729 049 | 1 874 160 | 2 024 024 | 4 787 315 |
| fuelsCost of construction work subcontracted out | 6 078 014 | (S) | 3 442 | (S) | 88 532 | 190 656 | 391 361 | 986 956 | 1 180 795 | 1 232 485 | 1 985 476 |
| to othersRental cost for machinery, equipment, and | 2 617 685 | (S) | 535 | (S) | 16 065 | 51 047 | 92 270 | 304 087 | 434 072 | 515 702 | 1 201 175 |
| buildings | 753 998 765 509 | (S) (S) | 245 (S) | (S) (S) | 9 866 17 631 | 25 899 43 050 | 46 017 49 153 | 95 171 131 123 | 119 696 143 096 | 147 137 135 175 | 308 195 244 090 |
| assets | 6 980 524 | (S) | *4 549 | (S) | 146 056 | 316 375 | 588 714 | 1 208 247 | 1 288 656 | 1 213 806 | 2 189 585 |
| 1987 | | | | | | | | | | | |
| All employees** Value of construction work Value added†† | 197 632 17 010 019 10 089 749 | (S) (S) (S) | (S) (S) (S) | (S) (S) (S) | 6 496 281 462 185 583 | 11 417 602 781 399 180 | 18 338 1 148 538 717 008 | 36 808 2 864 154 1 688 410 | 36 827 3 350 312 1 955 721 | 28 791 3 038 635 1 703 250 | 56 552 5 655 580 3 396 889 |
| 1992 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT) | | | | | | | | | | | |
| All employees** Net value of construction work† Capital expenditures, other than land | 1 (Z) 2 | (S) (S) (S) | 17 12 (S) | (S) (S) (S) | 6 6 16 | 5 5 11 | 4 4 11 | 2 3 6 | 1 1 4 | (Z) 1 2 | (Z) (Z) (Z) |

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

8-8 WATER, SEWER, AND UTILITY LINES

CONSTRUCTION-INDUSTRY SERIES

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]

| | | Value of cons | | Relative standard error | | | | |
|---|---|--|--|--|---|--|--|--|
| Type of construction | Total | New construction | Additions, alterations, or reconstruction | Maintenance and repair | | of estimat | e (percen lumn- | |
| | А | В | С | D | А | В | С | D |
| 1992 | | | | | | | | |
| Value of construction work | 20 205 048 | 14 438 540 | 3 097 742 | 2 657 337 | 1 | 1 | 1 | 1 |
| Building construction | 274 199 | 190 557 | 48 564 | 35 078 | 3 | 3 | 6 | 3 |
| Nonbuilding construction Highways, streets, and related work such as installation of guard rails, highway | 19 919 421 | 14 247 983 | 3 049 178 | 2 622 260 | 1 | 1 | 1 | 1 |
| signs, lighting, etc. Bridges, tunnels, and elevated highways Power and communication transmission lines, towers, and related facilities Sewers, water mains, and related facilities Sewers, sewer lines, septic systems, and related facilities Water mains and related facilities Pipeline construction other than sewer or water lines Sewage treatment and water treatment plants Sewage treatment plants Water treatment plants Other nonbuilding construction Construction work, n.s.k. | 695 683 154 895 4 786 135 9 345 016 5 598 795 3 746 221 4 363 692 320 748 166 764 153 984 253 252 | 440 692 85 985 3 004 735 7 240 928 4 323 043 2 917 885 3 077 640 246 221 122 452 123 769 151 781 (NA) | 175 458 49 037 738 106 1 368 731 835 339 533 392 606 217 54 238 36 313 17 925 57 391 (NA) | 79 533 19 873 1 043 294 735 357 440 413 294 944 679 835 20 288 7 999 12 290 44 080 (NA) | 1 1 1 1 1 1 1 2 2 3 1 2 2 11 | 2 1 1 1 1 1 1 3 1 2 (NA) | 2 3 1 1 2 2 2 2 1 5 6 5 3 3 (NA) | 2 5 1 3 4 3 2 4 11 2 6 |
| Value of construction work | 17 010 019 | 12 838 852 | 2 182 059 | 1 569 178 | 1 | 1 | 1 | 1 |
| Building construction | 353 154 | 313 343 | 28 843 | 10 968 | 5 | 5 | 6 | 12 |
| Nonbuilding construction | 16 236 941 | 12 525 514 | 2 153 216 | 1 558 210 | 1 | 1 | 1 | 1 |
| signs, lighting, etc. Bridges, tunnels, and elevated highways Power and communication transmission lines, towers, and related facilities Sewers, water mains, and related facilities Sewers, sewer lines, septic systems, and related facilities Water mains and related facilities Pipeline construction other than sewer or water lines Sewage treatment and water treatment plants Sewage treatment plants Water treatment plants Other nonbuilding construction | 633 580 127 893 3 473 127 8 571 756 5 213 772 3 357 984 2 598 987 329 366 209 733 119 632 502 226 | 448 506 81 914 2 456 175 7 059 798 4 293 072 2 766 720 1 851 459 266 187 175 816 90 371 361 475 | 133 629 27 276 501 621 969 607 588 749 380 857 393 416 47 266 26 072 21 194 80 401 | 51 445 18 708 515 331 542 350 331 945 210 405 354 111 15 912 7 845 8 067 60 353 | 1 2 1 1 1 1 1 1 2 2 4 (NA) | 1 3 1 1 1 1 1 2 2 3 (NA) | 1 5 2 2 2 2 2 4 4 6 (NA) | 2 4 1 2 2 3 3 3 3 6 (NA) |
| Construction work, n.s.k. | 419 924 | (NA) | (NA) | (NA) | 4 | (NA) | (NA) | (NA) |

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

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

| | | | | | onstruction ork | Not | | Cost of | stan | telative | error |
|---|--|---|---|--|--|--|--|---|-----------------------------|-----------------------------|-------------------------------|
| ltem | Number of establishments | All employees** | Payroll, all employees | For all types | For specialized type | Net value of construction work† | Value added†† | construction work sub- contracted out to others | (pe | estima rcent) olumn - | for |
| | А | В | С | D | Е | F | G | Н | В | D | Н |
| All establishments | 10 233 | 194 252 | 5 624 369 | 20 205 048 | 13 806 668 | 17 587 363 | 11 734 058 | 2 617 685 | 1 | 1 | 1 |
| Establishments not specializing by type Establishments specializing 51 percent or more | 1 776 8 457 | 36 817 157 435 | 1 053 517 4 570 852 | 4 505 700 15 699 348 | 13 806 668 | 3 820 965 13 766 398 | 2 307 116 9 426 943 | 684 735 1 932 950 | 1 1 | 1 1 | 1 |
| POWER AND COMMUNICATION TRANSMISSION LINES, TOWERS, AND RELATED FACILITIES | | | | | | | | | | | |
| All establishments specializing in type | 2 965 | 62 602 | 1 608 036 | 4 828 661 | 4 624 898 | 4 247 931 | 3 180 495 | 580 730 | 1 | 1 | 2 |
| Establishments with — 100 percent specialization | 2 692 54 62 64 61 32 | 54 247 2 612 1 797 991 1 578 1 378 | 1 355 886 81 526 49 570 28 957 45 067 47 029 | 4 046 570 214 711 143 772 101 336 156 092 166 180 | 4 046 570 199 914 117 966 73 389 97 573 89 486 | 3 616 556 185 514 128 434 84 654 134 670 98 102 | 2 720 977 139 102 95 451 53 308 103 466 68 191 | 430 014 29 196 15 338 16 682 21 422 68 078 | 1 3 3 10 5 6 | 1 2 3 6 6 3 | 3 1 1 2 17 (Z) |
| SEWERS, SEWER LINES, SEPTIC SYSTEMS, AND RELATED FACILITIES | | | | | | | | | | | |
| All establishments specializing in type | 2 863 | 37 429 | 1 073 904 | 4 675 621 | 3 653 217 | 3 942 989 | 2 232 449 | 732 632 | 2 | 1 | 2 |
| Establishments with — 100 percent specialization | 1 354 199 235 357 439 279 | 11 741 2 448 3 302 5 861 8 997 5 080 | 326 979 70 425 101 910 166 077 262 094 146 419 | 1 439 779 302 311 426 890 712 388 1 171 749 622 504 | 1 439 779 280 407 350 833 520 238 729 421 332 540 | 1 255 151 241 048 362 805 616 848 981 348 485 789 | 740 691 143 827 202 273 320 865 539 980 284 813 | 184 629 61 263 64 085 95 540 190 401 136 715 | 3 5 4 4 3 4 | 3 6 3 4 3 3 | 3 4 3 6 6 3 |
| WATER MAINS AND RELATED FACILITIES | | | | | | | | | | | |
| All establishments specializing in type | 1 460 | 17 790 | 485 038 | 2 082 283 | 1 600 792 | 1 841 592 | 1 019 659 | 240 690 | 3 | 2 | 3 |
| Establishments with — 100 percent specialization 90 to 99 percent specialization 80 to 89 percent specialization 70 to 79 percent specialization 60 to 69 percent specialization 51 to 59 percent specialization | 580 130 163 253 225 109 | 5 338 1 106 1 449 3 450 4 089 2 357 | 131 532 32 697 40 770 100 111 114 864 65 064 | 579 706 117 176 155 095 448 882 489 359 292 065 | 579 706 109 131 126 895 324 997 303 567 156 496 | 525 178 100 023 135 536 395 664 441 193 243 999 | 318 580 57 141 82 366 193 622 226 733 141 219 | 54 528 17 153 19 559 53 217 48 167 48 066 | 6 11 9 6 5 9 | 4 9 5 5 6 | 7 17 13 3 11 5 |
| PIPELINE CONSTRUCTION OTHER THAN SEWER OR WATER LINES | | | | | | | | | | | |
| All establishments specializing in type | 1 022 | 39 403 | 1 400 267 | 4 103 081 | 3 918 058 | 3 724 827 | 2 987 835 | 378 253 | 1 | 1 | 5 |
| Establishments with — 100 percent specialization | 794 46 78 50 24 30 | 30 568 2 876 2 226 1 450 1 291 993 | 1 109 686 85 429 80 351 46 908 49 364 28 529 | 3 194 864 284 841 261 029 138 794 136 838 86 715 | 3 194 864 266 227 223 431 98 888 87 924 46 723 | 2 905 147 263 180 237 894 123 470 120 957 74 179 | 2 376 507 188 938 196 128 89 027 90 641 46 593 | 289 717 21 661 23 135 15 324 15 881 12 536 | 1 1 3 5 2 8 | 1 2 4 4 2 7 | 6 1 4 7 3 19 |

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]

| | | Average | | | Relative standard error of estimate | | | | ate | | | |
|--|--------------------------------|---|---|---|---|---|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Location of establishment | Number of establishments | number of construction workers | January to March | April to June | July to September | October to December | | | cent) fo | | | |
| | А | В | С | D | Е | F | А | В | С | D | Е | F |
| United States | 10 233 | 160 105 | 137 013 | 159 812 | 174 938 | 168 658 | 1 | 1 | 1 | 1 | 1 | 1 |
| Alabama | 167 | 2 554 | 2 505 | 2 624 | 2 581 | 2 505 | 10 | 5 | 4 | 4 | 5 | 5 |
| | 37 | 760 | 684 | 719 | 898 | 738 | 10 | 2 | 2 | 2 | 2 | 2 |
| | 150 | 2 596 | 1 877 | 2 544 | 3 066 | 2 896 | 11 | 5 | 5 | 5 | 5 | 4 |
| | 158 | 1 434 | 1 285 | 1 378 | 1 571 | 1 502 | 12 | 6 | 7 | 6 | 6 | 6 |
| | 999 | 14 358 | 12 837 | 14 262 | 15 424 | 14 909 | 4 | 2 | 2 | 2 | 2 | 2 |
| Colorado | 212 | 3 145 | 2 335 | 3 182 | 3 576 | 3 489 | 10 | 4 | 4 | 4 | 5 | 5 |
| | 105 | 1 063 | 942 | 1 118 | 1 149 | 1 044 | 7 | 5 | 5 | 5 | 5 | 5 |
| | 21 | 1 143 | 1 193 | 1 085 | 1 138 | 1 157 | 8 | 1 | 1 | 1 | 1 | 1 |
| | *6 | 143 | 109 | 119 | *184 | *159 | 41 | 35 | 22 | 26 | 42 | 42 |
| | 561 | 9 400 | 9 076 | 9 273 | 9 565 | 9 685 | 5 | 2 | 2 | 2 | 2 | 2 |
| Georgia | 352 | 4 935 | 4 593 | 4 629 | 5 140 | 5 377 | 8 | 3 | 4 | 4 | 3 | 3 |
| | 23 | 460 | 428 | 460 | 476 | 478 | 11 | 2 | 2 | 2 | 2 | 1 |
| | 54 | 678 | 501 | 724 | 779 | 706 | 19 | 9 | 9 | 9 | 11 | 11 |
| | 369 | 6 091 | 4 612 | 6 306 | 6 928 | 6 519 | 8 | 3 | 2 | 3 | 3 | 3 |
| | 211 | 5 107 | 4 420 | 5 306 | 5 256 | 5 447 | 11 | 3 | 2 | 2 | 3 | 3 |
| lowa Kansas Kentucky Louisiana Maine | 105 202 162 203 38 | 927 2 547 1 958 3 816 498 | 583 2 486 1 890 3 413 331 | 1 032 2 604 1 886 3 720 519 | 1 166 2 579 1 972 4 228 598 | 925 2 521 2 083 3 902 544 | 13 11 11 14 24 | 5 5 5 7 | 8 5 7 5 8 | 5 6 5 7 | 4 5 4 5 9 | 6 4 5 5 9 |
| Maryland | 155 | 3 904 | 3 784 | 3 822 | 4 033 | 3 975 | 8 | 3 | 3 | 3 | 3 | 3 |
| Massachusetts | 249 | 2 373 | 1 640 | 2 472 | 2 707 | 2 675 | 9 | 5 | 6 | 5 | 4 | 6 |
| Michigan | 363 | 4 954 | 3 321 | 5 106 | 5 812 | 5 577 | 8 | 3 | 4 | 3 | 3 | 3 |
| Minnesota | 204 | 2 447 | 1 221 | 2 788 | 3 280 | 2 500 | 9 | 4 | 5 | 4 | 4 | 4 |
| Mississippi | 98 | 1 869 | 1 288 | 1 462 | 2 145 | 2 581 | 13 | 4 | 6 | 5 | 3 | 4 |
| Missouri Montana | 223 52 95 53 36 | 2 985 513 926 939 356 | 2 784 410 747 895 257 | 3 035 497 987 959 353 | 3 182 563 1 084 1 006 397 | 2 939 583 888 895 416 | 9 21 19 18 16 | 4 12 11 4 13 | 4 18 12 4 13 | 4 10 11 4 13 | 5 10 11 5 13 | 4 11 12 3 12 |
| New Jersey New Mexico New York North Carolina North Dakota | 223 | 4 040 | 3 580 | 3 943 | 4 417 | 4 219 | 8 | 3 | 3 | 3 | 3 | 3 |
| | 80 | 2 469 | 2 036 | 2 494 | 2 811 | 2 536 | 18 | 4 | 5 | 6 | 5 | 4 |
| | 455 | 6 193 | 5 340 | 6 403 | 6 901 | 6 127 | 7 | 2 | 2 | 2 | 2 | 2 |
| | 423 | 6 402 | 6 212 | 6 159 | 6 470 | 6 766 | 8 | 3 | 3 | 3 | 4 | 3 |
| | 49 | 487 | 262 | 508 | 717 | 462 | 23 | 10 | 12 | 12 | 9 | 10 |
| OhioOklahoma Oklahoma Oregon Pennsylvania Rhode Island | 340 216 174 344 24 | 5 276 2 850 2 101 7 425 340 | 4 273 2 248 1 862 5 696 246 | 5 379 2 772 1 974 7 551 351 | 5 935 3 653 2 361 7 933 394 | 5 517 2 727 2 208 8 520 370 | 8 10 10 8 14 | 3 4 4 4 5 | 2 5 4 4 4 | 3 5 4 4 5 | 3 5 4 4 | 3 5 4 5 6 |
| South Carolina South Dakota Tennessee Texas Utah | 187 | 2 347 | 2 415 | 2 309 | 2 380 | 2 282 | 12 | 5 | 5 | 5 | 6 | 6 |
| | 55 | 608 | 412 | 650 | 732 | 640 | 21 | 7 | 8 | 7 | 7 | 6 |
| | 191 | 2 780 | 2 666 | 2 811 | 2 939 | 2 706 | 10 | 4 | 4 | 4 | 5 | 4 |
| | 792 | 14 133 | 12 966 | 13 876 | 15 494 | 14 195 | 5 | 2 | 2 | 2 | 2 | 2 |
| | 81 | 1 220 | 920 | 1 206 | 1 413 | 1 343 | 14 | 7 | 7 | 6 | 7 | 8 |
| Vermont Virginia Washington West Virginia Wisconsin Wyoming | 27 | 241 | 86 | 238 | 317 | 323 | 24 | 9 | 4 | 6 | 12 | 11 |
| | 292 | 7 199 | 6 401 | 7 163 | 7 512 | 7 721 | 8 | 2 | 2 | 2 | 2 | 2 |
| | 275 | 3 644 | 3 191 | 3 571 | 3 791 | 4 022 | 10 | 2 | 2 | 3 | 2 | 2 |
| | 89 | 1 470 | 1 229 | 1 379 | 1 593 | 1 679 | 15 | 3 | 3 | 3 | 3 | 5 |
| | 215 | 3 287 | 1 928 | 3 446 | 3 937 | 3 837 | 11 | 3 | 3 | 3 | 3 | 3 |
| | 37 | 716 | 598 | 660 | 758 | 848 | 23 | 12 | 14 | 10 | 11 | 12 |

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 | | establishments located in this State | | | Construction work done by establishments not located in this State | | Percent change 1987 | Relative standard error of estimate (percent) for | | |
|---|--|--------------------------------------|---|----------------------------------|--|--|---|---|-----------------------------|-----------------------------|
| | construction work done in this State | Number | Value of construction work | Number | Value of construction work | value of construction work done in this State | (col F) to 1992 (col A) | column— | | |
| | А | В | С | D | E | F | G | Α | С | E |
| United States | 20 205 048 | 10 093 | 16 382 240 | 2 868 | 3 822 807 | 17 010 019 | 18.8 | 1 | 1 | 1 |
| Alabama Alaska Arizona Arkansas California | 317 717 111 681 314 011 174 914 2 375 657 | 150 34 148 156 996 | 220 479 (D) 186 528 108 823 2 145 607 | 63 9 38 56 67 | 97 238 (D) 127 482 66 091 230 049 | 287 242 169 446 279 157 153 762 2 139 275 | 10.6 -34.1 12.5 13.8 11.0 | 6 1 3 5 1 | 6 (D) 5 7 1 | 13 (D) (Z) 4 1 |
| Colorado Connecticut Delaware District of Columbia Florida | 356 293 167 517 68 021 22 818 1 048 094 | 211 102 21 *6 548 | 308 800 123 478 62 076 (D) 900 000 | 48 38 21 31 92 | 47 493 44 039 5 945 (D) 148 094 | 268 889 217 614 40 097 23 831 1 220 799 | 32.5 -23.0 69.6 -4.3 -14.1 | 4 3 (Z) 8 2 | 5 4 (Z) (D) 2 | 3 1 5 (D) 3 |
| Georgia Hawaii Idaho Illinois Indiana | 499 901 109 153 132 135 892 631 317 594 | 351 23 53 368 207 | 413 921 91 978 (S) 787 940 263 215 | 90 12 41 99 57 | 85 980 17 175 76 560 104 691 54 379 | 621 108 94 703 36 957 643 112 317 542 | -19.5 15.3 257.5 38.8 (Z) | 4 1 4 2 4 | 4 2 (S) 2 4 | 4 4 2 1 13 |
| lowa | 215 009 254 530 300 387 384 237 82 892 | 105 197 158 202 38 | 120 275 177 287 164 728 326 611 75 551 | 99 65 87 69 16 | 94 734 77 243 135 659 57 626 7 341 | 106 758 165 951 197 565 348 156 82 415 | 101.4 53.4 52.0 10.4 .6 | 3 3 4 5 | 5 4 6 5 5 | 3 2 2 1 16 |
| Maryland | 418 406 403 006 796 899 365 347 181 984 | 155 248 361 191 97 | 316 522 340 881 654 505 299 911 149 967 | 98 36 65 55 49 | 101 884 62 125 142 394 65 436 32 017 | 348 547 396 223 496 274 407 273 117 110 | 20.0 1.7 60.6 –10.3 55.4 | 2 3 3 6 | 2 3 4 4 7 | 5 1 1 4 16 |
| Missouri Montana Nebraska Nevada New Hampshire | 380 801 57 296 136 006 180 187 42 630 | 220 52 94 53 32 | 280 862 46 783 97 865 129 885 21 999 | 92 22 51 24 34 | 99 939 10 513 38 141 50 302 20 631 | 233 578 51 692 81 815 114 498 85 256 | 63.0 10.8 66.2 57.4 –50.0 | 3 6 10 3 21 | 4 7 13 5 19 | 3 4 3 (Z) 39 |
| New Jersey | 632 424 212 957 1 034 949 614 480 79 304 | 222 80 452 422 49 | 529 634 168 465 855 554 535 386 55 916 | 62 33 69 98 36 | 102 790 44 492 179 396 79 094 23 388 | 479 887 145 670 741 571 621 403 32 644 | 31.8 46.2 39.6 -1.1 142.9 | 3 4 2 3 8 | 3 5 2 3 11 | 5 5 1 3 11 |
| Ohio | 655 325 178 116 390 436 806 266 66 552 | 336 204 173 338 24 | 559 240 144 681 223 200 650 151 38 842 | 75 81 55 67 21 | 96 085 33 435 167 236 156 114 27 711 | 518 326 134 091 122 500 701 658 47 125 | 26.4 32.8 218.7 14.9 41.2 | 4 6 3 2 16 | 5 7 4 3 28 | (Z) 4 2 1 |
| South Carolina | 240 942 67 352 304 077 1 675 586 119 558 | 179 55 188 790 81 | 175 461 47 684 234 872 1 548 885 101 052 | 88 45 78 71 30 | 65 482 19 667 69 204 126 701 18 507 | 209 081 38 388 365 445 1 450 355 89 272 | 15.2 75.5 –16.8 15.5 33.9 | 4 10 3 3 8 | 6 13 4 3 9 | 3 11 2 3 7 |
| Vermont Virginia Washington West Virginia Wisconsin Wyoming | 24 762 711 006 589 586 142 465 476 707 74 442 | 27 290 273 88 207 37 | 22 887 541 103 460 198 83 460 393 429 47 771 | 21 97 70 48 71 30 | 1 875 169 903 129 388 59 005 83 278 26 671 | 19 604 699 816 323 047 119 978 346 940 56 547 | 26.3 1.6 82.5 18.7 37.4 31.6 | 8 2 2 2 4 7 | 9 2 3 3 5 11 | 14 2 1 1 1 6 |

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]

| Drimon, and other kind of business postition | Dollar value of | business done | Relative standard error of estimate (percent) | | |
|---|--|--|---|-----------------------|--|
| Primary and other kind of business activities | 1992 | 1987 | 1992 | 1987 | |
| All kinds of business | 20 429 757 | 17 254 987 | 1 | 1 | |
| HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS | | | | | |
| Cable laying contractor Excavating, earthmoving, and land clearing contractor, not connected with buildings Heavy construction contractor Highway and street general contractor Paving contractor | 3 222 058 161 414 15 678 547 492 356 214 822 | 1 528 641 492 719 13 409 108 536 077 135 464 | 1 3 1 1 2 2 | 2 2 1 1 3 | |
| Other construction activities | 446 643 | 654 223 | 2 | (NA) | |
| Other business activities | 204 087 | 253 468 | 2 | (NA) | |
| Kind of business activity, n.s.k. | 9 829 | 245 287 | 11 | 6 | |

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

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

| Selected statistics | 1992 | 1987 | Relative standard error of estimate (percent) for 1992 |
|---|---|---|--|
| AVERAGE PER ESTABLISHMENT | | | |
| Number of employees** Number of construction workers. Number of all other employees Payroll, all employees Payroll, construction workers do- Payroll, other employees do- | 19.0 15.6 3.3 549.6 415.5 134.1 | 19.9 16.7 3.2 455.0 345.6 109.4 | 1 1 1 1 1 |
| Dollar value of business done | 1 996.5 1 974.5 594.0 255.8 73.7 74.8 682.2 | 1 739.6 1 714.9 525.3 197.1 63.1 70.1 503.4 | 1 1 1 2 2 2 2 |
| AVERAGE PER EMPLOYEE | | | |
| Payroll, all employees \$1,000_ Dollar value of business done do_ Value added†† do_ | 29.0 105.2 60.4 | 22.8 87.3 51.1 | (Z) (Z) (Z) |
| AVERAGE PER CONSTRUCTION WORKER | | | |
| Payroll, construction workers \$1,000_ Value of construction work do_ | 26.6 126.2 | 20.7 102.5 | (Z) (Z) |
| AVERAGE PER OTHER EMPLOYEE | | | |
| Payroll, other employees\$1,000 | 40.2 | 34.2 | 1 |
| AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK | | | |
| Payroll, all employees Cost of materials, components, supplies, and fuels Cost of construction work subcontracted out to others Value of construction work subcontracted in from others Rental cost for machinery, equipment, and buildings | .278 .301 .130 .186 .037 | .265 .306 .115 .201 .037 | (Z) (Z) 1 2 1 |

CONSTRUCTION-INDUSTRY SERIES

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]

| | | | | Average per dollar value of construction work | | | | |
|--|---|--|---|---|--|--|--|--|
| Location of establishment | Average number of employees** per estab- lishment | Payroll per employee (\$1,000) | Value of construction work per construction worker (\$1,000) | 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 | 19.0 | 29.0 | 126.2 | .278 | .301 | .130 | .186 | .037 |
| Alabama | 18.5 | 20.7 | 103.7 | .241 | .365 | .146 | .261 | .028 |
| | 25.3 | 40.4 | 118.7 | .416 | .202 | .059 | .098 | .051 |
| | 21.5 | 30.2 | 106.8 | .351 | .290 | .064 | .255 | .051 |
| | 11.0 | 20.1 | 86.6 | .283 | .310 | .113 | .184 | .021 |
| | 17.7 | 34.1 | 159.9 | .262 | .324 | .124 | .253 | .039 |
| Colorado | 17.8 | 26.1 | 127.7 | .245 | .302 | .138 | .173 | .049 |
| | 13.7 | 39.1 | 169.5 | .312 | .216 | .318 | .110 | .020 |
| | 63.7 | 35.9 | 109.4 | .387 | .251 | .124 | .116 | .027 |
| | 28.0 | 20.6 | 68.3 | .346 | .385 | .156 | *.066 | (S) |
| | 20.3 | 21.1 | 100.6 | .255 | .325 | .169 | .246 | .027 |
| Georgia Hawaii Idaho Illinois Indiana | 17.3 | 22.5 | 110.7 | .250 | .374 | .116 | .160 | .026 |
| | 24.3 | 40.9 | 200.0 | .251 | .244 | .205 | .185 | .014 |
| | 14.8 | 26.9 | 102.6 | .307 | .266 | .100 | .112 | (S) |
| | 20.0 | 37.5 | 158.2 | .288 | .259 | .151 | .169 | .027 |
| | 29.4 | 28.6 | 106.8 | .325 | .288 | .097 | .105 | .028 |
| lowa Kansas Kentucky Louisiana Maine | 10.5 15.2 15.0 22.3 16.9 | 29.9 25.8 21.1 23.7 26.8 | 143.3 105.2 92.2 111.7 153.7 | .250 .296 .286 .251 .225 | .216 .264 .318 .302 .290 | .132 .113 .113 .113 .214 | .264 .180 .164 .063 .325 | .040 .036 .038 .044 |
| Maryland | 30.1 | 26.1 | 94.7 | .330 | .326 | .105 | .319 | .027 |
| | 12.1 | 32.4 | 164.5 | .249 | .315 | .195 | .251 | .034 |
| | 16.6 | 32.7 | 149.3 | .267 | .320 | .132 | .197 | .032 |
| | 14.6 | 30.6 | 159.2 | .233 | .330 | .163 | .228 | .024 |
| | 21.9 | 22.5 | 91.8 | .282 | .336 | .119 | .100 | .033 |
| Missouri | 16.3 | 28.2 | 132.3 | .260 | .319 | .136 | .208 | .034 |
| | 11.7 | 30.1 | 102.8 | .350 | .278 | .062 | *.050 | .048 |
| | 12.4 | 25.4 | 201.1 | .161 | .569 | .151 | .174 | .030 |
| | 22.1 | 33.7 | 152.1 | .275 | .334 | .102 | .284 | .032 |
| | 11.9 | 25.3 | 95.9 | .320 | .273 | .099 | .247 | .016 |
| New Jersey New Mexico New York North Carolina North Dakota | 22.3 | 40.2 | 170.5 | .290 | .265 | .114 | .163 | .038 |
| | 35.3 | 22.9 | 80.3 | .325 | .250 | .116 | .143 | .058 |
| | 17.1 | 34.7 | 149.0 | .292 | .253 | .116 | .175 | .034 |
| | 18.2 | 23.9 | 100.5 | .286 | .303 | .142 | .236 | .022 |
| | 11.7 | 26.2 | 141.8 | .219 | .385 | .156 | .161 | .045 |
| Ohio Oklahoma Oregon Pennsylvania Rhode Island | 19.0 | 28.8 | 131.3 | .270 | .319 | .120 | .154 | .032 |
| | 16.0 | 33.3 | 119.6 | .338 | .192 | .142 | .177 | .055 |
| | 14.6 | 30.9 | 133.5 | .281 | .259 | .114 | .225 | .060 |
| | 26.5 | 29.8 | 112.0 | .326 | .286 | .109 | .183 | .034 |
| | 17.5 | 30.0 | 153.3 | .245 | .257 | .134 | .140 | .023 |
| South Carolina South Dakota Tennessee Texas Utah | 14.9 | 20.9 | 90.1 | .276 | .365 | .131 | .315 | .025 |
| | 13.1 | 29.9 | 116.7 | .303 | .365 | .143 | .126 | .015 |
| | 17.1 | 21.0 | 106.7 | .232 | .376 | .129 | .083 | .017 |
| | 21.3 | 30.3 | 137.7 | .263 | .280 | .131 | .110 | .065 |
| | 18.9 | 23.8 | 107.7 | .276 | .390 | .102 | .140 | .064 |
| Vermont | 10.4 28.9 16.4 20.0 18.2 23.0 | 24.9 24.1 34.7 31.4 32.3 22.1 | 102.3 88.4 158.9 104.9 145.5 95.3 | .281 .319 .271 .362 .264 .279 | .259 .282 .288 .204 .313 .404 | .177 .122 .159 .062 .084 .078 | .171 .217 .211 .048 .155 .169 | .035 .032 .035 .036 .047 |

 $\begin{tabular}{ll} TIPS UPF [MCD_CMCB,TD_KLING] & 7/24/95 & 15:28:37 EPCV24 & TLP:TD_K_INDTAB.TLP;T7 & 7/24/95 & 15:27:28 DATA:TD_K_T1.DAT;39 & 7/24/95 & 15:26:43 UPF:CON_CENPROD:[CEN.DATA]TD_K_T PAGE: & 12 TSF:TIPS92-15275013.DAT;1 & 7/24/95 & 15:27:53 & UTF:TIPS92-15275013.DAT;1 & 7/24/95 & 15:28:26 & UTF:TIPS92-15275013.DAT;1 & 7/24/95 & 15:28:27 & UTF:TIPS92-15275013.DAT;1 & 7/24/95 & 15:28:26 & UTF:TIPS92-15275013.DAT;1 & 7/24/95 & UTF:TIP$

Appendix A. **Explanation of Terms**

Construction. Is composed of three broad categories:

- 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.
- 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.

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- 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 1731 | Electrical Work Special Trade Contractors Electrical Work Special Trade Contractors |
| 1521 1522 | General Contractors—Single-Family Houses 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 154 | Operative Builders General Building Contractors—Nonresidential | 1742 | Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors |
| | Buildings | 1743 | Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors |
| 1541 | General Contractors—Industrial Buildings and Warehouses | 475 | |
| 1542 | General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses | 175 | Carpentry and Floor Work Special Trade Contractors |
| 16 | HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION— CONTRACTORS | 1751 1752 | Carpentry Work Special Trade Contractors 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 1629 | Water, Sewer, Pipeline, and Communications and Power Line Construction Contractors Heavy Construction Contractors, Not Elsewhere | 178 1781 | Water Well Drilling Special Trade Contractors Water Well Drilling Special Trade Contractors |
| 1029 | Classified | 179 | Miscellaneous Special Trade Contractors |
| 17 | CONSTRUCTION—SPECIAL TRADE CONTRACTORS | 1791 1793 | Structural Steel Erection Special Trade Contractors Glass and Glazing Work Special Trade |
| 171 | Plumbing, Heating, and Air-Conditioning | 1794 | Contractors Excavation Work Special Trade Contractors |
| 1711 | Special Trade Contractors Plumbing, Heating, and Air-Conditioning Special Trade Contractors | 1795 | Wrecking and Demolition Work Special Trade Contractors |
| 172 | Painting and Paper Hanging | 1796 | Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere |
| 1721 | Special Trade Contractors Painting and Paper Hanging Special Trade Contractors | 1799 | Classified 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 JOBNAME: No Job Name PAGE: 1 SESS: 30 OUTPUT: Thu Apr 13 15:20:29 1995 / pssw01/disk2/economic/cc92i/00/07txtpub

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.