

Industry Kind-of-Business and Type of Construction Summary: 2002

Issued January 2006

EC02-23SG-2

2002 Economic Census

Construction

Subject 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. Selected Statistics for Establishments by Housing Starts 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]

NAICS code	Industry and housing starts size class	Number of establishments	Housing starts (number)			Relative standard error of estimate (percent) for column—		
			Single-family, detached	Single-family, attached	Multifamily	B	C	D
			A	B	C			
236115	New single-family housing construction (except operative builders)							
	All establishments	58 494	163 363	26 689	26 565	5	9	22
	Establishments with 0 housing starts	38 431	—	—	—	—	—	—
	Establishments with 1 - 4 housing starts	12 660	25 299	1 737	351	4	13	31
	Establishments with 5 - 9 housing starts	3 873	21 474	2 316	540	6	18	35
	Establishments with 10 - 24 housing starts	2 380	29 669	4 396	1 266	8	20	21
	Establishments with 25 - 99 housing starts	841	27 212	6 664	4 492	8	28	28
	Establishments with 100 - 499 housing starts	275	38 823	4 478	^s 10 992	21	7	^s 50
	Establishments with 500 housing starts or more	34	20 887	7 099	8 926	7	17	19
236116	New multifamily housing construction (except operative builders)							
	All establishments	4 370	1 959	1 381	107 171	9	11	6
	Establishments with 0 housing starts	3 537	—	—	—	—	—	—
	Establishments with 1 - 4 housing starts	93	D	D	^s 66	S	S	^s 50
	Establishments with 5 - 9 housing starts	126	^s 277	^s 87	^s 507	^s 50	^s 69	^s 40
	Establishments with 10 - 24 housing starts	139	353	^s 146	1 580	29	^s 56	27
	Establishments with 25 - 99 housing starts	221	340	347	9 637	12	26	18
	Establishments with 100 - 499 housing starts	196	807	490	44 261	2	11	12
	Establishments with 500 housing starts or more	58	D	D	51 120	S	S	5
236117	New housing operative builders							
	All establishments	26 079	459 793	63 274	33 768	1	3	9
	Establishments with 0 housing starts	12 121	—	—	—	—	—	—
	Establishments with 1 - 4 housing starts	4 838	10 142	855	^s 185	6	18	^s 59
	Establishments with 5 - 9 housing starts	3 177	18 872	2 024	^s 229	7	19	^s 52
	Establishments with 10 - 24 housing starts	2 963	35 056	6 544	1 732	6	15	23
	Establishments with 25 - 99 housing starts	1 955	69 717	11 853	6 391	5	11	28
	Establishments with 100 - 499 housing starts	805	129 974	19 743	12 593	3	5	17
	Establishments with 500 housing starts or more	221	196 031	22 255	12 638	1	3	3
236118	Residential remodelers							
	All establishments	82 756	12 389	2 134	3 121	20	9	11
	Establishments with 0 housing starts	78 189	—	—	—	—	—	—
	Establishments with 1 - 4 housing starts	4 130	5 615	605	140	7	20	37
	Establishments with 5 - 9 housing starts	251	1 269	216	96	23	32	25
	Establishments with 10 - 24 housing starts	113	^s 1 087	213	^s 496	^s 43	35	^s 44
	Establishments with 25 - 99 housing starts	21	345	293	^s 367	29	36	^s 45
	Establishments with 100 - 499 housing starts	^s 52	^s 4 074	806	2 022	^s 57	1	11
	Establishments with 500 housing starts or more	—	—	—	—	—	—	—

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. Value of Construction Work for Establishments by Type of Construction: 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]

NAICS code	Subsector and 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
		A	B	C	D	A	B	C
23	Construction							
	Total	1 196 559 857	786 634 791	268 041 911	141 894 294	—	—	—
	Building construction, total	903 283 029	606 396 607	200 063 025	96 823 397	—	—	—
	Single-family houses, detached and attached	358 174 210	272 648 123	52 096 797	33 429 290	1	1	1
	Single-family houses, detached	317 146 239	242 263 856	46 126 032	28 756 351	1	1	1
	Single-family houses, attached	41 027 971	30 384 266	5 970 766	4 672 939	1	1	2
	Apartment buildings (2 or more units), such as rentals, apartment type condominiums and cooperatives	50 882 426	37 225 605	7 406 118	6 250 703	1	1	2
	Dormitories and barracks	6 919 083	4 626 893	1 786 584	505 606	1	1	2
	Manufacturing and industrial warehouses	31 660 002	19 280 512	7 725 081	4 654 408	2	2	2
	Grain elevators and dry cleaning plants	497 912	243 298	115 898	138 716	10	12	11
	Other manufacturing and light industrial buildings, such as factories, assembly plants, and industrial research laboratories	45 610 191	22 571 850	13 433 991	9 604 350	1	1	2
	Hotels, motels, and tourist cabins	18 754 332	13 414 802	3 492 341	1 847 188	1	1	3
	Office buildings	108 357 639	59 258 569	35 879 304	13 219 766	1	1	1
	Stores, restaurants, and automobile service stations, and other commercial buildings	86 501 766	53 228 291	21 988 066	11 285 409	1	1	1
	Commercial warehouses such as distribution buildings and mini-storage	19 795 290	13 877 549	3 863 465	2 054 276	1	1	2
	Religious buildings	16 542 907	10 025 460	4 701 934	1 815 512	1	2	2
	Educational buildings	79 136 939	48 904 856	24 900 915	5 331 168	1	1	1
	Waste disposal plants	407 059	231 889	130 891	44 279	3	3	5
	Health care and institutional buildings	43 993 739	25 444 311	15 042 691	3 506 737	1	1	1
	Public safety buildings such as prisons, police, and fire stations	12 664 846	8 691 104	2 875 201	1 098 541	1	2	7
	Farm buildings, nonresidential (except grain elevators)	4 623 747	3 324 026	635 556	664 165	6	7	3
	Amusement, social, and recreational buildings	12 827 062	9 256 235	2 776 851	793 976	1	1	3
	Indoor swimming pools	537 366	391 963	D	D	17	21	S
	Indoor ice rinks	21 883	21 477	D	D	13	13	S
	Other building construction	5 374 632	3 729 793	1 149 723	495 116	1	1	2
	Nonbuilding construction, total	250 126 115	152 718 741	56 019 699	41 387 675	—	—	1
	Highways, streets, and related work, such as installation of guardrails and signs	66 698 425	36 411 055	19 498 198	10 789 172	1	1	1
	Airport runways and related work	3 911 463	2 056 495	1 430 228	424 740	2	2	2
	Private driveways and parking areas	14 831 080	8 784 022	3 079 195	2 967 863	2	2	4
	Bridges and elevated highways	14 921 029	8 994 236	4 164 048	1 762 746	2	2	3
	Tunnels	2 045 705	1 723 430	205 627	116 648	2	1	5
	Sewers, water mains, and related facilities	39 022 885	27 491 035	6 331 691	5 200 159	1	1	2
	Sewers, sewer lines, septic systems, and related facilities	22 404 955	15 656 925	3 662 235	3 085 795	1	1	2
	Water mains, storage, and related facilities	16 617 930	11 834 110	2 669 456	2 114 364	2	2	3
	Oil and gas pipelines (except gathering), pumping stations, storage tanks, and mains	7 242 820	4 659 849	1 172 580	1 410 392	1	2	2
	Power and communication transmission lines, cables, towers, and related facilities	21 955 370	12 799 664	4 745 028	4 410 679	1	1	2
	Power plants	21 731 750	16 273 363	2 355 669	3 102 717	1	1	3
	Power and cogeneration plants, except hydroelectric	18 767 296	14 125 686	2 044 108	2 597 502	—	—	1
	Power plants, hydroelectric	2 964 454	2 147 677	311 561	505 216	10	11	22
	Chemical (except petrochemical) complexes/plants, blast furnaces, and mining appurtenances	2 441 590	629 141	533 548	1 278 901	2	3	3
	Sewage and water treatment plants	10 905 472	6 359 050	3 513 504	1 032 918	1	1	1
	Sewage treatment plants	5 580 579	3 189 318	1 934 133	457 128	1	1	2
	Water treatment plants	5 324 893	3 169 732	1 579 371	575 790	1	1	2
	Petrochemical plants and petroleum refineries	7 438 388	2 308 789	1 963 334	3 166 265	1	1	1
	Mass transit construction	4 931 679	2 613 592	1 361 877	956 211	4	4	4
	Urban mass transit, such as subways and light rail systems	2 228 674	1 425 777	680 351	122 546	1	1	3
	Railroad construction	2 703 005	1 187 815	681 525	833 665	7	8	8
	Conservation and development construction, such as drainage canals and flood control projects	4 712 476	3 046 481	837 853	828 142	4	4	5
	Dam construction	683 009	398 972	139 519	144 518	5	3	24
	Harbor and port facilities	1 709 339	1 136 516	363 818	209 005	4	4	4
	Marine construction, such as dredging, navigational channels, and locks	2 372 536	1 067 545	526 810	778 182	7	11	11
	Outdoor swimming pools	6 765 210	5 185 209	852 672	727 329	4	4	6
	Fencing (except electronic containment fencing for pets)	4 447 638	3 145 472	761 084	541 082	4	5	6
	Electronic containment fencing for pets	84 408	53 103	8 851	22 454	19	22	23
	Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds	5 279 839	3 511 834	1 283 650	484 355	5	4	13
	Ships	493 415	162 697	60 375	270 342	16	3	7
	Oil and gas fields	771 226	473 634	128 251	169 341	4	4	1
	Oil and gas field gathering lines	1 069 543	657 891	183 712	227 940	5	4	8
	Coal mines	156 048	91 111	31 340	33 597	12	18	15
	Metal mines	62 374	35 051	3 795	23 528	23	34	22
	Nonmetallic mines	79 357	47 159	17 605	14 592	12	13	12
	Other nonbuilding construction	3 362 038	2 602 345	465 836	293 857	4	5	8
	Construction work, nsk	43 150 713	27 519 443	11 959 188	3 683 221	—	—	—
236	Construction of buildings							
	Total	521 936 291	383 428 272	112 518 511	26 000 647	—	1	1
	Building construction, total	470 177 920	350 355 244	98 802 914	21 019 761	—	1	1
	Single-family houses, detached and attached	195 843 258	166 992 164	22 858 110	5 992 984	1	1	2
	Single-family houses, detached	175 239 628	149 439 650	20 519 169	5 280 809	1	1	2
	Single-family houses, attached	20 603 630	17 552 514	2 338 941	712 175	2	2	4
	Apartment buildings (2 or more units), such as rentals, apartment type condominiums and cooperatives	27 328 923	21 997 927	3 970 858	1 360 137	2	2	4
	Dormitories and barracks	4 188 266	3 008 790	984 461	195 014	1	1	3
	Manufacturing and industrial warehouses	13 546 588	9 674 720	2 916 826	955 041	4	5	4
	Grain elevators and dry cleaning plants	260 797	150 634	D	D	17	18	S
	Other manufacturing and light industrial buildings, such as factories, assembly plants, and industrial research laboratories	17 273 667	9 975 451	4 809 505	2 488 711	2	2	4
	Hotels, motels, and tourist cabins	9 230 591	7 313 068	D	D	2	2	S
	Office buildings	51 768 447	29 721 844	19 248 986	2 797 617	1	1	2
	Stores, restaurants, and automobile service stations, and other commercial buildings	42 973 529	28 369 496	11 984 949	2 619 084	2	2	3
	Commercial warehouses such as distribution buildings and mini-storage	8 799 364	6 812 790	1 602 153	384 421	2	2	5

See footnotes at end of table.

Table 2. Value of Construction Work for Establishments by Type of Construction: 2002—Con.

[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]

NAICS code	Subsector and 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
		A	B	C	D	A	B	C
23	Construction—Con.							
236	Construction of buildings—Con.							
	Religious buildings	8 719 059	5 909 951	2 469 860	339 248	3	2	4
	Educational buildings	43 795 941	28 831 276	13 441 323	1 523 342	1	1	2
	Waste disposal plants	116 548	65 004	44 711	6 833	2	2	3
	Health care and institutional buildings	24 637 252	15 151 257	8 535 277	950 717	1	1	2
	Public safety buildings such as prisons, police, and fire stations	6 795 132	4 967 569	1 439 196	388 367	2	2	4
	Farm buildings, nonresidential (except grain elevators)	2 894 911	2 294 387	343 231	257 293	6	6	8
	Amusement, social, and recreational buildings	8 505 005	6 443 340	1 803 774	257 891	2	1	5
	Indoor swimming pools	D	D	26 412	41 028	S	S	18
	Indoor ice rinks	D	D	—	—	S	S	—
	Other building construction	3 134 318	2 376 691	623 398	134 229	1	2	2
	Nonbuilding construction, total	8 991 514	5 806 169	1 824 115	1 361 230	1	2	1
	Highways, streets, and related work, such as installation of guardrails and signs	1 034 677	788 199	179 980	66 497	1	—	2
	Airport runways and related work	40 316	22 408	14 314	3 594	3	—	—
	Private driveways and parking areas	727 882	546 332	117 683	63 867	5	5	7
	Bridges and elevated highways	570 651	366 988	137 473	66 191	1	2	—
	Tunnels	87 707	76 947	7 981	2 779	6	6	29
	Sewers, water mains, and related facilities	1 176 267	884 404	216 897	74 965	2	3	2
	Sewers, sewer lines, septic systems, and related facilities	659 641	541 969	76 707	40 965	3	3	5
	Water mains, storage, and related facilities	516 626	342 434	140 191	34 001	3	4	2
	Oil and gas pipelines (except gathering), pumping stations, storage tanks, and mains	34 807	23 852	4 351	6 604	5	2	37
	Power and communication transmission lines, cables, towers, and related facilities	323 873	228 160	85 641	10 071	2	3	3
	Power plants	667 727	429 240	167 639	70 848	1	1	3
	Power and cogeneration plants, except hydroelectric	576 827	384 092	129 957	62 778	1	1	1
	Power plants, hydroelectric	90 900	45 148	37 682	8 070	5	2	12
	Chemical (except petrochemical) complexes/plants, blast furnaces, and mining appurtenances	936 630	241 394	190 554	504 682	3	5	1
	Sewage and water treatment plants	1 701 387	1 138 034	389 051	174 302	1	1	1
	Sewage treatment plants	808 466	563 859	209 687	34 920	2	2	1
	Water treatment plants	892 921	574 174	179 364	139 382	1	1	2
	Petrochemical plants and petroleum refineries	408 501	120 198	52 908	235 395	—	—	—
	Mass transit construction	121 398	68 453	29 669	23 276	3	—	6
	Urban mass transit, such as subways and light rail systems	114 194	D	D	D	—	S	S
	Railroad construction	\$7 204	D	D	D	\$54	S	S
	Conservation and development construction, such as drainage canals and flood control projects	152 229	95 367	41 401	15 461	8	9	5
	Dam construction	7 115	4 646	D	D	—	—	5
	Harbor and port facilities	2 448	\$1 044	279	1 124	29	\$45	5
	Marine construction, such as dredging, navigational channels, and locks	2 274	D	D	—	27	S	S
	Outdoor swimming pools	53 449	40 610	5 893	6 946	21	26	16
	Fencing (except electronic containment fencing for pets)	\$22 255	\$7 911	\$11 215	\$3 129	\$47	\$41	\$73
	Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds	476 891	321 697	136 951	18 243	2	2	3
	Ships	D	D	—	—	S	S	—
	Oil and gas field gathering lines	D	D	D	—	S	S	S
	Coal mines	D	D	—	—	S	S	—
	Other nonbuilding construction	428 009	388 420	D	D	25	28	S
	Construction work, nsk	42 766 858	27 266 859	11 891 482	3 619 656	—	—	—
237	Heavy and civil engineering construction							
	Total	453 141 107	293 158 940	116 939 095	43 043 072	—	—	—
	Building construction, total	17 006 898	14 834 700	1 437 991	734 207	3	3	2
	Single-family houses, detached and attached	10 612 969	10 023 295	331 555	258 120	4	4	5
	Single-family houses, detached	9 787 142	9 231 051	314 920	241 171	4	5	5
	Single-family houses, attached	825 827	792 243	16 635	16 949	12	13	24
	Apartment buildings (2 or more units), such as rentals, apartment type condominiums and cooperatives	873 100	778 720	55 050	39 330	14	15	26
	Dormitories and barracks	58 643	32 484	25 625	\$534	16	5	35
	Manufacturing and industrial warehouses	652 350	543 262	77 627	31 461	5	5	16
	Grain elevators and dry cleaning plants	3 206	2 757	D	D	—	—	S
	Other manufacturing and light industrial buildings, such as factories, assembly plants, and industrial research laboratories	849 581	506 840	194 504	148 237	3	4	4
	Hotels, motels, and tourist cabins	117 428	108 902	D	D	4	4	S
	Office buildings	1 028 451	737 905	208 940	81 605	4	4	5
	Stores, restaurants, and automobile service stations, and other commercial buildings	1 332 334	1 137 773	146 160	48 401	6	7	5
	Commercial warehouses such as distribution buildings and mini-storage	98 352	80 767	9 753	7 832	7	7	12
	Religious buildings	57 800	43 823	9 542	4 435	18	23	6
	Educational buildings	492 895	311 910	145 032	35 952	3	4	4
	Waste disposal plants	154 118	90 896	45 000	18 222	3	3	4
	Health care and institutional buildings	212 416	110 038	95 314	7 063	3	3	4
	Public safety buildings such as prisons, police, and fire stations	68 250	57 214	7 787	3 249	5	6	13
	Farm buildings, nonresidential (except grain elevators)	57 796	24 772	8 062	24 962	15	18	8
	Amusement, social, and recreational buildings	141 324	103 928	26 626	10 771	22	24	33
	Indoor swimming pools	\$669	\$669	—	—	\$73	\$73	—
	Other building construction	195 218	138 744	44 867	11 607	10	14	3
	Nonbuilding construction, total	176 870 341	108 051 563	41 314 630	27 504 147	—	1	1
	Highways, streets, and related work, such as installation of guardrails and signs	59 847 459	32 073 812	17 953 656	9 819 991	1	1	1
	Airport runways and related work	2 841 086	1 443 177	1 061 915	335 993	1	1	1
	Private driveways and parking areas	4 139 925	2 545 389	932 242	662 293	3	2	8
	Bridges and elevated highways	12 201 701	7 511 247	3 578 637	1 111 816	2	2	3
	Tunnels	1 766 155	1 556 710	134 486	74 959	2	2	7
	Sewers, water mains, and related facilities	28 612 563	20 469 949	4 794 927	3 347 688	1	1	2
	Sewers, sewer lines, septic systems, and related facilities	15 859 980	11 252 887	2 741 150	1 865 943	2	2	3
	Water mains, storage, and related facilities	12 752 583	9 217 062	2 053 776	1 481 745	2	2	4

See footnotes at end of table.

Table 2. Value of Construction Work for Establishments by Type of Construction: 2002—Con.

[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]

NAICS code	Subsector and 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
		A	B	C	D	A	B	C
23	Construction—Con.							
237	Heavy and civil engineering construction—Con.							
	Oil and gas pipelines (except gathering), pumping stations, storage tanks, and mains	5 942 844	3 954 181	931 359	1 057 304	2	2	2
	Power and communication transmission lines, cables, towers, and related facilities	19 562 524	11 366 697	4 150 536	4 045 291	1	1	2
	Power plants	15 903 324	12 908 777	1 241 026	1 753 522	2	2	6
	Power and cogeneration plants, except hydroelectric	13 522 000	11 038 643	1 059 825	1 423 532	—	—	1
	Power plants, hydroelectric	2 381 325	1 870 134	181 201	329 990	12	12	38
	Chemical (except petrochemical) complexes/plants, blast furnaces, and mining appurtenances	288 621	60 848	44 369	183 404	4	1	2
	Sewage and water treatment plants	5 442 879	3 177 317	1 921 850	343 712	1	1	1
	Sewage treatment plants	2 900 377	1 637 718	1 096 640	166 019	1	1	2
	Water treatment plants	2 542 502	1 539 598	825 210	177 694	2	2	2
	Petrochemical plants and petroleum refineries	4 204 444	1 266 082	1 296 138	1 642 225	1	1	1
	Mass transit construction	4 022 421	2 165 288	991 781	865 353	5	4	5
	Urban mass transit, such as subways and light rail systems	1 651 091	1 110 209	460 383	80 500	1	—	5
	Railroad construction	2 371 330	1 055 079	531 398	784 853	8	9	8
	Conservation and development construction, such as drainage canals and flood control projects	3 782 525	2 416 469	649 014	717 042	4	5	6
	Dam construction	520 158	351 232	86 879	82 047	4	3	10
	Harbor and port facilities	1 294 085	855 460	289 654	148 971	5	5	5
	Marine construction, such as dredging, navigational channels, and locks	2 260 227	1 013 971	506 986	739 270	7	12	11
	Outdoor swimming pools	^{*28} 892	^{*21} 771	^{*4} 269	^{*2} 852	^{*56}	^{*57}	^{*52}
	Fencing (except electronic containment fencing for pets)	31 479	22 607	5 806	3 066	11	6	29
	Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds	2 335 213	1 621 404	444 850	268 959	7	7	10
	Ships	D	D	D	D	S	S	S
	Oil and gas fields	155 999	109 433	14 448	32 118	7	5	6
	Oil and gas field gathering lines	821 438	492 968	142 777	185 692	5	3	7
	Coal mines	^{*8} 467	D	D	^{*1} 134	^{*55}	S	S
	Nonmetallic mines	D	—	—	D	S	—	—
	Other nonbuilding construction	854 481	645 283	D	D	4	4	S
	Construction work, nsk	269 237	169 522	49 741	49 974	—	—	—
238	Specialty trade contractors							
	Total	501 216 440	293 177 086	116 736 553	91 302 800	—	—	—
	Building construction, total	416 098 212	241 206 663	99 822 120	75 069 429	—	1	—
	Single-family houses, detached and attached	151 717 982	95 632 664	28 907 132	27 178 186	1	1	1
	Single-family houses, detached	132 119 468	83 593 155	25 291 942	23 234 371	1	1	1
	Single-family houses, attached	19 598 514	12 039 509	3 615 189	3 943 815	1	2	3
	Apartment buildings (2 or more units), such as rentals, apartment type condominiums and cooperatives	22 680 403	14 448 958	3 380 210	4 851 236	1	2	2
	Dormitories and barracks	2 672 174	1 585 619	776 497	310 058	2	2	4
	Manufacturing and industrial warehouses	17 461 064	9 062 530	4 730 628	3 667 906	1	2	2
	Grain elevators and dry cleaning plants	233 909	89 906	53 377	90 626	7	11	10
	Other manufacturing and light industrial buildings, such as factories, assembly plants, and industrial research laboratories	27 486 943	12 089 559	8 429 982	6 967 402	1	1	1
	Hotels, motels, and tourist cabins	9 406 313	5 992 832	1 848 432	1 565 049	1	2	3
	Office buildings	55 560 742	28 798 820	16 421 377	10 340 544	1	1	1
	Stores, restaurants, and automobile service stations, and other commercial buildings	42 195 902	23 721 022	9 856 957	8 617 923	1	1	1
	Commercial warehouses such as distribution buildings and mini-storage	10 897 573	6 983 992	2 251 559	1 662 022	2	2	3
	Religious buildings	7 766 048	4 071 686	2 222 532	1 471 830	1	2	2
	Educational buildings	34 848 103	19 761 670	11 314 559	3 771 874	1	1	1
	Waste disposal plants	136 392	75 988	41 180	19 224	8	9	14
	Health care and institutional buildings	19 144 072	10 183 015	6 412 100	2 548 957	1	1	1
	Public safety buildings such as prisons, police, and fire stations	5 801 464	3 666 200	1 428 218	706 926	2	2	2
	Farm buildings, nonresidential (except grain elevators)	1 671 040	1 004 866	284 263	381 911	12	17	12
	Amusement, social, and recreational buildings	4 180 733	2 708 968	946 451	525 314	1	1	2
	Indoor swimming pools	D	D	D	D	S	S	S
	Indoor ice rinks	D	D	D	D	S	S	S
	Other building construction	2 045 096	1 214 358	481 458	349 280	2	1	3
	Nonbuilding construction, total	64 264 260	38 861 009	12 880 953	12 522 298	1	1	2
	Highways, streets, and related work, such as installation of guardrails and signs	5 816 289	3 549 044	1 364 562	902 683	2	3	2
	Airport runways and related work	1 030 061	590 910	353 999	85 153	7	7	5
	Private driveways and parking areas	9 963 274	5 692 301	2 029 270	2 241 703	3	3	4
	Bridges and elevated highways	2 148 677	1 116 000	447 938	584 739	4	4	9
	Tunnels	191 843	89 773	63 159	38 911	4	6	3
	Sewers, water mains, and related facilities	9 234 055	6 136 683	1 319 867	1 777 506	3	3	3
	Sewers, sewer lines, septic systems, and related facilities	5 885 334	3 862 069	844 378	1 178 888	2	2	3
	Water mains, storage, and related facilities	3 348 721	2 274 614	475 489	598 618	6	8	4
	Oil and gas pipelines (except gathering), pumping stations, storage tanks, and mains	1 265 169	681 816	236 869	346 484	4	3	5
	Power and communication transmission lines, cables, towers, and related facilities	2 068 974	1 204 806	508 851	355 317	4	5	6
	Power plants	5 160 999	2 935 346	947 005	1 278 348	1	2	2
	Power and cogeneration plants, except hydroelectric	4 668 469	2 702 952	854 326	1 111 192	2	2	2
	Power plants, hydroelectric	492 229	232 395	92 679	167 156	5	8	5
	Chemical (except petrochemical) complexes/plants, blast furnaces, and mining appurtenances	1 216 339	326 899	298 625	590 815	2	4	5
	Sewage and water treatment plants	3 761 206	2 043 700	1 202 603	514 904	2	2	2
	Sewage treatment plants	1 871 736	987 740	627 806	256 190	3	4	4
	Water treatment plants	1 889 470	1 055 960	574 797	258 714	2	2	3
	Petrochemical plants and petroleum refineries	2 825 443	922 509	614 289	1 288 645	2	3	1
	Mass transit construction	787 861	379 851	340 427	67 583	5	3	9
	Urban mass transit, such as subways and light rail systems	463 389	D	D	D	2	S	S
	Railroad construction	324 472	D	D	D	11	S	S
	Conservation and development construction, such as drainage canals and flood control projects	777 723	534 645	147 438	95 640	7	8	12

See footnotes at end of table.

Table 2. Value of Construction Work for Establishments by Type of Construction: 2002—Con.

[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]

NAICS code	Subsector and 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
		A	B	C	D	A	B	C
23	Construction—Con.							
238	Specialty trade contractors—Con.							
	Dam construction	155 736	43 094	D	D	21	7	S
	Harbor and port facilities	412 806	280 011	73 885	58 910	6	7	8
	Marine construction, such as dredging, navigational channels, and locks	110 035	D	D	*38 912	22	S	S
	Outdoor swimming pools	6 682 870	5 122 828	842 511	717 531	4	4	6
	Fencing (except electronic containment fencing for pets)	4 393 904	3 114 954	744 064	534 887	4	5	6
	Electronic containment fencing for pets	84 408	53 103	8 851	22 454	19	22	23
	Outdoor recreational areas, such as outdoor athletic fields, courts, golf courses, and camp grounds	2 467 735	1 568 733	701 849	197 153	8	6	23
	Ships	491 723	161 291	D	D	16	3	S
	Oil and gas fields	615 227	364 201	113 803	137 223	5	5	1
	Oil and gas field gathering lines	D	D	D	42 247	S	S	S
	Coal mines	D	89 090	D	32 463	S	18	S
	Metal mines	62 374	35 051	3 795	23 528	23	34	22
	Nonmetallic mines	D	47 159	17 605	D	S	13	12
	Other nonbuilding construction	2 079 547	1 568 643	308 549	202 356	5	5	11
	Construction work, nsk	114 618	83 062	17 965	13 591	—	—	—

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 3. 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]

NAICS code	Subsector and primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
23	Construction		
	Total	1 208 732 550	—
	Building construction, total	469 375 261	—
	Building construction on land owned by you, for sale	126 549 061	1
	Building construction on land owned by others	233 279 376	1
	Remodeling contractor	60 741 872	1
	Construction management, at risk (for building construction)	31 851 643	1
	Construction management, agency or fee only (for building construction)	16 953 309	2
	Heavy construction and civil engineering construction, total	206 027 722	1
	Subdividing and servicing of raw land into lots, for sale by you	15 089 681	4
	Highway and street general contractor	38 192 137	1
	Paving contractor - asphalt or concrete for highways, streets, bridges, or airport runways	23 691 840	2
	Construction management, at risk (for heavy construction)	1 110 642	4
	Construction management, agency or fee only (for heavy construction)	1 400 185	4
	Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines	86 690 106	1
	Cable and conduit laying contractor	11 864 306	1
	Dredging contractor	1 117 632	4
	Trenching contractor	1 685 907	5
	Excavation work, earthmoving or land clearing contractor, not connected with buildings	19 678 658	2
	Pile driving contractor	875 534	9
	Blasting contractor, except building demolition	333 957	11
	Rental of construction machinery or equipment (except cranes) with operator	1 938 664	5
	Rental of cranes with operator	2 358 471	4
	Special trade contractors, total	472 108 227	—
	Heating, ventilation and air-conditioning contractor (HVAC)	50 899 622	1
	Building sprinkler system installation contractor	5 430 520	2
	Energy management contractor	728 592	4
	Environmental control systems installation and service contractor	1 597 366	6
	Lawn sprinkler installation contractor	1 547 138	7
	Mechanical contractor	18 410 850	1
	Plumbing contractor	34 146 253	1
	Refrigeration contractor	2 552 894	2
	Septic tank, cesspool, and dry well contractor (except sewer hookups to buildings)	725 151	8
	Steamfitting and piping contractor	3 959 329	1
	Boiler cleaning, repair, and maintenance contractor	1 541 439	2
	Bridge and ship painting contractor	673 654	14
	Painting contractor	15 397 991	2
	Wall covering or removal contractor	867 112	4
	Highway and traffic lane painting contractor	802 544	8
	Electric power installation and service contractor, including lighting	58 785 017	1
	Electronic control systems installation and service, (except environmental control)	3 561 943	2
	Fire and security systems installation and service contractor	4 956 174	2
	Highway lighting and signal installation and service contractor	2 919 599	4
	Telecommunications installation and service contractor (except transmission lines)	7 770 837	2
	Cable television hook-up contractor	1 012 462	8
	Marble, granite, and slate contractor: exterior	342 822	7
	Masonry contractor, brick, block, or stone (except brick paving)	14 600 684	2
	Refractory brick contractor	260 972	4
	Stonework contractor	883 937	10
	Foundation contractor: brick, block, or stone	895 298	6
	Masonry contractor: pointing, cleaning, or caulking	867 435	9
	Acoustical contractor	3 145 357	4
	Drywall contractor	19 098 712	2
	Insulation contractor	5 546 872	2
	Plastering, lathing, or fresco contractor, interior	1 290 705	8
	Plastering contractor, including stucco, exterior	3 002 474	5
	Marble, granite, and slate contractor: interior	1 386 209	7
	Terrazzo or mosaic contractor	305 055	9
	Tile contractor	4 758 560	4
	Finish carpentry contractor	16 924 793	2
	Framing contractor, except steel	14 751 095	7
	Framing contractor, steel	688 958	4
	Garage door and overhead door installation contractor, residential-type	2 447 741	6
	Carpet laying or removal contractor	4 209 453	3
	Computer flooring installation contractor	219 095	9
	Flooring contractor, wood	2 833 329	4
	Floor laying contractor, resilient	1 891 622	4
	Gutter downspout, fascia, or soffit contractor	2 001 544	4
	Roofing contractor, except sheet metal	17 685 473	2
	Roofing contractor, sheet metal	4 347 219	3
	Siding contractor, except sheet metal	2 463 616	4
	Specialty sheet metal contractor, including metal ceilings, panel, or shelving installation	1 270 389	5
	Siding contractor, sheet metal	826 635	5
	Asphalt, concrete, and brick paving contractor, residential or commercial driveways and parking areas	9 994 360	2
	Shotcrete contractor	285 137	8
	Culvert and curb contractor, residential or commercial driveways and parking areas	1 820 092	4
	Foundation contractor, concrete	11 368 837	3
	Concrete Contractor (except paving or foundation)	22 466 812	2
	Water well drilling contractor	2 921 199	3
	Reinforcing steel contractor	1 968 186	4
	Structural steel erection contractor	5 740 999	3
	Metal curtain wall installation contractor	1 254 180	4
	Precast concrete installation contractor	669 019	8
	Storage tank, erection contractor	799 883	4
	Glass, glazing, and tinting contractor	6 141 668	3
	Excavation work: earthmoving or land clearing contractor, connected with buildings	19 236 492	2
	Foundation digging, drilling, or pile driving contractor	3 288 828	3
	Wrecking, demolition, or blasting contractor, connected with buildings	3 132 356	3
	Elevator installation, service, and repair contractor	5 712 541	2
	Escalator installation, service, and repair contractor	298 332	3
	Millwright and machine rigging contractor	5 116 197	2
	Scrubber, dust, collection, and other industrial ventilation installation contractor	281 028	5
	Fence construction contractor	5 905 783	4
	Ornamental metal contractor	1 112 701	10

See footnotes at end of table.

Table 3. Value of Business Done for Establishments by Kind-of-Business Activity: 2002—Con.

[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]

NAICS code	Subsector and primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
	Insulation contractor, boiler, pipe, or duct work	2 411 320	3
	Sandblasting contractor, building exteriors	550 138	12
	Service station equipment installation contractor	763 136	7
	Swimming pool contractor	6 532 719	4
	Test boring or core drilling contractor for construction	366 163	8
	Waterproofing and weather stripping contractor	2 179 585	4
	Fireproofing contractor	401 335	3
	Welding contractor, operating at site of construction	926 253	4
	Modular furniture attachment and installation contractor	1 230 409	6
	All other construction activities	6 099 380	3
	Other business activities secondary to construction activities, total	12 009 715	1
	Architectural services	433 484	4
	Engineering services	1 150 712	1
	Manufacturing -- products manufactured and sold to others	2 072 070	3
	Real estate commissions and property management fees	806 054	4
	Rental or lease of properties	915 497	6
	Rental of construction machinery or equipment to others, without an operator	440 398	4
	Transportation of goods for others	630 788	4
	Wholesale trade	499 605	3
	Building construction on land owned by you, for rent or lease (investment builder)	1 239 403	5
	Retail trade	2 642 666	2
	All other business activities secondary to construction activities	1 179 037	2
	Kind of business activity, nsk	43 112 245	2
236	Construction of buildings		
	Total	525 763 699	—
	Building construction, total	465 138 156	—
	Building construction on land owned by you, for sale	126 071 581	1
	Building construction on land owned by others	230 636 153	1
	Remodeling contractor	59 953 376	1
	Construction management, at risk (for building construction)	31 757 417	1
	Construction management, agency or fee only (for building construction)	16 719 629	2
	Heavy construction and civil engineering construction, total	5 804 562	3
	Subdividing and servicing of raw land into lots, for sale by you	1 796 701	9
	Highway and street general contractor	743 579	1
	Paving contractor -- asphalt or concrete for highways, streets, bridges, or airport runways	52 775	3
	Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines	2 646 341	1
	Cable and conduit laying contractor	^{*12} 118	^{*74}
	Trenching contractor	D	S
	Excavation work, earthmoving or land clearing contractor, not connected with buildings	524 912	4
	Pile driving contractor	D	S
	Rental of construction machinery or equipment (except cranes) with operator	3 567	12
	Rental of cranes with operator	19 056	5
	Special trade contractors, total	8 233 744	2
	Heating, ventilation and air-conditioning contractor (HVAC)	113 044	17
	Building sprinkler system installation contractor	14 349	7
	Energy management contractor	1 634	—
	Environmental control systems installation and service contractor	6 293	—
	Lawn sprinkler installation contractor	D	S
	Mechanical contractor	78 894	7
	Plumbing contractor	88 669	9
	Refrigeration contractor	D	S
	Septic tank, cesspool, and dry well contractor (except sewer hookups to buildings)	1 160	21
	Steamfitting and piping contractor	27 624	14
	Boiler cleaning, repair, and maintenance contractor	D	S
	Painting contractor	55 932	13
	Wall covering or removal contractor	D	S
	Electric power installation and service contractor, including lighting	90 734	19
	Electronic control systems installation and service, (except environmental control)	9 212	7
	Fire and security systems installation and service contractor	24 961	6
	Highway lighting and signal installation and service contractor	D	S
	Telecommunications installation and service contractor (except transmission lines)	8 970	20
	Cable television hook-up contractor	^{*719}	^{*51}
	Marble, granite, and slate contractor: exterior	D	S
	Masonry contractor, brick, block, or stone (except brick paving)	37 094	30
	Stonework contractor	^{*902}	^{*81}
	Foundation contractor: brick, block, or stone	5 764	39
	Masonry contractor: pointing, cleaning, or caulking	^{*6} 222	^{*46}
	Acoustical contractor	^{*6} 434	^{*44}
	Drywall contractor	35 227	14
	Insulation contractor	5 921	15
	Plastering, lathing, or fresco contractor, interior	^{*2} 099	^{*44}
	Plastering contractor, including stucco, exterior	1 754	38
	Marble, granite, and slate contractor: interior	1 629	29
	Tile contractor	9 086	36
	Finish carpentry contractor	2 176 193	3
	Framing contractor, except steel	1 563 296	4
	Framing contractor, steel	^{*10} 689	^{*40}
	Garage door and overhead door installation contractor, residential-type	7 823	27
	Carpet laying or removal contractor	16 885	26
	Computer flooring installation contractor	5 486	18
	Flooring contractor, wood	10 071	37
	Floor laying contractor, resilient	^{*5} 058	^{*57}
	Gutter downspout, fascia, or soffit contractor	^{*5} 617	^{*58}
	Roofing contractor, except sheet metal	43 570	12
	Roofing contractor, sheet metal	^{*13} 809	^{*40}
	Siding contractor, except sheet metal	26 207	18
	Specialty sheet metal contractor, including metal ceilings, panel, or shelving installation	^{*2} 617	^{*45}
	Siding contractor, sheet metal	^{*1} 515	^{*52}
	Asphalt, concrete, and brick paving contractor, residential or commercial driveways and parking areas	30 841	11
	Culvert and curb contractor, residential or commercial driveways and parking areas	3 723	24
	Foundation contractor, concrete	23 549	10
	Concrete Contractor (except paving or foundation)	1 830 038	3
	Reinforcing steel contractor	2 210	6

See footnotes at end of table.

Table 3. Value of Business Done for Establishments by Kind-of-Business Activity: 2002—Con.

[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]

NAICS code	Subsector and primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
236	Construction of buildings—Con.		
	Structural steel erection contractor	42 824	17
	Precast concrete installation contractor	D	S
	Storage tank, erection contractor	^{\$2} 115	^{\$57}
	Glass, glazing, and tinting contractor	^{\$14} 224	^{\$67}
	Excavation work: earthmoving or land clearing contractor, connected with buildings	1 169 282	3
	Foundation digging, drilling, or pile driving contractor	14 718	20
	Wrecking, demolition, or blasting contractor, connected with buildings	^{\$70} 488	^{\$42}
	Millwright and machine rigging contractor	39 490	2
	Scrubber, dust, collection, and other industrial ventilation installation contractor	D	S
	Fence construction contractor	^{\$17} 896	^{\$52}
	Ornamental metal contractor	^{\$2} 264	^{\$72}
	Insulation contractor, boiler, pipe, or duct work	6 090	22
	Sandblasting contractor, building exteriors	^{\$1} 835	^{\$80}
	Service station equipment installation contractor	D	S
	Swimming pool contractor	369 882	25
	Test boring or core drilling contractor for construction	2 251	4
	Waterproofing and weather stripping contractor	32 611	33
	Fireproofing contractor	2 268	37
	Welding contractor, operating at site of construction	^{\$4} 477	^{\$59}
	Modular furniture attachment and installation contractor	D	S
	All other construction activities	112 474	4
	Other business activities secondary to construction activities, total	3 752 829	2
	Architectural services	407 476	4
	Engineering services	236 055	4
	Manufacturing -- products manufactured and sold to others	^{\$64} 585	^{\$64}
	Real estate commissions and property management fees	666 377	4
	Rental or lease of properties	652 525	7
	Rental of construction machinery or equipment to others, without an operator	5 906	1
	Transportation of goods for others	3 855	15
	Wholesale trade	4 243	25
	Building construction on land owned by you, for rent or lease (investment builder)	1 190 664	5
	Retail trade	264 300	6
	All other business activities secondary to construction activities	256 843	4
	Kind of business activity, nsk	42 721 934	2
237	Heavy and civil engineering construction		
	Total	197 876 288	1
	Building construction, total	1 723 119	4
	Building construction on land owned by you, for sale	391 413	11
	Building construction on land owned by others	1 243 097	3
	Remodeling contractor	88 609	4
	Heavy construction and civil engineering construction, total	179 966 282	1
	Subdividing and servicing of raw land into lots, for sale by you	13 260 683	4
	Highway and street general contractor	35 960 762	1
	Paving contractor -- asphalt or concrete for highways, streets, bridges, or airport runways	22 769 648	2
	Construction management, at risk (for heavy construction)	1 110 642	4
	Construction management, agency or fee only (for heavy construction)	1 400 185	4
	Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines	82 045 054	1
	Cable and conduit laying contractor	10 397 670	1
	Dredging contractor	1 099 127	4
	Trenching contractor	936 887	8
	Excavation work, earthmoving or land clearing contractor, not connected with buildings	8 114 893	2
	Pile driving contractor	838 070	9
	Blasting contractor, except building demolition	284 549	12
	Rental of construction machinery or equipment (except cranes) with operator	1 551 668	6
	Rental of cranes with operator	196 443	7
	Special trade contractors, total	11 519 085	1
	Heating, ventilation and air-conditioning contractor (HVAC)	24 593	10
	Building sprinkler system installation contractor	3 200	16
	Energy management contractor	6 478	10
	Environmental control systems installation and service contractor	^{\$5} 264	^{\$48}
	Lawn sprinkler installation contractor	D	S
	Mechanical contractor	71 845	19
	Plumbing contractor	90 399	16
	Refrigeration contractor	D	S
	Septic tank, cesspool, and dry well contractor (except sewer hookups to buildings)	36 935	19
	Steamfitting and piping contractor	25 194	26
	Boiler cleaning, repair, and maintenance contractor	D	S
	Bridge and ship painting contractor	2 266	20
	Painting contractor	22 375	9
	Wall covering or removal contractor	D	S
	Highway and traffic lane painting contractor	764 878	8
	Electric power installation and service contractor, including lighting	93 676	8
	Electronic control systems installation and service, (except environmental control)	12 656	39
	Fire and security systems installation and service contractor	17 195	5
	Highway lighting and signal installation and service contractor	D	S
	Telecommunications installation and service contractor (except transmission lines)	174 078	8
	Cable television hook-up contractor	49 368	8
	Masonry contractor, brick, block, or stone (except brick paving)	27 488	27
	Foundation contractor: brick, block, or stone	1 165	28
	Drywall contractor	^{\$2} 092	^{\$68}
	Finish carpentry contractor	31 268	9
	Framing contractor, except steel	41 508	5
	Roofing contractor, except sheet metal	9 504	13
	Asphalt, concrete, and brick paving contractor, residential or commercial driveways and parking areas	2 003 446	3
	Shotcrete contractor	4 051	3
	Culvert and curb contractor, residential or commercial driveways and parking areas	675 509	5

See footnotes at end of table.

Table 3. Value of Business Done for Establishments by Kind-of-Business Activity: 2002—Con.

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NAICS code	Subsector and primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
237	Heavy and civil engineering construction—Con.		
	Foundation contractor, concrete	68 038	2
	Concrete Contractor (except paving or foundation)	734 907	4
	Water well drilling contractor	2 882 200	3
	Reinforcing steel contractor	3 393	6
	Structural steel erection contractor	38 670	4
	Metal curtain wall installation contractor	D	S
	Precast concrete installation contractor	D	S
	Storage tank, erection contractor	715 055	4
	Glass, glazing, and tinting contractor	\$1 130	\$48
	Excavation work: earthmoving or land clearing contractor, connected with buildings	2 157 078	4
	Foundation digging, drilling, or pile driving contractor	270 276	6
	Wrecking, demolition, or blasting contractor, connected with buildings	156 912	8
	Elevator installation, service, and repair contractor	D	S
	Millwright and machine rigging contractor	51 448	16
	Scrubber, dust, collection, and other industrial ventilation installation contractor	D	S
	Fence construction contractor	46 710	5
	Ornamental metal contractor	6 384	—
	Insulation contractor, boiler, pipe, or duct work	\$247	\$60
	Sandblasting contractor, building exteriors	483	38
	Service station equipment installation contractor	D	S
	Swimming pool contractor	\$4 549	\$61
	Test boring or core drilling contractor for construction	5 090	2
	Waterproofing and weather stripping contractor	3 116	12
	Welding contractor, operating at site of construction	18 100	9
	Modular furniture attachment and installation contractor	D	S
	All other construction activities	712 249	6
	Other business activities secondary to construction activities, total	3 686 175	2
	Architectural services	4 913	34
	Engineering services	561 265	—
	Manufacturing -- products manufactured and sold to others	1 377 860	2
	Real estate commissions and property management fees	131 425	7
	Rental or lease of properties	220 248	9
	Rental of construction machinery or equipment to others, without an operator	188 397	6
	Transportation of goods for others	257 459	6
	Wholesale trade	23 190	2
	Building construction on land owned by you, for rent or lease (investment builder)	35 738	39
	Retail trade	483 161	8
	All other business activities secondary to construction activities	402 518	3
	Kind of business activity, nsk	269 379	—
238	Specialty trade contractors		
	Total	485 092 563	—
	Building construction, total	2 513 987	4
	Building construction on land owned by you, for sale	86 067	18
	Building construction on land owned by others	1 400 125	6
	Remodeling contractor	699 888	5
	Construction management, at risk (for building construction)	94 226	5
	Construction management, agency or fee only (for building construction)	233 681	4
	Heavy construction and civil engineering construction, total	20 256 878	1
	Subdividing and servicing of raw land into lots, for sale by you	32 296	19
	Highway and street general contractor	1 487 796	2
	Paving contractor -- asphalt or concrete for highways, streets, bridges, or airport runways	869 417	4
	Heavy construction contractor, such as bridges, tunnels, pipelines, and utility lines	1 998 711	3
	Cable and conduit laying contractor	1 454 518	2
	Dredging contractor	\$18 505	\$48
	Trenching contractor	D	S
	Excavation work, earthmoving or land clearing contractor, not connected with buildings	11 038 853	2
	Pile driving contractor	D	S
	Blasting contractor, except building demolition	49 407	22
	Rental of construction machinery or equipment (except cranes) with operator	383 429	8
	Rental of cranes with operator	2 142 973	5
	Special trade contractors, total	452 355 398	—
	Heating, ventilation and air-conditioning contractor (HVAC)	50 761 985	1
	Building sprinkler system installation contractor	5 412 971	2
	Energy management contractor	720 480	4
	Environmental control systems installation and service contractor	1 585 809	6
	Lawn sprinkler installation contractor	1 542 535	7
	Mechanical contractor	18 260 110	1
	Plumbing contractor	33 967 185	1
	Refrigeration contractor	2 547 184	2
	Septic tank, cesspool, and dry well contractor (except sewer hookups to buildings)	687 056	8
	Steamfitting and piping contractor	3 906 512	1
	Boiler cleaning, repair, and maintenance contractor	1 517 492	2
	Bridge and ship painting contractor	671 388	14
	Painting contractor	15 319 684	2
	Wall covering or removal contractor	860 866	4
	Highway and traffic lane painting contractor	37 666	24
	Electric power installation and service contractor, including lighting	58 600 607	1
	Electronic control systems installation and service, (except environmental control)	3 540 075	2
	Fire and security systems installation and service contractor	4 914 018	2
	Highway lighting and signal installation and service contractor	2 815 998	4
	Telecommunications installation and service contractor (except transmission lines)	7 587 790	2
	Cable television hook-up contractor	962 375	9
	Marble, granite, and slate contractor: exterior	D	S
	Masonry contractor, brick, block, or stone (except brick paving)	14 541 101	2
	Refractory brick contractor	260 972	4
	Stonework contractor	883 035	10
	Foundation contractor: brick, block, or stone	888 369	6
	Masonry contractor: pointing, cleaning, or caulking	861 214	9
	Acoustical contractor	3 138 923	4
	Drywall contractor	19 061 393	2
	Insulation contractor	5 540 951	2

See footnotes at end of table.

Table 3. Value of Business Done for Establishments by Kind-of-Business Activity: 2002—Con.

[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]

NAICS code	Subsector and primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
238	Specialty trade contractors—Con.		
	Plastering, lathing, or fresco contractor, interior	1 288 606	8
	Plastering contractor, including stucco, exterior	3 000 720	5
	Marble, granite, and slate contractor: interior	1 384 580	7
	Terrazzo or mosaic contractor	305 055	9
	Tile contractor	4 749 474	4
	Finish carpentry contractor	14 717 332	2
	Framing contractor, except steel	13 146 291	8
	Framing contractor, steel	678 269	4
	Garage door and overhead door installation contractor, residential-type	2 439 918	6
	Carpet laying or removal contractor	4 192 567	3
	Computer flooring installation contractor	213 609	9
	Flooring contractor, wood	2 823 258	4
	Floor laying contractor, resilient	1 886 564	4
	Gutter downspout, fascia, or soffit contractor	1 995 927	2
	Roofing contractor, except sheet metal	17 632 399	4
	Roofing contractor, sheet metal	4 333 409	3
	Siding contractor, except sheet metal	2 437 409	4
	Specialty sheet metal contractor, including metal ceilings, panel, or shelving installation	1 267 771	5
	Siding contractor, sheet metal	825 120	5
	Asphalt, concrete, and brick paving contractor, residential or commercial driveways and parking areas	7 960 072	3
	Shotcrete contractor	281 086	9
	Culvert and curb contractor, residential or commercial driveways and parking areas	1 140 860	6
	Foundation contractor, concrete	11 277 249	3
	Concrete Contractor (except paving or foundation)	19 901 867	2
	Water well drilling contractor	38 999	13
	Reinforcing steel contractor	1 962 582	4
	Structural steel erection contractor	5 659 506	3
	Metal curtain wall installation contractor	D	S
	Precast concrete installation contractor	637 132	8
	Storage tank, erection contractor	82 714	5
	Glass, glazing, and tinting contractor	6 126 315	3
	Excavation work: earthmoving or land clearing contractor, connected with buildings	15 909 632	2
	Foundation digging, drilling, or pile driving contractor	3 003 834	3
	Wrecking, demolition, or blasting contractor, connected with buildings	2 904 956	3
	Elevator installation, service, and repair contractor	D	S
	Escalator installation, service, and repair contractor	298 332	3
	Millwright and machine rigging contractor	5 025 259	2
	Scrubber, dust, collection, and other industrial ventilation installation contractor	274 689	5
	Fence construction contractor	5 841 177	4
	Ornamental metal contractor	1 104 053	10
	Insulation contractor, boiler, pipe, or duct work	2 404 982	3
	Sandblasting contractor, building exteriors	547 821	12
	Service station equipment installation contractor	758 550	7
	Swimming pool contractor	6 158 288	4
	Test boring or core drilling contractor for construction	358 822	8
	Waterproofing and weather stripping contractor	2 143 858	4
	Fireproofing contractor	399 066	3
	Welding contractor, operating at site of construction	903 676	4
	Modular furniture attachment and installation contractor	1 228 809	6
	All other construction activities	5 274 658	3
	Other business activities secondary to construction activities, total	4 570 711	1
	Architectural services	21 095	6
	Engineering services	353 392	3
	Manufacturing -- products manufactured and sold to others	629 625	4
	Real estate commissions and property management fees	8 252	16
	Rental or lease of properties	42 724	14
	Rental of construction machinery or equipment to others, without an operator	246 095	6
	Transportation of goods for others	369 474	6
	Wholesale trade	472 172	3
	Building construction on land owned by you, for rent or lease (investment builder)	13 001	20
	Retail trade	1 895 205	2
	All other business activities secondary to construction activities	519 675	3
	Kind of business activity, nsk	120 932	1

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 4. 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, 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]

NAICS code	Subsector and location of construction work	Value of construction work ¹	Relative standard error of estimate (percent)
23	Construction		
	Total	1 196 559 857	—
	Construction work done in Alabama	13 991 688	2
	Construction work done in Alaska	4 562 794	4
	Construction work done in Arizona	30 122 946	2
	Construction work done in Arkansas	7 036 083	2
	Construction work done in California	149 915 000	1
	Construction work done in Colorado	31 530 961	1
	Construction work done in Connecticut	13 480 611	2
	Construction work done in Delaware	4 170 834	2
	Construction work done in District of Columbia	4 669 140	1
	Construction work done in Florida	78 549 582	1
	Construction work done in Georgia	39 386 264	2
	Construction work done in Hawaii	6 457 928	2
	Construction work done in Idaho	5 429 794	4
	Construction work done in Illinois	55 020 035	1
	Construction work done in Indiana	22 929 380	2
	Construction work done in Iowa	10 095 702	1
	Construction work done in Kansas	10 379 537	2
	Construction work done in Kentucky	12 374 578	2
	Construction work done in Louisiana	14 775 222	2
	Construction work done in Maine	4 177 303	2
	Construction work done in Maryland	25 830 666	2
	Construction work done in Massachusetts	30 678 904	1
	Construction work done in Michigan	36 676 338	1
	Construction work done in Minnesota	27 327 704	2
	Construction work done in Mississippi	7 914 099	2
	Construction work done in Missouri	22 701 289	2
	Construction work done in Montana	3 296 168	2
	Construction work done in Nebraska	6 875 682	1
	Construction work done in Nevada	17 751 212	1
	Construction work done in New Hampshire	5 182 843	3
	Construction work done in New Jersey	37 848 849	2
	Construction work done in New Mexico	6 583 902	2
	Construction work done in New York	66 150 479	1
	Construction work done in North Carolina	35 661 247	1
	Construction work done in North Dakota	2 271 462	3
	Construction work done in Ohio	38 783 353	1
	Construction work done in Oklahoma	9 317 977	2
	Construction work done in Oregon	13 947 083	1
	Construction work done in Pennsylvania	43 915 124	1
	Construction work done in Rhode Island	4 020 869	2
	Construction work done in South Carolina	16 973 821	5
	Construction work done in South Dakota	2 850 189	2
	Construction work done in Tennessee	18 300 170	1
	Construction work done in Texas	93 334 906	1
	Construction work done in Utah	9 806 226	2
	Construction work done in Vermont	2 183 576	3
	Construction work done in Virginia	35 615 703	1
	Construction work done in Washington	26 680 811	1
	Construction work done in West Virginia	4 252 706	2
	Construction work done in Wisconsin	21 948 676	2
	Construction work done in Wyoming	2 822 440	2
236	Construction of buildings		
	Total	521 936 291	—
	Construction work done in Alabama	6 039 015	3
	Construction work done in Alaska	1 760 215	9
	Construction work done in Arizona	14 373 025	2
	Construction work done in Arkansas	2 840 735	4
	Construction work done in California	65 094 682	2
	Construction work done in Colorado	15 258 643	2
	Construction work done in Connecticut	5 585 730	3
	Construction work done in Delaware	1 800 700	5
	Construction work done in District of Columbia	2 440 378	2
	Construction work done in Florida	39 437 704	3
	Construction work done in Georgia	18 990 950	3
	Construction work done in Hawaii	3 193 540	2
	Construction work done in Idaho	2 694 995	7
	Construction work done in Illinois	21 681 324	2
	Construction work done in Indiana	10 290 857	3
	Construction work done in Iowa	3 783 519	2
	Construction work done in Kansas	4 214 582	3
	Construction work done in Kentucky	4 747 345	4
	Construction work done in Louisiana	5 149 183	3
	Construction work done in Maine	1 549 952	4
	Construction work done in Maryland	11 791 567	3
	Construction work done in Massachusetts	12 639 828	3
	Construction work done in Michigan	15 612 077	2
	Construction work done in Minnesota	12 216 242	3
	Construction work done in Mississippi	2 588 832	4
	Construction work done in Missouri	9 934 640	4
	Construction work done in Montana	1 377 694	4
	Construction work done in Nebraska	2 885 436	2
	Construction work done in Nevada	8 071 571	2
	Construction work done in New Hampshire	2 341 836	7
	Construction work done in New Jersey	16 487 345	3
	Construction work done in New Mexico	3 018 589	3
	Construction work done in New York	26 546 442	2
	Construction work done in North Carolina	17 287 816	2
	Construction work done in North Dakota	630 418	6
	Construction work done in Ohio	16 025 005	2
	Construction work done in Oklahoma	3 614 922	4
	Construction work done in Oregon	5 930 308	2
	Construction work done in Pennsylvania	17 833 305	2
	Construction work done in Rhode Island	1 661 566	5

See footnotes at end of table.

Table 4. Value of Construction Work for Establishments by Location of Construction Work: 2002—Con.

[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]

NAICS code	Subsector and location of construction work	Value of construction work ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
236	Construction of buildings—Con.		
	Construction work done in South Carolina	7 105 766	3
	Construction work done in South Dakota	1 099 802	4
	Construction work done in Tennessee	8 192 190	4
	Construction work done in Texas	40 149 529	2
	Construction work done in Utah	4 279 826	4
	Construction work done in Vermont	1 046 215	6
	Construction work done in Virginia	17 075 562	2
	Construction work done in Washington	12 129 183	2
	Construction work done in West Virginia	1 412 157	5
	Construction work done in Wisconsin	8 886 134	3
	Construction work done in Wyoming	1 137 418	4
237	Heavy and civil engineering construction		
	Total	194 146 475	1
	Construction work done in Alabama	2 956 415	3
	Construction work done in Alaska	1 395 236	1
	Construction work done in Arizona	4 737 537	2
	Construction work done in Arkansas	1 818 105	2
	Construction work done in California	22 140 906	2
	Construction work done in Colorado	4 496 890	3
	Construction work done in Connecticut	1 485 303	5
	Construction work done in Delaware	574 319	5
	Construction work done in District of Columbia	361 964	2
	Construction work done in Florida	11 495 509	2
	Construction work done in Georgia	7 569 255	3
	Construction work done in Hawaii	942 716	2
	Construction work done in Idaho	790 053	4
	Construction work done in Illinois	7 714 093	2
	Construction work done in Indiana	3 248 974	3
	Construction work done in Iowa	1 929 788	3
	Construction work done in Kansas	2 037 995	3
	Construction work done in Kentucky	2 628 493	4
	Construction work done in Louisiana	4 044 760	3
	Construction work done in Maine	757 139	3
	Construction work done in Maryland	2 883 843	6
	Construction work done in Massachusetts	4 260 258	3
	Construction work done in Michigan	4 987 624	3
	Construction work done in Minnesota	4 242 386	4
	Construction work done in Mississippi	2 661 886	2
	Construction work done in Missouri	3 152 976	4
	Construction work done in Montana	695 466	5
	Construction work done in Nebraska	1 149 819	4
	Construction work done in Nevada	2 479 345	4
	Construction work done in New Hampshire	680 963	5
	Construction work done in New Jersey	4 596 390	5
	Construction work done in New Mexico	1 404 719	3
	Construction work done in New York	8 308 244	3
	Construction work done in North Carolina	6 144 992	2
	Construction work done in North Dakota	627 051	5
	Construction work done in Ohio	6 235 895	3
	Construction work done in Oklahoma	2 157 326	6
	Construction work done in Oregon	2 158 502	3
	Construction work done in Pennsylvania	6 438 908	5
	Construction work done in Rhode Island	623 404	3
	Construction work done in South Carolina	3 682 409	2
	Construction work done in South Dakota	676 040	4
	Construction work done in Tennessee	3 363 087	3
	Construction work done in Texas	20 761 285	3
	Construction work done in Utah	1 649 408	3
	Construction work done in Vermont	268 788	4
	Construction work done in Virginia	4 977 626	2
	Construction work done in Washington	4 397 138	2
	Construction work done in West Virginia	1 134 005	3
	Construction work done in Wisconsin	3 460 291	4
	Construction work done in Wyoming	760 950	3
238	Specialty trade contractors		
	Total	480 477 090	—
	Construction work done in Alabama	4 996 259	2
	Construction work done in Alaska	1 407 343	3
	Construction work done in Arizona	11 012 383	4
	Construction work done in Arkansas	2 377 244	3
	Construction work done in California	62 679 412	1
	Construction work done in Colorado	11 775 428	2
	Construction work done in Connecticut	6 409 577	2
	Construction work done in Delaware	1 795 815	3
	Construction work done in District of Columbia	1 866 799	1
	Construction work done in Florida	27 616 369	2
	Construction work done in Georgia	12 826 059	2
	Construction work done in Hawaii	2 321 672	4
	Construction work done in Idaho	1 944 746	3
	Construction work done in Illinois	25 624 618	1
	Construction work done in Indiana	9 389 549	2
	Construction work done in Iowa	4 382 394	2
	Construction work done in Kansas	4 126 960	2
	Construction work done in Kentucky	4 998 740	3
	Construction work done in Louisiana	5 581 280	2
	Construction work done in Maine	1 870 212	3

See footnotes at end of table.

Table 4. Value of Construction Work for Establishments by Location of Construction Work: 2002—Con.

[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]

NAICS code	Subsector and location of construction work	Value of construction work ¹	Relative standard error of estimate (percent)
23	Construction—Con.		
238	Specialty trade contractors—Con.		
	Construction work done in Maryland	11 155 256	2
	Construction work done in Massachusetts	13 778 818	2
	Construction work done in Michigan	16 076 637	2
	Construction work done in Minnesota	10 869 076	2
	Construction work done in Mississippi	2 663 381	3
	Construction work done in Missouri	9 613 674	2
	Construction work done in Montana	1 223 008	4
	Construction work done in Nebraska	2 840 428	2
	Construction work done in Nevada	7 200 296	2
	Construction work done in New Hampshire	2 160 044	3
	Construction work done in New Jersey	16 765 114	2
	Construction work done in New Mexico	2 160 593	3
	Construction work done in New York	31 295 792	1
	Construction work done in North Carolina	12 228 440	2
	Construction work done in North Dakota	1 013 994	3
	Construction work done in Ohio	16 522 452	2
	Construction work done in Oklahoma	3 545 730	3
	Construction work done in Oregon	5 858 272	2
	Construction work done in Pennsylvania	19 642 910	1
	Construction work done in Rhode Island	1 735 899	3
	Construction work done in South Carolina	6 185 647	14
	Construction work done in South Dakota	1 074 347	3
	Construction work done in Tennessee	6 744 893	2
	Construction work done in Texas	32 424 092	2
	Construction work done in Utah	3 876 992	3
	Construction work done in Vermont	868 574	4
	Construction work done in Virginia	13 562 516	2
	Construction work done in Washington	10 154 491	2
	Construction work done in West Virginia	1 706 544	2
	Construction work done in Wisconsin	9 602 250	2
	Construction work done in Wyoming	924 072	3

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 data 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.

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.

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.

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.

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- 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.

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- 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.
 - 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.

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- 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.

Appendix B.

NAICS Codes, Titles, and Descriptions

SECTOR 23 CONSTRUCTION

The construction sector 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.

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.

236 CONSTRUCTION OF BUILDINGS

The Construction of Buildings subsector comprises establishments primarily responsible for the construction of buildings. The work performed may include new work, additions, alterations, or maintenance and repairs. The on-site assembly of precut, panelized, and prefabricated buildings and construction of temporary buildings are included in this subsector. Part or all of the production work for which the establishments in this sector have responsibility may be subcontracted to other construction establishments usually specialty trade contractors.

Establishments in this subsector are classified based on the types of buildings they construct. This classification reflects variations in the requirements of the underlying production processes.

236115 NEW SINGLE-FAMILY HOUSING CONSTRUCTION (EXCEPT OPERATIVE BUILDERS)

This U.S. industry comprises general contractor establishments primarily responsible for the entire construction of new single-family housing, such as single-family detached houses and town houses or row houses where each housing unit pertains to one or more of the following:

1. is separated from its neighbors by a ground-to-roof wall and
2. has no housing units constructed above or below.

This industry includes general contractors responsible for the on-site assembly of modular and prefabricated houses. Single-family housing design-build firms and single-family construction management firms acting as general contractors are included in this industry.

236116 NEW MULTIFAMILY HOUSING CONSTRUCTION (EXCEPT OPERATIVE BUILDERS)

This U.S. industry comprises general contractor establishments responsible for the construction of new multifamily residential housing units (e.g., high-rise, garden, and town house apartments and condominiums where each unit is not separated from its neighbors by a ground-to-roof wall). Multifamily design-build firms and multifamily housing construction management firms acting as general contractors are included in this industry.

236117 NEW HOUSING OPERATIVE BUILDERS

This U.S. industry comprises operative builders primarily responsible for the entire construction of new houses and other residential buildings, single-family and multifamily, on their own account for sale. Operative builders are also known as speculative or merchant builders.

236118 RESIDENTIAL REMODELERS

This U.S. industry comprises establishments primarily responsible for the remodeling construction (including additions, alterations, reconstruction, maintenance, and repair work) of houses and other residential buildings (single-family and multifamily). Included in this industry are remodeling general contractors, operative remodelers, remodeling design-build firms, and remodeling project construction management firms.

236210 INDUSTRIAL BUILDING CONSTRUCTION

This U.S. industry comprises establishments primarily responsible for the construction (including new work, additions, alterations, maintenance, and repairs) of industrial buildings (except warehouses). The construction of selected additional structures, whose production processes are similar to those for industrial buildings (e.g., incinerators, cement plants, blast furnaces, and similar

nonbuilding structures), is included in this industry. Also included in this industry are industrial building general contractors, industrial building operative builders, industrial building design-build firms, and industrial building construction management firms.

236220 COMMERCIAL AND INSTITUTIONAL BUILDING CONSTRUCTION

This U.S. industry comprises establishments primarily responsible for the construction (including new work, additions, alterations, maintenance, and repairs) of commercial and institutional buildings and related structures, such as stadiums, grain elevators, and indoor swimming pools. This industry includes establishments responsible for the on-site assembly of modular or prefabricated commercial and institutional buildings. Also included in this industry are commercial and institutional building general contractors, commercial and institutional building operative builders, commercial and institutional building design-build firms, and commercial and institutional building project construction management firms.

237 HEAVY AND CIVIL ENGINEERING CONSTRUCTION

The Heavy and Civil Engineering Construction subsector comprises establishments whose primary activity is the construction of entire engineering projects (e.g., highways and dams), and specialty trade contractors, whose primary activity is the production of a specific component for such projects. Specialty trade contractors in Heavy and Civil Engineering Construction generally are performing activities that are specific to heavy and civil engineering construction projects and are not normally performed on buildings. The work performed may include new work, additions, alterations, or maintenance and repairs.

Specialty trade activities are classified in this subsector if the skills and equipment present are specific to heavy or civil engineering construction projects. For example, specialized equipment is needed to paint lines on highways. This equipment is not normally used in building applications so the activity is classified in this subsector. Traffic signal installation, while specific to highways, uses much of the same skills and equipment that are needed for electrical work in building projects and is therefore classified in Subsector 238, Specialty Trade Contractors.

Construction projects involving water resources (e.g., dredging and land drainage) and projects involving open space improvement (e.g., parks and trails) are included in this subsector. Establishments whose primary activity is the subdivision of land into individual building lots usually perform various additional site-improvement activities (e.g., road building and utility line installation) and are included in this subsector.

Establishments in this subsector are classified based on the types of structures that they construct. This classification reflects variations in the requirements of the underlying production processes.

237110 WATER AND SEWER LINE AND RELATED STRUCTURES CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in the construction of water and sewer lines, mains, pumping stations, treatment plants, and storage tanks. 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 water and sewer line and related structures construction. All structures (including buildings) that are integral parts of water and sewer networks (e.g., storage tanks, pumping stations, water treatment plants, and sewage treatment plants) are included in this industry.

237120 OIL AND GAS PIPELINE AND RELATED STRUCTURES CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in the construction of oil and gas lines, mains, refineries, and storage tanks. 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 oil and gas pipeline and related structures construction. All structures (including buildings) that are integral parts of oil and gas networks (e.g., storage tanks, pumping stations, and refineries) are included in this industry.

237130 POWER AND COMMUNICATION LINE AND RELATED STRUCTURES CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in the construction of power lines and towers, power plants, and radio, television, and telecommunications transmitting/receiving towers. 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 power and communication line and related structures construction. All structures (including buildings) that are integral parts of power and communication networks (e.g., transmitting towers, substations, and power plants) are included.

237210 LAND SUBDIVISION

This U.S. industry comprises establishments primarily engaged in servicing land and subdividing real property into lots for subsequent sale to builders. Servicing of land may include excavation work for the installation of roads and utility lines. The extent of work may vary from project to project. Land subdivision precedes building activity and the subsequent building is often residential, but may also be commercial tracts and industrial parks. These establishments may do all the work themselves or subcontract the work to others. Establishments that perform only the legal subdivision of land are not included in this industry.

237310 HIGHWAY, STREET, AND BRIDGE CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in the construction of highways (including elevated), streets, roads, airport runways, public sidewalks, or bridges. 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 highway, street, and bridge construction (e.g., installing guardrails on highways).

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.

238 SPECIALTY TRADE CONTRACTORS

The Specialty Trade Contractors subsector comprises establishments whose primary activity is performing specific activities (e.g., pouring concrete, site preparation, plumbing, painting, and electrical work) involved in building construction or other activities that are similar for all types of construction but that are not responsible for the entire project. The work performed may include new work, additions, alterations, maintenance, and repairs. The production work performed by establishments in this subsector is usually subcontracted from establishments of the general contractor type or operative builders but, especially in remodeling and repair construction, work also may be done directly for the owner of the property. Specialty trade contractors usually perform most of their work at the construction site, although they may have shops where they perform prefabrication and other work. Establishments primarily engaged in preparing sites for new construction are also included in this subsector.

There are substantial differences in types of equipment, work force skills, and other inputs required by specialty trade contractors. Establishments in this subsector are classified based on the underlying production function for the specialty trade in which they specialize. Throughout the Specialty Trade Contractors subsector, establishments commonly provide both the parts and

labor required to complete work. For example, electrical contractors supply the current-carrying and noncurrent-carrying wiring devices that are required to install a circuit. Plumbing, Heating and Air-Conditioning contractors also supply the parts required to complete a contract.

Establishments that specialize in activities primarily related to heavy and civil engineering construction that are not normally performed on buildings, such as the painting of lines on highways are classified in Subsector 237, Heavy and Civil Engineering Construction.

Establishments that are primarily engaged in selling construction materials are classified in Sector 42, Wholesale Trade, or Sector 44-45, Retail Trade, based on the characteristics of the selling unit.

238110 POURED CONCRETE FOUNDATION AND STRUCTURE CONTRACTORS

This U.S. industry comprises establishments primarily engaged in pouring and finishing concrete foundations and structural elements. This industry also includes establishments performing grout and shotcrete work. The work performed may include new work, additions, alterations, maintenance, and repairs.

238120 STRUCTURAL STEEL AND PRECAST CONCRETE CONTRACTORS

This U.S. industry comprises establishments primarily engaged in:

1. erecting and assembling structural parts made from steel or precast concrete (e.g., steel beams, structural steel components, and similar products of precast concrete) and/or
2. assembling and installing other steel construction products (e.g., steel rods, bars, rebar, mesh, and cages) to reinforce poured-in-place concrete.

The work performed may include new work, additions, alterations, maintenance, and repairs.

238130 FRAMING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in structural framing and sheathing using materials other than structural steel or concrete. The work performed may include new work, additions, alterations, maintenance, and repairs.

238140 MASONRY CONTRACTORS

This U.S. industry comprises establishments primarily engaged in masonry work, stone setting, brick laying, and other stone work. The work performed may include new work, additions, alterations, maintenance, and repairs.

238150 GLASS AND GLAZING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in installing glass panes in prepared openings (i.e., glazing work) and other glass work for buildings. The work performed may include new work, additions, alterations, maintenance, and repairs.

238160 ROOFING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in roofing. This industry also includes establishments treating roofs (i.e., spraying, painting, or coating) and installing skylights. The work performed may include new work, additions, alterations, maintenance, and repairs.

238170 SIDING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in installing siding of wood, aluminum, vinyl, or other exterior finish material (except brick, stone, stucco, or curtain wall). This industry also includes establishments installing gutters and downspouts. The work performed may include new work, additions, alterations, maintenance, and repairs.

238190 OTHER FOUNDATION, STRUCTURE, AND BUILDING EXTERIOR CONTRACTORS

This U.S. industry comprises establishments primarily engaged in building foundation and structure trades work (except poured concrete, structural steel, precast concrete, framing, masonry, glass and glazing, roofing, and siding). The work performed may include new work, additions, alterations, maintenance, and repairs.

238210 ELECTRICAL CONTRACTORS

This U.S. industry comprises establishments primarily engaged in installing and servicing electrical wiring and equipment. Electrical contractors included in this industry may include both the parts and labor when performing work. Electrical contractors may perform new work, additions, alterations, maintenance, and repairs.

238220 PLUMBING, HEATING, AND AIR-CONDITIONING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in installing and servicing plumbing, heating, and air-conditioning equipment. Contractors in this industry may provide both parts and labor when performing work. The work performed may include new work, additions, alterations, maintenance, and repairs.

238290 OTHER BUILDING EQUIPMENT CONTRACTORS

This U.S. industry comprises establishments primarily engaged in installing or servicing building equipment (except electrical; plumbing; and heating, cooling, or ventilation equipment). The repair and maintenance of miscellaneous building equipment is included in this industry. The work performed may include new work, additions, alterations, maintenance, and repairs.

238310 DRYWALL AND INSULATION CONTRACTORS

This U.S. industry comprises establishments primarily engaged in drywall, plaster work, and building insulation work. Plaster work includes applying plain or ornamental plaster, and installation of lath to receive plaster. The work performed may include new work, additions, alterations, maintenance, and repairs.

238320 PAINTING AND WALL COVERING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in interior or exterior painting or interior wall covering. The work performed may include new work, additions, alterations, maintenance, and repairs.

238330 FLOORING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in the installation of resilient floor tile, carpeting, linoleum, and hard wood flooring. The work performed may include new work, additions, alterations, maintenance, and repairs.

238340 TILE AND TERRAZZO CONTRACTORS

This U.S. industry comprises establishments primarily engaged in setting and installing ceramic tile, stone (interior only), and mosaic and/or mixing marble particles and cement to make terrazzo at the job site. The work performed may include new work, additions, alterations, maintenance, and repairs.

238350 FINISH CARPENTRY CONTRACTORS

This U.S. industry comprises establishments primarily engaged in finish carpentry work. The work performed may include new work, additions, alterations, maintenance, and repairs.

238390 OTHER BUILDING FINISHING CONTRACTORS

This U.S. industry comprises establishments primarily engaged in building finishing trade work (except drywall, plaster and insulation work; painting and wall covering work; flooring work; tile and terrazzo work; and finish carpentry work). The work performed may include new work, additions, alterations, or maintenance and repairs.

238910 SITE PREPARATION CONTRACTORS

This U.S. industry comprises establishments primarily engaged in site preparation activities, such as excavating and grading, demolition of buildings and other structures, septic system installation, and house moving. Earth moving and land clearing for all types of sites (e.g., building, non-building, mining) is included in this industry. Establishments primarily engaged in construction equipment rental with operator (except cranes) are also included.

238990 ALL OTHER SPECIALTY TRADE CONTRACTORS

This U.S. industry comprises establishments primarily engaged in specialized trades (except foundation, structure, and building exterior contractors; building equipment contractors; building finishing contractors; and site preparation contractors). The specialty trade work performed includes new work, additions, alterations, maintenance, and repairs.

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.

