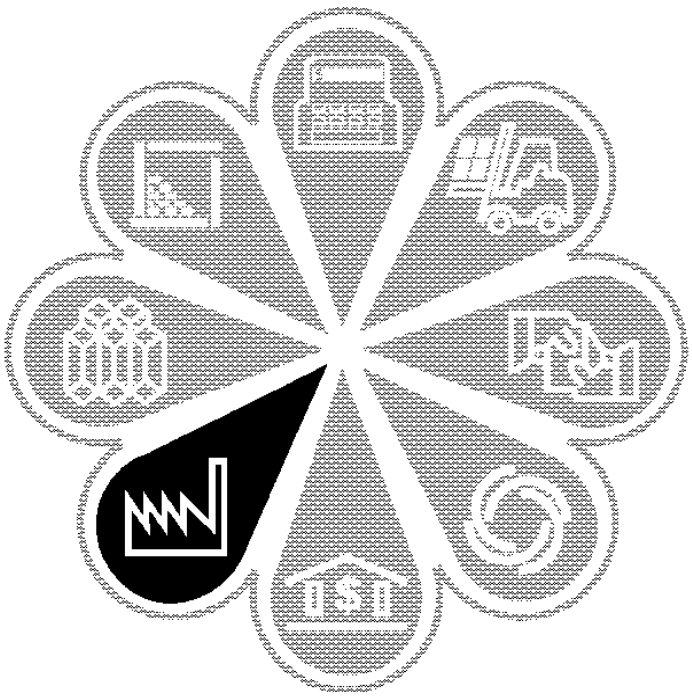
1992 Census of Manufactures

MC92-I-34A

INDUSTRY SERIES

Metal Cans, Cutlery, Handtools, and General Hardware

Industries 3411, 3412, 3421, 3423, 3425, and 3429



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

1992 Census of Manufactures

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U.S. Department of Commerce
Ronald H. Brown, Secretary
David J. Barram, Deputy Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Martha Farnsworth Riche, Director

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Manufacturing and Construction Division prepared this report. **David W. Cartwright**, Assistant Chief for Census and Related Programs, was responsible for the overall planning, management, and coordination of the census of manufactures. Planning and implementation were under the direction of **Kenneth I. Hansen,** Chief, Metals and Industrial Machinery Branch, assisted by **J. Michael Brown**, Section Chief, with primary staff assistance by **Michael Yamaner.**

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If you have any questions concerning the statistics in this report, call 301-457-4755.

For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

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 Manufactures

GENERAL

This report, from the 1992 Census of Manufactures, is one of a series of 83 industry reports, each of which provides statistics for individual industries or groups of related industries. Additional separate reports will be issued for each State and the District of Columbia and for special subjects such as manufacturers' shipments to the federal government and concentration ratios in manufacturing.

The industry reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, capital expenditures, product shipments, etc.

State reports present similar statistics for each State and its important metropolitan areas (MA's), counties, and places. Selected statistical totals for ''all manufacturing'' have been shown in the State reports for MA's with 250 employees or more and for counties and places with 500 employees or more.

The *General Summary* report contains industry, product class, and geographic area statistics summarized in one report. The introduction to the *General Summary* discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text discusses the relationship of value added by manufacture to national income by industry of origin, the changes in statistical concepts over the history of the censuses, and the valuation problems arising from intracompany transfers between manufacturing plants of a company and between manufacturing plants and sales offices and sales branches of a company.

SCOPE OF CENSUS AND DEFINITION OF MANUFACTURING

The 1992 Census of Manufactures covers all establishments with one paid employee or more primarily engaged in manufacturing 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 manufacturing as the mechanical or chemical transformation of substances or materials into new products. The assembly of component parts of products also is considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills that characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfers to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salespersons. Some activities of a service nature (enameling, engraving, etc.) are included in manufacturing when they are performed primarily for trade. They are considered nonmanufacturing when they are performed primarily to the order of the household consumer.

RELATIONSHIP BETWEEN ANNUAL SURVEY OF MANUFACTURES AND CENSUS OF MANUFACTURES

The Bureau of the Census conducts the annual survey of manufactures (ASM) in each of the 4 years between the censuses of manufactures. The ASM is a probability-based sample of approximately 62,000 establishments and collects the same industry statistics (employment, payroll, value of shipments, etc.) as the census of manufactures. In addition to collecting the information normally requested on the census form, the establishments in the ASM sample are requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, costs of purchased services, and foreign content of materials consumed. Except for supplemental labor costs, the extra ASM items are collected only in census years.

ESTABLISHMENT BASIS OF REPORTING

The census of manufactures is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each

[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.

location. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

In 1992, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than $5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures except for data on number of establishments for a few industries. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company (see Auxiliaries).

MANUFACTURING UNIVERSE AND CENSUS REPORT FORMS

The 1992 Census of Manufactures universe includes approximately 380,000 establishments. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures. The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. **Small single-establishment companies not sent a report form.** In the 1992 Census of Manufactures, approximately 143,000 small single-establishment companies were excused from filing reports. Selection of these small establishments was done on an industry-by-industry basis and was based on annual payroll and total shipments data as well as on the industry classification codes contained in the administrative records of Federal agencies. The cutoffs were selected so that these administrative-records cases would account for no more than 3 percent of the value of shipments for all manufacturing. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms.

   Information on the physical location of the establishment, as well as information on payrolls, receipts (shipments), and industry classification, was obtained from the administrative records of other Federal agencies under special arrangements, which safeguarded their confidentiality. Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost of materials were not distributed among specific products and materials for these establishments but were included in the product and material ''not specified by kind'' (n.s.k.) categories.

   The industry classification codes included in the administrative-records files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded at the four-digit SIC level. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

   Sometimes these administrative-records cases were only given a two- or three-digit SIC group. For the 1992 Census of Manufactures, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the four-digit SIC level. Establishments that did not return the classification form were coded later to those four-digit SIC industries identified as ''not elsewhere classified'' (n.e.c.) within the given two- or three-digit industry groups.

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

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

2. **Establishments sent a report form.** The over 237,000 establishments covered in the mail canvass were divided into three groups:

   a. **ASM sample establishments.** This group consisted of approximately 62,000 establishments covering all the units of large manufacturing establishments as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size (see Appendix B, Annual Survey of Manufactures).

      In a census of manufactures year, the ASM report form (MA-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, and costs of purchased services. See appendix A, section 2, for an explanation of these items.

The census part of the report form is 1 of approximately 200 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of these many forms to canvass the 459 manufacturing industries. Each form was developed for a group of related industries.

Appearing on each form was a list of products primary to the group of related industries as well as secondary products and miscellaneous services that establishments classified in these industries were likely to be performing. Respondents were requested to identify the products, the value of each product, and, in a large number of cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

The report form also contained a materials-consumed inquiry, which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and, in certain cases, the quantity consumed. Once again, space was provided for the respondent to describe significant material not identified on the form.

Finally, a wide variety of special inquiries was included to measure activities peculiar to a given industry, such as operations performed and equipment used.

b. **Large and medium establishments (non-ASM).** Approximately 112,000 establishments were included in this group. A variable cutoff, based on administrative-records payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the approximately 200 census of manufactures regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.

c. **Small single-establishment companies (non-ASM).** This group consisted of approximately 63,000 establishments. For those industries where application of the variable cutoff for administrative-records cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or ''short'' form was used. These establishments received 1 of the approximately 80 versions of the short form, which requested summary product and material data and totals but no details on employment, payrolls, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics; the same data were collected on the short form as on the long form. However, detailed information on materials consumed was not collected on the short form; thus its use would increase the value of the n.s.k. categories.

AUXILIARIES

In this industry report, the data on employment and payroll are limited to operating manufacturing establishments. The census report form filed for auxiliaries (ES-9200) requested a description of the activity of the establishments serviced. However, the manufacturing auxiliaries were coded only to the two-digit major group of the establishments they served; whereas, the operating establishments were coded to a four-digit manufacturing industry. Data for the approximately 11,000 separately operated auxiliaries are included in the geographic area series and in a report issued as part of the 1992 Enterprise Statistics Survey.

Auxiliaries are establishments whose employees are primarily engaged in performing supporting services for other establishments of the same company, rather than for the general public or for other business firms. They can be at different locations from the establishments served or at the same location as one of those establishments but not operating as an integral part thereof and serving two establishments or more. Where auxiliary operations are conducted at the same location as the manufacturing operation and operate as an integral part thereof, they usually are included in the report for the operating manufacturing establishment.

Included in the broad category of auxiliaries are administrative offices. Employees in administrative offices are concerned with the general management of multiestablishment companies, i.e., with the general supervision and control of two units or more, such as manufacturing plants, mines, sales branches, or stores. The functions of these employees may include the following:

1. Program planning, including sales research and coordination of purchasing, production, and distribution
2. Company purchasing, including general contracts and purchasing methods
3. Company financial policy and accounting
4. General engineering, including design of product machinery and equipment, and direction of engineering effort conducted at the individual operation locations
5. Company personnel matters
6. Legal and patent matters

Other types of auxiliaries serving the plants or central management of the company include purchasing offices, sales promotion offices, research and development organizations, etc.

INDUSTRY CLASSIFICATION OF ESTABLISHMENTS

Each of the establishments covered in the census was classified in 1 of 459 manufacturing industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 Manual notes the revisions in the four-digit industry levels between 1972/ 77 and 1987.

An industry is generally defined as a group of establishments producing the same product or a closely related group of products. The product groupings from which industry classifications are derived are based on considerations such as similarity of manufacturing processes, types of materials used, types of customers, and the like. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees. The system operates in such a way that the definitions progressively become narrower with successive additions of numerical digits. For 1992, there are 20 major groups (two-digit SIC), 139 industry groups (three-digit SIC), and 459 industries (four-digit SIC). This represents an expansion of four-digit industries from 452 in 1972/ 77 and a reduction of three-digit groups from 143 in 1972/ 77. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are about 11,000 products identified by a seven-digit code. The seven-digit products are considered the primary products of the industry with the same four digits.

Accordingly, an establishment is usually classified in a particular industry on the basis of its major activity during a particular year, i.e., production of the products primary to that industry exceeds, in value, production of the products primary to any other single industry. In a few instances, however, the industry classification of an establishment is not only determined by the products it makes but also by the process employed in operations. Refining of nonferrous metals from ore or rolling and drawing of nonferrous metals (processes which involve heavy capitalization in specialized equipment) would be classified according to the process used during a census year. These establishments then would be ''frozen'' in that industry during the following ASM years.

In either a census or ASM year, establishments included in the ASM sample with certainty weight, other than those involved with heavily capitalized activities described above, are reclassified by industry only if the change in the primary activity from the prior year is significant or if the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year (see Appendix B, Annual Survey of Manufactures). However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The results of these rules covering the switching of plants from one industry classification to another are that, at the aggregate level, some industries comprise different mixes of establishments between survey years and establishment data for such industry statistics as employment and payroll may be tabulated in different industries between survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the four-digit SIC level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year versus the data shown for the previous ASM year.

As previously noted, the small establishments that may have been misclassified by industry are usually administrative-records cases whose industry codes were assigned on the basis of incomplete descriptions of the general activity of the establishment. Such possible misclassifications have no significant effect on the statistics other than on the number of companies and establishments.

While some establishments produce only the primary products of the industry in which they are classified, all establishments of an industry rarely specialize to this extent. The industry statistics (employment, inventories, value added by manufacture, total value of shipments including resales and miscellaneous receipts, etc.) shown in tables 1a through 5a, therefore, reflect not only the primary activities of the establishments in that industry but also their secondary activities. The product statistics in table 6a represent the output of all establishments whether or not they are classified in the same industry as the product. For this reason, in relating the industry statistics, especially the value of shipments to the product statistics, the composition of the industry's output shown in table 5b should be considered.

The extent to which industry and product statistics may be matched with each other is measured by two ratios which are computed from the figures shown in table 5b. The first of these ratios, called the primary product specialization ratio, measures the proportion of product shipments (both primary and secondary) of the establishments classified in the industry represented by the primary products of those establishments. The second ratio, called the coverage ratio, is the proportion of primary products shipped by the establishments classified in the industry to total shipments of such products by all manufacturing establishments.

However, establishments making products falling into the same industry category may use a variety of processes and materials to produce them. Also, the same industry classification (based on end products) may include both establishments that are highly integrated and those that

put only the finishing touches on an already highly fabricated item. For example, the refrigeration equipment industry includes instances of almost complete integration (production of the compressor, condensing unit, electric motor, casting, stamping of the case, and final assembly) all carried on at one plant. On the other hand, the condensing unit, the motor, and the case may be purchased and only assembled into the finished product.

In some instances, separate industry categories have been established for integrated and nonintegrated establishments. For other industries, the census provides separate statistics on the production of intermediate commodities made and used in the producing plant. For some industries characterized by many plants of the same company, separate figures on interplant transfers of products usually are shown.

Differences in the integration of production processes, types of operations, and alternatives in types of materials used should be considered when relating the industry statistics (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 data for industries and products. In tables 1a through 5b, these data represent the total value of shipments of all establishments classified in a particular industry. The data include the shipments of the products classified in the industry (primary to the industry), products classified in other industries (secondary to the industry), and miscellaneous receipts (repair work, sale of scrap, research and development, installation receipts, and resales). Value of product shipments shown in table 6a represents the total value of all products shipped that are classified as primary to an industry.

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, so this information may be released even though other information is withheld.

The disclosure analysis for the industry statistics in tables 1a through 5a of this report is based on the total value of shipments. When the total value of shipments cannot be shown without disclosing information for individual companies, the complete line is suppressed except for new capital expenditures. However, the suppressed data are included in higher-level totals. A separate disclosure analysis is performed for new capital expenditures that can be suppressed even though value of shipments data are publishable.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1992 Census of Manufactures may be obtained on computer diskette or in tabular form. 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.

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.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification.

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

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census, ASM, and CIR		
SIC's 20-23, 3021, 31	Judy Dodds	301-457-4651
SIC's 24-30 (exc. 3021), 32	Michael Zampogna	301-457-4810
SIC's 33-35 (exc. 357)	Kenneth Hansen	301-457-4755
SIC's 357, 36-39	Bruce Goldhirsch	301-457-4817
Import/ export publications	Foreign Trade Division	301-457-3041
Industry analysis and forecasting	International Trade Administration	202-377-4356

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

[For explanation of terms, see appendixes]

Item	Four-digit industry statistics							Five-digit product class and seven-digit product statistics			
	Historical	Operating ratios	By geographic area	Summary and supplemental	By employment size	By industry and product class specialization	Materials consumed by kind	Industry-product analysis	Product shipments	Product class by geographic area	Historical product class
Number of companies	1a			3a					*6a		
Number of establishments	1a		2	3a	4	5a					
Employment and payroll:											
Number of employees	1a	1b	2	3a	4	5a					
Payroll	1a	1b	2	3a	4	5a					
Supplemental labor costs				3a							
Production workers	1a	1b	2	3a	4	5a					
Production-worker hours	1a	1b	2	3a	4	5a					
Production-worker wages	1a	1b	2	3a	4	5a					
Shipments, cost of materials, and value added:											
Value of shipments (four-digit)	1a	1b	2	3a	4	5a		5b			
Product class shipments (five-digit)									6a	6b	6c
Product shipments (seven-digit)									6a		
Value added by manufacture	1a	1b	2	3a	4	5a					
Cost of materials	1a	1b	2	3a	4	5a					
Fuels and electric energy				3a							
Materials consumed by kind							7				
Inventories:											
Total, end of year	1a			3a	4						
By stage of fabrication				3a							
Capital expenditures, assets, rental payments, and purchased services:											
New capital expenditures	1a		2	3b	4	5a					
Used plant and equipment expenditures				3b							
Gross assets				3b							
Depreciation				3b							
Retirements of buildings and machinery				3b							
Rental payments				3b							
Foreign content of materials consumed				3c							
Purchased services				3c							
Ratios:											
Specialization	1a							5b			
Coverage	1a							5b			

*Number of companies with shipments of more than $100 thousand.

Contents

Metal Cans, Cutlery, Handtools, and General Hardware

[Page numbers listed here omit the prefix that appears as part of the number of each page]

Description of Industries and Summary of Findings

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

SIC code	and title
3411	Metal Cans
3412	Metal Barrels, Drums, and Pails
3421	Cutlery
3423	Hand and Edge Tools, N.E.C.
3425	Saw Blades and Handsaws
3429	Hardware, N.E.C.

The industry statistics (employment, payroll, cost of materials, value of shipments, inventories, 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 their activities in the manufacture of secondary products as well as their miscellaneous activities (contract work on materials owned by others, repair work, etc.). This fact should be taken into account in comparing industry statistics (tables 1 through 5a) 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 5b, which shows the value of primary and secondary products shipped by establishments classified in the specified industry and the value of primary products of the industry shipped as secondary products by establishments classified in other industries.

Establishment data were tabulated based on industry definitions included in the *1987 Standard Industrial Classification (SIC) Manual*[1]. The 1987 edition represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. In addition to the 1987 SIC revision, changes were made to the product class (five-digit) and product code (seven-digit) categories. The product class and product code comparability between the 1992 and 1987 censuses is shown in appendix C. This appendix presents, in tabular form, the linkage from 1992 to 1987, and 1987 to 1992.

[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.

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.

INDUSTRY 3411, METAL CANS

This industry is made up of establishments primarily engaged in manufacturing metal cans from purchased materials. Establishments primarily engaged in manufacturing foil containers are classified in industry 3497.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3411, Metal Cans, had employment of 32.3 thousand. The employment figure was 18 percent below the 39.4 thousand reported in 1987. Compared with 1991, employment decreased 7 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were California, Ohio, Illinois, and Texas, accounting for approximately 40 percent of the industry's employment. These same States were the leaders in 1987.

The total value of shipments for establishments classified in this industry was $12.1 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 3411 shipped $11.4 billion of metal cans considered primary to the industry, $112.1 million of secondary products, and had $593.1 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 99 percent (specialization ratio). In 1987, the specialization ratio also was 99 percent.

Establishments in this industry also accounted for 98 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio also was 98 percent.

The products primary to industry 3411, no matter in what industry they were produced, appear in table 6a and aggregate to $11.7 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the metal cans industry amounted to $8.8 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 4 percent of the total value of shipments.

INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS

This industry is made up of establishments primarily engaged in manufacturing metal barrels, drums, and pails.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3412, Metal Barrels, Drums, and Pails, had employment of 7.2 thousand. The employment figure was 17 percent below the 8.7 thousand reported in 1987. Compared with 1991, employment increased 7 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were Illinois, Texas, Ohio, and California, accounting for approximately 54 percent of the industry's employment. This represents a shift from 1987 when Ohio, New Jersey, Illinois, and California were the leading States.

The total value of shipments for establishments classified in this industry was $1.1 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 3412 shipped $1.0 billion of metal barrels, drums, and pails considered primary to the industry, $85.5 million of secondary products, and had $46.4 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 92 percent (specialization ratio). In 1987, the specialization ratio also was 92 percent.

Establishments in this industry also accounted for 90 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 93 percent.

The products primary to industry 3412, no matter in what industry they were produced, appear in table 6a and aggregate to $1.1 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the metal barrels, drums, and pails industry amounted to $693.6 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 15 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 7 percent of the total value of shipments.

INDUSTRY 3421, CUTLERY

This industry is made up of establishments primarily engaged in manufacturing safety razors, razor blades, scissors, shears, and other cutlery of metal, except precious metal and table cutlery with handles of metal. Establishments primarily engaged in manufacturing precious metal cutlery and table cutlery with handles of metal are classified in industry 3914; those manufacturing electric razors, knives, or scissors are classified in industry 3634; those manufacturing hair clippers for human use are classified in industry 3999 and for animal use in industry 3523; and those manufacturing power hedge shears and trimmers are classified in industry 3524.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3421, Cutlery, had employment of 11.2 thousand. The employment figure was 7 percent above the 10.5 thousand reported in 1987. Compared with 1991, employment increased 8 percent. The 1991 data are based on the Census Bureau's annual survey of manufactures (ASM), which is a sample survey conducted each year between censuses.

The leading States in employment in 1992 were Massachusetts, New York, Connecticut, and Wisconsin, accounting for approximately 54 percent of the industry's employment. This represents a shift from 1987 when Massachusetts, Connecticut, New York, and California accounted for approximately 56 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was $1.5 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 3421 shipped $1.3 billion of cutlery considered primary to the industry, $76.9 million of secondary products, and had

$101.3 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 95 percent (specialization ratio). In 1987, the specialization ratio was 96 percent.

Establishments in this industry also accounted for 90 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 88 percent.

The products primary to industry 3421, no matter in what industry they were produced, appear in table 6a and aggregate to $1.5 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the cutlery industry amounted to $430.5 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 4 percent of the total value of shipments.

INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing files and other hand and edge tools for metalworking, woodworking, and general maintenance. Establishments primarily engaged in manufacturing handsaws and saw blades are classified in industry 3425; and those manufacturing metal cutting dies, power-driven handtools, and attachments and accessories for machine tools are classified in major group 35.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3423, Hand and Edge Tools, N.E.C., had employment of 39.7 thousand. The employment figure was 5 percent below the 41.9 thousand reported in 1987.

The leading States in employment in 1992 were Ohio, Illinois, California, and Minnesota, accounting for approximately 32 percent of the industry's employment. This represents a shift from 1987 when Ohio, Illinois, North Carolina, and Minnesota were the leading States.

The total value of shipments for establishments classified in this industry was $4.2 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 3423 shipped $3.3 billion of hand and edge tools, not elsewhere classified, considered primary to the industry, $335.7 million of secondary products, and had $530.9 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 91 percent (specialization ratio). In 1987, the specialization ratio was 90 percent.

Establishments in this industry also accounted for 91 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 92 percent.

The products primary to industry 3423, no matter in what industry they were produced, appear in table 6a and aggregate to $3.7 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the hand and edge tools, not elsewhere classified, industry amounted to $1.6 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 7 percent of the total value of shipments.

INDUSTRY 3425, SAW BLADES AND HANDSAWS

This industry is made up of establishments primarily engaged in manufacturing handsaw and saw blades for hand and power-driven saws. Establishments primarily engaged in manufacturing power-driven sawing machines are classified in major group 35.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3425, Saw Blades and Handsaws, had employment of 7.6 thousand. The employment figure was 1 percent below the 7.7 thousand reported in 1987.

The leading States in employment in 1992 were Oregon, Massachusetts, Kentucky, and Ohio, accounting for approximately 46 percent of the industry's employment. This represents a shift from 1987 when Massachusetts, Oregon, Kentucky, and Virginia accounted for approximately 46 percent of the industry's employment.

The total value of shipments for establishments classified in this industry was $847.2 million.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry

3425 shipped $644.3 million of saw blades, and handsaws considered primary to the industry, $96.9 million of secondary products, and had $106.0 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 87 percent (specialization ratio). In 1987, the specialization ratio was 90 percent.

Establishments in this industry also accounted for 90 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 87 percent.

The products primary to industry 3425, no matter in what industry they were produced, appear in table 6a and aggregate to $716.0 million. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the saw blades and handsaws industry amounted to $341.1 million. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 6 percent of the total value of shipments.

INDUSTRY 3429, HARDWARE, N.E.C.

This industry is made up of establishments primarily engaged in manufacturing miscellaneous metal products usually termed hardware, not elsewhere classified. Establishments primarily engaged in manufacturing bolts and nuts are classified in industry 3452; those manufacturing nails and spikes are classified in major group 33; those manufacturing cutlery are classified in industry 3421; those manufacturing handtools are classified in industry 3423; and those manufacturing pole line and transmission hardware are classified in industry group 364.

The 1992 definition of this industry is the same as that used in the 1987 Standard Industrial Classification (SIC) system. The SIC number and title also are the same.

In the 1992 Census of Manufactures, Industry 3429, Hardware, N.E.C., had employment of 75.4 thousand. The employment figure was 12 percent below the 85.2 thousand reported in 1987.

The leading States in employment in 1992 were Illinois, California, Michigan, and Ohio, accounting for approximately 38 percent of the industry's employment. These same States were the leaders in 1987.

The total value of shipments for establishments classified in this industry was $8.8 billion.

Establishments in virtually all industries ship secondary products as well as products primary to the industry in which they are classified and have some miscellaneous receipts, such as resales and contract receipts. Industry 3429 shipped $8.1 billion of hardware, not elsewhere classified, considered primary to the industry, $308.5 million of secondary products, and had $442.6 million of miscellaneous receipts, resales, and contract work. Thus, the ratio of primary products to the total of both secondary and primary products shipped by establishments in this industry was 96 percent (specialization ratio). In 1987, the specialization ratio was 95 percent.

Establishments in this industry also accounted for 96 percent of products considered primary to the industry no matter where they were actually produced (coverage ratio). In 1987, the coverage ratio was 95 percent.

The products primary to industry 3429, no matter in what industry they were produced, appear in table 6a and aggregate to $8.5 billion. For further explanation of specialization and coverage ratios, see table 5b and the appendixes.

The total cost of materials, services, and fuels and energy used by establishments classified in the hardware, not elsewhere classified, industry amounted to $4.0 billion. Data on specific materials consumed appear in table 7.

Single-establishment companies in this industry with less than 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 obtained from administrative records of other agencies or developed from industry averages. These establishments accounted for 9 percent of the total value of shipments.

Table 1a. Historical Statistics for the Industry: 1992 and Earlier Years

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

Year[1]	Companies[2] (no.)	All establishments[3] Total (no.)	All establishments[3] With 20 employees or more (no.)	All employees Number (1,000)	All employees Payroll (million dollars)	Production workers Number (1,000)	Production workers Hours (millions)	Production workers Wages (million dollars)	Value added by manufacture[4] (million dollars)	Cost of materials[5] (million dollars)	Value of shipments (million dollars)	New capital expenditures[6] (million dollars)	End-of-year inventories[4] (million dollars)	Ratios: Specialization[7] (percent)	Ratios: Coverage[8] (percent)
INDUSTRY 3411, METAL CANS															
1992 Census	132	324	240	32.3	1 261.9	27.2	58.3	1 032.7	3 290.1	8 797.9	12 112.2	350.6	1 512.3	99	98
1991 ASM	(NA)	(NA)	(NA)	34.6	1 315.0	29.3	65.5	1 048.8	3 557.3	8 977.9	12 449.6	233.3	1 435.8	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	35.9	1 319.4	30.5	67.6	1 077.2	3 668.4	8 676.4	12 342.4	285.9	1 334.1	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	36.9	1 342.1	31.1	68.7	1 082.0	3 418.5	7 985.9	11 389.3	359.5	1 393.1	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	39.0	1 361.5	32.9	71.8	1 081.9	3 920.3	7 492.2	11 407.1	303.0	1 398.2	(NA)	(NA)
1987 Census	161	369	259	39.4	1 325.4	32.7	69.5	1 058.0	3 816.0	7 194.6	11 013.6	334.2	1 383.9	99	98
1986 ASM	(NA)	(NA)	(NA)	41.8	1 370.0	35.0	72.3	1 102.2	3 773.9	7 351.2	11 068.7	362.7	1 287.5	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	44.2	1 399.1	37.1	76.5	1 114.3	3 736.3	7 886.8	11 643.9	263.6	1 332.1	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	45.7	1 364.9	38.2	78.9	1 086.4	3 883.2	7 778.8	11 623.2	204.2	1 382.7	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	46.2	1 344.3	38.5	78.3	1 062.9	3 757.0	7 276.2	10 961.5	178.1	1 326.3	(NA)	(NA)
1982 Census	168	397	294	49.0	1 334.5	40.8	81.5	1 066.4	4 071.7	7 046.8	11 132.8	247.0	1 338.8	98	99
1981 ASM	(NA)	(NA)	(NA)	50.3	1 297.2	41.3	86.3	1 038.7	3 828.6	6 577.1	10 448.0	352.8	1 284.3	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	53.6	1 255.0	44.4	93.7	1 011.8	3 978.1	6 188.1	10 087.0	205.2	1 357.5	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	57.6	1 216.7	48.2	101.7	989.3	3 905.2	6 091.9	9 892.3	215.1	1 292.3	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	58.9	1 141.6	49.4	103.0	928.0	3 351.1	5 652.5	8 972.3	205.3	1 110.0	(NA)	(NA)
1977 Census	153	403	300	59.8	1 066.3	50.2	106.4	870.8	3 154.3	5 068.7	8 142.8	176.9	1 032.9	96	98
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS															
1992 Census	116	155	91	7.2	201.0	5.5	12.0	131.7	437.9	693.6	1 133.8	22.0	132.4	92	90
1991 ASM	(NA)	(NA)	(NA)	6.7	174.9	5.0	10.8	112.4	426.7	756.4	1 192.0	23.4	154.4	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	7.2	184.3	5.4	12.0	117.9	422.1	782.2	1 213.3	23.1	168.1	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	7.9	195.2	6.0	13.2	123.6	434.5	802.3	1 238.6	28.5	170.2	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	8.2	198.4	6.3	14.0	136.3	408.4	740.3	1 148.5	13.3	170.4	(NA)	(NA)
1987 Census	118	168	99	8.7	202.0	6.5	14.0	137.1	397.4	702.0	1 100.0	14.0	160.7	92	93
1986 ASM	(NA)	(NA)	(NA)	7.3	169.7	5.6	12.1	110.0	339.5	547.6	888.2	15.3	130.1	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	7.8	177.1	6.1	13.1	119.6	341.1	577.8	923.1	17.0	142.9	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	9.2	194.8	7.2	15.1	131.4	369.6	652.6	1 020.4	19.0	176.5	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	10.2	200.1	8.1	15.9	143.8	439.6	753.7	1 152.7	23.6	221.9	(NA)	(NA)
1982 Census	115	169	109	9.9	198.6	7.6	14.8	136.3	371.7	663.0	1 038.7	22.7	165.5	93	93
1981 ASM	(NA)	(NA)	(NA)	12.0	233.0	9.6	19.5	164.8	461.8	810.6	1 267.8	54.4	202.5	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	12.7	225.5	10.3	20.8	162.3	479.2	776.6	1 258.6	39.0	166.6	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	13.1	218.2	10.6	21.9	161.3	497.5	748.4	1 236.9	31.4	195.6	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	12.7	198.0	9.9	20.3	142.8	406.6	621.6	1 031.7	27.8	147.8	(NA)	(NA)
1977 Census	120	184	113	12.4	180.3	9.8	20.1	128.8	389.6	551.2	937.1	31.8	135.0	94	90
INDUSTRY 3421, CUTLERY															
1992 Census	127	133	54	11.2	292.1	8.2	15.9	194.3	1 077.0	430.5	1 509.9	56.2	248.5	95	90
1991 ASM	(NA)	(NA)	(NA)	10.4	274.9	8.1	16.2	192.8	1 027.3	351.6	1 391.2	38.2	233.0	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	10.9	292.3	8.6	18.0	205.5	977.8	360.6	1 320.5	63.9	243.8	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	10.6	263.4	8.3	16.2	182.7	940.9	306.3	1 235.2	82.2	213.9	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	10.8	270.2	8.4	16.5	172.6	884.1	278.8	1 142.2	60.6	194.2	(NA)	(NA)
1987 Census	131	141	62	10.5	241.0	7.9	15.1	157.9	803.1	250.7	1 054.0	57.9	174.0	96	88
1986 ASM	(NA)	(NA)	(NA)	11.7	251.2	9.1	17.2	170.2	772.9	269.5	1 045.1	47.3	177.3	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	11.8	239.9	9.4	17.3	164.6	731.7	303.9	1 043.4	43.9	180.5	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	12.1	231.8	9.6	18.1	161.7	717.9	289.9	992.4	35.2	189.2	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	12.2	222.1	9.7	18.3	155.7	723.5	238.1	972.3	34.2	173.9	(NA)	(NA)
1982 Census	123	132	69	13.0	223.7	10.5	20.1	161.2	683.6	256.3	938.0	44.0	185.4	96	90
1981 ASM	(NA)	(NA)	(NA)	12.8	200.8	10.8	20.4	147.1	613.1	251.5	854.6	21.3	167.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	12.8	187.8	10.9	20.6	141.9	561.6	233.1	782.6	33.3	155.2	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	14.6	184.3	12.4	22.9	139.4	553.7	223.4	771.4	31.2	151.0	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	15.7	187.0	12.9	24.8	138.3	547.3	253.8	790.0	37.9	147.4	(NA)	(NA)
1977 Census	119	130	62	14.9	159.6	12.1	23.5	118.3	492.0	219.1	711.4	23.3	132.1	92	94
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.															
1992 Census	828	915	340	39.7	1 058.3	29.3	59.5	653.6	2 584.5	1 608.0	4 208.8	123.4	720.8	91	91
1991 ASM	(NA)	(NA)	(NA)	39.6	1 006.3	29.0	58.9	625.8	2 400.8	1 578.6	3 949.5	102.4	787.0	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	40.6	991.7	29.9	60.6	621.6	2 392.8	1 549.1	3 966.7	129.9	734.9	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	41.2	994.7	30.6	62.5	642.2	2 519.9	1 517.7	4 058.4	106.0	755.0	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	42.0	975.2	31.4	63.2	619.0	2 336.3	1 469.4	3 815.5	118.7	774.3	(NA)	(NA)
1987 Census	732	810	318	41.9	922.0	31.3	62.8	595.0	2 233.2	1 381.7	3 605.6	117.0	755.2	90	92
1986 ASM	(NA)	(NA)	(NA)	40.3	839.7	30.2	59.8	550.0	1 968.6	1 278.1	3 242.3	105.4	779.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	40.6	810.7	30.7	58.2	533.1	1 948.2	1 183.2	3 136.6	96.3	755.1	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	40.8	806.8	30.5	59.7	513.6	1 865.5	1 211.9	3 060.1	94.0	766.0	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	40.0	735.0	29.6	56.0	462.0	1 751.9	1 079.2	2 869.6	79.7	719.8	(NA)	(NA)
1982 Census	703	786	322	40.4	706.5	29.8	55.4	448.8	1 785.2	1 103.5	2 915.5	93.2	720.1	90	92
1981 ASM	(NA)	(NA)	(NA)	47.3	778.6	36.4	71.0	513.3	2 011.0	1 285.4	3 261.1	81.7	636.2	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	47.2	702.2	36.1	67.6	463.5	1 799.7	1 143.9	2 947.2	85.7	579.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	51.1	721.9	39.9	77.6	493.3	1 887.8	1 206.0	3 038.1	87.5	579.5	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	50.2	648.4	40.1	79.4	464.3	1 636.0	1 058.2	2 648.7	82.0	538.4	(NA)	(NA)
1977 Census	662	724	296	47.0	566.4	36.9	72.8	394.7	1 421.4	898.7	2 279.2	72.0	487.4	91	90
INDUSTRY 3425, SAW BLADES AND HANDSAWS															
1992 Census	128	139	57	7.6	218.4	5.3	11.1	129.3	507.2	341.1	847.2	34.2	151.1	87	90
1991 ASM	(NA)	(NA)	(NA)	7.8	200.9	5.5	11.2	119.9	449.4	368.3	789.6	55.5	189.5	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	8.7	224.3	6.1	11.6	136.8	540.3	379.5	916.8	38.4	168.4	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	8.8	210.4	6.3	12.6	135.8	535.5	355.1	874.2	40.2	167.2	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	7.9	197.8	5.8	11.7	123.3	459.8	283.9	748.2	19.3	139.0	(NA)	(NA)
1987 Census	128	138	60	7.7	177.4	5.6	11.0	113.9	413.6	267.0	674.9	22.5	133.6	90	87
1986 ASM	(NA)	(NA)	(NA)	9.3	215.6	7.0	14.1	138.2	497.8	323.3	805.6	14.2	172.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	8.5	183.0	6.3	13.0	114.5	417.6	270.1	701.3	28.1	143.4	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	9.3	191.5	6.8	13.5	122.2	394.2	270.7	675.0	17.8	150.2	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	7.8	145.1	5.6	11.0	90.6	300.6	211.5	509.3	13.3	111.5	(NA)	(NA)
1982 Census	119	135	62	7.4	133.4	5.3	10.5	83.2	251.8	220.1	487.3	24.1	115.8	82	84
1981 ASM	(NA)	(NA)	(NA)	9.4	161.8	6.9	14.2	107.1	329.7	252.1	579.2	46.1	129.9	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	9.7	153.2	7.3	15.3	100.0	339.7	255.4	578.9	34.5	120.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	9.1	130.7	6.8	14.1	86.9	296.2	211.9	511.9	27.0	101.3	(NA)	(NA)

See footnotes at end of table.

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Table 1a. **Historical Statistics for the Industry: 1992 and Earlier Years**—Con.

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

Year[1]	Companies[2] (no.)	All establishments[3] Total (no.)	All establishments[3] With 20 employees or more (no.)	All employees Number (1,000)	All employees Payroll (million dollars)	Production workers Number (1,000)	Production workers Hours (millions)	Production workers Wages (million dollars)	Value added by manufacture[4] (million dollars)	Cost of materials[5] (million dollars)	Value of shipments (million dollars)	New capital expenditures[6] (million dollars)	End-of-year inventories[4] (million dollars)	Ratios: Specialization[7] (percent)	Ratios: Coverage[8] (percent)
	INDUSTRY 3425, SAW BLADES AND HANDSAWS—Con.														
1978 ASM	(NA)	(NA)	(NA)	8.6	110.9	6.6	13.1	73.4	269.2	159.5	426.1	19.2	86.4	(NA)	(NA)
1977 Census	105	115	55	7.6	94.3	5.7	11.4	62.7	230.6	137.6	363.3	13.4	75.5	86	77
	INDUSTRY 3429, HARDWARE, N.E.C.														
1992 Census	1 172	1 278	485	75.4	2 063.1	56.2	113.3	1 318.8	4 860.9	3 951.1	8 842.8	253.3	1 237.4	96	96
1991 ASM	(NA)	(NA)	(NA)	73.8	1 937.5	56.2	111.5	1 257.8	4 278.2	3 887.1	8 223.0	187.5	1 281.8	(NA)	(NA)
1990 ASM	(NA)	(NA)	(NA)	78.8	2 016.2	60.6	119.7	1 334.0	4 593.3	3 865.6	8 462.3	217.9	1 346.2	(NA)	(NA)
1989 ASM	(NA)	(NA)	(NA)	84.9	2 042.2	66.3	130.6	1 400.0	4 707.0	4 041.6	8 706.1	226.7	1 387.6	(NA)	(NA)
1988 ASM	(NA)	(NA)	(NA)	86.8	2 124.0	66.3	128.7	1 459.2	4 564.6	3 862.2	8 403.5	182.0	1 427.5	(NA)	(NA)
1987 Census	1 127	1 239	519	85.2	2 048.5	65.8	128.6	1 408.5	4 580.7	3 567.5	8 146.2	251.6	1 312.5	96	95
1986 ASM	(NA)	(NA)	(NA)	82.3	1 961.4	61.9	122.7	1 337.7	4 311.4	3 393.6	7 688.9	236.5	1 300.2	(NA)	(NA)
1985 ASM	(NA)	(NA)	(NA)	84.7	2 032.4	65.0	128.8	1 417.7	4 411.9	3 448.4	7 860.9	233.7	1 252.7	(NA)	(NA)
1984 ASM	(NA)	(NA)	(NA)	87.9	1 977.0	67.8	134.0	1 374.7	4 415.0	3 189.6	7 505.9	215.3	1 293.0	(NA)	(NA)
1983 ASM	(NA)	(NA)	(NA)	82.3	1 717.4	63.5	125.1	1 200.2	3 947.9	2 843.0	6 752.8	162.3	1 199.9	(NA)	(NA)
1982 Census	1 085	1 185	486	80.1	1 520.9	60.8	114.1	1 030.2	3 320.1	2 370.6	5 740.9	174.3	1 064.5	96	94
1981 ASM	(NA)	(NA)	(NA)	95.9	1 720.1	74.7	143.2	1 215.2	3 666.7	2 635.9	6 259.6	301.2	1 075.8	(NA)	(NA)
1980 ASM	(NA)	(NA)	(NA)	97.1	1 584.0	74.6	142.7	1 106.4	3 317.3	2 399.9	5 707.3	261.5	1 053.0	(NA)	(NA)
1979 ASM	(NA)	(NA)	(NA)	107.3	1 632.6	84.9	163.5	1 163.0	3 622.8	2 689.2	6 231.4	158.6	1 072.5	(NA)	(NA)
1978 ASM	(NA)	(NA)	(NA)	105.2	1 510.4	82.3	159.8	1 076.2	3 334.8	2 472.1	5 734.5	179.0	968.2	(NA)	(NA)
1977 Census	1 063	1 168	464	99.2	1 359.0	77.9	156.8	977.7	3 032.6	2 239.0	5 202.6	190.2	849.7	94	94

[1]In annual survey of manufactures (ASM) years, data are estimates based on a representative sample of establishments canvassed annually and may differ from results of a complete canvass of all establishments. ASM publication shows percentage standard errors. Unless otherwise noted, for data prior to 1977, see 1977 Census of Manufactures, vol. II, table 1 of the industry chapter.

[2]For the Census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

[3]Includes establishments with payroll at any time during the year.

[4]Beginning in 1982, all respondents were requested to report their inventories at cost or market prior to adjustment to LIFO cost. This is a change from prior years when respondents were permitted to value their inventories using any generally accepted accounting method. Consequently, 1982 data for inventories and value added by manufacture are not comparable to prior-year data.

[5]Cost of materials is the sum of five components: the cost of (1) parts used in the manufacture of finished goods (materials, parts, containers, and supplies incorporated into products or otherwise directly consumed in the process); (2) purchased items later resold without further manufacture; (3) fuels; (4) electricity; and (5) commissions or fees to outside parties for contract manufacturing. A separate cost for each of the five components is shown in table 3a. Detailed data on materials consumed by type, are shown in table 7.

[6]Detailed data on new machinery and equipment expenditures are provided in table 3c.

[7]Represents ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for establishments classified in the industry.

[8]Represents ratio of primary products shipped by establishments classified in industry to total shipments of such products by all manufacturing establishments, wherever classified.

Table 1b. **Selected Operating Ratios for the Industry: 1992 and Earlier Years**

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

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
	INDUSTRY 3411, METAL CANS								
1992 Census	39 068	84	2 143	17.71	73	83	101 861	38	56.43
1991 ASM	38 006	85	2 235	16.01	72	83	102 812	37	54.31
1990 ASM	36 752	85	2 216	15.93	70	81	102 184	36	54.27
1989 ASM	36 371	84	2 209	15.75	70	82	92 642	39	49.76
1988 ASM	34 910	84	2 182	15.07	66	78	100 521	35	54.60
1987 Census	33 640	83	2 125	15.22	65	77	96 853	35	54.91
1986 ASM	32 775	84	2 066	15.24	66	79	90 285	36	52.20
1985 ASM	31 654	84	2 062	14.57	68	80	84 532	37	48.84
1984 ASM	29 867	84	2 065	13.77	67	79	84 972	35	49.22
1983 ASM	29 097	83	2 034	13.57	66	79	81 320	36	47.98
1982 Census	27 235	83	1 998	13.08	63	75	83 096	33	49.96
1981 ASM	25 789	82	2 090	12.04	63	75	76 115	34	44.36
1980 ASM	23 414	83	2 110	10.80	61	74	74 218	32	42.46
1979 ASM	21 123	84	2 110	9.73	62	74	67 799	31	38.40
1978 ASM	19 382	84	2 085	9.01	63	76	56 895	34	32.53
1977 Census	17 831	84	2 120	8.18	62	75	52 747	34	29.65
	INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS								
1992 Census	27 917	76	2 182	10.98	61	79	60 819	46	36.49
1991 ASM	26 104	75	2 160	10.41	63	78	63 687	41	39.51
1990 ASM	25 597	75	2 222	9.83	64	80	58 625	44	35.18
1989 ASM	24 709	76	2 200	9.36	65	81	55 000	45	32.92
1988 ASM	24 195	77	2 222	9.74	64	82	49 805	49	29.17
1987 Census	23 218	75	2 154	9.79	64	82	45 678	51	28.39
1986 ASM	23 247	77	2 161	9.09	62	81	46 507	50	28.06
1985 ASM	22 705	78	2 148	9.13	63	82	43 731	52	26.04
1984 ASM	21 174	78	2 097	8.70	64	83	40 174	53	24.48
1983 ASM	19 618	79	1 963	9.04	65	83	43 098	46	27.65
1982 Census	20 061	77	1 947	9.21	64	83	37 545	53	25.11
1981 ASM	19 417	80	2 031	8.45	64	82	38 483	50	23.68
1980 ASM	17 756	81	2 019	7.80	62	80	37 732	47	23.04
1979 ASM	16 656	81	2 066	7.37	61	78	37 977	44	22.72
1978 ASM	15 591	78	2 051	7.03	60	79	32 016	49	20.03
1977 Census	14 540	79	2 051	6.41	59	78	31 419	46	19.38

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Table 1b. **Selected Operating Ratios for the Industry: 1992 and Earlier Years**—Con.

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

Year	Payroll per employee (dollars)	Production workers as percent of total employment (percent)	Annual hours of production workers (number)	Average hourly earnings of production workers (dollars)	Cost of materials as percent of value of shipments (percent)	Cost of materials and payroll as percent of value of shipments (percent)	Value added per employee (dollars)	Payroll as percent of value added (percent)	Value added per production worker hour (dollars)
	INDUSTRY 3421, CUTLERY								
1992 Census	26 080	73	1 939	12.22	29	48	96 161	27	67.74
1991 ASM	26 433	78	2 000	11.90	25	45	98 779	27	63.41
1990 ASM	26 817	79	2 093	11.42	27	49	89 706	30	54.32
1989 ASM	24 849	78	1 952	11.28	25	46	88 764	28	58.08
1988 ASM	25 019	78	1 964	10.46	24	48	81 861	31	53.58
1987 Census	22 952	75	1 911	10.46	24	47	76 486	30	53.19
1986 ASM	21 470	78	1 890	9.90	26	50	66 060	33	44.94
1985 ASM	20 331	80	1 840	9.51	29	52	62 008	33	42.29
1984 ASM	19 157	79	1 885	8.93	29	53	59 331	32	39.66
1983 ASM	18 205	80	1 887	8.51	24	47	59 303	31	39.54
1982 Census	17 208	81	1 914	8.02	27	51	52 585	33	34.01
1981 ASM	15 688	84	1 889	7.21	29	53	47 898	33	30.05
1980 ASM	14 672	85	1 890	6.89	30	54	43 875	33	27.26
1979 ASM	12 623	85	1 847	6.09	29	53	37 925	33	24.18
1978 ASM	11 911	82	1 922	5.58	32	56	34 860	34	22.07
1977 Census	10 711	81	1 942	5.03	31	53	33 020	32	20.94
	INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.								
1992 Census	26 657	74	2 031	10.98	38	63	65 101	41	43.44
1991 ASM	25 412	73	2 031	10.62	40	65	60 626	42	40.76
1990 ASM	24 426	74	2 027	10.26	39	64	58 936	41	39.49
1989 ASM	24 143	74	2 042	10.28	37	62	61 163	39	40.32
1988 ASM	23 219	75	2 013	9.79	39	64	55 626	42	36.97
1987 Census	22 005	75	2 006	9.47	38	64	53 298	41	35.56
1986 ASM	20 836	75	1 980	9.20	39	65	48 849	43	32.92
1985 ASM	19 968	76	1 896	9.16	38	64	47 985	42	33.47
1984 ASM	19 775	75	1 957	8.60	40	66	45 723	43	31.25
1983 ASM	18 375	74	1 892	8.25	38	63	43 798	42	31.28
1982 Census	17 488	74	1 859	8.10	38	62	44 188	40	32.22
1981 ASM	16 461	77	1 951	7.23	39	63	42 516	39	28.32
1980 ASM	14 877	76	1 873	6.86	39	63	38 129	39	26.62
1979 ASM	14 127	78	1 945	6.36	40	63	36 943	38	24.33
1978 ASM	12 916	80	1 980	5.85	40	64	32 590	40	20.60
1977 Census	12 051	79	1 973	5.42	39	64	30 243	40	19.52
	INDUSTRY 3425, SAW BLADES AND HANDSAWS								
1992 Census	28 737	70	2 094	11.65	40	66	66 737	43	45.69
1991 ASM	25 756	71	2 036	10.71	47	72	57 615	45	40.13
1990 ASM	25 782	70	1 902	11.79	41	66	62 103	42	46.58
1989 ASM	23 909	72	2 000	10.78	41	65	60 852	39	42.50
1988 ASM	25 038	73	2 017	10.54	38	64	58 203	43	39.30
1987 Census	23 039	73	1 964	10.35	40	66	53 714	43	37.60
1986 ASM	23 183	75	2 014	9.80	40	67	53 527	43	35.30
1985 ASM	21 529	74	2 063	8.81	39	65	49 129	44	32.12
1984 ASM	20 591	73	1 985	9.05	40	68	42 387	49	29.20
1983 ASM	18 603	72	1 964	8.24	42	70	38 538	48	27.33
1982 Census	18 027	72	1 981	7.92	45	73	34 027	53	23.98
1981 ASM	17 213	73	2 058	7.54	44	71	35 074	49	23.22
1980 ASM	15 794	75	2 096	6.54	44	71	35 021	45	22.20
1979 ASM	14 363	75	2 074	6.16	41	67	32 549	44	21.01
1978 ASM	12 895	77	1 985	5.60	37	63	31 302	41	20.55
1977 Census	12 408	75	2 000	5.50	38	64	30 342	41	20.23
	INDUSTRY 3429, HARDWARE, N.E.C.								
1992 Census	27 362	75	2 016	11.64	45	68	64 468	42	42.90
1991 ASM	26 253	76	1 984	11.28	47	71	57 970	45	38.37
1990 ASM	25 586	77	1 975	11.14	46	70	58 291	44	38.37
1989 ASM	24 054	78	1 970	10.72	46	70	55 442	43	36.04
1988 ASM	24 470	76	1 941	11.34	46	71	52 588	47	35.47
1987 Census	24 043	77	1 954	10.95	44	69	53 764	45	35.62
1986 ASM	23 832	75	1 982	10.90	44	70	52 386	45	35.14
1985 ASM	23 995	77	1 982	11.01	44	70	52 089	46	34.25
1984 ASM	22 491	77	1 976	10.26	42	69	50 228	45	32.95
1983 ASM	20 868	77	1 970	9.59	42	68	47 970	44	31.56
1982 Census	18 988	76	1 877	9.03	41	68	41 449	46	29.10
1981 ASM	17 936	78	1 917	8.49	42	70	38 235	47	25.61
1980 ASM	16 313	77	1 913	7.75	42	70	34 164	48	23.25
1979 ASM	15 215	79	1 926	7.11	43	69	33 763	45	22.16
1978 ASM	14 357	78	1 942	6.73	43	69	31 700	45	20.87
1977 Census	13 700	79	2 013	6.24	43	69	30 571	45	19.34

Note: For qualifications of data, see footnotes on table 1a.

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

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1992												1987	
		All establishments		All employees		Production workers								
	E[1]	Total (no.)	With 20 employees or more (no.)	Number[2] (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees[2] (1,000)	Value added by manufacture (million dollars)
INDUSTRY 3411, METAL CANS														
United States	–	**324**	**240**	**32.3**	**1 261.9**	**27.2**	**58.3**	**1 032.7**	**3 290.1**	**8 797.9**	**12 112.2**	**350.6**	**39.4**	**3 816.0**
Alabama	–	5	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	29.2
Arizona	–	1	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Arkansas	–	2	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
California	–	55	41	5.1	196.0	4.3	9.0	162.4	417.1	1 332.6	1 790.2	44.4	6.6	528.1
Colorado	–	3	3	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Florida	–	12	8	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Georgia	–	10	6	.9	36.1	.7	1.6	27.9	107.0	224.3	326.3	(D)	G	(D)
Illinois	–	22	14	2.5	95.2	2.1	4.4	77.1	167.4	407.2	577.3	8.0	(NA)	(D)
Indiana	–	8	7	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	7.6	F	(D)
Iowa	–	3	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Louisiana	–	1	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Maryland	–	10	8	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Massachusetts	E2	3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Minnesota	–	6	6	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Mississippi	E1	5	4	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Missouri	–	8	8	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Montana	–	2	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Nebraska	–	1	1	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
New Jersey	E1	21	12	1.5	55.9	1.2	2.7	44.8	145.9	313.7	461.0	5.8	2.4	181.3
New York	–	12	8	1.0	42.5	.9	1.9	33.5	123.4	348.3	471.0	(D)	G	(D)
North Carolina	–	6	5	.9	39.4	.8	1.7	30.3	102.7	268.1	367.8	(D)	G	(D)
Ohio	–	19	16	3.4	129.5	2.9	6.0	101.9	384.1	837.2	1 213.9	41.6	3.3	327.3
Oklahoma	–	4	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Oregon	–	3	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Pennsylvania	E1	14	11	1.7	56.7	1.3	3.0	44.2	164.1	332.6	501.2	8.4	2.0	161.1
South Carolina	–	6	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Tennessee	–	5	3	.2	6.1	.2	.5	5.0	27.1	48.9	74.5	(D)	(NA)	(D)
Texas	–	21	17	1.9	70.5	1.6	3.6	57.4	249.1	549.6	799.0	18.2	2.4	268.5
Virginia	–	4	3	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	11.9	1.3	96.1
Washington	–	7	7	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
West Virginia	–	2	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Wisconsin	–	19	18	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Wyoming	–	1	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS														
United States	–	**155**	**91**	**7.2**	**201.0**	**5.5**	**12.0**	**131.7**	**437.9**	**693.6**	**1 133.8**	**22.0**	**8.7**	**397.4**
Alabama	–	6	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	16.2
California	–	17	8	.6	18.2	.5	1.0	13.0	40.1	67.0	106.4	1.2	.8	40.6
Georgia	E1	5	3	.6	13.3	.6	1.2	11.2	28.4	56.8	85.1	(D)	(NA)	(D)
Illinois	–	19	13	1.3	43.7	.8	1.9	24.8	74.1	106.3	180.5	5.2	G	(D)
Louisiana	E1	4	3	.2	5.0	.1	.3	3.7	15.3	39.5	55.0	(D)	E	(D)
Mississippi	–	1	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Jersey	–	8	5	.4	13.3	.3	.7	8.0	33.4	44.7	78.0	1.4	1.0	41.9
New York	–	5	3	.1	3.0	.1	.2	1.9	5.1	7.7	13.0	(D)	(NA)	(D)
North Carolina	–	3	3	.2	4.5	.2	.3	3.0	9.2	17.1	26.4	(D)	(NA)	(NA)
Ohio	E1	20	16	1.0	25.4	.8	1.6	16.6	58.4	90.4	148.9	2.6	1.3	51.0
Pennsylvania	–	11	7	.5	14.8	.4	.8	10.4	43.5	57.9	101.4	1.0	.4	22.9
Texas	–	11	9	1.0	25.2	.8	1.7	15.0	55.6	88.5	145.2	2.5	.7	40.1
INDUSTRY 3421, CUTLERY														
United States	–	**133**	**54**	**11.2**	**292.1**	**8.2**	**15.9**	**194.3**	**1 077.0**	**430.5**	**1 509.9**	**56.2**	**10.5**	**803.1**
Arkansas	–	5	2	.2	3.1	.1	.2	2.2	7.9	4.0	13.8	(D)	(NA)	(NA)
California	–	9	4	.8	21.3	.6	.9	11.3	52.6	23.6	77.3	2.1	F	(D)
Connecticut	–	6	4	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Florida	–	5	3	.3	7.5	.2	.7	4.1	22.3	17.9	39.9	(D)	E	(D)
Georgia	E3	4	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Illinois	–	7	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Iowa	E1	2	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Massachusetts	–	4	4	H	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Michigan	–	3	2	.1	2.5	.1	.2	1.9	5.0	2.6	7.2	(D)	(NA)	(NA)
New Jersey	–	9	5	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	19.7
New York	E1	16	9	1.6	35.8	1.2	2.7	24.3	89.8	67.0	160.4	3.2	G	(D)
Ohio	E1	11	2	.2	6.4	.2	.4	2.6	11.9	5.5	16.8	.7	E	(D)
Oregon	–	5	1	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Pennsylvania	–	8	5	.5	11.0	.3	.7	6.5	25.3	9.3	32.9	.8	.6	31.5
South Carolina	–	3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Virginia	–	2	1	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Wisconsin	–	3	1	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)

See footnotes at end of table.

TIPS UPF [APS_PSB,C_BROOKS] 6/ 20/ 95 10:37:11 EPCV23 TLP:34A.BTI;46 6/ 19/ 95 08:36:06 DATA:NONE UPF:92MFFI_PUBS:34ADAT.UPF PAGE: 4
TSF:34A_92.DAT;2 6/ 19/ 95 08:36:16 UTF:34A_93.DAT;3 6/ 20/ 95 10:34:32 META:TIPS96-10361056.DAT;1 6/ 20/ 95 10:36:50

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

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	E[1]	1992 All establishments Total (no.)	1992 All establishments With 20 employees or more (no.)	1992 All employees Number[2] (1,000)	1992 All employees Payroll (million dollars)	1992 Production workers Number (1,000)	1992 Production workers Hours (millions)	1992 Production workers Wages (million dollars)	1992 Value added by manufacture (million dollars)	1992 Cost of materials (million dollars)	1992 Value of shipments (million dollars)	1992 New capital expenditures (million dollars)	1987 All employees[2] (1,000)	1987 Value added by manufacture (million dollars)
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.														
United States	–	**915**	**340**	**39.7**	**1 058.3**	**29.3**	**59.5**	**653.6**	**2 584.5**	**1 608.0**	**4 208.8**	**123.4**	**41.9**	**2 233.2**
Alabama	–	2	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Arkansas	E1	6	4	.8	19.9	.8	1.6	16.1	33.4	24.4	57.4	(D)	F	(D)
California	E1	122	37	2.4	59.3	1.7	3.4	33.5	130.2	80.9	208.6	4.0	2.3	103.5
Colorado	–	11	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Connecticut	–	30	11	1.3	45.9	.8	1.6	21.9	117.4	61.1	199.0	(D)	1.9	127.3
Florida	E1	21	2	.3	7.1	.2	.4	3.5	17.6	5.5	23.1	.2	(NA)	(D)
Georgia	–	11	7	.5	14.5	.3	.6	5.9	31.6	16.5	49.8	1.3	E	(D)
Illinois	–	64	30	3.9	113.0	2.9	5.9	71.2	247.0	116.4	360.7	13.4	(NA)	(D)
Indiana	–	26	10	1.1	29.0	.8	1.9	18.6	63.4	51.8	120.1	6.1	G	(D)
Iowa	–	10	3	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Kansas	E6	11	6	.5	10.8	.3	.5	5.2	30.4	26.3	56.4	.4	E	(D)
Kentucky	–	13	3	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Maine	–	6	4	.1	3.4	.1	.2	2.2	6.1	3.7	9.7	.1	(NA)	(NA)
Massachusetts	–	44	19	1.6	44.9	1.2	2.5	29.0	95.0	46.7	143.9	6.2	2.1	77.7
Michigan	–	57	19	1.7	37.9	1.1	2.2	21.2	116.0	147.1	262.7	4.0	G	(D)
Minnesota	–	33	15	2.0	60.8	1.2	2.5	28.9	120.5	122.0	241.6	4.9	2.3	90.8
Missouri	–	28	9	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.3	F	(D)
Nebraska	–	6	4	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
New Hampshire	E4	7	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New Jersey	–	33	13	1.8	36.0	1.4	2.7	19.9	79.5	57.0	136.6	2.7	1.7	68.0
New York	E2	49	16	1.6	37.9	1.2	2.6	22.4	95.7	82.9	180.3	3.7	1.7	84.3
North Carolina	–	24	13	1.8	50.1	1.5	3.4	36.6	118.3	111.1	229.2	7.2	G	(D)
North Dakota	–	3	3	.1	2.9	.1	.2	1.5	8.3	4.1	12.1	(D)	(NA)	(NA)
Ohio	–	77	35	4.4	129.2	3.1	6.1	76.9	358.2	205.1	565.0	14.2	4.7	292.1
Oregon	E1	8	2	.2	4.4	.1	.3	3.2	20.7	7.3	27.6	(D)	(NA)	(D)
Pennsylvania	E1	54	21	1.8	44.1	1.3	2.4	26.6	94.7	44.3	135.3	3.1	2.1	91.8
South Carolina	–	10	6	1.9	44.6	1.5	3.0	30.8	126.2	57.3	183.4	5.5	2.3	125.4
Tennessee	E4	14	7	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Texas	–	26	7	1.0	23.7	.8	1.9	16.3	60.4	48.9	109.4	1.5	F	(D)
Vermont	–	3	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Virginia	–	10	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	(NA)	(NA)
Washington	E2	18	3	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	(NA)	(D)
West Virginia	–	4	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Wisconsin	–	32	13	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
INDUSTRY 3425, SAW BLADES AND HANDSAWS														
United States	–	**139**	**57**	**7.6**	**218.4**	**5.3**	**11.1**	**129.3**	**507.2**	**341.1**	**847.2**	**34.2**	**7.7**	**413.6**
California	E1	19	6	.5	13.1	.3	.5	6.1	25.6	25.4	51.3	1.4	E	(D)
Connecticut	–	2	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Georgia	–	3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Illinois	E1	7	2	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Kentucky	–	3	3	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Massachusetts	–	8	4	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Michigan	E7	8	1	.2	4.0	.1	.2	2.5	9.4	6.0	15.6	(D)	(NA)	(NA)
Mississippi	–	4	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Missouri	–	3	2	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
New York	–	7	3	.2	5.6	.2	.4	3.7	14.6	10.9	25.4	.4	E	(D)
North Carolina	E1	6	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Ohio	–	14	5	.6	15.3	.4	.8	8.6	43.0	34.3	75.8	2.4	E	(D)
Oregon	–	7	5	G	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	G	(D)
Pennsylvania	–	8	4	.3	8.0	.2	.5	5.0	25.4	11.5	37.0	.7	.3	24.5
South Carolina	–	3	3	.4	10.4	.3	.6	6.1	17.9	25.0	43.6	(D)	E	(D)
Virginia	–	2	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	E	(D)
Washington	–	2	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
INDUSTRY 3429, HARDWARE, N.E.C.														
United States	–	**1 278**	**485**	**75.4**	**2 063.1**	**56.2**	**113.3**	**1 318.8**	**4 860.9**	**3 951.1**	**8 842.8**	**253.3**	**85.2**	**4 580.7**
Alabama	–	16	11	1.7	34.7	1.2	2.5	23.2	89.6	83.4	169.1	(D)	G	(D)
Arizona	–	10	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(D)
Arkansas	–	8	4	1.0	19.3	.7	1.2	11.6	50.1	32.5	83.0	1.5	.8	50.6
California	E1	198	71	8.2	234.6	5.9	12.1	139.5	556.6	350.3	897.8	20.7	10.5	554.3
Colorado	–	7	1	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Connecticut	E2	49	25	4.1	120.1	2.7	5.6	70.4	259.5	150.3	415.9	6.7	5.7	298.8
Florida	E1	53	12	1.4	29.2	1.1	2.1	17.6	56.3	44.6	100.2	2.5	2.3	81.8
Georgia	E1	16	5	.6	12.0	.4	.8	6.5	28.0	21.6	49.6	.3	F	(D)
Illinois	E1	100	44	8.3	225.8	5.9	11.4	112.5	534.2	382.7	920.0	44.9	(NA)	(D)
Indiana	E1	47	21	3.6	93.1	2.7	5.5	60.6	240.3	196.6	440.9	22.1	3.0	198.5
Iowa	–	14	7	.6	12.4	.5	1.0	8.3	29.7	26.4	54.8	1.5	.4	18.0
Kansas	–	7	1	C	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
Kentucky	–	15	10	1.6	38.3	1.3	2.3	25.7	107.0	93.6	199.9	3.5	G	(D)
Maryland	E1	9	4	.2	4.6	.2	.4	3.2	17.6	19.6	38.0	.6	.2	8.3
Massachusetts	–	34	13	1.3	30.7	.9	1.8	16.6	62.1	43.2	107.5	(D)	G	(D)
Michigan	–	107	49	7.5	241.2	5.6	11.1	156.8	511.1	691.9	1 216.9	28.9	10.1	601.1
Minnesota	–	29	5	1.0	25.2	.6	1.2	13.1	61.1	45.6	108.4	(D)	F	(D)
Mississippi	–	9	5	.5	11.7	.4	.8	8.9	38.7	46.8	85.1	.8	F	(D)
Missouri	E4	25	8	1.3	31.7	.9	1.9	19.1	70.6	55.1	125.7	(D)	.9	39.4
New Hampshire	E1	6	1	.2	5.1	.1	.2	3.7	9.2	4.2	13.0	(D)	(NA)	(D)

See footnotes at end of table.

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TSF:34A_92.DAT;2 6/19/95 08:36:16 UTF:34A_93.DAT;3 6/20/95 10:34:32 META:TIPS96-10361056.DAT;1 6/20/95 10:36:50

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

[Excludes data for auxiliaries. States with 100 employees or more are shown. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry and geographic area	1992												1987	
		All establishments		All employees		Production workers								
	E[1]	Total (no.)	With 20 employees or more (no.)	Number[2] (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)	Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	All employees[2] (1,000)	Value added by manufacture (million dollars)
INDUSTRY 3429, HARDWARE, N.E.C.—Con.														
New Jersey	–	31	10	2.6	95.1	2.1	4.5	75.7	173.4	202.6	377.2	1.3	4.0	234.8
New York	E1	75	29	3.7	112.1	2.8	5.0	77.5	235.9	168.1	409.9	5.4	5.1	263.6
North Carolina	–	33	19	3.4	78.0	2.8	5.9	53.6	187.5	175.6	364.3	7.9	3.2	159.6
Ohio	–	63	31	4.8	154.0	3.4	6.9	102.4	314.2	262.1	575.4	13.8	7.1	434.6
Oklahoma	–	7	2	F	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
Oregon	–	17	4	.5	11.8	.4	.8	6.4	32.5	23.9	54.9	1.2	.5	23.7
Pennsylvania	–	46	18	2.8	72.2	2.1	4.2	44.8	205.9	103.6	309.5	6.0	3.1	148.7
South Carolina	–	9	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	F	(D)
South Dakota	–	5	3	.3	5.0	.2	.4	3.5	9.9	12.6	22.2	.3	(NA)	(D)
Tennessee	–	28	17	4.4	102.1	3.7	8.1	76.3	252.7	330.7	587.2	15.3	3.8	188.3
Texas	E2	73	14	1.3	32.6	1.0	2.1	21.4	58.5	85.6	143.5	6.2	F	(D)
Virginia	–	10	4	.8	21.0	.5	1.0	12.3	62.6	13.3	76.4	(D)	F	(D)
Washington	–	25	6	.6	20.5	.5	1.1	15.1	39.3	12.0	56.2	(D)	.9	29.0
West Virginia	E6	4	4	.3	6.3	.2	.5	3.9	14.0	9.4	23.6	(D)	E	(D)
Wisconsin	–	38	17	3.7	114.4	2.9	5.8	81.7	267.5	135.4	403.1	16.0	3.3	177.7

Note: For qualifications of data, see footnotes on table 1a.

[1]Payroll and sales data for some 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 the items shown 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 for those States where estimated value of shipments data based on administrative-record data account for 10 percent or more of figure 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.

[2]Statistics for some producing States have been withheld to avoid disclosing data for individual companies. However, for States with 100 employees 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; J—10,000 to 24,999 employees; K—25,000 to 49,999 employees; L—50,000 to 99,999 employees; M—100,000 employees or more.

Table 3a. **Summary Statistics for the Industry: 1992**

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

Item	Metal cans (SIC 3411)	Metal barrels, drums, and pails (SIC 3412)	Cutlery (SIC 3421)	Hand and edge tools, n.e.c. (SIC 3423)	Saw blades and handsaws (SIC 3425)	Hardware, n.e.c. (SIC 3429)
Companies, number	132	116	127	828	128	1 172
All establishments, number	324	155	133	915	139	1 278
With 1 to 19 employees, number	84	64	79	575	82	793
With 20 to 99 employees, number	97	74	28	252	35	318
With 100 employees or more, number	143	17	26	88	22	167
Employment and labor costs:						
Employees, 1,000	32.3	7.2	11.2	39.7	7.6	75.4
Compensation, total, mil dol	1 688.5	256.4	383.7	1 319.8	275.1	2 714.9
Annual payroll, mil dol	1 261.9	201.0	292.1	1 058.3	218.4	2 063.1
Fringe benefits, mil dol	426.6	55.4	91.6	261.6	56.7	651.8
Social Security and other legally required payments, mil dol	149.5	22.2	32.3	107.7	22.7	234.8
Employer voluntary payments, mil dol	277.1	33.2	59.4	153.9	34.0	417.0
Production workers:						
Average for year, 1,000	27.2	5.5	8.2	29.3	5.3	56.2
March, 1,000	27.6	5.6	8.3	29.3	5.3	56.3
May, 1,000	27.7	5.6	8.1	29.3	5.3	56.8
August, 1,000	27.4	5.6	8.2	29.4	5.4	55.8
November, 1,000	26.0	5.3	8.0	29.2	5.3	56.2
Hours, millions	58.3	12.0	15.9	59.5	11.1	113.3
Wages, mil dol	1 032.7	131.7	194.3	653.6	129.3	1 318.8
Cost of materials[1], mil dol	8 797.9	693.6	430.5	1 608.0	341.1	3 951.1
Materials, parts, containers, etc., consumed[2], mil dol	8 390.3	654.6	327.2	1 180.5	259.5	3 398.8
Resales, mil dol	176.4	8.0	63.3	322.0	59.3	268.9
Fuels, mil dol	58.3	12.4	5.4	16.3	2.0	29.3
Purchased electricity, mil dol	148.0	14.9	13.9	47.1	16.0	85.1
Contract work, mil dol	24.8	3.7	20.6	42.1	4.2	169.0
Quantity of electric energy used for heat and power:						
Purchased, mil kWh	2 721.3	223.9	210.5	791.8	295.2	1 331.8
Generated less sold, mil kWh	(D)	–	48.3	10.2	(D)	(S)
Total value of shipments, mil dol	12 112.2	1 133.8	1 509.9	4 208.8	847.2	8 842.8
Value added, mil dol	3 290.1	437.9	1 077.0	2 584.5	507.2	4 860.9
Inventories by stage of fabrication:						
Beginning of 1992, mil dol	1 443.7	131.0	247.8	732.2	148.3	1 273.8
Finished goods, mil dol	786.4	14.5	110.9	339.5	54.8	403.1
Work in process, mil dol	259.0	18.2	56.4	223.1	39.7	478.4
Materials and supplies, mil dol	398.3	98.2	80.5	169.6	53.8	392.3
End of 1992, mil dol	1 512.3	132.4	248.5	720.8	151.1	1 237.4
Finished goods, mil dol	807.8	14.3	100.6	328.7	57.9	391.0
Work in process, mil dol	213.5	16.3	64.2	217.7	37.8	459.7
Materials and supplies, mil dol	491.0	101.9	83.7	174.4	55.4	386.8

See footnotes at end of table.

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Table 3a. **Summary Statistics for the Industry: 1992**—Con.

Note: For qualifications of data, see footnotes on table 1a.

[1]Data on purchased services for the repair of buildings and machinery and for communication services are not included in cost of materials, etc., but are shown in table 3c.
[2]Data on materials consumed by type are shown in table 7. Data on amount purchased or transferred from foreign sources are shown in table 3c.

Table 3b. **Gross Book Value of Depreciable Assets, Capital Expenditures, Retirements, Depreciation, and Rental Payments: 1992**

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

Item	Metal cans (SIC 3411)	Metal barrels, drums, and pails (SIC 3412)	Cutlery (SIC 3421)	Hand and edge tools, n.e.c. (SIC 3423)	Saw blades and handsaws (SIC 3425)	Hardware, n.e.c. (SIC 3429)
Gross book value of depreciable assets:						
Total:						
Beginning of year	4 331.4	426.3	673.1	1 457.9	365.8	3 141.2
New capital expenditures[1]	350.6	22.0	56.2	123.4	34.2	253.3
Used capital expenditures	19.7	5.2	1.9	11.5	1.9	26.7
Retirements	242.5	22.1	42.9	31.5	13.4	66.4
End of year	4 459.2	431.4	688.3	1 561.3	388.6	3 354.8
Buildings and other structures:						
Beginning of year	644.1	70.8	139.8	280.8	77.0	677.1
New capital expenditures	13.1	1.6	7.5	13.7	1.8	41.1
Used capital expenditures	2.1	.7	(D)	2.9	(D)	7.3
Retirements	9.4	.1	(D)	6.8	(D)	4.0
End of year	649.9	72.9	144.5	290.7	79.1	721.5
Machinery and equipment:						
Beginning of year	3 687.3	355.5	533.2	1 177.1	288.8	2 464.1
New capital expenditures[1]	337.4	20.4	48.7	109.7	32.4	212.2
Used capital expenditures	17.6	4.6	(D)	8.6	(D)	19.4
Retirements	233.0	22.0	(D)	24.7	(D)	62.5
End of year	3 809.3	358.5	543.7	1 270.6	309.5	2 633.2
Depreciation charges during 1992:						
Total	289.4	30.7	18.9	109.4	26.3	211.3
Buildings and other structures	21.9	3.1	2.5	12.3	3.5	26.8
Machinery and equipment	267.5	27.7	16.4	97.0	22.8	184.5
Rental payments:						
Total	44.1	11.0	7.9	42.2	5.2	71.1
Buildings and other structures	31.1	6.5	5.2	23.0	3.0	41.9
Machinery and equipment	13.0	4.5	2.7	19.3	2.2	29.2

[1]Data on new machinery and equipment expenditures by type are provided in table 3c.

Table 3c. **Supplemental Industry Statistics Based on Sample Estimates: 1992**

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

Item	Metal cans (SIC 3411)		Metal barrels, drums, and pails (SIC 3412)		Cutlery (SIC 3421)	
	Amount (million dollars)	Relative standard error of estimate[1] (percent)	Amount (million dollars)	Relative standard error of estimate[1] (percent)	Amount (million dollars)	Relative standard error of estimate[1] (percent)
Purchased services:						
Cost of purchased services for the repair of–						
Buildings and other structures	20.2	(X)	2.5	(X)	2.7	(X)
Response coverage ratio (percent)[2]	92.3	(X)	72.9	(X)	74.8	(X)
Machinery	141.7	(X)	9.0	(X)	25.2	(X)
Response coverage ratio (percent)[2]	92.9	(X)	80.2	(X)	78.3	(X)
Other purchased services:						
Communications	7.4	(X)	2.1	(X)	2.0	(X)
Response coverage ratio (percent)[2]	90.8	(X)	80.2	(X)	79.6	(X)
Legal	3.0	(X)	3.1	(X)	1.3	(X)
Response coverage ratio (percent)[2]	84.7	(X)	71.9	(X)	78.3	(X)
Accounting and bookkeeping	.7	(X)	.8	(X)	.9	(X)
Response coverage ratio (percent)[2]	84.3	(X)	80.0	(X)	75.4	(X)
Advertising	1.1	(X)	.9	(X)	26.7	(X)
Response coverage ratio (percent)[2]	85.0	(X)	80.0	(X)	75.4	(X)
Software and other data processing	3.8	(X)	.3	(X)	1.0	(X)
Response coverage ratio (percent)[2]	90.8	(X)	72.1	(X)	69.6	(X)
Refuse removal, including hazardous waste	14.4	(X)	2.0	(X)	1.1	(X)
Response coverage ratio (percent)[2]	93.1	(X)	72.1	(X)	79.6	(X)
New machinery and equipment expenditures	337.4	(X)	20.4	(X)	48.7	(X)
Automobiles, trucks, etc., for highway use	.6	37	3.4	24	.2	50
Computers and peripheral data processing equipment	20.0	43	.7	48	1.6	20
All other	316.8	4	16.3	4	47.0	1
Adjustment ratio[3]	1.0	(X)	.8	(X)	1.1	(X)
Cost of materials, components, parts, etc., used	8 390.3	(X)	654.6	(X)	327.2	(X)
Materials purchased or transferred from foreign sources[4]	87.8	8	48.2	33	27.0	15
Materials purchased or transferred from domestic sources	8 302.6	1	606.5	4	300.2	2
Adjustment ratio[3]	1.3	(X)	1.3	(X)	1.3	(X)

See footnotes at end of table.

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Table 3c. **Supplemental Industry Statistics Based on Sample Estimates: 1992**—Con.

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

Item	Hand and edge tools, n.e.c. (SIC 3423)		Saw blades and handsaws (SIC 3425)		Hardware, n.e.c. (SIC 3429)	
	Amount (million dollars)	Relative standard error of estimate[1] (percent)	Amount (million dollars)	Relative standard error of estimate[1] (percent)	Amount (million dollars)	Relative standard error of estimate[1] (percent)
Purchased services:						
Cost of purchased services for the repair of–						
Buildings and other structures	5.5	(X)	1.3	(X)	13.8	(X)
Response coverage ratio (percent)[2]	81.4	(X)	94.9	(X)	86.8	(X)
Machinery	29.1	(X)	8.8	(X)	58.1	(X)
Response coverage ratio (percent)[2]	82.0	(X)	98.0	(X)	87.3	(X)
Other purchased services:						
Communications	7.8	(X)	6.2	(X)	16.1	(X)
Response coverage ratio (percent)[2]	74.1	(X)	92.8	(X)	84.4	(X)
Legal	5.1	(X)	3.6	(X)	13.3	(X)
Response coverage ratio (percent)[2]	80.8	(X)	99.2	(X)	86.6	(X)
Accounting and bookkeeping	6.6	(X)	2.2	(X)	7.0	(X)
Response coverage ratio (percent)[2]	81.4	(X)	99.2	(X)	84.2	(X)
Advertising	33.1	(X)	13.3	(X)	55.7	(X)
Response coverage ratio (percent)[2]	82.8	(X)	97.0	(X)	83.3	(X)
Software and other data processing	5.3	(X)	.7	(X)	9.8	(X)
Response coverage ratio (percent)[2]	79.4	(X)	97.6	(X)	86.1	(X)
Refuse removal, including hazardous waste	5.2	(X)	.8	(X)	14.8	(X)
Response coverage ratio (percent)[2]	78.0	(X)	98.0	(X)	86.6	(X)
New machinery and equipment expenditures	109.7	(X)	32.4	(X)	212.2	(X)
Automobiles, trucks, etc., for highway use	2.8	32	1.3	78	3.7	25
Computers and peripheral data processing equipment	6.0	14	1.8	20	14.4	5
All other	100.8	2	29.4	5	194.1	1
Adjustment ratio[3]	1.4	(X)	.9	(X)	1.2	(X)
Cost of materials, components, parts, etc., used	1 180.5	(X)	259.5	(X)	3 398.8	(X)
Materials purchased or transferred from foreign sources[4]	69.5	16	88.7	54	261.1	7
Materials purchased or transferred from domestic sources	1 111.0	1	170.8	29	3 137.6	1
Adjustment ratio[3]	1.4	(X)	1.4	(X)	1.4	(X)

Note: The amounts shown for purchased services reflect only those services that establishments purchase from other companies. Amounts purchased by separate central administrative offices and services provided to establishments by central administrative offices are excluded.

[1]For description of relative standard error of estimate, see Qualifications of the Data in appendixes.
[2]A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight, see appendix B) for those ASM establishments that reported to the weighted total employment for all ASM establishments classified in the industry.
[3]Detail has been adjusted upwards to account for nonresponse. Inverse of the ratio shown represents a measure of the response of the inquiry. (See appendixes for further explanation.)
[4]Data may understate the true cost of imported parts, components, and supplies since some respondents do not know the origin of these materials. Includes cases where materials were purchased from secondary suppliers or where they were transferred from company-operated warehouses or other distribution points. Direct purchases from foreign suppliers and importers by domestic manufacturing establishments are believed to be reported accurately.

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]	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 3411, METAL CANS												
Total	**–**	**324**	**32.3**	**1 261.9**	**27.2**	**58.3**	**1 032.7**	**3 290.1**	**8 797.9**	**12 112.2**	**350.6**	**1 512.3**
Establishments with an average of–												
1 to 4 employees	E7	42	.1	2.1	.1	.1	1.8	6.5	13.5	20.0	.5	2.1
5 to 9 employees	E1	17	.1	3.9	.1	.2	3.2	14.1	27.9	42.2	.5	3.6
10 to 19 employees	E3	25	.3	9.1	.3	.6	7.1	40.0	47.6	87.6	1.1	8.4
20 to 49 employees	–	47	1.6	48.8	1.3	2.7	37.9	147.6	333.8	477.5	6.7	63.9
50 to 99 employees	–	50	3.7	148.9	3.1	6.6	123.1	450.2	1 110.3	1 578.3	31.8	186.5
100 to 249 employees	–	114	17.3	700.4	14.4	31.6	575.2	1 825.7	5 366.1	7 196.4	202.2	899.7
250 to 499 employees	–	27	9.3	348.7	7.9	16.5	284.4	806.1	1 898.8	2 710.2	107.9	348.2
500 to 999 employees	–	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records[2]	E9	35	.1	1.7	.1	.1	1.4	4.6	10.2	14.8	.3	1.6
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS												
Total	**–**	**155**	**7.2**	**201.0**	**5.5**	**12.0**	**131.7**	**437.9**	**693.6**	**1 133.8**	**22.0**	**132.4**
Establishments with an average of–												
1 to 4 employees	E2	32	.1	1.7	.1	.1	1.1	3.1	5.5	8.6	.1	1.0
5 to 9 employees	E4	18	.1	2.6	.1	.2	1.6	5.1	7.9	13.0	.2	1.5
10 to 19 employees	E2	14	.2	4.7	.1	.3	2.9	8.3	20.3	28.7	.2	2.8
20 to 49 employees	E2	38	1.3	32.9	1.0	2.1	20.6	75.4	122.6	199.5	2.9	26.5
50 to 99 employees	–	36	2.6	72.5	2.0	4.4	50.5	166.6	281.6	449.0	7.1	46.5
100 to 249 employees	–	14	1.9	57.8	1.4	3.1	34.8	127.8	180.9	308.7	11.4	36.0
250 to 499 employees	–	3	1.1	28.9	.9	1.9	20.2	51.6	74.8	126.2	(D)	18.1
Covered by administrative records[2]	E9	43	.2	3.7	.1	.3	2.3	6.5	10.9	17.5	.2	2.2

See footnotes at end of table.

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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]	All establishments (no.)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)					
INDUSTRY 3421, CUTLERY												
Total	**–**	**133**	**11.2**	**292.1**	**8.2**	**15.9**	**194.3**	**1 077.0**	**430.5**	**1 509.9**	**56.2**	**248.5**
Establishments with an average of—												
1 to 4 employees	E9	43	.1	1.7	.1	.1	1.2	5.2	2.2	7.5	.2	1.6
5 to 9 employees	E6	19	.1	2.9	.1	.2	2.0	9.2	4.1	13.4	.3	2.5
10 to 19 employees	E1	17	.2	4.8	.2	.3	3.1	12.4	5.3	17.7	.3	3.0
20 to 49 employees	–	7	.2	4.8	.1	.3	2.4	13.3	10.2	22.8	.6	4.1
50 to 99 employees	–	21	1.5	32.7	1.1	2.1	19.4	80.8	46.7	123.4	1.8	33.9
100 to 249 employees	E1	17	2.9	66.4	2.1	4.2	36.5	191.3	105.8	302.7	6.9	64.7
250 to 499 employees	–	5	1.7	43.8	1.4	2.8	30.2	113.8	65.5	179.7	4.6	37.2
500 to 999 employees	–	3	4.4	135.1	3.1	5.9	99.5	650.9	190.6	842.8	41.5	101.4
1,000 to 2,499 employees	–	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records[2]	E9	58	.2	4.0	.1	.3	2.8	11.9	5.1	17.1	.5	3.7
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.												
Total	**–**	**915**	**39.7**	**1 058.3**	**29.3**	**59.5**	**653.6**	**2 584.5**	**1 608.0**	**4 208.8**	**123.4**	**720.8**
Establishments with an average of—												
1 to 4 employees	E1	241	.4	9.7	.3	.6	6.1	29.5	14.6	44.0	1.1	6.6
5 to 9 employees	E5	146	1.0	22.9	.8	1.6	15.3	55.0	33.1	87.9	2.1	15.6
10 to 19 employees	E2	188	2.6	66.5	1.9	3.7	39.6	132.3	67.8	200.0	4.4	34.6
20 to 49 employees	–	181	5.8	148.5	4.2	8.5	86.0	298.0	179.0	471.8	10.1	87.6
50 to 99 employees	–	71	5.1	127.1	3.7	7.5	72.8	300.0	194.9	495.6	13.7	90.1
100 to 249 employees	E1	51	7.5	209.3	5.3	10.7	123.3	542.5	326.8	872.1	28.9	155.2
250 to 499 employees	–	23	8.0	209.7	6.2	12.7	146.4	529.8	331.4	874.2	23.3	150.1
500 to 999 employees	–	14	9.2	264.5	6.9	14.1	164.0	697.5	460.4	1 163.1	39.8	181.0
Covered by administrative records[2]	E9	345	1.3	28.2	1.0	2.1	18.1	71.6	40.4	112.0	2.8	18.0
INDUSTRY 3425, SAW BLADES AND HANDSAWS												
Total	**–**	**139**	**7.6**	**218.4**	**5.3**	**11.1**	**129.3**	**507.2**	**341.1**	**847.2**	**34.2**	**151.1**
Establishments with an average of—												
1 to 4 employees	E9	40	.1	1.6	(Z)	.1	1.0	4.0	2.2	6.3	.2	1.1
5 to 9 employees	E8	23	.1	3.4	.1	.2	2.1	6.9	3.8	10.7	.3	2.1
10 to 19 employees	–	19	.3	7.1	.2	.4	4.3	14.7	11.3	26.2	.3	3.9
20 to 49 employees	E1	22	.7	19.3	.5	1.0	11.1	44.4	31.3	74.2	1.3	11.9
50 to 99 employees	–	13	.9	22.6	.6	1.3	14.1	52.4	42.1	94.2	2.1	24.9
100 to 249 employees	–	15	2.5	66.9	1.8	3.8	41.9	166.7	143.6	309.4	8.2	58.8
250 to 499 employees	–	5	3.0	97.5	2.1	4.3	54.8	218.1	106.7	326.2	21.8	48.4
500 to 999 employees	–	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Covered by administrative records[2]	E9	61	.2	4.8	.2	.3	3.2	11.0	6.1	17.1	.4	3.1
INDUSTRY 3429, HARDWARE, N.E.C.												
Total	**–**	**1 278**	**75.4**	**2 063.1**	**56.2**	**113.3**	**1 318.8**	**4 860.9**	**3 951.1**	**8 842.8**	**253.3**	**1 237.4**
Establishments with an average of—												
1 to 4 employees	E8	396	.6	16.6	.5	1.0	11.0	36.7	31.7	68.8	1.4	11.5
5 to 9 employees	E6	212	1.5	35.2	1.1	2.1	22.1	74.0	60.7	136.1	3.1	20.2
10 to 19 employees	E3	185	2.5	57.2	1.8	3.7	35.7	116.0	95.0	211.5	4.4	35.0
20 to 49 employees	–	203	6.6	164.4	4.7	9.4	92.7	411.0	305.9	717.5	14.5	111.1
50 to 99 employees	–	115	8.3	204.4	5.9	12.2	117.3	479.3	434.9	914.6	17.8	152.9
100 to 249 employees	–	97	15.0	390.1	10.7	22.5	230.7	988.8	871.2	1 861.8	41.8	255.5
250 to 499 employees	E1	41	14.5	386.2	11.1	22.8	249.1	959.8	679.4	1 643.2	66.6	245.1
500 to 999 employees	–	22	15.5	417.3	11.6	23.2	268.8	968.6	649.4	1 630.4	71.5	262.9
1,000 to 2,499 employees	–	7	10.8	391.5	8.8	16.4	291.5	826.6	823.0	1 659.0	32.2	143.3
Covered by administrative records[2]	E9	559	2.2	48.1	1.6	3.3	31.6	97.0	78.5	175.5	3.9	27.4

Note: For qualifications of data, see footnotes on table 1a. Data shown as (D) are included in underscored figures above.

[1]Payroll and sales data for some small single-establishment manufacturing 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 the items shown 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 for those employment-size classes 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.

[2]Report forms were not mailed to small single-establishment companies with up to 20 employees (cutoff varied by industry). Payroll and sales data for 1992 were obtained from administrative records supplied by other agencies of the Federal Government. Those data were then used in conjunction with industry averages to estimate the items shown. Data are also included in respective employment-size classes shown.

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Table 5a. Industry Statistics by Industry and Primary Product Class Specialization: 1992

[Table presents selected statistics for establishments according to their degree of specialization in products primary to their industry. Measures of plant specialization shown are (1) industry specialization: ratio of primary product shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment; and (2) product class specialization: ratio of largest primary product class shipments to total product shipments (primary plus secondary, excluding miscellaneous receipts) for the establishment. See appendix for method of computing ratios. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry or product class code	Industry or primary product class	All establishments (number)	All employees		Production workers			Value added by manufacture (million dollars)	Cost of materials (million dollars)	Value of shipments (million dollars)	New capital expenditures (million dollars)
			Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)				
3411	**Metal cans:**										
	All establishments in industry	324	32.3	1 261.9	27.2	58.3	1 032.7	3 290.1	8 797.9	12 112.2	350.6
	Establishments with this product class primary:										
34111	Steel cans and tinware products	155	16.4	576.7	13.9	29.1	466.0	1 432.0	3 431.4	4 922.4	106.0
34112	Aluminum cans	99	15.2	667.8	12.7	28.0	552.4	1 810.7	5 265.7	7 041.8	241.5
3412	**Metal barrels, drums, and pails:**										
	All establishments in industry	155	7.2	201.0	5.5	12.0	131.7	437.9	693.6	1 133.8	22.0
	Establishments with this product class primary:										
34121	Steel pails	13	1.5	43.4	1.2	2.6	29.7	83.9	141.7	225.9	7.3
34122	Steel shipping barrels and drums (more than 12 gallon capacity)	72	5.0	139.0	3.8	8.2	90.2	321.6	502.8	826.2	13.7
34123	All other metal barrels	6	.2	4.8	.2	.3	3.3	8.0	9.3	17.5	(D)
3421	**Cutlery:**										
	All establishments in industry	133	11.2	292.1	8.2	15.9	194.3	1 077.0	430.5	1 509.9	56.2
	Establishments with this product class primary:										
34211	Cutlery, scissors, shears, trimmers, and snips	59	6.4	144.6	4.9	9.4	92.1	423.4	249.6	673.2	15.2
34212	Razor blades and razors, except electric	7	4.1	131.6	2.7	5.6	93.5	615.1	162.4	780.9	40.0
3423	**Hand and edge tools, n.e.c.:**										
	All establishments in industry	915	39.7	1 058.3	29.3	59.5	653.6	2 584.5	1 608.0	4 208.8	123.4
	Establishments with this product class primary:										
34231	Mechanics' hand service tools	134	17.2	451.5	13.0	26.3	294.0	1 033.6	748.1	1 782.4	51.4
34234	Edge tools, hand-operated	45	3.3	88.8	2.2	4.6	46.3	261.6	183.3	450.1	12.7
34235	Dies and interchangeable cutting tools, for machines and power-driven handtools	210	7.5	213.2	5.3	11.0	129.1	426.3	199.1	627.7	24.3
34236	Other handtools, n.e.c.	90	8.5	229.9	6.3	12.7	139.2	678.4	381.0	1 067.9	28.3
3425	**Saw blades and handsaws:**										
	All establishments in industry	139	7.6	218.4	5.3	11.1	129.3	507.2	341.1	847.2	34.2
3429	**Hardware, n.e.c.:**										
	All establishments in industry	1 278	75.4	2 063.1	56.2	113.3	1 318.8	4 860.9	3 951.1	8 842.8	253.3
	Establishments with this product class primary:										
34292	Furniture hardware (excluding cabinet hardware)	56	7.6	180.7	6.0	11.4	121.5	383.6	320.3	703.8	16.0
34293	Vacuum and insulated bottles, jugs, and chests	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
34294	Builders' hardware	220	32.1	870.6	23.2	45.6	518.5	2 247.4	1 430.8	3 676.4	119.0
34296	Motor vehicle hardware	72	18.7	572.9	14.9	31.2	426.2	1 212.4	1 446.2	2 683.9	54.4
34297	Other transportation equipment hardware (except motor vehicle hardware)	91	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
34298	Other hardware, n.e.c.	114	6.0	167.9	4.1	8.6	88.6	444.8	337.1	782.5	23.9

Note: For qualifications of data, see footnotes on table 1a.

Table 5b. Industry–Product Analysis—Value of Industry and Primary Product Shipments; Specialization and Coverage Ratios: 1992 and Earlier Census Years

[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 merchandising or contract work (total miscellaneous receipts). Subtotals for total value of shipments show this product pattern for an industry. Primary products specialization ratio is the primary products value of shipments divided by the sum of primary products value of shipments plus secondary products value of shipments. The extent of which an industry's primary products are shipped by establishments classified both in and out of an industry is the coverage ratio and is calculated by dividing the primary products value of shipments by the value of primary products shipments made in all industries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	1992	1987	1982
INDUSTRY 3411, METAL CANS			
Total value of shipments	12 112.2	11 013.6	11 132.8
Primary products value of shipments	11 406.9	10 478.6	10 467.2
Secondary products value of shipments	112.1	74.5	262.1
Total miscellaneous receipts	593.1	460.5	403.5
Value of resales	182.9	193.0	167.3
Contract receipts	(D)	5.5	10.3
Other miscellaneous receipts	(D)	262.0	225.9
Primary products specialization ratio	99	99	98
Value of primary products shipments made in all industries	11 665.0	10 652.5	10 551.9
Value of primary products shipments made in this industry	11 406.9	10 478.6	10 467.2
Value of primary products shipments made in other industries	258.1	173.9	84.7
Coverage ratio	98	98	99

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Table 5b. Industry–Product Analysis—Value of Industry and Primary Product Shipments; Specialization and Coverage Ratios: 1992 and Earlier Census Years—Con.

[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 merchandising or contract work (total miscellaneous receipts). Subtotals for total value of shipments show this product pattern for an industry. Primary products specialization ratio is the primary products value of shipments divided by the sum of primary products value of shipments plus secondary products value of shipments. The extent of which an industry's primary products are shipped by establishments classified both in and out of an industry is the coverage ratio and is calculated by dividing the primary products value of shipments by the value of primary products shipments made in all industries. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	1992	1987	1982
INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS			
Total value of shipments	1 133.8	1 100.0	1 038.7
Primary products value of shipments	1 001.8	929.7	880.2
Secondary products value of shipments	85.5	83.2	71.1
Total miscellaneous receipts	46.4	87.0	87.3
Value of resales	21.7	4.6	3.0
Contract receipts	7.5	8.8	5.0
Other miscellaneous receipts	17.2	73.7	79.3
Primary products specialization ratio	92	92	93
Value of primary products shipments made in all industries	1 116.2	1 003.7	945.8
Value of primary products shipments made in this industry	1 001.8	929.7	880.2
Value of primary products shipments made in other industries	114.4	74.0	65.6
Coverage ratio	90	93	93
INDUSTRY 3421, CUTLERY			
Total value of shipments	1 509.9	1 054.0	938.0
Primary products value of shipments	1 331.7	985.2	861.3
Secondary products value of shipments	76.9	39.3	36.5
Total miscellaneous receipts	101.3	29.5	40.2
Value of resales	100.2	27.7	34.3
Contract receipts	–	.8	(D)
Other miscellaneous receipts	1.1	1.1	(D)
Primary products specialization ratio	95	96	96
Value of primary products shipments made in all industries	1 473.8	1 119.3	953.8
Value of primary products shipments made in this industry	1 331.7	985.2	861.3
Value of primary products shipments made in other industries	142.1	134.1	92.5
Coverage ratio	90	88	90
INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.			
Total value of shipments	4 208.8	3 605.6	2 915.5
Primary products value of shipments	3 342.2	2 909.0	2 379.2
Secondary products value of shipments	335.7	337.9	262.1
Total miscellaneous receipts	530.9	358.6	274.2
Value of resales	498.9	315.4	232.6
Contract receipts	20.4	18.5	11.2
Other miscellaneous receipts	11.6	24.7	30.4
Primary products specialization ratio	91	90	90
Value of primary products shipments made in all industries	3 657.6	3 152.6	2 598.4
Value of primary products shipments made in this industry	3 342.2	2 909.0	2 379.2
Value of primary products shipments made in other industries	315.5	243.6	219.2
Coverage ratio	91	92	92
INDUSTRY 3425, SAW BLADES AND HANDSAWS			
Total value of shipments	847.2	674.9	487.3
Primary products value of shipments	644.3	552.1	370.0
Secondary products value of shipments	96.9	59.1	79.5
Total miscellaneous receipts	106.0	63.7	37.8
Value of resales	83.2	47.5	28.7
Contract receipts	(D)	7.8	2.5
Other miscellaneous receipts	(D)	8.4	6.6
Primary products specialization ratio	87	90	82
Value of primary products shipments made in all industries	716.0	635.5	440.9
Value of primary products shipments made in this industry	644.3	552.1	370.0
Value of primary products shipments made in other industries	71.7	83.4	70.9
Coverage ratio	90	87	84
INDUSTRY 3429, HARDWARE, N.E.C.			
Total value of shipments	8 842.8	8 146.2	5 740.9
Primary products value of shipments	8 091.7	7 598.3	5 354.7
Secondary products value of shipments	308.5	329.6	206.0
Total miscellaneous receipts	442.6	218.3	180.2
Value of resales	384.2	155.8	135.9
Contract receipts	21.2	22.6	12.5
Other miscellaneous receipts	37.2	39.9	31.8
Primary products specialization ratio	96	96	96
Value of primary products shipments made in all industries	8 458.2	7 969.9	5 676.9
Value of primary products shipments made in this industry	8 091.7	7 598.3	5 354.7
Value of primary products shipments made in other industries	366.5	371.6	322.2
Coverage ratio	96	95	94

Note: For qualifications of data, see footnotes on table 1a.

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Table 6a–1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 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 further explanation, see Value of Shipments in appendixes. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	1992		1987	
		Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)	Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)
3411– —	**METAL CANS**				
	Total	**(NA)**	**11 665.0**	**(NA)**	**10 652.5**
34111	Steel cans and tinware products	(NA)	4 775.0	(NA)	4 852.6
34111 20	Steel, (including lids, ends, and parts shipped separately)	54	3 907.2	55	4 513.9
34111 91	Tinware end products (including ice cream cans, but excluding cooking and kitchen utensils)	12	819.2	19	309.8
34111 00	Steel cans and tinware products, n.s.k.	(NA)	48.7	(NA)	28.9
34112	Aluminum cans	(NA)	6 746.8	(NA)	5 626.7
34112 00	Aluminum (including lids, ends, and parts shipped separately)	28	6 746.8	26	5 626.7
34110	Metal cans, n.s.k.	(NA)	143.2	(NA)	173.2
34110 00	Metal cans, n.s.k.[3]	(NA)	128.7	(NA)	111.4
34110 02	Metal cans, n.s.k.[4]	(NA)	14.5	(NA)	61.8
3412– —	**METAL BARRELS, DRUMS, AND PAILS**				
	Total	**(NA)**	**1 116.2**	**(NA)**	**1 003.7**
34121	Steel pails	(NA)	257.3	(NA)	185.3
34121 00	Steel pails (1 to 12 gallon capacity)[5]	21	257.3	19	185.3
34122	Steel shipping barrels and drums (more than 12 gallon capacity)[5]	(NA)	753.8	(NA)	639.4
34122 00	Steel shipping barrels and drums (excluding beer barrels) (more than 12 gallon capacity)	42	753.8	36	639.4
34123	All other metal barrels	(NA)	55.1	(NA)	111.2
34123 13	Metal fluid milk shipping and delivery containers (except crates)	(NA)			
34123 19	All other metal barrels (including beer barrels and parts for metal barrels and pails)	14	55.1	(NA)	111.2
34123 00	All other metal barrels, n.s.k.	(NA)	–	(NA)	–
34120	Metal barrels, drums, and pails, n.s.k.	(NA)	50.0	(NA)	67.8
34120 00	Metal barrels, drums, and pails, n.s.k.[6]	(NA)	30.7	(NA)	28.2
34120 02	Metal barrels, drums, and pails, n.s.k.[7]	(NA)	19.3	(NA)	39.7
3421– —	**CUTLERY**				
	Total	**(NA)**	**1 473.8**	**(NA)**	**1 119.3**
34211	Cutlery, scissors, shears, trimmers, and snips	(NA)	632.0	(NA)	534.9
	Cutlery:				
34211 11	Table cutlery (knives, forks, spoons, etc.) for serving and eating, with handles of materials other than metal	5	30.8	6	39.4
34211 25	Kitchen cutlery (including knives, forks, cleavers, butchers', and meat packing cutlery), excluding carving sets	11	76.4	(NA)	159.6
34211 30	Other cutlery (including knife blades sold separately)	12	28.7		
	Scissors and shears:				
34211 53	Household scissors and barber shears, pinking shears, and tailoring shears	11	78.1	12	51.8
34211 55	Manicure and pedicure scissors and implements (including tweezers)	5	91.4	6	61.4
34211 57	Metal cutting shears (including aviation and tinners' snips, BX, and wire filament cutters)	12	27.4	13	31.2
34211 59	All other scissors and shears (including hedge and grass shears and pruners)	16	108.4	12	42.1
34211 80	Other knives (including pocket, pen, and replacement blade knives)	31	188.0	23	131.0
34211 00	Cutlery, scissors, shears, trimmers, and snips, n.s.k.	(NA)	2.9	(NA)	18.4
34212	Razor blades and razors, except electric	(NA)	803.9	(NA)	517.7
34212 05	Razors	3	(D)	(NA)	(NA)
	Razor blades:				
34212 10	Single and double edge for shaving	3	(D)	(NA)	(NA)
34212 16	All other uses	9	28.8	(NA)	(NA)
34212 00	Razor blades and razors, except electric, n.s.k.	(NA)	.1	(NA)	(NA)
34210	Cutlery, n.s.k.	(NA)	37.9	(NA)	66.8
34210 00	Cutlery, n.s.k.[3]	(NA)	22.4	(NA)	36.7
34210 02	Cutlery, n.s.k.[4]	(NA)	15.5	(NA)	30.1

See footnotes at end of table.

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Table 6a–1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987—Con.

[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 further explanation, see Value of Shipments in appendixes. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	1992			1987		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
3423– —	**HAND AND EDGE TOOLS, N.E.C.**						
	Total	**(NA)**	**(X)**	**3 657.6**	**(NA)**	**(X)**	**3 152.6**
34231	Mechanics' hand service tools	(NA)	(X)	1 607.0	(NA)	(X)	1 376.8
	Pliers:						
34231 12	Slip joint millions	14	8.5	50.3	12	(S)	31.2
34231 13	Solid joint millions	17	15.3	86.9	16	**15.1	81.0
34231 21	Ball peen hammers millions	7	4.5	10.3	7	*1.7	8.2
	Wrenches:						
34231 31	Socket, including sockets, drives (ratchet and other) , extensions, etc., for hand-operated socket wrenches	24	(X)	357.2	21	(X)	268.4
34231 33	Open-end and box wrenches	15	(X)	44.6	(NA)	(X)	45.0
34231 36	Torque wrenches millions	9	(S)	31.3	11	*2.6	48.4
34231 37	Adjustable, including pipe wrenches millions	11	7.1	73.8	10	(S)	96.5
34231 38	Combination open-end and box	10	(X)	73.9	10	(X)	55.2
34231 39	All other wrenches mil units	21	(S)	55.5	14	(S)	34.8
34231 41	Screwdrivers	26	(X)	147.5	20	(X)	180.4
34231 51	Automobile jacks, mechanical (excluding hydraulic and pneumatic) millions	9	(S)	86.6	12	(S)	95.1
34231 55	Tools for automotive use (excluding jacks, but including wheel or gear pullers, valve tools, body or fender tools, etc.)	29	(X)	102.5	21	(X)	135.7
34231 97	Other mechanics' hand service tools (including blow torches)	77	(X)	472.0	(NA)	(X)	253.0
34231 00	Mechanics' hand service tools, n.s.k.	(NA)	(X)	14.6	(NA)	(X)	43.8
34234	Edge tools, hand-operated	(NA)	(X)	306.5	(NA)	(X)	246.6
34234 14	Axes, adzes, hatchets, and chisels	23	(X)	47.7	(NA)	(X)	45.2
34234 33	Professional and craft edge handtools (palette knives, paperhanger knives, putty knives, scrapers, trimmers, etc.)	35	(X)	197.7	25	(X)	120.1
34234 44	Kitchen tools (including nonelectric can openers, peelers, slicers, dicers, etc.)	6	(X)	6.9	3	(X)	(D)
34234 98	Other edge tools (including agricultural and forestry edge handtools)	22	(X)	50.8	23	(X)	75.6
34234 00	Edge tools, hand-operated, n.s.k.	(NA)	(X)	3.4	(NA)	(X)	(D)
34235	Dies and interchangeable cutting tools, for machines and power-driven handtools	(NA)	(X)	573.0	(NA)	(X)	351.9
	Dies (except metal cutting):						
34235 11	Steel rule dies	104	(X)	171.9	54	(X)	97.8
34235 12	Other cutting dies, for use in cutting cloth, paper, leathers, etc. (excluding dies for cutting metal)	73	(X)	165.1	61	(X)	99.2
	Machine knives (except metal cutting):						
34235 21	Veneer knives and chipper knives	6	(X)	15.7	9	(X)	15.3
34235 22	All other machines knives	38	(X)	99.1	28	(X)	57.4
	Machine tools for woodcutting:						
34235 31	Countersink, drill, and router bits	22	(X)	82.2	11	(X)	46.4
34235 41	All other woodcutting machine tools (including milling cutters)	24	(X)	38.0	(NA)	(X)	31.1
34235 00	Dies and interchangeable cutting tools, for machines and power-driven handtools, n.s.k.	(NA)	(X)	1.0	(NA)	(X)	4.8
34236	Other handtools, n.e.c.	(NA)	(X)	934.2	(NA)	(X)	877.5
34236 11	Shovels, spades, scoops, telegraph spoons, and scrapers millions	17	10.7	92.5	8	17.8	102.6
34236 21	Light forged hammers, less than 4 lb (excluding ball peen hammers) millions	21	*10.0	73.9	14	7.0	65.0
34236 31	Heavy forged tools, sledges (4 lb or more), picks, pick mattocks, and mauls millions	13	(S)	20.4	9	(S)	21.2
34236 41	Steel goods (forks, hoes, rakes, weeders, etc.) millions	16	*17.9	103.7	10	(S)	131.9
34236 81	Soldering irons (electric) millions	7	(S)	36.6	9	(S)	54.0
34236 85	Clamps and vises (excluding machine tool accessories)	9	(X)	55.6			
34236 98	Other handtools (including woodworking and metalworking files and rasps; including precision files; except edge tools)	116	(X)	547.8	(NA)	(X)	497.7
34236 00	Other handtools, n.e.c., n.s.k.	(NA)	(X)	3.8	(NA)	(X)	5.0
34230	Hand and edge tools, n.e.c., n.s.k.	(NA)	(X)	236.9	(NA)	(X)	299.7
34230 00	Hand and edge tools, n.e.c., n.s.k.[3]	(NA)	(X)	145.0	(NA)	(X)	160.8
34230 02	Hand and edge tools, n.e.c., n.s.k.[4]	(NA)	(X)	92.0	(NA)	(X)	138.9
3425– —	**SAW BLADES AND HANDSAWS**						
	Total	**(NA)**	**(X)**	**716.0**	**(NA)**	**(X)**	**635.5**
34250	Handsaws, saw blades (hand and power), and saw accessories	(NA)	(X)	716.0	(NA)	(X)	635.5
	Power saw blades:						
	Woodworking (including chain saw blades):						
34250 11	Circular, solid tooth	12	(X)	42.6	16	(X)	55.5
34250 13	Circular, inserted tooth	19	(X)	77.6	13	(X)	49.0
34250 16	Band	14	(X)	38.3	14	(X)	57.4
34250 18	Teeth for inserted saws, sold separately	5	(X)	20.2	7	(X)	21.8
34250 19	All other woodworking power saw blades (scroll, jig, etc.) 1,000 feet	17	(S)	105.8	11	(S)	43.5

See footnotes at end of table.

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Table 6a–1. **Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987**—Con.

[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 further explanation, see Value of Shipments in appendixes. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	1992			1987		
		Number of companies with shipments of $100,000 or more	Product shipments[1]		Number of companies with shipments of $100,000 or more	Product shipments[1]	
			Quantity[2]	Value (million dollars)		Quantity[2]	Value (million dollars)
3425– —	**SAW BLADES AND HANDSAWS**—Con.						
34250	Handsaws, saw blades (hand and power), and saw accessories—Con.						
	Power saw blades—Con.						
	Metalworking:						
34250 31	Circular (including metal teeth and cutting segments sold separately)	19	(X)	49.9	13	(X)	18.2
34250 35	Hack (power only) — millions	8	5.3	6.6	6	(S)	5.3
34250 36	Band (flexible back, spring temper metal cutting, and high-speed metal cutting) — 1,000 feet	16	(S)	143.4	14	(S)	152.2
34250 39	Other metalworking saw blades (saber, reciprocating, etc.)	12	(X)	50.6	13	(X)	[8]25.3
34250 41	All other power saw blades	22	(X)	83.9	(NA)	(X)	([8])
	Hand-operated saws:						
34250 43	Hacksaw blades (hand only) — millions	12	*27.3	18.4	10	**37.6	[9]17.9
34250 45	Carpenter crosscuts and ripsaws — millions	4	*4.0	22.6	2	(D)	([9])
34250 49	Other hand saws (heavy hand saws, crosscut, buck, miter, coping, pruning, compass, etc., including frames, and blades)	12	(X)	30.4	20	(X)	139.0
34250 00	Saw blades and handsaws, n.s.k.[3]	(NA)	(X)	9.9	(NA)	(X)	[r]33.7
34250 02	Saw blades and handsaws, n.s.k.[4]	(NA)	(X)	15.8	(NA)	(X)	16.7

Product code	Product	1992		1987	
		Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)	Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)
3429– —	**HARDWARE, N.E.C.**				
	Total	**(NA)**	**8 458.2**	**(NA)**	**7 969.9**
34292	Furniture hardware (excluding cabinet hardware)	(NA)	702.5	(NA)	547.5
34292 12	Sleeper mechanisms	4	(D)	3	([10])
34292 13	Rotating and tilting fixtures and bases	11	69.1	9	[10]174.9
34292 14	Furniture hardware, including drawer pulls and handles, etc. (excluding furniture and drawer slides)	32	242.7	26	73.9
34292 16	Furniture and drawer slides	8	130.1	8	66.9
34292 53	Furniture casters	14	88.9	13	135.1
34292 55	Other floor protective devices (including slides, glides, furniture rests, and desk leg cups)	12	(D)	23	55.6
34292 00	Furniture hardware (excluding cabinet hardware), n.s.k.	(NA)	23.1	(NA)	41.1
34293	Vacuum and insulated bottles, jugs, and chests	(NA)	(D)	(NA)	64.0
34293 00	Vacuum and insulated bottles, jugs, and chests (except those made principally of foam plastics)	5	(D)	(NA)	64.0
34294	Builders' hardware	(NA)	3 426.2	(NA)	2 869.1
	Padlocks:				
34294 12	Pin tumbler	21	140.9	19	101.5
34294 13	Nonpin tumbler	8	(D)	6	(D)
34294 14	Combination	5	(D)	4	(D)
	Doorlocks, locksets, and lock trim:				
34294 16	Bored, cylindrical and tubular (except deadlocks)	23	569.8	22	494.9
34294 17	Mortise, except mortise deadlocks	18	131.9	15	112.4
34294 18	Tubular and mortise deadlocks	18	187.7	17	88.3
34294 19	Electronically or electrically operated locks	17	52.5	16	27.4
34294 22	All other types	44	161.1	22	85.2
34294 23	Architectural trim (sold separately) (including protection plates, push plates, pulls, push-pull bars, lock trim, etc.)	29	70.2	17	78.8
34294 24	Key blanks	25	90.3	20	59.9
34294 27	Exit devices (including fire exit hardware)	13	162.8	14	116.3
34294 33	Screen and storm door hardware (including pneumatic and hydraulic closers)	12	64.4	11	57.3
34294 36	Window hardware (including window locks)	41	290.6	36	208.1
34294 37	Miscellaneous closet hardware (including shelving other than wire and decorative shelving)	15	47.3	13	42.4
	Door controls, closers, and checking devices:				
34294 42	Surface applied	11	150.8	10	125.2
34294 43	Concealed (overhead, in the door, or on the floor)	10	49.7	8	33.6
34294 44	Electromechanical-pneumatic (with hold-open mechanism released by integral or remote smoke detector)	10	41.5	6	13.0
	Hinges, excluding cabinet hinges, but including spring hinges:				
	Butt hinges:				
34294 52	3 1/2 in. x 3 1/2 in. or less	17	48.6	15	47.3
34294 53	More than 3 1/2 in. x 3 1/2 in., either dimension	18	119.9	14	144.4
34294 54	Other	36	115.6	24	115.7
	Cabinet hardware:				
34294 61	Cabinet hinges	14	50.6	12	58.6
34294 62	Cabinet locks	13	52.7	13	42.0
34294 64	Cabinet knobs, pulls, and catches	22	87.7	21	80.7
34294 66	Other cabinet hardware (including drawer slides, etc.)	13	91.8	17	122.6
34294 71	Hangers, tracks, and related items (except sliding and folding door hardware), residential and commercial	28	74.5	21	68.5
34294 73	Sliding and folding door hardware (residential and commercial)	32	94.0	32	83.6
34294 81	Door holders and stops (overhead, surface, and concealed; floor and wall mounted)	10	14.5	14	28.1
34294 91	Rim locks and other locking devices, n.e.c.	7	18.4	14	22.1

See footnotes at end of table.

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Table 6a–1. Product and Product Classes—Quantity and Value of Shipments by All Producers: 1992 and 1987—Con.

[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 further explanation, see Value of Shipments in appendixes. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	1992		1987	
		Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)	Number of companies with shipments of $100,000 or more	Value of product shipments[1] (million dollars)
3429– —	**HARDWARE, N.E.C.**—Con.				
34294	Builders' hardware—Con.				
34294 98	Other builders' hardware	88	329.9	56	307.5
34294 00	Builders' hardware, n.s.k.	(NA)	30.1	(NA)	r44.4
34296	Motor vehicle hardware	(NA)	2 562.0	(NA)	2 759.2
34296 00	Motor vehicle hardware (lock units, door and window handles, window regulators, hinges, license plate brackets, etc.)	82	2 562.0	(NA)	2 759.2
34297	Other transportation equipment hardware (except motor vehicle hardware)	(NA)	(D)	(NA)	382.6
34297 11	Marine hardware (including shackles, rope sockets, tackle blocks, wire rope clips, clamps, and joiners' hardware)	64	204.8	55	173.4
34297 31	Aircraft hardware	36	139.7	26	88.5
34297 98	Other transportation equipment hardware (including railroad car hardware)	32	(D)	26	73.0
34297 00	Other transportation equipment hardware (except motor vehicle hardware), n.s.k.	(NA)	6.2	(NA)	47.7
34298	Other hardware, n.e.c.	(NA)	812.3	(NA)	741.7
34298 12	Casket and casket shell hardware	10	37.9	13	31.5
34298 22	Casters and wheels for dollies and industrial handtrucks	25	179.9	20	179.2
34298 52	Fireplace fixtures and equipment, andirons, screens, tongs, and other fire tools	24	125.9	18	91.5
34298 62	Hose fittings and couplings, excluding fittings and couplings used in fluid power systems	32	124.8	28	126.3
34298 65	Refrigerator and stove hardware	9	40.5	9	36.4
34298 98	Other hardware (including saddlery and harness hardware, but excluding drapery hardware)	106	262.0	(NA)	234.5
34298 00	Other hardware, n.e.c., n.s.k.	(NA)	41.2	(NA)	42.3
34290	Hardware, n.e.c., n.s.k.	(NA)	439.2	(NA)	605.8
34290 00	Hardware, n.e.c., n.s.k.[3]	(NA)	258.2	(NA)	385.8
34290 02	Hardware, n.e.c., n.s.k.[4]	(NA)	180.9	(NA)	220.0

[1]Data reported by all producers, not just those with shipments of $100,000 or more.
[2]For some establishments, data have been estimated from central unit values which are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: *10 to 19 percent estimated; **20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by (S).
[3]Typically for establishments with 10 employees or more.
[4]Typically for establishments with less than 10 employees.
[5]Additional detail is collected for this product in the Current Industrial Reports. For the survey number and title, see appendix C, part 3.
[6]Typically for establishments with 15 employees or more.
[7]Typically for establishments with less than 15 employees.
[8]For 1987, product code 34250 39 is combined with product code 34250 41 because they were not collected separately.
[9]For 1987, product code 34250 43 is combined with product code 34250 45 to avoid disclosing data for individual companies.
[10]For 1987, product code 34292 12 is combined with product code 34292 13 to avoid disclosing data for individual companies.

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

[Million dollars. Product classes shown are those where the data are 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 kind" classes. Statistics for some States are withheld because they are either less than $2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text]

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
34111, STEEL CANS AND TINWARE PRODUCTS			**34112, ALUMINUM CANS**		
United States	**4 775.0**	**4 852.6**	**United States**	**6 746.8**	**5 626.7**
Alabama	31.2	19.9	California	881.7	753.0
California	806.5	842.9	Florida	405.8	300.6
Florida	88.6	120.8	Georgia	217.3	255.1
Georgia	111.3	(NA)	Missouri	412.4	209.3
Illinois	440.4	654.6	New Jersey	162.6	(NA)
Indiana	214.0	(NA)	New York	378.2	257.2
Maryland	161.5	161.2	North Carolina	250.1	282.5
Missouri	159.2	190.6	Ohio	668.8	440.7
New Jersey	258.4	290.2	Texas	599.6	597.4
Ohio	457.7	426.0	Virginia	445.0	428.0
Pennsylvania	393.1	369.8	Wisconsin	310.1	382.0
Tennessee	63.4	(NA)	**34121, STEEL PAILS**		
Texas	142.6	156.4	**United States**	**257.3**	**185.3**
Washington	174.6	74.3	Illinois	44.2	46.3
Wisconsin	306.8	268.2	Ohio	49.2	27.1

See footnotes at end of table.

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

[Million dollars. Product classes shown are those where the data are 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 kind" classes. Statistics for some States are withheld because they are either less than $2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text]

Product class and geographic area	1992 value of product shipments	1987 value of product shipments
34122, STEEL SHIPPING BARRELS AND DRUMS (MORE THAN 12 GALLON CAPACITY)		
United States	**753.8**	**639.4**
California	75.7	(NA)
Illinois	106.8	88.4
Louisiana	49.2	41.2
North Carolina	25.1	28.0
Ohio	112.9	67.0
Pennsylvania	72.2	49.1
Texas	91.8	62.9
34123, ALL OTHER METAL BARRELS		
United States	**55.1**	**111.2**
Illinois	4.7	16.8
34211, CUTLERY, SCISSORS, SHEARS, TRIMMERS, AND SNIPS		
United States	**632.0**	**534.9**
Arkansas	13.3	(NA)
Connecticut	39.9	40.8
Illinois	27.0	(NA)
Michigan	7.1	7.9
New York	112.1	78.8
Pennsylvania	32.0	26.9
34212, RAZOR BLADES AND RAZORS, EXCEPT ELECTRIC		
United States	**803.9**	**517.7**
34231, MECHANICS' HAND SERVICE TOOLS		
United States	**1 607.0**	**1 376.8**
California	33.3	39.3
Connecticut	58.4	31.4
Georgia	17.0	16.1
Illinois	178.2	184.3
Kansas	8.0	(NA)
Massachusetts	46.7	(NA)
Michigan	56.7	94.1
Minnesota	121.7	69.5
Missouri	25.0	15.3
New York	44.3	35.8
Ohio	201.1	146.4
Pennsylvania	39.2	51.1
South Carolina	114.8	94.8
Wisconsin	116.2	105.3
34234, EDGE TOOLS, HAND-OPERATED		
United States	**306.5**	**246.6**
California	31.0	18.9
Illinois	19.1	20.2
Massachusetts	32.6	(NA)
Pennsylvania	17.8	10.4
Wisconsin	2.8	(NA)
34235, DIES AND INTERCHANGEABLE CUTTING TOOLS, FOR MACHINES AND POWER-DRIVEN HANDTOOLS		
United States	**573.0**	**351.9**
California	24.7	29.2
Connecticut	4.4	5.0
Georgia	18.5	7.9
Illinois	59.4	16.7
Indiana	45.5	14.0
Maine	5.9	2.5
Massachusetts	42.7	37.0
Michigan	43.4	54.8
Minnesota	13.2	(NA)
Missouri	34.9	16.1
New Hampshire	3.7	(NA)
New Jersey	18.9	8.4
New York	17.8	14.3
North Carolina	36.5	19.6
Ohio	51.0	44.2
Pennsylvania	29.5	25.3
Tennessee	12.6	5.4
Texas	4.6	(NA)
Virginia	14.5	2.7
Washington	4.1	4.3
Wisconsin	14.4	9.8
34236, OTHER HANDTOOLS, N.E.C.		
United States	**934.2**	**877.5**
California	57.2	48.4
Illinois	85.8	67.9
Maine	4.3	(NA)
Massachusetts	23.3	18.3
Michigan	4.8	6.7
Minnesota	27.5	43.1
Missouri	14.4	4.1
New Jersey	62.7	56.0
New York	25.3	(NA)
North Carolina	50.8	(NA)
Ohio	91.2	85.7
Pennsylvania	35.9	38.6
South Carolina	46.3	45.9
Tennessee	25.7	28.3
Wisconsin	22.4	12.3
34292, FURNITURE HARDWARE (EXCLUDING CABINET HARDWARE)		
United States	**702.5**	**547.5**
California	123.9	79.1
Illinois	21.9	8.5
Indiana	12.9	(NA)
Michigan	82.6	116.8
North Carolina	161.3	92.5
Ohio	4.2	3.6
Wisconsin	4.5	33.0
34293, VACUUM AND INSULATED BOTTLES, JUGS, AND CHESTS		
United States	**(D)**	**64.0**
34294, BUILDERS' HARDWARE		
United States	**3 426.2**	**2 869.1**
Alabama	114.5	(NA)
California	462.2	532.6
Connecticut	300.2	329.2
Florida	22.0	21.6
Georgia	5.9	(NA)
Illinois	547.4	435.3
Indiana	178.0	116.0
Iowa	15.4	(NA)
Kentucky	70.3	69.4
Massachusetts	52.0	34.5
Michigan	161.3	89.1
Mississippi	48.4	52.8
New Jersey	20.6	23.1
New York	110.0	118.9
Ohio	91.8	72.0
Pennsylvania	114.5	141.0
South Carolina	31.7	(NA)
Tennessee	55.8	(NA)
Texas	74.8	17.3
Washington	2.2	(NA)
Wisconsin	257.7	162.6
34296, MOTOR VEHICLE HARDWARE		
United States	**2 562.0**	**2 759.2**
Illinois	196.5	(NA)
Michigan	667.9	828.6
Ohio	322.7	(NA)
Tennessee	376.4	(NA)
34297, OTHER TRANSPORTATION EQUIPMENT HARDWARE (EXCEPT MOTOR VEHICLE HARDWARE)		
United States	**(D)**	**382.6**
California	95.2	72.7
Connecticut	11.4	11.9
Florida	25.8	39.6
Illinois	21.1	13.1
Indiana	6.0	7.0
Michigan	35.5	53.4
New Jersey	3.7	(NA)
New York	18.3	25.6
Ohio	15.9	17.2
Pennsylvania	8.5	12.7
Rhode Island	4.5	(NA)
Washington	40.0	(NA)
Wisconsin	18.6	9.8

See footnotes at end of table.

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

[Million dollars. Product classes shown are those where the data are 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 kind" classes. Statistics for some States are withheld because they are either less than $2 million in product class shipments or they disclose data for individual companies in 1992. For meaning of abbreviations and symbols, see introductory text]

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
34298, OTHER HARDWARE, N.E.C.			**34298, OTHER HARDWARE, N.E.C.**—Con.		
United States	**812.3**	**741.7**	Michigan	41.9	57.3
			Missouri	6.9	26.2
			New Jersey	23.5	25.6
Alabama	9.4	(NA)	New York	29.5	28.1
California	64.6	59.0	North Carolina	18.9	5.3
Connecticut	23.0	44.6			
Georgia	39.6	27.5	Ohio	55.2	42.1
Illinois	83.7	91.9	Pennsylvania	85.6	38.7
Indiana	104.3	102.2	Tennessee	54.4	47.8
Iowa	10.7	(NA)	Texas	9.0	(NA)
Massachusetts	17.5	29.7	Wisconsin	15.5	3.3

Note: For qualifications of data, see footnotes on table 6a.

Table 6c. **Historical Statistics for Product Classes—Value Shipped by All Producers: 1992 and Earlier Years**

[Million dollars. For meaning of abbreviations and symbols, see introductory text]

Product code	Product class	1992	1991[1]	1990[1]	1989[1]	1988[1]	1987	1982	1977
3411-	**Metal cans**	**11 665.0**	**12 207.3**	**12 114.3**	**10 995.7**	**10 944.1**	**10 652.5**	**10 551.9**	**7 414.7**
34111	Steel cans and tinware products	4 775.0	5 195.2	5 354.0	5 041.8	4 956.2	4 852.6	5 643.7	7 368.5
34112	Aluminum cans	6 746.8	6 873.3	6 629.8	5 841.7	5 816.3	5 626.7	4 878.7	
34110	Metal cans, n.s.k.	143.2	138.8	130.5	112.2	171.6	173.2	29.5	46.2
3412-	**Metal barrels, drums, and pails**	**1 116.2**	**1 175.3**	**1 179.7**	**1 128.8**	**1 037.7**	**1 003.7**	**945.8**	**948.2**
34121	Steel pails	257.3	191.6	200.3	218.3	182.1	185.3	207.8	272.9
34122	Steel shipping barrels and drums (more than 12 gallon capacity)	753.8	769.2	797.1	758.2	711.6	639.4	563.2	548.4
34123	All other metal barrels	55.1	115.5	96.2	89.7	70.4	111.2	139.9	84.0
34120	Metal barrels, drums, and pails, n.s.k.	50.0	99.1	86.1	62.6	73.6	67.8	34.9	43.0
3421-	**Cutlery**	**1 473.8**	**1 484.2**	**1 416.5**	**1 359.3**	**1 193.9**	**1 119.3**	**953.8**	**666.9**
34211	Cutlery, scissors, shears, trimmers, and snips	632.0	642.9	620.8	623.1	568.1	534.9	503.5	344.7
34212	Razor blades and razors, except electric	803.9	761.4	721.6	665.2	555.8	517.7	431.2	307.4
34210	Cutlery, n.s.k.	37.9	79.9	74.1	71.1	70.0	66.8	19.1	14.8
3423-	**Hand and edge tools, n.e.c.**	**3 657.6**	**3 504.3**	**3 480.5**	**3 584.3**	**3 452.9**	**3 152.6**	**2 598.4**	**2 066.1**
34231	Mechanics' hand service tools	1 607.0	1 398.8	1 399.1	1 424.4	1 563.3	1 376.8	1 330.6	1 070.2
34234	Edge tools, hand-operated	306.5	289.2	297.9	265.9	256.2	246.6	(NA)	(NA)
34235	Dies and interchangeable cutting tools, for machines and power-driven handtools	573.0	420.9	399.1	441.3	422.2	351.9	(NA)	(NA)
34236	Other handtools, n.e.c.	934.2	968.2	943.1	1 039.0	880.3	877.5	690.5	524.3
34230	Hand and edge tools, n.e.c., n.s.k.	236.9	427.3	441.3	413.6	331.0	299.7	106.6	144.0
3425-	**Saw blades and handsaws**	**716.0**	**813.7**	**912.1**	**812.4**	**694.5**	**635.5**	**440.9**	**369.3**
34250	Handsaws, saw blades (hand and power), and saw accessories	716.0	813.7	912.1	812.4	694.5	635.5	440.9	369.3
3429-	**Hardware, n.e.c.**	**8 458.2**	**7 885.8**	**8 251.9**	**8 528.7**	**8 239.6**	**7 969.9**	**5 676.9**	**5 082.5**
34292	Furniture hardware (excluding cabinet hardware)	702.5	644.8	665.6	686.9	634.8	547.5	272.0	279.9
34293	Vacuum and insulated bottles, jugs, and chests	(D)	(D)	73.0	60.9	80.0	64.0	120.4	107.0
34294	Builders' hardware	3 426.2	3 154.2	3 224.4	3 148.3	2 841.8	2 869.1	2 057.2	1 418.9
34296	Motor vehicle hardware	2 562.0	2 281.7	2 482.4	2 842.3	2 766.8	2 759.2	1 999.4	2 220.0
34297	Other transportation equipment hardware (except motor vehicle hardware)	(D)	(D)	456.4	423.2	457.0	382.6	274.2	155.4
34298	Other hardware, n.e.c.	812.3	707.0	708.2	761.0	754.3	741.7	667.5	648.5
34290	Hardware, n.e.c., n.s.k.	439.2	617.5	641.8	606.2	704.9	605.8	286.2	252.9

[1]Figures are estimates derived from a representative sample of manufacturing establishments. Standard errors associated with estimates are published in annual survey of manufactures publications for this period.

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Table 7. **Materials Consumed by Kind: 1992 and 1987**

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

Material code	Material	1992 delivered cost (million dollars)	1987 delivered cost (million dollars)
	INDUSTRY 3411, METAL CANS		
	Materials, ingredients, containers, and supplies	**8 390.3**	**6 807.6**
	Fabricated metal products (except castings and forgings):		
341105	Lids, ends, and parts for metal cans	631.9	156.2
340064	All other fabricated metal products	(D)	(NA)
346000	Forgings	–	(NA)
330091	Castings (rough and semifinished)	(D)	(NA)
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331099	Sheet, strip, and tin mill products	2 025.2	(NA)
331027	Wire and wire products	.2	(NA)
331098	All other steel shapes and forms	(D)	(NA)
	Aluminum and aluminum-base alloy:		
335301	Sheet, plate, foil, and welded tubing	2 567.8	(NA)
335008	Other aluminum and aluminum-base alloy shapes and forms	2 019.4	(NA)
	Copper and copper base alloy:		
335104	Copper mechanical wire (including extruded and/ or drawn shapes)	24.6	25.8
335126	All other copper and copper-base alloy	.9	(NA)
335099	All other nonferrous shapes and forms	1.0	(NA)
	Chemicals and allied products:		
285101	Paints, varnishes, lacquers, shellacs, japans, enamels, and allied products	301.4	199.4
289100	Adhesives and sealants	31.3	25.2
289300	Printing ink	43.0	34.1
280080	All other chemicals and allied products	35.3	(NA)
265001	Paperboard containers, boxes, and corrugated paperboard	24.2	26.5
970099	All other materials and components, parts, containers, and supplies	261.6	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	303.6	174.2
	INDUSTRY 3412, METAL BARRELS, DRUMS, AND PAILS		
	Materials, ingredients, containers, and supplies	**654.6**	**666.8**
	Fabricated metal products (except castings and forgings):		
341105	Lids, ends, and parts for metal cans	30.8	25.8
340064	All other fabricated metal products	21.7	(NA)
346000	Forgings	–	(NA)
330091	Castings (rough and semifinished)	–	(NA)
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331099	Sheet, strip, and tin mill products	342.9	(NA)
331027	Wire and wire products	1.0	(NA)
331098	All other steel shapes and forms	32.8	(NA)
	Aluminum and aluminum-base alloy:		
335301	Sheet, plate, foil, and welded tubing	–	(NA)
335008	Other aluminum and aluminum-base alloy shapes and forms	(D)	(NA)
	Copper and copper base alloy:		
335104	Copper mechanical wire (including extruded and/ or drawn shapes)	–	(D)
335126	All other copper and copper-base alloy	–	(NA)
335099	All other nonferrous shapes and forms	(D)	(NA)
	Chemicals and allied products:		
285101	Paints, varnishes, lacquers, stains, shellacs, japans, enamels, and allied products	26.8	24.7
289100	Adhesives and sealants	.9	1.5
289300	Printing ink	.2	.4
280080	All other chemicals and allied products	5.0	(NA)
265001	Paperboard containers, boxes, and corrugated paperboard	5.3	2.8
970099	All other materials and components, parts, containers, and supplies	63.9	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	122.0	60.5
	INDUSTRY 3421, CUTLERY		
	Materials, ingredients, containers, and supplies	**327.2**	**202.4**
	Fabricated metal products (except forgings):		
345001	Bolts, nuts, screws, washers, rivets, and screw machine products	8.5	4.4
340098	All other fabricated metal products	13.3	(NA)
	Castings (rough and semifinished):		
332001	Iron and steel	22.4	(D)
336005	Aluminum and aluminum-base alloy	3.5	.9
336003	Other nonferrous	(D)	(NA)
346205	Iron and steel forgings	13.0	(D)
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331007	Bars, bar shapes, and plates	2.6	(NA)
331073	Sheet, strip, and tin mill products	22.7	(NA)
331027	Wire and wire products	.7	(NA)
331028	All other shapes and forms	16.2	(NA)
335105	Copper and copper-base alloy	.1	3.1
335001	Aluminum and aluminum-base alloy	1.4	4.4
335099	All other nonferrous shapes and forms	(D)	(NA)
249991	Wood parts, including handles	7.1	5.0
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	28.1	13.5
308002	Plastics products (film, sheet, rod, tube, and fabricated shapes, including parts, handles, grips, etc.)	29.6	16.4
260091	Paper and paperboard containers, including shipping sacks and other paper packaging supplies	43.5	19.9
970099	All other materials and components, parts, containers, and supplies	66.8	(NA)

See footnotes at end of table.

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Table 7. **Materials Consumed by Kind: 1992 and 1987**—Con.

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

Material code	Material	1992 delivered cost (million dollars)	1987 delivered cost (million dollars)
	INDUSTRY 3421, CUTLERY—Con.		
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	44.3	21.0
	INDUSTRY 3423, HAND AND EDGE TOOLS, N.E.C.		
	Materials, ingredients, containers, and supplies	**1 180.5**	**1 025.4**
	Fabricated metal products (except forgings):		
345001	Bolts, nuts, screws, washers, rivets, and screw machine products	42.3	31.9
340098	All other fabricated metal products	74.9	(NA)
	Castings (rough and semifinished):		
332001	Iron and steel	65.1	33.3
336005	Aluminum and aluminum-base alloy	11.5	16.4
336003	Other nonferrous	5.6	(NA)
346205	Iron and steel forgings	30.4	54.1
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331007	Bars, bar shapes, and plates	136.0	(NA)
331073	Sheet, strip, and tin mill products	104.7	(NA)
331027	Wire and wire products	21.4	(NA)
331028	All other shapes and forms	34.4	(NA)
335105	Copper and copper-base alloy	11.9	10.3
335001	Aluminum and aluminum-base alloy	15.4	8.1
335099	All other nonferrous shapes and forms	10.2	(NA)
249991	Wood parts, including handles	38.1	33.6
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	24.0	15.3
308002	Plastics products (film, sheet, rod, tube, and fabricated shapes, including parts, handles, grips, etc.)	35.3	37.7
260091	Paper and paperboard containers, including shipping sacks and other paper packaging supplies	56.6	30.7
970099	All other materials and components, parts, containers, and supplies	346.2	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	116.5	138.8
	INDUSTRY 3425, SAW BLADES AND HANDSAWS		
	Materials, ingredients, containers, and supplies	**259.5**	**214.3**
	Fabricated metal products (except forgings):		
345001	Bolts, nuts, screws, washers, rivets, and screw machine products	1.5	(D)
340098	All other fabricated metal products	9.5	(NA)
	Castings (rough and semifinished):		
332001	Iron and steel	3.8	(D)
336005	Aluminum and aluminum-base alloy	(D)	(D)
336003	Other nonferrous	7.4	(NA)
346205	Iron and steel forgings	–	(D)
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331007	Bars, bar shapes, and plates	10.3	(NA)
331073	Sheet, strip, and tin mill products	74.6	(NA)
331027	Wire and wire products	5.3	(NA)
331028	All other shapes and forms	10.1	(NA)
335105	Copper and copper-base alloy	(D)	(D)
335001	Aluminum and aluminum-base alloy	(D)	–
335099	All other nonferrous shapes and forms	(D)	(NA)
249991	Wood parts, including handles	2.2	(D)
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	1.9	(D)
308002	Plastics products (film, sheet, rod, tube, and fabricated shapes, including parts, handles, grips, etc.)	5.3	1.4
260091	Paper and paperboard containers, including shipping sacks and other paper packaging supplies	16.4	4.6
970099	All other materials and components, parts, containers, and supplies	82.2	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	18.6	22.8
	INDUSTRY 3429, HARDWARE, N.E.C.		
	Materials, ingredients, containers, and supplies	**3 398.8**	**3 186.1**
	Fabricated metal products (except forgings):		
342903	Metal hardware including hinges, handles, locks, casters, etc.	231.7	183.0
345001	Bolts, nuts, screws, washers, rivets, and screw machine products	156.3	169.0
346901	Metal stampings	149.3	117.4
349012	Fabricated wire products (including wire rope, cable, springs, etc.)	39.0	16.9
340053	All other fabricated metal products	224.2	(NA)
	Castings (rough and semifinished):		
332001	Iron and steel	67.7	40.6
336005	Aluminum and aluminum-base alloy	20.7	25.5
336006	Copper and copper-base alloy	21.8	24.5
336009	Zinc and zinc-base alloy	81.9	30.1
336007	All other nonferrous castings	13.2	(NA)
346000	Forgings	35.2	(NA)

See footnotes at end of table.

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Table 7. **Materials Consumed by Kind: 1992 and 1987**—Con.

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

Material code	Material	1992 delivered cost (million dollars)	1987 delivered cost (million dollars)
	INDUSTRY 3429, HARDWARE, N.E.C.—Con.		
	Shapes and forms (except castings, forgings, and fabricated metal products):		
	Steel:		
331007	Bars, bar shapes, and plates	108.6	(NA)
331073	Sheet, strip, and tin mill products	408.6	(NA)
331027	Wire and wire products	55.6	(NA)
331028	All other steel shapes and forms	52.3	(NA)
	Copper and copper-base alloy:		
335102	Rod, bar, and mechanical wire, including extruded and/or drawn shapes	30.9	25.9
335150	Sheet, strip, and plate	69.7	52.7
335108	All other shapes and forms	21.9	(NA)
	Aluminum and aluminum-base alloy:		
335301	Sheet, plate, foil, and welded tubing	47.6	(NA)
335405	Extruded shapes, including extruded rod, bar, pipe, tube, etc.	35.8	28.1
335008	All other shapes and forms	8.1	(NA)
333978	Zinc and zinc-base alloy refinery shapes	86.0	38.2
335045	All other nonferrous shapes and forms	19.4	(NA)
339915	Metal powders	19.6	21.1
	Rubber and miscellaneous plastics products:		
306002	Fabricated rubber products, except tires, tubes, hose, belting, and gaskets	31.1	(D)
308002	Plastics products (film, sheet, rod, tube, and fabricated shapes, including parts, handles, grips, etc.)	136.0	126.8
300099	All other rubber and miscellaneous plastics products	33.7	(NA)
265001	Paperboard containers, boxes, and corrugated paperboard	85.5	67.8
282104	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc.	84.4	104.2
320100	Glass and glass products	18.3	34.5
362105	Electric motors, generators, and parts	188.9	(D)
970099	All other materials and components, parts, containers, and supplies	437.5	(NA)
971000	Materials, ingredients, containers, and supplies, n.s.k.[1]	378.3	352.2

[1]Total cost of materials of establishments that did not report detailed materials data, including establishments that were not mailed a form.

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Appendix A.
Explanation of Terms

This appendix is in two sections. Section 1 includes items requested of all establishments mailed census of manufactures forms including annual survey of manufactures (ASM) forms. Note that this section also includes several items (number of establishments and companies, value added, classes of products, and specialization and coverage ratios) not included on the report forms but derived from information collected on the forms. Section 2 covers supplementary items requested only from establishments included in the ASM sample. Results of the supplementary ASM inquiries are included in table 3c of this report.

SECTION 1. ITEMS COLLECTED OR DERIVED BASED ON ALL CENSUS OF MANUFACTURES (INCLUDING ASM) REPORT FORMS

Number of establishments and companies. A separate report was required for each manufacturing establishment (plant) with one employee or more. An establishment is defined as a single physical location where manufacturing is performed. A company, on the other hand, is defined as a business organization consisting of one establishment or more under common ownership or control.

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

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

In this report, data are shown for establishments in operation at any time during the year. A comparison with the number of establishments in operation at the end of the year will be provided in the Introduction of the *General Summary* subject report.

Employment and related items. The report forms requested separate information on production 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 operating manufacturing 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. Officers of corporations are included as employees; proprietors and partners of unincorporated firms are excluded. The ''all employees'' number is the average number of production workers plus the number of other employees in mid-March. The number of production workers is the average for the payroll periods including the 12th of March, May, August, and November.

Production workers. This item includes workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial and guard services, product development, auxiliary production for plant's own use (e.g., power plant), recordkeeping, and other services closely associated with these production operations at the establishment covered by the report. Employees above the working-supervisor level are excluded from this item.

All other employees. This item covers nonproduction employees of the manufacturing establishment including those engaged in factory supervision above the line-supervisor level. It includes sales (including driver salespersons), sales delivery (highway truckdrivers and their helpers), advertising, credit, collection, installation and servicing of own products, clerical and routine office function, executive, purchasing, financing, legal, personnel (including cafeteria, medical, etc.), professional, and technical employees. Also included are employees on the payroll of the manufacturing establishment engaged in the construction of major additions or alterations to the plant and utilized as a separate work force.

In addition to reports sent to operating manufacturing establishments, information on employment during the payroll period which included March 12 and annual payrolls also was requested of auxiliary units (e.g., administrative offices, warehouses, and research and development

laboratories) of multiestablishment companies. However, these figures are not included in the totals for individual industries shown in this report. They are included in the *General Summary* and geographic area reports as a separate category.

Payroll. This item includes the gross earnings of all employees on the payrolls of operating manufacturing establishments paid in the calendar year 1992. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, 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. Also excluded are payments to members of Armed Forces and pensioners carried on the active payrolls of manufacturing establishments.

The census definition of payrolls is identical to that recommended to all Federal statistical agencies by the Office of Management and Budget. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs, such as employees' pension plans, group insurance premiums, and workers' compensation.

The ASM provides estimates of employers' supplemental labor costs, both those required by Federal and State laws and those incurred voluntarily or as part of collective bargaining agreements. (Supplemental labor costs are explained later in this appendix.)

As in the case of employment figures, the payrolls of separate auxiliary units of multiestablishment companies are not included in the totals for individual industries or industry groups.

Production-worker hours. This item covers hours worked or paid for at the plant, including actual overtime hours (not straight-time equivalent hours). It excludes hours paid for vacations, holidays, or sick leave.

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

The important components of this cost item are (1) all raw materials, semifinished goods, parts, containers, scrap, and supplies put into production or used as operating supplies and for repair and maintenance during the year, (2) electric energy purchased, (3) fuels consumed for heat, power, or the generation of electricity, (4) work done by others on materials or parts furnished by manufacturing establishments (contract work), and (5) products bought and resold in the same condition. (See discussion of duplication of data below.)

Specific materials consumed. In addition to the total cost of materials, which every establishment was required to report, information also was collected for most manufacturing industries on the consumption of major materials used in manufacturing. The inquiries were restricted to those materials which were important parts of the cost of production in a particular industry and for which cost information was available from manufacturers' records. Information on the establishments consuming less than a specified amount (usually $25,000) of a specific material were not requested to report consumption of that material separately. Also, the cost of materials for the small establishments for which either administrative records or short forms were used was imputed as ''not specified by kind.'' (See Census of Manufactures for the importance of administrative records in the industry.)

Value of shipments. This item covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment. The net selling value of products made in one plant on a contract basis from materials owned by another was reported by the plant providing the materials.

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

Individual products. As in previous censuses, data were collected for most industries on the quantity and value of individual products shipped. In the 1992 census program, information was collected on the output of almost 11,000 individual product items. The term ''product,'' as used in the census of manufactures, represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term ''product'' as used in the marketing sense. In some cases, it may be much more detailed and, in other cases, it is more aggregative. For example, ''pharmaceutical preparations'' was distributed into over 100 terms; whereas, ''motor gasoline'' was reported as a single item.

Approximately 6,300 of the product items were listed separately on the 1992 census report forms. Data for

about 4,500 products were obtained in the monthly, quarterly, or annual surveys comprising the Current Industrial Reports series of the Census Bureau. Totals for the year 1992 for these items, as derived from the commodity surveys, are shown in the ''products shipped'' table.

The list of products for which separate information was collected was prepared after consultation with industry and government representatives. Comparability with previous figures was given considerable weight in the selection of product categories so that comparable 1987 information is presented for most products.

Typically, both quantity and value of shipments information were collected. However, if quantity was not significant or could not be reported by manufacturers, only value of shipments was collected.

Shipments include both commercial shipments and transfers of products to other plants of the same company. For industries in which a considerable portion of the total shipments is transferred to other plants of the same company, separate information on interplant transfers also was collected. Moreover, for products that are used to a large degree within the same establishment as materials or components in the fabrication of other products, total production and often consumption of the item within the plant was collected. Typically, the information on production also was collected for products for which there are significant differences between total production and shipments in a given year because of wide fluctuations in finished goods inventories. Other measures of output of products with long production cycles were used as appropriate and feasible.

Classes of products. To summarize the product information, the separate products were aggregated into classes of products that, in turn, were grouped into all primary products of each industry. The code structure used is a seven-digit number for the individual product, a five-digit number for the class of product, and a four-digit number for the total primary products in an industry. (See Census of Manufactures, Industry Classification of Establishments, for application of the coding structure to the assignment of SIC codes for establishments.)

In the 1992 census, the 11,000 products were grouped into approximately 1,500 separate classes on the basis of general similarity of manufacturing processes, types of materials used, etc. However, the grouping of products was affected by the economic significance of the class and, in some cases, dissimilar products were grouped because the products were not sufficiently significant to warrant separate classes.

Duplication in cost of materials and value of shipments. The aggregate of the cost of materials and value of shipments figures for industry groups and for all manufacturing industries includes large amounts of duplication since the products of some industries are used as materials by others. This duplication results, in part, from the addition of related industries representing successive stages in the production of a finished manufactured product. Examples are the addition of flour mills to bakeries in the food group and the addition of pulp mills to paper mills in the paper and allied products group of industries. Estimates of the overall extent of this duplication indicate that the value of manufactured products exclusive of such duplication (the value of finished manufactures) tends to approximate two-thirds of the total value of products reported in the annual survey.

Duplication of products within individual industries is significant within a number of industry groups, e.g., machinery and transportation industries. These industries frequently include complete machinery and their parts. In this case, the parts made for original equipment are materials consumed for assembly plants in the same industry.

Even when no significant amount of duplication is involved, value of shipments figures are deficient as measures of the relative economic importance of individual manufacturing industries or geographic areas because of the wide variation in ratio of materials, labor, and other processing costs of value of shipments, both among industries and within the same industry.

Before 1962, cost of materials and value of shipments were not published for some industries which included considerable duplication. Since then, these data have been published for all industries at the U.S. level and beginning in 1964, for all geographic levels.

Value added by manufacture. This measure of manufacturing activity is derived by subtracting the cost of materials, supplies, containers, fuel, purchased electricity, and contract work from the value of shipments (products manufactured plus receipts for services rendered). The result of this calculation is adjusted by the addition of value added by merchandising operations (i.e., the difference between the sales value and the cost of merchandise sold without further manufacture, processing, or assembly) plus the net change in finished goods and work-in-process between the beginning- and end-of-year inventories.

For those industries where value of production is collected instead of value of shipments (see footnote in table 1a), value added is adjusted only for the change in work-in-process inventories between the beginning and end of year. For those industries where value of work done is collected, the value added does not include an adjustment for the change in finished goods or work-in-process inventories.

''Value added'' avoids the duplication in the figure for value of shipments that results from the use of products of some establishments as materials by others. Value added is considered to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas.

New and used capital expenditures. For establishments in operation and any known plants under construction, manufacturers were asked to report their new expenditures for (1) permanent additions and major alterations to

manufacturing establishments, and (2) machinery and equipment used for replacement and additions to plant capacity if they were of the type for which depreciation accounts were ordinarily maintained.

The totals for new expenditures include expenditures leased from nonmanufacturing concerns through capital leases. New facilities owned by the Federal Government but operated under contract by private companies, and plant and equipment furnished to the manufacturer by communities and nonprofit organizations are excluded. Also excluded are expenditures for used plant and equipment (although reported in the census), expenditures for land, and cost of maintenance and repairs charged as current operating expenses.

Manufacturers also were requested to report the value of all used buildings and equipment purchased during the year at the purchase price. For any equipment or structure transferred for the use of the reporting establishment by the parent company or one of its subsidiaries, the value at which it was transferred to the establishment was to be reported. Furthermore, if the establishment changed ownership during the year, the cost of the fixed assets (building and equipment) was to be reported under used capital expenditures.

Total expenditures for used plant and equipment is a universe figure; it is collected on all census forms. However, the breakdown of this figure between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. The data for total new capital expenditures, new building expenditures, and new machinery expenditures, as well as the data for total used expenditures, are shown in table 3b.

End-of-year inventories. Respondents were asked to report their 1991 and 1992 end-of-year inventories at cost or market. Effective with the 1982 Economic Census, this change to a uniform instruction for reporting inventories was introduced for all sector reports. Prior to 1982, respondents were permitted to value inventories using any generally accepted accounting method (FIFO, LIFO, market, to name a few). In 1982, LIFO users were asked to first report inventory values prior to the LIFO adjustment and then to report the LIFO reserve and the LIFO value after adjustment for the reserve.

Because of this change in reporting instructions, the 1982 through 1992 data for inventories and value added by manufacture included in the tables of this report are not comparable to the prior-year data shown in table 1a of this report and in historical census of manufactures and annual survey of manufactures publications.

In using inventory data by stage of fabrication for ''all industries'' and at the two-digit industry level, it should be noted that an item treated as a finished product by an establishment in one industry may be reported as a raw material by another establishment in a different industry. For example, the finished-product inventories of a steel mill would be reported as raw materials by a stamping plant. Such differences are present in the inventory figures by stage of fabrication shown for individual industries, industry groups, and ''all manufacturing'', which are aggregates of figures reported by establishments in specified industries.

Specialization and coverage ratios. These items are not collected on the report forms but are derived from the data shown in table 5b. An establishment is classified in a particular industry if its shipments of primary products of that industry exceed in value its shipments of the products of any other single industry.

An establishment's shipments include those products assigned to an industry (primary products), those considered primary to other industries (secondary products), and receipts for miscellaneous activities (merchandising, contract work, resales, etc.). Specialization and coverage ratios have been developed to measure the relationship of primary product shipments to the data on shipments for the industry shown in tables 1a through 5a and data on product shipments shown in tables 6a through 6c.

Specialization ratio represents the ratio of primary product shipments to total product shipments (primary and secondary, excluding miscellaneous receipts) for the establishments classified in the industry.

Coverage ratio represents the ratio of primary products shipped by the establishments classified in the industry to the total shipments of such products that are shipped by all manufacturing establishments wherever classified.

SECTION 2. ITEMS COLLECTED ONLY ON ASM REPORT FORMS

The following items were collected only from establishments included in the ASM sample:

Supplemental labor costs. Supplemental labor costs are divided into legally required expenditures and payments for voluntary programs. The legally required portion consists primarily of Federal old age and survivors' insurance, unemployment compensation, and workers' compensation. Payments for voluntary programs include all programs not specifically required by legislation whether they were employer initiated or the result of collective bargaining. They include the employer portion of such plans as insurance premiums, premiums for supplemental accident and sickness insurance, pension plans, supplemental unemployment compensation, welfare plans, stock purchase plans on which the employer payment is not subject to withholding tax, and deferred profit-sharing plans. They exclude such items as company-operated cafeterias, in-plant medical services, free parking lots, discounts on employee purchases, and uniforms and work clothing for employees.

While the excluded items do benefit employees and all or part of their cost generally is similar to the items covered in the ASM labor costs statistics, accounting records generally do not provide reliable figures on net employee benefits of these types.

Retirements of depreciable assets. Included in this item is the gross value of assets sold, retired, scrapped, destroyed, etc., during 1992. When a complete operation or establishment changed ownership, the respondent was instructed to report the value of the assets sold at the original cost as recorded in the books of the seller. The respondent also was requested to report retirements of equipment or structures owned by a parent company that the establishment was using as if it were a tenant.

Depreciation charges for fixed assets. This item includes depreciation and amortization charged during the year against assets. Depreciation charged against fixed assets acquired since the beginning of the year and against assets sold or retired during the year are components of this category. Respondents were requested to make certain that they did not report accumulated depreciation.

Rental payments. Total rental payments is collected on all census forms. However, the breakdown between rental payments for buildings and other structures and rental payments for machinery and equipment is collected only on the ASM forms. This item includes rental payments for the use of all items for which depreciation reserves would be maintained if they were owned by the establishment, e.g., structures and buildings, and production, office, and transportation equipment. Excluded are royalties and other payments for the use of intangibles and depletable assets, and land rents where separable.

When an establishment of a multiestablishment company was charged rent by another part of the same company for the use of assets owned by the company, it was instructed to exclude that cost from rental payments. However, the book value (original cost) of these company-owned assets was to be reported as assets of the establishment at the end of the year.

If there were assets at an establishment rented from another company and the rents were paid centrally by the head office of the establishment, the company was instructed to report these rental payments as if they were paid directly by the establishment.

Depreciable assets. Total value of gross depreciable assets is collected on all census forms. However, the detail for depreciable assets is collected only on the ASM forms. The data encompass all fixed depreciable assets on the books of establishments at the beginning and end of the year. The values shown (book value) 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). Included are all buildings, structures, machinery, and equipment (production, office, and transportation equipment) for which depreciation reserves are maintained. Excluded are nondepreciable capital assets, including inventories and intangible assets, such as timber and mineral rights.

The definition of fixed depreciable assets is consistent with the definition of capital expenditures. For example, expenditures include actual capital outlays during the year, rather than the final value of equipment put in place and buildings completed during the year. Accordingly, the value of assets at the end of the year includes the value of construction in progress. In addition, respondents were requested to make certain that assets at the beginning of the year plus new and used capital expenditures, less retirements, equalled assets at the end of the year.

New and used capital expenditures. The data for total new capital expenditures, new building expenditures, new machinery expenditures, and total used capital expenditures are collected on all census forms. However, the breakdown between expenditures for used buildings and other structures and expenditures for used machinery and equipment is collected only on the ASM form. (See further explanation on capital expenditures in section 1.)

Quantity of electric energy consumed for heat and power. Data on the cost of purchased electric energy are collected on all census forms. However, data on the quantity of purchased electric energy are collected only on the ASM forms. In addition, information is collected on the quantity of electric energy generated by the establishment and the quantity of electric energy sold or transferred to other plants of the same company.

Breakdown of new capital expenditures for machinery and equipment. ASM establishments were requested to separate their capital expenditures for new machinery and equipment into (1) automobiles, trucks, etc., for highway use, (2) computers and peripheral data processing equipment, and (3) all other.

The category ''automobiles, trucks, etc., for highway use'' is intended to measure expenditures for vehicles designed for highway use that were acquired through a purchase or lease-purchase agreement. Vehicles normally operating off public highways (vehicles specifically designed to transport materials, property, or equipment on mining, construction, logging, and petroleum development projects) are excluded from this item.

Foreign content of cost of materials. Establishments included in the ASM sample panel were requested to provide information on foreign-made materials purchased or transferred from foreign sources. This includes materials acquired from a central warehouse or other domestic establishment of the same company but made in an operation outside of the 50 States, District of Columbia, Puerto Rico, or U.S. territories.

Cost of purchased services. ASM establishments were requested to provide information on the cost of purchased services for the repair of buildings and other structures, the repair of machinery, communication services, legal services, accounting and bookkeeping services, advertising, software and other data processing services, and refuse removal. Each of these items reflect the costs paid directly by the establishment, and exclude salaries paid to employees of the establishment for these services.

Included in the cost of purchased services for the repair of buildings and machinery are payments made for all maintenance and repair work on buildings and equipment, such as painting, roof repairs, replacing parts, and overhauling equipment. Such payments made to other establishments of the same company and for repair and maintenance of any leased property also are included. Extensive repairs or reconstruction that were capitalized are considered capital expenditures for used buildings and machinery and are, therefore, excluded from this item. Repair and maintenance costs provided by an owner as part of a rental contract or incurred directly by an establishment in using its own work force also are excluded.

Included in the cost of purchased advertising services are payments for printing, media coverage, and other advertising services and materials.

Included in the cost of purchased software and other data processing services are all purchases by the establishment from other companies. Excluded are services provided by other establishments of the same company (such as by a separate data processing unit).

Included in the cost of purchased refuse removal services are all costs of refuse removal services paid by the establishment, including costs for hazardous waste removal or treatment. Excluded are all costs included in rental payments or as capital expenditures.

Three basic approaches were utilized to produce these statistics.

1. For items 1 through 6, data were estimated (imputed) for all non-ASM establishments using the available data in the establishment record and industry-based parameters. The statistics were then generated by simply tabulating all census records including the imputed value for non-ASM establishments and the unweighted value for ASM establishments. Separate imputation rates were developed and are shown in the table. For quantity of purchased electricity for heat and power (item 7), a similar procedure was used; however, the imputation parameters were geographically-based instead of industry-based. For quantities of generated less sold electricity, no imputation was performed for non-ASM establishments. The estimates for these items are simply tabulations of unweighted ASM values.

   Since the published statistics for these items were developed from the complete census universe and not just the ASM establishments, there are no sampling variances associated with these statistics. However, there is an unknown level of bias for each of the items due to the imputation of the non-ASM establishments. This bias is felt to be small due to the strong correlation between the items being imputed and the collected items that were used to generate the impute values.

2. For items 8 and 9, the estimates were developed using a ratio estimation methodology. For item 8, an estimate of the breakout of new capital expenditures for machinery and equipment into the three categories was made from ASM establishments reporting these categories. The estimated proportions were then applied to the corresponding census value for new capital expenditures for machinery and equipment to produce the estimates.

   The estimates for item 9, foreign content of cost of materials, were developed in a similar manner based on costs of parts, supplies, and components (item 5a) as the control total for the three categories.

   For items 8 and 9, an adjustment ratio of the following form was computed:

$$Rj = \frac{NMc}{TMEasm}$$

   where:

   NMc = the census value of new capital expenditures for machinery and equipment

   TMEasm = the weighted ASM value of new capital expenditures for machinery and equipment from reporters of the detailed breakout data

3. For item 10, cost of purchased services, the estimates were made by simply tabulating weighted data for all the ASM records that reported the item. A response coverage ratio (a measure of the extent to which respondents reported for each item) is shown in table 3c for the types of services. It is derived for each item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight, see appendix B) for those ASM establishments that reported the specific inquiry to the weighted total employment for all ASM establishments classified in the industry.

Appendix B.
Annual Survey of Manufactures Sampling and Estimating Methodologies

DESCRIPTION OF SURVEY SAMPLE

The annual survey of manufactures (ASM) contains two components. The mail portion of the survey is a probability sample of about 64,000 manufacturing establishments selected from a total of about 216,000 establishments. These 216,000 establishments represent all manufacturing establishments of multiunit companies and all single-establishment companies mailed schedules in the 1987 Census of Manufactures. This mail portion is supplemented annually by a Social Security Administration list of new manufacturing establishments opened after 1987 and a list of new multiunit manufacturing establishments identified from the Census Bureau's Company Organization Survey.

For the current panel, all establishments of companies with 1987 shipments in manufacturing in excess of $500 million were included in the survey panel with certainty. There are approximately 500 such companies collectively accounting for approximately 18,000 establishments. For the remaining portion of the mail survey, the establishment was defined as the sampling unit. For this portion, all establishments with 250 employees or more and establishments with a very large value of shipments also were included in the survey panel with certainty. A total of 12,100 establishments were selected from this portion of the universe with certainty. Therefore, of the 64,000 manufacturing establishments included in the ASM panel, approximately 31,000 are selected with certainty. These certainty establishments collectively account for approximately 80 percent of the total value of shipments in the 1987 census.

Smaller establishments in the remaining portion of the mail survey were sampled with probabilities ranging from 0.999 to 0.005 in accordance with mathematical theory for optimum allocation of a sample. The probabilities of selection assigned to the smaller establishments were proportional to measures of size determined for each establishment. The measures of size depend directly upon each establishment's 1987 product class values and the historic variability of the year-to-year shipments of each product class. Product classes displaying more volatile year-to-year change in shipments at the establishment level were sampled at a heavier rate.

This method of assigning measures of size was used in order to maximize the precision (that is, minimize the variance of estimates of the year-to-year change) in the value of product class shipments. Implicitly, it also gave weight differences in employment, value added, and other general statistics, since these are highly correlated with value of shipments. Individual sample selection probabilities were obtained by multiplying each establishment's final measure of size by an overall sampling fraction coefficient calculated to yield a total expected sample size.

The sample selection procedure gave each establishment in the sampling frame an independent chance of selection. This method of independent selection permits the rotation of small establishments out of a given sample panel without introducing a bias into the survey estimates.

The nonmail portion of the survey includes all single-establishment companies that were tabulated as administrative records in the 1987 Census of Manufactures. Although this portion contained approximately 134,000 establishments, it accounted for less than 2 percent of the estimate for total value of shipments at the total manufacturing level. This portion was not sampled; rather, the data for every establishment in this group were estimated based on selected information obtained annually from the administrative records of the Internal Revenue Service and the Social Security Administration. This administrative-records information, which includes payroll, total employment, industry classification, and physical location of the establishment, was obtained under conditions which safeguard the confidentiality of both tax and census records. Estimates of data other than payroll and employment for these small establishments were developed from industry averages.

The corresponding estimates for the mail and nonmail establishments were added together, along with the base-year differences, as defined in the Description of Estimating Procedure section, to produce the figures shown in this publication.

DESCRIPTION OF ESTIMATING PROCEDURES

Most of the ASM estimates for the years 1988-1991 were computed using a difference estimation procedure. For each item, a base-year difference was developed. This base-year difference is equal to the difference between the 1987 census published number for an item total and the linear ASM estimate of the total for 1987. The ASM linear estimate was obtained by multiplying each sample establishment's data by its sample weight (the reciprocal of its probability of selection) and summing the weighted values.

These base-year differences were then added to the corresponding current-year linear estimates, which include the sum of the estimates for the mail and nonmail

establishments, to produce the estimates for the years 1983-1991. Estimates developed by this procedure usually are far more reliable than comparable linear estimates developed from the current sample data alone.

However, the 1992 sample estimates for the purchased service items, shown in table 3c, are strictly ASM linear estimates developed only from ASM establishments that reported the specific item.

The remaining estimates in table 3c, showing the breakdown of expenditures for new machinery and equipment and costs of parts (separated into purchases from foreign sources and purchases from domestic sources), were computed as ratio estimates. To do this, linear estimates of the new machinery detail items were developed from the ASM establishments and were ratio adjusted to the corresponding census total for new machinery. In a similar fashion, the ASM linear estimates of the detailed purchased materials items were ratio adjusted to the corresponding census total for cost of parts.

QUALIFICATIONS OF THE DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sampled lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the differences between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of the estimates.

The particular sample selected for the ASM is one of a large number of similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretical, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected statistics in this report. They are presented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples).

The complete-coverage value would be included in the range:

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

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

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

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

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or only moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown.

The concept of complete coverage under the conditions prevailing for the ASM is not identical to the complete coverage of the census of manufactures, as the censuses have been conducted. Nearly all types of operational errors that affect the ASM also occur in the censuses. The ASM and the censuses, are conducted under quite different conditions, and operational errors can be better controlled in the ASM than in the censuses. As a result, for many of the census figures, the errors are of the same order of size as the total errors of the corresponding annual survey estimates. The differences between the census and ASM operating conditions also disturb, to some degree, the comparability of the ASM and census data.

Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be of limited reliability. However, the figure may be combined with higher-level totals, creating a broader aggregate, which then may be of acceptable reliability.

Appendix C.
Product Code Reference Tables

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

1992	1987
34211 25	34211 21
34211 25	34211 98
34211 30	34211 98
34211 55	34211 61
34211 80	34211 42
34212 05	34212 00
34212 10	34212 00
34212 16	34212 00
34231 33	34231 32
34231 33	34231 34
34231 97	34231 61
34231 97	34231 98
34234 14	34234 11
34234 14	34234 22
34235 41	34235 33
34235 41	34235 39
34236 85	34236 99
34236 98	34236 99
34250 41	34250 00
34293 00	34293 15
34293 00	34293 17
34298 98	34298 32
34298 98	34298 99
34321	34320
34321 02	34320 01
34321 02	34320 03
34321 05	34320 05
34321 05	34320 07
34321 08	34320 09
34321 08	34320 11
34321 10	34320 10
34321 12	34320 12
34321 13	34320 13
34321 14	34320 14
34321 15	34320 15
34321 17	34320 17
34321 18	34320 18
34321 20	34320 22
34321 22	34320 26
34321 25	34320 27
34321 28	34320 25
34321 30	34320 29
34321 32	34320 31
34321 34	34320 35
34321 36	34320 39
34322	34320
34322 01	34320 90
34322 03	34320 91
34322 05	34320 92
34322 07	34320 93
34322 12	34320 94
34322 12	34320 95
34322 15	34320 96
34322 15	34320 97
34322 18	34320 49
34322 21	34320 52
34322 24	34320 54
34322 27	34320 80
34322 27	34320 82
34322 30	34320 84
34322 30	34320 86
34322 33	34320 57
34322 36	34320 58
34322 39	34320 59
34322 45	34320 63
34322 50	34320 67
34322 50	34320 69
34323	34320
34323 02	34320 71
34323 05	34320 72
34323 08	34320 74
34323 11	34320 75
34323 14	34320 76
34323 17	34320 78
34323 20	34320 47
34323 23	34320 48
34323 25	34320 81
34323 27	34320 85
34323 27	34320 87
34323 32	34320 83
34323 32	34320 89
34323 32	34320 99
34333 21	34333 17
34333 35	34333 17
34333 65	34333 60
34333 65	34333 81
34334 10	34334 00
34334 22	34334 00
34334 30	34334 00
34334 40	34334 00
34334 62	34334 00
34334 74	34334 00
34335 20	34335 31
34335 20	34335 44
34335 25	34335 35
34335 25	34335 46
34339 06	34339 10
34339 08	34339 10
34339 11	34339 10
34339 13	34339 10
34411 41	34411 21
34411 41	34411 61
34411 42	34411 22
34411 42	34411 62
34411 43	34411 23
34411 43	34411 63
34411 44	34411 24
34411 44	34411 64
34411 46	34411 26
34411 46	34411 66
34411 47	34411 27
34411 47	34411 67
34412 00	34412 12
34412 00	34412 16
34412 00	34412 17
34412 00	34412 61
34413 16	34413 11
34413 16	34413 61
34413 20	34413 41
34413 20	34413 71
34413 23	34413 53
34413 23	34413 83
34413 26	34413 55
34413 26	34413 83
34413 29	34413 57
34413 29	34413 82
34413 59	34413 58
34413 59	34413 83
34422 30	34422 23
34422 30	34422 29
34433 08	34433 50
34433 10	34433 13
34433 15	34433 13
34433 15	34433 49
34433 19	34433 17
34433 24	34433 17
34433 24	34433 49
34433 26	34433 22
34433 28	34433 22
34433 28	34433 49
34433 30	34433 32
34433 34	34433 32
34433 34	34433 49
34433 35	34433 50
34433 37	34433 36
34433 40	34433 36
34433 41	34433 38
34433 44	34433 38
34433 46	34433 42
34433 46	34433 43
34433 47	34433 42
34433 47	34433 43
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34482 18	34482 23
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34627 16	34627 17
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34628 12	34628 13
34628 16	34628 15
34628 16	34628 17
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34661 20	34661 00
34661 22	34661 00
34662 30	34662 00
34662 32	34662 00
34699 51	34699 98
34699 97	34699 98
34790 77	34790 00
34842 16	34842 15
34842 16	34842 17
34842 26	34842 25
34842 26	34842 27
34842 54	34842 51
34842 54	34842 53
34842 54	34842 56
34842 65	34842 63
34842 65	34842 67
34842 74	34842 64
34842 74	34842 73
34916 78	34916 77
34916 78	34916 79
3492A	34923
3492A 00	34923 00
3492B	34923
3492B 00	34923 00
3492C	34921
3492C 00	34921 00
3492D	34921
3492D 00	34921 00
3492E	34922
3492E 00	34922 00
3492F	34922
3492F 00	34922 00
3492G	34927
3492G 00	34927 00
3492H	34926
3492H 00	34926 00
3492J	34924
3492J 00	34924 00
3492K	34924
3492K 00	34924 00
3492M	34925
3492M 00	34925 00
3492N	34925
3492N 00	34925 00
34961 34	34961 31
34961 34	34961 33
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34961 52	34961 22
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34964 00	34964 41
34964 00	34964 43
34964 00	34964 45
34964 00	34964 51
34964 00	34964 53
34964 00	34964 55
34965 00	34965 17
34965 00	34965 57
34965 00	34965 65
34966 13	34966 23
34966 13	34966 25
34966 21	34966 27
34966 21	34966 29
34968 42	34968 41
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34968 42	34968 47
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34968 63	34968 65
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Part 2. Comparability of Product Classes and Product Codes That Changed: 1987 to 1992

1987	1992
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34211 42	34211 80
34211 61	34211 55
34211 98	34211 25
34211 98	34211 30
34212 00	34212 05
34212 00	34212 10
34212 00	34212 16
34231 32	34231 33
34231 34	34231 33
34231 61	34231 97
34231 98	34231 97
34234 11	34234 14
34234 22	34234 14
34235 33	34235 41
34235 39	34235 41
34236 99	34236 85
34236 99	34236 98
34250 00	34250 41
34293 15	34293 00
34293 17	34293 00
34298 32	34298 98
34298 99	34298 98
34320	34321
34320	34322
34320	34323
34320 01	34321 02
34320 03	34321 02
34320 05	34321 05
34320 07	34321 05
34320 09	34321 08
34320 10	34321 10
34320 11	34321 08
34320 12	34321 12
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34320 15	34321 15
34320 17	34321 17
34320 18	34321 18
34320 22	34321 20
34320 25	34321 28
34320 26	34321 22
34320 27	34321 25
34320 29	34321 30
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34320 35	34321 34
34320 39	34321 36
34320 47	34323 20
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34320 49	34322 18
34320 52	34322 21
34320 54	34322 24
34320 57	34322 33
34320 58	34322 36
34320 59	34322 39
34320 63	34322 45
34320 67	34322 50
34320 69	34322 50
34320 71	34323 02
34320 72	34323 05
34320 74	34323 08
34320 75	34323 11
34320 76	34323 14
34320 78	34323 17
34320 80	34322 27
34320 81	34323 25
34320 82	34322 27
34320 83	34323 32
34320 84	34322 30
34320 85	34323 27
34320 86	34322 30
34320 87	34323 27
34320 89	34323 32
34320 90	34322 01
34320 91	34322 03
34320 92	34322 05
34320 93	34322 07
34320 94	34322 12
34320 95	34322 12
34320 96	34322 15
34320 97	34322 15
34320 99	34323 32
34333 17	34333 21
34333 17	34333 35
34333 60	34333 65
34333 81	34333 65
34334 00	34334 10
34334 00	34334 22
34334 00	34334 30
34334 00	34334 40
34334 00	34334 62
34334 00	34334 74
34335 31	34335 20
34335 35	34335 25
34335 44	34335 20
34335 46	34335 25
34339 10	34339 06
34339 10	34339 08
34339 10	34339 11
34339 10	34339 13
34411 21	34411 41
34411 22	34411 42
34411 23	34411 43
34411 24	34411 44
34411 26	34411 46
34411 27	34411 47
34411 61	34411 41
34411 62	34411 42
34411 63	34411 43
34411 64	34411 44
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34411 67	34411 47
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34412 16	34412 00
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34413 82	34413 29
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34413 83	34413 26
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34434 17	34434 16
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34435 39	34435 42
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34627 17	34627 16
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34628 13	34628 12
34628 15	34628 16
34628 17	34628 16
34661 00	34661 05
34661 00	34661 20
34661 00	34661 22
34662 00	34662 30
34662 00	34662 32
34699 98	34699 51
34699 98	34699 97
34790 00	34790 77
34842 15	34842 16
34842 17	34842 16
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34842 64	34842 74
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34842 73	34842 74
34916 77	34916 78
34916 79	34916 78
34921	3492C
34921	3492D
34921 00	3492C 00
34921 00	3492D 00
34922	3492E
34922	3492F
34922 00	3492E 00
34922 00	3492F 00
34923	3492A
34923	3492B
34923 00	3492A 00
34923 00	3492B 00
34924	3492J
34924	3492K
34924 00	3492J 00
34924 00	3492K 00
34925	3492M
34925	3492N
34925 00	3492M 00
34925 00	3492N 00
34926	3492H
34926 00	3492H 00
34927	3492G
34927 00	3492G 00
34961 22	34961 52
34961 31	34961 34
34961 33	34961 34
34961 35	34961 34
34961 51	34961 52
34964 41	34964 00
34964 43	34964 00
34964 45	34964 00
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34965 57	34965 00
34965 65	34965 00
34966 23	34966 13
34966 25	34966 13
34966 27	34966 21
34966 29	34966 21
34968 41	34968 42
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Part 3. Current Industrial Reports by Product Code

[Current Industrial Reports (CIR) data are contained in the publication *Manufacturing Profiles: 1992* [MP-1(92)] issued August 1994 and available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. To access the most current CIR data electronically, dial the Census-BEA Electronic Forum at 301-457-2310. Your communications modem should be set as follows: Baud rate: 1200, 2400, 9600; Parity: None; Data bits: 8; Stop bits: 1; Duplex: full. Before making your first call, decide on a password and be prepared to provide the following regarding your computer: PC brand name, monitor screen dimensions (e.g., 80 columns by 24 lines), monitor color support, modem baud rate, and PC communications software package. Call the voice number, 301-457-1242, for further bulletin board assistance]

Product code	Current Industrial Report	Product code	Current Industrial Report
3412100	MQ34K, Steel Shipping Drums and Palls	3492E00	MA35N, Fluid Power Products, Including Aerospace
34122	MQ34K, Steel Shipping Drums and Palls	3492F00	MA35N, Fluid Power Products, Including Aerospace
3431010	MQ34E, Plumbing Fixtures	3492G00	MA35N, Fluid Power Products, Including Aerospace
3491800	MA38B, Selected Instruments and Related Products	3492H00	MA35N, Fluid Power Products, Including Aerospace
3491900	MA38B, Selected Instruments and Related Products	3492J00	MA35N, Fluid Power Products, Including Aerospace
3492A00	MA35N, Fluid Power Products, Including Aerospace		
3492B00	MA35N, Fluid Power Products, Including Aerospace	3492K00	MA35N, Fluid Power Products, Including Aerospace
3492C00	MA35N, Fluid Power Products, Including Aerospace	3492M00	MA35N, Fluid Power Products, Including Aerospace
3492D00	MA35N, Fluid Power Products, Including Aerospace	3492N00	MA35N, Fluid Power Products, Including Aerospace

Publication Program

1992 CENSUS OF MANUFACTURES

Publications of the 1992 Census of Manufactures, containing preliminary and final data on manufacturing establishments in the United States, 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—83 reports (MC92-I-20A(P) to -39D(P))

Preliminary industry data are issued in 83 separate reports covering 459 industries. Preliminary summary data for the United States and States are released in one report.

Final Reports

Industry series—83 reports (MC92-1-20A to -39D)

Each of the 83 reports provides information for a group of related industries (''dairy products'' includes industries for butter, cheese, milk, etc.). Final figures for the United States are shown for each of the 459 manufacturing industries on quantity and value of products shipped and materials consumed, cost of fuels and electric energy, capital expenditures, assets, rents, inventories, employment, payroll, payroll supplements, hours worked, value added by manufacture, number of establishments, and number of companies. Comparative statistics for earlier years are provided where available.

For each industry, data on value of shipments, value added by manufacture, capital expenditures, employment, and payroll are shown by employment-size class of establishment, State, and degree of primary product specialization.

Geographic area series—51 reports (MC92-A-1 to -51)

A separate report is being published for each State and the District of Columbia. Each report presents data for industry groups and industries on value of shipments, cost of materials, value added by manufacture, employment, payroll, hours worked, new capital expenditures, and number of manufacturing establishments for the State, MA's, counties, and selected places. Comparative statistics for earlier census years are shown for the State and large MA's. Manufacturing totals are presented for each county and for places with significant manufacturing activity. Detailed statistics (including inventories, assets, rents, and energy costs) are presented only in statewide totals.

Subject series—3 reports (MC92-S-1 to -3)

Each of the three reports contains detailed statistics for an individual subject, such as concentration ratios in manufacturing, manufacturers' shipments to the Federal Government, and a general national-level summary.

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.

Location of Manufacturing Plants—1 report (MC92-LM)

This report includes data for number of establishments by four-digit SIC industry and by employment-size class for counties, incorporated places of 2,500 inhabitants or more, and Zip Codes for each State. This report is available only on compact disc-read only memory (CD-ROM).

Analytical Reports—2 reports (AR92-1 and -2)

Exports From Manufacturing Establishments (AR92-1)

This report presents data on exports by two- and three-digit SIC industry groups for the United States and States. Information is presented on value of direct report shipments and estimates of the employment required to manufacture these products. Included are estimates of employment in manufacturing and nonmanufacturing establishments that supply parts, materials, and services for production of manufactured exports.

Selected Characteristics of Manufacturing Establishments That Export (AR92-2)

This report presents data on the number of manufacturing companies and establishments that export by major group, State, employment size, and ratios of exports to shipments.

Electronic Media

All data included in the printed reports are available on CD-ROM. The CD-ROM's provide the same information found in the reports as well as additional information not published in the final reports, such as location of manufacturing plants. 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, financial, insurance, real estate, service industries, construction industries, mineral industries, 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.