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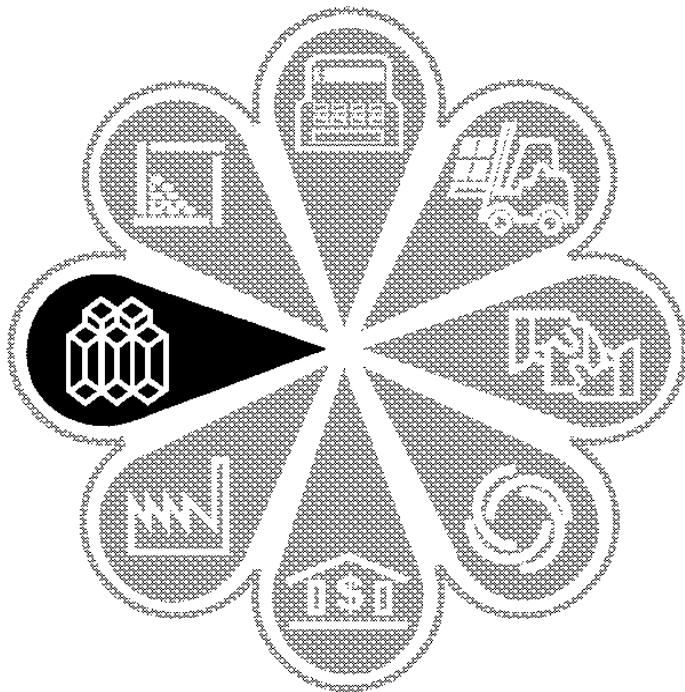
Census of Mineral Industries

MIC92-I-10C

INDUSTRY SERIES

Ferroalloy Ores, Metal Mining Services, and Miscellaneous Metal Ores

Industries 1061, 1081, 1094, and 1099



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If you have any questions concerning the statistics in this report, call 301-457-4680.



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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.

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

Policymaking agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

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 and 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.

AUTHORITY AND SCOPE

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 1992 Economic Census consists of the following eight censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Financial, Insurance, and Real Estate Industries
- Census of Transportation, Communications, and Utilities
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1992 Census of Agriculture and 1992 Census of Governments are conducted separately.) The next economic census is scheduled to be taken in 1998 covering the year 1997.

AVAILABILITY OF THE DATA

The results of the economic census are available in printed reports for sale by the U.S. Government Printing Office and on compact discs for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Bureau of the Census, Washington, DC 20233-8300. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State data centers in every State as well as business and industry data centers in many States also supply economic census statistics.

WHAT'S NEW IN 1992

The 1992 Economic Census covers more of the economy than any previous census. New for 1992 are data on communications, utilities, financial, insurance, and real estate, as well as coverage of more transportation industries. The economic, agriculture, and governments censuses now collectively cover nearly 98 percent of all economic activity.

Among other changes, new 1992 definitions affect the boundaries of about a third of all metropolitan areas. Also, the Survey of Women-Owned Businesses has now been expanded to include all corporations.

HISTORICAL INFORMATION

The economic census has been taken as an integrated program at 5-year intervals since 1967 and before that for 1963, 1958, and 1954. Prior to that time, the individual subcomponents 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 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 Manufactures Census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade and construction industries, but it was broadened in 1933 to include some of the service trades.

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 Enterprise Statistics Program, which publishes combined data from the economic census, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The census of construction industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The census of transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks, but expanded in 1987 to cover business establishments in several transportation industries. For 1992, these statistics are incorporated into a broadened census of transportation, communications, and utilities. Also new for 1992 is the census of financial, insurance, and real estate industries. This is part of a gradual expansion in coverage of industries previously subjected to government regulation.

The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic census in 1972 along with the Survey of Women-Owned Businesses.

An economic census has also been taken in Puerto Rico since 1909, in the Virgin Islands of the United States and Guam since 1958, and in the Commonwealth of the Northern Mariana Islands since 1982.

Statistical reports from the 1987 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 data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the census provides complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, with the results appearing in publication series such as Current Business Reports (retail and wholesale trade and service industries), the Annual Survey of Manufactures, Current Industrial Reports, and the Quarterly Financial Report. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the census. The County Business Patterns program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

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 1992 Economic Census and Related Statistics*. More information on the methodology, procedures, and history of the census will be published in the *History of the 1992 Economic Census*. Contact Customer Services for information on availability.

Census of Mineral Industries

GENERAL

This report, from the 1992 Census of Mineral Industries, is one of a series of 12 industry reports; each provides statistics for individual industries or groups of related industries. Additional separate reports will be issued for each geographic division showing statistics by State and for special subjects, such as fuels and electric energy consumed.

The introduction to the *General Summary* report discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text discusses the economic significance of the mining sector, the relation of value added by mining to value added by manufacture, some of the changes in statistical concepts over the history of the census, and the valuation problems arising from intracompany transfers between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

SCOPE OF CENSUS AND DEFINITION OF MINERAL INDUSTRIES

The 1992 Census of Mineral Industries covers all establishments with one paid employee or more primarily engaged in mining as defined in the *1987 Standard Industrial Classification (SIC) Manual*¹. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

The SIC Manual defines mining in the broad sense to include the extraction of minerals occurring naturally: solids such as coal and ores, liquids such as crude petroleum, and gases such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparations needed to make minerals marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the exploration and development of mineral properties are classified separately but within this division.

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

Mining operations are classified by industry on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in progress. The recovery of material from culm banks, ore dumps, and other waste mineral piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities is not included in this division but is classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) also are excluded.

Mining operations carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on such mining activities have been obtained in the 1992 Census of Manufactures and are included in the mining reports. They are clearly specified wherever included.

ESTABLISHMENT BASIS OF REPORTING

The census of mineral industries covers each mining establishment of firms with one paid employee or more operating in the United States. A company operating more than one establishment is required to file a separate report for each location. A mineral establishment is defined as a single physical location where mineral operations are conducted.

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 1992 figures for establishments include the summation of operations for each State allocated from these nationwide reports.

USE OF ADMINISTRATIVE RECORDS

From a mailout universe of about 28,500 mining establishments, approximately 11,000 small single-establishment companies were not mailed a questionnaire. For these establishments, some employment, payroll, and receipts data were obtained from the administrative records of other agencies. Selection of the small establishment non-mail cases was done on an industry-by-industry basis, and a variable cutoff was used to determine those establishments for which administrative records were to be used in place of a census report. This information was then used in conjunction with industry averages and other information to estimate the statistics for administrative-record and nonresponse establishments. The first column in tables 2 and 4 provides an indication of the extent that these establishments account for the figures shown. The value of shipments and receipts and cost of supplies were generally not distributed among specific products and supplies for these establishments, but were included in the product and supply "not specified by kind" categories. Overall, establishments for which administrative-record data were used accounted for less than 2 percent of total value of shipments and receipts.

The industry classification codes included in the administrative-record files were used for those establishments excused from filing census forms. Generally, these codes were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description was incomplete, or where there were relatively fine lines of demarcation among industries or between mining and nonmining activities, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product or activity information. Therefore, the total establishment count should be viewed as an approximate measure. The counts for establishments with 20 employees or more are far more reliable.

In the 1992 census, as in the 1987, 1982, 1977, and 1972 censuses, 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.

AUXILIARIES

Statistics for employment and payroll for individual industries and industry groups also include employment and payroll figures for administrative offices, warehouses,

storage facilities, and other auxiliary establishments servicing mining establishments. As in previous censuses, respondents were asked to file separate reports (form ES-9200) for any separately operated auxiliary establishments. Classification of employment and payroll data at such auxiliary establishments was based on the mining establishments served.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the census was classified in 1 of 31 mineral industries in accordance with the industry definitions in the 1987 SIC Manual. An industry is generally defined as a group of establishments producing the same product or closely related group of products. 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. Application of these criteria led to the formulation of 31 mining industries, each assigned a four-digit code. The classification system also provides broader groups of industries, with 20 three-digit groups and 4 two-digit groups. Within industries, the system provides for seven-digit products and five-digit product classes. Products are considered primary to an industry if the first four digits of the product codes are the same as the industry code. Products whose first four code numbers differ from the industry code are called secondary products. To determine the industry classification of an establishment, the seven-digit products are grouped together according to the first four digits of the product code. The first four digits of the group of products with the largest value of production become the industry code for the establishment. (For mineral service industries, the classification is on the basis of receipts for services performed.)

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Whenever possible, separate figures are shown for establishments with mines only, mines with preparation plants, and preparation plants only. Separate figures are provided by type of mine (underground, open pit, and combination). Separate statistics also are provided on producing and nonproducing operations, an establishment being defined as nonproducing if no mineral products were shipped during the year.

Statistics usually are provided on the production of minerals mined and used in the same establishment for producing prepared minerals or used at the producing establishment for fuel.

Differences in the integration of production processes and types of operation should be considered when relating the general items (employment, payrolls, value added, etc.) to the product and material data.

VALUE OF SHIPMENTS FOR THE INDUSTRY COMPARED WITH VALUE OF PRODUCT SHIPMENTS

This report shows value of shipments and receipt data for industries and products. In tables 1 through 4, these data represent the total value of shipments and receipts 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 table 6 represents the total value of all products shipped that are classified as primary to an industry and includes those that were shipped by all mining establishments regardless of their industry classification. Value of product shipments also may include some products shipped from mining operations associated with manufacturing establishments.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose the data for an individual establishment or company. However, the number of establishments classified in a specific industry is not considered a disclosure; this information may be released even though other information is withheld.

The disclosure analysis for the industry statistics in tables 1 through 4 of this report 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 total capital expenditures and cost of supplies statistics are suppressed. However, the suppressed data are included in higher level totals.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1992 Census of Mineral Industries may be requested. The data will be in summary form and 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) as are 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, Manufacturing and Construction Division, Bureau of the Census, Washington, DC 20233-6901.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

| | |
|--------|---|
| – | Represents zero. |
| (D) | Withheld to avoid disclosing data for individual companies; data are included in higher level totals. |
| (NA) | Not available. |
| (NC) | Not comparable. |
| (S) | Withheld because estimate did not meet publication standards. |
| (X) | Not applicable. |
| (Z) | Less than half the unit shown. |
| n.e.c. | Not elsewhere classified. |
| n.s.k. | Not specified by kind. |
| r | Revised. |
| SIC | Standard Industrial Classification. |

Other abbreviations, such as lb, gal, yd, and bbl, are used in the customary sense.

CONTACTS FOR DATA USERS

| Subject Area | Contact | Phone |
|---|---|--------------|
| Mineral industries—5-year industry and product statistics | Construction and Mineral Census Branch Manufacturing and Construction Division Bureau of the Census | 301-457-4680 |
| Mineral Industries—Annual product statistics (domestic and international), except fuels | Bureau of Mines Department of the Interior | 202-501-9649 |
| Mineral Industries—Coal and oil and gas production | National Energy Information Center (NEIC) Department of Energy | 202-586-8800 |
| To order any Census Bureau publication | Customer Services (DUSD) Bureau of the Census | 301-457-4100 |
| Import/ Export statistics | Foreign Trade Division Bureau of the Census | 301-457-3041 |

Users' Guide for Locating Statistics in This Report by Table Number

[For explanation of terms, see appendixes]

| Item | Industry and historical | Industry by State | Summary statistics | Industry by type of operation ¹ | Industry by employment size | Industry-product analysis | Detailed product shipments | Product class by State | Detailed supplies by industry |
|---|-------------------------|-------------------|--------------------|--|-----------------------------|---------------------------|----------------------------|------------------------|-------------------------------|
| Number of operating companies | 1 | | | | | | | | |
| Establishments: | | | | | | | | | |
| Total number | 1 | 2 | 3a | 3b | 4 | | | | |
| Employment and payroll: | | | | | | | | | |
| Number of employees | 1 | 2 | 3a | 3b | 4 | | | | |
| Payroll | 1 | 2 | 3a | 3b | 4 | | | | |
| Production, development, and exploration— | | | | | | | | | |
| Workers | 1 | 2 | ² 3a | 3b | 4 | | | | |
| Hours | 1 | 2 | 3a | 3b | 4 | | | | |
| Wages | 1 | 2 | 3a | 3b | 4 | | | | |
| Supplemental labor costs | | | ² 3a | | | | | | |
| Value added, cost of supplies, shipments, and inventories: | | | | | | | | | |
| Value added by mining | 1 | 2 | 3a | 3b | 4 | | | | ² 7a |
| Cost of supplies | 1 | 2 | ² 3a | 3b | 4 | | | | ² 7b |
| Resales, cost and value | | | 3a | | | | | | |
| Purchased fuels consumed | | | 3a | | | | | | |
| Purchased electricity | | | ² 3a | | | | | | |
| Cost of contract work | | | 3a | | | | | | |
| Industry shipments and receipts | 1 | 2 | 3a | 3b | 4 | ² 5 | | | |
| Value of net shipments | | | | | | ² 5 | | | |
| Product shipments | | | | | | | 6a | 6b | |
| Inventories | | | 3a | | | | | | |
| Gross book value of depreciable or depletable assets, beginning and end of year; depreciation and depletion charges for year: | | | | | | | | | |
| Buildings and structures, except land ³ | | | 3a | | | | | | |
| Machinery and equipment ³ | | | 3a | | | | | | |
| Mineral exploration and development ^{3 4} | | | 3a | | | | | | |
| Mineral land and rights ^{3 4} | | | 3a | | | | | | |
| New and used capital expenditures, excluding land and rights: | | | | | | | | | |
| Total | 1 | 2 | 3a | 3b | 4 | | | | |
| Buildings and structures | | | 3a | | | | | | |
| Machinery and equipment | | | 3a | | | | | | |
| Mineral exploration and development ⁴ | | | 3a | | | | | | |
| Capitalized mineral land and rights ^{3 4} | | | 3a | | | | | | |
| Rental payments | | | ² 3a | | | | | | |
| Expensed mineral exploration, development, land, and rights ⁴ | | | ² 3a | | | | | | |

¹Not published in MIC92-I-13C.

²Detailed information shown.

³Not published in MIC92-I-13A.

⁴Not published in MIC92-I-13B and MIC92-I-13C.

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Ferroalloy Ores, Metal Mining Services, and Miscellaneous Metal Ores

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Description of Industries and Summary of Findings

This report shows 1992 Census of Mineral Industries statistics for establishments classified in each of the following industries:

SIC code and title

| | |
|------|---|
| 1081 | Metal Mining Services |
| 1094 | Uranium-Radium-Vanadium Ores |
| 1099 | Miscellaneous Metal Ores, N.E.C., and Industry 1061, Ferroalloy Ores, Except Vanadium |

The industry statistics (employment, payroll, value of shipments, cost of supplies, etc.) are reported for each establishment as a whole. Aggregates of such data for an industry reflect not only the primary activities of the establishments but also all secondary activities performed by the same establishments. This fact should be taken into account in comparing industry statistics (tables 1 through 4 and 7) with product statistics (table 6) showing shipments by all industries of the primary products of the specified industry. The extent of the "product mix" is indicated in table 5, which shows the value of primary and secondary products shipped by establishments classified in the specified industry and the value of net shipments of primary products of the industry produced as secondary products by establishments classified in other industries.

Single-establishment companies with up to 20 employees (cutoff varied by industry) were excluded from the mail portion of the census. For these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated), data on payrolls and receipts were obtained from administrative records of other Federal agencies. This information was used in conjunction with industry averages and other information to develop estimates for all statistics. The first column in tables 2 and 4 provides an indication of the extent that these establishments account for the figures shown.

Establishment data were tabulated based on industry definitions included in the *1987 Standard Industrial Classification (SIC) Manual*¹. Comparability for the product classes and product codes that changed between the

1992 and 1987 censuses is shown in appendix B. This appendix presents, in tabular form, the linkage from 1992 to 1987, and 1987 to 1992.

All dollar figures included in this report are at prices current for the year specified and, therefore, unadjusted for changes in price levels. Consequently, when making comparisons to prior years, users should take into consideration the inflation that has occurred.

The Bureau of the Census statistics on products for these industries are not entirely comparable with product statistics for the same industries published by the Bureau of Mines or the Energy Information Administration. The differences that occur result primarily from differences in data collection methods, coverage, and objectives sought.

INDUSTRY 1081, METAL MINING SERVICES

This industry is made up of establishments primarily engaged in performing metal mining services for others on a contract or fee basis.

In the 1992 Census of Mineral Industries, Industry 1081, Metal Mining Services, had employment of 3.3 thousand. The employment figure was 18 percent above the 2.8 thousand reported in 1987. The total value of shipments and receipts for the industry was \$350.4 million in 1992. The value added by mining was \$258.8 million in 1992. Value added per employee was \$78.4 thousand in 1992; it was \$62.7 thousand in 1987.

The total cost of supplies used by establishments classified in this industry is withheld to avoid disclosing data for individual companies, while the cost of selected supplies, minerals received for preparation, and purchased machinery installed amounted to \$81.8 million and is shown in table 7a. The total cost of fuels used in this industry amounted to \$16.2 million in 1992. Data on specific fuels used appear in table 7b.

Single-establishment companies in this industry with up to 5 employees were excluded from the mail portion of the census. The data for these establishments (and a small

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

number of larger establishments whose reports were not received at the time the data were tabulated) were imputed as described above. These establishments accounted for 12 percent of the total value of shipments and receipts.

INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES

This industry is made up of establishments primarily engaged in mining, milling, or otherwise preparing uranium-radium-vanadium ores.

In the 1992 Census of Mineral Industries, Industry 1094, Uranium-Radium-Vanadium Ores, had employment of 1.2 thousand. The employment figure was 48 percent below the 2.3 thousand reported in 1987. The total value of shipments and receipts for the industry was \$86.3 million in 1992. The value added by mining was \$69.4 million in 1992. Value added per employee was \$57.8 thousand in 1992; it was \$76.0 thousand in 1987.

The total cost of supplies used by establishments classified in this industry amounted to \$45.6 million, while the cost of selected supplies, minerals received for preparation, and purchased machinery installed amounted to \$25.6 million and is shown in table 7a. The total cost of fuels used in this industry amounted to \$4.4 million in 1992. Data on specific fuels used appear in table 7b.

Single-establishment companies in this industry with up to 12 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were imputed as described above. These establishments accounted for 42 percent of the total value of shipments and receipts.

INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM

Industry 1061, Ferroalloy Ores, Except Vanadium and Industry 1099, Miscellaneous Metal Ores, Not Elsewhere Classified, were combined in the 1992 Census of Minerals Industries. These industries are made up of establishments primarily engaged in mining, milling, and preparing miscellaneous metal ores and ferroalloy ores, except vanadium.

In the 1992 Census of Mineral Industries, Industries 1099 and 1061 had employment of 2.8 thousand. The employment figure was 3 percent below the 2.9 thousand reported in 1987. The total value of shipments and receipts for the industry was \$312.2 million in 1992. The value added by mining was \$208.4 million in 1992. Value added per employee was \$74.4 thousand in 1992; it was \$68.8 thousand in 1987.

The total cost of supplies used by establishments classified in these industries amounted to \$136.0 million, while the cost of selected supplies, minerals received for preparation, and purchased machinery installed amounted to \$83.2 million and is shown in table 7a. The total cost of fuels used in these industries amounted to \$8.8 million in 1992. Data on specific fuels used appear in table 7b.

Single-establishment companies in industry 1061 with up to 5 employees and single-establishment companies in industry 1099 with up to 10 employees were excluded from the mail portion of the census. The data for these establishments (and a small number of larger establishments whose reports were not received at the time the data were tabulated) were imputed as described above. These establishments accounted for 12 percent of the total value of shipments and receipts.

Table 1. Historical Industry Statistics: 1992 and Earlier Census Years

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Year | Companies (number) | Establishments during year | | All employees | | Production, development, and exploration workers | | | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expenditures (million dollars) |
|---|--------------------|----------------------------|------------------------------------|----------------|---------------------------|--|------------------|-------------------------|---|--|---|--|
| | | Total (number) | With 20 employees or more (number) | Number (1,000) | Payroll (million dollars) | Number (1,000) | Hours (millions) | Wages (million dollars) | | | | |
| INDUSTRY 1081, METAL MINING SERVICES | | | | | | | | | | | | |
| 1992 Census | 117 | 266 | 37 | 3.3 | 117.0 | 2.6 | 6.0 | 89.7 | 258.8 | (D) | 350.4 | (D) |
| 1987 Census | 115 | 268 | 42 | 2.8 | 80.8 | 2.2 | 4.6 | 59.8 | 175.6 | 101.3 | 251.3 | 25.7 |
| 1982 Census | 137 | 313 | (NA) | 2.5 | 60.6 | 1.8 | 3.8 | 42.3 | 89.5 | 62.6 | 125.4 | 26.8 |
| 1977 Census | (NA) | 270 | 42 | 3.3 | 51.5 | 2.7 | 5.9 | 41.3 | 111.6 | 64.6 | 158.4 | 17.7 |
| 1972 Census | (NA) | 172 | 33 | 2.8 | 30.9 | 2.4 | 5.0 | 26.2 | 54.2 | 21.3 | 71.6 | 3.9 |
| INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | | | | | | | | | |
| 1992 Census | 48 | 78 | 21 | 1.2 | 49.6 | .6 | 1.2 | 21.0 | 69.4 | 45.6 | 86.3 | 28.7 |
| 1987 Census | 59 | 101 | 27 | 2.3 | 72.1 | 1.5 | 2.9 | 43.6 | 174.7 | 115.8 | 251.5 | 39.0 |
| 1982 Census | 123 | 215 | 71 | 10.5 | 285.4 | 7.1 | 14.4 | 178.7 | 578.8 | 420.2 | 775.1 | 223.9 |
| 1977 Census | (NA) | 225 | 66 | 12.0 | 203.2 | 9.6 | 20.0 | 155.2 | 431.6 | 435.0 | 614.5 | 252.1 |
| 1972 Census | (NA) | 144 | 34 | 5.9 | 58.0 | 4.6 | 9.8 | 43.0 | 149.4 | 120.3 | 227.2 | 42.5 |
| INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | | | | | | | | | |
| 1992 Census | 92 | 108 | 22 | 2.8 | 107.7 | 2.0 | 4.0 | 63.5 | 208.4 | 136.0 | 312.2 | 32.2 |
| 1987 Census | (NA) | 135 | 22 | 2.9 | 90.3 | 2.0 | 3.8 | 55.1 | 199.5 | 146.7 | 307.4 | 38.8 |
| 1982 Census | (NA) | 305 | 36 | 6.8 | 196.4 | 4.5 | 8.8 | 119.6 | 253.7 | 239.1 | 362.2 | 130.7 |
| 1977 Census | (NA) | 218 | 37 | 8.3 | 138.1 | 6.4 | 12.5 | 97.9 | 357.4 | 272.0 | 508.8 | 120.7 |
| 1972 Census | (NA) | 173 | 32 | 5.6 | 57.4 | 4.2 | 8.1 | 40.6 | 191.4 | 100.3 | 237.2 | 54.4 |

Table 2. Industry Statistics for Selected States: 1992 and 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Industry and geographic area | E ¹ | 1992 | | | | | | | | | | 1987 | | |
|--|----------------|----------------------------|------------------------------------|-----------------------------|---------------------------|--|------------------|-------------------------|---|--|---|--|------------------------------------|---|
| | | Establishments during year | | All employees | | Production, development, and exploration workers | | | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expenditures (million dollars) | All employees ² (1,000) | Value added by mining (million dollars) |
| | | Total (number) | With 20 employees or more (number) | Number ² (1,000) | Payroll (million dollars) | Number (1,000) | Hours (millions) | Wages (million dollars) | | | | | | |
| INDUSTRY 1081, METAL MINING SERVICES | | | | | | | | | | | | | | |
| United States | E1 | 266 | 37 | 3.3 | 117.0 | 2.6 | 6.0 | 89.7 | 258.8 | (D) | 350.4 | (D) | 2.8 | 175.6 |
| Arizona | E1 | 27 | 6 | .5 | 15.1 | .4 | 1.0 | 12.6 | 42.2 | 17.9 | 55.0 | 5.0 | .3 | 15.9 |
| Colorado | — | 20 | 4 | .2 | 7.0 | .1 | .3 | 4.1 | 12.2 | 4.3 | 15.3 | 1.2 | (D) | (D) |
| Montana | E4 | 16 | 2 | .2 | 6.3 | .2 | .4 | 5.5 | 15.0 | (D) | 21.8 | (D) | (D) | (D) |
| Nevada | — | 36 | 11 | 1.1 | 40.6 | .9 | 2.2 | 34.7 | 106.4 | (D) | 149.3 | (D) | .5 | 45.4 |
| South Dakota | — | 6 | 1 | C | (D) | (D) | (D) | (D) | (D) | (D) | (D) | 1.6 | C | (D) |
| Utah | — | 22 | 4 | .4 | 16.4 | .2 | .3 | 7.2 | 14.2 | (D) | 18.2 | (D) | .2 | 9.8 |
| Washington | E1 | 14 | 2 | .1 | 4.9 | .1 | .2 | 4.1 | 8.8 | (D) | 11.3 | (D) | C | (D) |
| INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | | | | | | | | | | | |
| United States | E4 | 78 | 21 | 1.2 | 49.6 | .6 | 1.2 | 21.0 | 69.4 | 45.6 | 86.3 | 28.7 | 2.3 | 174.7 |
| Colorado | E4 | 22 | 5 | E | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Texas | E4 | 10 | 5 | .3 | 10.9 | .2 | .4 | 5.9 | 21.3 | (D) | 30.3 | (D) | (D) | (D) |
| Wyoming | E6 | 14 | 4 | .2 | 12.1 | .1 | .2 | 4.3 | 7.6 | (D) | 13.2 | (D) | (D) | (D) |
| INDUSTRIES 1099, MISCELLANEOUS METAL ORES, N.E.C., AND 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | | | | | | | | | | | |
| United States | E1 | 108 | 22 | 2.8 | 107.7 | 2.0 | 4.0 | 63.5 | 208.4 | 136.0 | 312.2 | 32.2 | 2.9 | 199.5 |
| California | E1 | 12 | 2 | E | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | E | (D) |
| Colorado | E1 | 14 | 5 | F | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (NA) | (NA) |
| Connecticut | — | 4 | 2 | C | (D) | — | — | — | — | — | — | — | (NA) | (NA) |
| Florida | — | 7 | 2 | E | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | E | (D) |
| Idaho | — | 2 | 1 | C | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (NA) | (NA) |
| Montana | — | 5 | 1 | E | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | C | (D) |

¹Some payroll and sales data for small single-unit companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of the figures shown: E1-10 to 19 percent; E2-20 to 29 percent; E3-30 to 39 percent; E4-40 to 49 percent; E5-50 to 59 percent; E6-60 to 69 percent; E7-70 to 79 percent; E8-80 to 89 percent; E9-90 percent or more.

²States with 100 employees or more are shown. Some statistics are withheld to avoid disclosing data for individual companies. If employment is 100 or more, number of establishments is shown and employment-size range is indicated by one of the following symbols: 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.

Table 3a. Summary Statistics by Industry: 1992

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Item | Metal mining services (SIC 1081) | Uranium-radium-vanadium ores (SIC 1094) | Miscellaneous metal ores, n.e.c., and ferroalloy ores, except vanadium (SIC 1099 and SIC 1061) |
|---|-------------------------------------|--|---|
| Establishments during year _____ number.. | 266 | 78 | 108 |
| With 0 to 19 employees _____ number.. | 229 | 57 | 86 |
| With 20 to 99 employees _____ number.. | 30 | 21 | 15 |
| With 100 employees or more _____ number.. | 7 | - | 7 |
| All employees: | | | |
| Average for year _____ 1,000.. | 3.3 | 1.2 | 2.8 |
| Payroll for year _____ mil dol.. | 117.0 | 49.6 | 107.7 |
| Production, development, and exploration workers: | | | |
| Average for year _____ 1,000.. | 2.6 | .6 | 2.0 |
| March _____ 1,000.. | 2.6 | .7 | 2.0 |
| May _____ 1,000.. | 2.8 | .6 | 2.0 |
| August _____ 1,000.. | 2.9 | .6 | 1.9 |
| November _____ 1,000.. | 2.4 | .5 | 1.9 |
| Hours _____ millions.. | 6.0 | 1.2 | 4.0 |
| Wages _____ mil dol.. | 89.7 | 21.0 | 63.5 |
| Supplemental labor costs not included in payroll _____ mil dol.. | 29.9 | 9.4 | 24.7 |
| Legally required expenditures, including Social Security contributions _____ mil dol.. | 18.3 | 4.1 | 9.6 |
| Payments for voluntary programs _____ mil dol.. | 11.6 | 5.3 | 15.1 |
| Value added by mining _____ mil dol.. | 258.8 | 69.4 | 208.4 |
| Cost of supplies _____ mil dol.. | (D) | 45.6 | 136.0 |
| Supplies used, minerals received, and purchased machinery installed _____ mil dol.. | 81.8 | 25.6 | 83.2 |
| Resales _____ mil dol.. | (D) | - | (D) |
| Purchased fuels consumed _____ mil dol.. | 16.2 | 4.4 | 8.8 |
| Purchased electric energy: | | | |
| Quantity _____ mil kWh.. | 42.8 | 138.0 | 696.1 |
| Cost _____ mil dol.. | 2.2 | 6.8 | 29.5 |
| Electric energy generated less sold _____ mil kWh.. | - | - | - |
| Contract work _____ mil dol.. | (D) | 8.7 | (D) |
| Cost of purchased communication services _____ mil dol.. | .8 | .3 | .4 |
| Value of shipments and receipts _____ mil dol.. | 350.4 | 86.3 | 312.2 |
| Value of resales _____ mil dol.. | (D) | - | (D) |
| Inventories, end of 1991 _____ mil dol.. | 21.4 | 73.8 | 92.7 |
| Mined or quarried products _____ mil dol.. | - | 63.3 | 62.5 |
| Supplies, parts, fuels, etc. _____ mil dol.. | 21.4 | 10.5 | 30.2 |
| Inventories, end of 1992 _____ mil dol.. | 24.6 | 70.7 | 78.0 |
| Mined or quarried products _____ mil dol.. | - | 61.5 | 52.5 |
| Supplies, parts, fuels, etc. _____ mil dol.. | 24.6 | 9.1 | 25.5 |
| Gross book value of depreciable assets (usually original cost) at beginning of year _____ mil dol.. | 239.9 | 729.0 | 1 426.1 |
| Buildings and other structures, except land _____ mil dol.. | 19.8 | 132.2 | 153.6 |
| Machinery and equipment _____ mil dol.. | 220.0 | 307.5 | 775.7 |
| Mineral exploration and development _____ mil dol.. | (NA) | 234.1 | 428.8 |
| Mineral land and rights _____ mil dol.. | (NA) | 55.1 | 68.0 |
| Capital expenditures during year (except land and mineral rights) _____ mil dol.. | (D) | 28.7 | 32.2 |
| New capital expenditures during year _____ mil dol.. | 16.8 | 8.5 | 19.4 |
| Buildings and other structures, except land _____ mil dol.. | .4 | 3.8 | 5.0 |
| Machinery and equipment _____ mil dol.. | 16.5 | 4.7 | 14.4 |
| Used capital expenditures during year _____ mil dol.. | (D) | (D) | (D) |
| Buildings and other structures, except land _____ mil dol.. | (D) | (D) | (D) |
| Machinery and equipment _____ mil dol.. | (D) | .4 | 1.4 |
| Mineral exploration and development _____ mil dol.. | (NA) | (D) | (D) |
| Capitalized mineral land and rights _____ mil dol.. | (NA) | (D) | 3.0 |
| Deductions from depreciable assets during year _____ mil dol.. | (D) | 114.5 | 24.3 |
| Buildings and other structures, except land _____ mil dol.. | (D) | (D) | (D) |
| Machinery and equipment _____ mil dol.. | (D) | 64.1 | 18.2 |
| Mineral exploration and development _____ mil dol.. | (NA) | (D) | (D) |
| Mineral land and rights _____ mil dol.. | (NA) | (D) | (D) |
| Gross book value of depreciable assets at end of year _____ mil dol.. | 248.1 | 643.9 | 1 437.0 |
| Buildings and other structures, except land _____ mil dol.. | 19.8 | 107.2 | 156.0 |
| Machinery and equipment _____ mil dol.. | 228.3 | 248.6 | 773.2 |
| Mineral exploration and development _____ mil dol.. | (NA) | 238.4 | (D) |
| Mineral land and rights _____ mil dol.. | (NA) | 49.8 | (D) |
| Depreciation and depletion charges for year _____ mil dol.. | 23.1 | 45.6 | 57.1 |
| Buildings and other structures, except land _____ mil dol.. | 1.6 | 9.3 | 3.0 |
| Machinery and equipment _____ mil dol.. | 21.5 | 16.4 | 32.1 |
| Mineral exploration and development _____ mil dol.. | (NA) | (D) | (D) |
| Mineral land and rights _____ mil dol.. | (NA) | (D) | (D) |
| Rental payments during year _____ mil dol.. | 6.9 | (D) | 2.0 |
| Buildings and other structures, except land _____ mil dol.. | 1.4 | (D) | .2 |
| Machinery and equipment _____ mil dol.. | 5.5 | (D) | 1.8 |
| Lease rents _____ mil dol.. | (NA) | .6 | (D) |
| Expensed mineral exploration, development, land, and rights _____ mil dol.. | (NA) | (D) | (D) |
| Mineral exploration and development _____ mil dol.. | (NA) | (D) | (D) |
| Mineral land and rights _____ mil dol.. | (NA) | (D) | (D) |

Table 3b. Industry Statistics by Industry and Type of Operation: 1992 and 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Industry and type of operation | 1992 | | | | | | | | | | | 1987 | |
|---|----------------------------|------------------------------------|----------------|---------------------------|--|------------------|-------------------------|---|--|---|--|-----------------------|---|
| | Establishments during year | | All employees | | Production, development, and exploration workers | | | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expenditures (million dollars) | All employees (1,000) | Value added by mining (million dollars) |
| | Total (number) | With 20 employees or more (number) | Number (1,000) | Payroll (million dollars) | Number (1,000) | Hours (millions) | Wages (million dollars) | | | | | | |
| INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | | | | | | | | | | |
| All establishments | 78 | 21 | 1.2 | 49.6 | .6 | 1.2 | 21.0 | 69.4 | 45.6 | 86.3 | 28.7 | 2.3 | 174.7 |
| Producing establishments | 58 | 17 | 1.0 | 42.0 | .5 | 1.1 | 18.6 | 57.1 | 37.9 | 86.3 | 8.6 | 1.8 | 176.3 |
| Mines only | 41 | 9 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | .5 | 32.5 |
| Underground | 40 | 8 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | .4 | 24.3 |
| Open-pit | 1 | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Mines with preparation plants | 3 | 2 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | .8 | 86.6 |
| Underground | 1 | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Open-pit | 1 | — | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Combination and other mining methods | 1 | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Separately operated preparation plants | 2 | 2 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | .3 | 57.2 |
| Undistributed ¹ | 12 | 4 | .2 | 10.1 | — | — | — | — | — | — | — | .3 | — |
| Nonproducing establishments | 20 | 4 | .2 | 7.6 | .1 | .1 | 2.4 | 12.3 | 7.7 | — | 20.0 | .4 | -1.6 |
| INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | | | | | | | | | | |
| All establishments | 108 | 22 | 2.8 | 107.7 | 2.0 | 4.0 | 63.5 | 208.4 | 136.0 | 312.2 | 32.2 | 2.9 | 199.5 |
| Producing establishments | 102 | 21 | 2.8 | 103.1 | 2.0 | 4.0 | 63.4 | 209.6 | 134.8 | 312.2 | 32.2 | (D) | (D) |
| Mines only | 1 | — | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Combination and other mining methods | 1 | — | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | — | — |
| Mines with preparation plants | 11 | 9 | 1.9 | 70.8 | 1.5 | 3.0 | 51.3 | 178.9 | 115.7 | 264.1 | 30.4 | (D) | (D) |
| Underground | 2 | 2 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Open-pit | 9 | 7 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Separately operated preparation plants | 1 | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Undistributed ¹ | 89 | 11 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Nonproducing establishments | 6 | 1 | .1 | 4.7 | (Z) | (Z) | .1 | -1.2 | 1.3 | — | (Z) | (D) | (D) |

¹Includes data for separately operated auxiliary establishments in addition to establishments that were not possible to classify based on the information available.

Table 4. Industry Statistics by Employment Size of Establishment: 1992

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Industry and employment size class | E ¹ | Establishments during year (number) | All employees | | Production, development, and exploration workers | | | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expenditures (million dollars) |
|--|----------------|-------------------------------------|----------------|---------------------------|--|------------------|-------------------------|---|--|---|--|
| | | | Number (1,000) | Payroll (million dollars) | Number (1,000) | Hours (millions) | Wages (million dollars) | | | | |
| INDUSTRY 1081, METAL MINING SERVICES | | | | | | | | | | | |
| Total | E1 | 266 | 3.3 | 117.0 | 2.6 | 6.0 | 89.7 | 258.8 | (D) | 350.4 | (D) |
| Establishments with an average of— | | | | | | | | | | | |
| 0 to 4 employees | E2 | 152 | .2 | 8.6 | .2 | .4 | 6.2 | 22.3 | 8.4 | 29.4 | 1.4 |
| 5 to 9 employees | E2 | 37 | .3 | 10.2 | .2 | .4 | 7.2 | 23.3 | 10.1 | 31.8 | 1.6 |
| 10 to 19 employees | E1 | 40 | .5 | 18.7 | .4 | .9 | 13.1 | 39.6 | 15.3 | 51.8 | 3.1 |
| 20 to 49 employees | E2 | 19 | .6 | 22.0 | .5 | 1.2 | 18.7 | 42.9 | 18.3 | 57.4 | 3.8 |
| 50 to 99 employees | — | 11 | .7 | 23.0 | .5 | 1.2 | 17.1 | 46.8 | 24.2 | 69.3 | 1.7 |
| 100 to 249 employees | — | 6 | 1.0 | 34.6 | .8 | 1.8 | 27.3 | 83.8 | 34.7 | 110.8 | 7.6 |
| 250 to 499 employees | — | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Covered by administrative records ² | E9 | 53 | .1 | 2.1 | .1 | .2 | 1.7 | 4.8 | 2.9 | 7.2 | .5 |
| INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | | | | | | | | |
| Total | E4 | 78 | 1.2 | 49.6 | .6 | 1.2 | 21.0 | 69.4 | 45.6 | 86.3 | 28.7 |
| Establishments with an average of— | | | | | | | | | | | |
| 0 to 4 employees | E9 | 33 | .1 | 2.8 | .1 | .1 | 1.7 | 14.6 | 24.1 | 5.1 | 24.3 |
| 5 to 9 employees | E9 | 12 | .1 | 4.0 | (Z) | .1 | 2.0 | 5.2 | (D) | 3.6 | (D) |
| 10 to 19 employees | E8 | 12 | .2 | 6.7 | .1 | .1 | 2.4 | 7.1 | (D) | 10.5 | (D) |
| 20 to 49 employees | E5 | 14 | .4 | 15.5 | .2 | .4 | 8.0 | 14.8 | (D) | 22.3 | (D) |
| 50 to 99 employees | E1 | 7 | .5 | 20.6 | .2 | .4 | 7.0 | 27.7 | 21.4 | 44.8 | 4.4 |
| Covered by administrative records ² | E9 | 24 | .1 | 2.2 | .1 | .2 | 1.8 | 4.8 | 2.7 | 7.2 | .3 |

See footnotes at end of table.

Table 4. Industry Statistics by Employment Size of Establishment: 1992—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Industry and employment size class | E ¹ | Estab- lishments during year (number) | All employees | | Production, development, and exploration workers | | | Value added by mining (million dollars) | Cost of supplies used, purchased machinery installed, etc. (million dollars) | Value of shipments and receipts (million dollars) | Capital expendi- tures (million dollars) |
|---|----------------|--|-------------------|---------------------------------|---|---------------------|-------------------------------|---|--|--|--|
| | | | Number (1,000) | Payroll (million dollars) | Number (1,000) | Hours (millions) | Wages (million dollars) | | | | |
| INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | | | | | | | | |
| Total----- | E1 | 108 | 2.8 | 107.7 | 2.0 | 4.0 | 63.5 | 208.4 | 136.0 | 312.2 | 32.2 |
| Establishments with an average of— | | | | | | | | | | | |
| 0 to 4 employees----- | E7 | 61 | .1 | 2.6 | .1 | .1 | 1.4 | 5.0 | 3.4 | 8.1 | .4 |
| 5 to 9 employees----- | E4 | 13 | .1 | 2.4 | .1 | .1 | 1.8 | 6.8 | 4.8 | 11.1 | .4 |
| 10 to 19 employees----- | E4 | 12 | .2 | 7.4 | .1 | .1 | 1.3 | 1.5 | 2.8 | 4.2 | .1 |
| 20 to 49 employees----- | E5 | 12 | .6 | 23.7 | .3 | .5 | 6.5 | 14.6 | 12.9 | 26.1 | 1.4 |
| 50 to 99 employees----- | — | 3 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| 100 to 249 employees----- | E1 | 5 | 1.9 | 71.6 | 1.5 | 3.1 | 52.5 | 180.5 | 112.1 | 262.7 | 29.9 |
| 250 to 499 employees----- | — | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| 500 to 999 employees----- | — | 1 | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) | (D) |
| Covered by administrative records ² ----- | E9 | 59 | .1 | 2.4 | .1 | .2 | 1.9 | 6.1 | 3.1 | 8.9 | .4 |

Note: Data shown as a (D) are included in underscored figures above.

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data based on administrative-record data account for 10 percent or more of figures shown: E1—10 to 19 percent; E2—20 to 29 percent; E3—30 to 39 percent; E4—40 to 49 percent; E5—50 to 59 percent; E6—60 to 69 percent; E7—70 to 79 percent; E8—80 to 89 percent; E9—90 percent or more.

²Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate data shown for these small establishments. Data are also included in respective size classes shown.

Table 5. Industry-Product Analysis—Summary of Industry Shipments and Receipts and Net Shipments of Primary Products: 1992 and 1987

[Million dollars. An establishment is assigned to an industry based on shipment values of products representing largest amount considered primary to an industry. Frequently, establishment shipments comprise mixtures of products assigned to an industry (primary), those considered primary to other industries (secondary), and receipts for activities such as resales or contract work. Columns A-E show this product pattern for an industry. Extent to which an industry's primary products are shipped by establishments classified in and out of an industry is shown in columns F-H. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| SIC code | Industry and year | Value of shipments and receipts | | | | | Value of net shipments of primary products or services | | | |
|--------------|--|---------------------------------|---------------------|-----------------------|-----------------------------|--|---|---------------------------------|------------------------------------|-----|
| | | Total | Primary products | Secondary products | Receipts for services | Products purchased and resold without further processing | Total produced in all industries | Produced in this industry | Produced in other industries | |
| | | | | | | | | | | A |
| 1081 | Metal mining services----- | 1992-- | 350.4 | 339.6 | (D) | 9.1 | (D) | 340.0 | 339.6 | .4 |
| | | 1987-- | 251.3 | 248.7 | (D) | — | (D) | 249.2 | 248.7 | .5 |
| 1094 | Uranium-radium-vanadium ores----- | 1992-- | 86.3 | 86.2 | (D) | (D) | — | 184.0 | 184.0 | — |
| | | 1987-- | 251.5 | 251.4 | (D) | (D) | — | 1226.4 | 1226.4 | — |
| 1099 1061 | Miscellaneous metal ores, n.e.c., and ferroalloy ores, except vanadium----- | 1992-- | 312.2 | 302.6 | (D) | (D) | (D) | (D) | (D) | (D) |
| | | 1987-- | 307.4 | 305.0 | (D) | (D) | (D) | (D) | (D) | (D) |

¹Represents gross shipments less minerals received for preparation.

Table 6a. Products or Services: 1992 and 1987

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Service code | Service | 1992 receipts for services (million dollars) | | | 1987 receipts for services (million dollars) | | |
|--------------|--|--|-------------------|-------------------------|--|-------------------|-------------------------|
| 1081— | METAL MINING SERVICES | | | | | | |
| | Total | | | 340.0 | | | 249.2 |
| 10810 | Metal mining services..... | | | 340.0 | | | 249.2 |
| 10810 11 | Exploration work, including geophysical and other exploratory surveying | | | 91.4 | | | 53.4 |
| 10810 13 | Prospect and test drilling..... | | | 60.4 | | | 35.4 |
| 10810 14 | Open-pit metal mining ores not for own account..... | | | 114.5 | | | (D) |
| 10810 17 | Sinking mine shafts and driving mine tunnels..... | | | 10.8 | | | 21.1 |
| 10810 18 | Other metal mining services..... | | | 8.9 | | | (D) |
| 10810 00 | Metal mining services, n.s.k. ¹ | | | 54.0 | | | 30.0 |
| | | 1992 | | | 1987 | | |
| Product code | Product | Quantity of production for all purposes | Product shipments | | Quantity of production for all purposes | Product shipments | |
| | | | Quantity | Value (million dollars) | | Quantity | Value (million dollars) |
| 1094— | URANIUM-RADIUM-VANADIUM ORES | | | | | | |
| | Total | (X) | (X) | 86.2 | (X) | (X) | 251.4 |
| 10941 | Crude uranium-vanadium ores..... | (X) | (X) | — | (X) | (X) | 30.6 |
| 10941 02 | Crude uranium-vanadium ores.....1,000 metric tons.. | (D) | — | — | 579.7 | 422.0 | 30.6 |
| 10942 | Uranium-vanadium concentrates..... | (X) | (X) | 45.4 | (X) | (X) | (D) |
| | Uranium concentrates: | | | | | | |
| 10942 03 | From crude ore.....1,000 metric tons.. | (D) | (D) | (D) | 3.4 | 2.9 | 106.7 |
| 10942 04 | From other processes such as in situ solution mining, etc. ²1,000 metric tons.. | 1.0 | 1.2 | 23.8 | .6 | 2.2 | 69.8 |
| 10942 05 | Vanadium concentrates.....1,000 metric tons.. | (D) | (D) | (D) | 5.1 | (D) | (D) |
| 10940 | Uranium-radium-vanadium ores, n.s.k..... | (X) | (X) | 40.8 | (X) | (X) | (D) |
| 10940 00 | Uranium-radium-vanadium ores, n.s.k. ¹ | (X) | (X) | 40.8 | (X) | (X) | (D) |
| 1099— | MISCELLANEOUS METAL ORES, N.E.C., AND FERROALLOY ORES, EXCEPT VANADIUM | | | | | | |
| | Total | (X) | (X) | 404.1 | (X) | (X) | 416.1 |
| 10992 | Bauxite and other aluminum ores..... | (X) | (X) | 12.1 | (X) | (X) | 15.3 |
| 10992 11 | Crude (undried) bauxite.....1,000 metric tons.. | (D) | (D) | (D) | (D) | (D) | (D) |
| 10992 21 | Prepared bauxite: dried, calcined, or activated.....1,000 metric tons.. | (D) | (D) | (D) | (D) | (D) | (D) |
| 10997 | Ferroalloy ores, except vanadium..... | (X) | (X) | (D) | (X) | (X) | 220.3 |
| 10997 11 | Crude ferroalloy ores, such as manganese and manganiferous ores, chromium, molybdenum, nickel, tungsten, etc.....1,000 metric tons.. | (D) | — | — | (D) | (D) | (D) |
| 10997 29 | Ferroalloy concentrates (except molybdenum and vanadium), such as chromium, manganese, nickel, tungsten, etc.....1,000 metric tons.. | (D) | (D) | (D) | — | — | — |
| 10997 31 | Molybdenum concentrates.....1,000 metric tons cont. moly.. | 50.2 | 50.1 | 208.8 | ³ 65.9 | ³ 65.5 | 202.4 |
| 10997 00 | Ferroalloy ores, except vanadium, n.s.k. ¹ | (X) | (X) | (D) | (X) | (X) | (D) |
| 10998 | Miscellaneous metal ores, such as antimony, beryllium, mercury, rare-earth metals, tin, and titanium..... | (X) | (X) | ⁴ 142.7 | (X) | (X) | ⁴ 162.6 |
| 10998 11 | Miscellaneous crude metal ores, such as antimony, beryllium, mercury, rare-earth metals, tin, and titanium.....1,000 metric tons.. | (D) | (D) | (D) | (D) | (D) | (D) |
| 10998 21 | Miscellaneous metal concentrates, such as antimony, beryllium, mercury, rare-earth metals, tin, and titanium.....1,000 metric tons.. | (D) | (D) | (D) | (D) | (D) | (D) |
| 10990 | Metal ores, n.e.c., n.s.k..... | (X) | (X) | (D) | (X) | (X) | 17.9 |
| 10990 00 | Metal ores, n.e.c., n.s.k. ¹ | (X) | (X) | (D) | (X) | (X) | 17.9 |

¹Includes value for establishments that did not report detailed data and estimates for small companies (estimates were made from administrative-record data rather than collected from respondents).

²Byproduct uranium oxide not associated with the mining and milling of ores is included in Product Code 28199 00, Other Inorganic Chemicals, N.E.C.

³Unit of measure for 1987 is in 1,000 metric tons.

⁴Includes value for platinum-group metals.

Table 6b. Product Classes—Value of Shipments by All Producers for Specified States: 1992 and 1987

[Million dollars. Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in table 2. Also, product classes are not shown if they are miscellaneous or "not specified by type" classes. Statistics for some States are withheld because they are either less than \$1 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Product class and geographic area | 1992 value of product shipments | 1987 value of product shipments | Product class and geographic area | 1992 value of product shipments | 1987 value of product shipments |
|---|---------------------------------|---------------------------------|--|---------------------------------|---------------------------------|
| 10810, METAL MINING SERVICES | | | 10942, URANIUM-VANADIUM CONCENTRATES—Con. | | |
| United States | 340.0 | 249.2 | United States | 45.4 | (D) |
| Arizona | 51.3 | 23.3 | 10992, BAUXITE AND OTHER ALUMINUM ORES | | |
| Colorado | 14.6 | (NA) | United States | 12.1 | 15.3 |
| Montana | 21.5 | (NA) | 10997, FERROALLOY ORES, EXCEPT VANADIUM | | |
| Nevada | 147.1 | 61.7 | United States | (D) | 220.3 |
| Utah | 17.2 | 12.5 | 10998, MISCELLANEOUS METAL ORES, SUCH AS ANTIMONY, BERYLLIUM, MERCURY, RARE-EARTH METALS, TIN, AND TITANIUM | | |
| Washington | 11.2 | (NA) | United States | 142.7 | 162.6 |
| 10941, CRUDE URANIUM-VANADIUM ORES | | | | | |
| United States | — | 30.6 | | | |
| 10942, URANIUM-VANADIUM CONCENTRATES | | | | | |

Table 7a. Selected Supplies, Minerals Received for Preparation, and Purchased Machinery Installed: 1992 and 1987

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

| Supply code | Industry and supply consumed | 1992 | | 1987 | |
|--|---|----------|----------------------------------|----------|----------------------------------|
| | | Quantity | Delivered cost (million dollars) | Quantity | Delivered cost (million dollars) |
| INDUSTRY 1081, METAL MINING SERVICES | | | | | |
| | Selected supplies used, minerals received for preparation, and purchased machinery installed | (X) | 81.8 | (X) | 82.6 |
| 353020 | Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation | (X) | 13.1 | (X) | 21.1 |
| 353030 | Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment | (X) | 8.7 | (X) | 16.4 |
| | Supplies used: | | | | |
| 289212 | Ammonium nitrate | (X) | (D) | (X) | (D) |
| 289218 | Explosive materials (except ammonium nitrate) and blasting accessories | (X) | (D) | (X) | (D) |
| 331066 | Steel shapes and forms, except castings and forgings | (X) | (D) | (X) | 5.4 |
| 970098 | All other supplies | (X) | 23.8 | (X) | 19.9 |
| 973000 | Undistributed - minerals, purchased machinery, parts, attachments, and supplies used ¹ | (X) | 23.0 | (X) | 15.3 |
| INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | | |
| | Selected supplies used, minerals received for preparation, and purchased machinery installed | (X) | 25.6 | (X) | 75.2 |
| | Minerals or ores for preparation: | | | | |
| 100097 | Ores and concentrates received for treatment | 52.5 | 2.2 | 1 974.5 | 25.0 |
| 100098 | Ores and concentrates produced and treated at same establishment | (D) | (X) | 515.4 | (X) |
| 353020 | Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation | (X) | 4.3 | (X) | 7.0 |
| 353030 | Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment | (X) | 1.2 | (X) | 6.2 |
| | Supplies used: | | | | |
| 145000 | Bentonite and other clay nonmetallic minerals | (X) | (D) | (X) | — |
| 280110 | Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories | (X) | 4.7 | (X) | 10.1 |
| 289212 | Ammonium nitrate | (X) | (D) | (X) | .1 |
| 289218 | Explosive materials (except ammonium nitrate) and blasting accessories | (X) | (D) | (X) | .7 |
| 290000 | Lubricating oils and greases, including hydraulic oils | (X) | (D) | (X) | .2 |
| 301100 | Tires and inner tubes | (X) | (D) | (X) | .2 |
| 332002 | Iron and steel castings | (X) | — | (X) | .1 |
| 346211 | Iron and steel forgings | (X) | — | (X) | .1 |
| 331066 | Steel shapes and forms, except castings and forgings | (X) | (D) | (X) | 3.5 |
| 970098 | All other supplies | (X) | 4.7 | (X) | 14.4 |
| 973000 | Undistributed - minerals, purchased machinery, parts, attachments, and supplies used ¹ | (X) | 7.8 | (X) | 7.7 |

See footnotes at end of table.

Table 7a. Selected Supplies, Minerals Received for Preparation, and Purchased Machinery Installed: 1992 and 1987—Con.

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

| Supply code | Industry and supply consumed | 1992 | | 1987 | |
|-------------|---|----------|----------------------------------|----------|----------------------------------|
| | | Quantity | Delivered cost (million dollars) | Quantity | Delivered cost (million dollars) |
| | INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | |
| | Selected supplies used, minerals received for preparation, and purchased machinery installed | (X) | 83.2 | (X) | 90.5 |
| | Minerals or ores for preparation: | | | | |
| 109902 | Bauxite (crude or dried) received for treatment 1,000 metric tons.. | (D) | (D) | (D) | (D) |
| 109903 | Bauxite (crude or dried) produced and treated at same establishment 1,000 metric tons.. | (D) | (X) | (D) | (X) |
| 100097 | Ores and concentrates received for treatment 1,000 metric tons.. | 1.0 | 1.6 | (D) | (D) |
| 100098 | Ores and concentrates produced and treated at same establishment 1,000 metric tons.. | 25 778.9 | (X) | (D) | (X) |
| 353020 | Purchased machinery installed, including mobile loading, transportation, and other equipment installed at the operation | (X) | 9.5 | (X) | (D) |
| 353030 | Parts and attachments for mining, mineral preparation, construction, and conveying machinery and equipment | (X) | 13.0 | (X) | (D) |
| | Supplies used: | | | | |
| 145000 | Bentonite and other clay nonmetallic minerals | (X) | - | (X) | - |
| 280110 | Industrial chemicals (chemical reagents, calcium chloride, etc.) except explosive materials and blasting accessories | (X) | 13.6 | (X) | (D) |
| 289212 | Ammonium nitrate | (X) | 1.1 | (X) | (D) |
| 289218 | Explosive materials (except ammonium nitrate) and blasting accessories | (X) | 2.1 | (X) | (D) |
| 290000 | Lubricating oils and greases, including hydraulic oils..... | (X) | .8 | (X) | (D) |
| 301100 | Tires and inner tubes | (X) | 1.2 | (X) | (D) |
| 332002 | Iron and steel castings | (X) | (D) | (X) | (D) |
| 346211 | Iron and steel forgings | (X) | (D) | (X) | (D) |
| 331066 | Steel shapes and forms, except castings and forgings..... | (X) | 3.7 | (X) | (D) |
| 970098 | All other supplies | (X) | 19.6 | (X) | (D) |
| 973000 | Undistributed - minerals, purchased machinery, parts, attachments, and supplies used ¹ | (X) | 9.8 | (X) | 14.1 |

¹Represents cost for establishments that did not report detailed data, including establishments that were not mailed a form.

Table 7b. Fuels Consumed by Type: 1992 and 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

| Fuel code | Industry and fuel consumed | 1992 | | 1987 | |
|-----------|---|----------|----------------------------------|----------|----------------------------------|
| | | Quantity | Delivered cost (million dollars) | Quantity | Delivered cost (million dollars) |
| | INDUSTRY 1081, METAL MINING SERVICES | | | | |
| | Fuels used | (X) | 16.2 | (X) | 13.5 |
| 120005 | Coal - bituminous, subbituminous, lignite, and anthracite 1,000 s tons.. | - | - | - | - |
| | Fuel oil: | | | | |
| 291141 | Distillate (light) grade numbers 1, 2, 4, and light diesel fuel 1,000 barrels.. | 232.8 | 7.2 | 259.8 | 8.1 |
| 291151 | Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel 1,000 barrels.. | (D) | (D) | 4.2 | .2 |
| 131159 | Gas - natural, manufactured, and mixed..... bil cu ft.. | (Z) | (Z) | (D) | (D) |
| 291111 | Gasoline..... mil gal.. | 3.7 | 4.6 | 2.9 | 3.0 |
| 960018 | Other fuels - liquefied petroleum gas, coke, wood, etc. | (X) | (D) | (X) | (D) |
| 974000 | Undistributed fuels ¹ | (X) | (D) | (X) | 2.0 |
| | INDUSTRY 1094, URANIUM-RADIUM-VANADIUM ORES | | | | |
| | Fuels used | (X) | 4.4 | (X) | 6.5 |
| 120005 | Coal - bituminous, subbituminous, lignite, and anthracite 1,000 s tons.. | - | - | (D) | (D) |
| | Fuel oil: | | | | |
| 291141 | Distillate (light) grade numbers 1, 2, 4, and light diesel fuel 1,000 barrels.. | (D) | (D) | 53.2 | 1.5 |
| 291151 | Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel 1,000 barrels.. | (D) | (D) | - | - |
| 131159 | Gas - natural, manufactured, and mixed..... bil cu ft.. | .5 | 1.1 | .7 | 2.2 |
| 291111 | Gasoline..... mil gal.. | .5 | .5 | .7 | .6 |
| 960018 | Other fuels - liquefied petroleum gas, coke, wood, etc. | (X) | (D) | (X) | (D) |
| 974000 | Undistributed fuels ¹ | (X) | 1.8 | (X) | 1.2 |
| | INDUSTRY 1099, MISCELLANEOUS METAL ORES, N.E.C., AND INDUSTRY 1061, FERROALLOY ORES, EXCEPT VANADIUM | | | | |
| | Fuels used | (X) | 8.8 | (X) | 10.6 |
| 120005 | Coal - bituminous, subbituminous, lignite, and anthracite 1,000 s tons.. | (D) | (D) | (D) | (D) |
| | Fuel oil: | | | | |
| 291141 | Distillate (light) grade numbers 1, 2, 4, and light diesel fuel 1,000 barrels.. | 121.0 | 3.6 | (D) | (D) |
| 291151 | Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel 1,000 barrels.. | (D) | (D) | (D) | (D) |
| 131159 | Gas - natural, manufactured, and mixed..... bil cu ft.. | (D) | (D) | (D) | (D) |
| 291111 | Gasoline..... mil gal.. | (D) | (D) | .5 | .4 |
| 960018 | Other fuels - liquefied petroleum gas, coke, wood, etc. | (X) | .6 | (X) | (D) |
| 974000 | Undistributed fuels ¹ | (X) | 2.4 | (X) | 2.4 |

¹Represents cost for establishments that did not report detailed data, including establishments that were not mailed a form.

Appendix A. Explanation of Terms

Employment and related items. The report forms requested separate information on production, development, and exploration workers for a specific payroll period within each quarter of the year and on other employees as of the payroll period which included the 12th of March.

All employees. This item includes all full-time and part-time employees on the payrolls of mining establishments during any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees working for miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boardinghouses, bunkhouses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers. This item includes employees (up through the working-supervisor level) engaged in manual work (using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards). Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and guard services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and supervisors who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and persons engaged by them and paid out of the total amount received by these miners. In addition, other employees at the establishment but not on its payroll are included if paid directly through its own employees, such as superintendents and supervisors. The payments received by these types of employees are included as part of the establishments payroll. Employees above the working-supervisor level are excluded from this category.

All other employees. This item covers nonproduction employees of the establishment including those engaged in the following activities: supervision above the working-supervisor level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Separately operated auxiliary establishments employees. This item includes employment at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment during the payroll period which included March 12. Establishments are classified on the basis of the industry or principal industry served. Employees at an office located at or near the mining establishment are usually included in the mine report.

All employees, average for year. The 1992 census report form requested employment figures for production, development, and exploration workers for four selected pay periods (mid-March, May, August, and November). For all other employees, only a mid-March figure was requested. The annual average is an average of the four monthly figures for production, development, and exploration workers plus the March figure for all other employees. This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods closely approximates, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods.

Payroll. This item includes the gross earnings of all employees on the payroll of mining establishments paid in the calendar year 1992. It includes all forms of compensation such as salaries, wages, commissions, payments received on a ton, car, or yard basis, dismissal pay,

bonuses, vacation and sick leave pay, employee contributions to pension plans (such as 401(K) plan), and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of corporations; it excludes payments to proprietors or partners of unincorporated concerns, and payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production, development, and exploration work but charged to employees and deducted from their wages.

As in the case of employment and establishment figures, the annual payrolls of separate auxiliary establishments of multiestablishment companies are included in the totals for individual industries and for States.

Production-, development-, and exploration-worker hours.

This item represents all hours that production, development, and exploration workers worked, both on active days during which there was production or development work and on inactive days when only security guards, inspectors, repair persons, and other maintenance persons were on duty. It includes all hours worked or paid for at the mining operations, except hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Included are actual overtime hours, not straight time equivalent hours. Hours of working proprietors or partners and employees of contractors are excluded.

Supplemental labor costs. This item represents employer's cost for fringe benefits not included in payrolls.

Legally required expenditures, including Social Security contributions. This cost includes employer contributions for all programs required under Federal and State legislation, such as Federal Old Age and Survivors' Insurance, unemployment compensation, and worker's compensation. Also included are legally required State temporary disability payments.

Payments for voluntary programs. Included in this cost are payments resulting from union negotiated contracts and all employer payments of insurance premiums on hospital and medical plans, life insurance premiums, and premiums on supplementary accident and sickness insurance. For programs supported by joint employer-employee contributions, only the employer payments are included. Also included are payments or allocations on all pension plans regardless of methods of administration, supplemental unemployment compensation plans, welfare plans, stock purchase plans in which the employer payment is not subject to withholding tax, and deferred profit sharing plans.

Value added by mining. This measure of mining activity is derived by subtracting the cost of supplies, minerals received for preparation, purchased machinery installed,

purchased fuel, purchased electricity, and contract work from the sum of the value of shipments (mining products plus receipts for services rendered) and total capital expenditures. This statistic avoids the duplication in value of shipments and receipts which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

Cost of supplies used, purchased machinery installed, etc.

Besides supplies used and purchased machinery installed, this cost includes fuels and electric energy used and contract work done by others for each establishment. It includes charges to both the current and capital accounts. It also includes the cost of items used during 1992 whether they were purchased, withdrawn from inventories, or received from other establishments of the company. For selected supplies and fuels and for electric energy, both quantity and cost data were requested. The cost data refer to direct charges actually paid or payable (after discounts) for items used during the year. Freight charges and other direct charges incurred by the establishment in acquiring the item are included. Companies whose records did not show actual amounts used were asked to approximate use by adding purchases (or receipts) during the year to beginning inventory and subtracting ending inventory. Separate figures were requested for (1) selected supplies used, minerals received for preparation, and purchased machinery installed; (2) electric energy purchased; (3) purchased fuels used for heat, power, or the generation of electricity; (4) contract work done by others; and (5) products bought and resold in the same condition. Supplies and equipment used in mine development, plant expansion, and capitalized repairs, which are chargeable to fixed assets accounts, are included in this item, as are supplies furnished without charge to contractors for use at the mining operation and supplies sold to employees for use at the establishment. Excluded are such costs as advertising, insurance, telephone, and research and consulting services of other establishments or such overhead costs as depreciation charges, rent, interest, and royalties.

Selected supplies used, minerals prepared, etc.

In addition to the total cost of supplies used, purchased machinery installed, etc., which every establishment was required to report, information also was collected on the consumption of major supplies used in mining. These inquiries were restricted to supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available. Table 7a contains information on specific supplies consumed. On report forms for most mineral industries (except the contract services and the crude petroleum and natural gas industries), a uniform inquiry

was included on minerals prepared at the reported establishments. Figures were obtained on crude minerals mined at the establishment (quantity), received from other establishments of the company or purchased from others (quantity and cost), and received for preparation on a custom or toll basis (quantity and estimated value). Establishments consuming less than a specified amount (usually \$25,000) were not required to report the cost of a supply. For small establishments for which administrative records were used, the cost of supplies was included in "not specified by kind." (See Summary of Findings for the importance of administrative records to any industry.)

Value of shipments and receipts. The amounts shown as value of shipments and receipts for each industry (tables 1 through 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant after discounts and allowances, excluding freight charges and excise taxes. Shipments includes all products physically shipped from the establishment during 1992, including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1992. Prepared material or concentrates includes preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, companies were requested to report the estimated value, not merely the cost of producing the items. Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

For all establishments classified in an industry, value of shipments and receipts includes (1) the value of all primary products of the industry, (2) the value of secondary products which are primary to other industries, (3) the receipts for contract work done for others, except custom milling, and (4) the value of products purchased and resold without further processing. Receipts for custom milling are not included to avoid duplication with the value of custom milled ores included in an industry's primary and secondary products. Some duplication exists in industry and industry group totals because of the inclusion of materials transferred from one establishment to another for mineral preparation or resale.

Shipments of individual products. In the 1992 Census of Mineral Industries, information was collected on output for about 150 individual mineral products. In general, the shipments figures of the 1992 and 1987 minerals censuses were confined to separate totals for each crude and each prepared mineral. When shipments were significant, separate figures also were obtained on crude minerals going to preparation plants and those going to consumers.

Figures were collected on both quantity and value of shipments. Shipments includes commercial shipments and transfers of products to other operations of the same company. For products that are used to a significant extent within the same establishment for power or heat, and for minerals mined and prepared in the same establishment, total production figures or separate data on production for such uses were collected. Typically, production also was collected for products for which there was usually significant differences between total production and total shipments because of stock changes.

For service industries, the amount received or due for services performed during 1992 was collected as a measure of output. For mine operators who also perform services, the amount received for such services was added to the total value of products shipped to determine total value of shipments and receipts for each establishment.

Table 6 provides total shipments figures from all industries for each of the products primary to the industry covered.

Capital expenditures. This item covers expenditures made during the year for development and exploration of mineral properties, for new construction, and for purchased machinery chargeable to fixed assets accounts of the mineral establishment. They are the type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1992 were determined as "additions completed during the year plus construction in progress at the end of the year minus construction in progress at the beginning of the year." Reported capital expenditures include work done on contract, as well as by the mine forces. Expenditures for machinery and equipment include those made for replacement purposes, as well as those for additions to capacity. Excluded from these expenditures were costs of maintenance and repairs charged as current operating expense and expenditures for land and mineral rights.

Whenever applicable, separate figures were provided for expenditures for development and exploration of mineral property, construction of preparation plants and other construction, new machinery and equipment, used plant, and used equipment acquired from others.

Gross value of depreciable assets. Assets data were collected on buildings, other structures, machinery, equipment, capitalized mineral exploration and development, and mineral land and rights for which depreciation, amortization, or depletion accounts are maintained. The values shown represent the actual cost of assets at the time they were acquired, including all costs incurred in making the assets usable (such as transportation and installation costs). The data were collected for the beginning and end of the year. Assets at the beginning of the year plus new and used capital expenditures minus retirements should equal assets at the end of the year. For new construction

or other improvement projects in progress but not completed by the end of the year, the cumulative capital expenditures were included in the beginning- and end-of-year assets figures.

Retirements. This item represents the gross value of depreciable assets sold, retired, scrapped, destroyed, abandoned, etc., during 1992. The values shown are the acquisition costs of the retired assets. This item also includes the value of assets (at acquisition cost rather than current market value) transferred to other establishments of the same company.

Depreciation. This item shows the reduction in value of depreciable assets brought about through use, gradual obsolescence, or the effect of the elements (decay or corrosion) during the year. Included are charges against assets acquired or completed during the year.

Rental payments. This item consists of rental payments made to other companies for use of such depreciable assets as buildings, other structures, machinery, and equipment. It does not include payments made to the parent company or another subsidiary of the parent company for the use of buildings and equipment owned by the parent company or its subsidiary. The value of such company-owned assets is included in the gross value of depreciable assets.

Rented equipment is reported according to the type of lease negotiated with the lessor. If the lease qualified as an "operating lease" the periodic payments made to the producer or the lessor are reported in the rental section. However, if the leasing arrangement met the criteria set down by the Financial Accounting Standards Board for a "capital lease," the original cost or market value of the equipment or building is reported as a value of fixed assets and not as rental payments.

Current account expenditures. This item includes all expenses for mineral properties, exploration, and development charged to current accounts. This includes all supplies, machinery, equipment, parts, fuels, power, etc., used for development or exploration and charged to current operating expenses. Also included are royalty payments, acquisition costs for mineral land and rights which were not capitalized, and the cost of maintenance and repairs associated with exploration or development activity and charged to current accounts.

Inventories. This item includes inventories of mined or quarried products and supplies, parts, fuels, etc., at the beginning and end of the year. Included as mined or quarried products are stockpiles of products ready for shipment and stocks of raw products awaiting treatment or beneficiation. Beginning with the 1982 Census of Mineral Industries, all respondents were requested to report their inventories at (the lower of) cost or market prior to adjustment to LIFO cost. This is a change from the 1977 census in which respondents were permitted to value their inventories using any generally accepted accounting method.

Fuels and electric energy used. This item includes the quantity and cost of fuels and electric energy used in mining. For most industries, separate quantity and cost figures are shown for purchased coal, distillate fuel oil, residual fuel oil, gas, gasoline, and electric energy, and a cost figure is shown for "other fuels" (see table 7b). Data also were obtained on the quantity of fuels and electric energy produced and consumed at the same establishment. These data are shown for coal, crude petroleum, and natural gas used at the producing establishments for heat and power, and for electric energy generated and used at the same mining operations. For electric energy, the quantity generated and used is approximated by subtracting the quantity of electric energy sold from the total quantity generated (excluding generating station use).

Appendix B.

Product Code Reference Tables

Part 1. Comparability of Product Classes and Product Codes That Changed: 1992 to 1987

| 1992 | 1987 | 1992 | 1987 | 1992 | 1987 | 1992 | 1987 |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 10211 04 | 10211 03 | 10997 00 | 10610 00 | 12212 01 | 12212 07 | 14110 11 | 14111 00 |
| 10211 04 | 10211 05 | 10997 11 | 10611 00 | 12212 01 | 12212 08 | 14110 15 | 14115 00 |
| | | 10997 29 | 10612 29 | 12212 01 | 12212 09 | 14110 19 | 14119 00 |
| 10311 04 | 10311 03 | 10997 31 | 10612 31 | | | 14591 00 | 14591 11 |
| 10311 04 | 10311 05 | | | 12221 01 | 12221 04 | 14591 00 | 14591 21 |
| | | 10998 | 10991 | 12221 01 | 12221 05 | | |
| 10411 04 | 10411 03 | | | 12221 03 | 12221 14 | 14599 00 | 14599 11 |
| 10411 04 | 10411 05 | 10998 | 10993 | 12221 03 | 12221 15 | 14599 00 | 14599 21 |
| | | | | | | 14744 00 | 14744 01 |
| 10441 04 | 10441 03 | 10998 | 10999 | 12222 01 | 12222 07 | 14744 00 | 14744 03 |
| 10441 04 | 10441 05 | | | 12222 01 | 12222 08 | | |
| | | | | 12222 17 | 12222 18 | 14752 07 | 14752 06 |
| | | 10998 11 | 10991 11 | | | 14752 07 | 14752 08 |
| 10941 02 | 10941 01 | 10998 11 | 10993 11 | 12311 01 | 12311 04 | 14791 00 | 14791 12 |
| 10941 02 | 10941 03 | 10998 11 | 10999 11 | 12311 03 | 12311 14 | 14791 00 | 14791 22 |
| 10941 02 | 10941 05 | 10998 21 | 10991 21 | | | | |
| | | 10998 21 | 10993 21 | | | 14798 | 14792 |
| | | 10998 21 | 10999 21 | 12312 01 | 12312 07 | 14798 | 14799 |
| 10997 | 10610 | | | | | | |
| | | 12211 01 | 12211 04 | 14110 | 14111 | 14798 00 | 14792 12 |
| | | 12211 01 | 12211 05 | | | 14798 00 | 14792 22 |
| 10997 | 10611 | 12211 01 | 12211 06 | 14110 | 14115 | 14798 00 | 14799 00 |
| | | 12211 03 | 12211 14 | | | | |
| | | 12211 03 | 12211 15 | | | 14810 19 | 14810 17 |
| 10997 | 10612 | 12211 03 | 12211 16 | 14110 | 14119 | 14810 19 | 14810 20 |

Part 2. Comparability of Product Classes and Product Codes That Changed: 1987 to 1992

| 1987 | 1992 | 1987 | 1992 | 1987 | 1992 | 1987 | 1992 |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 10211 03 | 10211 04 | 10941 01 | 10941 02 | 12212 08 | 12212 01 | 14119 | 14110 |
| 10211 05 | 10211 04 | 10941 03 | 10941 02 | 12212 09 | 12212 01 | 14119 00 | 14110 19 |
| | | 10941 05 | 10941 02 | | | 14591 11 | 14591 00 |
| 10311 03 | 10311 04 | | | 12221 04 | 12221 01 | 14591 21 | 14591 00 |
| 10311 05 | 10311 04 | 10991 | 10998 | 12221 05 | 12221 01 | | |
| | | 10991 11 | 10998 11 | 12221 14 | 12221 03 | 14599 11 | 14599 00 |
| | | 10991 21 | 10998 21 | 12221 15 | 12221 03 | 14599 21 | 14599 00 |
| 10411 03 | 10411 04 | | | | | | |
| 10411 05 | 10411 04 | 10993 | 10998 | 12222 07 | 12222 01 | 14744 01 | 14744 00 |
| | | 10993 11 | 10998 11 | 12222 08 | 12222 01 | 14744 03 | 14744 00 |
| 10441 03 | 10441 04 | 10993 21 | 10998 21 | 12222 18 | 12222 17 | 14752 06 | 14752 07 |
| 10441 05 | 10441 04 | | | | | 14752 08 | 14752 07 |
| | | 10999 | 10998 | | | | |
| 10610 | 10997 | 10999 11 | 10998 11 | 12311 04 | 12311 01 | 14791 12 | 14791 00 |
| 10610 00 | 10997 00 | 10999 21 | 10998 21 | 12311 14 | 12311 03 | 14791 22 | 14791 00 |
| | | | | | | | |
| | | 12211 04 | 12211 01 | 12312 07 | 12312 01 | 14792 | 14798 |
| 10611 | 10997 | 12211 05 | 12211 01 | | | 14792 12 | 14798 00 |
| 10611 00 | 10997 11 | 12211 06 | 12211 01 | 14111 | 14110 | 14792 22 | 14798 00 |
| | | 12211 14 | 12211 03 | 14111 00 | 14110 11 | | |
| | | 12211 15 | 12211 03 | | | 14799 | 14798 |
| | | 12211 16 | 12211 03 | | | 14799 00 | 14798 00 |
| 10612 | 10997 | | | | | | |
| 10612 29 | 10997 29 | | | 14115 | 14110 | 14810 17 | 14810 19 |
| 10612 31 | 10997 31 | 12212 07 | 12212 01 | 14115 00 | 14110 15 | 14810 20 | 14810 19 |

Publication Program

1992 CENSUS OF MINERAL INDUSTRIES

Publications of the 1992 Census of Mineral Industries, containing data on establishments primarily engaged in the extraction of minerals, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.

Preliminary Reports

Industry series—12 reports (MIC92-I-10A(P) to -14E(P))

Preliminary data from the 1992 census are issued in 12 separate reports covering 31 mineral industries. Preliminary summary data for the United States and States are released in one report.

Final Reports

Industry series—12 reports (MIC92-I-10A to -14E)

Each of the 12 reports provides information for an industry or a group of related industries (e.g., clay, ceramic, and refractory minerals). Final figures for the United States are shown for each of 31 mineral industries on quantity and value of products shipped and supplies used; inventories; quantity and cost of fuels and electric energy purchased and the quantities of fuels produced and consumed; capital expenditures; assets; rents; employment; depreciation, amortization, and depletion; payroll; hours worked; cost of purchased machinery; value added by mining; mineral development, and exploration costs; number of establishments; and number of companies. Comparative statistics for earlier years are included. Industry statistics are shown by State, type of operation, and size of establishment.

Geographic area series—9 reports (MIC92-A-1 to -9)

A separate report for each of the nine geographic divisions presents statistics for individual States and off-shore areas for two- and three-digit industry groups by type of operation and by county. Also, data are shown for

value of shipments; value added by mining; employment; payroll; hours worked; capital expenditures; cost of supplies, etc.; purchased machinery installed; and number of mining establishments, with comparative 1987 data on employment and value added by mining.

Subject series—2 reports (MIC92-S-1 and -2)

One of these reports is a general national-level summary; the other report contains detailed statistics on fuels and electric energy consumed by mineral industries.

Reference series—1 report (MC92-R-1)

The *Numerical List of Manufactured and Mineral Products* includes a description of the principal products and services published in the 1992 Censuses of Manufactures and Mineral Industries.

Electronic Media

All data included in the printed reports are available on compact disc—read only memory (CD-ROM). The CD-ROM's provide the same information found in the reports. Electronic media products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, financial, insurance, real estate, construction industries, manufactures, transportation, communications, utilities, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1992 Economic Census. A separate series of reports covers the census of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Commonwealth of the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services, Bureau of the Census, Washington, DC 20233-8300.