

Site Preparation Contractors: 2002

Issued December 2004

EC02-231-238910

2002 Economic Census

Construction

Industry Series



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-- Not applicable for this report.

Introduction to the Economic Census

PURPOSES AND USES OF THE ECONOMIC CENSUS

The economic census is the major source of facts about the structure and functioning of the nation's economy. It provides essential information for government, business, industry, and the general public. Title 13 of the United States Code (Sections 131, 191, and 224) directs the Census Bureau to take the economic census every 5 years, covering years ending in "2" and "7."

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

- Policymaking agencies of the federal government use the data to monitor economic activity and to assess the effectiveness of policies.
- State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.
- Trade associations study trends in their own and competing industries, which allows them to keep their members informed of market changes.
- Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

INDUSTRY CLASSIFICATIONS

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

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

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

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

RELATIONSHIP TO HISTORICAL INDUSTRY CLASSIFICATIONS

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

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

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

BASIS OF REPORTING

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

GEOGRAPHIC AREA CODING

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

AVAILABILITY OF ADDITIONAL DATA

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

HISTORICAL INFORMATION

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

The economic census traces its beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for the 1840 Decennial Census and subsequent censuses to include mining and some commercial activities. The 1905 Manufactures Census was the first time a census was taken apart

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

The 1954 Economic Census was the first census to be fully integrated, providing comparable census data across economic sectors and using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census report forms.

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

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

SOURCES FOR MORE INFORMATION

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

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Construction

SCOPE

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

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

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

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

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

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

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

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

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

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

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

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

REPORTS

The following reports provide statistics on this sector.

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

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

Subject Series:

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

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

GEOGRAPHIC AREAS COVERED

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

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

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

DOLLAR VALUES

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

All dollar values are shown in thousands of dollars.

COMPARABILITY OF THE 1997 AND 2002 ECONOMIC CENSUSES

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

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

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

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

RELIABILITY OF DATA

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

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

DISCLOSURE

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

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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

Data contained in the 2002 construction sector may also differ from industry data in Employment and Earnings Statistics, published by the Bureau of Labor Statistics and Statistics of Income, published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

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

CONTACTS FOR DATA USERS

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

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with these data:

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

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

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

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

2002 NAICS code	1997 bridge code	Industry or bridge	Number of establishments	Total number of employees	Total payroll	Value of construction work ¹	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Capital expenditures, other than land
			A	B	C	D	E	F	G	H
238910		Site preparation contractors	30 496	285 430	9 702 430	37 442 354	32 286 385	23 114 914	9 706 114	2 325 052
	21311200	Support activities for oil and gas operations (pt)	176	3 673	129 301	400 116	358 857	305 832	71 556	31 968
	21311300	Support activities for coal mining (pt)	83	848	28 416	86 985	82 590	66 770	D	D
	21311400	Support activities for metal mining (pt)	10	156	7 086	27 988	24 562	20 727	D	D
	21311500	Support activities for nonmetallic mining, except fuels (pt)	20	626	21 532	67 046	56 341	52 113	D	D
	23491000	Water, sewer, and pipeline construction (pt) .	1 327	5 600	154 487	607 294	576 266	371 685	215 139	22 387
	23499000	All other heavy construction (pt)	6 781	75 428	2 603 047	10 595 897	9 004 424	6 151 557	2 961 537	569 103
	23593000	Excavation contractors	19 666	166 969	5 671 320	22 106 373	19 000 097	13 523 157	5 805 023	1 531 195
	23594000	Wrecking and demolition contractors	2 097	28 540	944 587	3 143 854	2 795 180	2 314 188	530 401	137 193
	23599000	All other special trade contractors (pt)	338	3 589	142 655	406 801	388 067	308 887	81 784	17 598

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

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

Table 2. Employment Statistics for Establishments by State: 2002

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

Location of establishment	Number of establishments	Number of employees		Number of construction workers				Payroll (thousand dollars)		Relative standard error of estimate (percent) for column—
		Total	Construction workers	January to March	April to June	July to September	October to December	Total	Construction workers	
238910, Site preparation contractors										
United States	30 496	285 430	223 045	S	226 487	239 723	227 124	9 702 430	7 111 989	1
Alabama	387	4 617	3 660	3 543	3 691	3 832	3 574	115 527	82 656	9
Alaska	222	1 371	D	691	1 377	1 490	D	52 049	43 022	11
Arizona	564	6 012	4 787	4 451	4 627	5 156	4 914	198 146	143 105	8
Arkansas	279	1 557	1 193	1 058	1 219	1 225	1 270	39 866	29 062	11
California	1 876	30 599	24 712	22 836	24 451	26 220	25 342	1 228 241	924 360	6
Colorado	962	8 617	6 817	6 282	7 046	7 348	6 592	293 957	218 900	8
Connecticut	557	4 342	3 371	2 949	3 430	3 550	3 556	191 010	133 042	8
Delaware	82	D	772	743	777	796	774	32 617	24 597	S
District of Columbia	3	D	D	D	D	D	D	D	D	S
Florida	1 359	14 044	10 967	10 658	10 973	11 130	11 106	402 842	291 161	7
Georgia	933	8 027	6 239	5 875	6 258	6 384	6 438	260 212	190 104	5
Hawaii	53	1 409	1 138	1 044	1 131	1 222	1 156	61 243	47 247	6
Idaho	331	1 868	1 407	1 109	1 360	1 635	1 524	47 122	34 165	12
Illinois	1 010	12 196	9 207	7 967	9 481	9 866	9 513	518 608	380 863	6
Indiana	859	7 020	5 515	4 858	5 608	6 066	5 529	227 994	168 846	7
Iowa	320	2 145	1 629	1 181	1 684	1 905	1 744	74 159	56 107	10
Kansas	227	2 911	2 410	2 386	2 454	2 448	2 350	98 698	74 857	13
Kentucky	426	3 291	2 535	2 427	2 708	2 626	2 379	98 296	78 067	10
Louisiana	168	4 213	3 395	3 250	3 441	3 407	3 482	124 957	93 437	10
Maine	405	3 796	2 647	2 201	2 639	2 896	2 852	110 092	70 365	7
Maryland	452	5 741	4 485	4 357	4 574	4 548	4 460	195 516	138 278	5
Massachusetts	915	8 522	6 708	5 941	6 864	7 224	6 802	339 879	247 015	6
Michigan	1 328	9 174	7 057	5 780	7 540	7 767	7 141	325 127	247 101	6
Minnesota	779	6 078	4 590	3 020	5 157	5 362	4 822	230 465	175 087	7
Mississippi	223	1 802	D	D	1 369	1 456	1 431	45 974	31 592	13
Missouri	681	4 806	3 728	3 405	3 871	3 899	3 739	150 924	114 088	9
Montana	280	1 472	1 152	861	1 148	1 386	1 211	34 667	25 032	17
Nebraska	158	1 899	1 546	1 286	1 501	1 813	1 586	63 915	45 651	4
Nevada	203	3 526	2 976	2 719	2 902	3 103	3 178	135 659	104 821	7
New Hampshire	359	2 549	D	D	2 035	2 126	1 909	86 335	D	10
New Jersey	816	9 025	6 844	6 086	6 764	7 336	7 191	355 012	248 279	8
New Mexico	89	1 083	863	886	829	880	857	33 472	24 014	8
New York	1 479	14 229	D	D	11 500	12 390	11 774	516 475	D	8
North Carolina	1 222	9 121	7 018	6 644	7 126	7 295	7 005	253 534	178 545	8
North Dakota	86	920	701	505	697	870	731	27 425	19 931	15
Ohio	1 432	10 643	8 328	7 050	8 544	9 300	8 419	340 790	253 146	7
Oklahoma	288	2 134	1 664	1 572	1 715	1 731	1 639	62 237	42 530	10
Oregon	598	4 366	3 509	2 908	3 378	3 983	3 766	123 592	91 661	18
Pennsylvania	1 586	13 123	10 163	8 928	10 225	10 997	10 502	444 246	D	5
Rhode Island	153	1 398	1 150	958	1 097	1 280	1 266	52 738	42 716	9
South Carolina	573	4 442	3 436	3 398	3 463	3 512	3 371	128 522	88 658	7
South Dakota	148	880	D	500	D	D	D	24 725	16 817	9
Tennessee	695	4 926	3 807	3 517	3 947	4 019	3 746	145 010	101 150	8
Texas	1 449	13 996	10 897	10 109	10 973	11 433	11 072	415 296	296 831	5
Utah	348	2 766	2 267	1 873	2 368	2 535	2 291	75 114	56 060	11
Vermont	295	1 678	1 262	959	1 331	1 460	1 298	50 653	37 108	10
Virginia	739	9 051	7 203	6 782	7 179	7 412	7 438	294 777	214 564	7
Washington	881	7 474	5 811	5 338	5 962	6 531	5 413	272 992	195 546	8
West Virginia	328	2 133	1 534	D	D	1 603	1 564	52 249	39 713	11
Wisconsin	766	6 495	5 117	3 987	5 270	5 865	5 345	227 531	175 136	8
Wyoming	124	939	605	523	649	697	550	D	D	8

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

Table 3. General Statistics for Establishments by State: 2002

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

Location of establishment	E ¹	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Total rental costs	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	Relative standard error of estimate (percent) for column—	
		A	B	C	D	E	F	G	H	I	C
238910, Site preparation contractors											
United States	1	37 442 354	32 286 385	23 114 914	9 706 114	5 155 969	1 691 984	2 325 052	19 633 582	1	3
Alabama	1	506 405	408 008	284 215	128 245	98 397	25 732	25 010	292 323	7	16
Alaska	1	207 444	188 703	148 291	43 656	18 740	5 906	14 513	116 471	11	21
Arizona	1	743 364	643 526	422 835	223 024	99 838	30 781	43 140	314 300	7	12
Arkansas	3	166 740	144 427	99 790	45 321	22 313	11 462	6 308	89 041	10	15
California	—	4 702 427	4 035 769	2 767 134	1 300 523	666 658	314 650	253 309	1 600 258	7	24
Colorado	2	1 093 244	951 021	729 552	237 935	142 223	68 394	68 086	625 030	8	16
Connecticut	1	668 382	562 795	415 513	157 311	105 588	23 223	37 935	365 689	8	11
Delaware	1	127 748	D	67 982	44 708	D	5 408	D	D	S	S
District of Columbia	8	D	D	3 159	D	D	D	D	D	S	S
Florida	1	1 824 876	1 561 133	1 030 300	552 081	263 742	77 500	132 707	911 795	6	18
Georgia	1	1 045 583	882 804	613 787	295 412	162 780	41 325	90 750	667 353	7	13
Hawaii	—	223 578	191 457	130 559	61 974	32 122	11 608	12 078	111 244	4	7
Idaho	1	185 632	161 247	109 111	53 929	24 385	8 688	18 051	94 154	10	14
Illinois	1	1 812 785	1 502 293	1 172 524	371 847	310 492	62 567	99 165	981 615	5	8
Indiana	1	834 960	744 761	523 737	240 873	90 199	26 255	59 490	552 749	6	19
Iowa	—	339 550	288 274	199 594	92 111	51 277	19 077	23 101	222 739	9	10
Kansas	—	347 563	304 435	217 124	89 449	43 128	12 980	23 854	217 006	7	12
Kentucky	1	366 325	338 577	260 087	92 680	27 748	15 835	22 768	305 730	8	19
Louisiana	—	463 541	401 653	237 973	174 886	61 888	17 786	27 923	203 367	7	17
Maine	1	485 121	441 946	354 791	98 423	43 175	8 407	29 701	265 086	5	10
Maryland	1	695 599	599 908	432 475	174 862	95 691	33 462	37 541	339 824	5	6
Massachusetts	1	286 639	1 079 008	813 592	282 289	207 630	54 087	77 884	556 543	7	15
Michigan	1	1 171 530	1 055 805	784 710	300 460	115 725	48 182	66 281	744 857	5	10
Minnesota	1	899 982	779 799	591 527	214 147	120 184	33 235	60 717	538 176	7	13
Mississippi	3	242 246	209 805	152 459	58 291	32 442	8 360	14 613	168 815	26	15
Missouri	1	620 087	498 692	360 305	141 098	121 395	25 296	35 249	312 402	8	8
Montana	2	117 391	107 508	77 182	35 315	9 883	6 081	17 190	127 546	11	36
Nebraska	—	268 905	219 679	160 873	59 657	49 226	15 611	12 643	116 945	4	7
Nevada	—	522 808	448 448	314 942	134 435	74 360	47 664	26 380	250 863	6	11
New Hampshire	2	322 534	278 498	196 599	83 321	44 037	12 895	18 551	158 729	9	16
New Jersey	1	1 371 332	1 206 739	872 275	351 997	164 593	57 834	76 040	606 690	12	14
New Mexico	1	129 284	110 549	77 847	35 050	18 735	8 362	7 968	81 395	7	5
New York	1	2 054 402	1 734 984	1 229 799	531 457	319 418	69 908	98 875	791 481	11	19
North Carolina	1	1 071 655	896 188	640 429	269 140	175 466	47 238	85 963	685 335	9	22
North Dakota	1	127 547	D	70 904	29 397	D	4 902	6 246	59 664	S	10
Ohio	1	1 330 585	1 146 250	813 379	345 457	184 335	52 841	75 121	778 991	6	8
Oklahoma	2	257 078	218 670	157 974	68 588	38 408	11 913	21 404	153 152	9	15
Oregon	1	509 865	450 196	320 108	141 592	59 669	19 750	27 864	269 588	10	16
Pennsylvania	1	1 652 824	1 450 330	1 040 974	424 259	202 494	68 328	124 387	1 024 753	4	6
Rhode Island	1	170 899	152 461	104 838	52 951	18 438	9 958	12 749	73 260	10	9
South Carolina	1	548 071	457 525	324 717	140 412	90 546	18 691	37 648	317 646	7	24
South Dakota	1	95 616	85 144	53 313	33 393	10 472	2 846	8 058	77 820	7	18
Tennessee	2	518 174	447 144	325 241	132 385	71 030	23 927	37 227	333 207	8	14
Texas	1	1 543 407	1 376 615	1 008 863	387 799	166 792	69 160	120 214	916 338	5	11
Utah	1	308 816	255 865	159 663	99 697	52 951	15 298	14 728	158 326	10	16
Vermont	1	196 123	170 809	124 624	55 560	25 313	6 758	14 753	162 352	10	14
Virginia	1	1 072 939	955 361	704 183	261 577	117 578	39 720	71 895	707 214	9	14
Washington	—	1 062 934	918 161	646 596	293 400	144 773	38 255	56 304	495 820	6	15
West Virginia	—	191 718	168 938	120 735	50 875	22 781	7 440	12 201	93 529	10	18
Wisconsin	1	854 624	770 204	592 677	195 354	84 420	43 515	46 484	487 363	6	9
Wyoming	2	D	D	53 055	D	D	D	5 857	57 714	S	5

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

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

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

Table 4. Detailed Statistics for Establishments: 2002

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

Item	Value	Relative standard error of estimate (percent)
238910, Site preparation contractors		
All establishments number	30 496	2
All employees number	285 430	1
Construction workers in March number	S	S
Construction workers in May number	226 487	1
Construction workers in August number	239 723	1
Construction workers in November number	227 124	1
Average number of construction workers number	223 045	1
Other employees in March number	S	S
Other employees in May number	60 331	2
Other employees in August number	61 352	2
Other employees in November number	61 333	2
Average number of other employees number	62 385	2
Total payroll \$1,000	9 702 430	1
Construction workers \$1,000	7 111 989	1
Other employees \$1,000	2 590 442	2
First-quarter payroll, all employees \$1,000	2 060 287	1
Fringe benefits, all employees \$1,000	2 352 208	2
Legally required expenditures \$1,000	1 316 737	1
Voluntary expenditures \$1,000	1 035 471	2
Value of business done ¹ \$1,000	37 976 997	1
Value of construction work ¹ \$1,000	37 442 354	1
Value of construction work on government owned projects \$1,000	9 346 520	3
Value of construction work on federally owned projects \$1,000	1 756 812	2
Value of construction work on state and locally owned projects \$1,000	7 589 707	3
Value of construction work on privately owned projects \$1,000	28 095 834	1
Other business receipts \$1,000	534 643	4
Value of construction work subcontracted in from others \$1,000	18 924 104	2
Net value of construction work \$1,000	32 286 385	1
Value added \$1,000	23 114 914	2
Selected costs \$1,000	14 862 083	1
Materials, parts, and supplies \$1,000	8 457 406	2
Construction work subcontracted out to others \$1,000	5 155 969	2
Selected power, fuels, and lubricants \$1,000	1 248 708	2
Purchased electricity \$1,000	66 898	3
Natural gas and manufactured gas \$1,000	37 195	6
Gasoline and diesel fuel \$1,000	1 040 883	2
On-highway use of gasoline and diesel fuel \$1,000	487 086	2
Off-highway use of gasoline and diesel fuel \$1,000	553 796	2
All other fuels and lubricants \$1,000	103 732	3
Total rental costs \$1,000	1 691 984	3
Machinery and equipment \$1,000	1 453 535	4
Buildings \$1,000	238 449	3
Selected purchased services \$1,000	1 986 125	2
Communication services \$1,000	306 724	2
Repairs to buildings and other structures \$1,000	346 680	2
Repairs to machinery and equipment \$1,000	970 977	2
Legal services \$1,000	110 770	11
Accounting, auditing, and bookkeeping services \$1,000	152 793	6
Advertising and promotional services \$1,000	S	S
Beginning-of-year gross book value of depreciable assets \$1,000	17 995 865	2
Capital expenditures, other than land \$1,000	2 325 052	3
Retirements and disposition of depreciable assets \$1,000	687 336	6
End-of-year gross book value of depreciable assets \$1,000	19 633 582	2
Depreciation charges during year \$1,000	2 236 989	2
Establishments with inventories number	3 448	-
Value of construction work for establishments with inventories \$1,000	8 529 514	-
End-of-2002, inventories of materials and supplies \$1,000	206 513	7
End-of-2001, inventories of materials and supplies \$1,000	180 383	6
Establishments with no inventories number	25 697	-
Value of construction work for establishments with no inventories \$1,000	27 681 418	-
Establishments not reporting inventories number	1 351	-
Value of construction work for establishment not reporting inventores \$1,000	1 231 422	-

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

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

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

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

Employment size class	E ¹	Number of establishments	Total number of employees	Total payroll	Value of business done ²	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	H	I	J	C
238910, Site preparation contractors											
All establishments	1	30 496	285 430	9 702 430	37 976 997	37 442 354	32 286 385	23 114 914	9 706 114	5 155 969	1
Establishments with—											
1 to 4 employees	—	17 700	37 060	814 834	4 144 260	4 086 783	3 716 149	2 550 463	1 223 164	370 634	3
5 to 9 employees	—	6 166	38 094	1 067 096	4 091 260	4 043 303	3 678 126	2 669 843	1 056 240	365 177	4
10 to 19 employees	—	3 519	46 310	1 501 273	5 384 831	5 285 202	4 710 332	3 494 081	1 315 880	574 869	4
20 to 49 employees	—	2 169	64 626	2 350 233	8 524 309	8 391 393	7 248 203	5 266 714	2 114 406	1 143 190	3
50 to 99 employees	—	657	44 367	1 771 825	6 914 627	6 814 085	5 711 878	4 079 572	1 732 848	1 102 207	3
100 to 249 employees	—	227	32 440	1 278 388	4 973 125	4 910 831	4 035 136	2 924 926	1 172 504	875 696	1
250 to 499 employees	—	47	15 685	627 260	2 497 436	2 466 653	2 079 016	1 448 626	661 173	387 637	6
500 to 999 employees	—	11	6 848	291 522	1 447 149	1 444 103	1 107 544	680 690	429 900	336 559	—
1,000 employees or more	—	—	—	—	—	—	—	—	—	—	—

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

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

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

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

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

Dollar value size class	E ¹	Number of establishments	Total number of employees	Total payroll	Value of business done ²	Value of construction work ²	Net value of construction work	Value added	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	H	I	J	G
238910, Site preparation contractors											
All establishments	1	30 496	285 430	9 702 430	37 976 997	37 442 354	32 286 385	23 114 914	9 706 114	5 155 969	1
Establishments with value of business done—											
Less than \$25,000	1	193	S	S	S	S	S	S	S	S	S
\$25,000 to \$49,999	—	938	S	S	S	S	S	S	S	S	S
\$50,000 to \$99,999	—	2 837	3 995	49 197	213 435	209 621	192 237	129 707	66 343	17 385	8
\$100,000 to \$249,999	—	8 077	17 617	327 576	1 349 230	1 327 939	1 227 758	859 289	389 760	100 181	5
\$250,000 to \$499,999	—	6 648	24 136	548 703	2 336 977	2 306 942	2 129 584	1 479 748	679 871	177 358	5
\$500,000 to \$999,999	—	5 091	33 954	951 741	3 581 758	3 528 853	3 228 718	2 344 726	936 897	300 135	5
\$1,000,000 to \$2,499,999	—	3 767	50 165	1 617 331	5 674 399	5 574 862	4 993 322	3 697 987	1 394 872	581 540	4
\$2,500,000 to \$4,999,999	—	1 450	38 793	1 390 409	5 018 658	4 928 540	4 298 376	3 124 387	1 264 107	630 164	4
\$5,000,000 to \$9,999,999	—	887	41 820	1 595 212	6 046 639	5 972 784	5 111 695	3 657 845	1 527 706	861 089	4
\$10,000,000 or more	—	608	73 678	3 208 223	13 717 224	13 554 156	11 068 852	7 793 468	3 438 453	2 485 303	2

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

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

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

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

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

Type of construction	Value of construction work ¹				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
238910, Site preparation contractors								
Total	37 442 354	27 403 541	6 547 271	3 491 542	1	1	3	3
Building construction, total	19 875 760	15 036 331	3 512 346	1 327 084	2	2	2	3
Single-family houses, detached and attached	7 974 444	6 748 817	796 387	429 240	3	3	5	7
Single-family houses, detached	6 882 292	5 820 702	684 704	376 886	3	4	6	7
Single-family houses, attached	1 092 152	928 115	111 683	52 355	5	5	9	13
Stores, restaurants, and automobile service stations, and other commercial buildings	3 124 494	2 425 029	496 929	202 536	6	6	6	10
Other building construction	8 776 822	5 862 485	2 219 030	695 307	2	2	2	4
Nonbuilding construction, total	17 179 859	11 980 476	3 034 925	2 164 459	2	1	6	4
Private driveways and parking areas	2 066 264	1 393 439	372 040	300 784	5	4	7	21
Sewers, water mains, and related facilities	5 917 050	4 396 970	722 539	797 541	2	2	4	5
Sewers, sewer lines, septic systems, and related facilities	4 054 601	2 934 276	510 191	610 134	3	3	5	7
Water mains, storage, and related facilities	1 862 450	1 462 695	212 348	187 407	3	3	4	7
Other nonbuilding construction	9 196 545	6 190 066	1 940 345	1 066 134	2	2	9	3
Construction work, nsk	386 734	386 734	—	—	—	—	—	—

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

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

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

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at the end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Total payroll	Value of construction work for specialized type	Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	G
238910, Site preparation contractors								
Total	30 496	285 430	9 702 430	X	32 286 385	23 114 914	5 155 969	2
Establishments specializing 51 percent or more...	21 292	168 392	5 470 501	17 469 889	18 384 490	13 138 420	2 846 674	3
Building construction, total								
Establishments specializing 51 percent or more...	12 912	94 151	3 000 610	9 376 071	10 046 791	7 270 565	1 620 835	4
Specialization 100 percent	5 580	32 538	927 484	3 535 435	3 092 210	2 293 147	443 224	6
Specialization 90 to 99 percent	1 310	11 550	386 413	1 378 059	1 302 154	991 969	169 399	14
Specialization 80 to 89 percent	1 314	10 337	336 191	1 019 234	1 088 820	793 424	163 420	13
Specialization 70 to 79 percent	1 678	14 452	478 914	1 385 733	1 647 437	1 211 403	239 639	9
Specialization 60 to 69 percent	2 069	15 073	532 466	1 308 227	1 801 843	1 163 782	305 816	6
Specialization 51 to 59 percent	961	10 202	339 142	749 384	1 114 327	816 841	299 337	15
Single-family houses, detached and attached								
Establishments specializing 51 percent or more...	10 071	55 493	1 652 326	5 336 006	5 795 440	4 094 422	701 648	6
Specialization 100 percent	4 459	20 567	540 502	2 100 383	1 904 213	1 409 040	196 170	9
Specialization 90 to 99 percent	980	6 660	216 459	827 550	790 148	582 161	96 040	20
Specialization 80 to 89 percent	1 055	6 060	182 099	582 016	637 095	451 474	79 867	23
Specialization 70 to 79 percent	1 372	9 213	298 318	867 844	1 040 376	760 482	136 630	15
Specialization 60 to 69 percent	1 469	8 148	277 644	660 418	933 797	546 121	125 336	6
Specialization 51 to 59 percent	737	4 845	137 304	297 795	489 811	345 143	67 606	8
Single-family houses, detached								
Establishments specializing 51 percent or more...	9 052	50 008	1 510 013	4 867 630	5 277 773	3 719 866	624 448	6
Specialization 100 percent	4 059	18 277	492 349	1 921 140	1 752 502	1 289 221	168 638	8
Specialization 90 to 99 percent	947	6 304	203 077	774 356	736 459	544 528	93 317	21
Specialization 80 to 89 percent	896	5 507	170 707	546 678	604 278	434 296	69 112	27
Specialization 70 to 79 percent	1 162	8 391	275 984	797 199	951 353	694 921	126 610	16
Specialization 60 to 69 percent	1 300	6 993	238 342	552 529	781 825	438 357	103 413	7
Specialization 51 to 59 percent	689	4 535	129 554	275 729	451 356	318 543	63 360	8
Single-family houses, attached								
Establishments specializing 51 percent or more...	1 020	5 485	142 314	468 376	517 667	374 556	77 199	17
Specialization 100 percent	400	2 291	48 152	179 243	151 712	119 819	27 532	43
Specialization 90 to 99 percent	33	356	13 382	53 194	53 689	37 633	2 723	34
Specialization 80 to 89 percent	159	552	11 393	35 338	32 816	17 178	10 755	17
Specialization 70 to 79 percent	210	821	22 334	70 645	89 023	65 562	10 020	30
Specialization 60 to 69 percent	169	1 154	39 302	107 889	151 973	107 764	21 923	10
Specialization 51 to 59 percent	48	310	7 750	22 067	38 454	26 600	4 246	52
Stores, restaurants, and automobile service stations, and other commercial buildings								
Establishments specializing 51 percent or more...	823	13 951	479 344	1 497 487	1 492 101	1 128 278	316 501	8
Specialization 100 percent	310	4 517	150 092	588 324	468 026	329 942	120 298	10
Specialization 90 to 99 percent	180	2 765	100 212	310 873	292 539	241 738	33 134	37
Specialization 80 to 89 percent	69	1 547	59 519	191 452	181 447	137 971	51 344	17
Specialization 70 to 79 percent	74	1 836	49 115	115 957	143 266	109 608	16 931	12
Specialization 60 to 69 percent	139	1 891	66 600	182 504	244 507	175 603	47 414	25
Specialization 51 to 59 percent	52	1 394	53 807	108 377	162 315	133 416	47 380	20
Other building construction								
Establishments specializing 51 percent or more...	2 018	24 707	868 940	2 542 578	2 759 250	2 047 865	602 886	8
Specialization 100 percent	812	7 453	236 890	846 728	719 971	554 164	126 757	9
Specialization 90 to 99 percent	150	2 125	69 741	239 637	219 467	168 069	40 225	13
Specialization 80 to 89 percent	191	2 730	94 573	245 766	270 278	203 979	32 209	10
Specialization 70 to 79 percent	232	3 403	131 482	401 931	463 795	341 312	86 078	8
Specialization 60 to 69 percent	461	5 034	188 223	465 305	623 538	442 059	133 066	8
Specialization 51 to 59 percent	172	3 963	148 031	343 212	462 201	338 281	184 351	24
Nonbuilding construction, total								
Establishments specializing 51 percent or more...	7 994	71 159	2 364 406	7 717 237	8 005 847	5 609 737	1 179 613	5
Specialization 100 percent	4 776	36 729	1 204 795	4 587 238	4 050 245	2 904 571	536 993	9
Specialization 90 to 99 percent	553	3 974	119 745	463 304	459 928	346 612	37 328	9
Specialization 80 to 89 percent	464	5 582	184 884	618 131	639 532	488 765	115 370	6
Specialization 70 to 79 percent	937	7 532	240 441	675 899	770 685	530 878	157 303	23
Specialization 60 to 69 percent	539	7 550	274 213	636 654	892 691	636 412	133 019	4
Specialization 51 to 59 percent	725	9 791	340 328	736 012	1 192 766	702 499	199 601	3
Private driveways and parking areas								
Establishments specializing 51 percent or more...	1 525	10 171	278 847	993 534	1 046 980	695 858	189 159	19
Specialization 100 percent	632	3 734	88 201	415 046	368 376	245 015	46 670	14
Specialization 90 to 99 percent	179	795	20 686	93 245	93 349	60 592	7 163	25
Specialization 80 to 89 percent	90	1 155	33 638	114 646	119 989	77 414	20 919	24
Specialization 70 to 79 percent	276	1 581	52 027	158 461	168 829	119 775	51 742	68
Specialization 60 to 69 percent	201	1 950	58 024	152 716	205 654	138 887	40 576	7
Specialization 51 to 59 percent	147	956	26 270	59 419	90 784	54 176	22 088	17

See footnotes at end of table

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

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in Table 7. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at the end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Total payroll	Value of construction work for specialized type	Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	G
Sewers, water mains, and related facilities								
Establishments specializing 51 percent or more...	3 410	21 375	660 085	2 090 198	2 352 376	1 543 443	256 053	6
Specialization 100 percent	1 924	10 668	321 188	1 234 971	1 130 012	769 560	104 959	13
Specialization 90 to 99 percent	243	756	26 000	84 207	88 435	67 362	2 891	40
Specialization 80 to 89 percent	215	795	23 871	78 851	90 057	65 811	6 238	26
Specialization 70 to 79 percent	368	1 736	48 891	159 644	194 090	120 666	23 553	8
Specialization 60 to 69 percent	205	2 489	87 409	200 664	286 766	185 295	38 570	10
Specialization 51 to 59 percent	456	4 931	152 726	331 861	563 015	334 748	79 843	5
Sewers, sewer lines, septic systems, and related facilities								
Establishments specializing 51 percent or more...	3 124	18 220	537 082	1 733 721	1 950 351	1 236 296	213 962	7
Specialization 100 percent	1 747	8 933	260 253	1 020 533	932 924	621 806	87 609	15
Specialization 90 to 99 percent	220	664	23 103	75 327	78 866	58 804	2 891	40
Specialization 80 to 89 percent	211	707	20 012	69 459	79 574	58 755	5 261	30
Specialization 70 to 79 percent	341	1 520	40 082	130 197	161 010	100 305	15 546	12
Specialization 60 to 69 percent	181	2 058	71 105	161 223	234 549	150 566	29 665	12
Specialization 51 to 59 percent	424	4 339	122 527	276 983	463 428	246 060	72 989	6
Water mains, storage, and related facilities								
Establishments specializing 51 percent or more...	286	3 155	123 004	356 477	402 025	307 147	42 092	4
Specialization 100 percent	176	1 735	60 935	214 438	197 088	147 753	17 350	7
Specialization 90 to 99 percent	22	93	2 898	8 880	9 569	8 558	—	—
Specialization 80 to 89 percent	4	88	3 859	9 392	10 483	7 057	977	39
Specialization 70 to 79 percent	27	216	8 809	29 448	33 080	20 362	8 007	4
Specialization 60 to 69 percent	24	431	16 304	39 440	52 218	34 730	8 905	8
Specialization 51 to 59 percent	32	592	30 199	54 878	99 587	88 688	6 854	6
Other nonbuilding construction								
Establishments specializing 51 percent or more...	3 059	39 613	1 425 474	4 633 505	4 606 492	3 370 436	734 401	6
Specialization 100 percent	2 221	22 328	795 405	2 937 221	2 551 857	1 889 996	385 364	11
Specialization 90 to 99 percent	132	2 423	73 059	285 851	278 143	218 658	27 274	10
Specialization 80 to 89 percent	159	3 632	127 375	424 634	429 486	345 540	88 213	5
Specialization 70 to 79 percent	292	4 216	139 523	357 793	407 767	290 437	82 008	6
Specialization 60 to 69 percent	132	3 112	128 781	283 274	400 270	312 230	53 873	7
Specialization 51 to 59 percent	122	3 903	161 332	344 732	538 967	313 575	97 669	2
Construction work, nsk								
Establishments specializing 51 percent or more...	386	3 082	105 485	376 581	331 852	258 118	46 226	—
Specialization 100 percent	379	3 002	102 374	369 420	323 632	251 392	D	S
Specialization 90 to 99 percent	2	D	D	D	D	D	D	S
Specialization 70 to 79 percent	4	D	D	D	D	D	—	—
Specialization 51 to 59 percent	1	D	D	D	D	D	—	—

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

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

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A]

Primary and other kind of business activities	Value of business done ¹	Relative standard error of estimate (percent)
238910, Site preparation contractors		
Total	37 976 997	1
Heavy construction and civil engineering construction, total	10 181 798	3
Excavation work, earthmoving or land clearing contractor, not connected with buildings	10 181 798	3
Special trade contractors, total	20 937 555	2
Excavation work: earthmoving or land clearing contractor, connected with buildings	15 162 580	2
Foundation digging, drilling, or pile driving contractor	2 943 345	3
Wrecking, demolition, or blasting contractor, connected with buildings	2 831 630	3
All other construction activities	6 326 725	2
Other business activities secondary to construction activities, total	530 919	4
All other business activities secondary to construction activities	530 919	4

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

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

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

[Thousand dollars unless otherwise noted. Detail may not add to total because of rounding. This table presents selected statistics for establishments according to degree of specialization by major activity of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of business done by kind of business activity was not provided in Table 9. Data based on the 2002 Economic Census. For information on confidentiality protection, sampling error, and nonsampling error, see note at end of table. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see Appendix A.]

Item	Number of establishments	Total number of employees	Total payroll	Value of construction work for specialized kind of business	Net value of construction work	Value added	Cost of construction work subcontracted out to others	Relative standard error of estimate (percent) for column—
	A	B	C	D	E	F	G	G
238910, Site preparation contractors								
Total	30 496	285 430	9 702 430	X	32 286 385	23 114 914	5 155 969	2
Establishments specializing 51 percent or more...	26 136	248 856	8 522 107	26 908 758	28 443 279	20 388 478	4 494 298	2
Heavy construction and civil engineering construction, total								
Establishments specializing 51 percent or more...	6 652	73 400	2 529 872	7 882 801	8 731 755	6 024 952	1 564 719	3
Specialization 100 percent	2 911	25 486	838 567	3 365 121	2 940 855	2 114 477	424 265	11
Specialization 90 to 99 percent	633	6 661	213 698	810 923	746 269	537 033	119 130	12
Specialization 80 to 89 percent	452	6 126	210 308	663 831	684 353	499 758	127 672	6
Specialization 70 to 79 percent	890	7 721	244 809	738 170	831 404	575 307	176 610	4
Specialization 60 to 69 percent	524	7 440	270 409	653 802	893 294	633 296	164 543	4
Specialization 51 to 59 percent	1 242	19 965	752 082	1 650 955	2 635 580	1 665 082	552 499	3
Excavation work, earthmoving or land clearing contractor, not connected with buildings								
Establishments specializing 51 percent or more...	6 652	73 400	2 529 872	7 882 801	8 731 755	6 024 952	1 564 719	3
Specialization 100 percent	2 911	25 486	838 567	3 365 121	2 940 855	2 114 477	424 265	11
Specialization 90 to 99 percent	633	6 661	213 698	810 923	746 269	537 033	119 130	11
Specialization 80 to 89 percent	452	6 126	210 308	663 831	684 353	499 758	127 672	5
Specialization 70 to 79 percent	890	7 721	244 809	738 170	831 404	575 307	176 610	4
Specialization 60 to 69 percent	524	7 440	270 409	653 802	893 294	633 296	164 543	4
Specialization 51 to 59 percent	1 242	19 965	752 082	1 650 955	2 635 580	1 665 082	552 499	3
Special trade contractors, total								
Establishments specializing 51 percent or more...	16 966	155 747	5 337 121	17 076 042	17 680 345	12 898 979	2 784 527	3
Specialization 100 percent	8 659	66 644	2 167 440	8 090 629	7 181 396	5 352 957	909 233	4
Specialization 90 to 99 percent	1 545	18 956	689 501	2 537 365	2 376 284	1 726 252	337 884	6
Specialization 80 to 89 percent	1 442	14 922	593 196	1 725 410	1 826 279	1 372 914	280 177	9
Specialization 70 to 79 percent	2 011	19 605	669 861	1 870 296	2 178 088	1 509 700	390 413	4
Specialization 60 to 69 percent	1 901	17 578	584 259	1 420 798	1 934 775	1 376 052	349 936	7
Specialization 51 to 59 percent	1 407	18 040	632 866	1 431 545	2 183 523	1 561 104	516 884	10
Excavation work: earthmoving or land clearing contractor, connected with buildings								
Establishments specializing 51 percent or more...	13 658	115 517	3 889 528	12 566 267	13 164 128	9 439 968	2 234 529	3
Specialization 100 percent	6 880	43 775	1 362 555	5 282 496	4 649 556	3 457 242	632 940	5
Specialization 90 to 99 percent	1 330	15 183	556 415	2 076 495	1 952 601	1 394 240	273 382	7
Specialization 80 to 89 percent	1 033	10 774	429 578	1 292 439	1 353 872	985 565	231 148	11
Specialization 70 to 79 percent	1 792	16 016	512 100	1 452 656	1 688 457	1 124 458	304 728	5
Specialization 60 to 69 percent	1 471	13 772	457 464	1 155 604	1 548 659	1 089 605	304 397	8
Specialization 51 to 59 percent	1 152	15 996	571 416	1 306 578	1 970 983	1 388 859	487 934	10
Foundation digging, drilling, or pile driving contractor								
Establishments specializing 51 percent or more...	1 587	15 995	648 645	2 094 677	2 117 901	1 467 746	232 920	3
Specialization 100 percent	762	9 675	406 201	1 424 296	1 303 292	894 897	121 004	5
Specialization 90 to 99 percent	90	967	28 600	106 125	107 961	75 014	5 845	20
Specialization 80 to 89 percent	167	1 130	37 518	129 012	142 460	97 977	12 416	18
Specialization 70 to 79 percent	62	1 998	103 302	274 836	310 662	223 962	70 321	2
Specialization 60 to 69 percent	314	1 412	52 629	116 917	176 564	123 426	16 590	25
Specialization 51 to 59 percent	193	814	20 395	43 492	76 962	52 471	6 744	25
Wrecking, demolition, or blasting contractor, connected with buildings								
Establishments specializing 51 percent or more...	1 721	24 235	798 948	2 415 097	2 398 317	1 991 265	317 079	3
Specialization 100 percent	1 017	13 194	398 683	1 383 838	1 228 548	1 000 818	155 289	3
Specialization 90 to 99 percent	126	2 806	104 486	354 745	315 722	256 999	58 657	11
Specialization 80 to 89 percent	242	3 018	126 100	303 959	329 947	289 372	36 614	5
Specialization 70 to 79 percent	157	1 591	54 459	142 803	178 969	161 281	15 365	13
Specialization 60 to 69 percent	117	2 394	74 166	148 277	209 553	163 021	28 949	14
Specialization 51 to 59 percent	62	1 230	41 054	81 475	135 578	119 774	22 205	4
All other construction activities								
Establishments specializing 51 percent or more...	2 518	19 709	655 114	1 949 915	2 031 179	1 464 547	145 052	7
Specialization 100 percent	1 518	12 015	396 907	1 323 512	1 245 644	894 630	77 867	11
Specialization 90 to 99 percent	131	1 277	52 485	154 549	156 018	109 686	10 266	18
Specialization 80 to 89 percent	293	2 063	77 161	183 226	204 194	150 582	19 595	25
Specialization 70 to 79 percent	265	1 582	41 223	104 924	135 282	98 421	8 318	13
Specialization 60 to 69 percent	165	1 459	47 823	96 338	143 081	102 486	10 729	16
Specialization 51 to 59 percent	146	1 311	39 515	87 366	146 959	108 742	18 277	10

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

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

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

Location of construction work	Value of construction work ¹	Relative standard error of estimate (percent) for column—
238910, Site preparation contractors		
United States	37 442 354	1
Construction work done in—		
Alabama	477 220	7
Alaska	220 314	10
Arizona	735 892	7
Arkansas	177 977	9
California	4 751 869	6
Colorado	1 120 468	8
Connecticut	662 539	7
Delaware	141 054	6
District of Columbia	47 381	2
Florida	1 812 852	5
Georgia	1 023 565	5
Hawaii	398 395	3
Idaho	181 447	10
Illinois	1 744 149	5
Indiana	832 984	5
Iowa	326 369	9
Kansas	310 036	7
Kentucky	393 453	8
Louisiana	424 191	7
Maine	441 077	5
Maryland	659 395	4
Massachusetts	1 332 391	6
Michigan	1 198 122	5
Minnesota	927 007	6
Mississippi	266 727	21
Missouri	667 396	9
Montana	116 483	11
Nebraska	166 321	5
Nevada	547 188	6
New Hampshire	340 414	8
New Jersey	1 340 211	11
New Mexico	131 226	5
New York	2 113 021	11
North Carolina	1 074 058	8
North Dakota	103 737	10
Ohio	1 301 085	6
Oklahoma	269 705	8
Oregon	507 809	8
Pennsylvania	1 598 437	4
Rhode Island	147 084	10
South Carolina	598 077	6
South Dakota	106 041	7
Tennessee	526 768	7
Texas	1 600 268	4
Utah	288 697	13
Vermont	194 452	9
Virginia	1 167 216	7
Washington	895 395	7
West Virginia	214 951	8
Wisconsin	700 030	7
Wyoming	119 408	7

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

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

Appendix A.

Explanation of Terms

ESTABLISHMENT

A relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. Generally, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis.

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

NUMBER OF EMPLOYEES

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

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

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

Construction workers

Includes all payroll workers (up through the working supervisory level) directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, on-site record keepers, and security guards. Supervisory employees above the working foreman level are excluded from this category and are included in the other employees category.

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

Other employees

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

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

PAYROLL

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

Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if unincorporated.

Payroll for Construction Workers

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

Payroll for Other Employees

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

FIRST-QUARTER PAYROLL FOR ALL EMPLOYEES

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

FRINGE BENEFITS FOR ALL EMPLOYEES

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

Legally Required Expenditures

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

Voluntary Expenditures

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

VALUE OF BUSINESS DONE

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

Value of Construction Work

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

This item includes the receipts, billings, or sales for construction work done by building contractors, heavy and civil engineering construction contractors, and specialty trade contractors. Included are new construction, additions, alterations or reconstruction, and maintenance and repair construction work. Establishments engaged in the sale and installation of construction components such as plumbing, heating, and central air-conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators, or escalators were instructed to include both the value for the installation and receipts covering the price of the items installed. Excluded are the cost of industrial and other special machinery and equipment that are not an integral part of a structure and receipts from business operations in foreign countries.

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

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

Other Business Receipts

Includes the receipts for all other business activities done by an establishment in the current year. Includes business receipts not reported as value of construction work. This includes business receipts from retail and wholesale trade, rental of equipment without operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here. Excluded are nonoperating income such as interest, dividends, the sale of fixed assets, or receipts from other business operations in foreign countries.

NET VALUE OF CONSTRUCTION WORK

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

VALUE ADDED

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

VALUE OF CONSTRUCTION WORK SUBCONTRACTED IN FROM OTHERS

Includes the value of construction work done by reporting establishments as subcontractors to other contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a dollar value.

CONSTRUCTION RECEIPTS PERCENT ESTIMATED

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

SELECTED COSTS

Includes the direct charges actually paid or payable for costs incurred for purchases of materials, components, and supplies; costs of construction work subcontracted out to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are not included.

Cost of Materials, Components, and Supplies

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

Cost of Construction Work Subcontracted Out to Others

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

Cost of Selected Power, Fuels, and Lubricants

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

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

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

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

COSTS OF MATERIALS, COMPONENTS, SUPPLIES, AND FUELS

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

RENTAL PAYMENTS

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

SELECTED PURCHASED SERVICES

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

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

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

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

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

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

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

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

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

CAPITAL EXPENDITURES, OTHER THAN LAND

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

RETIREMENTS AND DISPOSITION OF DEPRECIABLE ASSETS

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

DEPRECIATION CHARGES DURING YEAR

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

NUMBER OF ESTABLISHMENTS WITH INVENTORIES

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

Value of Construction Work for Establishments With Inventories

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

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

Includes the inventories of materials and supplies owned at the beginning and end of the reporting year by establishments with payroll. Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials that are owned by others but held by the reporting establishment. Builders who built on their own account for sale were requested to exclude work in progress and finished units not sold from inventories. Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories, even if these inventories were held at a separate location.

NUMBER OF ESTABLISHMENTS WITH NO INVENTORIES

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

Value of Construction Work for Establishments With No Inventories

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

NUMBER OF ESTABLISHMENTS NOT REPORTING INVENTORIES

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

Value of Construction Work for Establishments Not Reporting Inventories

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

VALUE OF CONSTRUCTION WORK BY TYPE OF CONSTRUCTION

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

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

Types of Construction

Provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in the reporting year. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents

worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose; i.e., office and residential, or commercial, they were to classify the building by its major purpose. In addition, all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. There are two types of construction:

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

- Single-family houses, detached. Includes all fully detached residential buildings constructed for one family use.
- Single-family houses, attached, including townhouses and townhouse-type condominiums. Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- Apartment buildings, apartment-type condominiums, and cooperatives. Includes apartment rentals, high-rise, low-rise, or any structures containing two or more housing units, excluding attached single-family houses.
- Dormitories and barracks. Includes school dormitories and military or nonmilitary barracks that are nonhousekeeping structures.
- Other manufacturing and industrial buildings. Includes all manufacturing and industrial buildings and plants that are used to house production and assembly activities. Note that industrial parks should be classified under its primary usage such as warehouses, office space, commercial, or industrial type buildings. Heavy industrial facilities such as blast furnaces, petroleum refineries, and chemical complexes are not included in this category but are reported under nonbuilding construction.
- Manufacturing and industrial warehouses. Includes all warehouses which are intended for industrial activities.
- Hotels and motels. Includes hotels, motels, bed-and-breakfast inns, and tourist cabins intended for transient accommodations. Also included are hotel and motel conference centers.
- Office buildings. Includes all buildings that are used primarily for office space or for government administrative offices. Also included are banks or financial buildings that are three stories or more. Medical office buildings are reported under hospitals and institutional buildings.
- All other miscellaneous commercial buildings. Includes all buildings that are intended for use primarily in the retail and service trades, i.e., shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- Commercial warehouses. Includes distribution buildings and mini-storage units intended for commercial use. Also included are storage warehouses.
- Religious buildings. Includes all buildings that are intended for religious services or functions such as churches, synagogues, convents, monasteries, and seminaries.
- Educational buildings. Includes all buildings that are used directly in administrative and instructional activities such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories that are not a part of a manufacturing or commercial establishment, are also included.

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

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

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

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

KINDS OF BUSINESS ACTIVITIES

Includes dollar value of business done by business activity. Primary activities are construction activities that generate fifty-one percent or more of an establishment's dollar value of business done. Also included are other kinds of business activities. Other kinds of business activities include business receipts not reported as value of construction work. This item includes business receipts from retail and wholesale trade, rental of equipment without an operator, manufacturing, transportation, legal services, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included in other kinds of business activities.

VALUE OF CONSTRUCTION WORK FOR SPECIALIZED TYPE AND KIND OF BUSINESS

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

SPECIALIZATION PERCENT

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

VALUE OF CONSTRUCTION WORK FOR ESTABLISHMENTS BY LOCATION OF WORK

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

Appendix B. NAICS Codes, Titles, and Descriptions

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, nonbuilding, mining) is included in this industry. Establishments primarily engaged in construction equipment rental with operator (except cranes) are also included.

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:

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

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

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

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

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

DUPLICATION IN VALUE OF CONSTRUCTION WORK

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

DISCLOSURE

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

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan and Micropolitan Statistical Areas

Not applicable for this report.

Appendix F.

Detailed NAICS and Bridge Code Titles: 2002

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

2002 NAICS code	1997 bridge code	Detailed 2002 NAICS and 1997 bridge code title description
236115	23321000	New single family housing construction (except operative builders) Single family housing construction, general contractors
236116	23322000	New multifamily housing construction (except operative builders) Multifamily housing construction, general contractors
236117	23321000 23322000	New housing operative builders Single family housing construction, operative builders Multifamily housing construction, operative builders
236118	23321000 23322000	Residential remodelers Remodeling contractors, single family housing Remodeling contractors, multifamily housing
236210	23331000 23493000 23499000	Industrial building construction Other manufacturing and industrial building construction Other industrial nonbuilding construction Waste disposal plant construction
236220	23322000 23331000 23333200 23599000	Commercial and institutional building construction Barrack and dormitory construction Grain elevators, dry cleaning plants, and manufacturing and industrial warehouses construction Commercial and institutional building construction Indoor swimming pool contractors
237110	23491000 23499000 23599000	Water and sewer line and related structures construction Water and sewer line, mains, and related structures (including pumping stations, etc.) construction Sewage and water treatment plants and irrigation systems construction Water well drilling contractors
237120	21311200 23491000 23493000	Oil and gas pipeline and related structures construction Construction of oil and gas field gathering lines Oil and gas pipelines, mains, and related and related structures (including oil storage tanks, etc) construction Petrochemical plants and refineries construction
237130	23492000 23493000	Power and communication line and related structures construction Power and communication transmission line construction Power generation plants and transformer stations construction, except hydroelectric
237210	23311000	Land subdivision Land subdivision and land development
237310	23411000 23412000 23521000	Highway, street, and bridge construction Highway and street construction Bridge construction Highway and traffic line painting contractors
237990	22412000 23499000 23599000	Other heavy and civil engineering construction Tunnel construction All other heavy and civil engineering construction Anchored earth retention contractors
238110	23571000	Poured concrete foundation and structure contractors Concrete (except paving) contractors
238120	23591000	Structural steel and precast concrete contractors Other structural steel erection contractors
238130	23551000	Framing contractors Framing carpentry contractors
238140	23541000 23542000	Masonry contractors Masonry and stone contractors Stucco contractors
238150	23592000	Glass and glazing contractors Glass and glazing contractors
238160	23561000	Roofing contractors Roofing contractors
238170	23561000	Siding contractors Siding (including gutters and downspouts) contractors
238190	23591000 23599000	Other foundation, structure, and building exterior contractors Metal curtain walls and metal furring installation contractors Forming, ornamental metal work installation, and foundation, structure, and building exterior contractors
238210	23511000 23531000	Electrical contractors Environmental controls installation contractors Electrical contractors
238220	23511000 23595000	Plumbing, heating, and air-conditioning contractors Other plumbing, heating, and air-conditioning contractors Scrubber, dust collection, and other industrial ventilation installation contractors
238290	23595000 23599000	Other building equipment contractors Other building equipment and machinery installation contractors Boiler, duct, and pipe insulation and service station equipment, lightning rod, bowling alley, church bell, and tower clock installation contractors
238310	23542000	Drywall and insulation contractors Other drywall, plastering, acoustical, and insulation contractors
238320	23521000	Painting and wall covering contractors Other painting and wall covering contractors

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

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

