

Materials Summary

1997

Issued June 2001

EC97N21S-MS

1997 Economic Census

Mining

Subject Series



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

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



ACKNOWLEDGMENTS

The staff of the Manufacturing and Construction Division prepared this report. **Judy M. Dodds**, Assistant Chief for Census and Related Programs, was responsible for the overall planning, management, and coordination. **Patricia L. Horning**, Chief, Construction and Minerals Branch, assisted by **Susan L. DiCola**, Section Chief, performed the planning and implementation. **John F. Roehl**, **Eva J. Snapp**, and **Sarah B. Teichner** provided primary staff assistance.

Paul Hsen, Assistant Chief for Research and Methodology Programs, assisted by **Stacey Cole**, Chief, Manufacturing Programs Methodology Branch, and **Robert Struble**, Section Chief, provided the mathematical and statistical techniques as well as the coverage operations. **Jeffrey Dalzell** and **Cathy Ritenour** provided primary staff assistance.

Mendel D. Gayle, Chief, Forms, Publications, and Customer Services Branch, assisted by **Julius Smith Jr.** and **Baruti Taylor**, Section Chiefs, performed overall coordination of the publication process. **Kim Credito**, **Patrick Duck**, **Chip Murph**, **Wanda Sledd**, and **Veronica White** provided primary staff assistance.

The Economic Planning and Coordination Division, **Lawrence A. Blum**, Assistant Chief for Collection Activities and **Lynda Willingham**, Assistant Chief for Post-Collection Census and Register Activities, assisted by **Dennis Shoemaker**, Chief, Analytical Branch, **Brandy Yarbrough**, Chief, Edit Branch, **Douglas J. Miller**, Chief, Tables and Dissemination Branch, **Sheila Proudfoot**, **Richard Williamson**, **Keith Fuller**, and **Andrew W. Hait** were responsible for developing the systems and procedures for data collection, editing, review, correction, and dissemination.

The staff of the National Processing Center, **Judith N. Petty**, Chief, performed mailout preparation and receipt operations, clerical and analytical review activities, data keying, and geocoding review.

The Geography Division staff developed geographic coding procedures and associated computer programs.

The Economic Statistical Methods and Programming Division, **Howard Dennis**, Acting Chief, developed and coordinated the computer processing systems. **Martin S. Harahush**, Assistant Chief for Quinquennial Programs, assisted by **Gary T. Sheridan**, Chief, Macro Analytical Branch and **Edward Johnson**, Section Chief, supervised the preparation of the computer programs and was responsible for the design and implementation of the computer systems.

Computer Services, Division, **Kenneth Riccini**, Chief, performed the computer processing.

Kim D. Ottenstein, **Cynthia G. Brooks** and **Crystal M. Pate** of the Administrative and Customer Services Division, **Walter C. Odom**, Chief, provided publications and printing management, graphics design and composition, and editorial review for print and electronic media. General direction and production management were provided by **Michael G. Garland**, Assistant Chief, and **Gary J. Lauffer**, Chief, Publications Services Branch.

1997 Economic Census

Mining

Subject Series



U.S. Department of Commerce
Donald L. Evans,
Secretary

**Economics
and Statistics
Administration**
J. Lee Price,
Acting Under Secretary for
Economic Affairs

U.S. CENSUS BUREAU
William G. Barron, Jr.,
Acting Director



**Economics
and Statistics
Administration**

J. Lee Price,
Acting Under Secretary
for Economic Affairs



U.S. CENSUS BUREAU

William G. Barron, Jr.,
Acting Director

William G. Barron, Jr.,
Deputy Director

Vacant,
Principal Associate Director
for Programs

Frederick T. Knickerbocker,
Associate Director
for Economic Programs

Thomas L. Mesenbourg,
Assistant Director
for Economic Programs

William G. Bostic, Jr.,
Chief, Manufacturing
and Construction Division

CONTENTS

Introduction to the Economic Census	1
Mining	5
TABLES	
1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992	7
APPENDIXES	
A. Explanation of Terms	A-1
B. NAICS Codes, Titles, and Descriptions	B-1
C. Coverage and Methodology	C-1
D. Geographic Notes	--
E. Metropolitan Areas	--
F. Footnotes for Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type	F-1

-- 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 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.

ALL-NEW INDUSTRY CLASSIFICATIONS

Data from the 1997 Economic Census are published primarily on the basis of the North American Industry Classification System (NAICS), unlike earlier censuses, which were published according to the Standard Industrial Classification (SIC) system. NAICS is in the process of being adopted in the United States, Canada, and Mexico. Most economic census reports cover one of 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 Foodservices
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), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

RELATIONSHIP TO SIC

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 industry definitions discuss the relationships between NAICS and SIC industries. Where changes are significant, it will not be possible to construct time series that include data for points both before and after 1997.

For 1997, data for auxiliary establishments (those functioning primarily to manage, service, or support the activities of their company's operating establishments, such as a central administrative office or warehouse) will not be included in the sector-specific reports. These data will be published separately.

GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required to tabulate the census data for the states, metropolitan areas (MAs), counties, parishes, and corporate municipalities including cities, towns, 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 Internal Revenue Service tax forms is used as a basis for coding.

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.

DOLLAR VALUES

All dollar values presented are expressed in current dollars; i.e., 1997 data are expressed in 1997 dollars, and 1992 data, in 1992 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.

AVAILABILITY OF ADDITIONAL DATA

Reports in Print and Electronic Media

All results of the 1997 Economic Census are available on the Census Bureau Internet site (www.census.gov) and on compact discs (CD-ROM) for sale by the Census Bureau. Unlike previous censuses, only selected highlights are published in printed reports. For more information, including a description of electronic and printed reports being issued, see the Internet site, or write to U.S. Census Bureau, Washington, DC 20233-8300, or call Customer Services at 301-457-4100.

Special Tabulations

Special tabulations of data collected in the 1997 Economic Census may be obtained, depending on availability of time and personnel, in electronic or tabular form. The data will be summaries subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) that govern the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief of the division named below, U.S. Census Bureau, Washington, DC 20233-8300. To discuss a special tabulation before submitting specifications, call the appropriate division:

Manufacturing and Construction Division 301-457-4673
Service Sector Statistics Division 301-457-2668

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 covering service trades in 1933. Censuses of construction, manufacturing, and the other business service 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, using consistent time periods, concepts, definitions, classifications, and reporting units. It was the first census to be taken by mail, using lists of firms provided by the administrative records of other Federal agencies. Since 1963, administrative records also have been used to provide basic statistics for very small firms, reducing or eliminating the need to send them census questionnaires.

The range of industries covered in the economic censuses expanded between 1967 and 1992. 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.

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. All of the census reports printed since 1967 are still available for sale on microfiche from the Census Bureau. CD-ROMs issued from the 1987 and 1992 Economic Censuses contain databases including 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 each of the economic censuses and related surveys is published in the *Guide to the 1997 Economic Census and Related Statistics* at www.census.gov/econguide. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1997 Economic Census* at www.census.gov/econ/www/history.html.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used with the 1997 Economic Census 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.
Q	Revenue not collected at this level of detail for multiestablishment firms.
S	Withheld because estimates did not meet publication standards.

V	Represents less than 50 vehicles or .05 percent.
X	Not applicable.
Y	Disclosure withheld because of insufficient coverage of merchandise lines.
Z	Less than half the unit shown.
a	0 to 19 employees.
b	20 to 99 employees.
c	100 to 249 employees.
e	250 to 499 employees.
f	500 to 999 employees.
g	1,000 to 2,499 employees.
h	2,500 to 4,999 employees.
i	5,000 to 9,999 employees.
j	10,000 to 24,999 employees.
k	25,000 to 49,999 employees.
l	50,000 to 99,999 employees.
m	100,000 employees or more.
p	10 to 19 percent estimated.
q	20 to 29 percent estimated.
r	Revised.
s	Sampling error exceeds 40 percent.
nec	Not elsewhere classified.
nsk	Not specified by kind.
–	Represents zero (page image/print only).
(CC)	Consolidated city.
(IC)	Independent city.

This page is intentionally blank.

Mining

SCOPE

The Mining sector of the 1997 Economic Census covers all mining establishments of companies with one or more paid employees. Mining is defined as the extraction of naturally occurring mineral solids, such as coal and ores; liquid minerals, such as 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 floatation), and other preparations customarily performed at the mine site or as part of the 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.

Establishments in the Mining sector are classified by industry according to the natural resources mined or to be mined. Included are establishments that develop the mine site, extract the natural resources, and/or those that beneficiate (i.e., prepare) the mineral mined. The operations that take place in beneficiation are primarily mechanical, such as grinding, washing, magnetic separation, and centrifugal separation. The range of preparation activities varies by mineral and the purity of any given ore deposit.

Mining, beneficiation, and manufacturing activities often occur in a single location. Separate receipts are collected for these activities whenever possible. When receipts cannot be broken out between mining and manufacturing, establishments that mine or quarry nonmetallic minerals and beneficiate the nonmetallic minerals into more finished manufactured products are classified based on the primary activity of the establishment.

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

GENERAL

This report, from the 1997 Economic Census – Mining, is one of a series of 29 industry reports and 51 geographic area reports, each of which provides statistics for individual industries, states, or offshore areas. Also included for this sector are the General, Products, and Materials and Fuels Consumed Summary reports, and data files on Location of Mining Operations.

Each industry report presents data for a six-digit North American Industry Classification System (NAICS) industry. A description of the particular NAICS industry may be found in Appendix B. These reports include such statistics as number of establishments, employment, payroll, value added by mining, cost of supplies used, value of shipments and receipts, capital expenditures, etc., for each mining industry. Explanations of these and other terms may be found in Appendix A. The industry reports also include data for states with 100 employees or more.

State reports present similar statistics at the sector level for each state, the District of Columbia, and the offshore areas. The state of Delaware and the District of Columbia are combined in a single report. The state reports also include data for industries with 100 employees or more in the state.

The General Summary 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.

The Products Summary and the Materials and Fuels Consumed Summary reports summarize the products, materials, and fuels data published in the industry series reports.

The Location of Mining Operations data files include statistics on the number of establishments by three- and six-digit NAICS industry by state and offshore area by employment size of the establishment.

GEOGRAPHIC AREAS COVERED

The state reports for the mining industries include data at the state level and some offshore areas. No substate data are available.

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 all 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 which includes the following areas:

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
- Florida state Atlantic offshore

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
- Florida state Gulf offshore

Pacific Offshore

- Pacific Federal areas defined by Universal Transverse Mercator Coordinate System
- Oregon state offshore
- Washington state offshore

COMPARABILITY OF THE 1992 AND 1997 CENSUSES

The adoption of the North American Industry Classification System (NAICS) has had only a minor effect on the comparability of data between the 1992 and 1997 censuses at the sector level. However, within the sector the number of major levels changed from four to three. In

addition, portions of industries left mining for the services sector. Prominent among items leaving mining are geophysical surveying and mapping services for metal mining, oil and gas, and nonmetallic minerals mining. If industries are not comparable between the two censuses, historic data are not shown.

Another change resulting from the conversion to NAICS is that data for central administrative offices (CAOs) associated with mining are no longer included in the mining data. This change affects all levels of data shown in the reports.

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 classified in a specific industry or geography is not considered a disclosure and may be released even when other information is withheld.

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. The suppressed data are included in higher-level totals.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

The County Business Patterns program of the U.S. Census Bureau offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county and state.

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
211111, CRUDE PETROLEUM & NATURAL GAS EXTRACTION					
Supplies Consumed by Type					
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	3 829 117	X	3 448 660
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	689 404	X	243 643
32500075	Industrial chemicals, including acidizing materials(except drilling fluids)	X	1 121 428	X	468 055
32599803	Drilling fluids (drilling mud and drilling mud materials; mud thinners, thickeners, and purifiers)	X	664 132	X	313 419
32419100	Lubricating oils and greases, including hydraulic oils	X	68 022	X	43 724
32731001	Cement	X	371 819	X	225 259
33120059	Steel shapes and forms, except castings and forgings	X	1 369 649	X	1 050 205
33290013	Valves and pipe fittings	X	301 906	X	142 745
33300005	Drill bits and reamers	X	195 644	X	88 004
00999828	Water purchased	X	71 595	X	75 916
00970098	All other supplies	X	615 125	X	893 278
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	1 660 701	X	1 176 358
Fuels Consumed by Type					
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	2 017.8	61 219	2 940.9	90 234
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	648.6	20 549	174.7	5 293
21111015	Gas (natural, manufactured, and mixed) used as a fuel	169.7	459 812	181.4	318 821
32411015	Gasoline used as a fuel	98.3	105 255	34.6	36 981
21111011	Crude petroleum produced and used in the same plant as a fuel .....	.6	X	1.4	X
21111003	Natural gas produced and used in the same plant as a fuel	715.9	X	376.6	X
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	38 537	X	91 127
00974000	Undistributed fuels#	X	217 570	X	153 642
211112, NATURAL GAS LIQUID EXTRACTION					
Supplies Consumed by Type					
21111105	Crude petroleum, including condensate, received for processing	4.0	69 109	1.2	21 705
21111011	Natural gas processed	7 239.5	16 113 360	11 627.5	19 366 901
21111201	Natural gas liquids received for further processing	227.4	2 994 116	232.2	2 915 256
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	318 943	X	413 026
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	42 411	X	58 159
33120059	Steel shapes and forms, except castings and forgings	X	31 181	X	36 232
32510093	Industrial organic chemicals, including ethylene glycol and fluorinated hydrocarbon gases	X	53 731	X	51 645
32419100	Lubricating oils and greases, including hydraulic oils	X	18 475	X	19 889
00970098	All other supplies	X	53 994	X	123 301
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	131 278	X	142 841
Fuels Consumed by Type					
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	47.7	1 353	D	D
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	47.1	1 201	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel	60.5	137 784	80.3	134 162
32411015	Gasoline used as a fuel	1.9	2 244	6	618
21111029	Residue gas produced and used at the same plant as a fuel	123.9	X	240.4	X
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	5 332
00974000	Undistributed fuels#	X	D	X	7 927
212111, BITUMINOUS COAL & LIGNITE SURFACE MINING					
Supplies Consumed by Type					
21211005	Run-of-mine (raw) coal received for washing using wet-washing, pneumatic, or other methods	180.4	2 368 122	159.6	2 446 128
21211007	Run-of-mine (raw) coal mined and processed at same establishment by washing (wet-washing, pneumatic, or other methods)	98.2	X	130.5	X
21211009	Run-of-mine (raw) coal received for processing by other methods; such as mechanical crushing, screening, or sizing	9.8	184 043	18.6	354 043
21211011	Run-of-mine (raw) coal mined and processed at same establishment by other methods-mechanically crushing/screening/sizing	490.6	X	395.4	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	488 185	X	659 850
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	549 976	X	486 861
31320029	Filter and brattice cloth	X	3 271	X	2 742
11300000	Round or hewn wood products and stumpage	X	1 070	X	2 790
32592003	Explosive materials, except ammonium nitrate	X	88 255	X	87 641
32592005	Ammonium nitrate	X	164 934	X	170 652
32592007	Blasting accessories	X	43 460	X	34 872
32419100	Lubricating oils and greases, including hydraulic oils	X	42 663	X	53 185
32621001	Tires and inner tubes	X	70 231	X	61 853
32600009	Rubber and plastics products (hose, conveyor belting, etc.) except tires, tubes, and gaskets	X	7 486	X	13 455
32700037	Concrete products	X	1 782	X	2 944
32799217	Nonmetallic mineral products (rock dust, other prepared nonmetallic minerals and earths, etc.)	X	5 871	X	5 671
33120049	Steel shapes and forms, except castings, forgings, and wire products	X	13 273	X	17 101
33100085	Nonferrous metal wire including trolley wire	X	1 049	X	1 357
33272200	Roof bolts	X	1 940	X	2 168
33290007	Wire rope, cable, springs, and other fabricated wire products, excluding wire	X	22 681	X	24 702
33300005	Drill bits and reamers	X	11 458	X	25 658
00970098	All other supplies	X	351 324	X	416 330
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	272 034	X	331 935
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	D	D	60.3	1 724
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	7 420.4	219 512	8 045.0	229 685
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	721.2	20 461	975.4	30 039
21111015	Gas (natural, manufactured, and mixed) used as a fuel .....	.7	2 011	.3	713
32411015	Gasoline used as a fuel	29.4	24 031	18.6	17 358
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	1 668
00974000	Undistributed fuels#	X	89 002	X	111 926

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212111, BITUMINOUS COAL & LIGNITE SURFACE MINING—Con.					
Fuels Consumed by Type—Con.					
21211013	Coal (bituminous, subbituminous, lignite, and anthracite) produced and used in the same plant as a fuel 1,000 s tons . .	31.5	X	D	X
212112, BITUMINOUS COAL UNDERGROUND MINING					
Supplies Consumed by Type					
21211005	Run-of-mine (raw) coal received for washing using wet-washing, pneumatic, or other methods mil s tons . .	20.4	276 910	30.6	450 063
21211007	Run-of-mine (raw) coal mined and processed at same establishment by washing (wet-washing, pneumatic, or other methods) mil s tons . .	410.5	X	382.3	X
21211009	Run-of-mine (raw) coal received for processing by other methods; such as mechanical crushing, screening, or sizing mil s tons . .	—	—	3.0	55 571
21211011	Run-of-mine (raw) coal mined and processed at same establishment by other methods-mechanically crushing/screening/sizing mil s tons . .	49.6	X	46.3	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	615 542	X	798 676
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	587 799	X	577 160
31320029	Filter and brattice cloth	X	12 786	X	22 276
11300000	Round or hewn wood products and stumpage	X	53 267	X	61 486
32592003	Explosive materials, except ammonium nitrate	X	5 250	X	9 686
32592005	Ammonium nitrate	X	7 815	X	10 104
32592007	Blasting accessories	X	4 108	X	4 194
32419100	Lubricating oils and greases, including hydraulic oils	X	48 729	X	56 079
32621001	Tires and inner tubes	X	21 816	X	23 782
32600009	Rubber and plastics products (hose, conveyor belting, etc.) except tires, tubes, and gaskets	X	108 711	X	85 072
32700037	Concrete products	X	25 120	X	18 529
32799217	Nonmetallic mineral products (rock dust, other prepared nonmetallic minerals and earths, etc.)	X	34 818	X	32 568
33120049	Steel shapes and forms, except castings, forgings, and wire products	X	68 605	X	58 814
33100085	Nonferrous metal wire including trolley wire	X	19 022	X	13 854
33272200	Roof bolts	X	165 118	X	208 711
33290007	Wire rope, cable, springs, and other fabricated wire products, excluding wire	X	16 293	X	19 182
33300005	Drill bits and reamers	X	47 777	X	54 831
00970098	All other supplies	X	433 113	X	472 459
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	215 292	X	196 978
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	655.9	20 584	1 179.9	37 227
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	144.8	4 051	226.0	7 055
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	.5	2 552	.5	1 577
32411015	Gasoline used as a fuel mil gal . .	4.0	4 385	7.4	6 988
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	D
00974000	Undistributed fuels#	X	10 583	X	12 325
21211013	Coal (bituminous, subbituminous, lignite, and anthracite) produced and used in the same plant as a fuel 1,000 s tons . .	221.4	X	258.3	X
212113, ANTHRACITE MINING					
Supplies Consumed by Type					
21211005	Run-of-mine (raw) coal received for washing using wet-washing, pneumatic, or other methods mil s tons . .	D	D	.5	10 776
21211007	Run-of-mine (raw) coal mined and processed at same establishment by washing (wet-washing, pneumatic, or other methods) mil s tons . .	2.2	X	3.4	X
21211009	Run-of-mine (raw) coal received for processing by other methods; such as mechanical crushing, screening, or sizing mil s tons . .	.6	9 543	D	D
21211011	Run-of-mine (raw) coal mined and processed at same establishment by other methods-mechanically crushing/screening/sizing mil s tons . .	D	X	.1	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	21 986	X	1 452
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	7 282	X	D
31320029	Filter and brattice cloth	X	D	X	D
11300000	Round or hewn wood products and stumpage	X	53	X	D
32592003	Explosive materials, except ammonium nitrate	X	707	X	392
32592005	Ammonium nitrate	X	870	X	D
32592007	Blasting accessories	X	D	X	D
32419100	Lubricating oils and greases, including hydraulic oils	X	410	X	1 067
32621001	Tires and inner tubes	X	1 552	X	816
32600009	Rubber and plastics products (hose, conveyor belting, etc.) except tires, tubes, and gaskets	X	269	X	288
32700037	Concrete products	X	19	X	D
32799217	Nonmetallic mineral products (rock dust, other prepared nonmetallic minerals and earths, etc.)	X	D	X	D
33120049	Steel shapes and forms, except castings, forgings, and wire products	X	1 099	X	1 463
33100085	Nonferrous metal wire including trolley wire	X	D	X	D
33272200	Roof bolts	X	D	X	D
33290007	Wire rope, cable, springs, and other fabricated wire products, excluding wire	X	121	X	402
33300005	Drill bits and reamers	X	144	X	433
00970098	All other supplies	X	5 991	X	4 968
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	6 965	X	14 205
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	—	—	—	—
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	103.2	3 003	76.3	2 211
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	34.9	1 190	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	D	D	D	D
32411015	Gasoline used as a fuel mil gal . .	.3	342	1.2	1 199
21211013	Coal (bituminous, subbituminous, lignite, and anthracite) produced and used in the same plant as a fuel 1,000 s tons . .	D	X	D	X
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	—	X	—
00974000	Undistributed fuels#	X	D	X	D

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212210, IRON ORE MINING					
Supplies Consumed by Type					
21221001	Crude iron ore received for concentration mil metric tons (wet basis)	D	D	D	D
21221003	Crude iron ore produced and concentrated at same establishment mil metric tons (wet basis)	196.8	X	179.2	X
21221007	Iron ore concentrates produced and agglomerated at same establishment mil metric tons (dry basis)	61.0	X	55.4	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	51 661	X	33 053
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	126 611	X	76 381
21232009	Bentonite and other clay nonmetallic minerals	X	34 043	X	20 856
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	32 366	X	17 459
32592013	Explosive materials (except ammonium nitrate) and blasting accessories	X	17 529	X	14 978
32592005	Ammonium nitrate	X	18 725	X	6 289
32621001	Tires and inner tubes	X	D	X	8 494
33151003	Iron and steel castings	X	61 144	X	D
33211101	Iron and steel forgings	X	36 998	X	D
33120059	Steel shapes and forms, except castings and forgings	X	D	X	27 481
00970098	All other supplies	X	104 590	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	2 521	X	1 896
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels	910.7	24 505	669.6	17 794
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels	—	—	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft	34.3	80 835	29.7	59 765
32411015	Gasoline used as a fuel mil gal	1.4	1 296	1.1	1 021
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	5 340	X	4 465
00974000	Undistributed fuels#	X	D	X	D
212221, GOLD ORE MINING					
Supplies Consumed by Type					
21220001	Crude ore and residues received for concentration mil metric tons	D	D	—	—
21220003	Crude ore and residues mined and concentrated at same establishment mil metric tons	275.2	X	337.4	X
21222000	Material processed in placer operations mil cu meters	1.1	X	4.7	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	592 481	X	362 055
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	285 324	X	147 123
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	174 042	X	128 311
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	86 402	X	61 609
32621001	Tires and inner tubes	X	76 204	X	39 015
32741001	Lime (including quicklime and hydrated lime) and dead-burned dolomite	X	48 577	X	26 304
33151003	Iron and steel castings	X	24 074	X	18 130
33211101	Iron and steel forgings	X	13 453	X	18 963
33120059	Steel shapes and forms, except castings and forgings	X	38 252	X	34 938
00970098	All other supplies	X	208 700	X	196 015
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	D	X	21 199
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels	3 130.5	103 489	2 360.0	72 305
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels	D	D	279.5	8 437
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft	D	D	D	D
32411015	Gasoline used as a fuel mil gal	13.1	14 297	5.3	5 840
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	22 411	X	11 089
00974000	Undistributed fuels#	X	6 567	X	8 687
212222, SILVER ORE MINING					
Supplies Consumed by Type					
21220001	Crude ore and residues received for concentration mil metric tons	—	—	—	—
21220003	Crude ore and residues mined and concentrated at same establishment mil metric tons	D	X	D	X
21222000	Material processed in placer operations mil cu meters	—	X	—	—
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	3 203	X	D
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	6 582	X	D
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	6 341	X	D
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	2 773	X	D
32621001	Tires and inner tubes	X	D	X	D
32741001	Lime (including quicklime and hydrated lime) and dead-burned dolomite	X	1 406	X	D
33151003	Iron and steel castings	X	D	X	—
33211101	Iron and steel forgings	X	—	X	—
33120059	Steel shapes and forms, except castings and forgings	X	1 798	X	D
00970098	All other supplies	X	D	X	11 835
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	496	X	1 164
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons	—	—	—	—
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels	D	D	D	D
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels	D	D	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft	D	D	D	D
32411015	Gasoline used as a fuel mil gal . . . . .	.1	154	.1	110
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	D
00974000	Undistributed fuels#	X	D	X	D

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212231, LEAD ORE & ZINC ORE MINING					
Supplies Consumed by Type					
21220001	Crude ore and residues received for concentration mil metric tons . .	D	D	D	D
21220003	Crude ore and residues mined and concentrated at same establishment mil metric tons . .	10.4	X	D	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	66 583	X	20 847
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	30 336	X	28 928
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	8 407	X	7 603
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	8 581	X	6 901
32621001	Tires and inner tubes	X	3 563	X	2 839
32741001	Lime (including quicklime and hydrated lime) and dead-burned dolomite	X	D	X	497
33151003	Iron and steel castings	X	D	X	D
33211101	Iron and steel forgings	X	D	X	D
33120059	Steel shapes and forms, except castings and forgings	X	1 883	X	D
00970098	All other supplies	X	16 855	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	440	X	729
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	D	D	88.3	2 477
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	D	D	-	-
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	D	D	D	D
32411015	Gasoline used as a fuel mil gal . .	.1	91	.2	185
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	D
00974000	Undistributed fuels#	X	94	X	106
212234, COPPER ORE & NICKEL ORE MINING					
Supplies Consumed by Type					
21220001	Crude ore and residues received for concentration mil metric tons . .	77.7	212 140	N	N
21220003	Crude ore and residues mined and concentrated at same establishment mil metric tons . .	652.6	X	N	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	277 435	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	284 288	X	N
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	99 791	X	N
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	52 293	X	N
32621001	Tires and inner tubes	X	74 746	X	N
32741001	Lime (including quicklime and hydrated lime) and dead-burned dolomite	X	23 778	X	N
33151003	Iron and steel castings	X	48 084	X	N
33211101	Iron and steel forgings	X	17 029	X	N
33120059	Steel shapes and forms, except castings and forgings	X	47 064	X	N
00970098	All other supplies	X	195 059	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	1 873	X	N
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	-	-	-	-
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	3 057.9	95 634	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	D	D	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	1.8	4 085	N	N
32411015	Gasoline used as a fuel mil gal . .	3.1	3 307	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	357	X	N
00974000	Undistributed fuels#	X	D	X	N
212291, URANIUM-RADIUM-VANADIUM ORE MINING					
Supplies Consumed by Type					
21220005	Other ores and concentrates received for treatment mil metric tons (dry basis) . .	D	D	N	2 168
21220007	Other ores and concentrates produced and treated at the same establishment mil metric tons (dry basis) . .	-	X	D	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	8 962	X	4 298
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	5 708	X	1 157
21232009	Bentonite and other clay nonmetallic minerals	X	-	-	-
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	4 931	X	4 686
32592005	Ammonium nitrate	X	D	X	D
32592013	Explosive materials (except ammonium nitrate) and blasting accessories	X	D	X	D
32621001	Tires and inner tubes	X	D	X	D
33151003	Iron and steel castings	X	-	X	-
33211101	Iron and steel forgings	X	-	X	-
33120059	Steel shapes and forms, except castings and forgings	X	D	X	D
00970098	All other supplies	X	5 896	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	3 748	X	7 800
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	-	-	-	-
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	1.5	59	D	D
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	-	-	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	.3	834	.5	1 105
32411015	Gasoline used as a fuel mil gal . .	.1	153	.5	492
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	135	X	D
00974000	Undistributed fuels#	X	661	X	1 831

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212299, ALL OTHER METAL ORE MINING					
Supplies Consumed by Type					
21220005	Other ores and concentrates received for treatment mil metric tons (dry basis) . .	S	7 926	N	N
21220007	Other ores and concentrates produced and treated at the same establishment mil metric tons (dry basis) . .	30.0	X	N	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	33 602	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	45 455	X	N
21232009	Bentonite and other clay nonmetallic minerals	X	—	—	—
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	21 468	X	N
32592005	Ammonium nitrate	X	4 062	X	N
32592013	Explosive materials (except ammonium nitrate) and blasting accessories	X	1 690	X	N
32621001	Tires and inner tubes	X	2 796	X	N
33151003	Iron and steel castings	X	8 390	X	N
33211101	Iron and steel forgings	X	D	X	N
33120059	Steel shapes and forms, except castings and forgings	X	D	X	N
00970098	All other supplies	X	18 139	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	2 464	X	N
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	—	—	N	N
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	123.0	4 081	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	171.2	3 899	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	.5	1 129	N	N
32411015	Gasoline used as a fuel mil gal . .	.4	423	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	666	X	N
00974000	Undistributed fuels#	X	586	X	N
212311, DIMENSION STONE MINING & QUARRYING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone 1,000 s tons . .	6.0	209	D	D
21231005	Broken stone received for preparation (crushing, screening, washing, etc.) mil s tons . .	—	—	—	—
21232001	Sand and gravel received for preparation mil s tons . .	—	—	D	D
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	2 925	X	1 696
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	676	X	D
32592003	Explosive materials, except ammonium nitrate	X	259	X	605
32592005	Ammonium nitrate	X	—	X	D
32592007	Blasting accessories	X	39	X	Z
32600007	Rubber and plastics products, including tires and tubes	X	162	X	206
33120059	Steel shapes and forms, except castings and forgings	X	36	X	Z
00970098	All other supplies	X	3 477	X	3 973
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	11 163	X	7 741
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	—	—	—	—
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	27.5	972	12.2	365
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	6.0	176	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	Z	16	Z	Z
32411015	Gasoline used as a fuel mil gal . .	.3	352	Z	201
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	32	X	D
00974000	Undistributed fuels#	X	2 207	X	2 551
212312, CRUSHED & BROKEN LIMESTONE MINING & QUARRYING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone 1,000 s tons . .	D	D	18.9	801
21231005	Broken stone received for preparation (crushing, screening, washing, etc.) mil s tons . .	16.3	48 488	9.4	38 475
21232001	Sand and gravel received for preparation mil s tons . .	D	D	3.2	16 248
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	268 723	X	168 056
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	199 677	X	148 229
32592003	Explosive materials, except ammonium nitrate	X	81 648	X	54 318
32592005	Ammonium nitrate	X	26 459	X	17 363
32592007	Blasting accessories	X	9 022	X	8 981
32600007	Rubber and plastics products, including tires and tubes	X	31 225	X	25 424
33120059	Steel shapes and forms, except castings and forgings	X	11 569	X	15 258
00970098	All other supplies	X	145 571	X	98 664
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	243 149	X	131 451
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel 1,000 s tons . .	43.0	1 569	78.5	2 427
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel 1,000 barrels . .	2 312.4	75 817	2 143.5	65 766
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel 1,000 barrels . .	308.4	8 896	202.0	6 437
21111015	Gas (natural, manufactured, and mixed) used as a fuel bil cu ft . .	2.3	6 595	3.2	6 923
32411015	Gasoline used as a fuel mil gal . .	11.3	12 149	12.4	11 089
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	2 458	X	758
00974000	Undistributed fuels#	X	56 418	X	52 867

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212313, CRUSHED & BROKEN GRANITE MINING & QUARRYING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone	1,000 s tons..	—	—	—
21231005	Broken stone received for preparation (crushing, screening, washing, etc.)	mil s tons..	D	.9	1 405
21232001	Sand and gravel received for preparation	mil s tons..	D	.2	554
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation		X	164 804	X 40 687
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment		X	101 298	X 59 179
32592003	Explosive materials, except ammonium nitrate		X	27 249	X 17 869
32592005	Ammonium nitrate		X	4 930	X 3 227
32592007	Blasting accessories		X	3 854	X 1 117
32600007	Rubber and plastics products, including tires and tubes		X	13 541	X 7 598
33120059	Steel shapes and forms, except castings and forgings		X	16 577	X 7 389
00970098	All other supplies		X	52 883	X 33 414
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#		X	33 373	X 39 183
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons..	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1,000 barrels..	692.7	20 387	592.8 16 330
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1,000 barrels..	170.9	4 706	42.1 1 250
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft..	D	D	D
32411015	Gasoline used as a fuel	mil gal..	1.9	1 971	2.0 2 046
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	D	X D
00974000	Undistributed fuels#		X	6 003	X 5 646
212319, OTHER CRUSHED & BROKEN STONE MINING & QUARRYING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone	1,000 s tons..	—	—	N N
21231005	Broken stone received for preparation (crushing, screening, washing, etc.)	mil s tons..	3.4	11 580	N N
21232001	Sand and gravel received for preparation	mil s tons..	3.1	8 723	N N
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation		X	47 348	X N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment		X	52 560	X N
32592003	Explosive materials, except ammonium nitrate		X	9 475	X N
32592005	Ammonium nitrate		X	5 826	X N
32592007	Blasting accessories		X	2 141	X N
32600007	Rubber and plastics products, including tires and tubes		X	6 102	X N
33120059	Steel shapes and forms, except castings and forgings		X	5 602	X N
00970098	All other supplies		X	30 908	X N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#		X	95 780	X N
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons..	—	—	N N
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1,000 barrels..	468.4	15 887	N N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1,000 barrels..	60.3	1 685	N N
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft..	1.8	5 851	N N
32411015	Gasoline used as a fuel	mil gal..	1.5	1 583	N N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	174	X N
00974000	Undistributed fuels#		X	20 770	X N
212321, CONSTRUCTION SAND & GRAVEL MINING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone	1,000 s tons..	—	—	—
21231005	Broken stone received for preparation (crushing, screening, washing, etc.)	mil s tons..	4.0	7 521	1.8 5 295
21232001	Sand and gravel received for preparation	mil s tons..	29.4	73 467	24.3 57 069
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation		X	133 049	X 97 918
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment		X	102 407	X 82 253
32592003	Explosive materials, except ammonium nitrate		X	2 306	X 2 135
32592005	Ammonium nitrate		X	339	X 134
32592007	Blasting accessories		X	242	X 310
32600007	Rubber and plastics products, including tires and tubes		X	7 947	X 5 326
33120059	Steel shapes and forms, except castings and forgings		X	6 945	X 6 402
00970098	All other supplies		X	60 112	X 62 442
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#		X	349 035	X 251 042
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons..	D	D	D D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1,000 barrels..	1 403.8	48 795	1 138.8 36 205
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1,000 barrels..	315.1	9 652	180.8 6 228
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft..	1.4	3 759	.7 1 670
32411015	Gasoline used as a fuel	mil gal..	5.7	6 044	5.1 5 026
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	D	X D
00974000	Undistributed fuels#		X	96 872	X 77 013
212322, INDUSTRIAL SAND MINING					
Supplies Consumed by Type					
21231100	Rough blocks used to produce dressed stone	1,000 s tons..	—	—	—
21231005	Broken stone received for preparation (crushing, screening, washing, etc.)	mil s tons..	D	D	D D
21232001	Sand and gravel received for preparation	mil s tons..	.7	4 943	1.7 6 462
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation		X	24 632	X 20 225
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment		X	24 619	X 11 948
32592003	Explosive materials, except ammonium nitrate		X	1 411	X 624
32592005	Ammonium nitrate		X	D	X 570

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212322, INDUSTRIAL SAND MINING—Con.					
Supplies Consumed by Type—Con.					
32592007	Blasting accessories	X	129	X	D
32600007	Rubber and plastics products, including tires and tubes	X	636	X	333
33120059	Steel shapes and forms, except castings and forgings	X	1 541	X	659
00970098	All other supplies	X	28 570	X	37 020
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	13 569	X	9 401
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	87.6	2 797	128.9	4 010
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	33.3	824	36.8	737
21111015	Gas (natural, manufactured, and mixed) used as a fuel	6.4	17 103	5.9	13 348
32411015	Gasoline used as a fuel	D	D	.4	394
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	1 235	X	D
00974000	Undistributed fuels#	X	3 542	X	4 568
212324, KAOLIN & BALL CLAY MINING					
Supplies Consumed by Type					
21232013	Crude clay, ceramic, and refractory minerals received for preparation	385.9	3 468	2 509.2	19 753
21232015	Crude clay, ceramic, and refractory minerals mined and prepared at same establishment	9 027.3	X	8 360.2	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	55 456	X	43 834
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	27 366	X	D
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	68 189	X	42 911
33120059	Steel shapes and forms, except castings and forgings	X	D	X	D
00970098	All other supplies	X	49 718	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	D	X	228
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	D	D	102.1	3 045
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	D	D	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel	14.0	43 932	16.1	33 177
32411015	Gasoline used as a fuel .....	.7	805	.6	566
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	582	X	344
00974000	Undistributed fuels#	X	2 403	X	D
212325, CLAY & CERAMIC & REFRACTORY MINERALS MINING					
Supplies Consumed by Type					
21232013	Crude clay, ceramic, and refractory minerals received for preparation	D	D	907.1	10 837
21232015	Crude clay, ceramic, and refractory minerals mined and prepared at same establishment	12 353.7	X	12 946.9	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	33 281	X	22 670
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	22 820	X	14 208
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	16 136	X	4 717
33120059	Steel shapes and forms, except castings and forgings	X	D	X	4 597
00970098	All other supplies	X	44 106	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	18 403	X	16 208
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	241.3	6 897	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	207.4	4 696	259.1	6 686
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	68.6	1 333	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel	7.0	20 077	8.5	19 479
32411015	Gasoline used as a fuel .....	.4	427	.7	702
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	1 064	X	452
00974000	Undistributed fuels#	X	4 194	X	D
212391, POTASH, SODA, & BORATE MINERAL MINING					
Supplies Consumed by Type					
21239003	Crude minerals received for preparation	D	D	D	D
21239005	Crude minerals mined and prepared at same establishment	35.6	X	33.3	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	69 009	X	45 702
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	67 167	X	53 775
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	93 749	X	42 531
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	2 765	X	D
33120059	Steel shapes and forms, except castings and forgings	X	4 543	X	15 848
00970098	All other supplies	X	45 168	X	41 084
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	D	X	845

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
212391, POTASH, SODA, & BORATE MINERAL MINING—Con.					
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1 712.2	43 827	1 329.1	32 862
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	D	D	D	D
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	D	D	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel	25.2	51 901	27.8	51 066
32411015	Gasoline used as a fuel .....	.3	322	1.4	1 197
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	D
00974000	Undistributed fuels#	X	D	X	272
212392, PHOSPHATE ROCK MINING					
Supplies Consumed by Type					
21239003	Crude minerals received for preparation	—	—	D	D
21239005	Crude minerals mined and prepared at same establishment	157.6	X	149.2	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	98 240	X	113 623
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	104 313	X	60 014
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	33 257	X	33 450
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	D	X	D
33120059	Steel shapes and forms, except castings and forgings	X	D	X	D
00970098	All other supplies	X	49 898	X	49 458
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	325	X	284
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	D	D	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	315.1	10 305	D	D
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	108.6	2 391	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel .....	.7	2 202	2.1	5 980
32411015	Gasoline used as a fuel	1.4	1 520	2.8	2 789
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	1 195	X	D
00974000	Undistributed fuels#	X	D	X	90
212393, OTHER CHEMICAL & FERTILIZER MINERAL MINING					
Supplies Consumed by Type					
21239003	Crude minerals received for preparation	D	D	D	D
21239005	Crude minerals mined and prepared at same establishment	15.2	X	12.0	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	9 404	X	102 139
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	11 615	X	5 713
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	D	X	6 953
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	3 932	X	3 952
33120059	Steel shapes and forms, except castings and forgings	X	D	X	3 999
00970098	All other supplies	X	16 469	X	33 749
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	D	X	D
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	—	—	D	D
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	D	D	32.5	992
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	D	D	41.3	1 349
21111015	Gas (natural, manufactured, and mixed) used as a fuel	D	D	24.6	45 128
32411015	Gasoline used as a fuel	D	D	.3	276
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	D
00974000	Undistributed fuels#	X	D	X	721
212399, ALL OTHER NONMETALLIC MINERAL MINING					
Supplies Consumed by Type					
21239003	Crude minerals received for preparation .....	.2	3 132	N	N
21239005	Crude minerals mined and prepared at same establishment	10.4	X	N	X
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	75 478	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	19 059	X	N
32500073	Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories	X	4 642	X	N
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	1 465	X	N
33120059	Steel shapes and forms, except castings and forgings	X	877	X	N
00970098	All other supplies	X	52 731	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	27 612	X	N
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	D	D	N	N
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	174.1	6 116	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	54.6	1 199	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel	3.6	10 795	N	N
32411015	Gasoline used as a fuel	1.1	1 299	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)	X	D	X	N
00974000	Undistributed fuels#	X	7 189	X	N

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992	
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)
213111, DRILLING OIL & GAS WELLS					
Supplies Consumed by Type					
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	1 920 176	X	237 180
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	189 155	X	82 569
32500075	Industrial chemicals, including acidizing materials(except drilling fluids)	X	7 498	X	D
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	2 613	X	D
32599803	Drilling fluids (drilling mud and drilling mud materials; mud thinners, thickeners, and purifiers)	X	54 745	X	45 397
32419100	Lubricating oils and greases, including hydraulic oils	X	28 330	X	21 319
32731001	Cement	X	22 868	X	16 312
33120059	Steel shapes and forms, except castings and forgings	X	139 420	X	65 727
33300005	Drill bits and reamers	X	80 074	X	76 368
33451900	Measuring and controlling instruments and devices (seismometers, surveying and plotting instruments, etc.)	X	56 463	X	6 197
00970098	All other supplies	X	219 423	X	136 381
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	288 331	X	222 554
Fuels Consumed by Type					
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1 000 barrels	3 355.3	2 806.7	87 095
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1 000 barrels	1 954.1	394.2	14 471
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft	.6	D	D
32411015	Gasoline used as a fuel	mil gal	26.0	12.6	13 608
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	X	D
00974000	Undistributed fuels#		X	X	D
213112, SUPPORT ACTIVITIES FOR OIL & GAS OPERATIONS					
Supplies Consumed by Type					
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	391 680	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	130 015	X	N
32500075	Industrial chemicals, including acidizing materials(except drilling fluids)	X	276 282	X	N
32592001	Explosive materials (including ammonium nitrate) and blasting accessories	X	25 667	X	N
32599803	Drilling fluids (drilling mud and drilling mud materials; mud thinners, thickeners, and purifiers)	X	4 465	X	N
32419100	Lubricating oils and greases, including hydraulic oils	X	18 513	X	N
32731001	Cement	X	158 002	X	N
33120059	Steel shapes and forms, except castings and forgings	X	85 157	X	N
33300005	Drill bits and reamers	X	1 977	X	N
33451900	Measuring and controlling instruments and devices (seismometers, surveying and plotting instruments, etc.)	X	10 136	X	N
00970098	All other supplies	X	438 536	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	473 902	X	N
Fuels Consumed by Type					
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1 000 barrels	1 424.8	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1 000 barrels	1 032.1	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft	1.4	N	N
32411015	Gasoline used as a fuel	mil gal	37.6	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	X	N
00974000	Undistributed fuels#		X	X	N
213113, SUPPORT ACTIVITIES FOR COAL MINING					
Supplies Consumed by Type					
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	16 282	X	7 670
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	24 556	X	28 908
32592005	Ammonium nitrate	X	3 789	X	9 913
32592013	Explosive materials (except ammonium nitrate) and blasting accessories	X	5 837	X	6 616
33120059	Steel shapes and forms, except castings and forgings	X	4 759	X	4 437
00970098	All other supplies	X	19 235	X	21 064
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	45 724	X	37 455
Fuels Consumed by Type					
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons	-	-	-
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1 000 barrels	166.4	240.8	7 112
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1 000 barrels	47.8	D	D
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft	D	D	D
32411015	Gasoline used as a fuel	mil gal	.9	1.5	1 621
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	X	D
00974000	Undistributed fuels#		X	X	D
213114, SUPPORT ACTIVITIES FOR METAL MINING					
Supplies Consumed by Type					
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation	X	11 514	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment	X	18 648	X	N
32592005	Ammonium nitrate	X	D	X	N
32592013	Explosive materials (except ammonium nitrate) and blasting accessories	X	D	X	N
33120059	Steel shapes and forms, except castings and forgings	X	6 963	X	N
00970098	All other supplies	X	D	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#	X	19 175	X	N

Table 1. Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type: 1997 and 1992—Con.

[Includes quantity and cost of supplies and fuels consumed or put into production by establishments classified in the specified industry. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

NAICS supply or fuel code	Supply or fuel consumed	1997		1992		
		Quantity	Delivered cost (\$1,000)	Quantity	Delivered cost (\$1,000)	
213114, SUPPORT ACTIVITIES FOR METAL MINING—Con.						
Fuels Consumed by Type						
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons . .	—	—	N	N
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1,000 barrels . .	113.9	3 988	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1,000 barrels . .	—	—	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft	D	D	N	N
32411015	Gasoline used as a fuel	mil gal	1.8	2 169	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	D	X	N
00974000	Undistributed fuels#		X	D	X	N
213115, SUPPORT ACTIVITIES FOR NONMETALLIC MINERALS (EXCEPT FUELS)						
Supplies Consumed by Type						
33300007	Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation		X	8 519	X	N
33300009	Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment		X	8 620	X	N
32592005	Ammonium nitrate		X	490	X	N
32592013	Explosive materials (except ammonium nitrate) and blasting accessories		X	2 199	X	N
33120059	Steel shapes and forms, except castings and forgings		X	627	X	N
00970098	All other supplies		X	5 793	X	N
00973000	Undistributed - minerals, purchased machinery, parts, attachments, and supplies used#		X	18 970	X	N
Fuels Consumed by Type						
21211003	Coal (bituminous, subbituminous, lignite, and anthracite) consumed as a fuel	1,000 s tons . .	—	—	N	N
32411017	Distillate (light) grade numbers 1, 2, 4, and light diesel fuel used as a fuel	1,000 barrels . .	127.4	4 465	N	N
32411019	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel used as a fuel	1,000 barrels . .	33.0	972	N	N
21111015	Gas (natural, manufactured, and mixed) used as a fuel	bil cu ft	D	D	N	N
32411015	Gasoline used as a fuel	mil gal . . . . .	.7	786	N	N
00960018	Other fuels (liquefied pet. gas, coke, wood, etc.)		X	D	X	N
00974000	Undistributed fuels#		X	4 339	X	N

Additional information is available for this item; see Appendix F.

Appendix A.

Explanation of Terms

COST OF SUPPLIES USED, PURCHASED MACHINERY INSTALLED, ETC.

This term refers to direct charges actually paid or payable for items consumed or put into production during the year, including freight charges and other direct charges incurred by the establishment in acquiring these items. It includes the cost of these items whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year. Included are items charged to both current and capital accounts.

Included in this item are:

1. **Costs of supplies used, minerals received for preparation, and purchased machinery installed.**
Includes all major supplies which were important parts of the cost of production, exploration, and development of a particular industry.
2. **Cost of fuels consumed for heat and power.**
Includes the cost of fuel consumed, whether purchased by the individual establishment from other companies, transferred to it from other establishments of the same company, or withdrawn from inventory during the year.

Specific Supplies Used, Minerals Received for Preparation and Purchased Machinery Installed

In addition to the total cost of supplies, purchased machinery installed, etc., which every establishment was required to report, information also was collected on the

consumption of the major supplies used in mining. The inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development in a particular industry and for which cost information was available from the establishment's records. Except for the crude petroleum and natural gas and the support activities for mining industries, figures were also obtained on crude minerals mined at the establishment, received from other establishments of the company or purchased from others, and received for preparation on a custom or toll basis. If less than \$25,000 of a listed supply was consumed by an establishment, the cost data could be reported in the "All other supplies..." census supply code 00970098. Also, the cost of supplies for small establishments for which administrative records or short forms were used was imputed into the "Undistributed - minerals, purchased machinery, parts.....," census supply code 00973000.

Specific Fuels Consumed

For most industries, separate quantity and cost figures are shown for purchased coal, distillate fuel oil, residual fuel oil, gas, gasoline, and a cost figure for other fuels. Data also were obtained on the quantity of crude petroleum, natural gas, and coal produced and consumed at the same establishment for heat and power. The cost of fuels for small establishments for which administrative records or short forms were used was imputed into the "Undistributed fuels," census fuel code 00974000.

Appendix B.

NAICS Codes, Titles, and Descriptions

SECTOR 21 MINING

The Mining sector 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.

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.

211 Oil and Gas Extraction

Industries in the Oil and Gas Extraction subsector operate and/or develop oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operating separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This subsector includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, and the production of natural gas and recovery of hydrocarbon liquids.

Establishments in this subsector include those that operate oil and gas wells on their own account or for others on a contract or fee basis. Establishments primarily engaged in providing support services, on a fee or contract basis, required for the drilling or operation of oil and gas wells (except geophysical surveying and mapping) are classified in Subsector 213, Support Activities for Mining.

2111 Oil and Gas Extraction

This NAICS Industry Group includes establishments classified in NAICS Industry 21111, Oil and Gas Extraction.

21111 Oil and Gas Extraction

This industry comprises establishments primarily engaged in operating and/or developing oil and gas field properties and establishments primarily engaged in recovering liquid hydrocarbons from oil and gas field gases. Such activities may include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; operation of separators, emulsion breakers, desilting equipment, and field gathering lines for crude petroleum; and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This industry includes the production of crude petroleum, the mining and extraction of oil from oil shale and oil sands, the production of natural gas and the recovery of hydrocarbon liquids from oil and gas field gases. Establishments in this industry operate oil and gas wells on their own account or for others on a contract or fee basis.

211111 Crude Petroleum and Natural Gas Extraction

This U.S. industry comprises establishments primarily engaged in (1) 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.

The data published with NAICS code 211111 include the following SIC industry:

1311 Crude petroleum and natural gas

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.

The data published with NAICS code 211112 include the following SIC industry:

1321 Natural gas liquids

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census Mining did not fully implement the conversion to NAICS. Data for NAICS industry 211112 do not include establishments primarily engaged in sulfur recovery from natural gas. The NAICS definitions will be fully implemented with the 2002 Economic Census.

212 Mining (Except Oil and Gas)

Industries in the Mining (except Oil and Gas) subsector primarily engage in mining, mine site development, and beneficiating (i.e., preparing) metallic minerals and nonmetallic minerals, including coal. The term “mining” is used in the broad sense to include ore extraction, quarrying, and beneficiating (e.g., crushing, screening, washing, sizing, concentrating, and flotation), customarily done at the mine site.

Beneficiation is the process whereby the extracted material is reduced to particles which 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, centrifugal separation, and so on. In contrast, manufacturing operations primarily use chemical and electrochemical processes, such as electrolysis, distillation, and so on. However some treatments, such as heat treatments, take place in both stages: 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.

Establishments in the Mining (except Oil and Gas) subsector include those that have complete responsibility for operating mines and quarries (except oil and gas wells) and those that operate mines and quarries (except oil and gas wells) for others on a contract or fee basis. Establishments primarily engaged in providing support services, on a contract or fee basis, required for the mining and quarrying of minerals are classified in Subsector 213, Support Activities for Mining.

2121 Coal Mining

This NAICS Industry Group includes establishments classified in NAICS Industry 21211, Coal Mining.

21211 Coal Mining

This industry comprises establishments primarily engaged in one or more of the following: (1) mining bituminous coal, anthracite, and lignite by underground mining, auger mining, strip mining, culm bank mining, and other surface mining; (2) developing coal mine sites; and (3) beneficiating (i.e., preparing) coal (e.g., cleaning, washing, screening, and sizing coal).

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 or development of bituminous coal and lignite; (2) developing bituminous coal and lignite surface mine sites; and (3) beneficiating bituminous coal (e.g., cleaning, washing, screening, and sizing coal) whether mined on surface or underground.

The data published with NAICS code 212111 include the following SIC industry:

1221 Bituminous coal and lignite surface mining

212112 Bituminous Coal Underground Mining

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) the underground mining of bituminous coal; (2) developing bituminous coal underground mine sites; and (3) the underground mining and beneficiating bituminous coal (e.g., cleaning, washing, screening, and sizing coal).

The data published with NAICS code 212112 include the following SIC industry:

1222 Bituminous coal underground mining

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 mining sites; and (3) beneficiating anthracite coal (e.g., cleaning, washing, screening, and sizing coal).

The data published with NAICS code 212113 include the following SIC industry:

1231 Anthracite mining

2122 Metal Ore Mining

This industry group comprises establishments primarily engaged in developing mine sites or mining metallic minerals, and establishments primarily engaged in ore dressing and beneficiating (i.e., preparing) operations, such as crushing, grinding, washing, drying, sintering, concentrating, calcining, and leaching. Beneficiating may be performed at mills operated in conjunction with the mines served or at mills, such as custom mills, operated separately.

21221 Iron Ore Mining

This industry comprises establishments primarily engaged in (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.

212210 Iron Ore Mining

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

The data published with NAICS code 212210 include the following SIC industry:

1011 Iron ores

21222 Gold Ore and Silver Ore Mining

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

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.

The data published with NAICS code 212221 include the following SIC industry:

1041 Gold ores

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.

The data published with NAICS code 212222 include the following SIC industry:

1044 Silver ores

21223 Copper, Nickel, Lead, and Zinc Mining

This industry comprises establishments primarily engaged in developing the mine site, mining, and/or beneficiating (i.e., preparing) ores valued chiefly for their copper, nickel, lead, or zinc content. Beneficiating includes the transformation of ores into concentrates.

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.

The data published with NAICS code 212231 include the following SIC industry:

1031 Lead and zinc ores

212234 Copper Ore and Nickel Ore Mining

This U.S. industry comprises establishments primarily engaged in (1) 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.

The data published with NAICS code 212234 include the following SIC industries:

1021 Copper ores

1061 Ferroalloy ores, except vanadium (pt)

21229 Other Metal Ore Mining

This 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, and zinc 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.

The data published with NAICS code 212291 include the following SIC industry:

1094 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 manganese ores valued for their iron content, gold ore, silver ore, copper, nickel, lead, zinc, and uranium-radium-vanadium ore).

The data published with NAICS code 212299 include the following SIC industry:

1099 Miscellaneous metal ores, n.e.c.,

1061 Ferroalloy ores, except vanadium (pt)

2123 Nonmetallic Mineral Mining and Quarrying

This industry group comprises establishments primarily engaged in developing mine sites, or in mining or quarrying nonmetallic minerals (except fuels). Also included are certain well and brine operations, and preparation plants primarily engaged in beneficiating (e.g., crushing, grinding, washing, and concentrating) nonmetallic minerals.

Beneficiation is the process whereby the extracted material is reduced to particles which 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.

21231 Stone Mining and Quarrying

This industry comprises (1) establishments primarily engaged in developing the mine site, mining or quarrying dimension stone (i.e., rough blocks and/or slabs of stone), or mining and quarrying crushed and broken stone and/or (2) preparation plants primarily engaged in beneficiating stone (e.g., crushing, grinding, washing, screening, pulverizing, and sizing).

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).

The data published with NAICS code 212311 include the following SIC industry:

1411 Dimension stone

212312 Crushed and Broken Limestone Mining and Quarrying

This U.S. industry comprises (1) establishments primarily engaged in 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) preparation plants primarily engaged in beneficiating limestone (e.g., grinding or pulverizing).

The data published with NAICS code 212312 include the following SIC industry:

1422 Crushed and broken limestone

212313 Crushed and Broken Granite Mining and Quarrying

This U.S. industry comprises (1) establishments primarily engaged in developing the mine site, and/or mining or quarrying crushed and broken granite (including related rocks, such as gneiss, syenite, and diorite) and (2) preparation plants primarily engaged in beneficiating granite (e.g. grinding or pulverizing).

The data published with NAICS code 212313 include the following SIC industry:

1423 Crushed and broken granite

212319 Other Crushed and Broken Stone Mining and Quarrying

This U.S. industry comprises (1) establishments primarily engaged in developing the mine site and/or mining or quarrying crushed and broken stone (except limestone and granite), (2) preparation plants primarily engaged in beneficiating (e.g., grinding and pulverizing) stone (except limestone and granite), and (3) establishments primarily engaged in mining or quarrying bituminous limestone and bituminous sandstone.

The data published with NAICS code 212319 include the following SIC industries:

1429 Crushed and broken stone, n.e.c.

1499 Miscellaneous nonmetallic minerals, except fuels (pt)

21232 Sand, Gravel, Clay, and Ceramic and Refractory Minerals Mining and Quarrying

This industry comprises (1) establishments primarily engaged in developing the mine site and/or mining, quarrying, dredging for sand and gravel, or mining clay, (e.g., china clay, paper clay and slip clay) and (2) preparation plants primarily engaged in beneficiating (e.g., washing, screening, and grinding) sand and gravel, clay, and ceramic and refractory minerals.

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.

The data published with NAICS code 212321 include the following SIC industry:

1442 Construction sand and gravel

212322 Industrial Sand Mining

This U.S. industry comprises establishments primarily engaged in one or more of the following: (1) operating industrial grade sand pits; (2) dredging for industrial grade sand; and (3) washing, screening, or otherwise preparing industrial grade sand.

The data published with NAICS code 212322 include the following SIC industry:

1446 Industrial sand

212324 Kaolin and Ball Clay Mining

This U.S. industry comprises (1) establishments primarily engaged in developing the mine site and/or mining kaolin or ball clay (e.g., china clay, paper clay, and slip clay) and (2) establishments primarily engaged in beneficiating (i.e., preparing) kaolin or ball clay.

The data published with NAICS code 212324 include the following SIC industry:

1455 Kaolin and ball clay

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census Mining did not fully implement the conversion to NAICS. Data for NAICS industry 212324 do not include establishments only engaged in beneficiating or preparing kaolin and ball clay. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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.

The data published with NAICS code 212325 include the following SIC industry:

1459 Clay, ceramic, and refractory minerals, n.e.c.

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census Mining did not fully implement the conversion to NAICS. Data for NAICS industry 212325 do not include establishments only engaged in beneficiating or preparing clay, ceramic and refractory minerals. The NAICS definitions will be fully implemented with the 2002 Economic Census.

21239 Other Nonmetallic Mineral Mining and Quarrying

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

The data published with NAICS code 212391 include the following SIC industry:

1474 Potash, soda, and borate minerals

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.

The data published with NAICS code 212392 include the following SIC industry:

1475 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).

The data published with NAICS code 212393 include the following SIC industry:

1479 Chemical and fertilizer mineral mining, n.e.c.

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census Mining did not fully implement the conversion to NAICS. Data for NAICS industry 212393 do not include establishments only engaged in beneficiating or preparing chemical and fertilizer minerals. The NAICS definitions will be fully implemented with the 2002 Economic Census.

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, chemical and fertilizer minerals).

The data published with NAICS code 212399 include the following SIC industry:

1499 Miscellaneous nonmetallic minerals, except fuels (pt)

This definition comes from the 1997 NAICS Manual. However, for this industry, the 1997 Economic Census Mining did not fully implement the conversion to NAICS. Data for NAICS industry 212399 do not include establishments only engaged in beneficiating or preparing miscellaneous nonmetallic minerals. The NAICS definitions will be fully implemented with the 2002 Economic Census.

213 Support Activities for Mining

Industries in the Support Activities for Mining subsector group establishments primarily providing support services, on a fee or contract basis, required for the mining and quarrying of minerals and for the extraction of oil and gas. Establishments performing exploration (except geophysical surveying and mapping) for minerals, on a contract or fee basis, are included in this subsector. Exploration includes traditional prospecting methods, such as taking core samples and making geological observations at prospective sites.

The activities performed on a fee or contract basis by establishments in the Support Activities for Mining subsector are also often performed in-house by mining operators. These activities include: taking core samples, making geological observations at prospective sites, and such oil and gas operations as spudding in, drilling in, re-drilling, directional drilling, excavating slush pits and cellars; grading and building foundations at well locations; 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.

2131 Support Activities for Mining

This NAICS Industry Group includes establishments classified in NAICS Industry 21311, Support Activities for Mining.

21311 Support Activities for Mining

This industry comprises establishments primarily engaged in providing support services, on a fee or contract basis, required for the mining and quarrying of minerals and for the extraction of oil and gas. Drilling, taking core samples, and making geological observations at prospective sites (except geophysical surveying and mapping) for minerals, on a fee or contract basis, is included in this industry.

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, re-drilling, and directional drilling.

The data published with NAICS code 213111 include the following SIC industry:

1381 Drilling oil and gas wells

213112 Support Activities for Oil and Gas Operations

This U.S. industry comprises establishments primarily engaged in performing oil and gas field services (except contract drilling) for others, on a contract or fee basis. Services included are exploration (except geophysical surveying and mapping); excavating slush pits and cellars; grading and building foundations at well locations; 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.

The data published with NAICS code 213112 include the following SIC industries:

1382 Oil and gas field exploration services (pt)

1389 Oil and gas field services, n.e.c.

213113 Support Activities for Coal Mining

This U.S. industry comprises establishments primarily engaged in providing support services, on a fee or contract basis, required for coal mining. 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.

The data published with NAICS code 213113 include the following SIC industry:

1241 Coal mining services

213114 Support Activities for Metal Mining

This U.S. industry comprises establishments primarily engaged in providing support services, on a fee or contract basis, required 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.

The data published with NAICS code 213114 include the following SIC industry:

1081 Metal mining services (pt)

213115 Support Activities for Nonmetallic Minerals (Except Fuels)

This U.S. industry comprises establishments primarily engaged in providing support services, on a fee or contract basis, required for the mining and quarrying of nonmetallic minerals and for the extraction of nonmetallic

minerals. 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.

The data published with NAICS code 213115 include the following SIC industry:

1481 Nonmetallic minerals services, except fuels (pt)

Appendix C.

Coverage and Methodology

MAIL/NONMAIL UNIVERSE

The mining universe includes about 25,000 establishments. This number includes those industries in the NAICS definition of mining, but not those portions of industries leaving the mining sector in the classification change. The amounts of information requested from mining establishments were dependent on a number of factors. The most important consideration was the size of the company. The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. 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 our ability to assign the correct six-digit NAICS industry classification to the establishment. For each four-digit Standard Industrial Classification (SIC) industry code, an annual payroll cut-off 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 which requested information for assigning NAICS industry codes. Establishments below the cut-off that could be directly assigned a six-digit NAICS code were excused from filing any report. For below-cut-off establishments, information on the physical location, payroll, and receipts was obtained from the administrative records of other Federal agencies under special arrangements which 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 four-digit SIC industry and then erroneously recoded 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 non-mining activity.

Sometimes the administrative-record cases had only two- or three-digit SIC group classification codes available in the files. For the 1997 Economic Census—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 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.

2. Establishments sent a report form.

The establishments covered in the mail canvass were divided into two groups:

- 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 10 economic census – mining regular forms. The first four 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. Most forms were developed for a group of 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 supplies and fuels was not collected on the short form; thus, its use would increase the value of the industry categories.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the 1997 Economic Census – Mining was classified in 1 of 29 mineral industries in accordance with the industry definitions in the 1997 NAICS manual. This is the first edition of the NAICS manual and is a major change from the 1987 SIC manual that was used in the past. Appendix A of the 1997 NAICS manual notes the comparability between the 1987 SIC and the 1997 NAICS classification systems. When applicable, Appendix G of this report shows the product comparability between the two systems for the data in this report.

In the NAICS system, an industry is generally defined as establishments grouped according to similarity in the 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.

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 1997, there are 3 subsectors (three-digit NAICS), 5 industry groups (four-digit NAICS), and 10 NAICS industries (5-digit NAICS) that are comparable with Canadian and Mexican classification and 29 U.S. industries (six-digit

NAICS). This represents a slight reduction of the four-digit SIC-based U.S. industries from 31 in 1987. Within industries, there are 141 seven-digit product classes and 196 ten-digit products. The ten-digit products are considered the primary products of the industry with the same first six digits.

For the 1997 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 which 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 1997 Economic Census – Mining covers each mining establishment of firms with one or more paid employees operating in the United States. A company operating 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 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. The 1997 figures for establishments include the summation of operations for each state allocated from these nationwide reports.

In the 1997 Economic Census – Mining, as in 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 1997 Economic Census – Mining excludes data for central administrative offices. Statistics for employment and payroll for individual industries and industry groups no longer include employment and payroll figures for administrative offices, warehouses, storage facilities, and other auxiliary establishments servicing mining establishments. These data are included in a separate report series.

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 1997 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.

Appendix D. Geographic Notes

Not applicable for this report.

Appendix E. Metropolitan Areas

Not applicable for this report.

Appendix F.

Footnotes for Selected Supplies, Minerals Received for Preparation, Purchased Machinery, and Fuels Consumed by Type

NAICS supply or fuel code	Footnote
# 00973000	Represents cost for establishments that did not report detailed data, including establishments that were not mailed a form.
# 00974000	Represents cost for establishments that did not report detailed data, including establishments that were not mailed a form.

