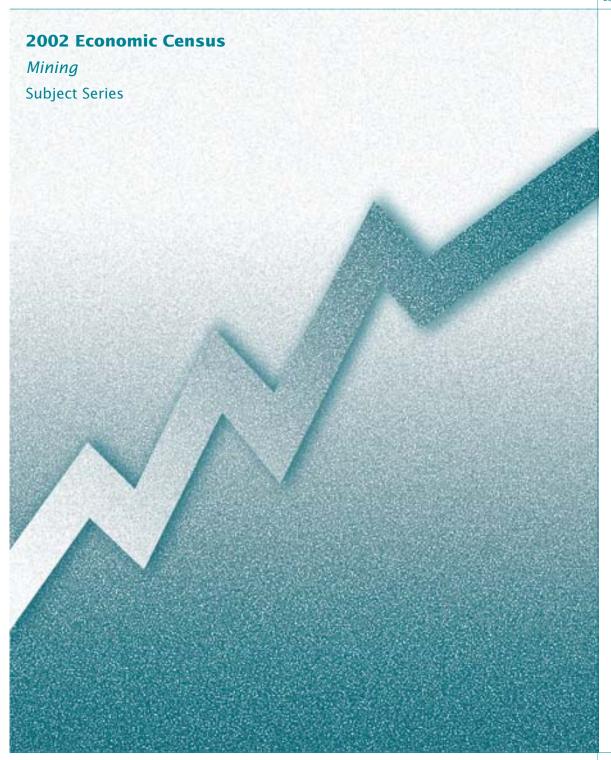
Industry-Product Analysis Summary: 2002

Issued March 2005

EC02-21SX-1





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2002 Economic Census

Mining
Subject 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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Mining

SCOPE

The Mining sector (sector 21) comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparation customarily performed at the mine site, or as a part of mining activity.

The mining sector distinguishes two basic activities: mine operation and mining support activities. Mine operation includes establishments operating mines, quarries, or oil and gas wells on their own account or for others on a contract or fee basis. Mining support activities include establishments that perform exploration (except geophysical surveying) and/or other mining services on a contract or fee basis (except mine site preparation and construction of oil/gas pipelines).

Establishments in the mining sector are grouped and classified according to the natural resource mined or to be mined. Industries include establishments that develop the mine site, extract the natural resources, and/or those that beneficiate (i.e., prepare) the mineral mined. Beneficiation is the process whereby the extracted material is reduced to particles that can be separated into mineral and waste, the former suitable for further processing or direct use. The operations that take place in beneficiation are primarily mechanical, such as grinding, washing, magnetic separation, and centrifugal separation. In contrast, manufacturing operations primarily use chemical and electrochemical processes, such as electrolysis and distillation. However, some treatments, such as heat treatments, take place in both the beneficiation and the manufacturing (i.e., smelting/refining) stages. The range of preparation activities varies by mineral and the purity of any given ore deposit. While some minerals, such as petroleum and natural gas, require little or no preparation, others are washed and screened, while yet others, such as gold and silver, can be transformed into bullion before leaving the mine site.

Mining, beneficiating, and manufacturing activities often occur in a single location. Separate receipts will be collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals, beneficiate the nonmetallic minerals into more finished manufactured products are classified based on the primary activity of the establishment. A mine that manufactures a small amount of finished products will be classified in Sector 21, Mining. An establishment that mines whose primary output is a more finished manufactured product will be classified in Sector 31-33, Manufacturing.

Exclusions. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining).

The tabulations for this sector do not include central administrative offices, warehouses, or other establishments that serve mining 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 moderate for this sector, may be examined at www.census.gov/nonemployerimpact.

2002 Economic Census

The reports described below cover all mining establishments with one or more paid employees.

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 29 reports, each covering a single NAICS industry (six-digit code). These reports include such statistics as number of establishments, employment, payroll, value added by mining, cost of supplies, value of shipments and receipts for services, capital expenditures, etc. The industry reports also include data for states with 100 employees or more in the industry. The data in industry reports are preliminary and subject to change in the following reports.

Geographic Area Series. There are 52 separate reports, one for each state, the District of Columbia, and offshore areas. Each state report presents similar statistics at the "all mining" level for each state. The state reports also include six-digit NAICS level data for industries with 100 employees or more in the state.

Subject Series:

- Industry-Product Analysis Summary. This report presents value of shipments and receipts for services, value of product shipments or receipts for services, percentage of product shipments of the total value of shipments and receipts for services, and percentage of distribution of value of product shipments or receipts for services on the NAICS six-digit industry level and by the six- and seven-digit product code levels. It also includes miscellaneous receipts at the six- and seven-digit product code levels by NAICS six-digit industry levels.
- **General 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.
- **Product Summary.** This report summarizes the products data published in the industry reports.
- Materials Summary. This report summarizes the materials and fuels data published in the industry reports.
- Location of Mines Summary. This report contains statistics on the number of establishments for the three- and six-digit NAICS industry by state and offshore area by employment-size of the establishment.

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. Offshore Areas. Data for offshore areas that are part of Alaska, California, Louisiana, and Texas are included in their respective state area reports and represent offshore operations on these state offshore leases and all federal offshore leases defined by their state plane coordinate systems. State offshore includes the areas extending from the coastline up to 3 geographical miles distance, except for Texas and Florida, which extend 3 marine leagues from the coastline in the Gulf of Mexico. Data for offshore areas not associated with a state are in an Offshore Areas geographic report that includes the following areas:

- a. Atlantic Offshore: Atlantic Federal Area, New Hampshire state offshore, Maine state offshore, Massachusetts state offshore, Connecticut state offshore, New York state offshore, New Jersey state offshore, Delaware state offshore, Maryland state offshore, Virginia state offshore, North Carolina state offshore, South Carolina state offshore, Georgia state offshore, and Florida state Atlantic offshore.
- b. Northern Gulf of Mexico Offshore: Northern Gulf of Mexico Federal Areas defined by the Universal Transverse Mercator Coordinate System (including areas generally south of the state plane coordinate systems of Louisiana and Texas), Mississippi state offshore, Alabama state offshore, and Florida state Gulf offshore.
- c. Pacific Offshore: Pacific Federal areas defined by Universal Transverse Mercator Coordinate System, Oregon state offshore, and Washington state offshore.

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 several revisions to selected industries in the mining sector, for 2002. These changes were due to industries that are now being classified in the construction sector. These changes are:

- 213112 Construction of field gathering lines on a contract basis
- 213112 Site preparation and related construction activities on a contract basis
- 213113 Site preparation and related construction activities on a contract basis
- 213114 Site preparation and related construction activities on a contract basis
- 213115 Site preparation and related construction activities on a contract basis

More detailed information of NAICS changes from 1997 to 2002, may be examined at 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 industry-product analysis, e-commerce value of shipments and receipts for services, and leased and nonleased detail employment statistics by subsectors.

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.

2002 Economic Census Mining xi

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.

The disclosure analysis for "industry statistics" files is based on the total value of shipments and receipts. When the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. If capital expenditures alone is a disclosure, only capital expenditures and cost of supplies statistics are suppressed. Nonetheless, the suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

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 49,999 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-Product Analysis - Industry Shipments by Product and Receipts for Services: 2002

[This table presents the variety of products shipped and receipts for services from each mining industry. Most products of an industry are the products classified in the industry. Their product codes have the same first six-digits as the industry code and are referred to as primary products. However, an establishment may also ship products or have receipts for services not classified in their industry. The first six-digits of these product or service codes are not the same as the industry code and are referred to as secondary products or receipts for services. Data for products and receipts for services with a value of less than \$5 million are not listed separately. These data are included in the "All other products or services" lines. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry	Product or service code	Industry and product or service	Total value of shipments and receipts for services (\$1,000)	Value of product shipments or receipts for services (\$1,000)	Product shipments or receipts for services as percent of total value of shipments and receipts for services
211111	211111 2111111 2111113 21111112 2111112 211112 211112 211112 2131110 213111 2131110 213112 213112 213112 325120 3251204 325120 3251204 325311 3253111 399890 999890 999998	Crude petroleum and natural gas extraction Crude petroleum and natural gas extraction Crude petroleum, including lease condensate (volumes corrected to 60 degrees F) shipped Natural gas Crude petroleum and natural gas extraction, nsk Natural gas liquid extraction Natural gas liquid extraction, nsk Drilling oil and gas wells. Drilling oil and gas wells. Support activities for oil and gas operations Other oil and gas sfield support activities Industrial gas manufacturing Carbon dioxide Cyclic crude and intermediate manufacturing Tar, tar crudes, and tar pitches Nitrogenous fertilizer manufacturing Synthetic ammonia, nitric acid, and ammonium compounds Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly	85 844 183 X X X X X X X X X X X X X X X X X X X	X 82 753 218 30 686 344 39 217 352 12 849 522 D D 186 829 186 829 95 234 D D D D D D D D D D D D D D D D D D D	100.00 96.40 35.75 45.68 14.97 \$ \$ \$ \$ 22 .22 .22 .22 .22 .22 .22 .22
211112	9999988 211111 2111113 211112 211112 2111124 2111124 211112W 213112 213112 3251204 999890 999890 999998	All other products or services made in this industry All other products or services made in this industry Natural gas liquid extraction Crude petroleum and natural gas extraction Natural gas liquid extraction Natural gas liquid extraction Natural gas liquides Residue gas shipped from natural gas liquids plants Recovered elemental sulfur from natural gas Natural gas liquid extraction, nsk Support activities for oil and gas operations Other oil and gas field support activities Industrial gas manufacturing Carbon dioxide Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	29 191 322 X X X X X X X X X X X X X	2 099 9 770 X 126 762 123 068 28 974 816 D 13 671 118 D 21 567 D 21 567 D D 32 518 32 518 8 541	
212111	212111 2121111 2121113 212111W 213113 2131130 999890 999890 999998 999998	Bituminous coal and lignite surface mining Bituminous coal and lignite surface mining Run-of-mine (raw) bituminous coal and lignite shipped from surface mining operations Processed bituminous coal and lignite shipped from surface operations Bituminous coal and lignite surface mining, nsk Support activities for coal mining Coal mining services Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	10 824 480 X X X X X X X X X X X X X X	X 10 608 693 1 677 262 8 351 469 579 962 28 480 28 480 181 960 181 960 5 347 5 347	100.00 98.01 15.50 77.15 5.36 .26 .26 1.68 0.5
212112	211112 211112W 212112 2121121 2121121 212112W 999890 999998 999998	Bituminous coal underground mining Natural gas liquid extraction Natural gas liquid extraction Natural gas liquid extraction, nsk Bituminous coal underground mining Run-of-mine (raw) bituminous coal shipped from underground mining operations Processed bituminous coal shipped from underground mining operations Bituminous coal underground mining, nsk Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	9 658 720 X X X X X X X X X X X X X X X X X	X D D D D 702 458 74 685 74 685 5 002 5 002	100.00 S S S S S 7.27 .77 .77 .05
212113	212113 2121131 2121133 212113W 999998 9999988	Anthracite mining Anthracite mining Run-of-mine (raw) anthracite Processed anthracite Anthracite mining, nsk All other products or services made in this industry All other products or services made in this industry	123 720 X X X X X X	X 120 719 27 391 64 480 28 848 3 001 3 001	100.00 97.57 22.14 52.12 23.32 2.43 2.43
212210	212210 2122101 2122103 212210W 999890 9998900 999998 999998	Iron ore mining Iron ore mining Crude iron ore Iron ore concentrates and agglomerates Iron ore mining, nsk Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	1 770 163 X X X X X X X X X	X 1 770 163 80 190 1 680 304 9 669 - - -	100.00 100.00 4.53 94.92 .55 — —
212221	212221 2122213 2122215 212221W 999998 9999988	Gold ore mining . Gold ore mining . Gold concentrates . Gold mill bullion and placer gold . Gold ore mining , nsk All other products or services made in this industry . All other products or services made in this industry .	2 858 089 X X X X X X	2 854 524 D 2 471 359 D 3 565 3 945	100.00 99.88 S 86.47 S .12
212222	212222 2122223 2122225 2122231 2122313 999998 9999988	Silver ore mining Silver ore mining Silver concentrates Silver mill bullion and placer silver Lead ore and zinc ore mining Lead and zinc concentrates All other products or services made in this industry All other products or services made in this industry	96 119 X X X X X X X	X D D D D - 4 708	100.00 S S S S S - 4.90

Table 1. Industry-Product Analysis - Industry Shipments by Product and Receipts for Services: 2002—Con.

[This table presents the variety of products shipped and receipts for services from each mining industry. Most products of an industry are the products classified in the industry. Their product codes have the same first six-digits as the industry code and are referred to as primary products. However, an establishment may also ship products or have receipts for services not classified in their industry. The first six-digits of these product or service codes are not the same as the industry code and are referred to as secondary products or receipts for services. Data for products and receipts for services with a value of less than \$5 million are not listed separately. These data are included in the "All other products or services" lines. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry	Product or service code	Industry and product or service	Total value of shipments and receipts for services (\$1,000)	Value of product shipments or receipts for services (\$1,000)	Product shipments or receipts for services as percent of total value of shipments and receipts for services
212231	212221 2122215 212222 212222 212233 2122311 2122311 212231W 999998 9999988	Lead ore and zinc ore mining. Gold ore mining. Gold mill bullion and placer gold. Silver ore mining. Silver concentrates Lead ore and zinc ore mining. Crude lead and zinc ores. Lead and zinc concentrates Lead ore and zinc ore mining, sk. All other products or services made in this industry. All other products or services made in this industry.	456 407 X X X X X X X X X	X D D D D D D 2 761	100.00 S S S S S S S S S S S S S S S S S
212234	212221 212221 212222 212222 2122223 2122225 212234 2122341 2122345 212234W 212299 212299 213114 2131140 999998 9999988	Copper ore and nickel ore mining Gold ore mining. Gold mill bullion and placer gold. Silver ore mining. Silver one mining. Silver concentrates Silver mill bullion and placer silver Copper ore and nickel ore mining Crude copper-bearing ores Copper concentrates Copper recipitates and electrowon copper recovered from leaching operations Copper ore and nickel ore mining, nsk All other metal ore mining . Ferroalloy ores, except vanadium Support activities for metal mining Metal mining services All other products or services made in this industry All other products or services made in this industry All other products or services made in this industry	2 093 609 X X X X X X X X X X X X X	X D D D D D D D D D D D D D D D D D D D	100.00 S S S S S 40.45 S 2.02 S S S S
212291	212291 2122913 212291W 999890 9998900 999998 999998	Uranium-radium-vanadium ore mining Uranium-radium-vanadium ore mining Uranium-vanadium concentrates Uranium-radium-vanadium ore mining, nsk Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	81 283 X X X X X X X	X 81 283 75 895 5 388 - - -	100.00 100.00 93.37 6.63 — —
212299	212299 2122993 2122995 212299W 999998 999998	All other metal ore mining All other metal ore mining Ferroalloy ores, except vanadium Miscellaneous metal ores and concentrates (including antimony, beryllium, mercury, rare-earth metals, tin, and titanium) All other metal ore mining, nsk All other products or services made in this industry All other products or services made in this industry	592 639 X X X X X X	X 591 877 D D 10 972 762 762	100.00 99.87 S S 1.85 .13
212311	212311 2123110 327991 3279914 999890 999890 999998 999998	Dimension stone mining and quarrying Dimension stone mining and quarrying Dimension stone Cut stone and stone product manufacturing Dressed dimension limestone (including dolomite, travertine, calcareous, tufa, and cut limestone) Sales of products bought and sold without further manufacture, processing, or assembly Sales of products or services made in this industry All other products or services made in this industry All other products or services made in this industry	259 957 X X X X X X X X	237 818 237 818 237 818 D D D D 7 912 9 703	100.00 91.48 91.48 \$ \$ \$ \$ \$ \$ 3.04
212312	212311 2123110 212312 2123120 212319 212319 212319 212321 2123211 2123213 213115 213115 224121 327320 327320 327410 3273200 327410 3273200 327410 3273200 999999 9999999999999999999999999999	Crushed and broken limestone mining and quarrying	5 794 871 X X X X X X X X X X X X X X X X X X X	X D D D S 396 464 5 396 464 18 217 18 217 777 395 60 308 27 418 24 065 17 583 17 583 17 583 17 585 146 555 6 449 12 045	100.00 \$ 93.12 93.12 93.13 .31 .31 .34 .22 1.04 .47 .76 .30 .30 .30 .8 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
212313	212313 2123130 212321 2123211 2123213 999890 9999890 999998 999998	Crushed and broken granite mining and quarrying Crushed and broken granite mining and quarrying Crushed and broken granite Construction sand and gravel mining Construction sand and gravel (run of pit or bank) Construction sand and gravel (washed, screened, or otherwise treated) Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	1 939 693 X X X X X X X	1 892 968 1 892 968 1 892 968 19 103 5 579 13 524 11 323 11 323 16 299	100.00 97.59 97.59 .98 .29 .70 .58 .58 .84
212319	212319 2123190	Other crushed and broken stone mining and quarrying Other crushed and broken stone mining and quarrying Bituminous limestone, bituminous sandstone, and other crushed and broken stone	1 500 431 X X	X 1 348 012 1 348 012	100.00 89.84 89.84

Table 1. Industry-Product Analysis - Industry Shipments by Product and Receipts for Services: 2002—Con.

[This table presents the variety of products shipped and receipts for services from each mining industry. Most products of an industry are the products classified in the industry. Their product codes have the same first six-digits as the industry code and are referred to as primary products. However, an establishment may also ship products or have receipts for services not classified in their industry. The first six-digits of these product or service codes are not the same as the industry code and are referred to as secondary products or receipts for services. Data for products and receipts for services with a value of less than \$5 million are not listed separately. These data are included in the "All other products or services" lines. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry	Product or service code	Industry and product or service	Total value of shipments and receipts for services (\$1,000)	Value of product shipments or receipts for services (\$1,000)	Product shipments or receipts for services as percent of total value of shipments and receipts for services
212319	212321 2123211 2123213 213115 213115 324121 3241210 327320 3273200 999890 999890 999988 999998	Other crushed and broken stone mining and quarrying—Con. Construction sand and gravel mining Construction sand and gravel (run of pit or bank) Construction sand and gravel (washed, screened, or otherwise treated) Support activities for nonmetallic minerals (except fuels) mining Nonmetallic minerals services (except fuels) Asphalt paving mixture and block manufacturing Asphalt paving mixtures and blocks Ready-mix concrete manufacturing Ready-mix concrete Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	x x x x x x x x x	50 769 20 465 29 048 20 884 20 884 D D D D 22 082 22 082 21 11 191 12 447	3.38 1.36 1.94 1.39 1.39 S S S S 1.47 1.47 7.75 .83
212321	212312 2123120 212313 2123130 212319 2123190 212321 2123211 2123211 2123213 2123213 2132115 232115 232115 232120 327320 327320 327320 999890 999890 999998	Construction sand and gravel mining Crushed and broken limestone mining and quarrying Crushed and broken limestone. Crushed and broken granite mining and quarrying Crushed and broken granite Other crushed and broken stone mining and quarrying Bituminous limestone, bituminous sandstone, and other crushed and broken stone Construction sand and gravel mining Construction sand and gravel (run of pit or bank). Construction sand and gravel (run of pit or bank). Construction sand and gravel mining, nsk Construction sand and gravel mining, nsk Support activities for nonmetallic minerals (except fuels) mining Nonmetallic minerals services (except fuels) Asphalt paving mixture and block manufacturing Asphalt paving mixtures and blocks. Ready-mix concrete Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	4 513 516 X X X X X X X X X X X X X	X 34 683 34 683 29 974 29 974 29 974 29 974 21 80 253 379 610 2 182 442 1 618 201 50 423 40 531 40 531 102 331 102 331 11 172 11 172	100.00 .77 .77 .66 .66 .8 .8 .92.62 .8.41 .48.35 .35.85 .1.12 .90 .90 .90 .8 .8 .8 .227 .227 .255
212322	212321 2123213 212322 2123221 2123221 2123229 212322W 213115 2131150 999998 9999988	Industrial sand mining Construction sand and gravel mining Construction sand and gravel mining Construction sand and gravel (washed, screened, or otherwise treated) Industrial sand mining Industrial glass sand Other industrial sand Indust	650 541 X X X X X X X X X X X X X X	X D D 600 078 244 503 63 920 247 241 44 414 D D 6 947 7 554	100.00 \$ 92.24 37.58 93.33 38.01 6.83 \$ \$ \$ 1.07
212324	212299 2122991 212324 2123240 999998 999998	Kaolin and ball clay mining All other metal ore mining Bauxite Kaolin and ball clay mining Kaolin and ball clay All other products or services made in this industry All other products or services made in this industry	917 581 X X X X X X	X D D D 13 757 13 757	100.00 S S S S 1.50 1.50
212325	212325 2123252 2123254 2123256 2123259 2123259 212325A 212325W 327992 327992 327992 999890 999890 999890 999998	Clay and ceramic and refractory minerals mining . Clay and ceramic and refractory minerals mining . Bentonite . Fire clay . Fuller's earth . Other clay, ceramic, and refractory minerals (including magnesite and brucite) . Feldspar (crude, crushed, or ground) . Common (miscellaneous) clay and shale . Clay and ceramic and refractory minerals mining, nsk . Ground or treated mineral and earth manufacturing . Treated minerals and earths . Sales of products bought and sold without further manufacture, processing, or assembly . Sales of products bought and sold without further manufacture, processing, or assembly . All other products or services made in this industry . All other products or services made in this industry .	697 116 X X X X X X X X X X X X X X X X X X	X 663 980 234 113 115 519 91 706 92 384 D D 22 987 7 668 7 668 2 651 22 651 2 817	100.00 95.25 33.58 16.57 13.16 13.25 \$ \$ 3.30 1.10 1.10 3.25 3.25 40
212391	212391 2123911 2123913 212391W 212399 2123998 999998 999998	Potash, soda, and borate mineral mining . Potash, soda, and borate mineral mining . Potash, soda, and borate mineral mining . Sodium carbonate and sulfate . Potash, soda, and borate mineral mining, nsk . All other nonmetallic mineral mining . Other nonmetallic minerals . All other products or services made in this industry . All other products or services made in this industry .	1 123 043 X X X X X X X X X	X D D D 10 632 D D D 8 109 8 109	100.00 S S S .95 S S .72 .72
212392	212392 2123921 2123923 999998 9999988	Phosphate rock mining. Phosphate rock mining. Crude phosphate rock, ore or matrix Prepared phosphate rock All other products or services made in this industry All other products or services made in this industry	914 723 X X X X X X	X 912 508 D D 2 215 2 947	100.00 99.76 \$ \$ \$.24
212393	212393 2123932 2123933 2123939 212393W	Other chemical and fertilizer mineral mining Other chemical and fertilizer mineral mining Barite Rock salt. Other chemical and fertilizer minerals Other chemical and fertilizer mineral mining, nsk	347 779 X X X X X	X 336 454 77 305 188 920 25 989 44 240	100.00 96.74 22.23 54.32 7.47 12.72

Table 1. Industry-Product Analysis—Industry Shipments by Product and Receipts for Services: 2002—Con.

[This table presents the variety of products shipped and receipts for services from each mining industry. Most products of an industry are the products classified in the industry. Their product codes have the same first six-digits as the industry code and are referred to as primary products. However, an establishment may also ship products or have receipts for services not classified in their industry. The first six-digits of these product or service codes are not the same as the industry code and are referred to as secondary products or receipts for services. Data for products and receipts for services with a value of less than \$5 million are not listed separately. These data are included in the "All other products or services" lines. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry	Product or service code	Industry and product or service	Total value of shipments and receipts for services (\$1,000)	Value of product shipments or receipts for services (\$1,000)	Product shipments or receipts for services as percent of total value of shipments and receipts for services
212393	999998 9999988	Other chemical and fertilizer mineral mining—Con. All other products or services made in this industry All other products or services made in this industry	×	11 325 11 325	3.26 3.26
212399	212399 2123992 2123994 2123996 2123998 2123998 212399W 324199 3241992 999890 999890 9999890 999998	All other nonmetallic mineral mining All other nonmetallic mineral mining Diatomitic, crude and prepared Gypsum Talc, soapstone, and pyrophyllite Other nonmetallic mineral mining, nsk All other petroleum and coal products manufacturing All other petroleum and coal products manufacturing All other petroleum and coal products (excluding coke oven products), made in coke oven establishments Sales of products bought and sold without further manufacture, processing, or assembly Sales of products cervices made in this industry All other products or services made in this industry All other products or services made in this industry	X X X X	X D 221 124 D 82 574 277 309 72 565 D D 12 423 12 423 10 554	100.00 S 30.68 S 11.46 38.47 10.07 S S 1.72 1.72 1.46
213111	211111 2111111 2111113 213111 2131110 213112 2131123 213112W 999890 9998900 999988 9999988	Drilling oil and gas wells. Crude petroleum and natural gas extraction Crude petroleum, including lease condensate (volumes corrected to 60 degrees F) shipped Natural gas. Drilling oil and gas wells. Drilling oil and gas wells. Support activities for oil and gas operations Other oil and gas field support activities Support activities for oil and gas operations, nsk Sales of products bought and sold without further manufacture, processing, or assembly Sales of products bought and sold without further manufacture, processing, or assembly All other products or services made in this industry All other products or services made in this industry	8 018 735 X X X X X X X X X X X X X X X X X X X	X 29 775 D 7 601 687 7 601 687 115 090 109 561 5 526 270 963 270 963 1 220 1 223	100.00 .37 S S 94.80 94.80 94.80 1.44 1.37 .07 3.38 3.38
213112	211111 2111111 21111113 213111 2131110 213112 2131121 2131121 213112W 3327100 3327100 399890 999890 999998 999998	Support activities for oil and gas operations. Crude petroleum and natural gas extraction Crude petroleum, including lease condensate (volumes corrected to 60 degrees F) shipped Natural gas Drilling oil and gas wells. Drilling oil and gas wells. Support activities for oil and gas operations Oil and gas field exploration services Other oil and gas field support activities Support activities for oil and gas operations, nsk Machine shops Receipts for machine shop job work and job order repairs Sales of products bought and sold without further manufacture, processing, or assembly Sales of products or services made in this industry All other products or services made in this industry	11 577 714 X X X X X X X X X X X X X X X X X X X	X D D 9 496 349 539 349 539 10 531 211 295 745 5 935 911 4 299 555 D D 664 018 664 018 1 686 1 686	100.00 \$ \$.08 3.02 90.96 2.55 51.27 37.14 \$ \$ \$ 5 5.74 5.74 .01
213113	213113 2131130 213114 2131140 213115 2131150 999998 999998	Support activities for coal mining . Support activities for coal mining . Coal mining services . Support activities for metal mining . Metal mining services . Support activities for nonmetallic minerals (except fuels) mining . Nonmetallic minerals services (except fuels) . All other products or services made in this industry . All other products or services made in this industry .	801 109 X X X X X X X X X	X 778 597 778 597 D D D D 4 561 4 561	100.00 97.19 97.19 97.9 8 8 8 5 57
213114	213114 2131140 999998 9999988	Support activities for metal mining . Support activities for metal mining . Metal mining services . All other products or services made in this industry . All other products or services made in this industry .	289 682 X X X X X	X 288 816 288 816 866 866	100.00 99.70 99.70 .30 .30
213115	212312 2123120 212319 212319 212319 212321 213213 213115 213115 2131150 999998 9999988	Support activities for nonmetallic minerals (except fuels) mining. Crushed and broken limestone mining and quarrying Crushed and broken limestone. Other crushed and broken stone mining and quarrying Bituminous limestone, bituminous sandstone, and other crushed and broken stone Construction sand and gravel mining Construction sand and gravel (washed, screened, or otherwise treated). Support activities for nonmetallic minerals (except fuels) mining Nonmetallic minerals services (except fuels). All other products or services made in this industry All other products or services made in this industry	562 815 X X X X X X X X X X X X X X X X X X X	X D D D 16 226 12 169 515 111 515 111 13 233 17 290	100.00 \$ \$ \$ \$ 2.88 2.16 91.52 91.52 2.35 3.07

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 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. Industry-Product Analysis — Product Shipments and Receipts for Services by Contributing Industry: 2002

[This table presents the industries contributing to the shipments of a product or receipts for services. Most product shipments or receipts for services come from the industry in which the product or service is primary, which is where the industry code is the same as the first six-digits of the product or service code. However, some shipments or receipts for services may come from secondary industries that are displayed in the table with industry codes that are different than the first six-digits of the product or service code. Data for industries contributing less than \$5 million are not listed separately. These data are included in the total product shipments or receipts for services values. For this reason, the detail may not sum to the total. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Product or service code	Industry	Product or service and industry	Value of product shipments or receipts for services (\$1,000)	Percent distribution of value of product shipments or receipts for services
211111	211111 211112 213111	Crude petroleum and natural gas extraction	82 980 401 82 753 218 126 762 29 775	100.00 99.73 .15 .04
2111111	213112 324110 211111 213111	Support activities for oil and gas operations Petroleum refineries. Crude petroleum, including lease condensate (volumes corrected to 60 degrees F) shipped Crude petroleum and natural gas extraction Drilling oil and gas wells Support activities for oil and gas operations	D D 30 713 805 30 686 344 D	S S 37.01 99.91 S
2111113	213112 211111 211112 213111	Support activities for oil and gas operations Natural gas Crude petroleum and natural gas extraction Natural gas liquid extraction Drilling oil and gas wells Support activities for oil and gas operations	39 414 074 39 217 352 123 068	\$ \$ 47.50 99.50 .31 \$
211111W	213112 324110	Petroleum refineries	9 496 D 12 852 522	.02 S 15.49
211112	211111	Crude petroleum and natural gas extraction	12 849 522	99.98 100.00
	211111 211112 212112 324110 325199	Natural gas liquid extraction Crude petroleum and natural gas extraction Natural gas liquid extraction Bituminous coal underground mining Petroleum refineries All other basic organic chemical manufacturing	29 715 554 D 28 974 816 D D D	S 97.51 S S S S
2111121	211111 211112	Natural gas liquids Crude petroleum and natural gas extraction	15 624 632 D D	52.58 S S
2111123	211112	Residue gas shipped from natural gas liquids plants	13 673 354 13 671 118	46.01 99.98
2111124	211112 324110 325199	Recovered elemental sulfur from natural gas Natural gas liquid extraction Petroleum refineries All other basic organic chemical manufacturing	171 190 D D D	.58 S S S .83 S
211112W	211111 211112 212112	Natural gas liquid extrăction, nsk. Crude petroleum and natural gas extraction Natural gas liquid extraction Bituminous coal underground mining.	246 378 D 178 394 D	.83 S 72.41 S
212111	212111	Bituminous coal and lignite surface mining Bituminous coal and lignite surface mining	10 609 379 10 608 693	100.00 99.99
2121111		Run-of-mine (raw) bituminous coal and lignite shipped from surface mining operations Bituminous coal and lignite surface mining Bituminous coal and lignite surface mining	1 677 758	15.81
2121113	212111	Bituminous coal and lignite surface mining Processed bituminous coal and lignite shipped from surface operations Bituminous coal and lignite surface mining Bituminous coal and lignite surface mining Bituminous coal and lignite surface mining net	1 677 262 8 351 659	99.97 78.72
212111W	212111	Bituminous coal and lignite surface mining.	8 351 469 579 962 579 962	100.00 5.47 100.00
212112	212112	Bituminous coal underground mining	D D	S S
2121121 2121123	212112	Run-of-mine (raw) bituminous coal shipped from underground mining operations. Bituminous coal underground mining. Processed bituminous coal shipped from underground mining operations.	D D D	99999
212112W	212112	Bituminous coal underground mining Bituminous coal underground mining, nsk Bituminous coal underground mining	702 458 702 458	7.34 100.00
212113		Anthracite mining	120 719	100.00
2121131	212113	Anthracite mining	120 719 27 391	100.00 22.69
2121133	212113	Anthracite míning Processed anthracite	27 391 64 480	100.00 53.41
212113W	212113 212113	Anthracite mining Anthracite mining, nsk Anthracite mining	64 480 28 848 28 848	100.00 23.90 100.00
212210	212210	Iron ore mining	1 770 163 1 770 163	100.00 100.00
2122101	212210	Crude iniming Crude iron ore. Iron ore mining	80 190 80 190	4.53 100.00
2122103	212210	Iron ore concentrates and agglomerates Iron ore mining	1 680 304	94.92
212210W	212210	Iron ore mining, nsk Iron ore mining	1 680 304 9 669 9 669	100.00 .55 100.00
212221	212221 212231 212234	Gold ore mining Gold ore mining Lead ore and zinc ore mining. Copper ore and nickel ore mining	2 885 973 2 854 524 D	100.00 98.91 S S
2122213	212221	Gold concentrates	D D	S
2122215	212221 212231 212234	Gold mill bullion and placer gold Gold ore mining Lead ore and zinc ore mining Copper ore and nickel ore mining	2 501 069 2 471 359 D	86.66 98.81 S S
212221W	212221	Gold ore mining, nsk	D D	8888
212222	212222 212231 212234	Silver ore mining. Silver ore mining. Lead ore and zinc ore mining. Connectors and pickel ore mining.	140 057 D D	100.00 S S
2122223	212234 212222 212231	Copper ore and nickel ore mining Silver concentrates Silver ore mining Lead ore and zinc ore mining	51 133 D D	S 36.51 S S S S
2122225	212234 212222 212234	Copper ore and nickel ore mining Silver mill bullion and placer silver. Silver ore mining. Copper ore and nickel ore mining.	84 216 D D	\$ 60.13 \$ \$
212231		Lead ore and zinc ore mining	439 241	100.00

Table 2. Industry-Product Analysis — Product Shipments and Receipts for Services by Contributing Industry: 2002—Con.

[This table presents the industries contributing to the shipments of a product or receipts for services. Most product shipments or receipts for services come from the industry in which the product or service is primary, which is where the industry code is the same as the first six-digits of the product or service code. However, some shipments or receipts for services may come from secondary industries that are displayed in the table with industry codes that are different than the first six-digits of the product or service code. Data for industries contributing less than \$5 million are not listed separately. These data are included in the total product shipments or receipts for services values. For this reason, the detail may not sum to the total. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Product or service code	Industry	Product or service and industry	Value of product shipments or receipts for services (\$1,000)	Percent distribution of value of product shipments or receipts for services
212231	212222	Lead ore and zinc ore mining—Con. Silver ore mining.	D	· ·
2122311	212231	Lead ore and zinc ore mining. Crude lead and zinc ores	D	S S S 91.87
2122311	212231	Lead ore and zinc ore mining	D	S 01.07
2122313	212222	Lead and zinc concentrates	403 548 D	91.87 S
212231W	212231	Lead ore and zinc ore mining	D	S S S
010004	212231	Lead ore and zinc ore mining	D 1 000 110	
212234	212234	Copper ore and nickel ore mining	1 888 119 D	100.00 S
2122341	212234	Crude copper-bearing ores. Copper ore and nickel ore mining	D D	S S S
2122343	212234	Copper concentrates	849 049 846 893	44.97 99.75
2122345	212234	Copper precipitates and electrowon copper recovered from leaching operations	D D	S S
212234W	212234	Copper ore and nickel ore mining, nsk	42 254 42 254	2.24 100.00
212291		Uranium-radium-vanadium ore mining Uranium-radium-vanadium ore mining	81 283	100.00
2122913	212291	Uranium-vanadium concentrates	81 283 75 895	100.00 93.37
212291W	212291	Uranium-radium-vanadium ore mining	75 895 5 388	100.00 6.63
	212291	Uranium-radium-vanadium ore mining	5 388	100.00
212299	212234	All other metal ore mining	713 757 D	100.00 S
	212299 212324	All other metal ore mining	591 877 D	82.92 S
2122991	212324	Bauxite	D D	82.92 S S S S S S S S
2122993	212234	Ferroalloy ores, except vanadium . Copper ore and nickel ore mining	D D	S
2122995	212299	All other metal ore mining	D	Š
2122333	212299	and titanium) All other metal ore mining	456 048 D	63.89 S
212299W		All other metal ore mining, nsk. All other metal ore mining,	10 972	1.54
212311	212299	All other metal ore mining Dimension stone mining and quarrying	10 972 285 083	100.00 100.00
212011	212311 212312	Dimension stone mining and quarrying	237 818 D	83.42
0400440	327991	Crushed and broken limestone mining and quarrying	D	\$ \$
2123110	212311	Dimension stone	285 083 237 818	100.00 83.42
	212312 327991	Crushed and broken limestone mining and quarrying	D D	S S
212312	212312	Crushed and broken limestone mining and quarrying Crushed and broken limestone mining and quarrying	5 649 133 5 396 464	100.00 95.53
	212312 212321 213115	Construction sand and gravel mining Support activities for nonmetallic minerals (except fuels) mining.	34 683 D	
	324121 325188	Asphalt paving mixture and block manufacturing All other basic inorganic chemical manufacturing	47 958	.85
	327310	Cement manufacturing	D 29 072	.61 S .85 S .51 .63 S S
	327320 327390	Ready-mix concrete manufacturing. Other concrete product manufacturing Lime manufacturing	35 535 D	.63 S
2123120	327410	Crushed and broken limestone	D 5 649 133	100.00
	212312 212321	Crushed and broken limestone mining and quarrying Construction sand and gravel mining Support activities for nonmetallic minerals (except fuels) mining	5 396 464 34 683	95.53 .61
	213115 324121	Asphalt paving mixture and block manufacturing	D 47 958	.61 S .85 S .51
	325188 327310	All other basic inorganic chemical manufacturing. Cement manufacturing	D 29 072	S .51
	327320 327390	Ready-mix concrete manufacturing	35 535 D	.63 S
	327410	Lime manufacturing	D	S
212313	212313	Crushed and broken granite mining and quarrying. Crushed and broken granite mining and quarrying.	1 948 917 1 892 968	100.00 97.13
	212321 324121	Construction sand and gravel mining	29 974 D	1.54 S
	327320 327991	Ready-mix concrete manufacturing. Cut stone and stone product manufacturing	8 044 D	.41 S
2123130	212313	Crushed and broken granite	1 948 917 1 892 968	100.00 97.13
	212321 324121	Construction sand and gravel mining Asphalt paving mixture and block manufacturing	29 974 D	1.54 S
	327320 327991	Ready-mix concrete manufacturing. Cut stone and stone product manufacturing	8 044 D	.41 S
212319	327991	Other crushed and broken stone mining and quarrying.	1 571 184	100.00
212313	212312	Crushed and broken limestone mining and quarrying	18 217	1.16
	212319 212321	Other crushed and broken stone mining and quarrying	1 348 012 D	85.80 S
	213115 324121	Support activities for nonmetallic minerals (except fuels) mining	D 81 507	S 5.19
2123190	327320	Ready-mix concrete manufacturing	52 061 1 571 184	3.31 100.00
	212312 212319	Crushed and broken limestone mining and quarrying	18 217 1 348 012	1.16 85.80
	212321 213115	Construction sand and gravel mining	D D	S S
	324121 327320	Asphalt paving mixture and block manufacturing	81 507 52 061	5.19 3.31

Table 2. Industry-Product Analysis - Product Shipments and Receipts for Services by Contributing Industry: 2002—Con.

[This table presents the industries contributing to the shipments of a product or receipts for services. Most product shipments or receipts for services come from the industry in which the product or service is primary, which is where the industry code is the same as the first six-digits of the product or service code. However, some shipments or receipts for services may come from secondary industries that are displayed in the table with industry codes that are different than the first six-digits of the product or service code. Data for industries contributing less than \$5\$ million are not listed separately. These data are included in the total product shipments or receipts for services values. For this reason, the detail may not sum to the total. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Product or service code	Industry	Product or service and industry	Value of product shipments or receipts for services (\$1,000)	Percent distribution of value of product shipments or receipts for services
212321		Construction sand and gravel mining	4 642 219	100.00
	212312	Construction sand and gravel mining	77 399	1.67
	212313 212319	Crushed and broken granite mining and quarrying. Other crushed and broken stone mining and quarrying. Construction sand and gravel mining.	19 103 50 769	.41 1.09
	212321	Construction sand and gravel mining	4 180 253	90.05
	212322 213115	Industrial sand mining	D 16 226	.35
	324121	Asphalt paving mixture and block manufacturing	57 931	90.05 S 3.55 1.25 S 3.88 .30 S 1.11 9.30 2.94
	327310 327320	Support activities for normetatilic militerials (except tuels) militing Asphalt paving mixture and block manufacturing Cement manufacturing Ready-mix concrete manufacturing. Concrete block and brick manufacturing Other concrete product manufacturing	D 180 333	S 3 88
	327331	Concrete block and brick manufacturing	13 849	.30
	327390 327999	Other concrete product manufacturing	D 5 241	S 11
2123211		Construction sand and gravel (run of pit or bank). Crushed and broken limestone mining and quarrying	431 643	9.30
	212312 212313	Crushed and broken limestone mining and quarrying	12 705 5 579	2.94 1.29
	212319	Crushed and broken granite mining and quarrying	20 465	4.74
2123213	212321	Construction sand and gravel mining	379 610 2 486 555	87.95 53.56
2120210	212312	Crushed and broken limestone mining and guarrying	60 308	2.43
	212313	Crushed and broken granite mining and quarrying . Other crushed and broken stone mining and quarrying . Construction sand and gravel mining	13 524 29 048	.54 1.17 87.77
	212319 212321	Construction sand and gravel mining	29 048 2 182 442	87.77
	212322	Industrial sand mining	D	S
	213115 324121	Support activities for nonmetallic minerals (except fuels) mining	12 169 D	.49 S
	327320	Ready-mix concrete manufacturing	156 370	6.29
212321W	212321	Construction sand and gravel mining, nsk	1 724 021 1 618 201	37.14 93.86
	324121	Asphalt paving mixture and block manufacturing . Ready-mix concrete manufacturing . Construction sand and gravel mining, nsk Construction sand and gravel mining Asphalt paving mixture and block manufacturing . Cement manufacturing	50 549	2.93
	327310 327320	Cement manufacturing	D 19 874	S 1.15
	327331	Ready-mix concrete manufacturing	13 368	.78 S
	327390	Other concrete product manufacturing	D	S
212322		Industrial sand mining	614 007	100.00
2123221	212322	Industrial sand mining	600 078 248 236	97.73 40.43
	212322	Industrial sand mining	244 503	98.50
2123223	212322	Industrial molding sand	65 374 63 920	10.65 97.78
2123229		Other industrial sand	252 787	41.17
212322W	212322	Industrial sand mining	247 241 47 610	97.81 7.75
21232200	212322	Industrial sand mining.	44 414	93.29
212324		Kaolin and ball clay mining	D	S
	212324	Kaolin and ball clay mining	D	\$ 9 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
2123240	327992	Ground or treated mineral and earth manufacturing Kaolin and ball clay	D D	S
	212324	Kaolin and ball clay mining	D	S
	327992	Ground or treated mineral and earth manufacturing	D	
212325	212325	Clay and ceramic and refractory minerals mining	676 524 663 980	100.00 98.15
2123252		Bentonite	240 312	35.52
2123254	212325	Clay and ceramic and refractory minerals mining. Clay and ceramic and refractory minerals mining. Bentonite. Clay and ceramic and refractory minerals mining. Fire clay Clay and ceramic and refractory minerals mining. Fuller's earth.	234 113 117 276	97.42 17.34
2123254	212325	Clay and ceramic and refractory minerals mining	117 276	98.50
2123256	010005	Fuller's earth	91 829	13.57 99.87
2123259	212325	Other clay determine and refractory minerals (including magnesite and hyricite)	91 706 93 052	13.75
	212325		00.004	99.28
212325A	212325	Clay and ceramic and refractory minerals mining. Feldspar (crude, crushed, or ground) Clay and ceramic and refractory minerals mining. Common (miscellaneous) clay and shale. Clay and ceramic and refractory minerals mining. Clay and ceramic and refractory minerals mining, nsk	D D	\$ \$ \$ \$ \$
212325B		Common (miscellaneous) clay and shale	<u> </u>	S
212325W	212325	Clay and ceramic and refractory minerals mining	D 24 064	S 3.56
Z12023VV	212325	Clay and ceramic and refractory minerals mining.	22 987	95.52
212391		Potash, soda, and borate mineral mining	1 114 587	100.00
	212391	Potash, soda, and borate mineral mining	D	S
2123911	212391	Potassium salts and boron compounds	D D	\$ 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
2123913		Sodium carbonate and sulfate	D	S
212391W	212391	Potash, soda, and borate mineral mining	D 10 632	S .95
21200111	212391	Potash, soda, and borate mineral mining	10 632	100.00
212392		Phosphate rock mining	915 246	100.00
0400004	212392	Phosphate rock mining	912 508	99.70
2123921	212392	Crude phosphate rock, ore or matrix Phosphate rock mining	D D	\$ \$
2123923		Prepared phosphate rock	D	\$ \$ \$ \$ \$
	212392	Phosphate rock mining	D	S
212393	010000	Other chemical and fertilizer mineral mining	336 833	100.00
2123932	212393	Other chemical and fertilizer mineral mining	336 454 77 455	99.89 23.00
	212393	Other chemical and fertilizer mineral mining	77 305	99.81
2123933	212393	Rock salt Other chemical and fertilizer mineral mining	188 920 188 920	56.09 100.00
2123939		Other chemical and fertilizer minerals	26 057	7.74
212393W	212393	Other chemical and fertilizer mineral mining	25 989 44 401	99.74 13.18
L12030VV	212393	Other chemical and fertilizer mineral mining, risk	44 401	99.64
212399		All other nonmetallic mineral mining	753 365	100.00
_1_000	212391	Potash, soda, and borate mineral mining	D	S
	212399	All other nonmetallic mineral mining	D D	S S
			D D	

Table 2. Industry-Product Analysis—Product Shipments and Receipts for Services by Contributing Industry: 2002—Con.

[This table presents the industries contributing to the shipments of a product or receipts for services. Most product shipments or receipts for services come from the industry in which the product or service is primary, which is where the industry code is the same as the first six-digits of the product or service code. However, some shipments or receipts for services may come from secondary industries that are displayed in the table with industry codes that are different than the first six-digits of the product or service code. Data for industries contributing less than \$\$5\$ million are not listed separately. These data are included in the total product shipments or receipts for services values. For this reason, the detail may not sum to the total. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Product or service code	Industry	Product or service and industry	Value of product shipments or receipts for services (\$1,000)	Percent distribution of value of product shipments or receipts for services
212399		All other nonmetallic mineral mining—Con.		
2123992	327992	Ground or treated mineral and earth manufacturing Diatomite, crude and prepared	D 225 391	S 29.92
2123994	212399	All other permetallic mineral mining	221 124 66 013	98.11 8.76
2123994	212399	All other nonmetallic mineral mining	D	8.70 S S
2123996	327420	Gypsum All other nonmetallic mineral mining Gypsum product manufacturing Talc, soapstone, and pyrophyllite All other nonmetallic mineral mining Other nonmetallic mineral mining	D 82 612	10.97
2123998	212399		82 574 306 784	99.95 40.72
	212391 212399	Potash, soda, and borate mineral mining. All other nonmetallic mineral mining	D 277 309	S 90.39
040000144	327992	Ground or treated mineral and earth manufacturing	D	S
212399W	212399	Ground or treated mineral and earth manufacturing All other nonmetallic mineral mining, nsk All other nonmetallic mineral mining	72 565 72 565	9.63 100.00
213111		Drilling oil and gas wells	8 141 253	100.00
	211111	Crude petroleum and natural gas extraction	186 829 7 601 687	2.29 93.37
2131110	213112	Support activities for oil and gas operations	349 539 8 141 253	4.29 100.00
2.00	211111 213111	Crude petroleum and natural gas extraction	186 829 7 601 687	2.29 93.37
	213112	Crude petroleum and natural gas extraction Drilling oil and gas wells Support activities for oil and gas operations Drilling oil and gas wells Crude petroleum and natural gas extraction Drilling oil and gas wells Support activities for oil and gas operations	349 539	4.29
213112		Support activities for oil and gas operations	10 775 900	100.00
	211111 211112	Crude petroleum and natural gas extraction	D D	S S
	213111 213112	Drilling oil and gas wells Support activities for oil and gas operations	115 090 10 531 211	1.07 97.73
2131121	213112	Oil and gas field exploration services	296 132 295 745	2.75 99.87
2131123		Other oil and gas field support activities.	6 163 394	57.20
	211111 211112	Natural gas liquid extraction	95 234 21 567	1.55 .35
	213111	Drilling oil and gas wells	109 561 5 935 911	1.78 96.31
213112W	213111	Support activities for oil and gas operations, nsk	4 316 374 5 526	40.06 .13
	213112	Support activities for oil and gas operations Crude petroleum and natural gas extraction Natural gas liquid extraction Drilling oil and gas wells Support activities for oil and gas operations Oil and gas field exploration services Support activities for oil and gas operations Oil and gas field support activities Crude petroleum and natural gas extraction Natural gas liquid extraction Natural gas liquid extraction Drilling oil and gas wells Support activities for oil and gas operations	4 299 555	99.61
213113	212111	Support activities for coal mining	813 940 28 480	100.00 3.50
	213113	Bituminous coal and lignite surface mining Support activities for coal mining Coal mining services	778 597	95.66
2131130	212111	Coal mining services Bituminous coal and lignite surface mining Support activities for coal mining	813 940 28 480	100.00 3.50
	213113		778 597	95.66
213114	212234	Support activities for metal mining Copper ore and nickel ore mining Support activities for coal mining Support activities for metal mining Metal mining services Compared with a compiler comp	D D	\$ \$ \$
	213113	Support activities for coal mining	D 288 816	S 91.00
2131140		Metal mining services	D	81.96 S S S
	212234 213113	Copper ore and nickel ore mining Support activities for coal mining Support activities for metal mining	D D	S
	213114	Support activities for metal mining	288 816	81.96
213115	212312	Support activities for nonmetallic minerals (except fuels) mining	658 821 27 418	100.00 4.16
	212319	Other crushed and broken stone mining and quarrying.	20 884	3.17
	212321 212322	Crushed and broken limestone mining and quarrying Other crushed and broken stone mining and quarrying Other crushed and broken stone mining and quarrying Construction sand and gravel mining Industrial sand mining Support activities for coal mining	50 423 D	7.65 S S
	213113 213115	Support activities for nonmetallic minerals (except fuels) mining.	D 515 111	78.19
2131150	327320		5 025 658 821	.76 100.00
	212312 212319	Crushed and broken limestone mining and quarrying	27 418 20 884	4.16 3.17
	212321	Nonmetallic minerals services (except fuels). Crushed and broken limestone mining and quarrying. Other crushed and broken stone mining and quarrying. Construction sand and gravel mining. Industrial sand mining.	50 423	7.65
	212322 213113		D D	S
	213115 327320	Support activities for nonmetallic minerals (except fuels) mining	515 111 5 025	78.19 .76

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 nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Appendix A. Explanation of Terms

COMPANY

A company or "enterprise" is comprised of all the establishments that operate under the ownership or control of a single organization. A company may be a business, service, or membership organization; consist of one or several establishments; and operate at one or several locations. It includes all subsidiary organizations, all establishments that are majority-owned by the company or any subsidiary, and all the establishments that can be directed or managed by the company or any subsidiary.

A company may have one or many establishments. Examples include product and service sales offices (retail and wholesale), industrial production plants, processing or assembly operations, mines or well sites, and support operations (such as an administrative office, warehouse, customer service center, or regional headquarters). Each establishment should receive, complete, and return a separate census form.

If the company operated at different physical locations, even if the individual locations were producing the same mineral product, a separate report was requested for each location. If the company operated in two or more distinct lines of mining at the same location, a separate report was requested for each activity.

Establishment

An establishment is a single physical location where business is conducted or where services or industrial operations are performed. Data in this sector includes those establishments where mineral operations are performed. A separate report was required for each mining establishment of firms with one employee or more that was in operation at any time during the year.

An establishment not in operation for any portion of the year was requested to return the report form with the proper notation in the "Operational Status" section of the form. In addition, the establishment was requested to report data on any employees, capital expenditures, inventories, or shipments from inventories during the year.

For the crude petroleum and support activities for mining industries, the basis for reporting is different from the establishments' basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each state or offshore area adjacent to a state in which it conducted such activities. Firms that performed contract services for oil and gas field operation or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services and production worker wages and hours by state. These consolidated reports were then allocated to state establishments based on the data reported at the state level.

TOTAL VALUE OF SHIPMENTS AND RECEIPTS FOR SERVICES

Includes the net selling values, "Free on Board" (FOB) mine or plant after discounts and allowances (exclusive of freight and excise taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as installation and repair, sales of scrap, and sales of products bought and sold without further processing. Included are all products physically shipped by the establishments, whether sold, transferred to other plants of the same company, or shipped on consignment. For products transferred to other establishments of the same company, or prepared on a custom or toll basis, companies were requested to report the estimated value, not merely the cost of producing the product.

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In the case of multiunit companies, the mineral operation was requested to report the value of products transferred to other establishments of the same company at full economic or commercial value, including not only the direct cost of production but also a reasonable proportion of "all other costs" (including company overhead) and profit.

In addition to the value for NAICS defined products, aggregates of the following categories of miscellaneous receipts are reported as part of a total establishment's value of shipments and receipts for services:

- Receipts for services receipts for work or services that an establishment performed for others.
- 2. Value of resales sales of products brought and sold without further processing.
- 3. Other miscellaneous receipts includes repair work, installation, sales of scrap, etc.

Industry primary product value of shipments and receipts for services represents one of three components of value of shipments and receipts for services. These components are:

- 1. Primary product value of shipments and receipts for services.
- 2. Secondary product value of shipments and receipts for services.
- 3. Value of resales.

An establishment is classified in a particular NAICS industry when its shipments of a particular group of products exceed in value its shipments of products classified in any other single industry.

An establishment's value of shipments and receipts for services include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), receipts for services and miscellaneous activities, and the value of resales.

Value of product shipments represents the total value of all products shipped that are classified as primary to an industry and includes those that were shipped by all mining and manufacturing establishments regardless of their industry classification.

Duplication in cost of supplies, etc., and value of shipments and receipts for services

The aggregate of the cost of supplies, etc., and value of shipments and receipts for services figures for industry groups and all mining industries includes some duplication since the products of some industries are used as supplies by others. Some duplication exists because of the inclusion of minerals transferred from one establishment to another for mineral preparation or resale. Duplication may also exist within the products of some individual industries where minerals shipped for preparation are also reported as the prepared product by another establishment.

VALUE OF PRODUCT SHIPMENTS OR RECEIPTS FOR SERVICES

Includes the total value of all products shipped that are classified as primary to an industry and includes those that were shipped by all mining and manufacturing establishments regardless of their industry classification.

PRODUCT SHIPMENTS OR RECEIPTS FOR SERVICES AS PERCENT OF TOTAL VALUE OF SHIPMENTS AND RECEIPTS FOR SERVICES

Includes the percentage of the value of product shipments or receipts for services at the six- and seven-digit NAICS levels over the total value of shipments and receipts for services for the specified industry.

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PERCENT DISTRIBUTION OF VALUE OF PRODUCT SHIPMENTS OR RECEIPTS FOR SERVICES

Includes the percentage of the value of product shipments or receipts for services at the six- and seven-digit NAICS levels over the total value of product shipments or receipts for services for the specified industry.

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Appendix B. NAICS Codes, Titles, and Descriptions

211111 CRUDE PETROLEUM AND NATURAL GAS EXTRACTION

This U.S. industry group comprises establishments primarily engaged in the following:

- the exploration, development, and/or the production of petroleum or natural gas from wells in which the hydrocarbons will initially flow or can be produced using normal pumping techniques or
- 2. the production of crude petroleum from surface shales or tar sands or from reservoirs in which the hydrocarbons are semisolids.

Establishments in this industry operate oil and gas wells on their own account or for others on a contract or fee basis.

211112 NATURAL GAS LIQUID EXTRACTION

This U.S. industry comprises establishments primarily engaged in the recovery of liquid hydrocarbons from oil and gas field gases. Establishments primarily engaged in sulfur recovery from natural gas are included in this industry.

212111 BITUMINOUS COAL AND LIGNITE SURFACE MINING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. surface mining of bituminous coal and lignite;
- 2. developing bituminous coal and lignite surface mine sites;
- 3. surface mining and beneficiating (e.g., cleaning, washing, screening, and sizing coal) of bituminous coal; or
- 4. beneficiating (e.g., cleaning, washing, screening, and sizing coal), but not mining, bituminous coal.

212112 BITUMINOUS COAL UNDERGROUND MINING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. underground mining of bituminous coal;
- 2. developing bituminous coal underground mine sites; and
- 3. underground mining and beneficiating of bituminous coal (e.g., cleaning, washing, screening, and sizing coal).

212113 ANTHRACITE MINING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. mining anthracite coal;
- 2. developing anthracite coal mine sites; and
- 3. beneficiating anthracite coal (e.g., cleaning, washing, screening, and sizing coal).

212210 IRON ORE MINING

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

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- 1. developing mine sites, mining, and/or beneficiating (i.e., preparing) iron ores and manganiferous ores valued chiefly for their iron content and/or
- 2. producing sinter iron ore (except iron ore produced in iron and steel mills) and other iron ore agglomerates.

212221 GOLD ORE MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) ores valued chiefly for their gold content. Establishments primarily engaged in transformation of the gold into bullion or dore bar in combination with mining activities are included in this industry.

212222 SILVER ORE MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) ores valued chiefly for their silver content. Establishments primarily engaged in transformation of the silver into bullion or dore bar in combination with mining activities are included in this industry.

212231 LEAD ORE AND ZINC ORE MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) lead ores, zinc ores, or lead-zinc ores.

212234 COPPER ORE AND NICKEL ORE MINING

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

- developing the mine site, mining, and/or beneficiating (i.e, preparing) copper and/or nickel ores; and
- 2. recovering copper concentrates by the precipitation, leaching, or electrowinning of copper ore

212291 URANIUM-RADIUM-VANADIUM ORE MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) uranium-radium-vanadium ores.

212299 ALL OTHER METAL ORE MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) metal ores (except iron and manganiferous ores valued for their iron content, gold ore, silver ore, copper, nickel, lead, zinc, and uranium-radium-vanadium ore).

212311 DIMENSION STONE MINING AND QUARRYING

This U.S. industry comprises establishments primarily engaged in developing the mine site and/or mining or quarrying dimension stone (i.e., rough blocks and/or slabs of stone).

212312 CRUSHED AND BROKEN LIMESTONE MINING AND QUARRYING

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

- 1. developing the mine site, mining or quarrying crushed and broken limestone (including related rocks, such as dolomite, cement rock, marl, travertine, and calcareous tufa); and
- 2. beneficiating limestone (e.g., grinding or pulverizing).

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212313 CRUSHED AND BROKEN GRANITE MINING AND OUARRYING

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

- 1. developing the mine site, and/or mining or quarrying crushed and broken granite (including related rocks, such as gneiss, syenite, and diorite); and
- 2. beneficiating granite (e.g., grinding or pulverizing).

212319 OTHER CRUSHED AND BROKEN STONE MINING AND QUARRYING

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

- 1. developing the mine site and/or mining or quarrying crushed and broken stone (except limestone and granite);
- 2. beneficiating (e.g., grinding and pulverizing) stone (except limestone and granite); and
- 3. mining or quarrying bituminous limestone and bituminous sandstone.

212321 CONSTRUCTION SAND AND GRAVEL MINING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. operating commercial grade (i.e., construction) sand and gravel pits;
- 2. dredging for commercial grade sand and gravel; and
- 3. washing, screening, or otherwise preparing commercial grade sand and gravel.

212322 INDUSTRIAL SAND MINING

This U.S. industry comprises comprises establishments primarily engaged in one or more of the following:

- 1. operating industrial grade sand pits;
- 2. dredging for industrial grade sand;
- 3. washing, screening, or otherwise preparing industrial grade sand.

212324 KAOLIN AND BALL CLAY MINING

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

- 1. developing the mine site and/or mining kaolin or ball clay (e.g., china clay, paper clay, and slip clay) and
- 2. beneficiating (i.e., preparing) kaolin or ball clay.

212325 CLAY AND CERAMIC AND REFRACTORY MINERALS MINING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. mining clay (except kaolin and ball), ceramic, or refractory minerals;
- 2. developing the mine site for clay, ceramic, or refractory minerals; and
- 3. beneficiating (i.e., preparing) clay (except kaolin and ball), ceramic, or refractory minerals.

212391 POTASH, SODA, AND BORATE MINERAL MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining and/or milling, or otherwise beneficiating (i.e., preparing) natural potassium, sodium, or boron compounds. Drylake brine operations are included in this industry, as well as establishments engaged in producing the specified minerals from underground and open pit mines.

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212392 PHOSPHATE ROCK MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, milling, and/or drying or otherwise beneficiating (i.e., preparing) phosphate rock.

212393 OTHER CHEMICAL AND FERTILIZER MINERAL MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining, milling, and/or drying or otherwise beneficiating (i.e., preparing) chemical or fertilizer mineral raw materials (except potash, soda, boron, and phosphate rock).

212399 ALL OTHER NONMETALLIC MINERAL MINING

This U.S. industry comprises establishments primarily engaged in developing the mine site, mining and/or milling, or otherwise beneficiating (i.e., preparing) nonmetallic minerals (except stone, sand, gravel, clay, ceramic, refractory minerals, and chemical and fertilizer minerals).

213111 DRILLING OIL AND GAS WELLS

This U.S. industry comprises establishments primarily engaged in drilling oil and gas wells for others on a contract or fee basis. This industry includes contractors that specialize in spudding in, drilling in, redrilling, and directional drilling.

213112 SUPPORT ACTIVITIES FOR OIL AND GAS OPERATIONS

This U.S. industry comprises establishments primarily engaged in performing support activities on a contract or fee basis for oil and gas operations (except site preparation and related construction activities). Services included are exploration (except geophysical surveying and mapping); excavating slush pits and cellars; well surveying; running, cutting, and pulling casings, tubes, and rods; cementing wells; shooting wells; perforating well casings; acidizing and chemically treating wells; and cleaning out, bailing, and swabbing wells.

213113 SUPPORT ACTIVITIES FOR COAL MINING

This U.S. industry comprises establishments primarily engaged in providing support activities for coal mining (except site preparation and related construction activities) on a contract or fee basis. Exploration for coal is included in this industry. Exploration includes traditional prospecting methods, such as taking core samples and making geological observations at prospective sites.

213114 SUPPORT ACTIVITIES FOR METAL MINING

This U.S. industry comprises establishments primarily engaged in providing support activities (except site preparation and related construction activities) on a contract or fee basis for the mining and quarrying of metallic minerals and for the extraction of metal ores. Exploration for minerals is included in this industry. Exploration (except geophysical surveying and mapping services) includes traditional prospecting methods, such as taking core samples and making geological observations at prospective sites.

213115 SUPPORT ACTIVITIES FOR NONMETALLIC MINERALS (EXCEPT FUELS) MINING

This U.S. industry comprises establishments primarily engaged in providing support activities, on a fee or contract basis, for the mining and quarrying of nonmetallic minerals (except fuel) and for the extraction of nonmetallic minerals (except site preparation and related construction activities). Exploration for minerals is included in this industry. Exploration (except geophysical surveying and mapping services) includes traditional prospecting methods, such as taking core samples and making geological observations at prospective sites.

237120 OIL AND GAS PIPELINE AND RELATED STRUCTURES CONSTRUCTION

This U.S. industry comprises establishments primarily engaged in the construction of oil and gas lines, mains, refineries, and storage tanks. The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this group if they

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are engaged in activities primarily related to oil and gas pipeline and related structures construction. All structures (including buildings) that are integral parts of oil and gas networks (e.g., storage tanks, pumping stations, and refineries) are included in this industry.

238910 SITE PREPARATION CONTRACTORS

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

324121 ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing asphalt and tar paving mixtures and blocks from purchased asphaltic materials.

324199 ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing petroleum products (except asphalt paving, roofing, and saturated materials and lubricating oils and greases) from refined petroleum and coal products made in coke ovens not integrated with a steel mill.

325120 INDUSTRIAL GAS MANUFACTURING

This industry comprises establishments primarily engaged in manufacturing industrial organic and inorganic gases in compressed, liquid, and solid forms.

325182 CARBON BLACK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing carbon black, bone black, and lamp black.

325188 ALL OTHER BASIC INORGANIC CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing basic inorganic chemicals (except industrial gases, inorganic dyes and pigments, alkalies and chlorine, and carbon black).

325192 CYCLIC CRUDE AND INTERMEDIATE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in (1) distilling coal tars and/or (2) manufacturing cyclic crudes or, cyclic intermediates (i.e., hydrocarbons, except aromatic petrochemicals) from refined petroleum or natural gas.

325199 ALL OTHER BASIC ORGANIC CHEMICAL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing basic organic chemical products (except aromatic petrochemicals, industrial gases, synthetic organic dyes and pigments, gum and wood chemicals, cyclic crudes and intermediates, and ethyl alcohol).

325311 NITROGENOUS FERTILIZER MANUFACTURING

This U.S. industry comprises establishments primarily engaged in one or more of the following:

- 1. manufacturing nitrogenous fertilizer materials and mixing ingredients into fertilizers;
- 2. manufacturing fertilizers from sewage or animal waste; and
- 3. manufacturing nitrogenous materials and mixing them into fertilizers.

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325998 ALL OTHER MISCELLANEOUS CHEMICAL PRODUCT AND PREPARATION MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing chemical products (except basic chemicals, resins, synthetic rubber; cellulosic and noncellulosic fiber and filaments; pesticides, fertilizers, and other agricultural chemicals; pharmaceuticals and medicines; paints, coatings and adhesives; soap, cleaning compounds, and toilet preparations; printing inks; explosives; custom compounding of purchased resins; and photographic films, papers, plates, and chemicals).

326130 LAMINATED PLASTICS PLATE, SHEET (EXCEPT PACKAGING), AND SHAPE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in laminating plastics profile shapes such as plate, sheet (except packaging), and rod. The lamination process generally involves bonding or impregnating profiles with plastics resins and compressing them under heat.

327122 CERAMIC WALL AND FLOOR TILE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing ceramic wall and floor tiles.

327320 READY-MIX CONCRETE MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing concrete delivered to a purchaser, such as batch plants or mix plants, in a plastic and unhardened state. Readymix concrete manufacturing establishments may mine, quarry, or purchase sand and gravel.

327331 CONCRETE BLOCK AND BRICK MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing concrete block and brick.

327390 OTHER CONCRETE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing concrete products (except block, brick, and pipe).

327410 LIME MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing lime from calcitic limestone, dolomitic limestone, or other calcareous materials, such as coral, chalk, and shells. Lime manufacturing establishments may mine, quarry, collect, or purchase the sources of calcium carbonate.

327991 CUT STONE AND STONE PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in cutting, shaping, and finishing granite, marble, limestone, slate, and other stone for building and miscellaneous uses. Stone product manufacturing establishments may mine, quarry, or purchase stone.

327992 GROUND OR TREATED MINERAL AND EARTH MANUFACTURING

This U.S. industry comprises establishments primarily engaged in calcining, dead burning, or otherwise processing beyond beneficiation, clays, ceramic and refractory minerals, barite, and miscellaneous nonmetallic minerals.

327999 ALL OTHER MISCELLANEOUS NONMETALLIC MINERAL PRODUCT MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonmetallic mineral products (except pottery, ceramics, and plumbing fixtures; clay building materials and refractories; glass and glass products; cement; ready-mix concrete; concrete products; lime; gypsum products; abrasive products; cut stone and stone products; ground and treated minerals and earth; and mineral wool).

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332212 HAND AND EDGE TOOL MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing nonpowered hand and edge tools (except saws).

332710 MACHINE SHOPS

This U.S. industry comprises establishments primarily engaged in machining metal parts on a job or order basis (known as machine shops). Generally machine shop jobs are low volume using machine tools, such as lathes (including computer numerically controlled); automatic screw machines; and machines for boring, grinding, and milling.

333295 SEMICONDUCTOR MACHINERY MANUFACTURING

This U.S. industry comprises establishments primarily engaged in manufacturing wafer processing equipment, semiconductor assembly and packaging equipment, and other semiconductor making machinery.

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Appendix C. Methodology

SOURCES OF THE DATA

The mining sector includes approximately 25,000 establishments. This number includes those industries in the North American Industry Classification System (NAICS) definition of mining. The amount of information requested from mining establishments was dependent upon a number of factors. The more important consideration was the size of the company.

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:

- a. Large and medium size establishments. Approximately 48 percent of all mining establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the 15 economic census mining regular forms. The first seven pages, requesting establishment data for items, such as employment and payroll, costs, assets, and capital expenditures, were fairly standard although some variation occurred depending on the industries collected on the form. The remaining pages of the form contained product, supply, fuel, and special inquiries. The diversity of the mining activities necessitated the use of several forms to canvass the 29 mining industries.
- b. Small single-establishment companies. This group included approximately 12 percent of all mining establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or short form was used. Establishments in the crushed stone, sand and gravel, and crude petroleum and natural gas industries with 5 to 19 employees received 1 of 2 versions of the short form. The form requested summary product and material data and totals, but no details on payrolls, cost of supplies and fuels, assets, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics, because the same data were collected on the short form as on the long form. However, detailed information on products, supplies, and fuels was not collected on the short form; thus, its use would increase the value of the "not specified by kind" (nsk) categories.

2. Establishments not sent a report form:

a. Small single-establishment companies not sent a report form. Approximately 40 percent of the mining establishments were small single-establishment companies that were excused from filing a census report. Selection of these establishments was based on two factors: annual payroll and the Census Bureau's ability to assign the correct six-digit NAICS industry classification to the establishment. For each six-digit NAICS industry code, an annual payroll cutoff was determined. These cutoffs were derived so that the establishments with payroll less than the cutoff were expected to account for no more than 3 percent of the value of shipments and receipts for the industry. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms. Establishments below the cutoff that could not be directly assigned a six-digit NAICS code were mailed a classification report that requested information for assigning NAICS industry codes. Establishments below the cutoff that could be

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directly assigned a six-digit NAICS code were excused from filing any report. For below cutoff establishments, information on the physical location, payroll, and receipts was obtained from the administrative records of other federal agencies under special arrangements that safeguarded their confidentiality.

Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and receipts, cost of supplies, etc., and cost of fuels were not distributed among specific products, supplies, and fuels for these establishments but were included in the product, supplies, and fuels "not specified by kind" (nsk) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded to a six-digit NAICS industry. This was especially true whenever there was a relatively fine line of demarcation between industries or between mining and nonmining activity.

Sometimes the administrative-record cases had only two- or three-digit NAICS group classification codes available in the files. For mining, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the appropriate six-digit NAICS level. Establishments that did not return the classification form were coded later to those six-digit NAICS industries identified as "All other," a default within the given subsector

As a result of these situations, a number of small establishments may have been misclassified by industry. However, such possible misclassification has no significant effect on the statistics other than on the number of companies and establishments.

The total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the count of total number of establishments.

b. All nonemployers, i.e., all firms subject to federal income tax, with no paid employees, during 2002 are excluded as in previous censuses. 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 — Mining are classified in 1 of 29 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/ identify those industries that changed between the 1997 North American Industry Classification System (NAICS) and 2002 NAICS. When applicable, Appendix F of this report shows the product class and product comparability between the two systems for data in this report.

In the NAICS system, an industry is generally defined as a group of establishments that have similar processes used to produce the mineral products. 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 its number, value added by mining, value of shipments and receipts, number of employees, and payroll.

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The coding system works in such a way that the definitions progressively become narrower with successive additions of numerical digits. In the mining sector for 2002, there are 3 subsectors (three-digit NAICS), 5 industry groups (four-digit NAICS), 10 NAICS industries (five-digit NAICS) that are comparable with Canadian and Mexican classification, and 29 U.S. industries (six-digit NAICS). Product classes and products of the mining industries have been assigned codes based on the industry from which they originate. There are 63 product classes (seven-digit codes) and 136 ten-digit product codes. The ten-digit products are considered the primary products of the industry with the same first six digits.

For the 2002 Economic Census — Mining, all establishments were classified in particular industries based on the products they produced. If an establishment made products of more than one industry, it was classified in the industry with the largest product value.

Establishments frequently make products classified both in their industry (primary products) and other industries (secondary products). Industry statistics (employment, payroll, value added by mining, value of shipments and receipts, etc.) reflect the activities of the establishments that may make both primary and secondary products. Product statistics, however, represent the output of all establishments without regard for the classification of the producing establishment. For this reason, when relating the industry statistics, especially the value of shipments and receipts, to the product statistics, the composition of the industry's output should be considered.

ESTABLISHMENT BASIS OF REPORTING

The 2002 Economic Census — Mining covers each mining establishment of firms with one or more paid employees operating in the United States. A company operating at more than one establishment is required to file a separate report for each location. A mining establishment is defined as a single physical location where mineral operations are conducted. However, a company engaged in distinctly different lines of activity at one location is required to submit a separate report for each activity, if the plant records permit such a separation and, if the activities are substantial in size.

For oil and gas field operations and for contract services, the basis for reporting is different from the "establishment" basis used for other types of mining. Firms operating oil and gas wells, drilling wells, or exploring for oil and gas for their own account were required to submit a separate report for each state or offshore area adjacent to a state in which it conducted such activities. Firms that performed contract services for oil and gas field operations or for mining establishments were required to submit one report covering all such activities in the United States and to include information on receipts for services, production-worker wages, and hours, by state. These consolidated reports were then allocated to state establishments based on the data reported at the state level. The 2002 figures for establishments include the summation of operations for each state allocated from these nationwide reports.

In 2002, as in prior censuses since 1967, data for single-unit firms without paid employees were excluded. This exclusion had only a slight effect on industry aggregates for most industries. Data for firms without employees were included in the 1963, 1958, and 1954 censuses, if they reported more than \$500 in (1) value of shipments and receipts, (2) cost of supplies and purchased machinery, or (3) capital expenditures.

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

RELIABILITY OF DATA

All data compiled in the economic census are subject to nonsampling errors. Nonsampling errors can be attributed to many sources during the development or execution of the census:

- inability to identify all cases in the actual universe;
- definition and classification difficulties;

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- 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.

The Census Bureau obtains limited information extracted from administrative records of other federal agencies, such as gross receipts from federal income tax records and employment and payroll from payroll tax records. This information is used in conjunction with other information available to the Census Bureau to develop estimates for nonemployers, small employers, and other establishments for which responses were not received in time for publication.

DUPLICATION IN COST OF MATERIALS AND VALUE OF SHIPMENTS

Data for cost of materials and value of shipments include varying amounts of duplication, especially at higher levels of aggregation. This is because the products of one establishment may be the materials of another. The value added statistics avoid this duplication and are, for most purposes, the best measure for comparing the relative economic importance of industries and geographic areas.

VALUE OF INDUSTRY SHIPMENTS COMPARED WITH VALUE OF PRODUCT SHIPMENTS

The 2002 Economic Census — Mining shows value of shipments and receipts data for industries and products. In the industry statistics tables and files, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in the products statistics tables and files represent the total value of all products shipped that are classified as primary to an industry regardless of the classification of the producing establishment. The value of products shipped also may include some products shipped from manufacturing establishments with mining operations.

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.

The disclosure analysis for the industry statistics files is based on the total value of shipments and receipts. When the total value of shipments and receipts cannot be shown without disclosing information for individual companies, the complete line is suppressed except for capital expenditures. If capital expenditures alone is a disclosure, only capital expenditures and cost of supplies statistics are suppressed. Nonetheless, the suppressed data are included in higher-level totals.

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Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan and Micropolitan Statistical Areas

Not applicable for this report.

2002 Economic Census

U.S. Census Bureau, 2002 Economic Census