

Other Heavy and Civil Engineering Construction: 2002

Issued December 2004

EC02-231-237990

2002 Economic Census

Construction

Industry Series



U S C E N S U S B U R E A U

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-- Not applicable for this report.

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

- Policymaking agencies of the federal government use the data to monitor economic activity and to assess the effectiveness of policies.
- 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, which allows them to 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.

INDUSTRY CLASSIFICATIONS

Data from the 2002 Economic Census are published primarily according to the 2002 North American Industry Classification System (NAICS). NAICS was first adopted in the United States, Canada, and Mexico in 1997. The 2002 Economic Census covers the following NAICS sectors:

21	Mining
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), largely covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 100 subsectors (three-digit codes), 317 industry groups (four-digit codes), and, as implemented in the United States, 1,179 industries (six-digit codes).

RELATIONSHIP TO HISTORICAL INDUSTRY CLASSIFICATIONS

Prior to the 1997 Economic Census, data were published according to the Standard Industrial Classification (SIC) system. While many of the individual NAICS industries correspond directly to industries as defined under the SIC system, most of the higher level groupings do not. Particular care should be taken in comparing data for retail trade, wholesale trade, and manufacturing, which are sector titles used in both NAICS and SIC, but cover somewhat different groups of industries. The 1997 Economic Census *Bridge Between NAICS and SIC* demonstrates the relationships between NAICS and SIC industries. Where changes are significant, it may not be possible to construct time series that include data for points both before and after 1997.

Most industry classifications remained unchanged between 1997 and 2002, but NAICS 2002 includes substantial revisions within the construction and wholesale trade sectors, and a number of revisions for the retail trade and information sectors. These changes are noted in industry definitions and will be demonstrated in the *Bridge Between NAICS 2002 and NAICS 1997*.

For 2002, data for enterprise support establishments (those functioning primarily to support the activities of their company's operating establishments, such as a warehouse or a research and development laboratory) are included in the industry that reflects their activities (such as warehousing). For 1997, such establishments were termed auxiliaries and were excluded from industry totals.

BASIS OF REPORTING

The economic census is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each store, factory, shop, or other location. Each establishment is assigned a separate industry classification based on its primary activity and not that of its parent company. (For selected industries, only payroll, employment, and classification are collected for individual establishments, while other data are collected on a consolidated basis.)

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for states, metropolitan and micropolitan statistical areas, counties, and corporate municipalities (places) including cities, towns, townships, villages, and boroughs. Respondents were required to report their physical location (street address, municipality, county, and state) if it differed from their mailing address. For establishments not surveyed by mail (and those single-establishment companies that did not provide acceptable information on physical location), location information from administrative sources is used as a basis for coding.

AVAILABILITY OF ADDITIONAL DATA

All results of the 2002 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on digital versatile discs (DVD-ROMs) for sale by the Census Bureau. The American FactFinder system at the Internet site allows selective retrieval and downloading of the data. For more information, including a description of reports being issued, see the Internet site, write to the U.S. Census Bureau, Washington, DC 20233-6100, or call Customer Services at 301-763-4100.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1954, 1958, and 1963. Prior to that time, individual components 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 the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart

from the regular decennial population census. Censuses covering retail and wholesale trade and construction industries were added in 1930, as were some service trades in 1933. Censuses of construction, manufacturing, and the other business censuses were suspended during World War II.

The 1954 Economic Census was the first census to be fully integrated, providing comparable census data across economic sectors and 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 report forms.

The range of industries covered in the economic census expanded between 1967 and 2002. The census of construction industries began on a regular basis in 1967, and the scope of service industries, introduced in 1933, was broadened in 1967, 1977, and 1987. While a few transportation industries were covered as early as 1963, it was not until 1992 that the census broadened to include all of transportation, communications, and utilities. Also new for 1992 was coverage of financial, insurance, and real estate industries. With these additions, the economic census and the separate census of governments and census of agriculture collectively covered roughly 98 percent of all economic activity. New for 2002 is coverage of four industries classified in the agriculture, forestry, and fishing sector under the SIC system: landscape architectural services, landscaping services, veterinary services, and pet care services.

Printed statistical reports from the 1992 and earlier censuses provide historical figures for the study of long-term time series and are available in some large libraries. Reports for 1997 were published primarily on the Internet and copies of 1992 reports are also available there. CD-ROMs issued from the 1987, 1992, and 1997 Economic Censuses contain databases that include all or nearly all data published in print, plus additional statistics, such as ZIP Code statistics, published only on CD-ROM.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for the 2002 Economic Census and related surveys is published in the *Guide to the 2002 Economic Census* at www.census.gov/econ/census02/guide. More information on the methodology, procedures, and history of the census will be published in the *History of the 2002 Economic Census* at www.census.gov/econ/www/history.html.

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Construction

SCOPE

The Construction sector (sector 23) comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Establishments primarily engaged in the preparation of sites for new construction and establishments primarily engaged in subdividing land for sale, as building sites also are included in this sector.

Construction work done may include new work, additions, alterations, or maintenance and repairs. Activities of these establishments generally are managed at a fixed place of business, but they usually perform construction activities at multiple project sites. Production responsibilities for establishments in this sector are usually specified in (1) contracts with the owners of construction projects (prime contracts) or (2) contracts with other construction establishments (subcontracts).

Establishments primarily engaged in contracts that include responsibility for all aspects of individual construction projects are commonly known as general contractors, but also may be known as design-builders, construction managers, turnkey contractors, or (in cases where two or more establishments jointly secure a general contract) joint-venture contractors. Construction managers that provide oversight and scheduling only (i.e., agency) as well as construction managers that are responsible for the entire project (i.e., at risk) are included as general contractor type establishments. Establishments of the "general contractor type" frequently arrange construction of separate parts of their projects through subcontracts with other construction establishments.

Establishments primarily engaged in activities to produce a specific component (e.g., masonry, painting, and electrical work) of a construction project are commonly known as specialty trade contractors. Activities of specialty trade contractors are usually subcontracted from other construction establishments but, especially in remodeling and repair construction, the work may be done directly for the owner of the property.

Establishments primarily engaged in activities to construct buildings to be sold on sites that they own are known as operative builders, but also may be known as speculative builders or merchant builders. Operative builders produce buildings in a manner similar to general contractors, but their production processes also include site acquisition and securing of financial backing. Operative builders are most often associated with the construction of residential buildings. Like general contractors, they may subcontract all or part of the actual construction work on their buildings.

There are substantial differences in the types of equipment, work force skills, and other inputs required by establishments in this sector. To highlight these differences and variations in the underlying production functions, this sector is divided into three subsectors.

Subsector 236, Construction of Buildings, comprises establishments of the general contractor type and operative builders involved in the construction of buildings. Subsector 237, Heavy and Civil Engineering Construction, comprises establishments involved in the construction of engineering projects. Subsector 238, Specialty Trade Contractors, comprises establishments engaged in specialty trade activities generally needed in the construction of all types of buildings.

Exclusions. Force account construction is construction work performed by an enterprise primarily engaged in some business other than construction for its own account and use, using employees of the enterprise. This activity is not included in the construction sector unless the construction work performed is the primary activity of a separate establishment of the enterprise.

The installation and the ongoing repair and maintenance of telecommunications and utility networks is excluded from construction when the establishments performing the work are not independent contractors. Although a growing proportion of this work is subcontracted to independent contractors in the Construction Sector, the operating units of telecommunications and utility companies performing this work are included with the telecommunications or utility activities.

The tabulations for this sector do not include central administrative offices, warehouses, or other establishments that serve construction establishments within the same organization. Data for such establishments are classified according to the nature of the service they provide. For example, separate headquarters establishments are reported in NAICS Sector 55, Management of Companies and Enterprises.

The reports described below exclude establishments of firms with no paid employees. These “nonemployers,” typically self-employed individuals or partnerships operating businesses that they have not chosen to incorporate, are reported separately in *Nonemployer Statistics*. The contribution of nonemployers, relatively large for this sector, may be examined at www.census.gov/nonemployerimpact.

Definitions. Industry categories are defined in Appendix B, NAICS Codes, Titles, and Descriptions. Other terms are defined in Appendix A, Explanation of Terms.

REPORTS

The following reports provide statistics on this sector.

Industry Series. There are 31 reports, each covering a single NAICS industry (six-digit code). These reports include such statistics as number of establishments, employment, payroll, value added by construction, cost of materials, value of construction work, value of business done, capital expenditures, etc. The industry reports also include selected statistics for states. While most of the state data in the industry series reports are by physical location of the establishment, some data are available by reported location of the construction work. The data in industry reports are preliminary and subject to change in the following reports.

Geographic Area Series. There are 51 separate reports, one for each state and the District of Columbia. Each state report present similar statistics at the “all construction” level for each state.

Subject Series:

- **Industry General Summary.** This report contains industry statistics summarized in one report. It includes higher levels of aggregation than the industry reports, as well as revisions to the data made after the release of the industry reports.
- **Industry Kind Of Business and Type of Construction Summary.** This report contains industry kind of business and types of construction statistics summarized in one report. It includes higher levels of aggregation than the industry reports, as well as revisions to the data made after the release of the industry reports.
- **Geographic Area Summary.** This report contains industry and geographic area statistics summarized in one report. It includes higher levels of aggregation than the industry and state reports, as well as revisions to the data made after the release of the industry and state reports.

Other reports. Data for this sector are also included in reports with multisector coverage, including *Nonemployer Statistics*, *Comparative Statistics*, *Bridge Between 2002 NAICS and 1997 NAICS*, *Business Expenses*, and the Survey of Business Owners reports.

GEOGRAPHIC AREAS COVERED

1. The United States as a whole.
2. States and the District of Columbia.

3. Census regions. The regions are made up of groups of states as follows:

- a. Northeast region: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
- b. Midwest region: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
- c. South region: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
- d. West region: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 2002 data are expressed in 2002 dollars, and 1997 data, in 1997 dollars. Consequently, when making comparisons with prior years, users of the data should consider the changes in prices that have occurred.

All dollar values are shown in thousands of dollars.

COMPARABILITY OF THE 1997 AND 2002 ECONOMIC CENSUSES

Both the 2002 Economic Census and the 1997 Economic Census present data based on the North American Industry Classification System (NAICS). There were substantial revisions made to the entire construction sector, for 2002. These changes are:

1. Each subsector has been reclassified in 2002 to:
 - 236—Construction of Buildings
 - 237—Heavy and Civil Engineering Construction
 - 238—Specialty Trade Contractors
2. Adopted several mining industries:
 - oil and gas pipeline and related structures construction, now in Industry 237120
 - site preparation and related construction activities on a contract or fee basis, now in Industry 238910.

More detailed information of NAICS changes from 1997 to 2002, may be examined at <http://www.census.gov/epcd/naics02/n02ton97.htm>.

In addition, there have been several additional data tables added, which did not exist in 1997. These tables for 2002 include e-commerce value of business done and leased and nonleased detail employment statistics by subsectors. Also included is housing starts by single NAICS industry (six-digit code).

RELIABILITY OF DATA

All data compiled for this sector are subject to nonsampling errors. Nonsampling errors can be attributed to many sources: inability to identify all cases in the actual universe; definition and classification difficulties; differences in the interpretation of questions; errors in recording or coding the data obtained; and other errors of collection, response, coverage, processing, and estimation for missing or misreported data.

No direct measurement of these effects has been obtained except for estimation for missing or misreported data, as by the percentages shown in the tables. Precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize the effects of nonsampling errors. More information on the reliability of the data is included in Appendix C, Methodology.

DISCLOSURE

In accordance with federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments in a specific industry or geographic area is not considered a disclosure; therefore, this information may be released even though other information is withheld. Techniques employed to limit disclosure are discussed at www.census.gov/epcd/ec02/disclosure.htm.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The U.S. Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place contain data related to construction sector census data. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity. The construction sector census data covers both new construction and maintenance and repair work done by establishments classified in the construction industries. Significant amounts of construction are done by establishments classified outside of construction (real estate, manufacturing, utilities, and communications, for example), as both "force account" construction and construction done for others. In addition, the C30 series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners that are normally not reflected in construction sector census data.

Data contained in the 2002 construction sector 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.

In addition, the County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county, and Statistics of U.S. Businesses provides annual statistics classified by the employment size of the enterprise, further classified by industry for the United States, and by broader categories for states and metropolitan areas.

CONTACTS FOR DATA USERS

Questions about these data may be directed to the U.S. Census Bureau, Manufacturing & Construction Division, Information Services Center, 301-763-4673 or ask.census.gov.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with these data:

A	Standard error of 100 percent or more
D	Withheld to avoid disclosing data of individual companies; data are included in higher level totals
F	Exceeds 100 percent because data include establishments with payroll exceeding revenue
N	Not available or not comparable
S	Withheld because estimates did not meet publication standards
X	Not applicable
Z	Less than half the unit shown
a	0 to 19 employees
b	20 to 99 employees
c	100 to 249 employees
e	250 to 499 employees
f	500 to 999 employees
g	1,000 to 2,499 employees
h	2,500 to 4,999 employees
i	5,000 to 9,999 employees
j	10,000 to 24,999 employees
k	25,000 to 49,999 employees
l	50,000 to 99,999 employees
m	100,000 employees or more

p 10 to 19 percent estimated
q 20 to 29 percent estimated
r Revised
s Sampling error exceeds 40 percent
nsk Not specified by kind
– Represents zero (page image/print only)
(CC) Consolidated city
(IC) Independent city

Table 1. Industry Statistics on 2002 NAICS Basis Distributed Among 1997 NAICS-Based Industries for the United States: 2002

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A. For detailed title descriptions, see Appendix F]

2002 NAICS code	1997 bridge code	Industry or bridge	Number of establishments	Total number of employees	Total payroll	Value of construction work ¹	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
			A	B	C	D	E	F	G	H
237990		Other heavy and civil engineering construction	10 502	154 071	4 997 397	21 801 289	18 107 602	12 042 082	6 419 453	1 134 030
	23412000	Bridge and tunnel construction (pt)	105	5 956	324 968	1 320 853	1 042 430	778 715	266 078	59 557
	23499000	All other heavy construction (pt)	10 310	146 573	4 612 764	20 246 443	16 848 994	11 123 244	6 076 264	1 067 992
	23599000	All other special trade contractors (pt)	86	1 541	59 665	233 993	216 178	140 124	77 112	6 480

¹For the 2002 Economic Census, the definition of value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definition.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Employment Statistics for Establishments by State: 2002

[Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—	
		Total	Construction workers	January to March	April to June	July to September	October to December	Total	Construction workers		
											A
237990, Other heavy and civil engineering construction											
United States	10 502	154 071	119 355	S	124 552	126 893	122 633	4 997 397	3 530 666	3	
Alabama	165	1 100	D	D	D	D	D	D	D	21	
Alaska	69	596	D	D	439	652	D	28 290	D	17	
Arizona	112	1 493	D	D	D	D	D	44 902	D	32	
Arkansas	179	D	D	D	D	D	D	22 693	D	S	
California	862	18 844	D	12 692	13 659	D	13 998	663 065	D	6	
Colorado	285	2 807	D	D	2 283	D	D	101 131	D	17	
Connecticut	109	1 032	D	637	D	D	D	46 145	D	19	
Delaware	36	480	D	D	D	D	D	17 387	14 703	20	
District of Columbia	3	D	D	D	D	D	D	D	D	S	
Florida	550	8 625	D	D	7 268	7 507	7 388	245 094	D	9	
Georgia	340	5 033	D	D	D	D	D	144 045	D	16	
Hawaii	29	D	D	D	D	D	D	D	D	S	
Idaho	104	456	D	303	D	D	D	11 849	D	26	
Illinois	336	6 718	D	3 941	D	D	D	271 859	D	13	
Indiana	361	4 097	D	3 357	D	D	D	119 363	D	24	
Iowa	223	D	D	D	D	D	D	D	D	S	
Kansas	96	D	D	D	D	447	D	D	D	S	
Kentucky	156	D	D	D	D	D	D	35 540	D	S	
Louisiana	316	4 834	D	D	D	4 043	D	129 043	D	5	
Maine	99	D	D	D	469	509	469	D	D	S	
Maryland	190	2 727	D	D	D	D	2 404	78 051	D	16	
Massachusetts	257	5 236	4 079	3 821	4 201	4 242	4 052	D	D	5	
Michigan	196	3 433	2 613	D	D	2 970	D	D	D	9	
Minnesota	290	1 959	D	D	1 372	1 603	1 563	62 824	D	20	
Mississippi	160	1 071	D	697	D	736	D	29 895	D	12	
Missouri	327	3 226	D	2 354	D	D	D	124 221	D	9	
Montana	87	672	D	D	D	554	559	27 730	18 457	8	
Nebraska	190	D	D	D	D	D	D	D	D	S	
Nevada	113	D	D	D	D	D	D	D	D	S	
New Hampshire	56	768	D	D	705	D	D	D	D	16	
New Jersey	175	8 295	6 550	4 675	D	D	6 926	239 973	186 509	6	
New Mexico	50	497	D	D	412	D	D	D	D	19	
New York	474	9 205	6 990	D	7 398	D	D	331 534	D	4	
North Carolina	450	3 400	D	2 301	2 463	D	2 301	81 223	D	23	
North Dakota	28	D	D	D	D	D	D	D	D	S	
Ohio	289	3 657	D	D	2 661	2 858	2 688	D	D	9	
Oklahoma	155	1 101	D	D	D	D	D	D	D	18	
Oregon	126	966	690	661	661	D	D	35 305	26 273	17	
Pennsylvania	223	5 126	D	D	D	D	D	101 668	D	5	
Rhode Island	41	513	D	D	D	400	D	D	D	15	
South Carolina	187	1 616	D	D	1 239	1 241	1 213	52 680	D	24	
South Dakota	34	153	D	D	118	115	108	4 903	3 243	25	
Tennessee	201	2 623	D	2 150	2 158	D	D	84 836	D	27	
Texas	742	15 226	D	11 254	12 719	D	D	380 824	D	18	
Utah	68	1 360	1 047	D	1 032	D	1 157	49 781	D	4	
Vermont	83	423	D	D	376	408	D	8 903	D	27	
Virginia	219	D	D	D	1 950	D	1 823	96 578	D	S	
Washington	356	10 016	8 506	8 161	D	8 857	D	366 560	283 072	4	
West Virginia	81	1 045	D	D	902	921	795	44 660	34 332	7	
Wisconsin	167	D	D	D	D	D	D	56 730	D	S	
Wyoming	56	341	257	D	258	D	267	D	D	26	

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. General Statistics for Establishments by State: 2002

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of establishment	E ¹	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Total rental costs	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
										C	H
	A	B	C	D	E	F	G	H	I	C	H
237990, Other heavy and civil engineering construction											
United States	2	21 801 289	18 107 602	12 042 082	6 419 453	3 693 686	678 271	1 134 030	9 697 613	3	4
Alabama	3	D	114 619	72 322	45 286	D	2 500	5 370	105 331	22	32
Alaska	—	101 630	D	67 254	24 259	D	4 120	7 260	D	S	17
Arizona	—	D	D	131 315	D	D	3 155	7 965	D	S	44
Arkansas	2	D	D	D	23 710	6 034	3 022	11 048	66 995	S	37
California	2	D	2 148 619	1 445 908	D	D	91 275	117 334	802 459	7	13
Colorado	1	D	D	221 613	D	D	9 842	10 065	184 593	S	17
Connecticut	2	D	D	D	D	12 911	7 056	4 120	45 964	S	29
Delaware	2	D	D	D	D	D	D	D	D	S	S
District of Columbia	—	D	D	D	D	D	D	D	D	S	S
Florida	1	D	1 018 700	659 020	D	D	37 176	55 651	339 330	12	22
Georgia	2	D	676 878	488 037	D	D	14 183	56 320	386 283	22	40
Hawaii	2	D	D	D	D	D	D	D	D	S	S
Idaho	2	48 067	44 399	31 279	13 139	3 668	1 469	804	22 061	18	24
Illinois	1	1 150 758	D	704 286	D	D	66 394	56 164	802 653	S	14
Indiana	1	409 428	333 601	227 173	112 717	75 827	10 980	15 554	D	11	11
Iowa	1	D	D	D	D	D	D	D	D	S	S
Kansas	—	D	46 931	34 671	D	D	1 403	2 191	75 633	29	68
Kentucky	7	D	170 660	122 793	D	D	7 359	9 418	46 214	19	34
Louisiana	1	D	399 934	264 734	D	D	19 139	24 339	282 308	5	10
Maine	3	79 473	72 511	50 370	22 804	6 962	3 101	4 544	52 177	13	19
Maryland	2	D	D	D	95 927	D	13 759	16 012	140 617	S	17
Massachusetts	2	D	933 950	748 924	D	D	25 280	26 820	235 031	4	14
Michigan	4	D	470 436	345 378	D	D	13 944	83 577	290 925	13	2
Minnesota	1	D	283 920	209 566	D	D	7 370	22 866	228 426	11	14
Mississippi	5	D	115 108	D	D	D	4 068	10 818	70 402	22	16
Missouri	—	D	D	D	220 948	D	D	30 078	203 767	S	13
Montana	1	D	D	D	D	D	2 022	3 007	37 737	S	8
Nebraska	1	D	D	D	D	D	D	D	D	S	S
Nevada	1	D	D	D	53 979	D	D	D	D	S	S
New Hampshire	5	D	D	61 790	D	D	3 033	7 242	50 336	S	33
New Jersey	1	D	956 262	655 793	D	D	14 376	103 804	980 263	5	6
New Mexico	4	D	D	D	D	D	2 204	3 336	15 149	S	55
New York	1	1 683 409	1 220 722	793 308	435 770	462 687	35 281	57 386	453 976	5	7
North Carolina	1	337 059	282 179	215 913	80 434	54 880	6 251	25 972	178 027	18	46
North Dakota	—	D	24 552	D	D	D	D	2 031	D	20	59
Ohio	2	D	425 148	312 242	D	D	30 096	23 196	202 561	9	22
Oklahoma	2	D	123 501	82 472	D	D	2 861	5 510	56 853	31	36
Oregon	—	D	D	79 052	D	D	3 855	2 298	46 965	S	6
Pennsylvania	1	D	D	334 430	D	D	D	57 860	250 043	S	5
Rhode Island	4	D	79 905	D	D	D	D	D	D	17	S
South Carolina	1	D	D	122 100	D	D	D	7 574	D	S	23
South Dakota	3	D	15 986	12 143	D	D	325	1 357	17 731	26	17
Tennessee	—	D	253 910	157 451	D	D	8 112	13 684	140 124	14	17
Texas	5	2 142 120	1 799 614	1 091 091	726 473	342 505	86 019	106 634	1 131 774	22	21
Utah	2	D	189 304	138 437	51 046	D	7 641	4 042	64 764	2	6
Vermont	3	D	34 321	D	D	D	D	D	26 858	27	S
Virginia	1	401 128	357 599	232 462	127 146	43 528	13 464	14 479	142 029	6	3
Washington	1	D	938 229	D	669 466	D	44 353	20 725	142 128	3	14
West Virginia	1	127 367	115 562	87 963	D	11 805	4 519	7 756	D	6	17
Wisconsin	2	D	D	179 895	71 780	D	5 419	D	276 067	S	S
Wyoming	7	D	D	D	D	D	1 478	3 783	21 564	S	44

¹Construction receipts were obtained from census respondent forms. For establishments whose respondent forms were not received at the time data were tabulated, these data were calculated using industry averages and imputation for nonresponse. The following symbols are shown where estimated imputation-based data on construction receipts account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²For the 2002 Economic Census, the definition of value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definition.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 4. Detailed Statistics for Establishments: 2002

[Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Item	Value	Relative standard error of estimate (percent)
237990, Other heavy and civil engineering construction		
All establishments number	10 502	4
All employees number	154 071	3
Construction workers in March number	S	S
Construction workers in May number	124 552	3
Construction workers in August number	126 893	3
Construction workers in November number	122 633	3
Average number of construction workers number	119 355	3
Other employees in March number	S	S
Other employees in May number	34 773	3
Other employees in August number	34 355	3
Other employees in November number	33 741	3
Average number of other employees number	34 716	3
Total payroll \$1,000	4 997 397	2
Construction workers \$1,000	3 530 666	2
Other employees \$1,000	1 466 760	2
First-quarter payroll, all employees \$1,000	1 152 630	2
Fringe benefits, all employees \$1,000	1 228 035	3
Legally required expenditures \$1,000	703 155	3
Voluntary expenditures \$1,000	524 879	3
Value of business done ¹ \$1,000	22 155 222	3
Value of construction work ¹ \$1,000	21 801 289	3
Value of construction work on government owned projects \$1,000	9 751 871	2
Value of construction work on federally owned projects \$1,000	2 736 513	3
Value of construction work on state and locally owned projects \$1,000	7 015 358	3
Value of construction work on privately owned projects \$1,000	12 049 418	4
Other business receipts \$1,000	353 933	6
Value of construction work subcontracted in from others \$1,000	6 822 253	4
Net value of construction work \$1,000	18 107 602	3
Value added \$1,000	12 042 082	3
Selected costs \$1,000	10 113 139	3
Materials, parts, and supplies \$1,000	5 796 186	4
Construction work subcontracted out to others \$1,000	3 693 686	3
Selected power, fuels, and lubricants \$1,000	623 267	3
Purchased electricity \$1,000	63 617	4
Natural gas and manufactured gas \$1,000	23 735	14
Gasoline and diesel fuel \$1,000	459 395	3
On-highway use of gasoline and diesel fuel \$1,000	186 016	3
Off-highway use of gasoline and diesel fuel \$1,000	273 379	3
All other fuels and lubricants \$1,000	76 519	2
Total rental costs \$1,000	678 271	4
Machinery and equipment \$1,000	588 017	4
Buildings \$1,000	90 254	5
Selected purchased services \$1,000	1 055 680	3
Communication services \$1,000	180 460	3
Repairs to buildings and other structures \$1,000	189 904	4
Repairs to machinery and equipment \$1,000	474 645	3
Legal services \$1,000	55 240	3
Accounting, auditing, and bookkeeping services \$1,000	97 023	6
Advertising and promotional services \$1,000	S	S
Beginning-of-year gross book value of depreciable assets \$1,000	8 916 996	4
Capital expenditures, other than land \$1,000	1 134 030	4
Retirements and disposition of depreciable assets \$1,000	353 383	4
End-of-year gross book value of depreciable assets \$1,000	9 697 613	4
Depreciation charges during year \$1,000	960 564	3
Establishments with inventories number	1 424	-
Value of construction work for establishments with inventories \$1,000	4 865 116	-
End-of-2002, inventories of materials and supplies \$1,000	249 462	27
End-of-2001, inventories of materials and supplies \$1,000	238 127	20
Establishments with no inventories number	7 817	-
Value of construction work for establishments with no inventories \$1,000	15 577 849	-
Establishments not reporting inventories number	1 260	-
Value of construction work for establishment not reporting inventores \$1,000	1 358 324	-

¹For the 2002 Economic Census, the definitions of value of business done and value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definitions.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Selected Statistics for Establishments by Employment Size Class: 2002

[Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Employment size class	E ¹	Number of establishments	Total number of employees	Total payroll	Value of business done ²	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	H	I	J	C
237990, Other heavy and civil engineering construction											
All establishments	2	10 502	154 071	4 997 397	22 155 222	21 801 289	18 107 602	12 042 082	6 419 453	3 693 686	3
Establishments with—											
1 to 4 employees	—	5 781	12 091	274 333	1 364 952	1 345 474	1 204 328	830 428	393 378	141 146	6
5 to 9 employees	—	2 056	13 308	388 374	1 687 065	1 659 394	1 428 069	980 739	475 002	231 325	8
10 to 19 employees	—	1 410	18 780	596 874	2 391 434	2 354 500	2 106 373	1 402 616	740 691	248 127	9
20 to 49 employees	—	828	24 817	890 278	3 636 710	3 571 707	3 151 027	2 157 384	1 058 646	420 680	8
50 to 99 employees	—	194	13 035	517 803	2 191 200	2 124 590	1 698 263	1 256 131	508 743	426 326	8
100 to 249 employees	—	159	22 258	864 021	3 881 481	3 832 496	3 027 867	2 058 192	1 018 660	804 629	11
250 to 499 employees	—	41	D	D	D	D	D	D	D	D	S
500 to 999 employees	—	22	D	D	D	D	D	D	D	D	S
1,000 employees or more	—	11	19 878	628 315	2 747 366	2 720 645	2 251 041	1 366 620	911 142	469 604	—

¹Construction receipts were obtained from census respondent forms. For establishments whose respondent forms were not received at the time data were tabulated, these data were calculated using industry averages and imputation for nonresponse. The following symbols are shown where estimated imputation-based data on construction receipts account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²For the 2002 Economic Census, the definitions of value of business done and value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definitions.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6. Selected Statistics for Establishments by Value of Business Done Size Class: 2002

[Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Dollar value size class	E ¹	Number of establishments	Total number of employees	Total payroll	Value of business done ²	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	H	I	J	G
237990, Other heavy and civil engineering construction											
All establishments	2	10 502	154 071	4 997 397	22 155 222	21 801 289	18 107 602	12 042 082	6 419 453	3 693 686	3
Establishments with value of business done—											
Less than \$25,000	4	97	D	D	D	D	D	D	D	201	S
\$25,000 to \$49,999	—	466	D	D	D	D	D	D	D	D	S
\$50,000 to \$99,999	—	900	1 398	18 251	66 935	64 859	D	42 854	D	D	S
\$100,000 to \$249,999	—	2 448	5 462	104 597	402 868	395 169	359 760	259 547	107 913	35 409	9
\$250,000 to \$499,999	—	2 056	8 220	189 331	738 591	730 076	659 736	464 605	203 646	70 340	9
\$500,000 to \$999,999	—	1 770	11 685	305 730	1 241 189	1 228 468	1 120 753	781 473	352 001	107 715	9
\$1,000,000 to \$2,499,999	—	1 494	20 520	666 989	2 381 740	2 330 865	2 003 566	1 398 312	656 129	327 299	9
\$2,500,000 to \$4,999,999	—	589	14 543	506 594	2 029 180	1 990 299	1 769 302	1 151 744	656 439	220 997	10
\$5,000,000 to \$9,999,999	—	339	15 011	516 324	2 394 356	2 351 559	2 031 875	1 360 628	714 044	319 684	13
\$10,000,000 or more	—	343	76 605	2 683 416	12 881 285	12 690 929	10 087 552	6 570 723	3 707 185	2 603 377	4

¹Construction receipts were obtained from census respondent forms. For establishments whose respondent forms were not received at the time data were tabulated, these data were calculated using industry averages and imputation for nonresponse. The following symbols are shown where estimated imputation-based data on construction receipts account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²For the 2002 Economic Census, the definitions of value of business done and value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definitions.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 7. Value of Construction Work for Establishments by Type of Construction: 2002

[Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Type of construction	Value of construction work ¹				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
237990, Other heavy and civil engineering construction								
Total	21 801 289	13 627 595	4 026 619	4 147 075	2	3	4	3
Building construction, total	1 907 338	1 462 561	294 603	150 175	5	6	6	4
Other building construction	1 907 338	1 462 561	294 603	150 175	5	6	6	4
Nonbuilding construction, total	19 530 093	11 801 178	3 732 016	3 996 900	3	3	4	3
Highways, streets, and related work, such as installation of guardrails and signs	1 051 303	498 655	416 206	136 443	11	15	11	31
Conservation and development construction, such as drainage canals and flood control projects	3 655 326	2 121 972	578 400	954 955	4	5	6	4
Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds	1 736 102	1 158 841	343 816	233 444	9	9	12	22
Other nonbuilding construction	13 087 362	8 021 710	2 393 594	2 672 058	3	4	5	4
Construction work, nsk	363 857	363 857	—	—	—	—	—	—

¹For the 2002 Economic Census, the definition of value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definition.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 8. Selected Statistics for Establishments by Specialization in Types of Construction: 2002

[Thousand dollars unless otherwise noted. 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. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at the end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Total payroll	Value of construction work for specialized type	Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	G
237990, Other heavy and civil engineering construction								
Total	10 502	154 071	4 997 397	X	18 107 602	12 042 082	3 693 686	3
Establishments specializing 51 percent or more...	8 851	123 371	3 800 981	14 984 347	14 090 430	9 343 906	2 898 310	3
Building construction, total								
Establishments specializing 51 percent or more...	440	4 849	193 934	495 634	533 909	393 940	110 575	8
Specialization 100 percent	220	1 694	64 228	197 769	172 414	130 630	25 355	13
Specialization 90 to 99 percent	33	386	17 931	47 337	50 355	44 043	1 058	—
Specialization 80 to 89 percent	54	305	8 209	17 163	19 139	12 750	1 203	35
Specialization 70 to 79 percent	61	659	32 283	87 364	112 916	68 427	2 980	9
Specialization 60 to 69 percent	33	770	35 207	53 711	80 149	60 403	8 217	1
Specialization 51 to 59 percent	38	1 035	36 076	92 290	98 936	77 686	71 763	11
Other building construction								
Establishments specializing 51 percent or more...	440	4 849	193 934	495 634	533 909	393 940	110 575	8
Specialization 100 percent	220	1 694	64 228	197 769	172 414	130 630	25 355	13
Specialization 90 to 99 percent	33	386	17 931	47 337	50 355	44 043	1 058	—
Specialization 80 to 89 percent	54	305	8 209	17 163	19 139	12 750	1 203	35
Specialization 70 to 79 percent	61	659	32 283	87 364	112 916	68 427	2 980	9
Specialization 60 to 69 percent	33	770	35 207	53 711	80 149	60 403	8 217	1
Specialization 51 to 59 percent	38	1 035	36 076	92 290	98 936	77 686	71 763	11
Nonbuilding construction, total								
Establishments specializing 51 percent or more...	8 014	115 785	3 522 233	14 132 838	13 229 741	8 658 701	2 758 152	3
Specialization 100 percent	5 606	75 236	2 198 338	9 578 275	7 978 644	5 169 792	1 599 631	3
Specialization 90 to 99 percent	638	7 895	225 024	1 137 266	985 377	683 396	242 436	4
Specialization 80 to 89 percent	438	5 656	188 843	690 015	736 855	496 429	108 297	10
Specialization 70 to 79 percent	646	10 072	310 372	1 139 964	1 263 838	798 616	266 705	21
Specialization 60 to 69 percent	348	8 364	261 262	746 516	985 513	594 102	217 212	7
Specialization 51 to 59 percent	336	8 562	338 393	840 802	1 279 514	916 367	323 870	5
Highways, streets, and related work, such as installation of guardrails and signs								
Establishments specializing 51 percent or more...	245	1 827	54 194	176 610	201 896	143 621	17 539	16
Specialization 100 percent	161	692	17 178	52 948	48 426	36 836	4 522	39
Specialization 90 to 99 percent	13	184	7 629	24 685	24 156	17 392	3 002	55
Specialization 80 to 89 percent	25	213	6 018	50 366	60 625	42 408	2 088	19
Specialization 70 to 79 percent	7	139	3 996	14 063	17 013	8 934	1 829	3
Specialization 60 to 69 percent	29	378	12 500	22 761	32 239	23 141	3 919	32
Specialization 51 to 59 percent	10	221	6 872	11 786	19 436	14 910	2 179	13
Conservation and development construction, such as drainage canals and flood control projects								
Establishments specializing 51 percent or more...	4 260	34 501	760 449	3 243 801	3 133 525	2 043 071	574 711	6
Specialization 100 percent	2 856	20 941	437 300	1 858 635	1 588 261	1 050 579	270 374	11
Specialization 90 to 99 percent	390	3 730	63 907	516 116	464 460	296 593	102 665	7
Specialization 80 to 89 percent	191	1 935	67 588	225 812	249 346	170 654	29 745	26
Specialization 70 to 79 percent	373	2 276	51 451	289 163	325 499	199 198	66 500	6
Specialization 60 to 69 percent	175	3 415	66 013	217 057	292 857	177 058	59 111	9
Specialization 51 to 59 percent	275	2 204	74 191	137 019	213 101	148 990	46 316	22
Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds								
Establishments specializing 51 percent or more...	889	12 167	328 079	1 614 921	1 436 183	901 676	320 089	8
Specialization 100 percent	742	9 415	247 354	1 353 590	1 140 253	733 442	213 338	9
Specialization 90 to 99 percent	21	318	8 630	27 576	23 981	15 594	5 313	8
Specialization 80 to 89 percent	83	471	7 503	35 503	38 825	26 721	5 397	77
Specialization 70 to 79 percent	8	232	8 302	32 712	30 392	18 541	11 894	49
Specialization 60 to 69 percent	30	739	23 585	89 625	97 625	12 515	40 827	33
Specialization 51 to 59 percent	5	993	32 705	75 914	105 107	94 864	43 320	23
Other nonbuilding construction								
Establishments specializing 51 percent or more...	2 619	67 290	2 379 512	9 097 507	8 458 138	5 570 333	1 845 813	3
Specialization 100 percent	1 847	44 189	1 496 507	6 313 102	5 201 704	3 348 935	1 111 397	3
Specialization 90 to 99 percent	215	3 664	144 859	568 889	472 780	353 818	131 455	4
Specialization 80 to 89 percent	140	3 036	107 734	378 334	388 059	256 646	71 067	9
Specialization 70 to 79 percent	258	7 425	246 623	804 027	890 933	571 944	186 483	30
Specialization 60 to 69 percent	114	3 832	159 164	417 073	562 793	381 387	113 355	2
Specialization 51 to 59 percent	45	5 144	224 625	616 083	941 870	657 603	232 056	2
Construction work, nsk								
Establishments specializing 51 percent or more...	398	2 737	84 814	355 874	326 779	291 265	29 582	—
Specialization 100 percent	394	2 714	84 122	354 412	325 164	290 195	29 248	—
Specialization 70 to 79 percent	3	24	692	1 463	1 615	1 069	335	—

See footnotes at end of table

Table 8. **Selected Statistics for Establishments by Specialization in Types of Construction:
2002—Con.**

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 9. Value of Business Done for Establishments by Kind-of-Business Activity: 2002

[Thousand dollars unless otherwise noted. 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. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
237990, Other heavy and civil engineering construction		
Total	22 155 222	3
Heavy construction and civil engineering construction, total	16 409 489	3
Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines	11 839 334	4
Excavation work, earthmoving or land clearing contractor, not connected with buildings	3 285 151	4
Rental of construction machinery or equipment (except cranes) with operator	1 285 004	7
All other construction activities	5 257 755	4
Other business activities secondary to construction activities, total	334 176	6
All other business activities secondary to construction activities	334 176	6
Kind of business activity, nsk	153 802	5

¹For the 2002 Economic Census, the definition of value of business done has been modified from the 1997 Economic Census definition. See Appendix A for the modified definition.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 10. Selected Statistics for Establishments by Specialization in Kind-of-Business Activity: 2002

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity 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 business done by kind of business activity was not provided in Table 9. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Total payroll	Value of construction work for specialized kind of business	Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	G
237990, Other heavy and civil engineering construction								
Total	10 502	154 071	4 997 397	X	18 107 602	12 042 082	3 693 686	3
Establishments specializing 51 percent or more...	9 408	138 271	4 445 797	17 896 389	16 361 343	10 752 511	3 255 958	3
Heavy construction and civil engineering construction, total								
Establishments specializing 51 percent or more...	7 526	114 585	3 683 607	14 885 604	13 330 106	8 607 022	2 859 325	3
Specialization 100 percent	5 289	82 388	2 499 586	10 928 403	9 003 424	5 595 047	1 924 980	4
Specialization 90 to 99 percent	570	9 956	326 572	1 632 310	1 448 705	895 082	310 908	11
Specialization 80 to 89 percent	488	4 271	129 772	429 695	433 393	275 467	89 940	16
Specialization 70 to 79 percent	373	5 836	252 843	763 025	871 611	614 825	169 486	10
Specialization 60 to 69 percent	416	6 718	260 184	730 457	967 639	731 214	207 419	8
Specialization 51 to 59 percent	390	5 416	214 650	401 712	605 334	495 387	156 593	9
Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines								
Establishments specializing 51 percent or more...	3 635	77 296	2 677 493	11 090 381	9 755 940	6 048 497	2 290 218	3
Specialization 100 percent	2 983	56 968	1 844 605	8 331 737	6 741 673	3 998 195	1 590 065	4
Specialization 90 to 99 percent	210	5 758	225 445	1 076 184	948 145	560 075	203 447	16
Specialization 80 to 89 percent	130	2 383	75 798	261 360	258 545	153 570	60 493	22
Specialization 70 to 79 percent	103	3 872	177 264	581 242	646 104	429 514	145 803	5
Specialization 60 to 69 percent	106	4 305	183 711	506 353	669 318	508 646	149 408	11
Specialization 51 to 59 percent	104	4 011	170 670	333 504	492 155	398 497	141 003	10
Excavation work, earthmoving or land clearing contractor, not connected with buildings								
Establishments specializing 51 percent or more...	3 035	26 746	581 584	2 645 415	2 461 089	1 647 885	438 295	3
Specialization 100 percent	1 699	18 082	376 400	1 741 230	1 499 610	1 000 786	241 620	5
Specialization 90 to 99 percent	318	3 136	51 739	430 540	380 106	231 997	95 334	3
Specialization 80 to 89 percent	338	1 600	42 059	142 557	147 952	99 153	24 908	19
Specialization 70 to 79 percent	260	1 440	47 989	135 746	164 249	119 232	20 880	25
Specialization 60 to 69 percent	199	1 644	41 465	155 945	202 786	139 981	47 454	6
Specialization 51 to 59 percent	221	844	21 932	39 397	66 384	56 737	8 100	36
Rental of construction machinery or equipment (except cranes) with operator								
Establishments specializing 51 percent or more...	856	10 543	424 530	1 149 808	1 113 077	910 640	130 812	8
Specialization 100 percent	607	7 338	278 581	855 436	762 141	596 066	93 295	10
Specialization 90 to 99 percent	43	1 063	49 389	125 587	120 454	103 010	12 126	6
Specialization 80 to 89 percent	20	288	11 914	25 778	26 896	22 744	4 539	1
Specialization 70 to 79 percent	10	524	27 591	46 037	61 258	66 079	2 803	4
Specialization 60 to 69 percent	111	769	35 008	68 159	95 535	82 587	10 558	42
Specialization 51 to 59 percent	65	561	22 047	28 811	46 795	40 153	7 491	19
All other construction activities								
Establishments specializing 51 percent or more...	1 782	22 640	726 693	2 867 715	2 910 660	2 055 487	374 141	9
Specialization 100 percent	946	11 564	372 709	1 606 127	1 451 897	1 021 979	154 230	19
Specialization 90 to 99 percent	457	4 619	107 961	499 729	470 179	299 366	66 392	3
Specialization 80 to 89 percent	122	1 077	38 541	139 944	151 473	95 841	22 196	13
Specialization 70 to 79 percent	129	1 890	72 945	255 015	309 082	230 953	37 778	39
Specialization 60 to 69 percent	63	2 523	97 741	288 334	396 623	321 035	75 480	9
Specialization 51 to 59 percent	64	966	36 796	78 567	131 406	86 311	18 065	46
Kind of business activity, nsk								
Establishments specializing 51 percent or more...	101	1 046	35 497	143 070	120 577	90 002	22 493	6
Specialization 100 percent	101	1 046	35 497	143 070	120 577	90 002	22 493	6

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 11. Value of Construction Work for Establishments by Location of Construction Work: 2002

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, nonsampling error, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Location of construction work	Value of construction work ¹	Relative standard error of estimate (percent) for column—
237990, Other heavy and civil engineering construction		
United States	21 801 289	3
Construction work done in—		
Alabama	152 235	17
Alaska	112 900	11
Arizona	306 531	19
Arkansas	294 518	5
California	2 651 114	6
Colorado	323 685	14
Connecticut	154 248	17
Delaware	85 345	15
District of Columbia	100 190	2
Florida	1 438 296	10
Georgia	806 338	19
Hawaii	289 455	6
Idaho	44 579	19
Illinois	817 391	13
Indiana	330 701	25
Iowa	196 800	19
Kansas	68 938	24
Kentucky	304 155	14
Louisiana	493 189	5
Maine	82 866	12
Maryland	402 049	10
Massachusetts	841 959	4
Michigan	531 506	13
Minnesota	427 999	8
Mississippi	375 274	8
Missouri	362 290	9
Montana	59 071	5
Nebraska	95 300	16
Nevada	242 673	16
New Hampshire	104 476	29
New Jersey	1 037 636	5
New Mexico	66 165	28
New York	1 963 124	3
North Carolina	442 474	12
North Dakota	27 256	18
Ohio	484 060	8
Oklahoma	132 331	34
Oregon	218 097	9
Pennsylvania	593 623	5
Rhode Island	99 805	13
South Carolina	213 499	21
South Dakota	19 986	23
Tennessee	284 777	12
Texas	2 195 723	21
Utah	209 795	3
Vermont	32 727	24
Virginia	366 569	5
Washington	493 416	6
West Virginia	118 807	5
Wisconsin	257 307	31
Wyoming	48 041	38

¹For the 2002 Economic Census, the definition of value of construction work has been modified from the 1997 Economic Census definition. See Appendix A for the modified definition.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Appendix A.

Explanation of Terms

ESTABLISHMENT

A relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. Generally, 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.

Number of establishments 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.

NUMBER OF EMPLOYEES

Includes all full-time and part-time individuals on the payrolls of construction establishments during any part of the pay period which included the 12th of March, May, August, and November. Included are individuals on paid sick leave, paid holidays, paid vacations, and salaried officers and executives of a corporation. Excluded are subcontractors and their employees; full- or part-time leased employees whose payroll was filed under an employee leasing company's Employer Identification Number; temporary staffing obtained from a staffing service; and proprietors and partners of unincorporated businesses.

Includes all permanent full-time and part-time employees who are on the payrolls of establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November.

The all employees or total number of employees number is the sum of construction workers plus other employees who were on the payroll during the pay periods including the 12th of March, May, August, and November, divided by four.

Construction workers

Includes all payroll workers (up through the working supervisory 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, on-site record keepers, and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

The average number of construction workers is the sum of construction workers who were on the payroll during the pay periods including the 12th of March, May, August, and November, divided by four.

Other employees

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

The average number of other employees is the sum of other employees who were on the payroll during the pay periods including the 12th of March, May, August, and November, divided by four.

PAYROLL

Includes the gross earnings paid in the reporting year to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, and vacation and sick leave pay, prior to deductions such 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.

Payroll for Construction Workers

Includes the gross earnings paid in the reporting year to all construction workers on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, and vacation and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds.

Payroll for Other Employees

Includes the gross earnings paid in the reporting year to all other employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, and vacations and sick leave pay, prior to deductions such as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. Payroll of other employees excludes salaries of the proprietor or partners, if unincorporated.

FIRST-QUARTER PAYROLL FOR ALL EMPLOYEES

Includes the gross earnings paid in the first quarter of the reporting year to all employees on the payroll of construction establishments. The first-quarter payroll period is the first quarterly pay period which includes March 12. Included are all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, and vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. It also includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

FRINGE BENEFITS FOR ALL EMPLOYEES

Includes the total sum of fringe benefits of all full-time and part-time employees on the payrolls of construction establishments during any part of the pay period which included the 12th of the months specified on the report form. Includes expenditures made by the employer for legally required and voluntary fringe benefit programs for employees.

Legally Required Expenditures

Includes expenditures made by the employer for Social Security and Medicare contributions, unemployment compensation, worker's compensation, and state temporary disability payments.

Voluntary Expenditures

Includes expenditures made by the employer for life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

VALUE OF BUSINESS DONE

Includes the sum of value of construction work and other business receipts. Value of business done is the sum of receipts, billings, or sales from establishments of construction business activities plus receipts from other business activities.

Value of Construction Work

In the 1987-1997 censuses, the value of construction work was collected to measure actual construction activity done during the year. Studies have shown that respondents were not able to accurately report these data. In 2002, receipts, billings, or sales for construction work was collected.

This item includes the receipts, billings, or sales for construction work done by building contractors, heavy and civil engineering construction contractors, and specialty trade contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Establishments engaged in the sale and installation of construction components such 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 receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure and receipts from business operations in foreign countries.

The value of construction work consists of several components that are summed up individually to get the total value of construction work. These components are:

1. Value of construction work on government owned projects. This is the total of all projects owned by federal, state, and local governments:
 - a. Value of construction work on federally owned projects. This is the value of construction work for projects owned by the federal government.
 - b. Value of construction work on state and locally owned projects. This is the summed total value of construction work for all projects owned by state and local governments.
2. Value of construction work on privately owned projects. This is the value of construction work for projects owned privately (excluding government owned projects).

Other Business Receipts

Includes the receipts for all other business activities done by an establishment in the current year. Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, 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 are nonoperating income such as interest, dividends, the sale of fixed assets, or receipts from other business operations in foreign countries.

NET VALUE OF CONSTRUCTION WORK

Includes the value of construction work less the cost of construction work subcontracted out to others.

VALUE ADDED

This measure of construction activity is equal to value of business done, less costs for construction work subcontracted out to others and costs for materials, components, supplies, and fuels.

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. 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 dollar value.

CONSTRUCTION RECEIPTS PERCENT ESTIMATED

Construction receipts were obtained from census respondent forms. For establishments whose respondent forms were not received at the time data were tabulated, the data were calculated using industry averages and imputation for nonresponse.

SELECTED COSTS

Includes the direct charges actually paid or payable for costs incurred for purchases of materials, components, and supplies; costs of 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 not included.

Cost of Materials, Components, and Supplies

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities plus costs for materials bought and resold to others. Also included are costs made for direct purchases of materials, components, and supplies although the purchases were subsequently provided to subcontractors for their use. Supplies include expendable tools which are charged to current accounts. Freight and other direct charges representing only that amount paid after discounts and the value of materials, components, and supplies obtained from other establishments of the respondent's company are also included. Excluded from this item are the cost of fuels, lubricants, electric energy, and industrial and other specialized machinery and equipment such as printing presses; computer systems that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

Cost of Construction Work Subcontracted Out to Others

Includes all costs for construction work subcontracted out to other construction contractors during the reporting year. Excluded from this item are costs to the reporting establishment for its purchases of materials, components, and supplies provided to a subcontractor for use. These costs are reported under costs for materials, components, and supplies. Also excluded are costs for the rental of machinery or equipment.

Cost of Selected Power, Fuels, and Lubricants

Includes costs for fuels including gasoline, diesel fuel and lubricants, and electric energy purchased during the year from other companies or received from other establishments of the company. Also included are costs for natural gas, manufactured gas, fuel oil, and coal and coke products.

The components of selected power, fuels, and lubricants are:

1. Purchased electricity. This is the cost of electric energy purchased during the year from other companies or received from other establishments of the company.
2. Natural gas and manufactured gas. This is the cost of natural gas and manufactured gas purchased during the year from other companies or received from other establishments of the company.
3. Gasoline and diesel fuel. This is the cost of gasoline and diesel fuel purchased during the year from other companies or received from other establishments of the company. This cost is broken down into two different uses of gasoline and diesel fuel. They are:
 - a. On-highway use of gasoline and diesel fuel. This is the cost of gasoline and diesel fuel purchased during the year to fuel highway vehicles. A highway vehicle is any self-propelled vehicle designed to carry a load over public highways, whether or not the vehicle was also designed to perform other functions. Examples of vehicles designed to carry a load over public highways are passenger automobiles, trucks, and truck tractors. If a vehicle can be used for a combination of on-highway and off-highway uses and has one fuel tank, the fuel use is not considered off-highway. An example of this is a concrete-mixer truck where the truck engine operates both the engine and the mixing unit by a power take-off and is fueled by a single tank. None of the fuel used in this vehicle is off-highway because of the on-highway use. If the vehicle has separate fuel tanks and engines, the fuel in a tank used for non-highway use may be considered off-highway use.

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- b. Off-highway use of gasoline and diesel fuel. This is the cost of gasoline and diesel fuel purchased during the reporting year for off-highway use. Off-highway fuel use is the use of fuel for trade, business, or income producing activity. In most cases, off-highway fuel use does not include use in a highway vehicle registered or required to be registered for use on public highways.
 4. All other fuels and lubricants. This is the cost of fuels and lubricants purchased during the year from other companies or received from other establishments of the company that are not included as costs in any of these categories: natural gas; manufactured gas; gasoline; and diesel fuel.

COSTS OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS

Includes the costs for materials, components, and supplies used by establishments in the construction or reconstruction of buildings, structures, or other facilities plus costs for materials bought and resold to others. Also included is the costs for fuels. These include gasoline, diesel fuel, lubricants, electric energy purchased during the year from other companies or received from other establishments of the company, and costs for natural and manufactured gas, fuel oil, and coal and coke products. Excluded from this item are industrial and other specialized machinery and equipment, such as printing presses; computer systems that are not an integral part of a structure; and materials furnished to contractors by the owners of projects.

RENTAL PAYMENTS

Includes the total rental costs for renting and/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 that in effect are conditional sales contracts such as capital leases. Such costs are included in capital expenditures.

SELECTED PURCHASED SERVICES

Includes the costs for services purchased from other companies that are paid directly by an establishment that are normally considered as overhead or non-job-related costs. Included are only the cost of repairs necessary to maintain property and equipment. Excluded are the cost of improvements that increase the value of property or the cost of adapting the property for another use. Such costs are included in capital expenditures. Also excluded are the salaries paid to employees and cost of construction activities subcontracted to others already reported within the selected costs of an establishment.

Included in the cost of selected purchased services for communication services is the actual expense incurred or payable during the year for any type of communication. Such types of communication include telephone, data transmission, telegraph, Internet, connectivity, FAX, telex, photo transmission, paging, cellular telephone, on-line access and related services, etc.

Included in the cost of selected purchased services for repairs to buildings and other structures is the actual expense incurred or payable during the year for any type of repair to buildings and other structures. Such types of repair include maintenance and repair of buildings, job-site trailers, and other structures. Excluded are janitorial services.

The cost of selected purchased services for repairs to machinery and equipment is the actual expense incurred or payable during the year for any type of repairs made to structures and equipment by outside companies or from other establishments of the same company. Such types of repairs to machinery and equipment include maintenance and repair of construction equipment and tools; machinery; and office equipment, furniture, and vehicles, including related service contracts.

Included in the cost of selected purchased services for legal services is the actual expense incurred or payable during the year for any type of legal services. Excluded are the salaries paid to employees of the establishment for these services.

Included in the cost of selected purchased services for accounting, auditing, and bookkeeping services is the actual expense incurred or payable during the year for these services. Excluded are the salaries paid to employees of the establishment for these services.

Included in the cost of selected purchased services for advertising and promotional services is the actual expense incurred or payable during the year for these services. Such types of advertising and promotional services include advertising, marketing, promotional, or public relations services.

GROSS BOOK VALUE OF DEPRECIABLE ASSETS AT BEGINNING OF YEAR (BOY) AND END OF YEAR (EOY)

Includes the value of depreciable assets for the beginning of year (BOY) and end of year (EOY). Gross value of depreciable assets are usually the original costs of the assets at the beginning of the year. The gross value of depreciable assets (BOY), plus any capital expenditures for new and used depreciable assets in the reporting year, minus the gross value of depreciable assets sold, retired, scrapped, destroyed, etc. in the reporting year, comprise gross book value of depreciable assets (EOY). Depreciable assets are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

CAPITAL EXPENDITURES, OTHER THAN LAND

Includes capital expenditures that will be charged to the fixed assets accounts and for which depreciation accounts are ordinarily maintained. Includes the cost of capital improvements that were made during the year that increased the value of property or adapted the property for another use. Capital expenditures for leasehold improvements made to property leased from others are also included. Land expenditures are not included as capital expenditures. If any building or equipment had been acquired under a capital leasing arrangement that meet the criteria set down by the Financial Accounting Standards Board (FASB), respondents were instructed to report the original cost or market value as a fixed asset and as a capital expenditure, if acquired in the reporting year. If the lease qualified as an operating lease, respondents were instructed not to include the value of the building and equipment as a fixed asset or capital expenditure. If capital expenditures were not recorded directly at the establishment level but handled centrally at a company or division level, respondents were requested to report appropriate estimates for the individual establishments.

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS

Includes the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during the year. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

DEPRECIATION CHARGES DURING YEAR

Includes the depreciation expenses of the establishment during the reporting year. These expenses are charged against depreciable assets which are the fixed tangible property of the establishment for which depreciation accounts are ordinarily maintained.

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

Includes all establishments with payroll that reported a dollar amount of inventory. Includes the number of establishments that were in business at any time during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire year were not included.

Value of Construction Work for Establishments With Inventories

Includes the value of construction work for establishments with payroll that reported a dollar amount of inventory in the reporting year.

BEGINNING- AND END-OF-YEAR INVENTORIES OF MATERIALS AND SUPPLIES

Includes the inventories of materials and supplies owned at the beginning and end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that 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.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

Includes all establishments with payroll that reported having no inventories of materials and supplies during the reporting year. Includes the number of establishments that were in business at any time during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire reporting year were not included.

Value of Construction Work for Establishments With No Inventories

Includes the value of construction work for establishments with payroll that reported having no dollar amount of inventory in the reporting year.

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

Includes all establishments with payroll that did not report a dollar amount for inventories of materials and supplies during the reporting year. It covers all full-year and part-year operations. Construction establishments that were inactive or idle for the entire reporting year were not included.

Value of Construction Work for Establishments Not Reporting Inventories

Includes the value of construction work for establishments that did not report a dollar amount for inventories of materials and supplies, and the value of construction work for establishments that did not complete a census form.

VALUE OF CONSTRUCTION WORK BY TYPE OF CONSTRUCTION

Includes the dollar value of construction work according to the specified types of construction. There are three categories of construction. They are:

1. New construction. The original construction work done on a project including all finishing work on the original building or structure. Land development work on the site and demolition of existing structures are also included.
2. Additions, alterations, or reconstruction. The construction work which adds to the value or useful life of an existing building or structure or which adapts a building or structure to a new or different use. Included are "major replacements" of building systems such as the installation of a new roof or heating system and the resurfacing of streets or highways. This contrasts to the repair of a hole in a roof or the routine patching of highways and streets, which would be classified as maintenance and repair.
3. Maintenance and repair. The incidental construction work which keeps a property in ordinary working condition. Excluded are trash and snow removal, lawn maintenance and landscaping, cleaning, and janitorial services.

Types of Construction

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. 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 its 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. There are two types of construction:

1. Building Construction. The details for this type of construction are defined as:

- Single-family houses, detached. Includes all fully detached 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, apartment-type condominiums, and cooperatives. Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units, excluding attached single-family houses.
- Dormitories and barracks. Includes school dormitories and military or nonmilitary barracks that are nonhousekeeping structures.
- Other manufacturing and industrial buildings. Includes all manufacturing and industrial buildings and plants that 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.
- Manufacturing and industrial warehouses. Includes all warehouses which are intended for industrial activities.
- Hotels and motels. Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- Office buildings. Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- All other miscellaneous commercial buildings. Includes all buildings that are intended for use primarily in the retail and service trades, i.e., shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- Commercial warehouses. Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- Religious buildings. Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- Educational buildings. Includes all buildings that 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 that are not a part of a manufacturing or commercial establishment, are also included.

- Health care and institutional buildings. Includes hospitals, medical office buildings, and all other buildings that are intended to provide health and institutional care such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- Public safety buildings. Includes detention centers, prisons, fire stations, and rescue squad buildings.
- Farm buildings, nonresidential. Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- Amusement, social, and recreational buildings. Includes buildings that are used primarily for entertainment, social, and recreational activities such as sports arenas, convention centers, theaters, music halls, golf and country club buildings, fitness centers, and bowling alleys.
- Indoor swimming pools. Includes pools that are inside a building.
- Indoor ice rinks. Includes ice rinks that are inside a building.
- Grain elevators and dry cleaning plants. Includes grain and storage elevators and dry cleaning plants.
- Waste disposal plants. Includes recycling centers, garbage disposal plants, incinerator disposed facilities, and material recovery facilities.
- Miscellaneous building construction. Includes all other nonresidential buildings such as fire stations, post offices, and bus and air passenger terminals and hangars.

2. Nonbuilding Construction. The details for this type of construction are defined as:

- Highways, streets, and related work. Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, erosion control, installation of guard rails, highway signs, and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- Airport runways and related work. Includes airport runways, taxiways, aprons, and related work.
- Private driveways and parking areas. Includes all nonstructural parking areas and private driveways of all surface types.
- Bridges and elevated highways. Includes viaducts and overpasses, roads, highways, railroads, and causeways built on structural supports.
- Tunnels. Includes highway, pedestrian, railroad, and water distribution tunnels.
- Sewers, sewer lines, 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.
- Oil and gas pipeline construction. Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- 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.
- Power plants and cogeneration plants, except hydroelectric. Includes electric and steam generating plants, cogenerating plants, and nuclear plants.
- Power plant, hydroelectric. Includes all types of hydroelectric power generating plants.
- Blast furnaces, chemical complexes, etc. Includes coke ovens and mining appurtenances such as tipples and washeries.

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- Sewage treatment plants. Includes sewage treatment and waste disposal plants.
 - Water treatment plants. Includes water filtration and water softening plants.
 - Urban mass transit. Includes subways, street cars, and light rail systems.
 - Railroad construction. Includes the construction of railroad beds, tracks, freight yards, and signal towers for railroad systems, excluding urban mass transit.
 - Conservation and development construction. Includes land reclamation, irrigation projects, drainage canals, levees, jetties, breakwaters, and flood control projects.
 - Dam and reservoir construction. Includes hydroelectric, water supply, and flood control dams and reservoirs.
 - Dry and Solid waste disposal. Includes all dry and solid waste disposal sites where non-hazardous waste is buried.
 - Harbor and port facilities. Includes docks, piers, and wharves.
 - Marine construction. Includes dredging, underwater rock removal, breakwaters, navigational channels, and locks.
 - Petrochemical plants and petroleum refineries. Includes petroleum related facilities.
 - Outdoor swimming pools. Includes wading pools and reflecting pools.
 - Fencing. Includes all types of fencing, except electronic containment fencing for pets.
 - Electronic containment fencing. Includes all types of electronic containment fencing for pets.
 - Recreational facilities. Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
 - Ships. Includes special trade contractors working on ships and boats such as painters, carpenters, joiners, electricians, etc.
 - Oil and gas fields. Includes road construction, land clearing contracting, land moving contracting, and land leveling contracting in oil and gas fields.
 - Oil and gas field gathering lines. Includes land clearing contracting, land moving contracting, and land leveling contracting.
 - Coal mines. Includes land clearing contracting, land moving contracting, and land leveling contracting.
 - Metal mines. Includes land clearing contracting, land moving contracting, and land leveling contracting.
 - Nonmetallic mines. Includes land clearing contracting, land moving contracting, and land leveling contracting.
 - All other miscellaneous nonbuilding construction. Includes all other types of nonbuilding construction.

KINDS OF BUSINESS ACTIVITIES

Includes dollar value of business done by business activity. Primary activities are construction activities that generate fifty-one percent or more of an establishment's dollar value of business done. Also included are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, 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 in other kinds of business activities.

VALUE OF CONSTRUCTION WORK FOR SPECIALIZED TYPE AND KIND OF BUSINESS

Includes value of construction work for one of two specialized categories. These categories include types of construction and kind-of-business activity. A construction establishment specializes in a type of construction when fifty-one percent or more of the construction work done is in one construction industry. The construction establishment reports each type of construction it performs as a percent of value of construction work. Types of construction refers to the types of buildings, structures, or facilities constructed or worked on by construction establishments in the reporting year. Specialization in types of construction displays data for establishments with payroll that falls within each percent range of specialization. A construction establishment specializes in a kind-of-business activity when fifty-one percent or more of the construction work done by the establishment is performed in one type of business activity. The construction establishment reports each kind-of-business activity engaged in as a percent of value of construction work. Kind-of-business activity refers to the kinds of business activities construction establishments perform throughout the reporting year. Examples of kind-of-business activity include highway and street construction, electrical contracting, carpentry contracting, and concrete contracting. Specialization in kind-of-business activity displays data for establishments with payroll that fall within each percent range of specialization.

SPECIALIZATION PERCENT

Includes data for establishments with payroll that fall within each percent range of specialization.

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS BY LOCATION OF WORK

This is the value of construction done in particular states by establishment. An establishment can do construction in one or more states.

Appendix B. NAICS Codes, Titles, and Descriptions

237990 OTHER HEAVY AND CIVIL ENGINEERING CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in heavy and engineering construction projects (excluding highway, street, bridge, and distribution line construction). The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this group if they are engaged in activities primarily related to engineering construction projects (excluding highway, street, bridge, distribution line, oil and gas structure, and utilities building and structure construction). Construction projects involving water resources (e.g., dredging and land drainage), development of marine facilities, and projects involving open space improvement (e.g., parks and trails) are included in this industry.

Appendix C.

Methodology

SOURCES OF THE DATA

The construction sector includes approximately 650,000 establishments that were determined to be in-scope of the 2002 Economic Census — Construction. This number includes those industries in the North American Industry Classification System (NAICS) definition of construction with at least one paid employee in 2002.

Establishments in the 2002 Economic Census are divided into those sent report forms and those not sent report forms. The coverage of and the method of obtaining census information from each are described below:

1. Establishments sent a report form:

Sample frame establishments. The sample frame consisted of the entire construction universe; there were no subpopulations that were explicitly removed from the sample frame. The sample frame was compiled from a list of all construction companies in the active records of the Internal Revenue Service (IRS) and the Social Security Administration (SSA) that are subject to the payment of Federal Insurance Contributions Act taxes. Under special arrangements, to safeguard their confidentiality, the U.S. Census Bureau obtains information on the location and classification of the companies, as well as their payroll and receipts data from these sources. Unfortunately, these sources do not provide establishment level information for companies with multiple locations. For multilocation companies, the establishment level information is directly obtained from the U.S. Census Bureau's Company Organization Survey. For single-location companies, the IRS-SSA information is generally sufficient for assigning the company to a specific six-digit NAICS industry code.

The 2002 NAICS structure for the construction sector was significantly revised from the 1997 NAICS structure. Initially, only a small proportion of the establishments in the sample frame could be directly assigned a 2002 NAICS industry code with a high degree of confidence. Therefore, a special classification card was mailed to 150,000 construction establishments in early 2002. The goal of this classification card was to obtain the current NAICS industry code prior to assembly of the sample frame for the economic census — construction sample.

2. Establishments not sent a report form:

a. Nonsample frame establishments. There were a limited number of establishments included in the business register who were completely unclassified at the time of the economic census — construction sampling operation. These establishments were mailed a general classification card in early 2003. A portion of these were ultimately determined to be in-scope of the economic census — construction. Since this determination was not made until after the sample selection operation had been completed; these establishments were treated as a supplement to the original universe and were sampled independently for inclusion in the derived estimates.

b. All nonemployers, i.e., all firms subject to federal income tax, with no paid employees, were also excluded from the 2002 sample frame, as in previous censuses. Nonemployers with significant levels of receipts data were identified and included in the census mailout under the presumption that the nonemployer status may have been incorrect. Those determined to have employees are included in this report. Data for nonemployers are not included in this report, but are released in the annual *Nonemployer Statistics* series.

The report forms used to collect information for establishments in this sector are available at help.econ.census.gov/econhelp/resources/.

A more detailed examination of census methodology is presented in the *History of the Economic Census* at www.census.gov/econ/www/history.html.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

The classifications for all establishments covered in the 2002 Economic Census — Construction are classified in 1 of 31 industries in accordance with the industry definitions in the *North American Industry Classification System (NAICS), United States, 2002* manual. Changes between 1997 and 2002 affecting this sector are discussed in the text at the beginning of this report. Tables at www.census.gov/epcd/naics02/n02ton97.htm identify those industries that changed between the 1997 North American Industry Classification System (NAICS) and 2002 NAICS.

In the NAICS system, an industry is generally defined as a group of establishments that use similar processes or have similar business activities. To the extent practical, the system uses supply-based or production-oriented concepts in defining industries. The resulting group of establishments must be significant in terms of number, value added by construction, value of business done, and number of employees.

The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the construction sector for 2002, there are 3 subsectors (three-digit NAICS), 10 industry groups (four-digit NAICS), 28 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 31 U.S. industries (six-digit NAICS).

ESTABLISHMENT BASIS OF REPORTING

The 2002 Economic Census — Construction 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 that has been established for the management of more than one project or job and that is expected to be maintained on a continuing basis. Such establishment activities include, but are not limited to, estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each establishment operated during any part of the census year. The construction sector figures represent a tabulation 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 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. 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 value of construction work exceeded the gross receipts from each of its other activities.

The 2002 Economic Census — Construction excludes data for central administrative offices (CAOs). These would include separately operated administrative offices, warehouses, garages, and other auxiliary units that service construction establishments of the same company. These data are published in a separate report series.

DESCRIPTION OF THE SAMPLE FRAME

The major objective of the sample design was to provide a sample that would provide reliable estimates at the state by industry level. For sample efficiency considerations, the establishments in the initial 2002 construction frame were partitioned into two components for developing estimates within the sample frame. The details of each are described below:

1. Probability-proportionate-to-size (pps) sample. There were three non-overlapping strata for sample selection. An independent sample was selected within each state by industry cell. The details of each stratum were defined as:

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- Stratum 1. This stratum was comprised of approximately 12,000 establishments associated with multilocation companies. The establishments of these multiunit companies were included in the construction sample with certainty.
 - Stratum 2. This stratum was comprised of approximately 145,000 single-location companies that could be classified into a valid 2002 NAICS industry. These cases accounted for approximately 75 percent of the payroll associated with single-location companies in construction. The industry code for most of these establishments was determined from the special classification card that was mailed in early 2002. This group was partitioned into state by NAICS (six-digit) cells and an independent sample selected from each cell. Within each cell, a probability-proportionate-to-size (pps) sampling strategy was used. Under this approach, the probability of selection for the sample for larger establishments is higher than for smaller establishments. There were approximately 80,000 establishments selected from this group.
 - Stratum 3. This stratum was comprised of the remaining single-location companies. For these companies, we did not have an updated 2002 NAICS industry code. The most recent classification information available for these companies was their 1997 NAICS. Using this 1997 NAICS industry code, this stratum was partitioned into state by NAICS (four-digit) cells; and an independent sample selected from each cell. Again, probability-proportionate-to-size sampling methodology was utilized. There were approximately 30,000 establishments selected from this group.

Subsequent to the initial census mail-out, companies that initiated operations in 2002 were identified via administrative sources. To assure proper representation of the entire in-scope population, simple random samples of these new operations were selected and mailed separately.

2. Estimation and variances. Based on the response data, establishments were assigned to the appropriate NAICS (six-digit) industry. At each level of tabulation, unbiased estimates were derived by summing the weighted establishment data where the establishment sample weight was equal to the inverse of its probability of selection for the construction sample.

The resulting estimates were generated from one of many possible samples and are subject to sampling variability. Estimates of this sample variability were independently derived at all levels of aggregation. These sampling variances were then aggregated to the publication levels for the computation of the relative standard errors.

RELIABILITY OF DATA

The estimates developed from the sample can differ somewhat from the results of a survey covering all companies in the sample lists, but are otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the construction sector is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretically, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data. They are presented in the form of relative standard errors that are the standard errors divided by the estimated values to which they refer.

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals, or ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples.

The complete-coverage value would be included in the range:

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- From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.
 - From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
 - From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference is that the comparable complete-survey result would fall within the indicated ranges and the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection; reporting; coding; transcription; imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the U.S. Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables of this publication having an associated standard error exceeding 75 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the industry, geographic area, or other groupings contains varying amounts of duplication. This is because 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. Also, part of the value of construction results from the use of products of nonconstruction industries as input materials. These products are counted in the nonconstruction industry, as well as part of the value of construction. Value added avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or geographic areas. Value added for construction industries is defined as the dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels.

DISCLOSURE

In accordance with federal law governing census reports (Title 13 of the United States Code), no data are published that would disclose the operations of an individual establishment or company. However, the number of establishments in a specific industry or geographic area is not considered a disclosure; therefore, this information may be released even though other information is withheld. Techniques employed to limit disclosure are discussed at www.census.gov/epcd/ec02/disclosure.htm.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan and Micropolitan Statistical Areas

Not applicable for this report.

Appendix F.

Detailed NAICS and Bridge Code Titles: 2002

[The NAICS code title shown in Table 1 is a standard NAICS title from the North American Industry Classification System Manual. A more detailed title description for the NAICS code shown in Table 1 is included in this appendix]

2002 NAICS code	1997 bridge code	Detailed 2002 NAICS and 1997 bridge code title description
236115	23321000	New single family housing construction (except operative builders) Single family housing construction, general contractors
236116	23322000	New multifamily housing construction (except operative builders) Multifamily housing construction, general contractors
236117	23321000 23322000	New housing operative builders Single family housing construction, operative builders Multifamily housing construction, operative builders
236118	23321000 23322000	Residential remodelers Remodeling contractors, single family housing Remodeling contractors, multifamily housing
236210	23331000 23493000 23499000	Industrial building construction Other manufacturing and industrial building construction Other industrial nonbuilding construction Waste disposal plant construction
236220	23322000 23331000 23332000 23599000	Commercial and institutional building construction Barrack and dormitory construction Grain elevators, dry cleaning plants, and manufacturing and industrial warehouses construction Commercial and institutional building construction Indoor swimming pool contractors
237110	23491000 23499000 23581000	Water and sewer line and related structures construction Water and sewer line, mains, and related structures (including pumping stations, etc.) construction Sewage and water treatment plants and irrigation systems construction Water well drilling contractors
237120	21311200 23491000 23493000	Oil and gas pipeline and related structures construction Construction of oil and gas field gathering lines Oil and gas pipelines, mains, and related and related structures (including oil storage tanks, etc) construction Petrochemical plants and refineries construction
237130	23492000 23493000	Power and communication line and related structures construction Power and communication transmission line construction Power generation plants and transformer stations construction, except hydroelectric
237210	23311000	Land subdivision Land subdivision and land development
237310	23411000 23412000 23521000	Highway, street, and bridge construction Highway and street construction Bridge construction Highway and traffic line painting contractors
237990	22412000 23499000 23599000	Other heavy and civil engineering construction Tunnel construction All other heavy and civil engineering construction Anchored earth retention contractors
238110	23571000	Poured concrete foundation and structure contractors Concrete (except paving) contractors
238120	23591000	Structural steel and precast concrete contractors Other structural steel erection contractors
238130	23551000	Framing contractors Framing carpentry contractors
238140	23541000 23542000	Masonry contractors Masonry and stone contractors Stucco contractors
238150	23592000	Glass and glazing contractors Glass and glazing contractors
238160	23561000	Roofing contractors Roofing contractors
238170	23561000	Siding contractors Siding (including gutters and downspouts) contractors
238190	23591000 23599000	Other foundation, structure, and building exterior contractors Metal curtain walls and metal furring installation contractors Forming, ornamental metal work installation, and foundation, structure, and building exterior contractors
238210	23511000 23531000	Electrical contractors Environmental controls installation contractors Electrical contractors
238220	23511000 23595000	Plumbing, heating, and air-conditioning contractors Other plumbing, heating, and air-conditioning contractors Scrubber, dust collection, and other industrial ventilation installation contractors
238290	23595000 23599000	Other building equipment contractors Other building equipment and machinery installation contractors Boiler, duct, and pipe insulation and service station equipment, lightning rod, bowling alley, church bell, and tower clock installation contractors
238310	23542000	Drywall and insulation contractors Other drywall, plastering, acoustical, and insulation contractors
238320	23521000	Painting and wall covering contractors Other painting and wall covering contractors

[The NAICS code title shown in Table 1 is a standard NAICS title from the North American Industry Classification System Manual. A more detailed title description for the NAICS code shown in Table 1 is included in this appendix]

2002 NAICS code	1997 bridge code	Detailed 2002 NAICS and 1997 bridge code title description
238330	23552000	Flooring contractors Floor laying and other floor contractors
238340	23543000	Tile and terrazzo contractors Tile, marble, terrazzo, and mosaic contractors
238350	23551000	Finish carpentry contractors Finish carpentry contractors
238390	23561000 23599000	Other building finishing contractors Sheet metal, except roofing and siding contractors Trade show exhibits installation and dismantling, spectator seating, modular furniture, window covering fixture installation, and other building finishing contractors
238910	21311200 21311300 21311400 21311500 23499000 23593000 23594000 23599000	Site preparation contractors Site preparation and related construction activities for oil and gas operations Site preparation and related construction activities for coal mining Site preparation and related construction activities for metal mining Site preparation and related construction activities for nonmetallic mining, except fuels Construction equipment (except cranes) rental with operator and right-of-way clearing and line slashing, blasting, and trenching contractors Excavation contractors Wrecking and demolition contractors Dewatering and core drilling and test boring for construction contractors
238990	23499000 23571000 23599000 56172000	All other specialty trade contractors Crane rental with operator Residential and commercial asphalt, brick, and concrete paving contractors All other special trade contractors Cleaning building exteriors, except sand blasting

